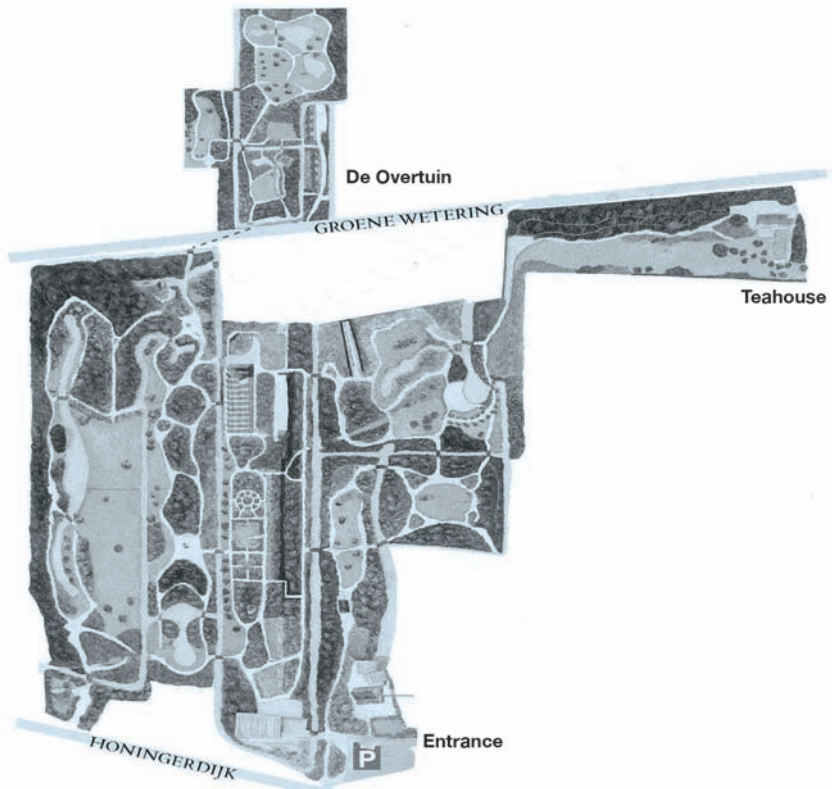


Oak Open Days Trompenburg Tuinen & Arboretum the Netherlands August 28-29, 2014

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Introduction

On 28-29 August, 28 people from seven different countries met for a two-day visit at the Trompenburg Tuinen & Arboretum in Rotterdam (the Netherlands). Visiting an arboretum with such a vast collection of oaks is always most exciting, as much for the amateur, as for the more experienced dendrologist.

James van Hoey Smith (1891-1965) really started the collection around 1925, after the removal of more than 400 dead elms, mostly *Ulmus ×hollandica* Mill. (*U. glabra* Huds. × *minor* Mill.).

After the Second World War, James Richard Pennington (Dick) van Hoey Smith continued his father's work by gradually extending the collection with more interesting oaks. Following a visit to Kew Gardens in London, this young dendrologist brought home a suitcase full of acorns, giving the collection another boost. Today the collection counts no fewer than 698 species, cultivars, and hybrids (compare with Hoey Smith 1997).

Morning musings with oaks

On the first day of this event we were welcomed at the entrance building by Gert Fortgens, curator of the Arboretum and IOS Board Member, and by Sophie Kling, a young and charming French intern who assisted Gert in preparing this event.

Each of us received the program, a map, a list of the oaks and where to find them, and a very original badge made from a cross section of an oak branch into which our first-names and an oak tree (the Trompenburg logo!) had been burned. Once assembled in the Theehuis (Teahouse), Gert officially welcomed us all and especially IOS Tour Director Shaun Haddock and President Béatrice Chassé. Béatrice welcomed Dr. Pan and Dr. Ju from Taiwan. Gert followed with a presentation on the oaks of Trompenburg and the history of the Arboretum. Then, after tea and biscuits, off we went for the start of our visit of the living collection.

