The Origin, History and Development of Arboretum Trompenburg

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Arboretum Trompenburg
Rotterdam, Holland

The history of the arboretum started in 1820 when a small county seat was built in the village of Kralingen, now part of Rotterdam, 4 km from the center of the city. The owners had their permanent house and work in Rotterdam, but the weekends were spent at Kralingen. The house was not built on poles, as is the custom now, but on casks with long willow branches in them. These were put vertically on the earth and loaded, whereby the willow twigs bend outwards and so give a considerable carrying capacity. This old-fashioned way of making foundations is a consequence of the weak structure of the underlying soil.

Forty percent of Holland, including Rotterdam, lies below sea level—our arboretum by four meters! During the floods of 1953, the dykes were half eaten away by the water before the tide turned and saved us. Originally, the Rhine Maas Delta consisted of peat swamps. In the Middle Ages, and also later, these were used commercially, and the peat was removed for burning. Of 20 to 30 meters of soft peat, 4 meters were removed and the rest flooded again at each tide. So, a small layer of heavy river clay covered the thick peat layer and mud was deposited on top. The peat still contains many stems of oaks, birches, and alders. When digging our swimming pool, the stem of a heavy oak had to be removed. The wood was still in perfect condition and used for repairing a Viking ship, uncovered by reclaiming land from the Zuiderzee.

A reclaimed area enclosed with dykes is called a polder, and when the water was pumped out of the polder Kralingen, long straight ditches were dug, about 45 meters apart. Trompenburg consisted of

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three plots 45 meters wide but 350 meters long. In 1820, when the house was built, only the middle plot was laid out as a garden and the other plots remained meadows.

Our soil consists of a layer of good disintegrated mud of about 50 cm over a layer of heavy impenetrable clay of about 30 cm, all resting on the 20 m of loose light peat. The clay must be kept carefully, because when it is removed oxygen enters the peat, which disintegrates, and the soil collapses. This circumstance means that only a small but very fertile layer of garden soil is available. In dry periods we have to water it with bales of peat moss, then covering by asphalt; or, the second method, digging by huge dredges a canal, removing all the peat down to the original sand 20 meters below and after that, filling the canal with sand again. Both methods are very expensive, and one may be astonished that we nevertheless have good roads.

Trompenburg was bought by James Smith, a Rotterdam shipowner and agent in 1850. His grandfather had come from England more than a century earlier, and he still had both English and Dutch citizenship. He immediately extended the house and in 1870 ordered the well-known Dutch garden architect, Zocher, to lay out the western part. His son, William, planted a long alley on the edge of the eastern part in 1900. James van Hoey Smith got the opportunity to lay the basis of the present arboretum, and his son now completes this work. William added the name “van Hoey” for his son in order to prevent confusion in the shipping business to England, where the names James and Smith are so common.

The opportunity to develop the arboretum arose from a circumstance at the time considered a disaster—the Dutch Elm disease. Looking back, we may now consider this to be a blessing to the arboretum, although elsewhere it remains a disaster, as there has not yet been found an equivalent elm substitute for planting along roads and dykes. Imagine that if the 400 large elms were still growing, then only a forester could enjoy the long straight stems under which not even grass would grow.

James van Hoey Smith managed the garden from his father’s death in 1919 until 1950, when he retired to his country home. His son took over, extended the oak collection already started by him, changed more meadows into gardens, and started several new collections, such as the Rhododendron collection, which now contains 800 taxa. He expanded the succulent collection, started by James van Hoey Smith just after World War I, as a result of a visit to the Canary Islands. Every spring the big specimens are moved from the greenhouse into the open and so contribute to the general interest and attraction of the Arboretum. As a specialty, we grow 350 succulent taxa of Euphorbia.

Our yearly rainfall is 760 mm. The climate is more continental than in England, and we have 10°C more frost. This just prevents us from growing the beautiful rhododendrons of hardness 3, and even some of hardness 4, as rated in the Royal Horticultural Society Rhododendron Handbook. From 1963 on, many big-leaved rhododendrons have been tried, but that year was the last with a severe winter. Rhododendron flotolacteum flowered last year for the first time. The soil is very fertile, with a pH about 4.5, ideal for rhododendrons.

