Irmtraud Gotsis

Foreword

The Dream

I walked through soft green grass; the velvety earth clinging to my feet and inviting me to linger. There was buzzing and humming, and I breathed the various fragrances – an extra blessing. As I lifted my head, I found myself looking directly into a cloud of pink blossoms. And what a pink! The sun played hide-and-seek with the color, and the breeze seduced it into back-lit reflections. The flowers appeared to be illuminated through-and-through, then muted once more. A play on pink in all its nuances. I smiled, enamoured: “My oleander” I thought, as my head became heavy. A dream of Paradise crept into my mind.

Colors swirled as if I were inebriated. While searching for my pink, a delicate light lavender caught my eye. These blossoms perched upon what appeared to be endlessly long, supple twigs, hanging like garlands all the way to the ground. The blindingly bright sunlight rocked rhythmically through the abundant blooms.

I was searching for a very special flowering tree. But the day was already drawing to a close, and the sky cast its first shadows over the landscape. I was getting very anxious, as there was not much time left for me to find this tree. And there were so many trees here.

I ran and saw that the sun was already glowing in the evening sky. The combination of orange, bright and dark red was breathtaking; an explosion of color in endless calm. But soon its glowing disk would sink into the sea and darkness would come. I simply had to find the flower I was searching for.

In the shadow of the last bit of light, in the last second (as I realized), I found my blossom. Relieved, I felt my happiness turn into joy. But the flower which I found was not pink. The petals started out deep lavender and faded to white at the edges. “Odd”, I thought, before I awoke from my dream.

It has been a long time since I experienced this dream, but it remains alive. Why? The “game of Nature” had lured me into its spell. What is this game?

Oleander seeds introduce us to the mysteries of Nature. They draw us into a game in which we all can participate.

I would like to tell you about the beauty of oleanders, but also about some of their secrets which are perhaps not so well-known.
Let us experience how, in addition to pink clouds of blossoms, yellow, white, and red ones can come into being, in addition to many other colors and in-between shades.

Let us journey into the distant as well as the more recent past, accompanied by fantasy and facts, to get a sense of just how long the oleander has been and is with us on this earth.

Sweet dreams!

Irmtraud Gotsis
May 2007
The Oleander and its Potential Usefulness

The beauty of the oleander in southern gardens is a fact. Its usefulness, however, is a question which still remains to be examined. This has continued to preoccupy me throughout my many years as a gardener. Keeping in mind the toxicity of this plant, some interesting observations arose:

Messinia is a green, agricultural region with abundant water. We are all familiar with the problem of our time. Without chemical fertilizers and pesticides (read: poisons), there are no harvests. Environmentally-friendly cultivation is just in its beginning stages.

In the course of twenty-five years, it so happens that pests have appeared in massive numbers from time to time: caterpillars, aphids, fleas, mice, white flies, locusts, flies, mosquitoes, etc. I myself have experienced how mice emerged from many holes if the tree grate was filled with water; in some sections of the property there were many fleas or ticks. Mosquitoes and flies got on our nerves.

Even I sometimes thought “How nice that there are planes flying around and spraying poisons on us!”'. We experienced aerial spraying with insecticides for twelve years here. The long-time residents said that it had already been going on for a few years. It finally came to an end when the bee populations died.

Despite all outside advice, I had always been inclined not to use pesticides. That doesn’t mean that I didn’t despair when my plants were “dusted” with an encrustation of whiteflies, or when in some seasons aphids turned my hibiscuses into sticky messes and caterpillars ate their way through the landscape.

The years passed. From a dry piece of land, a sort of garden slowly emerged; a motley mix of the most diverse plants. I had raised most of them from seed, and tried to plant them where they could be expected to thrive best. And so it happened that roses grew under the bottlebrush tree (*Callistemon viminalis*), birds-of-paradise and tropical hibiscus stood along with oleander among citrus and orchid trees (*Bauhinia*).

The oleander plants (which kept multiplying, as seeds were sown every year) served at first to hide the chain-link fences. Later, I kept them in pots; groups of them created blooming islands in the garden.

Slowly, something strange happened:

No more mice, no more whiteflies, hardly any more flies, and caterpillars hadn’t been seen for a long time. Aphid attacks were visibly reduced. The buzzing of the iridescent green rose chafer is seldom heard – for many years, we had been driven to despair by masses of them devouring roses and other flowers.
In spite of daily watering, and in a climate which could be described as humid/tropical in midsummer, the plagues of mosquitoes are essentially a thing of the past.

Had a balance between pests and predators been achieved?  
Was it because of the diversity of the plants and their microclimate?  
Or did the toxicity of oleanders have something to do with it?  
Whatever it was, living with Nature had become much more pleasant.

However, there came a year in which the caterpillars became a plague. People everywhere reached for their poisons. I watched the caterpillars on the oleanders. They ate like machines. The next day, the advance stopped a bit, as far fewer caterpillars were to be seen. And lo and behold, in a few days the scare was over. Had the poisonous nature of the oleander stopped the advance of the caterpillars?

Our cats must be very happy nowadays if they can pounce on a mouse. Even the tree rats (very similar to hamsters, except that they have rat tails) which used to be numerous, have become rare. Perhaps the poisonous oleander roots have driven them out of the ground?

Tomato, eggplant, and pepper plants regularly used to be covered with whiteflies. In addition, there were other plants which attracted these insects. This plague has been over with for several years now.

A new attack: Swarms of plant bugs settled in our garden. They used to especially love the green beans of the region. As there were none in our garden, they settled on the bean-shaped pods of the orchid tree (*Bauhinia variegata*). Sitting next to one another, they munched on the seed pods and destroyed the seeds. They invaded our region the next year as well. In our garden, however, they did not appear and the seeds of the *Bauhinia* remained undamaged.

Aphid attacks on the new growth of citrus trees have been a regularly recurring fact of life for many years. We have had heated arguments with friends. Poisons – yes or no? Since our harvest of oranges, mandarin oranges, and lemons has remained equally good and the aphids didn’t get the upper hand, my decision was “no”.

Nowadays, aphid attacks on our trees are no longer an issue; they have almost disappeared.

A few years ago, another pest of citrus trees came into Greece. My no-pesticide policy posed a certain risk. The leaves of the trees were covered with honeydew and eventually with black mildew. Spraying with water didn’t help much. The oranges were certainly black, but the residue could easily be washed off. The fruits were not damaged and were sweet as ever. The following year, the nightmare was over.

Flies, especially those which administer painful stings, have decreased significantly, as have fleas and ticks.
In some old literature on oleanders, I found the following: “In the past, in order to protect books from insect damage, oleander leaves were placed between the pages”. In the old days, oleanders were planted in front of house entrances in order to repel flies.

Regarding the often-heard concept that the strong roots of oleanders hinder the growth of other cultivated plants or have a negative effect on them, I would like to relate two experiences:

An oleander and a tropical hibiscus (*H. rosa-sinensis*) were planted together as babies. The years passed and both plants became tall bushes. Their foliage intermingled and thus they protected each other. In the hot summer sun, the oleander would bloom, and when it became cooler, the hibiscus would bloom. In the winter, the dense evergreen foliage of the oleander protects the hibiscus from cold and frost. The two giants have been growing next to each other amicably for twenty years now. They are healthy and bloom unusually abundantly. Their roots are surely intertwined.

The other occurrence happened long ago. We planted five cypresses (*Cupressus sempervirens*). Two of them grew up to be strong plants, and these are still standing today. The other three remained very stunted in growth. Finally they turned brown and had to be cut down. Next to the two vigorously-growing cypresses were two oleanders; quite by chance.

Later, two cypress seedlings appeared. The seeds had sprouted, without any action on our part, among the oleander bushes. Today they are huge trees.

It was interesting to hear, later, that the cypresses next to our little church in Agrilis had suddenly died in April. An oleander shrub had previously stood at their side; it had been removed. Of course, the first thought that would cross one’s mind would be that the cypress roots had been damaged while the oleander was being taken out. Possibly. But it was just strange that a similar story involving cypresses, oleanders and a little church had been told about another location. A coincidence?

Perhaps my observations are ending up in the realm of the imagination. However, when one reflects on how fantastic the interrelationships of Nature can be, and that it will be a long time before we know all of her secrets, it is conceivable that the toxicity of the oleander can make a contribution toward the balance between beneficial life forms and harmful ones.

In twenty-five years, I have never observed that the oleander, whether through its strong root system or its toxicity, had adversely affected other cultivated plants.

Summing it all up, I’d like to say that besides the beauty of this plant, we ought to keep in mind its possible benefits for our gardens. We can only gain from this!
Oleander Seeds

“All the flowers of all the tomorrows
Are in the seeds of today and yesterday”

(Chinese proverb)

When a seed germinates and the new life rolls out of its embryo and seeks the light, watching it is always an experience.

“Welcome to the Earth!”

We help it to start out, give it care so that it will thrive, and hope that the plant will repay us some day. Perhaps we will be ecstatic over the magnificent color of a flower, the likes of which we have never seen before. Or the plant which is so delicate at present will grow into a tree and bear a fruit such as we have never harvested before. I have experienced this many, many times, and each time it was a little glimpse into the wonders of Nature, new and unique.

However: “the beginning is the hardest part”, as I had never grown plants from seeds before. As I found out, the procedure with oleander seeds was quite simple. Only later did I discover both the charm and the suspense.

Well, growing the seeds and raising the plants to maturity was easy, and the experience of success did my heart good. So we sowed a new crop every year. A huge crowd of seedlings was the result. This “nursery” demanded work. “Water! Water!” was its daily cry. While I took care of them (a strenuous job during the midsummer months), my thoughts turned to the question of what different colors and shapes they might have some day. Friends of mine who were knowledgeable in botany had made me aware of this possibility.

At the same time, I was always searching for new varieties with especially striking flower colors or forms. I was helped by friends and so, through cuttings, we obtained some special oleander cultivars for our garden. They were of the “Indian” type.

As the years passed, hundreds of “new” oleanders grew in our garden. Many were planted in the ground, but most of them are in pots and form islands of bloom – a “stumbling block” for the family!

Finally I held the first special blossom of my “seedling children” in my hands and sensed a message from Nature: “See the marvel presented to you!” A blossom as light and fragile as the finest porcelain; white with a pink shimmer, as if a breeze were blowing over it. A triple corolla opened in the heat of the day and revealed a light-yellow center. I named it “Iphigenia”.

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Time passed, and many other beauties followed. I’d like to mention some here:

Scarlet red, a windmill-shaped blossom with a white throat. “Aphrodite”.

Purple-red with a black sheen, round blossoms like little bowls; a black ring running around the corona. When the velvety blossoms open, they impart to the entire shrub a red which is darker than the other red tones I know. This is due to the black tips of the buds, which shine in the sun as if lacquered. “Kassandra”

Radiant white rounded petals with a dark pink wreath enlivening the center, “Athena”.

Within the double white petals, there glows a star; its dark red stripes extend from the throat far into the petals. “Urania”

One blossom exhibits a fascinating display of colors, first emerging from its bud as a dark red-pink. The corona and the edges of the petals retain the red-pink color, whereas the petals themselves turn almost white. The blossom is now at the zenith of its existence. When it has passed this point, the white acquires a slight tint of brown; the end is near. The blossom falls away, dried up. As the blossoms only open up little by little, the bush attains a multicolored effect which could hardly be more beautiful. “Phaedra”

An inflorescence with dark red, fat-bellied buds. The petals rotate as they emerge from them and the flower opens. If some white shone from the buds, then one will see it now against the dark red of the petals. White, irregular flecks. The blossom opens slowly, like a rose; one corolla after the other. It will be named “Elektra”.

A single windmill-shaped flower with long corona fringes. Its extremely bright red color is greatly effective from a distance. My “Medea”

A seedling which became an especially vigorous and steeply upright-growing shrub. The uniqueness lies in the long flower stalks, which bear double white and yellow flowers. The inflorescence hangs heavy with many blossoms. “Penelope”

An excitingly large floral structure with hose-in-hose corollas, which just hint at pink. When back-lit, it is delicacy itself. “Euridike”.

Of all the seedlings, “Beautiful Helena” certainly earned her name, At first glance a delicate pink, seen from up close the white of the petals is distinct. Only the edges are shaded with pink. It is quite a large, double flower. The corona has long appendages; the edges are fringed. Dark-red stripes often form a star, which is brightened by a yellow sheen in the center.

A large, single flower in baby pink. The long, upright threads of the corona are striking. I found the name “Arachne” (the spider) fitting.
Velvety cardinal-red single blossoms resemble windmills on a tall shrub. “Artemis”.

Another single blossom in glowing red, of which only half the petal is dark-colored; thus the flower appears to be two-toned. As the flower ages, the red fades toward white, which intensifies the bicolored effect of the flower clusters. “Europa”.

From extremely thick buds, up to four corollas unfold little by little. The inflorescence heads hang heavily on the shrub. To bloom fully, it needs the full heat of the southern sun and a lot of water. The pink color, nearly red, provides an intense effect. “Medusa”.

Over the years, a whole series of named seedlings have joined their ranks.

But not all of the seedlings’ flowers were so visibly different. There also arose varying shades of pink, from light to dark.

“What is actually happening here?” I embarked upon a search for answers in books and periodicals:

“The genetic codes which bring about the continually repeated uniformity of development are localized on the chromosome of the cell nucleus. These are also called ‘genes’. In addition to these, transmission of hereditary characteristics also takes place via the plastids, the color-bearing agent in protoplasm. Every organism contains hereditary codes from its mother and father. If the genetic codes of the mother and father gametes (sex cells) were not the same, then the resulting individual is unequally paired. This is called a ‘heterozygote’. Such a mixture, the genotypical makeup of which is not precisely known, is called a ‘population’. The product of two gametes which do not contain the same genetic material is called a ‘bastard’, ‘hybrid’, or ‘mix’. The genetic codes present have formed a new combination.”

(Kummert)

The botanical description of the flower: “The corona is the center of the flower. On the upper edge of the funnel-shaped throat, there is a secondary crown with multiple fringes, the corona, which is made up of petal appendages. These are usually marked with reddish stripes, which function as a guide to the nectar; they continue into the throat itself.”

“The corona is also one of the characteristics by which one can distinguish different oleander cultivars. Besides the fringes, the color of the throat (the inner portion of the corona), also serves this purpose. The corona of the Mediterranean type exhibits 3-4 jagged (dentate) appendages, and that of the Indian type has 4-10, which extend outward in a threadlike manner.”

(Prof. Boehlmann, Berlin)
The corona is present in all oleander blossoms, even if one has to search for it with the double-flowered varieties. With many oleander cultivars, the corona is the same color as the petals. It can be a different color, however, and the center of the flower can be cream-colored to yellow, usually with red lines, the pattern of which can vary.

**Single**
**Double**
**Hose-in-hose**

Double flowers have more than ten petals, which one can see even with the broadly oval buds. With their increased number of petals, these blossoms almost remind one of antique roses.

Hose-in-hose blossoms have two fully-formed, superimposed corollas. The designation “double” would be appropriate, but this word has already been applied to the “full” type of flower. Thus, the English named this form “hose-in-hose”.

In practice, these distinctions have been simplified into “single” and “double” forms.

Once, I was reflecting upon a single pink blossom among the groups of potted seedlings. “Nothing special”, I thought. But in walking along, a rose-jasmine fragrance struck my nose. I searched for the source. Sure enough, it came from the ordinary pink blossom.

This was not the typical oleander fragrance, which is a feature especially of hot days in the South which and graces the evening hours. It is somewhat bitter, like a mixture of spices and honey. This fragrance is found in a double pink variety, a cultivar which came to Greece early on and is widely distributed today. It is possible that this old variety came from Italy. It’s referred to as a “castle park” oleander, as the shrub can reach tree size.

The new perfume taught me that oleander blossoms are capable of producing fragrances with other nuances.

As humans began crossing the Indian oleander type (over 400 years ago) in nurseries and propagating the results, more and more new flower colors and shapes arose, and fragrance became a feature of the new selections.

These new cultivars spread across many Mediterranean gardens and thus had the opportunity, over a long period of time, to hybridize naturally with the wild pink oleander. Or else human beings did it. Thus, the opinion of botanists is that the pink oleander seen today around the Mediterranean (and probably in other regions as well) is a so-called “escapee from cultivation”; that is, a [wild] plant which has crossed with a cultivated one.

Greece, however, was isolated from the rest of Europe for a very long period of time, and so it might be that the wild pink oleander, which was already widely distributed in
antiquity, has been preserved to this day in some parts of the country. It is also conceivable that it arrived in its habitat via humans who propagated it through cuttings.

Only the western coast of Greece might be an exception. The busy commercial traffic and close contact between the Ionian islands and Italy made the introduction of new oleander varieties a possibility early on. Double pink varieties and the single white and red forms have been widely distributed there for a long time. It is difficult to say whether some of the wild, naturally-occurring oleanders originated from this stock.

Now: acquaintances and friends of mine, whom I advised to try growing oleanders from seed, have reported that their seedlings only yielded pink flowers again and again. Seen with the naked eye, the flowers of the seedlings were identical to those of their pink-flowered parents. Disappointed, these people claimed that it wasn’t worth it to raise oleanders from seed. Their seeds were from local oleander bushes, which with their single pink flowers are well-known.

Here we are crossing the wild oleander, which with its pink flowers has been distributed all around the Mediterranean for an enormously long period of time. The layman will wonder: how is it possible, then, that we have so many different types of oleander blossoms today?

I sought the answer for a long time. Just when I thought that I would never find it, a biologist wrote me the following lines:

“The species oleander in the genus Nerium represents a homogeneous plant (namely, the wild form) which varies only within narrow boundaries. Since it possesses a genome which is hardly alterable, the same result is obtained even when crosses are made. On the basis of my knowledge of biology, genetics and evolution, the facts are clear. Nature doesn’t play around so often. If a species is successful, why should a thousand variations arise? It follows logically that if a cross is made between pink oleanders (which have no other genetic code for flower color between them, as has been the case for a long period of time around the Mediterranean), then pink will be the result again and again. Only when other characteristics come into play which have been obtained through selection do discrepancies appear”

Reports of such exceptions are few and far between, as for example red oleanders along the Black Sea and in ancient Rome. The discovery of a white flower in Crete in the year 1547 is the only one recorded in our books.