A group of recently planted oaks near the Teahouse showed some of the new selections of fastigate habit. The trees were all in a semi-shaded position and it was interesting to observe that they were not as tightly fastigate as would have been the case in a more open position. Some new and very interesting selections that we saw here included *Quercus*



1/ Shaun Haddock, Li-Ping Ju, Fuh-Jiunn Pan, and Gert Fortgens

×bimundorum 'Crimschmidt' W.N. Wandell (CRIMSON SPIRE™ is the trade designation for this plant), *Q. ×warei* 'Long' E. Cully (REGAL PRINCE®), *Q. ×warei* 'Windcandle' Jablonski and *Q. ×warei* T.L. Green & W.J. Hess 'Chimney Fire'. The formal publication of this name is in preparation (Eike Jablonski, pers. comm.) Each of these cultivars has its own qualities, but for autumn color, the first and last are the best.

CRIMSON SPIRE™, already heavily propagated by grafting, is the offspring of the perfect marriage

between fastigate forms of the European *Q. robur* L. and the American *Q. alba* L., combining the best qualities of both trees. *Q. dentata* ‘Sir Harold Hillier’ J. Hillier & Coombes is one of the two cultivars of *Q. dentata* Thunb. selected and named by Mr. and Mrs. De Belder from the Hemelrijk Arboretum in Essen (Belgium). Both this one and *Q. dentata* ‘Carl Ferris Miller’ J. Hillier & Coombes have proven to be perfectly hardy in most parts of Western Europe. The former has a slightly smaller leaf but it has a better autumn color. In this part of the Arboretum some of the Red Oaks showed some chlorosis probably due to the high soil pH. Treating through iron chelation has only temporarily solved the problem.

We gathered around a *Q. ×hispanica* ‘Waasland Select’ Jablonski (*Q. cerris* L. × *suber* L.) and the discussion about the true origin of this beautiful evergreen hybrid was opened again. The tree only fruits occasionally and the acorns show a marked resemblance to those of *Q. ilex* L., especially in the cups, which are not typical of the other cultivars of this hybrid. Who can solve this problem? Allen Coombes has remarked that this selection does appear to be a form of *Q. ilex* (Allen Coombes, pers. comm.).



2/ *Quercus* ‘Macon’ van Hoey Smith

On a recently created sandhill some of the Californian oaks have been planted and *Q. wislizeni* A. DC., *Q. dumosa* Nutt., and *Q. agrifolia* Née all looked to be in good shape. The rare *Q. acerifolia* (E.J. Palmer) Stoyhoff & Hess, a Bill Hess collection from Magazine Mountain in Arkansas, attracted our attention and someone pointed out that this oak, together with *Q. buckleyi* Nixon & Dorr., is one of the few oaks that thrive on calcareous soils. Gert pointed out a huge *Q. trojana* Webb, introduced as a seedling from Kew Gardens (planted in 1970), that was showing off its nice, big acorns whilst the pigeons showed us their love of *Q. acuta* Thunb. acorns. This big multistemmed specimen was grafted onto *Q. robur*.



3/ *Q. trojana* acorns.

In another section of the garden, *Q. robur* (Heterophylla Group) ‘Salicifolia’ Hort. ex Loud. looked

somewhat shaggy and *Q. crispula* Blume was full of yellow dots on the leaves caused by aphids, while a huge *Q. ×libanerris* ‘Rotterdam’ J. Hillier & Coombes, (*Q. libani* G. Olivier and *Q. cerris*) looked wonderful with its big, fat acorns. I was surprised to see a healthy looking *Q. garryana* Douglas ex Hook., which always gets leaf spots in my nursery, and *Q. ×andegavensis* Hy (*Q. pyrenaica* Willd. × *robur*) was new to me. Two oaks that we saw could be of use in a smaller garden: *Q. prinoides* Willd. and *Q. ilicifolia*, Wangenh. A little farther on Gert wanted to show us the only acorn on *Q. chrysolepis*



4/ *Q. ×libanerris* 'Rotterdam'

to be made with the quercitrine that can be extracted from the bark. Finally, on our way to the Teahouse for lunch we passed a *Q. pontica* K. Koch, grown from wild-collected seed from Turkey. This particular one has a beautiful, more elongate leaf than most individuals of *Q. pontica* that I have seen. A delicious lunch prepared by Trompenburg staff awaited us and we all took the opportunity to make new acquaintances and to exchange information about our collections.

