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Did colonization boost international relations between botanical gardens? The Belgian situation

(1) Introduction

“How colonization saved a new born botanical garden that came late on the scientific scene?” would have been just another good title for the following pages¹.

Let me set some historical landmarks to disclose the strange history of today’s National Botanical Garden of Belgium.

First, there was an unsuccessful attempt to create a scientific institution in Brussels but it was not until 1870 that a real national state garden was created.

(2) The Company 1826–1870

As strange as it may sound, after the foundation of a small garden linked to the French *École Centrale du Département de la Dyle* in Brussels (1797), came the idea of creating a joint-stock company to establish a new botanical garden in the Southern capital of the Netherlands (1826), the state Belgium belonged to after the fall of Napoléon (1815). The former small garden had indeed been declared too expensive to run by the city administration, and its size had been declared too small to achieve any scientific goal, anyway.

That is why a team of Belgian bourgeois founded the company dedicated to the creation of a new and modern garden, whose role model was the French *Jardin des Plantes du Muséum National d’Histoire Naturelle* in Paris. Companies were then the trendy thing in a country overwhelmed with the hopes of the liberal bourgeoisie utopia. In this way, optimistic private shareholders hoped to organize a real centre for research in botany, agronomy and horticulture. In passing, let us mention that buying parts was regarded as some kind of philanthropy, because the garden was supposed to provide new food resources and to promote new industries, through experimentations and research.

But those rich citizens had to deal with various threats: the National Revolution of 1830 that led to separation from Netherlands had destroyed parts of the buildings ; the aforesaid buildings were aging and awfully expensive to fix; the public sponsors (the State and the City Administration) were not too keen on continuing financial support because the Botanic Garden was unable to prove that it was doing research in any economical or scientific orientated field; interests were not paid to the shareholders anymore. As a consequence, for years, imminent bankruptcy was a fact to face.

Nevertheless the garden survived through decades thanks to good luck and fortunate opportunities. First, any modern city must have a botanic garden, and Brussels, as new born Belgium itself, was very sensitive when it came to its international reputation. Secondly, the garden developed a very dynamic commercial activity (selling plants, organizing events for the bourgeoisie, renting or lending the place to the riches and famous who would also protect it). Quite soon, thus, it became rather a fashionable place to meet, mingle, dance, listen to music and have a quick glance at aquariums or any other natural wonder...people would pay to look at.

Things were to turn bad in the ’60. As buildings needed important repairs the company could not afford, as shareholders threatened to sold the property with great benefit, as Brussels city Administration could not afford the costs either, in 1870 the Belgian Government bought the place for a mere

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¹ As this paper is based in our soon-to-be published Ph.D. — Diagre, D., *Le jardin botanique de Bruxelles (1826–1870), miroir d’une jeune nation*, Ph.D., Université Libre de Bruxelles, 2006, 2 vol.—, we deliberately avoided to mention sources in footnotes. Informations will be freely delivered by the author to anyone asking for them.

percentage of the real estate value of it. The bourgeoisie accepted to forget the huge amount of money it could have made out of the sale, but only after the ministers had given some assurances the Garden would be turned into a fully scientific institution.

At this point is it probably needless to say that no real scientific activity had ever been held in the Garden. It only benefited shortly during a short five year period from the reputation of pseudo-Director Henri Galeotti (1814–1858), a geologist, botanist, and former plant collector in Mexico ... and that was all. Although Galeotti created the first magazine of the Botanic Garden, which only lasted 11 months, the board was running the place focusing only on commercial activities, an trying to manage at low cost.

Should we talk about contacts with other botanic institutions at this time, let us say that they were extremely scarce. Why? Because the garden had no journal to exchange, no laboratory, no scientist running the place; because it had not held any scientific research, had few extensive scientific or sound collections and no link with any university at all...

All this leads to the conclusion that the company had failed in its utopian attempt to create a real scientific institution on a private and commercial basis. As a consequence, at the end of the XIXth Century, Belgium had no national botanic garden yet and was unable to compete for modernity with England, France or Germany. So far then, Belgium was no fully “civilized” European state.

(3) Growing a respected BG in Belgium 1870–1914

Between 1870 and 1914 the *Jardin botanique de l'État* [State Botanic Garden] made its big move to find a place among the great botanic gardens of its time. But it was not an easy task, as botany itself was undergoing big changes. Taxonomy, for instance, was sort of declining due to the bursting of physiology, and other disciplines.

Let me quote well known botanist Léo Errera (1858–1905) on taxonomists:²

[Traditional botanist] has his own typical characteristics: a green box; his own weapon hand fork; his own language: an odd Latin; and his own place on Earth which is walking the countryside in order to collect as much weeds as possible, drying them off in blotting paper and then christening them with bizarre names.