Araucaria araucana, although growing in several other places in Holland, always froze at Trompenburg. Now a specimen has been planted on top of a hole filled with old bricks and roofing tiles in a small quantity of soil. This specimen has grown slowly this way. Quercus coccifera, definitely not hardy here under normal conditions, was planted on top of a low brick wall, and also in this way grows slowly but is harder. Instead of improving the soil, which most gardeners do, we have to reduce fertility sometimes.

The first plantings of dendrological interest were made about 1870. Before that date, from the original plantings of 1820, only some oaks remain. From the 1900

Map of Aboretum Trompenburg
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plantings, we still have a Gymnocladus dioicus and a Fraxinus xanthoxyloides var. dumosa. The latter one had to be moved 80 meters, which was done with complete success with a frozen soil ball of 4 meters in diameter. During three years everything was prepared for the relocation, and photographs of the event appeared in the Rotterdam newspapers.

James van Hoey Smith was the first to plant interesting trees on a large scale with the intention of starting an arboretum. Only after all the elms had been removed could we carry out these plans. From 1928 onwards, every year he ordered plants from Hesse, Germany and Villomir, France, along with local nurseries. Every Sunday, together with his sons, he visited some nurseries and ordered plants. His son, the writer of this article, went on ordering, but also from Mr. Hillier in England. Moreover, he continues collecting and ordering seeds and scions and obtaining plant material from around the world.

The Arboretum consists of five parts laid out at different times. Originally, there were only three plots. The fourth and fifth plots were added in 1965. The five plots are described as follows.

Plot 1. In 1820 the center of the three original parts was laid out as a garden in the English landscape style. We find here a couple of common European oaks left from the plantings of 1820, the elms having been cut down. The former orchards have been transformed into a beautiful group of blue Atlas cedars, and another part was replanted with different rhododendrons.

Plot 2. The western part of the original plots was laid out, also in the English landscape style, in 1870 by Zocher, who also planned the Rotterdam municipal park and many other famous gardens. Apart from a Thuja plicata and a Taxodium distichum, only some old Taxas, a Ginkgo, and a 100-year-old grove of the orange-red azalea, Rhododendron japonicum remain of the 1870 plantings. A meadow with sheep attracts visitors. In 1928 part of the meadow was made into a pinetum.

Plot 3. The eastern part of the original plots was edged in 1900 by an avenue planting, mainly of elms with some interesting trees in between. After the First World War, a herbaceous border, rose garden, goldfish pond, heather garden and succulent house were laid out on this plot, and the original vegetable garden was made a nursery for woody plants only.

Plot 4. “Perenhoft,” situated east of Plot 3, was transferred to the management of the arboretum in 1965 in order to synchronize its maintenance with that of the arboretum. It was also laid out around 1820 in the English landscape style, but had been terribly neglected. It has been reorganized completely, maintaining the English style.

Plot 5. “Woudesteyn,” situated east of Plot 4, was leased some years ago from the municipality of Rotterdam in order to extend the Arboretum. During wartime it was used for allotment gardens, but these were given up after nothing had been done, and the clearing was tremendous work. At the present time it has shrub borders, and the dahlia collection is planted there.

Of special interest to visitors are:
1. The collection of oaks: 94 species and 100 cultivars; of these taxa, 20 are evergreen.
2. The collection of beeches: 50 taxa.
3. The collection of rhododendrons: 325 species and 475 hybrids.
5. Liriodendron: 2 species and 8 cultivars.
7. Chamaecyparis: 7 species and 135 cultivars.
8. Pinus: 40 species and 145 cultivars.

The above are only a part of the total collection of over 3,000 woody plants, among which some outstanding specimens are:

- Fraxinus xanthoxyloides var. dumosa, 90 years old, transplanted 20 years ago;
- Picea omorika 'Expansa' which I discovered 50 years ago;
- Pinus pumila 'Dwarf Blue', the original plant from which Mr. den Ouden described this form;
- Quercus pontica, 50 years old;
- Q. dentata, also 50 years old;
- Q. pontica x Q. dentata, 35 years old (Q. 'Pondain');
- Q. macranthera x Q. frainetto, 35 years old (Q. 'Macon');
- Fagus sylvatica 'Aureopendula', 40 years old;
- Q. robur 'Pendula', 40 years old;
- Liriodendron tulipifera 'Fastigiata', 50 years old;
- L. tulipifera ‘Mediopictum’, 40 years old;
- L. tulipifera ‘Crispum’, 40 years old;
- L. tulipifera ‘Integriorfolium’, 40 years old.