Grafting in the afternoon

In the afternoon there was a forum discussion about the propagation of oaks. After a brief introduction Gert invited questions and comments from the group. It was an interesting discussion and we all agreed that if you want to build up a collection of botanic species, it is always best to try and find young trees grown from wild-collected seed. I suggested that from seedlings of wild-collected origin it is important to select the

Liebmann, the golden oak of California, but unfortunately some animal or person had picked it already.

Passing by a *Q. ×kewensis* Osborn (*Q. cerris* × *wislizeni*) I pointed out that this taxon is sometimes confused with *Q. ×hispanica* 'Fulhamensis' Loud. I showed the group that the underside of the leaf of the former is glabrous and shiny while that of the latter is velvety and that even on young trees, the bark of *Q. ×hispanica* 'Fulhamensis' is corky while that of *Q. ×kewensis* is smooth. Under a beautiful *Q. frainetto* Ten. Jo Bömer had a story to tell that once again underlined the fact that if you gather acorns in an arboretum you often get surprising results. Sometime ago, with her husband Martin, they gathered acorns under this *Q. frainetto* and apparently a few had been pollinated by a nearby *Q. robur* Cristata Group A. Henry. Out of these seedlings were born *Q. ×haynaldiana* 'Concrist' Coombes & Jablonski and 'Crisnetto' Coombes & Jablonski.

We saw a nice specimen of *Q. velutina* Lam. that used to be called *Q. tinctoria* Bartram, from the fact that a yellow dye (quercitron) used

strongest plants and those that show the most typical morphological characters of the species. It is also important to take into consideration your particular climate: if it is a species that is known to have good autumn color, for example, then you must choose the seedlings that show this in your climate (as not all of them may).



On the other hand, grafting is still a very common practice in the nursery trade and there are some good reasons to continue (Jablonski 2014; Benoit 2009). Hans van Gemenen, Jo de Martelaer, Jo Bömer, and myself, who are all professional nurserymen, did our very best to explain why grafting is still very important when you want to maintain certain qualities which can be lost when plants are grown from seed. Very good examples of this are: *Q. robur* 'Concordia' J. Booth ex Kirchn., *Q. robur* Fastigiata Group Lam., a lacinate form of *Q. montana* Willd.,¹ *Q. alba* (Pinnatifida Group) 'Lincoln' Jablonski, *Q. palustris* 'Isabel' Coombes & Jablonski. None of these plants come true from seed. Similarly, it is very difficult to find true F1 natural hybrids of many oaks such as *Q. x bimundorum* 'Crimschmidt', *Q. x turneri* Willd. (*Q. ilex* × *Q. robur*), and *Q. x bushii* 'Seattle Trident' J. Hillier & Coombes (*Q. marilandica* Münchh. × *Q. velutina*) so these have to be grafted or they will lose their most conspicuous characteristics.

It is very important that we nurserymen not deny or underestimate the problems that exist with grafted oaks: for some clones grafting incompatibility is a big problem. The choice of the right rootstock, one that is as close as possible to the plants that we wish to graft, is imperative. Another problem that needs further study is the splitting of the bark near the ground in cold winters. I have the impression that grafted oaks are more susceptible to this problem than trees grown from seed. A good example of this is *Q. x hispanica* and its cultivars. Over the past 25 years we have grafted thousands of *Q. x hispanica* 'Fulhamensis', 'Waasland Select', 'Diversifolia' Hort. ex G. Nicholson, and 'Wageningen' Grootendorst. During cold winters, such as the one we had a few years ago, quite a lot of these trees were lost due to this problem, whereas seed-grown trees of *Q. x hispanica* (seed from *Q. x hispanica* 'Fulhamensis') survived unharmed. Protecting the base of the trees with some insulating material during winter solves the problem partially.