Today’s oleanders, with their strikingly beautiful blooms, are primarily the product of breeders/nurseries. Most likely, they bear within them the heredity of the diversity of the Indian oleander types.

These multicolored and large-flowered cultivars have also been introduced to Greece, starting about 10 years ago.
In nature, it appears that there had not been any possibility of the Indian type of oleander interbreeding with the Mediterranean type.

“The investigation of the genetic discrepancies between 71 oleander cultivars showed that despite morphological discrepancies, they are only minimally different. Even when the cultivars cannot be morphologically differentiated, they can still differ up to 9% molecularly. Only when this borderline value of 9% is exceeded is a genetically and [geographically] different, autochthonous origin a possibility. From DNA examinations of the nuclei of leaf cells from 71 oleander cultivars, 4 molecular genetic groups were established. For example, double oleanders could only be assigned to 2 groups. From this, it was concluded that this oleander type originated in a particular region (namely India).

The great variability of the oleander is the result of heterozygotic inheritance and predominantly cross-pollination. The chromosome set for oleanders totals 2n = 22.”

(Prof. Boehlmann, Berlin).

Now I come to an observation pertaining to seed formation of oleanders.

We are used to seeing our oleanders bending under the weight of their seed production here in the south. This was not to be seen with the beautiful oleanders obtained commercially. There were far fewer seed pods on them, or even none at all. This was also observed among the new plants which had been raised from seed. The “why” will probably remain a question mark.

The emergence of new flower colors and forms was not hindered by this circumstance. Even if I was not able to harvest any seeds from one or another flowering beauty, their chromosomes were being distributed by nectaring insects.

In practical terms, this would mean: When we collect seeds, this should be done where there are oleanders with varying flower colors and shapes. The chance of discovering a new beauty among seed-grown plants is then much more likely.

Now we come to the question of what strategy Nature uses with regard to pollination. Our bees, in any case, have not been assigned this task.

From the botanist:

“Oleander blossoms can only be pollinated by butterflies and moths (mostly moths) with long proboscises. They are the only insects with proboscises sufficiently long to reach the bottom of the flower tube, where there is only a little nectar. Only they have enough strength to withdraw their tongues, which become jammed between the small interstices in the area of the anther filaments, with their twisted appendages. This happens with a jerk, whereby the pollen clinging to the proboscis in the area of the collar (with its upward-extending filaments) is scraped off and thereby has the greatest chance of
successful fertilization. The cone-shaped anthers, which incline over the pistil, have emptied their pollen onto the upper cup-shaped corona, whereby the pollen gets affixed to the insect’s proboscis during withdrawal and is transferred to the next flower.”

(Prof. Boehlmann, Berlin)

The most important pollinator is said to be the oleander hawk moth, *Daphnis nerii*. Its caterpillars feed on oleander leaves and tolerate the poison they contain.

In 25 years, however, I have only seen this big moth once; it had been attracted to the wall of the house by a light. It is one of the most colorful moths in Europe. With its ornamental pastel-green and pink wing markings, and its impressive size, it always causes amazement. (photograph 18). Its large, fat caterpillar, marked with blue eyespots, is also only seldom found.

Who, then, is so busily pollinating my many oleander blossoms? Most likely it is the many rather inconspicuous moths which are present.

The seeds mature in closed pods, which open in the early January and February sun. They swirl about by the thousand in the wind and land gently, owing to their little “parachutes”.

Every seed which grows will become an oleander plant with its own genetic makeup. This oleander is unique. A new variety has been born and we can give it a name.

If we want to propagate this new cultivar in order to be able to give it to friends, all we need to do is cut woody twigs into pieces and put them into potting soil. When this piece roots and grows, then we have another specimen of our oleander. This one is genetically identical to the plant grown from seed.

We can also make tip cuttings (cut from the ends of the branches). It is said that these will bloom more quickly, as the buds are already latent in the tip of the twig. I myself have never tried this method. But one never stops learning.

Please give more consideration to growing oleanders from seed. Sowing the seed is simple, they germinate quickly, and the plants grow on without a problem.

All of us who live here in the South can easily take part in this “game of Nature”. A garden is not required, as oleanders can bloom just as splendidly in pots on a balcony or patio.

Now, if oleanders were propagated from seed in different climates and landscapes of the warm regions (even in other parts of the world), we could avail ourselves of an even greater diversity of oleander cultivars in the future, owing to the constantly new genetic combinations.
The larger nurseries in the South, especially in Greece, could offer oleander plants raised from seed, and thus put on the market a surprise for the purchaser.

And, we’d be extending a helping hand toward the protection of the species, since the greater the diversity of the species, the more secure its survival on the planet.
Sowing and Raising Oleander Seeds

In my experience, the best time for sowing is February and March. The seeds germinate in the house (near the heat or on warm propagation mats) and are born into the light, so to speak. This is because by the time they are a few centimeters tall, the warmth of the sun comes back (gradually, of course) to Southern Europe. The timing is good, as our little plants quickly need light and humidity.

We use plastic containers (yogurt, etc) for planting seeds; we clean and sterilize them in the dishwasher. We fill then ¾ full with seed-starting mixture, which we spray down lightly. We lay the seeds on it, not too densely (so that they don’t rot). We cover them lightly with the mix and spray it again.

To maintain the humidity in the seed-starting medium, we seal the container with transparent plastic wrap. If the container is standing near or on top of the heat source, particular attention must be paid to the potential for the medium to dry out. If we’ve watered too much, it can happen that the surface becomes whitish. We remove the plastic wrap immediately and spray away the residue.

When we see the first green tips of the little plants, we begin to lift the plastic wrap lightly, so that some humidity is still retained. They soon grow more vigorously and then we remove the plastic wrap entirely.

The container with the little plants, which are now about 3 cm (1 ¼”) tall, should soon be placed outdoors, protected from rain and wind. Light and humidity stimulate them to grow. If it is sunny and already warmer throughout the day, they will also tolerate cold at night, as long as the temperature no longer approaches the freezing point. I have observed again and again that seedlings, even small ones, which are growing outside in the cold will do better than in a warm dwelling.

When the sun gets warmer, our seedlings will grow rapidly. Soon, the plants in the container will be growing proud and tall. Now they can be separated. But we’ll see that the have not all grown equally large. The roots on the smallest of them may not survive the picking-out process. So I take the little plants with the entire ball of soil and put it in a flowerpot with new seed-starting mix. The advantage is that now all the plants can grow strong and thus survive the separation process. One should consider that among the seedlings, there may also be smaller-growing or more temperamental ones.

Summer comes soon. Now we take the ball of soil out of the flowerpot and untangle the little plants from each other. We take tall picnic tumblers, fill them with seed-starting mixture, and in each container we plant one seedling. Some of them will already have longish roots, which we can easily shorten by tearing them off.

All flowerpots have a hole in the bottom so that water can drain out. Our picnic glasses have none. If they did, the plant would only get as much water as the medium could absorb quickly when watered. The sun in the south is hot and a peat-based mix dries out
easily. If this were to happen once, the water would run through the glass from above without the soil mix being able to absorb it. A container without a hole will fill with water and thus the medium has the chance to reabsorb it slowly.

In spite of this, it can happen that the container dries out completely. To salvage the situation, the following action can be taken: take the plant out of the container of water and put it in a container of water. Oleander seedlings are very robust. The roots and the ball of earth will soon have absorbed water to their full capacity and there will be no trace of distress.

An example of such a happenstance, which ended in quite an interesting way:

I forgot some of my soilball-plants in a container of water. This was in the summer. In the meantime, winter had come by the time I found them again. Apparently the rain had continued to refill the container, which was lucky. Now the plants were trapped in a 2 cm (3/4”) layer of ice. Although there was no leaf damage visible, I gave them no chance of survival and so I forgot about the container once more.

In late spring, the sun was already shining and it was hot. I stumbled upon the seedlings in the container once again. It had passed the winter hidden under a bush. The seedlings by this time had become plants with healthy green leaves! Such hardy perseverance really deserved a reward. Carefully, I separated the tangled roots of the individual plants. They continued to grow in a flowerpot as if they had never gone through ice and frost. This little digression of a tale shows us how tough the oleander really is.

By midsummer, our oleander seedlings have grown into impressive plants. Now they can be put into bigger flowerpots filled with garden soil. Some of these plants will already bloom the following year.

The experiment of planting several seedlings in one large pot can make for a wonderfully lovely surprise. It can become an “oleander bouquet” in several colors.

Seedlings normally grow up straight as an arrow. We can easily take advantage of this to raise an oleander tree. And here is my tip: If our seedling begins to branch out at the tip, always cut away all the new shoots, leaving only one so-called “leader”. It goes without saying that any shoots which emerge underneath it should be removed as well.

As time passes, a trunk will be formed which should be well supported so that it doesn’t become bent by wind and weather. Some day it’s supposed to support the crown of leaves and flowers, standing straight and tall.

When the trunk has reached the desired height, we can do one of two things: Either we can pinch out the tip and wait for the new growth, which almost always emerges in a group of three. Three whorls of leaves are preferable for the formation of a bushy crown. The other possibility is to allow the new shoots which emerge from the leaf axils of the “leader” to grow. Perhaps some of the new shoots directly under them as well.
it’s a matter of individual taste as to how the crown is to be shaped. One thing should not be forgotten: within the tip of each new branch, the developing flowers lie dormant.

In general, I would like to say that plants raised from seed often grow more vigorously than those raised from cuttings. The new branches emerge more regularly. Both plants will bloom in about the same amount of time.

In conclusion, after many years of experience I would like to say that here in the South there is hardly an “easier” plant to grow than the oleander. You just can’t go wrong with it!
Fertilizing Oleanders

In the outdoors (for example, along the streets, in plazas, and in large gardens), the plant has no need for any additional mineral fertilizer. That is, unless the soil is known to be poor in nutrients.

When planting, small doses of fertilizer will be sufficient to help get the plant started, as the strong root system rapidly penetrates into the deeper ground layers.

If the oleander is in a pot or large container, then additional doses of nutrients are important. We fertilize regularly and always just a little, as too high a dose can easily lead to salt concentration in the planting medium. If such salt shock does occur, the result will be a sudden, massive shedding of the older leaves and possibly browning of the young leaves as well. Only one thing will help: watering and more watering, so that the salt-containing solution in the soil is washed out.

We should stick to the motto “Less is more”. That is, it’s better to use half as much fertilizer and to fertilize more often.

In addition, if growing oleanders in pots, take care that the planting medium is not enriched with compost. Soil with a high peat moss content is also unsuitable. This doesn’t mean that the oleander won’t grow in such soil; however, acidic soil (that is, one with a low pH value) leads to disturbances in the nutrient supply. For example, a lack of magnesium will be visible. Any good garden soil which has been enriched with lime is the best-suited planting medium. If the calcium content is too low, one can help by adding small doses of lime, sprinkled on the soil surface.

If using mineral fertilizer, a multi-nutrient one should be used. It contains all three necessary components: nitrogen (N), phosphorus (P), and potassium (K). Most of these fertilizers are enriched with trace elements as well.

In fertilizing oleanders, it is advisable to choose a fertilizer with a low nitrogen component (N) Otherwise, growth will be too rapid and vigorous, whereby the branches often bend to the ground, being too top-heavy.

There is no standard recipe for fertilizing oleanders in pots; for them to really thrive, too much is dependent upon the quality of the soil and water.

Sprinkling time-release fertilizers on the surface of the soil is probably the simplest and least time-consuming solution. 3-4 grams per liter of container volume is sufficient for 6 months. This fertilizer is released to the plant slowly through the process of watering.

However, one danger lurks within this method of fertilizing. The release of the nutrients is temperature-dependent. 20 degrees C (68 degrees F) is optimal. The southern sun heats up the soil in the pot; black plastic pots pose a particular danger. At high temperatures, more nutrients are made available to the plant than it can make use of. This can lead to
damage. On the other hand, the time-release fertilizer is used up faster, so that the duration of its effects is considerably shortened.

Oleanders need a lot of nutrients, especially if growing in a pot. When administering fertilizer, it should never be when the planting medium is dry. First water, then fertilize; then, over the next few days water heavily in order to prevent a buildup of salt in the soil.

If we want to add to this, we fertilize once per week with a liquid bloom-booster type of fertilizer.

In conclusion, my personal experience of 25 years: Whether with oleanders or other plants, I’ve always been very sparing with the use of chemical fertilizers.

My many oleander plants, whether planted out in the garden or in pots, have never been fed with chemical fertilizers all these years. They have grown excellently and bloomed copiously. However, that is probably due to the soil and the climate of Messinia, although my garden soil, as already mentioned, is not pronouncedly alkaline. However, an important factor comes into play here: the water is extremely high in calcium. It shows the highest level on the scale.

Apart from that, my plants were never “pushed to succeed”, and it didn’t matter whether they bloomed today or tomorrow.

I would like to advise all gardeners to observe their plants’ growth just once without using chemical fertilizers. If they are not receiving sufficient nutrients, then a little bit of fertilizer can be given now and then.

Also, some people are of the opinion that heavily fertilized plants are more susceptible to attacks by diseases.

One comment to those buying oleanders in garden centers: Commercial growers use chemical substances to retard the growth of the plants (CCC – chlorcholine chloride). The plants stay small, making transport simpler and more cost-effective. If the buyer no longer uses this growth regulator when watering, the plant will revert to its normal growth rate.
The Toxicity of the Oleander

The family Apocynaceae contains more than 1500 species in approximately 180 genera. Most of them are woody plants, including many vines as well. All are filled with a milky sap and are poisonous! Most of them grow in the tropics and subtropics; only a few grow in temperate zones. Some species yield valuable medicinal substances, as for example Strophanthus, Rauwolfia, and Vinca.

Although poisonous, this plant family is broadly distributed in cultivation as it contains many especially colorful members. These are sometimes even considered the most beautiful in the plant kingdom.

The best-known genera are: Plumeria, Allamanda, Mandevilla, and Nerium. Through hybridization within each of the species, flowers have been produced whose colors span the rainbow!

Whether in the tropics or the subtropics, the Mediterranean garden or the solarium in colder climate zones, their many colorful varieties have attained popularity worldwide.

Nerium oleander is a plant which is toxic in all its parts, from the leaves and flowers down to the roots. The literature informs us: "Its toxicity has been known about since antiquity and was used for its pharmaceutical effectiveness. Theophrastus, Dioscorides, Pliny, and Galen all wrote about it and their writings have been preserved for us".

Oleander sap contains toxic glycosides, which when diluted can be used medicinally (they are classified as “cardiac glycosides”). Animals do not eat the oleander, as all parts taste very bitter and if swallowed will trigger the vomiting reflex. Thus they avoid the plant in the future. In humans, ingesting even a few oleander leaves will cause the following symptoms successively: dizziness, nausea, vomiting, cardiac arrest, paralysis, and in the worst-case scenario death through heart failure. Swallowing even one leaf or drinking the flower’s nectar can cause death in children. The bitter taste, caused by the cardenolide content, causes immediate heaving and vomiting, which can reduce the amount of remaining poison to harmless levels, leaving only headaches and dizziness as symptoms.

Oleander extracts were used in the past as arrow poisons, and the bark as rodent poison.

The toxin oleandrin can now be traced in the blood.

In 1808, during the war with Spain, some French soldiers stripped the bark from oleander branches and used them to grill meat. Twelve of them died and seven became seriously ill.
Cautionary measures:

When pruning oleanders, wear gloves; don’t eat or smoke. The poisonous milky sap should not enter open wounds. Oleander wood should not be used as firewood; the smoke can cause painful irritation. Do not rub your eyes. Wash hands with soap after the work is finished.

Chopped-up oleander can be composted, as here a chemical process of decomposition takes place. Personally, I have used the chopped-up twigs for years as mulch: for example, around trees and shrubs, in flower beds, and on paths.

However, besides the plants of the Apocynaceae family, there is a whole series of other poisonous plants. Many of them are popular garden plants, and some of them even number among our favorites for the living room or windowsill. Some of these are named here:

Azalea – (*Rhododendron* spp) – all parts
Castor bean (*Ricinus*) – the seeds
Chinaberry tree (*Melia azedarach*) – the seeds
Poinsettia (*Euphorbia pulcherrima*)
Nightshades (*Solanum*) – several species, including potatoes and tomatoes
Autumn crocus (*Colchicum*) – all parts
Dumb cane (*Dieffenbachia*)
*Philodendron*
Jimson weed (*Datura stramonium*)
Yellow oleander (*Thevetia peruviana*)
*Hydrangea* spp.
*Lantana* spp.
Angel’s trumpet (*Brugmansia*)
and many others

One should know how to recognize these plants and teach children about them at an early age.
Diseases and Pests

“One could actually say that the oleander in Southern Europe has no diseases, if the bacterial disease Pseudomonas, the ‘oleander cancer’, didn’t exist.”

The bacteria travel with the sap through the plant.

At first glance, it is not visible. Whether and how massively the disease breaks out is dependent upon the cultivar. The disease is transferred through the sap of the plant. The principal carriers of the disease are the gardener’s pruning shears and saw. If one is dealing with bacteria, the blades should be disinfected with alcohol after every cut is made, as theoretically one could infect the entire stock through one diseased plant.

It so happened that almost all the mother plants in the propagation operations (especially in the South) became infected with Pseudomonas, which then aggressively infects the cuttings as well.

This disease is most distinctly recognized by cauliflower-like tumors on the branches. Sometimes the flower buds are affected as well, and they become stunted. Distortion of the seed pods is also characteristic, and eventually they end up looking like a crippled “something-or-other”.

In the south, the oleander can survive with this disease and it has no effect on the oleander’s beauty.

The second disease of oleanders is a fungal disease, *Ascochyta*. Outdoors in the South, this disease does not break out, as the plants here have optimal growing conditions.

All oleander varieties carry these two diseases within themselves; some more, some less.

Aphids can get very annoying even here in the South. Their sudden massive appearance usually coincides with the new year, especially in early spring, when it gets hot from one day to another. It is usually to the branch tips of the oleander that the aphids (the “cows on the willow”) are brought by ants, which milk them.