Many visitors ask how we have succeeded in collecting such an assortment. Indeed, many have been received in unusual ways. A witch’s broom that we found in a Picea stichensis gave a new dwarf Sitka spruce Picea stichensis 'Strypmone'. When driving from the airport to the city of Hamburg, I saw a nice umbrella-shaped shrub. It proved to be a weeping oak, and a much better form than the existing one. This shrub is the mother of our Quercus robur 'Pendula' growing over the pergola.

From Fagus sylvatica 'Zlatia', the golden beech, I bred several plants with leaves ranging from yellow to green and deep purple to yellow-brown. From Fagus sylvatica 'Rohanii' I grew many incised...
forms with colors also ranging among green, purple-green and yellow (F. sylvatica 'Rohan Gold'). Fagus sylvatica 'Dawyck', thought to be sterile, fruited and 40 percent were fastigiate. These 40 percent consist of mainly the original green form, but also some in dark purple and yellow. Now, 20 years later, these seedlings are 10 m high and are a welcome extension to the nursery assortment, as they keep their dense fastigiate habit very well. Some of them are now available under the names of F. sylvatica 'Dawyck Purple', 'Dawyck Gold', and 'Red Obelisk'.

Our Arboretum of only 5 hectares (13 acres) has limited possibilities. Therefore, we have to make use of every inch. Specializing is essential under such circumstances, not only in species, but also from a selected species—only the interesting and nice trees are kept. Moreover, our principle is that the trees must grow in aesthetically justified circumstances. This means that we do not plant too closely, and that we do not plant similar trees next to each other. Asked by visitors what is our system of management, I always answer that my system is having no system, but I have four guidelines:
1. I mix, as much as possible, evergreens and deciduous trees, for winter interest;
2. I give much attention to colors; two contrasting pinks, for example, will not be adjacent;
3. I keep the vistas open;
4. The axe (now chainsaw) is my paintbrush.

Also, visitors often ask how we manage to produce only beautiful specimens in nice surroundings. The answer is very simple: we cut vigorously every plant that is growing badly. This especially refers to some conifers, which grow well when young. As soon as they are around 50 years old, some of them get thin and leggy. We cut them out and replace them with younger ones. Abies and Picea in our climate and in our Arboretum generally have to be replaced after such a term, and specialists have advised that the reason is that our climate does not give them enough rest in winter (they need lower temperatures then) and in summer, in dry periods, our air lacks the moisture they always have in the mountains. Pinus and Juniperus, however, do not suffer at all. Moreover, just after the elm
diseases, many large specimens of common trees were planted in order to give shelter. Now these have done their duty and can be removed. We do this very slowly, in order not to disturb the public, who also, in Holland, protest against every tree cut down. Sometimes, we have to make a choice between two trees when they touch each other. Doing nothing is also a decision, which often results in two ugly trees instead of one nice one.

In 1956 a foundation was formed with the purpose of securing the Arboretum for future generations. The foundation, partly financed by the van Hoey Smith family and partly by the Foundation Volkspark, in 1970 received additional support from the Rotterdam Municipality, and so its future was confirmed. This was important because our Arboretum is visited not only by botanists and dendrologists, but also by many Rotterdam residents looking for a quiet, nice place to relax from the turmoil of the city, with its harbors, industry, oil refineries, etc. They all enjoy the blessing of this oasis of green.

In 1991 we had 45,000 visitors, and for 1992 four gardening groups from the USA already are booked for guided tours.

The Genus Quercus in Arboretum Trompenburg

In the Arboretum Trompenburg and in the nursery we grow 93 species and 84 cultivars of Quercus, and we hold the Dutch reference collection. We also grow oaks of minor interest. However, having at our disposal only 5 hectares, we are obliged to specialize. We do not grow many of the common forms of Quercus robur and Quercus petraea. I simply have to select (for lack of space) in a very personal way and with a personal taste, which is of course very unscientific. However, all differences are easily visible, and in that way I can show everybody the specific features of the oaks we grow.

The full list of 177 oaks is available to anyone asking for it. Below, in alphabetical sequence, are some of those which grow well here and have proven to be of interest for parks and gardens.