Only seven hectares... and so many trees

After the forum discussion we went to another part of the garden where *Q. kelloggii* Newb. 'Grey Ghost' immediately caught our attention with its nice grey leaves. Plants with this name can already be found in some Dutch nurseries but the official description

1. This plant is/has been sold under two different names, *Q. montana* 'Laciniata' and *Q. montana* 'Arnold Laciniata'. The correct name, as yet unpublished, should be *Q. montana* 'Arnold Laciniata'.

and publication are still in preparation (Eike Jablonski, pers. comm.). Gert Fortgens added that this selection has beautiful velvety orange-red foliage when coming into leaf in spring. I have asked Gert for some scion wood to graft with the hot callusing pipe this winter. Passing *Q. ×schochiana* Dieck (*Q. palustris* Münchh. × *phellos* L.) we noted *Q. ×brittonii* W.T. Davis (*Q. ilicifolia* × *marilandica*) and someone pointed out that it had the same broad habit as *Q. ilicifolia*. It is rare to see a healthy looking *Q. lobata* Née in Europe, but the one here at Trompenburg looked quite happy.

The big *Q. pontica* near the entrance building, one of Dick van Hoey Smith's favorite trees, is grafted and there were still a few ripe acorns on the ground. Not far from it are the two stately columnar trees that appeared here in 1960 as seedlings of *Q. ×rosacea* 'Columna' H.A. Hesse (*Q. petraea* (Matt.) Liebl. × *robur*), probably pollinated by *Q. petraea* *Mespilifolia* Group Wallr.: *Q. ×rosacea* 'Eastcolumn' Jablonski and 'Westcolumn' Jablonski. Near the entrance gate a very healthy looking unnamed putative hybrid between *Q. macrocarpa* Michx. and *Q. pubescens* Willd. attracted our attention and Gert said that it had come from Bob Berry in New Zealand (Hackfalls Arboretum). On the other side of the entrance building some evergreen oaks including cultivars of *Q. ×hispanica* and *Q. ilex*, and *Q. phillyreoides* A. Gray (China, Korea, Japan) have all survived many cold winters. It is interesting to note that until the late 1990s *Q. ×turneri* was the only evergreen oak that was freely available in most nurseries in Holland and Belgium. Another grafted specimen of a *Q. acuta* had clearly formed roots of its own, something that I have often observed on grafted plants of *Q. pontica*. It is therefore wise to plant grafted trees with the grafted section a little below the ground.

In an arboretum like this it is difficult to see every oak tree on the list, but Gert did his very best to guide us through every little corner to show us yet another interesting oak, like



6/ *Q. kelloggii* 'Grey Ghost' (publication in preparation).

a forty-year-old *Q. semecarpifolia* Sm. from seed collected in Nepal. Surprisingly, it has survived here in Rotterdam while mine at home in Belgium has frozen back to the ground several times. One of the largest and most impressive trees in the garden is an old *Q. frainetto*. I always love to stand under the immense crown and admire these beautifully lobed leaves against the sunlight. Not far from it is a big *Q. macranthera* Fisch. & C.A. Mey. ex Hohen. (planted in 1943) and we all wondered why it had been grafted at 1.5 m/5 ft above ground level and

not near the ground as most nurserymen would do. The tree has a very attractive flaky bark almost like *Q. muehlenbergii* Engelm. We also saw *Q.* 'Macon' van Hoey Smith, a hybrid between *Q. frainetto* and *Q. macranthera*, that appeared here in the Arboretum. On our way to the greenhouse we gathered around yet another Trompenburg introduction: *Q.* Pondaim Group van Hoey Smith (*Q. dentata* × *pontica*). This tree has a neat habit and a nice big leaf that is perfectly intermediate between its parents.