The natural enemy of the aphid is the ladybug, the “seven-spot”. It is said that one ladybug can devour 5000 aphids per day. Because of the spiraling use of pesticides, however, it is hardly to be found any more. How glad I am that in our garden we do in fact see this beetle from my childhood days here and there.

Personally, I have experienced over a long period of time that aphids on oleander do not live long. Often they disappear as quickly as they came. But if an attack should get bad, showering the plant with water will help. With smaller plants, one can regularly scrape off the aphids on the new leaf growth under the strong stream of water.
To sum it up, one can say that for us in Greece, disease and pests on oleanders are hardly significant.
Along with the blue sky and the sea, the hot sun, the scent of wild herbs, and the shrill song of the cicada, the bright pink clouds of oleander flowers also belong to the Mediterranean. An image of its landscape without the oleander would be unthinkable.

But in other southern latitudes as well, all around the globe, people decorate the places they live with oleander blossoms, whether it be along the highways under the glowing sun, on promenades along the beaches of the Caribbean, or in the mountainous heights of Mexico.

In the north, where winters bring ice and snow, indeed the oleander grows only in flowerpots or in large tubs; however, in solariums and greenhouses, it blooms even during the cold seasons.

The great enthusiasm for oleanders today came from Central Europe. It began in the 60’s when people from the north started traveling to Southern Europe in massive waves. The oleander became the embodiment of “sun and vacation”. People wanted to bring something of this feeling back home, and thus many, many oleander cuttings traveled over the Alps in suitcases. There, the blossoms of the oleander kept the yearning for the South alive.

In northern and central Europe, the oleander as a container plant climbed its way to first place on the popularity list. That has not changed today. No patio or balcony can be without its “Symbol of the South”.

Today, the oleander is sold in every supermarket there. However, the variety of cultivars and colors we’ve mentioned can only be obtained from specialist nurseries. The oleander is not a “carefree” plant in cold climate zones. Apart from sunny summers, which are a matter of luck, the oleander enthusiast needs to know something about its care.

How lucky we are in the South! Year after year, the tall oleander bushes grace us with the beauty of their superabundant blossoms, without us having to expend any effort on their care.

For a long time, only the scentless single pink form was known in Greece. It could be that this pink oleander is a descendant of the wild oleander of antiquity which might still be found in isolated landscapes; along the river courses of lonely mountain regions and in difficult-to-access marine basins and bays. Or in the vicinity of archaeological sites, as is the case of Olynthos in Khalkidhiki. Not far from this location, there is a river which flowed in ancient times as well and whose banks are still densely lined with pink oleanders. Could it be that these plants are descended from the vast stand of wild oleanders which once existed in Macedonia? We’ll probably never know the answer to that question, but we can let our imagination play with it. In Greece, there are certainly
still some other regions where one can speculate in this direction. (see also “Oleander Seeds”).

Of course, the recurring wildfires, the use of heavy equipment to clear fields, the uprooting of wild growth to clear land for grazing – all this presents an inherent danger that the last reserves of pink clouds of blossoms will become fewer and fewer in number, until they finally become a thing of the past.

During the course of the last ten years, a large number of the most diverse oleander cultivars has been developed in Southern Europe (Italy and France). The colors of their flowers range from pure white to many shades of pink and red, to yellow, salmon, orange, apricot, flesh- and copper-colored; they can have single or double flowers.

Plants with different growth habits are also available: tall-growing or compact shrubs, even dwarf forms. Some of them have branches which grow steeply upright; the branches of others bend downwards or have a creeping habit. There are also different leaf shapes and colors; for example, one can find leaves variegated with yellow and green.

The number of oleander cultivars worldwide is estimated to be about 400, of which 170 are said to be commercially available. Many of these bear names. Nurseries with large selections offer the purchaser illustrated catalogues in which the varieties are listed by name, so that the customer can be sure of getting what he or she wants.

Internationally, the inventory of oleander names is still somewhat confused. In Europe, it is primarily the names of Italian and French varieties that are well-known in the trade, since when a new variety is introduced there, its name is published immediately. Unfortunately, notice is not always taken of the name when the plant is further propagated or sold, and many names are lost. It also happens that a forgotten name is replaced by a new one, and so we end up finding the same oleander variety under another name. Experts are now involved in an effort to sort out and bring order to the confusion that has existed for decades.
My Oleander Story from Trifilia - Messinia

It was on the southwest coast of the Peloponnesos, 25 years ago, that I first cut oleander twigs into cuttings. At that time, they came from plants growing here in Agrilis that were over 20 years old; tall bushes with pink clouds of blossoms. However, it was from the north of Europe that I brought my love and admiration for this magnificent flowering shrub.

It was midsummer. The sun and heat blinded me in my dusty and barren surroundings, the result of the construction of our house. I longed for a glimpse of a little rain cloud. Not a chance. The ground was hard as stone. How could I bring a little color to this “desert”? I dug little holes with a shovel and water, and planted the first pieces of oleander twigs which I myself had cut. It was a miracle – they rooted and thrived. The first successful experience of my gardening years; I never dreamed at that time that it would come.

Six thousand square meters of Greek soil gradually got planted and watered; the wild plants were first chopped down and then mowed. Many plans were hammered out and debated. My imagination had fallen under the spell of multicolored, dancing blossoms; images which followed me even into my dreams. In reality, these dreams unfortunately often burst like soap bubbles.

When I look back today, they were years of labor and curiosity, joy and experience. Years filled with enthusiasm for the natural world of the South. Slowly I learned its rules, to be aware of its cycles or to sense its “heartbeat”.

Today, the tops of tall trees rustle in the garden. The forest floor is soft and mutes one’s steps. The scent of the earth and its humus has emerged over the years. The coming and going of many seasons has transformed the flowers and leaves of various shrubs into the stuff from which life comes. Useful and harmful creatures got the chance to achieve their balance. In part, it became a “wild” garden, but it is also a place to live for a number of animals: Turtles, hedgehogs, snakes, weasels and martens, many different insects and butterflies, arboreal rats and mice, naturally; and different species of birds.

Now the summer of 2005 is coming to an end. The ecstasy of the blossoms on the huge oleanders is over. But the fragrance from the hot summer days is still alive in my memory, the many colors of their blossoms before my eyes. The coolness of autumn brings the first rainfalls. Nature finishes one cycle and begins another.
The Oleander’s Many Uses

Getting back to those first oleander cuttings which I planted years ago in stony soil:

One day in the month of May, we glimpsed large blooming oleander bushes in a corner of the garden. First we were astonished – where had these come from so suddenly? Looking in the underbrush, we discovered the solution to the puzzle. They were the aforementioned cuttings, which had been completely forgotten about. By chance, they had been kept alive and their growth had been helped along by the fact that all these years, they had been standing in a gutter of water.

Many years later, some friends wished to plant an oleander hedge. The soil was poor and quite stony. To dig holes for large plants would have been very strenuous work. Then I had a flash of memory – the oleander cuttings came to mind.

We dug a gully, stuck the cuttings in the ground, and laid down a drip hose. Our project was a complete success. All the cuttings rooted. The second year, the first colorful flowers bloomed brightly, and a short time later a multicolored wall of oleanders had grown. It’s so simple to make an oleander dream come true in the South.

As experience has shown, water is very important in order for cuttings to grow, and later on for the plant to thrive. In connection with this: the root systems of oleanders are very strong. Thus, while planting directly into the garden soil, I made sure to leave a basin or cavity which was lower than ground level. Now, the large amount of water required for the roots to grow down deep would not run off. Otherwise, the roots would spread out close to the soil surface and could possibly disturb the growth of other cultivated plants; a subject which is often debated. Personally, in 25 years I have never observed oleanders to have a negative effect on other garden plants (see The Oleander and its Potential Usefulness).

In our region, the soil retains its moisture even in the hot season and at a shallow depth. Thus the plants in some years are (almost) not dependent upon our watering them.

Before I knew all this and as I looked around at nature during this early period, I found oleanders in dried-up stream beds or their banks, and particularly among the debris along the nearest seacoast as well. When the sinking sun of the South lent its color to the landscape, their blossoms looked to me like a mirage. At the time, I reasoned that the oleander was a xerophytic plant; that is, that it didn’t need water to grow. But I only learned later that the root system of this plant can reach downward 3 meters (10 feet) deep, and that it can even cope with a mixture of salt water.

Recognizing this, a lot of possibilities would open up for the oleander with regard to landscaping in the hot South.

On terraces or balconies, we can admire the blossoms of our oleander either in pots or in large containers. Right in the hot season is when they become “an event” The sun
releases the fragrance from some blossoms. A spicy honey fragrance is well-known here. Some of the newer varieties smell like jasmine, roses, or vanilla.

Ceramic pots are very decorative. I would advise against planting directly into the ceramic container. Repotting would become very hard work. It’s better to put the plastic flowerpot in the ceramic tub and fill the in-between spaces with fairly large stones. Thus the pot with large plants in it will not tip over. Since oleanders require a lot of water, the ceramic outer pot offers another advantage. Water can remain in there until it is slowly used up. It doesn’t run all over the ground, and we are spared ugly spots on tile and marble floors.

If our plant gets too big for its pot, it must be repotted into a bigger one. One can cut good-sized slices from the bottom of the root ball and around the sides. Thus, the same container can often be reused. It is also advisable to shorten some of the branches at this time.

The best time for pruning oleanders is the summer, even if there are still flowers on it. For our newly potted plant, this time is likewise advantageous, as it will be forming new roots up until the cold of winter sets in. It will also form new branches, on which the new flower buds will appear. The cold will certainly stop them for developing further, but with the first warm sun these buds will open into blossoms.

Now it will be understood why pruning in the autumn or spring will prevent the plant from blooming abundantly in the coming year.

The oleander is a tropical plant which does not go dormant in winter, and it will continue to grow as long as the light and the temperature permit.

The upper surface of the potting soil should always be covered (mulched); either with grass clippings, wild plants, or wood chips. This protects the roots from the hot sun and prevents the soil surface from becoming crusted over.

Two further experiments with oleanders showed me how robust and multifaceted this plant is in the South:

1) The potted oleanders in the garden kept growing in number. For the most part, they are placed in groups and thus form blooming islands. To my eye, this enhances the garden. To my family, they are just “unnecessary”.

One year, we had a cyclone. 20 trees were pulled out of the ground. A wall of tall Leyland cypresses had to be cut down. What plants could replace this loss quickly? “The unnecessary ones!” my family shouted. A deep ditch was dug so that the root balls, already large, could be sunk into the ground. However, several different plants had been growing in each of these tubs and they already had thick trunks. It was no longer possible to separate them. Against all the rules, the large balls of earth were finally “stomped” into the ground.
By the next year, there was a blooming wall, which increased in brightness and beauty from each year to the next. All the roots had survived this violent act!

2) One side of the garden, sectioned off with a chain-link fence, had the wild growth cleared away from it. The fence shone brightly in all its ugly nakedness. A planting with beautiful flowers was a hopeless proposition, as the ground was rocky – a spade wouldn’t penetrate it.

Then a clever idea came to me: the bottoms were sawn off some of the plastic oleander pots. The pots were then positioned and lowered into the ground insofar as the rocks allowed it. My family watched this work very skeptically. No one thought that the greening-up of the wire fence would be successful. But they didn’t know the oleander!

The winter rainfalls did their work. The oleander roots began to make their way through the rocks and stones. By springtime, the “pots were blooming”! All the plants were firmly anchored in the rocks, so that they didn’t fall over even in the wind. They grew taller and taller, so that the ugly fence soon disappeared.

As the years passed, the oleander roots burst the plastic pots. The remnants disappeared in the underbrush, or were easily removable.

3) A similar story about potted oleanders: For a long period of time, some large pots of oleanders stood in a row serving as a border. Soon it was apparent that the roots had grown through the holes of the pots and had penetrated the hard soil. The plants had now gotten a boost and were growing more vigorously than before. Soon they burst the plastic of the pots. Good advice would be valuable now.

We removed all of the plastic pot remnants and saw that the soil in the upper area had largely disappeared, owing to the frequent watering. But the plants were standing firmly in the garden soil which was once so hard that we had discarded the idea of planting directly in it.

A small wall was now built around the one-time row of pots, the space inside of it was filled with soil, and a drip hose installed. The “bed of oleanders” was ready.

Today, the location is framed by a row of multicolored blooms – and pots don’t have to be watered any more!

**In the South, the oleander is a plant of superlatives!**

In the rural areas of Greece, where there is still potential for landscape design, the oleander can be planted as a privacy screen, or as protection against wind, noise, or cold. Some large gardens in my area have their borders edged with colorful oleanders. The
brightness of the clouds of blossoms, their effect from a distance, the play of colors when backlit, all enliven the landscape during the hot summer months.

When I look around in Greece today, I am happy about the progress made “in the sign of the flower”. One can see colorful plantings in city parks, the planting of trees, and the floral displays of all kinds in public places. The oleander with all of its colors is still quite rarely seen. However, I would like to emphasize my joy over the planting of oleanders along the new Tripolis Highway all the way to Athens. The sea of pink flowers as a constant companion, I believe, gives all motorists a joyful and positive feeling.

Greece is a country of tourists. Millions of people visit it; the peak travel season is midsummer. For all Northern European fans of Greece, a sea of flowers could be created by their “nostalgia plant”.

Under the Greek sun, the “dream of the South” can be dreamed in especially magnificent color.

For an inexpensive and quick way to make oleander dreams a reality, one should take advantage of a “treasure” found in Greece: oleander seeds. About twenty years ago, I grew these seeds for the first time. Slowly, this led to the “game of Nature” and opened my eyes to her mysteries.
The Significance of the Greek Names

These oleanders originated in my collection of seedlings and are now considered new cultivars. In order to keep better track of them, these varieties were given names. Since these names were intended to reflect their “birthplace”, I took them from Greek mythology.

AIGINA: nymph and daughter of the river god Asopos

AKESO: one of the daughters of Asklepios, the god of medicine

APHRODITE: goddess of beauty and love

ARACHNE: Carpet weaver from Libya, transformed into a spider by the goddess Athena

ARGYRA: nymph

ARIADNE: daughter of King Minos and the moon goddess Pasiphae; she possessed magical powers. She fell in love with Theseus and saved him from the labyrinth, by means of a thread, after the killing of the Minotaur.

ARTEMIS: goddess of hunting and sister of Apollo.

ATALANTE: huntress and man-hater from Boeotia. Every suitor had to compete with her in a race, and was killed if he was defeated.

ATHENA: daughter of Zeus and the oceanide Metis (cleverness). Virgin goddess of war and of wisdom. Founder of the city of Athens (in a contest with Poseidon). She planted the first olive tree in the world.

CHIMAERA: daughter of the monsters Typhon and Echidna, and a monster herself, with a fire-spewing lion’s head, the form of a goat, and the tail of a snake

DEMETER: goddess of agriculture

ELEKTRA: daughter of Agamemnon and Klytaemnestra, sister of Iphigenia and Orestes

EUPHROSINE: one of the three Graces, the “well spoken”

EURIDIKE: tree nymph, daughter of Apollo and wife of Orpheus

EUROPA: goddess of the evening and mother of Minos. She was abducted by Zeus and, in the form of a white steer, taken to Crete where she became his beloved.

HARMONIE: daughter of Helena and Menelaus
HEKABE: wife of the king of Troy

HELENA: daughter of Zeus and Leda (consort of the king of Lakedaimon, to whom all of Helen’s suitors had to swear an oath to avenge a potential abduction. Helena chose Menelaus and became queen of Sparta. Paris abducted her and thus the oath was invoked, causing all the Greeks to mobilize against Troy).

IOKASTE: mother of Oedipus

IPHIGENIA: daughter of Agamemnon and Klytaemnestra, whom the goddess Artemis demanded as an offering in exchange for favorable winds to Troy. But she abducted her and Iphigenia became her priestess in the land of lamentation.

IRIS: the winged messenger of the gods, especially in the service of Hera, the ruler of Olympus. She is the personification of the rainbow.

ISMENE: daughter of Oedipus and Iokaste, whose mother she was.

KALLIOPE: one of the nine muses (Epos)

KALYPSO: Immortal nymph, who held the shipwrecked Odysseus captive for seven years.

KASSANDRA: Daughter of Paris. Apollo fell in love with her and taught her the art of prophecy. As she rejected his courtship, Apollo punished her by insuring that no one would believe her prophecies.

KIRKE: daughter of the sun god Helios, enchantress of the island Aeaea. She changed Odysseus’ companions into pigs.

LEDA: Zeus approached her in the form of a swan and sired Helena with her.

LEUKOTHEA: goddess of the sea

MAIA: Shy daughter of Atlas and mother of Hermes

MEDEA: Enchantress in Colchis on the Black Sea and daughter of King Aietis (one of the Argonauts)

MEDUSA: a monster, a glimpse of which would cause humans to turn to stone. One of the three Gorgons of Greek mythology.

MEGARA: wife of Hercules
NIOBE: the clever, beautiful, and high-spirited daughter of Tantalus, and the consort of Amphion, the king of Thebes.

PELPOS – Ancestor of the Mycenae. The Peloponnesos was named after him.

PENELOPE: wife of Odysseus and daughter of Ikarios

PHAEDRA: wife of Theseus and stepmother of Hippolytos, in whom she fell in love immortally

PSYCHE: was a beautiful Greek princess. The god Eros fell in love with her and abducted her in her sleep by means of the steed Zephyros. She is the personification of the human soul and is represented as a winged being.

RHODE: daughter of Poseidon and Halia (the island of Rhodos is named after her)

THALIA: one of the three Graces

THETIS: Nereid and goddess, mother of Achilles

TYCHE: personifies good destiny, fortune, and luck

URANIA: one of the nine Muses (astronomy).
Agrilis: The Beauty and Wonder of Nature

I’d like to tell you about my garden in Agrilis; of the many flowers, of its beauty, and how easy it is to attain this. The climate in Messinia offers great possibilities. The great beauty of the landscape fascinates me anew every year. But let me tell you how it all began:

Next summer it will be 19 years since we (coming from Northern Europe) tasted our first glass of local wine in Agrilis. We watched the play of colors of the sun setting in the west, and observed the fireball as it sank into the hazy line between the sky and the sea. This was where we wanted to stay. It was love at first sight!