Quercus acuta from Japan, an evergreen species with big leathery leaves, needs protection here when young. Now we need only cover the lower parts of the trunk, and the 25-year-old, 6 m tall bush fruits yearly.

Quercus acutissima from Japan, Korea and China is of medium size. It is deciduous, and the serrate leaf resembles that of Castanea, but is narrow and — contrary to Q. variabilis — is bright green underneath.

Quercus alba, the common American white oak, native from eastern Canada to Florida. The name alba refers to the white bark. In Europe this species does not grow to the size it reaches in America, where 40 m tall is not unusual. In autumn the deeply lobed leaves color from red to purple-red. Acorns imported from America are often infested with worms, and all acorns with round holes should be destroyed immediately. It seems likely that some selection done with seed from the wild or with seed from one of the few European trees will result in a good cultivar. The wood is of the same good quality as our common oak.

Quercus aliena var. acuteserrata from China, Korea and Japan has toothed leaves of 15-20 cm. It is a deciduous but smaller tree.

Quercus bicolor from eastern North America. It is a large tree with leaves grey beneath, and can be recognized by the many dead young shoots which form in the crown and by its

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bark peeling off like that of a birch.

Q. castaneifolia from Caucasus and Persia has buds like those of Q. cerris, with long narrow scales. The leaves are larger, with sharp pointed teeth. Like Q. cerris, it grows very well in chalky soil. It is difficult to find a true specimen for sale at nurseries.

Q. cerris from southern Europe and Turkey is a large tree and grows quickly in all soils. It is very wind resistant. The leaves are quite variable, and the large acorns have cups covered by this oak and after having been split in winter, which limits its timber value. Its cultivar 'Variegata' is a small tree with sharp pointed teeth. Like Q. cerris, it grows very well in chalky soil. It is difficult to find a true specimen for sale at nurseries.

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Our specimen has very small, round acorns of 1 cm diameter and it fruits abundantly. The young shoots are yellow-brown and downy. It is one of my favorites. From America came a cultivar with deeply cut leaves. They arrived grafted on Q. macrocarpa stock. In the next year, the stock threw off the scion. Two other importations did exactly the same. Then we imported scions and grafted them on Q. robur, again with no success. The following year we tried Q. dentata seedlings for understock — still no success! The next year, we tried Q. pontica seedlings, again with no success. We nearly did not dare to ask our American friends for more scions. Finally, grafts on seedling Q. macrocarpa and Q. ‘Macon’ F1 seedlings were successful, and we now await to see which will prove to be the best stock. After five years of experimenting, we now have only three one-year-old grafts.

Q. falcata, from seeds received from the eastern USA. In 1959, we selected a specimen with the typical leaf with two long pointed lobes. It moreover has a good conical habit, but has not the red autumn color of many other red oaks. It is astonishing that in their native habitat red oaks do not hybridize more, although they grow together in the wild. Occasionally, however, they do, and in the Monographie des Chenes of the French professor Camus one finds many hybrids. We have Q. xsubfalcata (Q. phellos x Q. falcata) or Q. ludoviciana (Q. pagoda x Q. phellos), but why is the hardiness insufficient here?

Q. frainetto as seen in the wild has leaves which are quite variable, from something resembling those of Q. petraea to those of our Q. frainetto obtained from nurseries. Our specimen is a beautiful, double-lobed selected clone which should have a cultivar name and is always propagated vegetatively. Some years it produces acorns abundantly, and perhaps one could make selections with still more deeply cut double-lobed leaves.

However, the clone we usually grow is very nice, and makes such a good tree that further selections seem a waste of energy.

Q. garrania from northwestern North America, especially Oregon, is of medium size with a short, stout trunk and a widespread crown. The leaves are shiny dark green above and deeply cut into oblong lobes. This beautiful oak, which with Q. alba belongs to the white oak group, should be planted much more frequently and grown from seed. Will nurserymen please see to it that it becomes more readily available?

Q. glandulifera (syn. Q. serrata Thunb., not to be confused with Q. serrata Blume, syn. Q. acutissima Carruth.) from Japan, Korea and China is one of the oaks from which in 1951 acorns were collected in Kew, and one grew at Trompenburg into a beautiful large tree. The leaves are small with gland-tipped teeth.