Champagne and other comforting goodies were waiting for us in the charming setting

of the greenhouse cactus collection where we arrived just in time to avoid the rain. Riet, Dick van Hoey Smith's widow, joined the party here and for many of us it was nice to see her again, for others, a pleasure to meet her for the first time. What a pity that her late husband Dick was not there to be our guide.

As the day drew to an end, Gert informed us that dinner would be served in the entrance building where beautiful tables had been laid out for us to feast on a delicious Indonesian-style buffet called *rijsttafel*. I joined the Dutch contingency, amongst whom were a few nurserymen. We spoke about how difficult business has been during the last few years, but that each of us still finds it a fascinating job. There is the recession and the fact that most gardens are getting smaller, but also the problem of overproduction. Later that evening I joined Béatrice Chassé, Jo Bömer, Ondřej Fous, and Dušan Plaček, who was telling the eventful story of his life and how he became interested in oaks (see pp. 77-88). Dušan is a successful businessman but also a good entertainer, and he could have gone on for hours, but it was getting late, the bottles were empty, and the staff wanted to go home.

A passion for hybrids

The next morning, Friday 29, we greeted Harriet Tupper, member of the IOS and Chairman of the International Dendrology Society, who graciously shared one day of her Dutch holiday with us. We gathered again in the Teahouse for a presentation on hybrid oaks by Jeroen Braakman. In his introduction, Jeroen gave us a summary of the systematics of the genus *Quercus* and then explained his interest in hybrids naming a few examples: natural hybrids like *Q. ×heterophylla* F. Michx. (*Q. phellos* × *rubra* L.) in the US or *Q. ×rosacea* and *Q. ×haynaldiana* in Europe; those that



7/ *Quercus* ×*rosacea* 'Westcolumn' and 'Eastcolumn'.

have arisen in cultivation between species that normally don't grow in the same area like *Q. Pondaim Group*, *Q. ×warei* 'Chimney Fire', and *Q. rubra × rysophylla*; and the artificial hybrids resulting from hand-pollination. Very good examples of this are the Cottam hybrids made by Dr. Walter Cottam in the late 1950s and planted out at Red Butte Arboretum in Salt Lake City, Utah and in Shields Oak Grove at the UC Davis Arboretum in California.

Jeroen concluded the first part of his presentation by noting that hybrid oaks can be very interesting and an improvement for some species, but they can also be a difficult mess to identify. In the second part of his presentation Jeroen showed us where we could find discussion groups and information on *Quercus* on the internet and on Facebook.

De Overtuin

After this interesting presentation we headed for a part of the Arboretum called De Overtuin, a garden on the other side of the road that I had never visited.

We passed Dick van Hoey Smith's beautiful house along the side of which can be found a bonsai-like *Q. robur* 'Tromp Dwarf' van Hoey Smith and a massive *Q. imbricaria* Michx. planted in 1939. In De Overtuin many oaks are planted along with with other interesting and rare trees and shrubs. *Q. ×rosacea* 'Columna' a neat and stately tree, rarely seen in nurseries, was planted near the path and a little farther on, *Q. ellipsoidalis* E.J. Hill. that, according to Gert, has better autumn color than *Q. palustris*. Other trees that we



8/ *Q. palustris* 'Windischleuba'

found interesting in this part of the garden were *Q. robur* var. *thomasii* (Ten.) A. DC.², *Q. robur* Cristata Group and another *Q. Pondaim Group* with marcescent foliage. *Q. palustris* 'Windischleuba' Jablonski does best when pruned back from time to time to promote growth of its nice variegated foliage. A very old cultivar of *Q. petraea* that I had never seen before is *Q. petraea* 'Insecata' Rehder. Its leaf has a narrow white edge and is surprisingly beautiful when seen from below against the sunlight. Sophie took a group picture under a *Q. kelloggii* and then we went back to the Teahouse for lunch.