Somewhat further inland we purchased a plot of land and built our house. It was midsummer when we moved in. Suitcases, boxes, and hundreds of small items piled up. Our electricity wasn’t hooked up yet. When the sun set, a lonely darkness surrounded us. No one could find anything. After some frantic running back and forth searching for candles and lanterns, our spirits calmed down. We listened together in tranquility. The moist, warm wind passed through the twigs of the olive trees. Their leaves rustled in waves. The chirping and flapping wings of a startled bird. The call of the owl. An answer from off to the side.

From the coast came the gentle sound of the waves rolling and breaking. We marveled at the bright stars, the pattern of the endless Milky Way. How excited the children were when they saw a falling star, and then another… the moon rose, large and red, from over the mountain.

The midsummer morning dawned, and it was hot. The air stopped moving. The sun’s baton cued the cicada’s shrill, raspy song, which could be heard throughout the landscape. The hot afternoon wind brought with it the scent of wild herbs – exotic, full of southern mystery.

Our house still didn’t have doors or windows. A funny little weasel observed me from the security of the top of the refrigerator. It stuck its nose in the morning coffee. The little field mouse was of the opinion that the modular kitchen would make an ideal nursery. The next day, she was sitting in the trap. Big eyes, big ears – who could have the heart to harm her? She was taken outside and set free. There was no such sympathy, however, for the scorpion which took an aggressive stance on the sky-blue tiles of the bathroom floor. In the afternoon stillness, a tree rat sat on a branch not far away. She ate her piece of grain, turning it around and around in her front paws. Finally she devoted her attention to preening herself calmly. Sometimes a fox was seen in passing. Its bushy tail gave it away. The badger was also revealed by its unmistakable gait. The cricket sought a warm spot for the night. Huge moths frightened us – the death’s head hawk moth, and the oleander hawk moth with its wings so beautifully marked in pastel pink and green. The
atmosphere of the calm May night transformed the whistling, rolling call of the nightingale into a sobbing song.

Our children’s first love was the sea. Soon they were just like dolphins. Little boat trips provided us with adventure. A short distance from the coast, the stillness of the sea begins. Suddenly some tumult by the side of the boat. A huge-looking sea turtle, the Caretta-caretta! We were just able to get a glimpse of it before it dove away. Later, a big dorsal fin appeared on the horizon. We quickly retuned to the harbor. The fisherman laughed. It was probably a swordfish. Back-lit by the setting sun, the fishing trawlers appeared. Their lights rocked like ghosts over the pitch-black sea. Night fishing. The children perched in groups on the coastal reef with their gas lamps. They caught squid in the lagoons.

Autumn came. After months of drought, the rainfalls brought new life to Nature. Soon, the landscape was bright with many different shades of green.

A January day. The air was clear and cold. The sun soon warmed it up. The sea lay deep blue and calm under the light blue winter sky. We were on our way to the nearby mountains for our first olive harvest. For as far as the eye could see, the ground, which was otherwise so dusty, was covered with a carpet of fresh green grass. The glowing oranges brought color to the olive grove. A little hidden brook gurgled. In the children’s imaginations, a “monster” was missing. It came with a loud roar from behind the mountain – a fighter plane flying low. As the last rays of the sun left us, we stood exhausted, but proud with red cheeks, in front of the sacks filled with olives. Later, we got the first batch of our own deep-green olive oil from the oil press. We drove slowly down the mountain road. Donkeys trotted homewards, loaded high with firewood. The sun had set. The shadow of the night descended on the mountains and colored them black against the last clear blue of the sky. Wood fires and the smell of oil mixed with the cold damp night air. Silence spread over the village in the mountains.

In February and March, storms rolled over the sea. Lightning as bright as day and huge cracks of thunder accompanied the roaring mass of water. Waves as tall as houses came crashing into the otherwise lovely bay. The next morning, that was all forgotten. In the blue of a radiant spring sky, the buzzards circled with clumsy swings. Almond trees bloomed and the scent of yellow oxalis wafted over the meadows. The buzzing of thousands of bees filled the air. In the distance, the snow-covered peaks of the mountains could be seen over the blue sea. The coloratura song of the goldfinch gave us a sense that summer was approaching.

Nature exploded. We stood in waist-high wild growth – translation: weeds. In them, we searched for the little orange tree we had planted in the fall. We could hardly enjoy the scent of its first flower; we were too exhausted from our battle with the wild grass. For our hunting dog’s nose, however, this wilderness was filled with pleasures. He had discovered the mice – and there were plenty of them! The lawnmower kept breaking on stones and uneven ground. The weeds could only be removed with an axe. But we asked for experienced hands to help us.
Then the heat of the summer months came. It turned the top layer of soil into powdery sand. The hot strong winds from Africa blew it everywhere, including between our teeth! I christened this sort of garden “a desert with pits dug in it”. Later, heavy rainfalls created rivers. The hard ground, dried up as far down as the subsoil layer, could not absorb the sudden masses of water. As a result, 6,000 square meters of heavy red loam turned into mud.

The whiteflies had orgies and the aphid infestation was occasionally heavy. Herbicides (weed killers) became “the fashion”. The landscape looked brown. The family debates were fierce: Poisons – yes or no?

Then I had a stroke of good fortune. We were visited by garden-loving friends from Vienna, who gave us some good advice.

The first piece of advice was to improve the soil by mowing the luxuriant growth of weeds, then leaving them in place as a mulch. In this way the surface of the soil would be protected from the vagaries of the weather and the mulch itself would act as a fertilizer and would stimulate the microorganisms in the soil. For, of course, it is the microorganisms in humus which decompose dead organic material and provide the main source of nitrogen in the soil and which make inorganic minerals available for uptake by plants. With the help of the humid air of Messinia, our watering and mowing soon began to bring about visible success: the upper layer of the red clay soil changed to black humus and before long we were celebrating the appearance of our first earthworm!

The second piece of advice that our friends gave us was to do without pesticides in principle, in order to achieve a balance between pests and their natural enemies. This is the subject of much heated debate, about which I then knew practically nothing. One key phrase emerged, however, which is worth repeating over and over again: “healthy plants in healthy soil”. I decided to overlook the aphids and not to worry too much about the white fly. And in the course of time, they have ceased to be much of a problem, though it is true that some of them still nibble at aromatic leaves or at my Gloria Dei roses. Leaf wilt on the roses has also decreased. However, we have learned to forego the pleasures of grapes and the big yellow peaches. Overall, the small plant community in our garden has prospered without the use of pesticides and with only a minimum of inorganic fertilizers.

The third piece of advice concerned the lack of suitable plants in local nurseries. Our friends suggested that, taking advantage of the favorable climate of Messinia, it should be possible to raise a variety of plants, either from seed or from cuttings, without too much expense. I was lucky enough to be able to receive seed from the Belvedere garden in Vienna, to which, I donated seed of *Nerium oleander* in return. Friends traveling abroad or living on other continents also helped to supply us with seeds, and later we discovered the large seed merchants of Australia, South Africa, England and Germany. At the beginning, my attempts at raising plants from seed were like a game of roulette, and my dreams of Paradise with great cascades of flowers often seemed fated to remain
unrealized. Nevertheless, over the course of the years, many of these dreams became reality. Among the plants thus raised or otherwise acquired, and which now grace the garden, I note the following:

**Strelitzia reginae**, the Bird of Paradise. In December, it thrusts its beak boldly into the quite cold winter air. Sheltered from the cold winds by a south-facing wall, it flowers until spring.

**Acacia dealbata**, the Florist's Mimosa. It carries its racemes of flowers like small green bullets throughout the year, which in the warm January sun open into clusters of shining yellow flowers. The crown is weighed down by the abundance of blossoms.

**Bauhinia variegata** opens orchid-like flowers as early as March, their fragile rosy beauty shining when backlit.

**Solandra guttata**, the Cup of Gold, forms its flower buds in December on strong, liana-like branches. Sometimes, the warm sun opens these buds by New Year’s Day and great golden chalices stand out from a dense wall of leaves.

**Hibiscus rosa-sinensis** also starts to flower in spring, with its large red flowers standing out among the deep green of the foliage.

**Jacaranda mimosifolia**, a much-admired tree from the tropics, produces its long panicles of sky-blue bell-shaped flowers in June. These can be seen from quite a distance. Around the same time, the buds of *Eucalyptus ficifolia* start to unfold, their long, glowing, bright red stamens protruding. Floral wonders appear as the bottlebrush-like stamens of Callistemon, Calothamnus, Melaleuca and Grevillea emerge from their clusters of buds.

**Bougainvillea** hybrids flower almost throughout the year. There is a fascinating new cultivar with both white and red flowers on the same branch. Another hybrid with double-appearing bracts (the actual flowers are inconspicuous) produces bright-red spheres of flowers on the ends of the branches.

**Nerium oleander** has been known in the Mediterranean for 2,000 years. It is pollinated by long-tongued moths, of which the best-known is the oleander hawk moth. Growing oleanders from seed enables one to make endless experiments in order to achieve new forms and colors.

The light blue flower heads of *Agapanthus* sway in the breeze on stalks one meter tall. The heavily fragrant, red-striped white petals of *Crinum amabile* appear on stems equally as tall; long red stamens add the finishing touch of beauty.

**Magnolia grandiflora** presents us with bright white flowers set against the dark green of its stiff foliage. Over the course of a few days, these become large and chalice-shaped; the radial ovaries becoming visible. The strong fragrance is enchanting.
*Erythrina crista-galli* bears dark-red to light-red flowers on the tips of its thorny branches, which often reach 2 meters in length. Some people compare them to parrots’ beaks, others to corals.

*Thunbergia grandiflora* is a vigorous climber with panicles of pale blue flowers on its hanging garlands.

*Hibicus moscheutos* "Southern Belle", an F1 hybrid from Japan, has white, pink or dark red flowers the size of plates.

Late in summer the flower spikes of *Hedychium gardnerianum* open; golden yellow and red, heavily fragrant, and with long red stamens.

For all these plants, *the sine qua non* is, of course, water. We drilled and found water at a depth of 40 m, from which it is brought to the surface by an electric pump. Watering has always been hard work, and many hours have been spent going around the garden with the hose. Recently, however, we have installed an automatic drip irrigation system. And our early reservations have turned to pure enthusiasm.

We got a scare in the winter of 1991-1992, when in the early morning hours the temperature dropped to -7 degrees C (19 degrees F). There were inevitably some losses: *Cassia didymobotria, Hibiscus rosa-sinensis* hybrids, *Solandra guttata*, some Guavas and *Passiflora edulis*, for example. So we erected a plastic covered greenhouse in which to protect some of our spare plants in large pots during the winter months. However, our garden has transformed itself into a small forest, its own microclimate largely protecting it from the vagaries of the weather. And luckily we have never had such low temperatures again.

The garden, now that it has been established, is also home to some of the birds and beasts of the Greek countryside. Blackbirds, thrushes, finches and starlings are frequently seen. Small owls sit close together on the chimney. High in the Norfolk Island pine, magpies nest; hoopoes observe us from a safe height, and wagtails stalk through the dewy grass. Occasionally a unique, deep birdcall is heard, and then the golden oriole may be seen on the branches of the Grevillea. Swallows, our summer visitors, take great pleasure skimming the surface of our small swimming pool. The Greek frog, the large common brown toad and the small grass-green tree frog live in our garden. Emerald-green lizards bask on warm rocks in the sun, and occasionally we encounter a snake. It is more pleasant, though, to observe the tortoises wandering around, or to see a mother hedgehog with her children. The insect life in the garden is also rich. Spiders abound, in many colors and all sizes, their webs glistening in the morning dew. Bees hum everywhere, Hornets sometimes scare us; the big locust gives us some idea of just how terrible a vast swarm of them would be - though the flowering *Buddleia* is a source of pleasure when it attracts masses of large butterflies.
Plant life and animal life together: there are countless little happenings to be observed in the small world of our garden. And the joy that our little oasis gives us is like a gift from the great beauty of Greek nature.
The Oleander’s Journey Through Time

It is possible that the oleander’s journey through time began in the darkness of prehistory, and that it led through changing climates caused by catastrophes (such as great floods and long periods of drought) or alternating periods of cold and warmth which defined its development and range. Only now do we have a sense of just how immensely far its path has taken it through many thousands of years.

The botanist reports: “The range of the oleander is vast, and even today has not been precisely defined. It stretches from western Morocco to North Burma (now Myanmar) and China, where examples can still be encountered in the breakthrough-valleys of the Mekong, Salween, and Irrawaddy rivers. The southern limit has been established, on a preliminary basis, as a line through the Algerian Tibesti Massif, North Niger, Eritrea on the Red Sea, Oman, and the south coast of Iran. This line is exclusively based on herbarium material, on the assumption that all oleanders occurring in the wild south of this line are escapees from cultivation or are descended from these. Whether this line will continue to be valid remains to be seen.

The northern limit or altitude limit is dependent upon temperature; where temperatures under -7C (-19F) occur annually, the oleander cannot survive the winter.

On older maps of the oleander’s range, e.g. in Rikli’s Pflanzenkleid der Mittelmeerländer (Vegetation of the Mediterranean), there is a large gap between the generally known distribution areas of the Mediterranean and the Indian oleander; it encompasses almost all of Syria and also nearly the whole of Iraq. Since that time, it has been possible to close this gap on the basis of herbarium material or data from discovery sites. The question then arises as to whether these are native plants or escapees from cultivation. Further gaps in the Himalayas may be only apparent ones, just because there are no specimens from that area. In the primary literature on geobotany (e.g. Schweinfurth’s Vegetation des Himalaya), the oleander is mentioned as one of the plants typically associated with watercourses in nearly every one of the numerous sections of the Himalayas, from Nanga Parbat all the way to China.

This broad East-West range can be easily explained by the fact that most of the mountain ranges, especially the Himalaya chain and its foothills, run from east to west, as does the main valley of the Brahmaputra. The oleander is also found in the foothills of the Himalayas along the watercourses which empty in the direction of the Ganges. It climbs even higher here (almost always under the influence of warm south winds) than it does in the Atlas range, that is, over 2500 meters (8200 feet), just as in the upper Indus Valley and in Kashmir, where the genetic origin point of the Indian type of oleander is supposedly located. Leading Indian botanists state that the oleander is native to the entire Dekkan (the entire central plateau, which extends to the southern tip of the Indian subcontinent).

(Oleander, by Christoph Koechel: Munich)
The fact is that a type of oleander with a single, non-fragrant pink blossom occurs all around the Mediterranean. It is assumed that the plant with the pink clouds of blossoms came from Asia Minor, the eastern Mediterranean region, and the coasts of the Black Sea. Why this oleander wandered to the Mediterranean so long ago “in a pink dress” only is Nature’s secret. Or was the pink-blooming type simply the form of this species which was best-adapted to the climate around the Mediterranean? The original habitat of the oleander has never been found. This fact, and also the plant’s peregrinations through time and distance, can be considered as a given. However, if we allow ourselves to be carried away by our imaginations and whisked far into the past, a storybook world of fantasy will be revealed. We’ll be using, in broad outline, that which has been recorded of human history, and we’ll be searching in our dreams for a plant which perhaps shared a common path with us humans through the first millennia.

At the end of the last Ice Age (about 15,000 years ago), the water from the melting glaciers carved deep valleys into the landscape. A combination of abundant water and an ideal climate created a fertile paradise. Drinking water was available in superabundance; the Black Sea was filled and became the largest fresh-water reservoir in the world. It could have been Paradise.

“Then the Lord God placed a garden in Eden… ...the tree of the knowledge of good and evil” (1st book of Moses [Genesis] 2, 8-9

“And out of Eden a river to water the garden... ...the fourth river is the Euphrates” (1st book of Moses, chapter 2)

The Garden of Eden – Paradise, which has stirred the imagination and dreams of humanity since the beginnings of all time.

So my tale of the oleander ought to begin here as well:

“There was once a magic garden in the peace of Nature whose blinding beauty surpassed anything imaginable. Amidst all this splendor, there grew a plant which life seemed to have passed by. It led a shadowy existence. No one took notice of it; no one wanted to pluck its leaves and enjoy a meal made from them, as it was bitter beyond measure, and poisonous as well. This made the plant endlessly sad. It wished so earnestly to be noticed for its appearance despite its bitterness and its poisonous nature, and dreamed of having beautiful flowers which would give pleasure to all.

So it looked deep within its being to discover Creation’s plan for it, and found a slumbering strength. This caused its branches to grow so mighty and strong that they finally formed a crown. The little slip of a plant grew into a tall, majestic shrub.

Now it looked, whirling, into the genetic design of its flowers. A very special brilliance was the plan for them. Everyone was to see the glow of their many colors, even the moon
and the stars. The sunlight could bathe in the colorful, abundant blossoms and produce the most enchanting play of hues.

Slowly, all the wishes of the bitter and poisonous plant were fulfilled. The other residents of Paradise were now astonished by its proud stature and the magnificent colors of the clouds of blossoms. The bush, now grown tall, enjoyed the water which was so abundant at that time, and it loved when the murmurine brook would play around its roots. And if it hasn’t died yet, it’s living there still.”

We shall see – as our plant sensed nothing of the “expulsion from Paradise” which was to come.

The great abundance of water from the melting ice led to an unprecedented catastrophe. The narrow isthmus on the Bosporus could not withstand the rising sea level of the Mediterranean and gave way. The masses of water poured into the lower-lying Black Sea. A monstrous flood crushed everything in its path, and long-lasting rainfalls caused the water to rise. The deluge had broken through. Salt water in the GARDEN OF EDEN!