To tell it straight, taxonomists were mostly regarded as dinosaurs, old fashioned scientists, straw collectors, while laboratories dedicated to physiology, mostly linked to universities, were hatching out all over Europe. Were the big conservatories and herbaria on the verge of extinction? This would not happen, actually.

The birth and the first steps of a living fossil?

The man behind the new State Botanic Garden was an old and temperamental Belgian botanist, B. Dumortier (1797–1878), whose old fashioned vision culminated in designing a fixist classification of plants he imposed to the school of botany planted in Brussels. Nevertheless, one must recognize that he played a crucial role in the founding of the *State Botanic Garden*.

Due to his taste for taxonomy, he decided that it would first and foremost be a huge herbarium dedicated to floristic and taxonomic works. Dumortier once even told Hooker that he had planned to (quote) “establish a Kew in Brussels”³ (letter to J. D. Hooker, 9/12/1872, *Director's Correspondance*, n°135, f° 567, Royal Botanic Gardens Kew Archives).

That is why he induced Belgium to buy the famous Brazilian Von Martius collection (herbarium and various dry botanic items), the base for the huge *Flora Brasiliensis* (it would not come to an end before 1906, under leading of German botanists helped by an international team of colleagues).

Besides, the Botanic Garden began the acquisition of various private herbaria related to European, Belgian, and even to Costa Rican floras.

² “[Le botaniste traditionnel] a ses insignes: la boîte verte en bandoulière; son arme caractéristique: le déplantoir; son propre langage: le latin barbare et son rôle bien déterminé ici-bas, qui est d’aller dans les campagnes récolter le plus d’herbes diverses qu’il pourra, de les écraser entre des feuilles de papier buvard et de les décorer des noms les plus baroques”.

³ “Fonder un Kew à Bruxelles”.

All in all, herbaria in Brussels were growing rather big: Galeotti, Claussen and Nyst's collections were inherited from the Company; Von Martius, Dieudonné, Crépin, Libert, Dumortier's dried specimens, etc. were progressively acquired by, or donated to, the Botanic Garden.

Apparently, it was on its way to succeed this time. But the truth was different for there was no acquisition policy underlying the growth of the herbaria. It mostly resulted from good opportunities, gifts, deaths of botanists, money left over after all was paid and done. The Botanic Garden was of course getting bigger, but with no definite pattern. This sounded like a severe weakness.

The turning point

Once again, luck would be involved in 1895–1896 Congo knocked on Brussels Botanic Garden's doors and change its future.

Indeed, the *État Indépendant du Congo* [E.I.C.] was created in 1885–1886. This huge area in Central Africa was personally run by the King Léopold the Second of Belgium. This is to say that it was a private property, with its own administration, its own secretaries of state, and no contacts with Belgium, officially. The Belgian parliaments had simply nothing to say about the way Congo was exploited and managed. In fact, Belgium just did not want to be involved in any colonial policy at all. As a result, the king was as democratic in his own country, as he was autocratic in his African private territories.

For more than 15 years Léopold tried to get some money from Congolese natural resources but he ran almost out of funds in his attempt to provide his African playground with a promising and long lasting economical backbone. Then, at the end of the century, rubber began to generate some good profit and the overshadowed future began to turn sunnier. But some problems had still to be solved:

- a) harvesting wild rubber had proven to be a short-lasting and short-sighted process,
- b) collecting natives were poorly treated and English journalists — among others people — were badly scorching Léopold for that reason.

The king had to find a way out of that situation, mostly because he always wanted Belgium to benefit from Congo and because his own reputation was severely threatened too. That is why, all of a sudden, the É.I.C. knocked on the Brussels Botanic Garden's doors. From then on, it would have a new role in a new play and on another scene.

1) The *Jardin botanique de l'État* badly needed to be recognised on the international scientific scene: new herbaria and glittering publications about exotic flora would definitely help;

2) It needed protection against Belgian catholic ministers for they were complaining about the lack of useful activities originated in the Botanic Garden, about its liberal-masonic connections, and because they were also trying to use it as a promoter for their own election campaigns.

The King, in turn, had to make the É.I.C. economically strong and to prove that he wanted to civilize it in order to whiten his reputation.

How did he do it? He used the papers to promote his colonial projects and realisations; he held events with the same purpose; he paid for the edition of thousands of scientific pages, such as the *Annales du Musée du Congo*. That scientific activity was meant to prove that the will to civilize was running through the veins of Léopold's project and could redeem the man behind the É.I.C. and the scandals.

That is how the Belgian *State Botanic Garden* was *unofficially hired*, so to speak, to enumerate and describe Congolese taxa through a steady flow of pages. They were rooted in the so-called *Herbier du Congo* held within its own building, though the É.I.C. was the real owner of that precious and steadily growing collection. Do I need to mention that authors soon focused their attention on rubber-producing plants, serving as agronomic advisors for *another state the one they were paid by*?