Q. ilex from the Mediterranean region grows in England into a large tree. In central Europe it is generally only a large shrub. This evergreen tree with leaves like Ilex is not generally hardy here, but when grown from acorns collected from certain trees in a London park, those will be hardy. Either those trees, already introduced in the 16th Century, are from a harder ecotype, or they have adapted themselves to colder weather. In England this tree is called Holm Oak. It is found in nearly every park and large garden, and it should be planted widely both on the European Continent and in the milder parts of America.

Q. ilicifolia from the eastern USA is a spreading shrub. In the Arboretum Tervuren near Brussels, it borders groups of large trees. The leaves of this red oak, although not coloring well in autumn, are white-felted beneath. They persist in the winter, and many leaves then turn and show their white side against the dark brown of other leaves. The acorns are black with yellow stripes.

Q. imbricaria, also from the eastern USA, is another favorite of mine. I planted a specimen when I was 17, in 1939, and now it is already a large tree of 18 m tall and the trunk has a diameter of 60 cm at 1.7 m. The leaves are entire, narrow, oval and dark green. Although Hillier says that it has rich autumn colors, this has not been our experience. It produces many good acorns, which come fairly true. I can recommend this tree for every purpose.

Q. libani, in its native habitat in Syria and Turkey, is a medium-size tree. With us it makes only a very large shrub. Its small, serrate, narrow leaves are as conspicuous as the large acorns. At Trompenburg it hybridized with Q. cerris, and all those hybrids are named Q. xlibanerris. One of them I will discuss later in the hybrid section of this article.

Q. macranthera from the Caucasus and northern Persia is a fast growing medium to large tree. It can be recognized easily by its stout one-year shoots clothed with a yellow-brown velvety tomentum. The young bark can be grey with long wide plates and only a few furrows. This robust tree has an interesting, dense, compact appearance.

Q. marilandica from the eastern USA is a small, slow growing tree of spreading habit. The dark green glossy leaves are triangular and tawny yellow beneath. The clone from local nurseries is a selection with really magnificent leaves, which justify its planting in the garden.

Q. mongolica var. grosseserrata from Japan, together with Q. aliena var. acuteserrata, suffers with us from die-back of young branches (as do several other East

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Asiatic species. They are very similar and have large and wide serrate leaves. Although both are said to be medium size trees, at Trompenburg it looks as if at maturity they will reach a considerable size.

*Q. myrsinifolia* from China and Japan is a beautiful, small, compact, densely branched evergreen tree. The shining leaves are lanceolate, green above and grey beneath. Although said to be tender, it has survived the last three severe winters undamaged.

*Q. palustris* from eastern North America grows there in wet conditions. My experience is that it grows best in dry places here and even in a street it is a success. The deeply cut, pointed leaves are very similar to those of *Q. coccinea* but they are smaller, and sometimes the autumn color is as good. Unlike *Q. rubra* and *Q. coccinea*, this tree does not make large limbs but grows into a columnar trunk with many smaller side branches. Also, the many dead small branches in the crown, which are very persistent, are a help in its recognition.

*Q. petraea* has its habitat in all of Europe and Turkey. It grows more upright than *Q. robur* and the bark is less furrowed. Unlike *Q. robur*, the leaves have 1 cm petioles, the vein is yellow, the fruits are sessile and the buds are pointed. Owing to the typically taller trunk, the timber is more valuable than that of *Q. robur* and is often used for plywood. In forestry, especially in Germany, *Q. petraea* is grown mostly in mountainous areas, and the famous Spessard Oaks are all *Q. petraea*. Even standing alone, this species never has the wide-spreading habit of *Q. robur*—*Q. robur* is robust, *Q. petraea* is elegant. Several cultivars are available, including the following:

‘Mesplifolia’ can reach a large size and has narrow, 15-20 cm, nearly entire, dark, glossy green leaves. It is a solitary beauty in a park.

‘Laciniata Crispa’ is most interesting. The leaves of the first flush are long and very narrow, like threads. The second flush has more or less normal leaves. Consequently, changing with the season, it is more peculiar than beautiful.

*Q. phellos*, the willow oak from the southeastern USA, is a large tree with small, entire, willow-like leaves. It is a striking tree with a good shape.

