

SUCCULENTS ON A PLATE

Joseph Shaw, jshaw@opuntiads.com, Germantown, MD; Nancy Hussey, nancy@opuntiads.com, Meadview, AZ and David Ferguson, davef@opuntiads.com, Albuquerque, NM tell us about *Curtis's Botanical Magazine* which has featured many cacti over its long life.

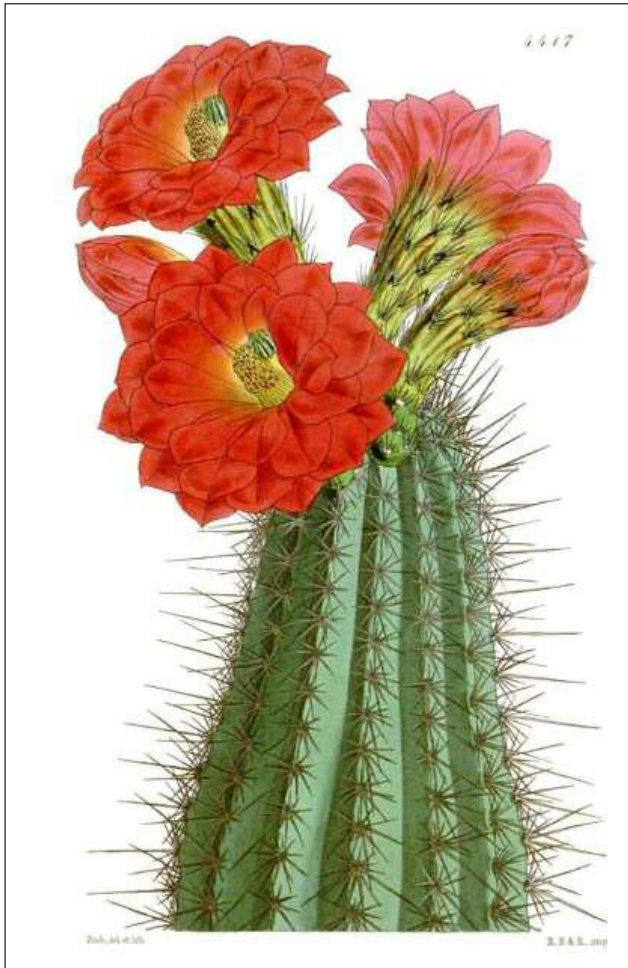


Figure 1. *Cereus leeanus* Plate 4417.



Figure 2. *Cereus procumbens* Plate 7205.

Botanical Art: Cacti and Succulents in Curtis's Botanical Magazine

Long before the advent of photography, there was a strong interest in Europe to learn about the plants of far-flung places. The wealthy grew them in conservatories as conversation pieces and status symbols. Physicians explored their curative properties. Scientists studied them to understand and classify them. Naturalists explored far away places for plants of all kinds and reported what they found, but they could not provide illustrative photographs. This was the heyday of the of the botanical illustrator.

Botanical illustrators created paintings and drawings of plants to be published in scientific and lay publications. They translated living and dried plant specimens into lifelike depictions of plants. The drawings and paintings were anatomically correct, exquisitely coloured, and often life-sized, especially when used in scientific communications. Botanical art was often created with the input of scientists and plant collectors to ensure that details were correct. Some scientists were artists by necessity, and some paintings created by them served as type specimens for newly described species.



Figure 3. *Cereus macdonaldiae* Plate 4707.



Figure 4. *Cereus fulgidus* Plate 5856.

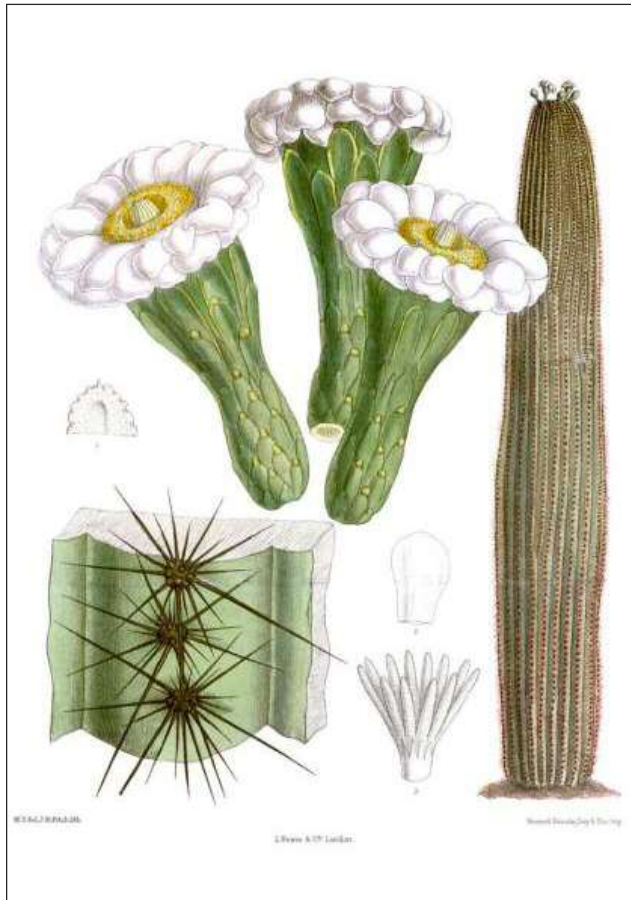


Figure 5. *Cereus giganteus* Plate 7722.