The people who had lived there were driven out by the flood. It was a diaspora; a flight to Europe in the West, to Asia as far as the Don and the rivers of the Ural Mountains, to the regions east of the Caucasus, southward through Turkey into southern Mesopotamia, and into western China. The first natural disaster in the history of humankind took place 7 ½ thousand years ago in eastern Anatolia. (ZDF.de-online)

How, then, did the plant of our story fare? Was the shrub of Paradise with the splendidly colorful flowers able to survive the catastrophic flood and continue to grow even with the salt content of the soil? It may have, since…

“…the plant is a floodplain plant, known for its ability to withstand floods and heavy rains. It offers little resistance to flowing water and withstands disturbances of the sediment. The oleander survives all of this owing to its many flexible branches and its extensive, deep root system coupled with its regenerative capabilities”.

“The oleander’s preferred substrate is a sandbank on and in river courses. However, it also finds sediment deposits between stones and gravel in alpine brooks satisfactory. Its natural habitat contains little humus. If organic substances do wash or blow in, floodwaters often sweep them away. Its deep-reaching root system provides it with water and it thrives best if it is standing in flowing water. Alkaline locations on limestone are preferred.”

(Prof. Boehlmann, Berlin)

In the present, experience has shown us that it is possible for oleanders to grow in a salt water mix, and therefore even on seacoasts. There have been reports of typhoons, hurricanes, and tsunamis which the oleander not only survived; it continued to grow in
the landscape which had become flooded by salt water. (International Oleander Society, Texas)

Well, the plant in the fairy tale had a good chance to survive the Expulsion from Paradise. It was a strong plant, and in its flowing sap lay an innate ability to face wind and weather head-on. In the millennia to come, the wind would waft its seeds in whatever direction it happened to be blowing, and with their little parachutes, they were able to land anywhere. Let’s go on with our search and let our thoughts wander into the distant past.

Mesopotamia

is the land between the Euphrates and Tigris Rivers, which the Bible tells us originated in Paradise. For thousands of years, these two rivers flowed through the land and saw great kingdoms come and go. Mighty rulers built their cities on its banks and controlled the destinies of the known world at that time. Sumerians, Accadians, Babylonians, Assyrians, Persians and Greeks were but a few of the many peoples. For thousands of years, the knowledge of the reputation and splendor of Mesopotamian cities lay buried under the desert sands, forgotten by men, living on only in a few legends and stories in the Bible. And it was the Bible which drew people into the now-barren sands again and again. (Mesopotamien.de-online)

In the former city of Sipper (Iraq), 70,000 clay tablets written in ancient cuneiform script were found. Only in the late 19th century were they able to be deciphered and translated. They contained the religious and cultural history of the Near East. The Sumerian cuneiform texts related the myths of the Creation, the garden in Paradise, and the Great Flood.

Around 3000 BG, there lived Gilgamesh, the legendary king of Sumerian antiquity, the ruler of Uruk (ZDF.de-online). In “the land between the two rivers”, mankind took the first steps in farming and raising livestock. The Assyrians in the north and the Babylonians in the south together formed Mesopotamia, which means “between the rivers”. These were responsible for the great fertility of the land, as very early on, the Mesopotamians built a great network of canals. The south was the homeland of grain cultivation and was once the breadbasket of the Old World.

Little is known about the gardens of the advanced cultures which developed around 4000 BC; there are only a few references among the written records of the former rulers. The one archaeologically-confirmed garden of Mesopotamia dates from the first millennium BC and surrounds the “festal house” of the god Assur. It is guessed that the garden design included 2000 trees. Assyrians and Babylonians placed great value upon trees in their world of palaces and temples. They were planted around them in precisely straight lines. It was believed that the source of eternal life was connected with the roots of mighty trees. Assyrian kings later planned large hunting preserves and stocked them with cypresses, cedars, palms, and possibly cotton from India. They valued botanical diversity in their palace gardens. Could it also be that the oleander from India, with its strongly fragrant blossoms, contributed to the diversity of plant life which they desired?
Watering the garden was the greatest challenge, and the rulers considered it their sacred duty to continually improve the canal systems. We now know that without the advanced art of the canal builders, the onetime splendor of the gardens would never have been possible.

Nineveh is among the cities of the ancient East whose fame has not faded, even though its temples and palaces have crumbled to dust. The origins of Nineveh go back to the 7th millennium BC. In 705 BC, Nineveh was the capital of Assyria. Great palaces and temple grounds came into being; the symbols of the Assyrian “Kings of the Earth”. They had a 70-kilometer-long canal built in order to establish a garden.

The Bible

The expulsion from the Garden of Eden, Paradise, is at the beginning of human existence as described in the Bible. This ancient dream describes the contrast between the Garden and a land parched by the sun, with the consequential harsh living conditions. The oldest materials of the Bible, the “book of all books”, originated in the course of the movements of nomadic peoples in Mesopotamia and Egypt, which reached the cultivated land of Canaan around 1200 BC and adopted a settled lifestyle there. Passed on orally for centuries, these materials began to be compiled in written form around 1000 BC. The oldest preserved materials included in the Bible were written in Phoenician/Old Hebraic script. The story of the building of the Tower of Babel in the Old Testament occurs very shortly after that of the Great Flood as an explanation of the “confusion of the tongues”. The tower was destroyed in 2300 BC by Sargon of Accad. It was rebuilt just around 600 BC, and indeed by the same ruler (Nebuchadnezzar II) who destroyed Jerusalem in 586 BC. It was through him that the people of Israel became captives of the Babylonians. The Hebrew name for ancient Babylon was “Babel”.

(The illustration of Tower of Babel – early June 2006/ 043)

The “Hanging Gardens of Babylon”, also known as the “Hanging Gardens of Semiramis”, were among the 7 wonders of the ancient world. The gardens consisted of 7 terraces placed one above the other, creating the illusion of a hilly landscape covered with flowers. Exotic trees, tropical plants, bushes, flowers, and herbaceous plants took root and grew there. The soldiers of Babylon continually brought back new and foreign plants from their military forays; thus the beauty of the gardens continued to increase. It was watered by the Euphrates, from which water was transported by means of a special system. Was this the first great botanical garden in human history? The remarkable thing is that it stood in the middle of the desert, as did the legendary city of Babylon also. It was built by Nebuchadnezzar II for his queen, who longed for the forests of her mountain homeland.

(Online – picture with Tower of Babel)
Is it conceivable that the glowing blossoms of our fairy-tale plant attracted admiring glances in this paradise-garden as well? However, this assumption is only imaginary, just as the reports of this garden, written half a millennium later, remain only a myth today.

I begin my search for the “storybook plant from Paradise” in the Bible: “Indeed, the texts of the Old and New Testaments offer a wealth of information about plants. In fact, they refer to a large number of rituals, festivals, commandments, and prescriptions which have to do not only with plants in general, but also with their cultivation for specific purposes. Numerous botanists, linguists, and theologians have striven over the course of centuries to unambiguously identify the plants mentioned in the Bible. The difficulty lies in the fact that many plants came out of pre-Biblical folk cultures and vocabularies. In addition, the designations are based upon spoken usage and a more symbolic use”.

(Bibelpflanzen, Ulmer-Verlag).

Only one single clear nomenclature has been found. “As a palm in En-Gedi I grew tall; as oleander bushes in Jericho, as a splendid olive tree in Shefela, as a sycamore on the water I grew tall” (Sirach 24, 14). Perhaps the oleander was called “Rose of Jericho” at that time. It is possible, as valued plants were often called “rose”, and the blossom of the plant we are seeking is in fact similar to that of a rose. Jericho is the most water-rich large oasis in the Near East, and at 10,000 years old, is the oldest known city on Earth to date. Date palms, bananas, and other subtropical plants thrive there. Today, a completely different plant bears the name “Rose of Jericho”: the desert rose, also called “resurrection plant” (Anastatica hierochunica).

Four species of plants have great significance in Israel: The etrog, a citrus fruit (cedrate), the palm, the myrtle, and the willow of the brook.

“The willow of the brook was supposedly the weeping willow, named Salix babylonica by Linnaeus after the passage in Psalm 137. This tree is common on coasts, hanging over wells and watering places. There is a striking specimen of this species hanging over the plain of Akra and others on the Phoenician Plain. There are many species of Salix in Palestine, but this one is neither indigenous, nor is it cultivated there. Some are of the opinion that the tree in question is the tamarisk or poplar (2). Hebrew ‘tzaftzafa’ (Ezek. 17:15). It is called ‘saafa’ in Arabic, the collective name for ‘willow’. This could be the Salix aegyptiaca of the naturalists. Triman thinks that what was meant by the ‘willow by the watercourses’ is Nerium oleander, the oleander or rose-bay. He says: ‘It lines the upper Jordan, sinks its wavy red crown into the spray of the river currents below Hermon, and takes nourishment in the muddy swamps of the lower Jordan almost all the way to Jericho. On the Arnon, on the Yabbok, and on the Yarmok, it forms a continuous band. On many of the rivers of Moab it creates thick enclosures which the sun’s rays can never penetrate; thus the valuable moisture never dries up. Wild pigs take refuge in the safety of this impenetrable growth’. (sacred-texts.com – online). ‘The ‘willow trees’ by which the children of Israel sat and wept next to the rivers of Babylon were poplars (tzaftzafa), however.’
The flora of Israel has not changed substantially in the last few thousand years, as no great climatic changes have taken place. Because of the diversity of soil types and climate zones, there are various types of vegetation zones in Israel, as for example moist areas, whose marshes and rivers are however confined to the coastal plain and the Jordan valley. (Israel-Information.net – online)

**Jordan**

The country borders Israel today. It is not large, but it contains the treasures of a thousand-year-old past.

On the Tariq al-Muluk (Road of Kings), one arrives at the nature preserve of Dada. In a narrow ravine, oleander bushes taller than a man stand in the murmuring bed of a little brook; sometimes forests of junipers as well. Soon one reaches Petra, the unique rock city with its proud burial sites. (intakt-reisen.de – online – Jordanien-Koenigsweg-Petra-Wadi Rum)

(Photo of the wild pink oleander today).

**The Hittites in Anatolia**

The land of Hatti, as the land of the Hittites was also known, was a great power in the Near East of the Bronze Age. It stood in competition with Egypt, Babylon, and Assyria. Archaeologists’ reports have been able to reconstruct a fascinating picture of its highly developed culture. During the Hittites’ early period (up until 1700 BC), there was a lively trade with the “land between two rivers”, Mesopotamia. Traders from Assyria came to Anatolia to buy raw materials (copper, silver, gold, and jewels) for which they traded tin, textiles, and clothing, among many other things, in return.

Eastern Anatolia was covered with a network of roads. Donkey caravans came from and went to Mesopotamia. Trade records were kept on clay tablets in Accadian cuneiform script, and thus this script made its way to Anatolia with the Assyrian traders.

As the Assyrian trade network disintegrated and the cuneiform script disappeared, a North Syrian variant of the Mesopotamian script developed in its place. This was used in order to record state correspondence, contracts, bodies of law, cultic prescriptions, oracles, and ancient oriental literature on clay tablets. (Hethither – online)

During excavations undertaken in 1906 in Hattusha, the cultural center of the Hittites, 2500 clay tablets were found; these were deciphered in 1915. (Hattuscha.de – online)

And here I wonder, a few thousand years later, whether our beautiful but poisonous fairy-tale plant was already known in the Anatolia of that time, and whether it might have been used in rituals and ceremonies? Perhaps.
Power struggles and many wars followed, and thus the Hittites remained confined to central Anatolia for quite some time. Only under the reign of the great king Suppiluliuma did the Hittites conquer almost the whole of Asia Minor and Syria; thus the kingdom bordered the northern province of the Pharaoh’s territory. A preoccupation with war was thereby pre-programmed. (Picture: Dec. 135, 136, or others)

The warlike people from Asia Minor, the people of 1000 gods, was to teach the meaning of the word “fear” to the great ruler of Egypt, Pharaoh Ramses II. The great Hittite king Hattushi III and Pharaoh Ramses II stood face-to-face at the battle of Kadesh. But the outcome was quite different than expected. They put an end to the hostilities with a historic peace accord. Through an unbelievable stroke of archaeological good luck, the first bilateral peace agreement was discovered in both versions and is now on exhibited at the United Nations building in New York.

The collapse of the Hittite kingdom occurred at the end of the Bronze Age, as did the destruction of Troy.

Troy

Homer’s artfully narrated epic about the war of the ancient Greeks in Troy, which involved 1000 warships in order to retrieve the beautiful abductee, Helen – myth or reality? Why was Troy, a city which was certainly smaller than Athens or Mycenae, of such interest to the Greeks?

The Bronze Age began in 2800 BC. Troy of the Bronze Age lay on the Dardanelles and controlled access to the Black Sea. The trade center of the Bronze Age led through the Black Sea and thus directly past Troy. Bronze was the most important material for the manufacture of weapons. It was produced from tin and copper. And whoever controlled the supply of these raw materials also controlled the manufacture of weapons. The “Trojan Horse” has remained to this day the symbol of victory through deception and cunning. (ZDF.de – online)

The Island of Cyprus – the Homeland of Aphrodite

Since the Bronze Age, the island of Cyprus had supplied copper to the eastern Mediterranean. Its trade cities had close contact with the Levant. The island lay within the spheres of influence of Assyria, Egypt, and Persia. In 1200 BC, the island came under the influence of Mycenae. Over the centuries, Cyprus maintained its Greek identity and the ethnic legacy of the island became part of the Hellenistic reign of Ptolemy. In the Greek-Byzantine world, it clung to life in the same manner.

“And even if you were to go to the ends of the earth
You would find no other island such as this”
-Nikos Kazantzakis
The extensive mountain massif of Troodos stretches across the southwest of Cyprus. It is covered with pine trees, dwarf oaks, cypresses, and cedars. In the rocky ravines, Oriental plane trees grow, and the river beds abound in oleanders. In antiquity, the island was known for being rich in woodlands. Today, only 19% of the island’s surface is forested.

On the road of history, we now reach

Egypt

The first state-building rule of the dynasty of Pharaohs originated on the Nile around 3000 BC. (Pictures, online, around the end of June 154)

“When the dynastic period opened, Egypt was probably much as it is today: a vast sandy desert in which the valley was the only habitable portion and the river the only route of travel. By contrast with the barren mountains on the east and the sterile dunes on the west the green valley must have seemed like paradise. The quiet lagoons, walled in by papyrus reeds, were covered with pink and blue lotus blossoms and edged with delicate aquatic plants. As soon as the flood subsided the valley became carpeted with grasses and reeds, and ferns filled out the the shady recesses. Flowers blossomed in profusion: roses, jasmine, narcissi, lilies, oleanders, the Egyptian privet (said to be the flower of paradise because the dye henna, made from its stalks and leaves, was red, the life-giving color). Palms and trees afforded food and shade; dates and doms, figs, apricots, prickly pears, grapes, pomegranates and bananas (called the fruit of paradise because it is always ripe), locusts, mimosas, ash, mulberries, tamarisks, olives and sycamores.”

(Man and his Gods by Homer W. Smith, foreword by Albert Einstein, online).

Many plant remains have been discovered and identified during excavations in Egypt. Might an oleander plant also have been found among them?

The Egyptians were great lovers of gardens. In 3000 BC, gardens were being depicted on bas-reliefs and in 2350 BC, the garden biographies of high officials. Between 1559 and 1085 BC there was an Egyptian expansion toward Palestive and Syria, from which new exotic plants came. Between 1503 and 1482, the Punt Expedition took place under Hatchepsut; reports of this can be seen even today on the bas-reliefs of the Temple Dayr-al-Bahri. Incense trees and 32 other plant species were introduced from Punt (today’s Somalia). In 1490 BC, this expedition was documented in mural paintings. Plants are seen growing in containers. This provides proof that container culture was already known about at that time. Today, we would call them „tub plants“. Almost 3400 years later, remnants of these incense plants were discovered in the ceremonial sites and gravesites of the Pharaoh.

Gardens and terraces of representative character appeared, demonstrating man’s dominion over Nature. Between 1300 and 1225 BC, Ramses II was known to have established 514 gardens in honor of Amon.
In ancient Egypt, the gods were in charge of the fertility of the soil and the regularity of Nature. This is why gardens played such an important role in religious life and in the cult of the dead. Gardens were considered to be a form of temple.

„Ankh“ is the Egyptian word for „life“, but also for „bouquet of flowers“. Thus, in all areas of life, flowers and trees not only had a decorative function, but at the same time were symbols of life.

On the „Horus Road“ (this was a royal road, the way of the Pharaohs), caravans came and went between Egypt and Mesopotamia. The diplomacy of 3500 years ago! Lavish gifts were exchanged between Burnaburiash II (1359-1333 BC), the king of Babylon, and Pharaoh Ekhaton (1353-1335 BC). (Picture Nov 284 – mesopotamia.de – online). Damals, the virtual magazine for history and culture.

Might a pink-blooming oleander from Mesopotamia have traveled once over this road to the Nile? For the Pharaoh who held plants in great esteem, transport by caravan roads was probably something that he felt should be a priority to perfect.

**The Island of Crete**

Between 2600 and 2000 BC, the Minoan culture (pre-palace phase) emerged. It is theorized that the first wave of settlers came from Anatolia and Africa, and that the settlers already had highly developed artistic abilities and craftsmanship. They were familiar with the potter’s wheel (this had been invented in Mesopotamia) and thus, functional and artistic ceramic-making. There was an explosive growth of culture and infrastructure.

Bronze created the second economic boom. The first palaces and 2-story houses were built, and the island developed into a commercial center of the eastern Mediterranean. Importing and exporting flourished.

1000-1700 BC (the old palace age)

It is assumed that the Minoans of this time ruled the entire eastern Mediterranean and thus did not have to worry about wars or hostile confrontations. Later Greek myths stated that King Minos created the first naval forces in the Mediterranean, the „Thalassokratia“. Around 1700 BC, a huge earthquake appears to have destroyed all its structures all at once.

1700-1400 BC (new palace age)

During this period, the Minoans built new palaces on the ruins of the old ones, more magnificent than ever. They were multi-storied and richly decorated with colorful frescoes. And, incredibly: my fairy-tale plant winks at me from the remote past! In a small and stylized form, it appears in frescoes preserved from the throne room of Knossos (photos online). This is a great moment, as the plant which I envisioned
wandering through time only in my dreams now looks straight at me through almost 3500 years of history!