*Q. phillyreoides* is the eastern Asiatic counterpart of *Q. ilex*, and is harder. It grows into a very large shrub. The leaves of this evergreen are oval, leathery bronze-green with minute teeth. It should always be planted in groups to get acorns, since cross pollination is required. This oak is ideal where an evergreen shrub is required.

*Q. pontica* from Armenia, Caucasus and northeastern Turkey generally grows as a large shrub and can in 20 years reach 6 m tall and 6 m wide. The large leaves are very similar to those of *Castanea sativa*, but wider. The large, sessile acorns fall early in September, and the shrubs start fruiting when 1 m tall. This plant grown by itself in a lawn, as in Trompenburg, is quite a sight. Grafting is difficult, and from seed it grows very slowly. It is one of my most beloved treasures.

*Q. pyrenaica* grows wild in southwestern Europe and Italy to a medium-size tree. The deeply cut, lobed leaves are pubescent on both sides. In nurseries generally the cultivar ‘Pendula’ is sold, and the normal-growing species is very rare. I like it so much because of the leaves.

*Q. robur* is too common here to give much attention. However, it has many cultivars, of which I would recommend the following:

‘Atropurpurea’ is a very slow-growing purple-leaved oak, mostly not larger than a shrub and suitable for small gardens.

‘Concordia’ generally also remains a yellow shrub, but I have seen larger fruiting specimens in eastern Europe. From seed of one of these, the Arboretum Trompenburg has a promising normal-growing specimen.

‘Cristata’ has deeply lobed, folded and curled leaves. Our specimens are from 1951 Kew acorns and our present crop comes true from seed for 50 per cent.

‘Fastigiata’ is well known although not always grafted from a good specimen. Therefore, more selection work is needed, so that only first class material becomes available.

‘Pendula’ has drooping branches but grows to a large size. It is very suitable to train over a pergola.

‘Salicifolia’ is a very interesting oak. Hillier assigns it to *Q. petraea* because of the petioles of the leaves. The very small acorns,

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however, have very long peduncles. The leaves on some young trees still have some lobes, but mature trees have only entire leaves. From seed it comes true nearly 100 per cent. Its origin is not known. It was known in Germany in 1873 and I doubt whether it grows anywhere else in the wild. I would not object if it is given species rank.

Q. rubra is too common to warrant comment, but it has one outstanding cultivar, Q. rubra 'Aurea'. It was found in 1878 in Holland among seedlings, and comes true from seed for a good percentage. Planted against a dark background of large conifers, it can make a marvelous sight.

Q. sadleriana from Oregon and California is sometimes creeping, but can in the wild reach a height of 2 m. It has leaves like those of Q. pontica but smaller, on stout branches. It is fully hardy here and one of the smallest oaks.

Q. trojana (syn. Q. macedonica) is very similar to Q. libani. It grows in the Balkans and in Turkey. The small leaves, however, are glossy dark green and they remain in brown color on the tree all winter. That accounts for its very compact impression.

Q. variabilis from China, Korea, Formosa and Japan has serrate leaves similar to those of Q. acutissima, but they are white beneath. The bark is corky and is very beautiful when mature, as seen at Kew. The hardiness is a problem here, and consequently the origin of the seed is very important. Acorns from Eastwood Hill in New Zealand produced seedlings, which freeze down to the ground every year. A plant from acorns collected at high altitude on Mount Omei, China, is doing very well.

Q. warburgii (syn. Q. 'Warburgii' of the 1998 World Checklist and Bibliography of Fagales by Govaerts & Frodin) is of uncertain origin. The only original tree is growing in the Botanical Garden at Cambridge, England, and I doubt very much whether it is a species or hybrid. Seedlings could solve that problem, but at Cambridge the acorns are always collected by birds and squirrels before ripening. My young graft had some good acorns two years ago, but most of the seedlings at one year old look very uniform and very similar to Q. robur. I did find two seedlings which lead me to suspect the parentage to be Q. robur (or Q. petraea) x Q. rugosa (syn. Q. reticulata), an evergreen oak from Mexico. They will have to be examined for several more years before any conclusion can be drawn. It is a semi-evergreen tree, and when just out, the leaves are a beautiful pink and have petioles like those of Q. petraea.