A tour of Taiwan

In the afternoon Dr. Li-Ping Ju gave a presentation on the ecology and conservation of the endangered *Fagus hayatae* Palib. ex Hayata from Taiwan. This beech is closely related to *F. japonica* Maxim. and in Taiwan represents the southernmost distribution of the genus *Fagus*. It grows on north-facing mountain slopes in cloud forests at 1,500-2,000 m/4,900-6,500 ft. Dr. Ju explained to us that seed survival of this species is very low and that even in nurseries, germination rate and survival are poor. Due to global warming the habitat of *F. hayatae* is under serious threat and the trees have nowhere

2. Today considered a synonym of *Q. robur* subsp. *brutia* (Ten.) O. Schwarz.



9/ *Q. petraea* 'Insecata'

to go to since they already grow on the summit of these mountains. Other threats are typhoons that buffet the island from June to September, as well as a fast-growing bamboo that competes with the much slower-growing young beech seedlings, putting them in too much shade for them to survive.

In the second afternoon presentation, Prof. Fuh-Jiunn Pan presented the systematics and morphology of the 42 species of *Fagaceae* in Taiwan (in the genus *Quercus* from sections *Cyclobalanopsis* and *Quercus*, and in the genera *Castanopsis* and *Lithocarpus*). The endemics of Taiwan like *Q. longinux* Hayata, *Q. tatakaensis* Tomiya, and the ornamental *Q. repandifolia* J.C. Liao³ were new to most of us. Prof. Pan's presentation was very nicely illustrated with splendid photos and systematic overviews, all of which would have been more than enough material for a long and interesting article on its own.

After tea and cake, we all went to the greenhouse for an interesting exhibition of oak wood especially arranged for us by the Dutch Wood Collectors Society. Having been a cabinetmaker in my former life, I recognized most of it as oak wood, but I was surprised how they all differed in color and texture. To finish this warm and instructive meeting we all went to the entrance building for the plant sale where Gert, Jeroen, and I had prepared some rare young seedlings and grafted oaks that participants could purchase to add to their collections.

Finally we all said goodbye thanking Gert and his staff for these wonderful two days, as we set off to return to our homes with very good memories and lots of new ideas for our own oak collections. We saw many more oaks and other trees and shrubs than I could possibly mention in this article, but I hope that I have made all of you who read this eager to visit this dendrological paradise and perhaps to discover even more hidden treasures!

Acknowledgements

Many thanks to Gert Fortgens and the staff at Trompenburg for welcoming us in such a royal manner. Our gratitude to our Taiwanese friends, Dr. Fuh-Jiunn Pan and Dr. Li-Ping Ju, who travelled so far to be with us and share their knowledge, and to Shaun Haddock, IOS Tour Director, for his invaluable assistance in the run-up to the event.

Participants. Dirk Benoit, Andréa De Cock Stiers, Ronny Van Keer, Fanny Vanschoelant, Philip Stiers (Belgium); Ondřej Fous, Dušan Plaček (Czech Republic); Béatrice Chassé, Shaun Haddock, Sophie Kling (France); Jo Bömer, Jeroen Braakman, Gert Fortgens, Hans van Gemeren, Gerard Heerebout, Anne Hilder, Hans Janssen, Jo de Martelaer, Nelis Mourik, Gerda Roerink, Bart Schipper, Frans Steenland (the Netherlands); José Luis Vallines, Mario Vallines (Spain); Fuh-Jiunn Pan, Li-Ping Ju (Taiwan); Rama Lopez-Rivera, Harriet Tupper (United Kingdom).

Photographers. Photos 1-9: Gert Fortgens.

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3. *Q. repandifolia* is an accepted name in the *Red List of Oaks* (2007) but is treated today as a synonym of *Q. glauca*.