The spread of Minoan culture in the eastern Mediterranean to Sicily, the Greek coastline and Islands (such as Thira, Kythos, Rohodes and Melos, among others) as well as the nations of Asia Minor and eventually Cyprus has been documented. However, even in Mesopotamia there are inscriptions which prove contact with the Minoans. There were close contacts with Egypt as well. Representations of Cretan emissaries are found in Egyptian graves as far back as 1400 BC.

However it was that the plant of our story came to Crete, the Minoans included it in their decorative paintings and thus documented its presence. Perhaps the oleander traveled on their trade ships as they transported olive oil and wine.

In the full flowering of their culture, the Minoans were struck by a natural catastrophe of monstrous dimensions:

“200 years before the collapse of the palace of Knossos, nature struck without mercy. In the year 1645 BC, one of the biggest volcanic eruptions in history occurred on the island of Santorini. Recently, scientists have performed new calculations and report that at least 100 million cubic meters (3.4 billion cubic feet) of material was ejected from the inside of the volcano, giving the Aegean eruption a rank of 7 on the VEI scale. The energy released by the eruption corresponded to roughly 5000 atomic bombs of the Hiroshima type. This super-volcano sent up a cloud of ash which rapidly cut a path of annihilation. A deadly waltz, a gray monster with dust, gas, and heat in highest concentration: the pyroclastic flow, one of the most dreadful and evil of Nature’s moods. It spread underwater as well and glided long distances on the surface. This killer storm would have traveled the 100 kilometers (160 miles) from Thira to Crete effortlessly. On Santorini, the remains of the ash cloud are still visible. As fossils, they lend the rocks a macabre profile. Experts speak of the following tsunami as a killer wave which probably far exceeded 100 meters (325 feet) in height. Here as well, the 100-kilometer distance to Crete would not have been an obstacle."

Scientific discussion of the fall of the Minoans has been going on for generations. It is possible that the environmental consequences of this enormous natural disaster led to the decline of the flourishing culture of the Aegean. (ZDF.de-online „Wilder Planet“: mega-volcanoes).

But evidently our plant continued to grow and bloom by the riverbanks of Crete; how else would it be possible that a white-flowered oleander was found there on Mount Ida near Kamares? At that time, the white flower was a sensation, since only pink-flowered and perhaps red-flowered plants were known.

Even in our time, pink-flowered oleanders can be found while hiking in remote mountain landscapes. Perhaps these are descendants of the wild oleander? (Photo: Crete 2006)
Mycenae

According to a Greek legend, it was Perseus who founded the city of Mycenae. The name incorporates the Greek word for “mushroom” (mykitas) as Perseus drank water out of a mushroom cap. The city of Mycenae was located on the plain of Argos. In Homer’s epic The Iliad, Mycenae is named as the capital city of King Agamemnon. It was he who led the Greeks to Troy. Homer also called the Mycenaeans „Archaian“.

The rise of the first great civilization on the Greek mainland occurred during the time of the late Minoan period of Crete. Indo-Germanic tribes migrated from the north into Greece, founded tribes, and built the first city-state. The Mycenaean culture emerged around 1600 BC and lasted until 1050 BC. It reached its zenith between 1400 and 1200 BC.

Today we know that the Minoan culture had a very strong influence on the Greeks of Mycenae. There were Egyptian influences as well, as for example the representations of the hereafter at gravesites. The Mycenaeans’ cult of gods and goddesses would later become an established component of classical Greek mythology.

In 800 BC, ancient Greece emerged as a great commercial as well as colonial power and represented increasing competition with the Phoenicians. The Greeks settled as far as the Rhone River and the Crimea. In addition, they had factories and business offices as far away as Egypt and the central regions of Asia Minor. Traders from Rhodes and other parts of Greece reached Spain and founded settlements. The best-known was Sagunto. The thought occurs to me here that the oleander may have come to Spain with these early Greek settlers.

There was a long period of flourishing, during which democracy emerged as a form of government, but was not adopted everywhere.

Ephesus

Ephesus was one of the oldest and most significant Greek cities in Asia Minor. As early as the 2nd millennium BC, Ephesus was an important center in the sphere of influence of the Hittite and Mycenaean cultures. Minoan relics have been found there. In the 10th century BC, settlement by Ionian Greeks began. During Roman times, Ephesus was the provincial capital of the Roman province of Asia.

Milet

The ancient city of Milet lay on a peninsula on the Gulf of Milet and on the broad mouth or bay of the river Meande. Before the Greeks settled there, the area was under Minoan influence. Between 1450 and 1315 BC, the Mycenaean city was settled by many Greeks, but it was destroyed by the Hittites. In 1053 BC, Milet was founded anew by Ionian colonists. From the 8th century BC onward, Milet became the most significant port for
trade with the Orient. A notable oil, wool, and textile industry arose. Coins were minted, replacing the bartering system. Milet became an important metropolis and, at times, the maritime ruler of the Aegean sea. Numerous colonies (over 90) sprang up. Milet founded cities not only in the North Aegean and on the Black Sea, it also possessed trade settlements on the north coast of Africa, Naukratis. Early on, Milet created an extensive trade network over the Aegean and Black Seas.

Milet was the mightiest Ionian Greek city on the west coast of Asia Minor in ancient times. It was the home of famous men, and the cradle of Western philosophy (Thales of Milet and Hippodamos, among others).

In 494 BC, Milet was conquered and destroyed by the Persians, which led to the Greeks’ Persian Wars (online).

The Persians

In 639 BC, Babylon was conquered by the Persians. They adopted the garden culture of the Assyrians and Babylonians. Persian gardens in their basic form can be traced back to the 6th century BC, and they had influence on all the garden styles of the world. The oldest Persian garden today, Pasagardae, was created by Cyrus the Great more than 2500 years ago. From the writings of the Greek historians, we know that the Persian word „pairidaeza“ actually means „an enclosure“. Xenophon introduced it into the Greek vocabulary as a word for „garden“. From there it evolved via a Christian context into the central European „Paradies“ [as well as the French „paradis“ and English „Paradise“]. Xenophon relates the following in his writings „Oikonomos“ 4, 13: „In whatever region the Persian king resides, or wherever he moves, he makes sure that there are gardens there; the so-called paradeisoi, full of all the good and beautiful things that the earth can produce. And there he spends most of his time, as long as the season allows it“. Xenophon became acquainted with the Persian „paradeisoi“ in 401 BC, while he was crossing through Mesopotamia on the so-called „Procession of the Ten Thousand“. On his estate „Skillous“ near Olympia, he created a wilderness park which was inspired by these. It was still in existence as of the 2nd century AD; the oldest confirmed park in Europe.

Persian gardens were gardens of the senses; in later Persian poetry, they became symbols of love and joy. Thus, they became equated in a subliminal way with Paradise. They represented the fundamental element of Persian culture.

Marco Polo also described Persian gardens as paradises, planted with the finest fruits on earth, and with four canals running through them. One flowed with wine, one with milk, one with honey, and one with water.

Let’s just consider the „Persian apples“, the citrus fruits mentioned by the scholars who accompanied Alexander the Great on his Asian campaigns. Also the oldest of rose species, the Damascus rose; lilacs, jasmine, and surely many other fragrant plants. Who knows – perhaps the Persian gardens were even adorned by the fragrant oleanders from
India. It is now believed that the oleander, the pine, and the acanthus were native to Persia. Among the magical and medicinal plants used by the ancient Persian physicians, oleander is named along with sea onion, wormwood, and others.

„Lay out your fields with grace and neatness
So that the sun will shine with gladness upon your toil.
When you plant trees, plant them in rows
So that order will reign
And let the water in the canals
Never fail to flow in purity“

-Johann Wolfgang von Goethe

Alexander the Great (356-323 BC)

In May of 330 BC, Alexander the Great crossed the Hellespont with an army of 35,000 Greeks and Macedonians and, in the course of 3 years, gained victory over the greatest territorial power in the world at that time, Persia. The defeat of Darius III by Alexander marked the end of the Achemenid kingdom. It was incorporated into Alexander’s empire and Hellenized. Thus he paved the way for Greek culture to spread from Mesopotamia and Persia all the way to India and Egypt.

King of the Macedonians, Pharaoh, Son of Zeus, King of Asia, and founder of Alexandria (Pictures: mosaic and military campaign).

During this campaign – perhaps while still on Greek soil – the following took place: in 330 BC. Theophrastus (called the „Father of Botany“ even today) described a plant, a shrub, whose leaves resembled those of the almond and whose red flowers looked like those of the rose. But he also spoke of the toxicity of this plant and that it represented a danger for the draught animals and small mammals accompanying Alexander’s army. Today, I wonder if the oleander was so prevalent in the landscape at that time that it would have been the primary plant which seemed to be available for grazing. But after this was mentioned, the poisonous nature of our fairytale plant would become indelibly imprinted upon people’s consciousness; a fact which, for a long, long span of time, would close off, or at least obstruct, the way to the plant’s heart. Our plant was now to experience that coexisting with human beings would become difficult. Even so, mankind was to discover the useful healing power contained within its poison.

After the sudden death of Alexander, wars and famine laid waste to the land. After 2000 years, the great kingdom of the Babylonians now came to an end.

The Greeks on the Black Sea

With the early Greek settlement of western Asia Minor, it seems reasonable to assume that the Hittite kingdom had diplomatic contacts with the contemporary Mycenaean state.
In the 8th century BC, the opening up of the Black Sea was preceded by a period in which individual trading ships risked exploring the unknown region. Homer’s epic regarding the tale of the Argonauts deals with this subject. In the 7th century BC, colonization of the Black Sea began. The preferred sites were the regions on the Propontis, the southern coast all the way to Trapezunt, and the Thracian west coast up to the mouth of the Danube. Later, settlement of the Pontian north coast, the Crimea, and the coast of the Sea of Azov began.

In the year 600 BC, colonists (Doric Greeks from Megera, Argos, and Corinth) founded the city of Byzantion, bordered by the Sea of Marmara to the south and by the Golden Horn to the north. Many years later, it was rebuilt as a new capital by the Roman emperor Constantine I and named Constantinople. The Byzantine Empire (395-1453) shaped the cultural landscape of the eastern Mediterranean. Through Byzantium, the influence of Mediterranean cultural elements pressed far to the East - as far as Russia and the southern Caucasus. Byzantium developed a Christian culture based upon Mediterranean antiquity, and its military might shielded the Western world from the spread of Islam (online).

Well, the path through history was a long one. Our oleander certainly had an infinite number of opportunities to extend its range during this time, whether through its seeds flying about in Nature, or with human assistance. When and where will our plant turn up next?

Xenophon (around 430-355 BC) reported in Anabasis that a sort of honey came from Pontian plants which soldiers smoked in order to get intoxicated. Expressed in modern terms, they were „getting high“. It was assumed at the time that the red-flowered „Rhododendron“ (oleander) was the source of this poisonous honey, since it was regarded as a plant of the witch Medea, a Scythian shaman. In antiquity, it was believed that the rhododendron (oleander) originated in the land of Colchis on the Black Sea.

Much later, the Roman Pliny wrote: „In the region of Ponto, among the Sannic peoples, there is a type of honey called „maenomenon“ („crazy-maker“), as it brings on madness. It is thought that the source of it is the blossom of the rhododendron (oleander), which grows abundantly throughout the forests“ . Smoking honey was well-known in antiquity. Today it is believed that this, along with the wine drunk at Dionysian orgies, had something to do with „Dionysian fury“. (C. Raetsch: Encyclopedia of Psychoactive Plants: Botany, Ethnopharmacology, and Uses)

The wine drunk by the Greeks at their Dionysian orgies contained the following additives: pennyroyal, fly mushroom, black henbane, datura, incense, myrrh, crocus oil, cyclamen, oleander, hellebore, and opium. One would have to have been very precise with regard to the dosage of these various toxins so that a party featuring hallucinations, euphoria, and sex would not end with multiple fatalities. (berndt-zieger.de – online)

Even if the poisonous honey cannot be blamed on the red rhododendron (oleander) - only butterflies and moths with long probosces can reach the nectar glands located 1 centimeter (0.4 inch) deep – this report from long ago gives us the first proof that the
plant we’re seeking must have already been a feature of the Black Sea landscape for a 
long, long time. With the information which has been passed down to us, the plant which 
we now call oleander emerges completely from the realm of legend; it even brings a 
name along with it! „Rhododendron“, the rose tree (Greek: ροδόδεντρον).

During its long journey, our plant was certainly given many names, but this one has 
persisted even into our own time. Now up to the present, there are still about 2500 years 
of wandering and development connected with the plant. However, now that it has gained 
an identity, we will find it easier to trace. Today, we can say the following regarding the 
topic of poisonous honey: the plant whose nectar was collected by bees to produce 
Pontian honey is now called Rhododendron ponticum in the family Ericaceae. If we look 
at a photograph of R. ponticum, we can see the great similarity to the oleander (picture, 
end of June 2002).

„On the coasts of the Black Sea, the effects of „Pontian honey“ were already known 
about 2400 years ago., The honey was used in warfare; that is, soldiers were incapable of 
fighting after having enjoyed the honey“. Today we know that the active agents in this 
honey are grayanotoxins. They are produced by members of the heather family 
(Ericaceae), especially by species of Rhododendron (synonym: Azalea). (gtfch.org - 
online)

**Colchis on the Black Sea**

It was also called the „Kingdom of Gold“, as it was rich in gold, silver, iron, and ores. The first Greek trade settlements appeared as early as the 7th century BC. They 
connected Colchis with the rest of the ancient world, especially with Greece and Asia 
Minor, which led to a thriving economy.

In antiquity, Colchis was a region between the Caucasus and the eastern coast of the 
Black Sea. The Colchians were a group of people located on what is now the Georgian- 
Turkish border on the Black Sea. The first historical references date from the period 
between 2000 and 1000 BC. It is thought that Colchis was founded between 800 and 600 
BC and that it consisted of several different ethnic groups.

In the saga of the Argonauts, Jason had set out from Greece in order to obtain the Golden 
Fleece, and he fell in love with Medea. The Colchis of mythology was also supposed to 
have been a garden, known worldwide at the time, which contained medicinal and 
poisonous plants. King Artes, father of Medea, was an prominent magician and was 
knowledgeable about poisons. (online)

**The Phoenicians**

In today’s books on botany, we read again and again that the Phoenicians were 
responsible for spreading the oleander around the Mediterranean region. Who were the 
Phoenicians?
The first documents of the ancient history of Goa, on the west coast of India, appeared in 2200 BC, written in cuneiform script – the writing of the Sumerians. It was here, in 1750 BC, that the first influx of Indo-Europeans from the Northwest was mentioned, and in 1775 BC, the maritime community of the Phoenicians succeeded in establishing extensive settlements. Much later, the Greek Herodotos wrote that the Phoenicians would have originally been from the Persian Gulf.

Could it have been that the Phoenicians, setting off for new shores, brought with them some plants which they considered valuable? Perhaps the oleander as well? It might have already existed there at that time. They may have done as the Polynesians had; it is thought that the Polynesians brought *Hibiscus rosa-sinensis* with them on their Pacific voyages, where it would later spread and hybridize (cf. Hawaii).

Around 1000 BC the Phoenicians appeared as traders and seafarers on the eastern coast of the Mediterranean, today’s Lebanon. In Byblos, they had two sanctuaries. However, Byblos was already an old city by that time. Today it is believed that it is one of the oldest cities in the world, having been inhabited continually for at least 7,000 years.

The export of Lebanon cedars allowed Byblos to flourish. Independent small kingdoms arose. Later, Tyre would be called the Queen of the Seas, an island city of undreamed-of splendor. Her distant colonies, the glass and purple-dye industries, and the thriving maritime trade made her very wealthy. The Greeks called this narrow strip on the east coast „Phoiniki“, that is, „the land of purple“. The influence of the Phoenicians reached from Cyprus in the east to the Aegean Sea, to Italy and North Africa. In the 11th century BC, the Phoenicians were the first Mediterranean people to reach the Spanish coast. They established trading posts, and Cadiz became the most important Phoenician colony.

Did they bring along the oleander there as well?

They developed the modern alphabet and brought it to other port cities on the Mediterranean. They were cultural „middle men“, who brought ideas, myths, and knowledge from the world of the Assyrians and Babylonians to the peoples of the Aegean. In 800 BC, the Phoenicians introduced Egyptian papyrus to Greece.

The Phoenicians were the founding fathers of the legendary city Carthage. This was the home harbor of one of the most significant seafaring peoples in history. Incredible reports have been left to us by Greek and Roman scribes. They claim that the harbor in Carthage was capable of launching entire flotillas in the shortest possible time, and then making them disappear again. Thus, obtaining the plan of the harbor in Carthage became the goal of Roman spies. (ZDF.de-online)

Carthage was among the largest and richest cities in the first millenium BC. It traded with everyone, and „with all the frills“, as Homer wrote. Could it be that they also traded in plants? It is actually conceivable that container cultivation and propagation by cuttings were known about. It is documented that they traded in iron, various metals, jewels, ivory, Lebanon cedar and ebony, as well as slaves, which they captured in pirate-like
attacks. They founded colonies on the west coast of Africa, and discovered the Canary Islands and the Azores. Their ships reached the Scilly Isles of England, and they brought back tin from the mines of Cornwall. Perhaps some of them even reached America.

Next to the Greeks, the Romans were their worst enemies. Who does not know the story of Hannibal, who set out from Spain, crossing through southern France and over the Alps to Rome with 60,000 men, 12,000 horsemen, and 37 elephants? The Carthaginians fought an uninterrupted 100-year-long war, which did not weaken them at all economically. Their treasuries were still piled high with riches when these were found by the Roman field marshall Scipio after Carthage was finally annihilated. In 146 BC, Carthage, totally destroyed, was incorporated into the Roman Empire. Now Rome could ascend to the position of a world power.

