

The vellums of the National Natural History Museum in Paris.

Leo Dijkgraaf.

If you have a flower garden and want to preserve the beauty of the flowers in some way, you might do so by photographing or by drawing and painting. The last method was the way chosen by Charles, Prince of Wales; he commissioned a number of botanical artists to draw and paint the plants growing in his garden as to produce the 'Highgrove Florilegium', published in two volumes in 2008-2009.

Almost 400 years ago there was a prince in France who did the same, the product was not a book this time, but a series of watercolor paintings. Gaston de France, count of Orléans and brother of king Louis XIII, took this initiative in 1630. The artists working for him made paintings on vellum of the plants cultivated in the garden at the castle Blois. Vellum is a parchment made of the skin of deadborn calfs, prepared in a special way, very white, fine and transparent.

This marked the start of a collection called *vélin du muséum* that amounts nowadays to nearly 7000 paintings of plants and animals. The size of each has remained almost the same through the centuries, 46x33 cm. A number of them have been published in print (see list of literature), but the watercolors can also be viewed in detail on the website of the Bibliothèque Centrale du Muséum National d'Histoire Naturelle at www.bibliotheques.mnhn.fr/medias under the heading *collections numérisées (vélin)*.

The oldest paintings are dated 1631, possibly made by Daniel Rabel.

Around 1645 Nicolas Robert made his first contribution to the collection, he was later appointed *peintre ordinaire de sa majesté pour la miniature*. The paintings were called miniatures, not for their size but for the technique of painting, going back to the illustrations in books in medieval times. When Robert died in 1684 he left 727 *vélin*s, 475 of plants and the remainder mainly of birds, made in the Jardin du Roi (later known as the Jardin des Plantes) in Paris and also in the royal menagerie of Louis XIV at Versailles. A large number of them were copied by pupils of Robert as a gift to prince Eugène de Savoie and are now preserved in the national library of Austria in Vienna.

Successors of Robert were Jean Joubert, Claude Aubriet and Madeleine Basseporte. The last miniaturist of the king was Gerard van Spaendonck; it was in his lifetime that the French revolution took place in 1793. Despite his position at the royal court, he became after the revolution the first *professeur d'iconographie*

naturerelle at the Jardin des Plantes. This garden housed the museum of natural history, officially founded in 1793. There he lived in an apartment in Maison Buffon. From 1788 he was assisted by some of his many pupils. Pierre-Joseph Redouté was the most wellknown of these newly appointed painters attached to the museum, others being his brother Henri Joseph and for the zoological paintings Nicolas Maréchal. Like all his predecessors, van Spaendonck painted in gouache, but later changed to aquarel, a technique used also by all the painters of the *vélins* after him. This had the advantage of giving more transparency and details in color and tone; it was better suited for botanical painting.

In 1850 the collection consisted of 6000 paintings. With the progression of new techniques such as photography and with new developments in the science of natural history, the museum became lesser interested in acquiring new *vélins* and it was not before the second half of the 20th century that some new paintings were commanded. The last one has been added in 1987 (Ducieux et al., 1998).

The oldest paintings of bromeliads in the collection of *vélins* are, not surprisingly, the pineapples. On the paintings all of them are named *Bromelia ananas* (Lin.), but they also have the long pre-Linnean descriptive names.

The *vélins* are *folios*, grouped in albums called *portefeuilles* following a botanical classification system, so they are not sorted on date, plantname or author.

There are only a few paintings which are dated by the artist, the date is placed following his signature.

The dates in the list below are from the information provided by the museum (MNHN) except for the ones indicated by '(art.)' which are dated by the artist.

Some species have been described many years after flowering in the Paris hortus. For example, *Bromelia agavifolia* as late as 1875, twenty years after the painting was made.

current name	port.	folio	artist	year
<i>Pitcairnia bromeliifolia</i>	8	27	Pierre-Joseph Redouté	ca.1800
<i>Pitcairnia angustifolia</i>	8	28	Pierre-Joseph Redouté	ca.1800
<i>Pitcairnia angustifolia</i>	8	29	Pierre-Joseph Redouté	ca.1800
<i>Ananas</i>	11	26	anon.	-
<i>Ananas</i>	11	27	Claude Aubriet	18th cent.
<i>Ananas</i>	11	28	Claude Aubriet	18th cent.
<i>Ananas</i>	11	29	Claude Aubriet	18th cent.
<i>Ananas</i>	11	30	anon.	-
<i>Ananas</i>	11	31	Jean Joubert	17th cent.
<i>Ananas</i>	11	32	anon.	-