This article would not be complete without mentioning some other hybrids as well. I shall restrict myself to those which I have found interesting to grow. In the Monographie des Chenes of Camus many hundreds of hybrids are described, but these are mostly of little horticultural interest and not available anywhere.

Q. xhispanica comprises a group of seedling hybrids of Q. cerris and Q. suber. These species hybridize very easily, and the seedlings are variable. The leaves vary from resembling either parent to every thinkable intermediate form, and the bark does the same. The second generation seedlings (F2) are even more variable. Out of an enormous number of hybrids, some have been given cultivar names, and these should be propagated vegetatively. From Q. suber all inherit the evergreen leaves and sometimes the corky bark. From Q. cerris originates the large size. Best known, since 1763, is 'Lucombeana', a large tree. 'Diversifolia' has very peculiar leaves, and 'Ambroziana' originates from Mlyany, the estate of Count Ambrozy in Czechoslovakia.

Q. xleusa is the cross of Q. imbricaria x Q. velutina. The leaves are long and lanceolate like those of Q. imbricaria, but with a few pointed lobes. They are leathery like those of Q. velutina. The latter property helps distinguish it from Q. xcruncinata (Q. imbricaria x Q. rubra) and Q. xleucadia (Q. phellos x Q. rubra), which have similar, but thin, leaves.

Q. xlibanensis, mentioned previously, is the cross of Q. libani x Q. cerris. It originates from the Monographie des Chenes of Camus many.

Q. 'Macon' (Q. macranthera x Q. frainetto) also originates from Trompenburg. It's name is derived from the parent Q. macranthera and an old name (Q. conferta) for the other parent, Q. frainetto. The leaves are similar to those of Q. frainetto, but the indumentum of the young shoots and the buds is identical to that of Q. macranthera. The acorns are 3-4 cm long and only 0.5-0.8 cm wide. It makes a beautiful tree.

Q. xrosacea 'Columna' is the hybrid of Q. petraea 'Muscaeviensis' and Q. robur 'Fastigiata'. It commonly is referred to as a cultivar of Q. petraea. When young, the habit is good, but it starts broadening after 15 years. At Trompenburg it has fruited abundantly, and progeny Mendel back to the parents. But among them we found two with a better, compact fastigate shape. The first, 'Westcolumn', has leaves like those of the F1 hybrid parent, is 8 m tall and 60 cm wide. The other, 'Eastcolumn', is the same size, but has only a single leader on top and much smaller leaves, thus the first impression is better.

Q. 'Pondaim' (Q. pontica x Q. dentata) at Trompenburg appeared as a chance seedling where the parents grow near each other. It is intermediate between the parents. The leaves are very large, like those of Q. dentata, but serrate like those of Q. pontica, and the growth and size are that of Q. dentata. It keeps its leaves in winter. It is a very remarkable tree indeed.

Q. xturneri 'Pseudoturneri' (Q. ilex x Q. robur) was the only evergreen oak available in Dutch nurseries at the time we obtained it, listed under the old name Q. austriaca var. sempervirens. It can grow to a medium size, but is very wide. The green leaves fall in spring when the buds open. It originated in the nursery of Mr. Turner of Essex, England.
in the late 18th Century. It is the hardiest of all evergreen oaks we have tried, even when in a severe winter it drops its leaves only at very low temperatures.

EPilogue, 1999: This article, written 8 years ago, is for the most part still valid. The number of species in our collections has increased considerably; the seeds obtained via the Second International Oak Conference in California added 20 more species! A more laciniate form of *Q. frainetto* now has been selected from seedlings and awaits a good cultivar name. A sprinkler system has been built; the greenhouse will be doubled to house a large and old collection of cacti; and some adjoining parcels have been added.

I also turned over ownership of Arboretum Trompenburg to another foundation to avoid death taxes and safeguard its continuation. Now the arboretum depends no more upon my being alive, and the foundation guarantees its financial survival. We have a new curator, Mr. Gert Fortgens, who is very knowledgeable and whom some International Oak Society members might know from many lectures in the United States.

Our family remains very interested and involved, and holds two seats on the board, but I have relief from daily management troubles and have more time to travel and collect for the arboretum. I also am preparing a history of the arboretum, which will be published in English as well as Dutch. You are most welcome to visit this very active, living garden, and see for yourself!

JRPVHS, 9 February 1999