For the Greeks and Romans, the legacy of Carthage was evidently something loathsome. The new powers took great pains to destroy all traces of it. Thus all knowledge of sea routes, for example, was lost. On the other hand, the Phoenicians and Carthaginians had always done everything possible to keep this knowledge a secret from the Greeks and Romans. (ZDF.de – online Picture Dec. 2006-094. Illustration of Roman and Carthaginan empires)

**Greek Gardens**

Only little information has been handed down to us regarding horticulture among the early great cultures of ancient Greece. The first descriptions are by Homer, the knight-poet. Greek gardens only attained significance within the realm of cults. Temples and sanctuaries were built in wooded areas, and later, they were surrounded by cultivated areas (*temene*), in which pines, cypresses, olive trees, oaks, laurels, and fruit trees were planted. The landscape was not important; rather, the suitability of the site for worshipping the gods. The altar stood under shade-giving trees, often in the area of a spring. Thus, water lilies were originally sacrificial altars to the nymphs. The sacred grove was the principal place of worship. In cultic rituals, all sorts of flower garlands were worn by the participants. Reports from that time indicate that the Greeks cultivated large stands of rhododendrons (oleanders), which grew along the riverbanks and seacoasts. The great sea god Nereus (Nerevs) had 50 daughters, the Nereides. They were friendly to humans, and so flowers were brought to the altars as offerings to them. The rose-like blooms of the rhododendron were woven into garlands. (J. J. Pagen, University of Wageningen, Holland: *Nerium L. and the Oleander Cultivars*, 1987, Drapiez, Belgium, P.A.J. 1835, Brussels, in French)

The cult of garlands originated in mythology. When the god Apollo mocked the god of love, Eros, the latter avenged himself by shooting a golden arrow of love at him and a leaden one at Daphne, the enchanting daughter of the sea god Peneios. Apollo fell in undying love with Daphne, whereas the arrow which struck her had exactly the opposite effect – it made one indifferent to love. As Apollo pursued her, she fled to her father, who changed her into a tree:
"Apollo sighed deeply upon beholding her.
         Finally he spoke: You did not want to become my spouse.
         Then be my tree. May your leaves always crown my altar,
         my head, and my lyre"

The „daphne“ (laurel) was elevated to the status of a sacred plant of the oracle at Delphi, who was tended to by Apollo, the god of light. And that is the story of how the laurel got its name. To this day, the wreath symbolises eternity and perfection as well as eternal life.

Later on, „Rhododendron“ (Ροδοδέντρον), „rose tree“ would become „Rhododaphne“ (Ροδοδαφνη), „rose laurel“ in Greek.

„Rhododaphne“ could also be translated as a „garland of roses“, if one considers the significance of „to crown oneself with a wreath or garland“ in ancient Greece. In the colloquial Greek language, the word „dafni“ (laurel) is sometimes used instead of „stefani“ (wreath or garland) as in the Greek saying „Su vazo mia dafni sto kefali“ („I’ll put a wreath on your head“). Wreaths are still braided today from flowers and/or leaves.

Much later, the Greeks named the plant „Pikrodaphne“ (Πικροδαφνη), „bitter laurel“, which refers to the bitterness of its leaves and presumably also to its toxicity. (Greek poem – eventually to be translated and added in). In other European languages, however, the reference to the similarity of foliage and growth habit of the oleander and the laurel was retained. Thus, „Rhododaphne“ became „Rosenlorbeer“ (rose laurel) in German, „laurier-rose“ in French, etc. This can have life-threatening consequences, however, if one is not knowledgeable about plants. There is a report, for instance, of a roast rabbit having been prepared with „rose-laurel“ leaves instead of „laurel“ (bay) leaves.

From the 6th century BC onwards, flowers began to be cultivated in the gardens of ancient Greece, which (as mentioned above) arose from the custom of wearing flower garlands while worshipping the gods and at banquets. But the selection of flowers was still small.

While up until the 5th century BC the majority of Greeks still lived out in the country, Athens in classical times was developing into a metropolis. The inner courtyards of the houses were plastered and decorated with potted plants. At the time of Pericles (494-429 BC), cultivation of plants in clay containers was known about and was popular. Roof gardens featured containers in which trees and shrubs grew. In the 3rd century BC, the great gymnasiums („gymnos“ = „naked“), which were located mostly outside of the city, were described as blooming gardens. The so-called „philosophers’ gardens“ developed later and were located nearby.

Horticulture was now also incorporated into city planning. During the Hellenistic period, these „peristyles“ became magnificent garden courtyards with water basins, trees, and shrubs. However, there were no true pleasure gardens.
Unfortunately, I could find no reference from that time that the „Rhododendron“ was used as a container plant. But considering the narrow choice of plants at that time, the oleander would actually have been a candidate for use as an ornamental plant.

In 146 BC, Greece became a province of the Roman Empire. The words of the poet Horace would prove to be true: „Greece, having been conquered, vanquished its conquerors“. The great Greek cultural tradition had a decisive influence on the Roman civilization, and from there would spread to the entire Western world.

The Etruscans

The northern regions of Latium – one of the oldest and richest cultural areas – was the homeland of the Etruscans, a mysterious people whose advanced civilization and sensually-oriented culture was destroyed by the wild hordes of Romans. This annihilation was so thorough that today we know more about the Etruscans’ realm of the dead than about how they lived. (Berlinonline.de/berliner Zeitung – online)

The legacy of the Etruscans, who developed the first advance cultures on Italian soil during the 7th and 6th centuries BC, is still alive in the one-time Etruscan metropolis of Volterra, the „City of Alabaster“, the Etruscan and medieval jewel of Tuscany. The Etruscans were one of the most important peoples of ancient times. The legendary emigration of the Lydians under Tyrhenos, the ancestor of the Etruscans, from Asia Minor to Italy began in 1300 BC. They named the land along the Tyrrhenian Sea „Etruria“ and from „Tuscia“ came the name „Tuscany“. This theory of their emigration had already been mentioned in ancient times, for example by Herodotus. The Greeks called them the „Tyrreneni“. However, there are other theories. A study of the genetic material of their cattle showed that they once came from Asia Minor.

Would it be so off-the-mark to think that the oleander came to Tuscany from Asia Minor along with the Etruscans so far back in time?

The early cultural and artistic flowering of the Etruscans can be explained by the Tuscan connection with the flourishing trade in the Mediterranean region with the Phoenicians and Greeks in the early 8th century BC. The Etruscans became a predominant maritime power. Their symbol, the „Golden Spider“ (octopus or polyp), evoked terror in the Mediterranean, especially when they operated together with Carthaginian ships. Their connections stretched from Carthage to Greece and Asia Minor. Thus, through the exchange of goods, Greek culture came to Central Italy.

Between 300 and 90 BC, the Etruscans were conquered by the Romans and incorporated into the Roman Empire. (Wikipedia.de – online) The wall paintings of their gravesites, in which Greek and Oriental influences meld together, are astonishing in their beauty and originality. (Photo)
The Romans

The mysterious Etruscan people helped to give birth to the „Imperium Romanum“.
(eurasischesmagazin.de – online). Roman horticulture was influenced by three cultural
spheres, all of which were part of the Roman Empire: the Near East, Egypt, and Greece.
It was in ancient Rome that European garden culture began. I found further pieces of our
puzzle in the writings of Cicero (106-43 BC), the Roman politician, counsel, and
philosopher: „The Rhododendron (Oleander) was widespread in Rome and had pink and
red blossoms“. Had the red rhododendron, or oleander (which according to Xenophon
was the source of the poisonous honey) come to Rome in the meantime?

Pompeii

Pompeii lies in the Italian region of Campania at the foot of Mount Vesuvius in the Gulf
of Naples. In antiquity, the city was located much nearer to the sea than it is now. The
city was founded in 800 BC. At that time, its offshore lagoons served the Greek and
Phoenician seamen as a safe harbor and a reloading place for their merchandise. The soil
in the surrounding countryside was very fertile.

According to mythology, Pompeii was founded by Hercules. It is probable that Pompeii
was under Greek influence at first, which explains the adoption of the Greek pantheon
and the presence of a Doric temple. In 525 BC, the Etruscans expanded their sphere of
influence as far as Pompeii, and there they adopted, among other things, the cult of
Apollo which was practiced there. The history which followed was full of vicissitudes,
until 290 BC when Pompeii had to accept annexation to the Roman confederation. In 80
BC, Pompeii became a colony of Rome. The economy of the city flourished and many
public projects could become realized.

And then the inconceivable happened: On August 24, 79 AD, Vesuvius exploded, and
Pompeii and the nearby city of Herculaneum were buried under a rain of pumice and ash.
The cities were completely submerged.

Pliny the Elder, the author of „A Natural History in 37 Volumes“ (who wrote therein
about the Rhododendron [oleander], a plant with flowers similar to the rose, which the
Greeks already knew, and who also reported on its toxicity) traveled to the scene on one
of the fleet’s ships. It is reported that he and the crew perished in the sulfurous vapors.
His nephew was witness to the event and kept a detailed account of the course of the
eruption in letters.

The city of Pompeii lay buried for 1500 years under a thick cover of volcanic ash and
pumice. In Herculaneum, the covering was 26 meters (82 ½ feet) high. These buried sites
near Vesuvius are like windows into the ancient world, which is frozen still as in a
photograph.

Archaeology now has various methods of determining what plants and trees grew in the
former gardens of Pompeii: casts of the root hollows, which were preserved, as they filled
with pumice after the eruption, and analyses of the pollen remnants in the soil, as well as carbonized fruits and seeds. Chestnuts, olives, figs, laurels, oleanders, and fruit trees such as pomegranates, quinces, pears, apples, almonds, and cherries all grew in Pompeii. Citrus trees were grown and exhibited in pots with holes. They originated as imports.

The villa of Oplontis, located about 2 kilometers (1.25 miles) from Pompeii, was excavated in 1964. It is assumed that it belonged to the family of the second wife of Emperor Nero, Poppea Sabina. Along the rear side of the villa, there stood a row of 50 hundred-year old plane trees. Three other casts of root imprints belonged to oleander trees which were 70 to 100 years old at the time of the eruption of Vesuvius! In addition, wall paintings have been found which are quite well-preserved. Even today, they delight us with the artistic perfection with which living areas at that time were decorated. Oleander bushes are often depicted on these paintings. With these discoveries, we not only have proof that oleanders grew 2000 years ago in Pompeii, but also that these plants were capable of reaching the age of 100.

Was it coincidence? The oleander and Italy, even today, are closely connected with the Roman art of gardening, which has shaped and characterized the landscape of the Western Mediterranean.

**Pedanios Dioskourides**

Dioskourides lived from 40-80 AD and came from Anazerba in Cilicia (Asia Minor). He was a Greek physician and served under the emperors Claudius and Nero. He was the author of a book of medicine (Greek: Peri yles iatrikes, Latin: Materia medica), which became the standard handbook of medicine until the advent of the modern age. A botanical book, written on parchment in the sixth century, contains the work of Dioskourides among other works and is is known under the designation „Dioskourides Codex“. This magnificent manuscript was commissioned around the year 812 in Constantinople and has been preserved. The book can be seen in the Austrian National Library in Vienna.

„Materia Medica“

Cap. 82 - Oleander

NERIUM oleander (Apocynaceae) – Oleander

„The Nerion – some call it Rhododaphne, others Rhododendron (Spongos, Haimostaris, the Romans Oleandrum, also Laurorosa, the Lucanians Ikmene, the Egyptians Skinphe) – is a well-known shrub with leaves which are larger and thicker than those of the almond. The blossom is like that of the rose; it bears a fruit which looks like horns. When it opens, it is filled with a wool-like material similar to the tuft of hair on the bull thistle. The roots are pointed, long, woody, and have a salty taste. It grows in gardens, by the sea, and along rivers. The blossoms and leaves have the power to kill dogs, donkeys, mules, and most four-footed animals. Humans however drink them with wine, especially if rue is
mixed in, as a remedy for the bites of poisonous animals. Weaker animals, such as goats and sheep, die if they drink this infusion.“

The designation „Nerion“ contained therein (to nero – Greek), which was only adopted much later as „Nerium“ in the currently-used Linnaean system of scientific nomenclature, signifies „water“ and refers to the occurrence of the plant in areas where water is abundant, for example rivercourses etc. However, in ancient Greek the word for water is „ydor“. Only in Byzantine times was water first referred to as „to nearon ydor“ – new, fresh water. The complete concept was shortened to „to nearon“ and eventually ended up in colloquial (demitoc) speech as „to nero“ – water. Dioskourides, however, lived long before Byzantine times and so he could not have been familiar with the word „nero“.

**The Apostle Paul**

His homeland was also Cilicia, the lovely coast of Lycia (today’s Turkey) which Mark Antony once offered to Cleopatra as a wedding present. Since 2004, a „St. Paul Trail“ has existed there; the Lycian path of the apostle Paul. It follows the traces of his first missionary journey. From Antalya to Antioch Pisidae, about 500 kilometers (313 miles), Paul preached the Gospel and founded a Christian community.

There is a secondary road which begins in Aspendos and joins up with the main road in Adada. This is the high point of the St. Paul Trail, as one encounters a completely unresearched Roman settlement there. Primeval forests of oleander, cypresses, and fig trees confront the hiker even today.

**Volubilis, in present-day Morocco**

The ancient city of Volubilis („vibrant“, and at one time „vivacious“) is said to have received its name from „Rodandrum“ or „Lorandrum“, the Old Latin name for the oleander. In Arabic, „Volubilis“ was translated as „Qualili“, and the Berbers named the city „Alili“ – the oleander blossom.

In the year 40 AD, the Romans built a city by the name of Volubilis on the ruins of a Carthaginian settlement dating from the 3rd century BC. This is in present-day Morocco. It was the westernmost city of the Roman Empire and produced olive oil, wheat, and oleander(!). The city soon had 20,000 inhabitants and became a Roman administrative center in North Africa: Mauretania Tingitana. The population consisted of Berbers, Greeks, Jews, and Syrians, who spoke Latin and practiced Christianity until the arrival of Islam.

Today, the area on which Volubilis once stood is a World Heritage Site, Archaeological discoveries include a series of superbly preserved floor mosaics (Pictures and tests # 212-222 Morocco.com and wikipedia.org)

This archaeological remnant which turned up along the oleander’s journey – is it not fascinating? Volubilis, the Oleander City of 2,000 years ago!
Today, botanists describe the range of the oleander in North Africa from western Morocco to a southern limit in the Algerian Tibesti Massif, northern Niger, Eritrea on the Red Sea, Oman and the south coast of Persia. This is documented by herbarium material. Even in our time, picturesque oleander forests lend a touch of pink color to the barren alpine world of the High Atlas, it is also found in wadis in the Sahara. Morocco, along with Tunisia and Algeria, forms a land region in the Atlas Mountains which is characterized by pines, Atlas cedars, shade-producing date palms, orange trees, and blooming oleanders near bodies of water.

"Along watercourses, the oleander climbs up into the hills and mountains; in the Moroccan Atlas range to about 2500 meters (8200 feet), in the Himalayas even higher. Here, alpine conditions prevail, which require correspondingly adapted plants. And just as the willows of alpine regions are typically knee-high shrubs, oleanders become more and more stunted as the altitude increases. This is genetically determined in some types and this characteristic is retained even in the lowlands”.

(Christoph Koechel: Oleander, Munich).

The Roman Empire at its height extended to three continents around the Mediterranean and ruled over most of the known areas of the world at that time. Commerce, art, and culture in these regions flourished at unprecedented levels. The quality of life and population levels in Europe and North Africa during this period would not reach these levels again for centuries later.

In the year 476 AD, the Western Roman Empire fell.

During the course of the 1000 years of Roman rule, the plant once known by the Greeks as “Rhododendron”, now called “Rodandrum” or “Lorandrum” by the Romans, would have had great possibilities to spread further. And – it wandered...

The Moors in Spain

In the 7th and 8th centuries, the world was shaken by a conquering wave of Muslims. They swarmed along the Mediterranean coast and into the heart of Europe. The bastions of Christianity in Spain, Italy, and Sicily were now in the hands of the Muslims for a splendid but turbulent time. As they progressed, they left nothing behind as it was originally.

In 827, the Saracens landed in the bay of Palermo with 100 ships. They brought date palms, oranges, lemons, and sugar cane to Sicily, and transformed the barren island into a blooming garden landscape. Arabic pleasure palaces and oriental castles arose, surrounded by luxuriant lemon and orange groves. After 250 years, however, Saracen rule in Italy came to an end, and when it was all over, the pleasure-loving horsemen from the desert were left with only nostalgia. In 711 AD, when the Arabs passed through the Strait of Gibralter and conquered the western Goths in Spain, it could well be that our
plant – the oleander – had long since reached the Iberian peninsula. Phoenicians, Greeks, Carthaginians, and Romans could already have brought it on their ships hundreds of years before. Had they?

The majority of the troops which came from North Africa were Berbers from the Atlas Mountains. They had always referred to the area on the other side of the Strait of Gibraltar as “al Andalus”. And there they found what they had always dreamed of in the African desert: water.

The Arabic garden, even in its beginning stages, was a representation of Paradise. For the desert dwellers, water was sacred – and the greatest luxury. Now, with its help, Paradise could come into existence – gardens of sensual delight. In 880, the Moorish conquerors brought the Oriental art of gardening to Spain. Their legacy is still preserved with the Alhambra in Grenada, and in Seville with the garden of Alcazar, where portions of the surrounding wall are still preserved, along with raised pathways, artesian wells, and tilework, along with typical plants such as cypresses, orange trees, palms, jasmine, oleanders, and roses. In our imaginations, Muslim gardens were the gardens of “1001 nights”, with water, shade, cool temperatures, fragrances, fruits, and singing birds.

“The mirror of the water brings Heaven down to earth, and in silent reflection, with the lulling sound of the wellsprings, the birdsong, and the fragrance of the flowers, this world was transformed into poetry” (online).

Andalusia experienced a “golden age” under Moorish rule. Cordoba became the capital. The caliphs competed with Baghdad and Damascus in wealth and progressivity. Trade in gold, silver, leather, silk, perfume, and spices made the city rich. It became a center of art and science.

An ingenious irrigation system made agriculture possible on the plains. Innumerable gardens with artesian wells and blooming courtyards came into being. Thus, the Moors brought the Persian-influenced Muslim garden to Spain.

For 800 years, caliphs and sultans ruled the Iberian peninsula. They passionately enjoyed, will all of their senses, the beauties of the world. The life-pulse of the Orient still beats in the flamenco. The past is reflected in the soft coats of the Arabian horses.