Anyway, thanks to these new activities the Botanic Garden got sheltered by the King's shield, and began to resist ministers and to develop again after years of neglect.

This time, the path was rather easy to follow: taxonomy and geobotany of Central Africa, as well as agronomy in order to develop the Congolese economy.

Men at work

Émile De Wildeman (1866–1947) and Théophile Durand (1855–1912) were the driving forces behind the African botanical studies in the Botanic Garden, and quickly flooded the world with pages and new taxa.

The *Herbier du Congo* itself was soon to grow so huge that some scientists in the institution had to leave their offices to let the dry samples invade them. Cellars, basements, every single place was dedicated to the African treasures. Actually, a colonial section was created (1901–1902) in a Botanic Garden whose country simply had *no official colony* !

The scientific productivity of the two aforementioned men (Hélène Durand, the daughter of Théophile, helped her father on occasion), was huge. More than that, De Wildeman wrote dozens (if not hundreds!) of notes and articles in various papers or reviews, in Belgium and abroad. Sure, those scientists were hard at work, but nothing would have been possible without visiting big herbaria abroad. Kew, Paris and Berlin were specially targeted, and missions were regularly given out by the ministers to let the Belgian botanists study and compare botanic samples to sheets held in other countries... to the benefit of É.I.C., and to the national Botanic Garden's benefit too, as regular relationships were progressively built with many other botanical data banks and scientists.

Getting in the ring thanks to a non-colony, then?

It would not be an understatement to claim that Congo saved the *Jardin Botanique de l'État*. *Firstly*, because it provided tons of botanic samples to the Belgian scientists to build a world-class exotic herbarium; *secondly*, because it gave the Botanic Garden the opportunity, on the one hand, to serve as an agronomic advisor for the King, and, on the other hand, to describe and identify numerous plants, and thereafter to draw vast studies about geobotany; *thirdly*, because pages about the Congolese plants were actually edited in the *Bulletin du Jardin Botanique de l'État*. That periodical publication was specially created in 1902 to promote the African researches produced in the national Botanic Garden, and to promote exchanges and contacts with other botanical centres. Finally, Congo saved the Botanic Garden because, just as the herbarium was turning into one of the world's major collections, Belgian universities managed to cut off all research fields *but taxonomy* from the Botanic Garden's official prerogatives (1907–1909). With only the kind of old-fashioned systematics, taxonomy and geobotany left to it, what would the *Jardin botanique de l'État* have become without a huge reservoir filled with Congolese novelties? A minor institution, at most.

Should you ask for positive proof of this, I would point to those facts:

a) Durand wrote the first supplement to the *Kew Index* (years 1886 to 1895), which shows that he had become a world-class taxonomist, mainly through African studies;

b) The International Congress of Botany (taxonomy and related disciplines) was held in Brussels in 1910. Its goal was to make people meet and discuss international laws that would standardize scientific production around the world. What would the *Jardin botanique de l'État* have been had it not benefited from the painstaking work of De Wildeman and Durand about the flora of Congo?

c) Travels and visitors opened the institution to the world: Eichler visited regularly Brussels as soon as 1871 to study the Von Martius collection for the *Flora Brasiliensis*, and asked Alfred Cogniaux and Élie Marchal — both working in the Botanic Garden — to collaborate. In turn, of course, they visited herbaria in Leiden, Kew, Paris, London and Geneva several times for that very purpose, but regular contacts abroad were only to take place later on, thanks to the African studies and collections: Durand went to Paris in 1906 and 1908, Geneva and Zurich in 1908; De Wildeman went to Berlin in 1902, 1903, 1904, 1905, 1907, 1908, 1911 and 1913, and to Paris in 1902, to mention but a few.

d) The *Bulletin du Jardin botanique de l'État* allowed relations through exchanges with major and minor counterparts, this is to say that for the first time ever the garden was able to establish a modern and up-to-date library. The library existing until then being totally inadequate.

e) Kew courted Brussels Botanic Garden in 1907. This is the ultimate evidence of the new status the Belgian Botanic Garden had gained thanks to the État Indépendant du Congo. Before that moment the garden was only begging for a bit of attention from the most extensive and famous botanic gardens in the world. Indeed, as curator W. Watson had proposed that the Botanic Garden come and chose whatever it would please it in Kew's collection, director Th. Durand pleaded the Belgian minister for an authorization to do so (May 1907): "The cheapest way to improve our living collections is to exchange plants with other botanic gardens. The Royal Kew Gardens are constantly getting plants originating from English colonies, and that is why these mutual relations are so useful to us"; "this is a real privilege they are now granting to our garden"; "it would definitely be inappropriate not to go

there and chose in their own collections as we are now allowed to do » ; “a very precious contribution to our collections.”⁴

Was it the first time that other botanic gardens had made a demand on the Belgian institution? Not at all, but it had been quite uncommon until then.