current name	port.	folio	artist	year
<i>Ananas</i>	11	33	anon.	-
<i>Billbergia amoena</i>	11	40	Adèle Riché	1834
<i>Guzmania monostachia</i>	11	41	Pancrace Bessa	1832 (art.)
<i>Tillandsia streptophylla</i>	75	10	Alfred Riocreux	1843 (art.)
<i>Hohenbergia stellata</i>	75	17	Alfred Riocreux	1855
<i>Pitcairnia imbricata</i>	75	28	Adèle Riché	1834
<i>Aechmea fulgens</i>	75	44	Adèle Riché	1836
<i>Pitcairnia bromeliifolia</i>	75	45	Adèle Riché	1843
<i>Quesnelia quesneliana</i>	75	46	Adèle Riché	1841
<i>Bromelia agavifolia</i>	75	50	Alfred Riocreux	1855 (art.)
<i>Lutheria splendens</i>	75	53	Alfred Riocreux	1843 (art.)
<i>Puya chilensis</i>	75	54	Alfred Riocreux	1849 (art.)
<i>Androlepis skinneri</i>	75	55	Alfred Riocreux	1855
<i>Aechmea melinonii</i>	75	56	Louis Aristide Constans	1853
<i>Aechmea distichantha</i>	75	59	Charles Cuisin	1873 (art.)
<i>Pitcairnia recurvata</i>	75	72	Alfred Riocreux	1853 (art.)

The *vélims* used to illustrate this article are all by the hand of Alfred Riocreux, who also contributed a large number of his illustrations to books and journals (such as *La Revue Horticole*), many of them edited by botanist Joseph Decaisne.



Figure 1. *Tillandsia streptophylla* in Mexico, it can also be found in Guatemala, Honduras and Belize.



Figure 2. *Tillandsia streptophylla*, signed Alfred Riocreux 1843 (port.75, fol.10).



Figure 3. *Tillandsia streptophylla*, the first drawing of this species, in the journal *L'Horticulteur Belge* in 1836. The model was a shriveled specimen.



Figure 4. *Pitcairnia recurvata*, signed Alfred Riocreux 1853 (port.75, fol.72).

Named *Pitcairnia polyanthoides* by Brongniart in 1855, from a plant received in 1851 from the Linden nursery in Belgium; but in 1842 a flowering plant in Brussels had already been described as *Puya recurvata* by Scheidweiler. There is also a Morren icon of this species.

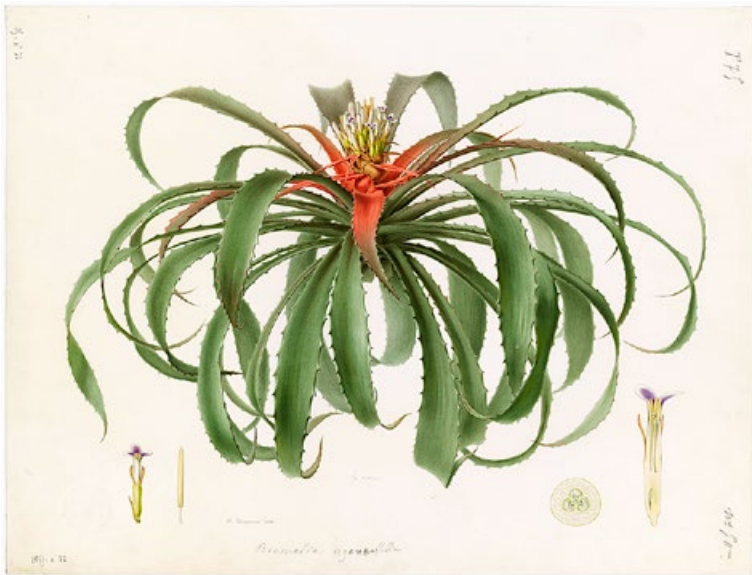


Figure 5. *Bromelia agavifolia*, signed Alfred Riocreux 1855 (port.75, fol.50).

Spelled as *Bromelia agavaefolia*, described in 1875 (Brongniart ex Houlet) in *Revue Horticole*. In 1881 it was described again in the same journal under the name *Bromelia agavoides* by Carrière, who did not mention the earlier publication at all.

Among the Morren bromeliad paintings in the illustrations collection at Kew, there is also an aquarel of this species by P.J. Stroobant.



Figure 6. *Bromelia agavifolia* (photo by Jean Petitbon, appears at <https://floredeguyane.piwigo.com/>). This plant from French Guiana is rare and known only from cultivation.



Figure 7. *Pitcairnia recurvata* (photo by Philip Nelson, courtesy Smithsonian Institution). A terrestrial and lithophytic species from Mexico, Guatemala and Belize.

Literature

Bultingaire, L. (1927). Les vélins du Muséum d'histoire naturelle de Paris. Fleurs exotiques. Librairie des arts décoratifs, Paris.

Raynal-Roques, A., J.C. Jolinon & M. Ducreux (1998) Les peintres de fleurs – Les vélins du Muséum. Muséum National d'Histoire Naturelle: Bibliothèque de l'Image, Paris.

Heurtel, P. & M. Lenoir (2016). Les vélins du Muséum National d'Histoire Naturelle. Citadelles & Mazenod, co-edition with MNHM, Paris.

Heurtel, P. & M. Lenoir (2018). The art of natural history. Rizzoli, co-edition with MNHM, New York. (English edition of 2016 book).