Arab and Muslim rule came to an end in Spain in 1492. This was the year in which Christopher Columbus wanted to find a westerly route to India and China. He was to discover America.

The Mediterranean Sea: its waves, gentle, smooth and calm in shades of turquoise, light or dark blue, but also stormy and whipped up with white crowns of foam, conjure up the history and myths of millennia. Its shores provided a dwelling place for innumerable cultures in the most diverse landscapes. Battles often caused the ground to shake, but peace and human reconciliation were also possible; all of this is closely connected to the new era of the present.
Olive trees, grapes, and cereal grains were the trinity upon which the cultivated vegetation of the Mediterranean was based. But over long periods of time, humans added to these many other plants which came from other regions. Thus the Mediterranean landscape is graced by the seductive blossoms of many plants which were not originally native to it. So it was with the oleander.

The Age of the Sea Expeditions and Explorers

The sails snapped in the wind. A mood of adventure reigned in Europe. A new era had begun. Researchers, plant hunters, and explorers traveled to distant shores in search of Paradise.

Sailors still feared falling off the edge of the world, and their ships were not completely suitable for traversing unknown seas. Despite this, they dared to set forth into the unknown. Often they risked their lives, withstanding mutinies, storms, and hunger.

It all began with Christopher Columbus (1451 – 1506), who, in contract to the Spanish crown, was to seek a shorter ocean route to Asia. In attempting to do so, he landed in the Caribbean and discovered Central America. On August 3, 1492, he set sail on the Santa Maria and landed on October 12 on one of the Bahama Islands, which he named San Salvador. After his death, it became clear that he had actually discovered a new continent and thus laid the cornerstone for the history of the modern era.

On July 8, 1497, Vasco da Gama set sail. He was also searching for a sea route to India. On May 20, 1498, he landed in the Indian port of Calcutta on the Malabar coast. With the discovery of an aquatic route to India, Portugal became a world power and the mightiest colonial empire of the 15th and 16th centuries. Vasco da Gama was the first European to set foot in old Goa. Goa, which is India’s smallest state today, was for 450 years an important Portuguese colony because of the spice trade. Theoretically, oleander plants from India could have come to Portugal or Europe during this time (Goa was the place from which the Phoenicians once set out for the Eastern Mediterranean).

In the ensuing years, powerful British and Dutch trading companies arose and settled as far away as southern Africa and Southeast Asia. Sailors crisscrossed the oceans and discovered the world.

“Plant hunters” (a word invented by the English) were engaged to bring back “green gold”. They were mostly collectors out of passion and a desire for adventure. They feared neither dangers nor fatigue. Both tragic fates and unbelievable strokes of luck played out during these journeys. But what an abundance of beauty, what diversity of color and form has come down to us from distant countries and continents thanks to the plant hunters!

Receiving stations for the many collected plants were established in India and in the Atlantic. But these plant stations were also established on St. Vincent and Martinique in the Caribbean and on Mauritius in the Indian Ocean.
In Europe, botanical gardens for these exotics were built; among them are:
Padua, Italy, 1545 – today the oldest botanical garden in the world
Leyden, Holland, 1579
Jardin des Plantes, France, 1635
Kew, England, 1759

The Oleander in Europe

The oleander came to Germany as early as the 16th century. As it was evergreen and frost-sensitive, it could only be grown in containers. Its Italian name, “oleandro”, derived from the Middle Latin “lauriandrum” (meaning “laurel-like”) [or “oleandrum, meaning “like the olive tree”], was adopted into the German language as “Oleander”. The plant was mentioned by Hieronymus Bock in 1539, and in 1543 Leonhart Fuchs noted in his plant book that the oleander was also raised in gardens. However, it was still very rare. In 1547, a white-flowered form was found on Mount Ida in Kamares, Crete. This discovery was a sensation, as up to that point only the single pink blossom, and perhaps the single red, were known. In 1561, the oleander was listed under its classical name of “Rhododendron” or “Rhododaphne” by Gessner, but in 1594 it was called “Nerium rubro flore” in the Scholzesch Garden in Breslau.

In 1561, a red and white oleander bloomed in the garden of John Gerard in England, from which it traveled to Silesia in 1601, to the archbishop’s garden in Eichstatt in 1613, to the Duke of Brunswick’s garden in Hesse in 1630, and to gardens in Berlin and Brandenburg in 1663.

In 1683, Van Rheede and Tot Drakensteen introduced a new oleander from Southwest India. Its blossoms were pale pink. In 1689, still more different double-flowered forms came to Leyden in Holland. At the close of the 17th century, fragrant and often double varieties native to Afghanistan, Pakistan, Nepal, and North India came to Europe.

In 1700, Tournefort, a French botanist, called the plant “Nerium” for the first time in his writings. During the 18th century, the oleander escaped from the Baroque gardens and orangeries of the nobility and wealth bourgeois, and appeared more and more often in the gardens of the common people. In 1706, in addition to the red and white forms of the ordinary oleander, varieties with single and double flesh-colored flowers grew in the garden of the brothers Lastropp in Hamburg-Eimsbuettel. They were named “Nerium indicum angustifolium fl. odorato”. In 1722, a double-flowered variety with this color was growing in the botanical garden at Wuerzburg. In 1724, the red-and-white-flowered oleander adorned the gardens of the small city of Lauban in Oberlausitz. However, the new red-pink double variety was only found in the garden of a Mr. von Warnsdorf in Schrebersdorf. In 1736, Philip Miller, curator of the Chelsea Physic Garden, wrote a garden lexicon in which he gave the name Nerium indicum to the fragrant-flowered oleander which came from India. The Indian type had probably already been a feature of the vegetation of Southeast Asia much earlier. Although there are no data, the historically older cultures cause one to presume this.
In 1753, the Swedish naturalist Karl Linne wrote his *Species Plantorum*, the scientific nomenclature of plants in Latin. This is still valid today, and makes international agreement and comprehension possible. Our plant is listed in it as *Nerium oleander*, in the family Apocynaceae. The Greek word “nerion”, which was Latinized as “nerium”, signifies “water” and is yet another reference to the plant’s natural habitat. The species name “oleander” combines the Latin designation for olive, “olea”, and the Greek word “andreios” for “strong” or “powerful”, or “dendron” for “tree” [Translator’s note: this etymology is far less convincing than the one appearing at the top of page 65]. For the sake of completeness, it should be noted that the Greek name “Daphne” was changed and the laurel received the Latin generic name *Laurus*, a name derived from an ancient Mediterranean language. The name *Daphne* in today’s nomenclature designates a fragrant-flowered shrub in the family Thymelaeaceae, native to Europe and North Africa as well as temperate Asia. *Rhododendron* (meaning “rose tree”), the name which the ancient Greeks once gave the oleander, was assigned in the scientific nomenclatural system to the azalea, and today it is found in the table of names as *Rhododendron*, syn. *Azalea* in the family Ericaceae. Its habitat is primarily in the northern hemisphere, especially in Southern China and the Himalayan region.

Between 1768 and 1771, Captain Cook undertook his first scientific expedition to Tahiti in the South Pacific. The botanists accompanying him were Sir Banks and Solander. In India, they found an oleander which they named *Nerium odoratum*. In England, there was already a pink as well as a red and white form. John Gerard had the red and white variety in his garden as early as 1596, as mentioned above; from there it went to Silesia and Germany. The oleander soon became a favorite of English gardeners. As an exotic plant, it gained entry into nurseries, where it was hybridized. In the port of London, diplomatic carriers, agents of trade ships, and travelers were paid to procure the plant. Oleander seeds were said to have come from Spain during that time. Today, we can look at a 400-year history of the development of the oleander.

In the 19th century, the oleander was already a widely-distributed and popular summer container plant for the house and garden. In 1819, the first series of 36 porcelain plates with floral motifs was produced by the Viennese Porcelain Factory, commissioned by the imperial Habsburg family. The plates were modeled on the manufacturer’s collection of patterns, systematically planned from 1801 onward. The oleander also won a place here. The double pink blossom illustrated was called *Nerium striata*. The number of floral plates eventually reached 96, and they served as dessert plates when the Imperial table was set with the “Grand vermeil” – the Silver Collection. Today, they are among the prized pieces of the Imperial household, which can be admired in the Silver Chamber of the Hofburg in Vienna. (Picture: *Nerium striata*; plate with dark border)

In 1819, the first yellow (*flavescens*) oleander flower appeared. In old botanical literature, we find long lists of oleander synonyms, for example: *chinense, coccineum, coraea, divaricata, flavescens, grandiflorum, indicum, lauriform, luteum, odorum, sibiricum, tinctorioum, zeylanicum*, and many others.
These names are no longer valid today. Botanists have clarified the situation as follows: the genus *Nerium* is monospecific. There is only one species within it and it is called “oleander”.

In 1840, 36 oleander varieties were offered for sale in Germany; this number had increased to 58 ten years later. (*Handbuch der Blumengaertnerei*, Bosse) Single, hose-in-hose, and double varieties with red, white, pink, and yellow blossoms; fragrant and non-fragrant types – there were also new leaf forms, such as variegated green and yellow, and different growth habits, from vigorous to more compact. Between 1868 and 1898, the nursery of Claude Sahut in Montpellier, France, offered 170 cultivars.

In 1888, Vincent van Gogh painted the oleander in Arles. (picture)

For more than 100 years, the Squaravatti nursery in Padua has been involved with breeding. Gambetta in Pietra Ligure and Baldacci in the nursery center of Pistoia are equally old, established oleander breeders in Italy.

Today, Jean Rey, a nurseryman on the French Riviera, is the greatest oleander breeder. Olivier Filippi, also in France, offers 170 oleander varieties. He is not a breeder, but more of a collector. His *Guide de reconnaissance des variétés de lauriers-roses* offers, for the first time, a precise description of most of the oleander cultivars available in Europe. Filippi did not make use of any previously-existing descriptions; rather, he himself evaluated and described the cultivars which he has collected. On his website, one can study these oleander cultivars, listed by name and accompanied by photos (jardin-sec.com).

The German nursery Flora Mediterranea in Bavaria is a specialist nursery dealing in container plants. Many rare plants from the Mediterranean, subtropical, and tropical regions are offered for the Wintergarten (solarium). The special feature is the oleander selection of over 50 cultivars, propagated on site, with rare colors and diverse growth habits. All of these oleander are named cultivars, which substantially facilitates commerce. For this oleander collection, the proprietors, Maria and Christoph Koechel, were awarded the Gold Medal at the National Garden Show held in Munich in 2005, (flora-mediterranea.de)

### The Oleander Conquers America

Stretching between the poles from the far north to the most extreme south, Nature on this continent, in her most varied manifestations, could not be more diverse.

In 1565, the oleander made the leap over the „big pond“: It landed with the Spaniards in Florida. The Spaniards founded St. Augustine; perhaps this city served the conquerors as an outpost. The oleander has been cultivated in Florida since that time, and its popularity in the southern USA has continued to this day. Its magnificent flowers and undemanding nature enable its use in many aspects of landscape design. The bush even grows in the sandy soil near the coast, where it is described as particularly „carefree“.
But even on the Mayflower, immigrants had oleander plants and cuttings in their baggage, as their descendants reported. The plants were a part of their homeland, which they had left behind as they began their journey into the unknown. The oleander was to remain a memory and a link to their origins for future generations.

The oleander moved westward with the settlers. In many places in this vast land, the plant, as well as humans, found a new home. Thus, the oleander even reached California, where conditions were particularly ideal for it to spread. Today, the oleander is the plant most frequently used in landscape design in California, just as in Las Vegas and elsewhere in Nevada.

While Louisiana was still a French territory, many oleander varieties came there from France and Morocco. It became one of the most popular and traditional garden plants.

About encountering the oleander in the South Pacific, it is said that a governor of a former English colony in the West Indies had the inspiration to search out the finest fruits and most beautiful plants in order to give the island a dreamlike beauty. One of the ships sent out returned from the South Sea Islands with many young oleander plants. The next year, they bloomed north of the equator, and the gardens of the West Indies were adorned with its splendid blossoms. It was named the „South Sea Rose“.

In the Caribbean, an archipelago spanning the 4500 kilometers (2800 miles) from Florida to Venezuela, the oleander is ever-present and adorns the many seaside promenades and streets, among other places.

The islands of Bermuda are a unique subtropical botanical garden today. Oleanders, hibiscus, bougainvilleas, poinsettias, huge rubber trees, Norfolk Island pines, Araucarias, various palms and many more plants grow and bloom there, perfuming the air. Bermuda is now home to an endless variety of ornamental and useful plants, which humans collected and brought there from all over the world.

The oleander is found in many places in Central America. In Mexico City and the surrounding mountainous landscapes, bougainvilleas and oleanders are the garden favorites, as both enjoy hot days and cool nights.

**Galveston: the Oleander City of the USA**

The oleander is the treasure of Galveston, an island in the Gulf of Mexico which is connected by causeway to the Texas mainland. In 1841, a prominent businessman and shipowner brought the first oleander plants to Galveston from Jamaica as a present for his wife. These first oleander plants bloomed with single white and double pink blossoms. They thrived magnificently in the gardens in Galveston, and the family gave away many cuttings as gifts to friends and acquaintances. In the years following, many plants came from the Middle East and from Europe.
Right at the turn of the last century, in September 1900, a massive hurricane destroyed the entire infrastructure of the island, and 6,000 people perished. Galveston had been a bustling and important commercial metropolis in the Gulf, which ceased to exist after this event. The city never regained its former size and significance. Washed away by the sea, Galveston lay in ruins. Amidst the chaos, the oleander bloomed. Its strong fragrance covered up the stench of decay. So the women of Galveston propagated and planted the oleander wherever they could. Through the generations, the oleander was planted, cared for, and loved, and – something which no one had actually expected – it made the city beautiful again. The plant became a symbol of Galveston. It was noted in 1948 that visitors were enthusiastic about the beauty of the oleanders and the roses. Galveston became the Oleander City USA!

In May 1967, the International Oleander Festival was founded. In 1994, the month of May was officially declared the month of the Oleander Festival. Today, this is an annual tourist event which attracts many visitors.

A new project is being planned at present: a park for the most beautiful of all the beautiful oleanders; a legacy for the coming generation. Galveston, the blooming island of the State of Texas, is home to what is probably the largest collection of oleander cultivars in the world. (oleandersociety.org)

I personally feel that this plant, which has wandered through time for thousands of years, has found something like „its home“ there in the Gulf of Mexico; a place where people have loved and cared for it over many decades, attempted to experience more of its multifaceted nature, and never tired of praising its beauty.

And now, a grim report reaches us on the other side of the world. One of the largest hurricanes that America has ever experienced – „Katrina“ – is racing directly toward Galveston. Disaster seems inevitable... It is September 2005, exactly 105 years after the great catastrophe which threatened to wipe out Galveston. I follow the event, transfixed.

How great is my relief; a miracle occurs; the storm loses its strength before reaching the coast and finally turns away. The oleander paradise has been saved for now.

The Oleander in China

In Southern China lies the province of Yunnan, which is regarded as the kingdom of flora and fauna. Not only are there more tropical, subtropical, temperate-zone and frost-hardy plants growing there that in other provinces, but it is also the place where the most plants were introduced from foreign countries, even in ancient times. Of the 30,000 plant species in China, 18,000 are found in Yunnan.

The oleander has been cultivated in Yunnan for a very long time and is so widely distributed that it is regarded as native. In China, the oleander is synonymous with beauty and grace.
**The Oleander in Japan**

Because of the regular exchange of goods over thousands of years, it is possible that the oleander plants which grow wild in southern Japan came from China at one time. We know this to be true of other plants as well; for example, azaleas and tree peonies among others.

In 1543, the Portuguese Fernao Mendes Pintos landed in Japan on a Chinese junk. Pintos was an adventurer who came to Goa in the keel of a ship and 20 years later was traveling through Asia. He was probably the first European to set foot in Japan, which at that time was an isolated country. Firearms were not known there (which could come in handy very quickly). Might plants from Portugal have come with the missionaries to Japan?

In 1639, the Portuguese were banned from Japan.

Let us reflect here on the atomic inferno in Hiroshima, which took place on a warm August morning 60 years ago:

„It was said that no tree would ever grow again here for 75 years, but the oleander bloomed just one year later, and we survivors regained our courage“. So spoke the mayor of Hiroshima, a survivor of the attack, 34 years later. Today, the oleander is the official flower of Hiroshima.

From Nagasaki, it was reported that „of the first flowers to bloom from the radioactive rubble 3 months later, a white oleander flower, amidst full and proud green leaves, sent forth a vision of hope, a message of peace“. (peacewalker.com)

For Japan, the oleander became a symbol of hope and peace.

**Addendum: Galveston**

But September 2008 has come; Hurricane Ike lurks before Galveston. Most of the 60,000 inhabitants evacuate to the mainland. Hell awaits those who remain!

The hurricane is the size of Texas, and Texas is twice the size of Germany.

The storm hits Galveston with full fury. Mountainous waves 6 meters (20 feet) high thunder against the protective walls; finally the center of the city is flooded. 175 kilometer-per-hour (110 mile-per-hour) winds and extremely heavy rains finish the job.

This is the biggest hurricane-related catastrophe ever to hit Texas. The damages are in the millions of dollars.
And as for the plant which made Galveston famous to the rest of America – right now, no one will probably give it a second thought. And they will not need to, either. Its roots will be fortified by the sudden abundance of water, which is now brimming with organic materials. Most probably, the oleander will bloom particularly abundantly in the coming summer, and be a source of cheer and joy for people. But much more importantly, it will give a boost to tourism and help fill the coffers. Let us hope so.

**Epilogue to the „Journey“: Japan**

In all the time that has passed upon our planet since the paths of man and the oleander crossed, this event was probably the most terrible which man or Nature could inflict upon himself.

A plant which was named „Oleander“ arose like the phoenix from the ashes and brought hope.

Let us end, at this point, the journey of the oleander through time. Let us thank Nature for the sign which she placed in the midst of the greatest catastrophe ever caused by man:

The immortality of the oleander!