Had Brussels tried before to get in contact with some of them? Yes, some times. Let us mention, for instance, the fact that G. Bentham applied to the Botanic Garden to get some of Von Martius and Galeotti's sheets (1871); that J. Bommer tried to promote plant lists exchanges with Kew saying “nous continuerons ainsi, j'ose l'espérer, des relations d'échanges dont notre jardin récoltera les plus grands avantages”; that B. Dumortier showed himself to be something of a bootlicker in order to obtain some dried specimens from Kew (1872), as did Crépin by sending ferns to Kew as a “minor proof of our willingness until we could do better”⁵ (1877), and as did Louis Lubbers begging for some plants the Belgian Botanic Garden really needed, and sending a rare species “that has been heavily required by a lot of people but that I preferred to keep very specially for you” (1889–1891)...

Does the word “begging” sound too strong? Let me quote Crépin complaining to W. Hemsley (1891), then:

The Brussels Botanic Gardens is no more one of those establishments [that benefited some attention from Kew]. This is quite easy to understand since we are not able to send you samples that would be useful to your great herbarium”... or even quote Henri Galeotti again, as he tried to get some plants from Kew (1855): “I am now requesting the help of your willingness and why should I hesitate to knock on the rich man's door and to ask him bits of what is left ?!”⁶

Moreover, Kew's interest in the Congolese botanic richness had already burst at the end of the 19th century. Both Kew and É.I.C. decided then (around 1898) that the last would send plants to England for free, and that the British gardens in turn would send exemplars of industrial plants to Congo.

All in all, before the World War I, Brussels's begging for attention had changed to a more egalitarian kind of relationship: Kew would beg for some Congolese Orchids (1913), while Brussels would ask for plants collected in Katanga by a *Kewite* the same year. De Wildeman once even suspected Kew of not sending herbarium sheets back to Belgium, and asked Director D. Prain to get the *Kew Bulletin* free of charges, considering the fact that the *Bulletin du Jardin Botanique de l'État* was delivered to Kew for free for some times (1913)...

The Belgian Botanic Garden had definitely gained some strength and reputation in only one decade. Let me add some more evidences: in 1902, the *Muséum National d'Histoire Naturelle* of Paris proposed to the Brussels's garden to launch an exchange policy ; the same year the French Minister of Colonies offered it to come and choose plants in the collections of the Colonial Botanic Garden in Nogent... Finally let us mention that the Botanic Garden created the title of Correspondant scientifique (Corresponding Member) in 1905. It spoke for itself.

(4) Had something changed, or not?

Yes, definitely, because colonization launched better contacts between Belgian *State Botanic Garden* and other institutions of the world, and strengthened a huge international network of exchanges and friendships that looked like — or extended — the one humanists used to rely on some centuries before. Despite patriotic and national economical priorities, despite scientific rivalries, it is still working today as it did a century ago, or more.

⁴ “Le moyen le plus avantageux pour enrichir nos collections de plantes vivantes est l'échange avec d'autres établissements similaires. Les jardins royaux de Kew, sans cesse alimentés par les arrivages des colonies anglaises, sont ceux avec lesquels nous entretenons les relations les plus utiles”; “c'est une véritable faveur accordée à notre Jardin”, “il serait donc impolitique de ne pas accepter avec empressement l'offre de venir choisir sur place”; and Durand would designate the results of the journey was asking for as “un apport extrêmement précieux pour nos collections.”

⁵ “(...) faible preuve de notre bon vouloir en attendant que nous puissions faire mieux”.

⁶ “(...) je viens solliciter votre bienveillance et pourquoi hésiterais-je à frapper à la porte du bon riche et à lui demander quelques miettes de son superflu ?!”

Yes, again, Colonization saved the Belgian Botanic Garden, as it did help the *Muséum* in Paris when French universities were just taking it over, as it gave Kew its long lasting — still lasting — supremacy. Indeed, taxonomy's loss of authority in the second half of the 19th century was to find a last shelter in big national herbaria thanks to overseas territories, while other disciplines were monopolizing most academic energies. It is thus relevant to claim that the *Jardin botanique de l'État* is a child of Africa, and pertinent as well to say that some other salient counterparts too are indebted to exotic countries. Those, finally, helped to cement scientific fraternity.

Actually, the ecological concern that was just hatching at the beginning of the 20th century, gave another chance to the then despised disciplines. Today, the *National Botanical Garden of Belgium* (in Meise) still partly relies on that tremendous African collection to rate itself among the richest herbaria of the world, and to collaborate in various programs like the *Global Strategy for Plant Conservation*.

From local to global... thanks to the Congolese cornucopia, indeed.