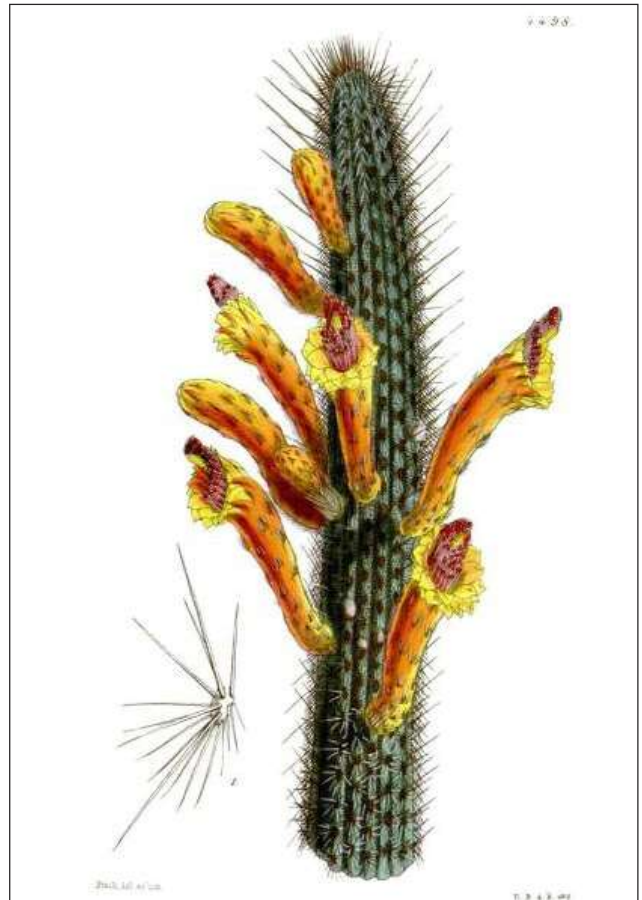


Figure 6. *Cereus tweedei* Plate 4498.



Figure 7. *Wittia panamensis* Plate 8799.

The illustrations of plants were used by scientists of all kinds as well as gardeners to identify, characterise, and classify the multitudes of plant species that were discovered in the 17th, 18th, and 19th Centuries. Though their purpose was for education and science, they were often beautiful works of art that can still be appreciated.

Curtis's Botanical Magazine, started by William Curtis, has an unbroken publication history, from 1787 until the present day, though it has been published under several names. Early work employed copper engravings that were subsequently hand painted. Later, other more automated methods were used to reproduce the paintings. Over time some of the most famous botanical artists have contributed to the magazine including Sydenham Edwards, Lillian Snelling, and Stella Ross-Craig [1]. There is more than art in the magazine. A page or two describing the



Figure 8. *Cactus flagelliformis* Plate 17.

plant, its history, and other details accompanies each image.

In the 19th Century there was great interest in cacti. Accordingly, *Curtis's Botanical Magazine* published much information about them. The paintings are exquisite and reliable illustrations of the various species, even today. Twelve examples from the more than 100 published are reproduced here. The first 14 issues (1787 to 1801) were published under the name(s) of The Botanical Magazine or Flower Garden Displayed. Later issues were published under the eponymous *Curtis's Botanical Magazine*. Issues from 1787 to 1920 are out of copyright and are available online, free-of-charge at the Biodiversity Heritage Library [2,3]. If you know the year, the name, and the plate number, you can look up many cactus paintings. But you cannot search the old magazines by text because optical character recognition has not been performed on them.



Figure 9. *Echinocactus oxygonus* Plate 4162.

However, materials from the Biodiversity Heritage Library have been interpreted and reformatted by the Cactus and Succulent Digital Library where they are available for free download [4]. The interpreted volumes have the advantage that the paintings seem sparkling new because the yellowed backgrounds have been removed, and the colours are fresh and lifelike. Additionally, optical character recognition has been performed, and the PDF files are easily searchable.

A special collection of cactus and succulent paintings prepared over the years is available at the Cactus and Succulent Digital library. The cactus genera include *Cactus*, *Cereus*, *Echinocactus*, *Echinopsis*, *Epiphyllum*, *Lepismium*, *Leuchtenbergia*, *Mammillaria*, *Melocactus*, *Opuntia*, *Pereskia*, *Phyllocactus*, and *Rhipsalis*.

A second part describes succulents. About 45 succulent genera are represented that cover a vast and varied constellation of plants including: *Adenium*, *Aechmea*, *Agave*, *Aloe*, *Anacampseros*, *Apteranthes*, *Asclepias*, *Beschorneria*, *Billbergia*, *Boucerosia*, *Brachystelma*, *Bryophyllum*, *Caraguata*, *Caralluma*, *Centrostemma*, *Ceropegia*, and *Yucca*.

The species names are mostly from the 19th Century and thus many are not in common use



Figure 10. *Leuchtenbergia principis* Plate 4393.

today. However, they are synonymous with modern names, and a short visit to Tropicos can help sort out the various names [5].

Notes on the names:

Cereus leeanus is usually considered to be a synonym or variant of *Echinocereus polyacanthus*.

Leuchtenbergia principis remains the same.

The illustration of *Pereskia bleo* is not the true *P. bleo* (which has mostly solitary orange-red flowers), but is *P. grandifolia*, which for many years went incorrectly under that name.

Echinocactus longihamatus is *Ferocactus hamatacanthus*.

Cereus procumbens is currently usually called *Echinocereus pentalophus* var. (or ssp.) *procumbens*.

Cereus macdonaldiae is *Selenicereus macdonaldiae*.

Cereus fulgidus is an intergeneric hybrid ×*Disoselenicereus fulgidus*.

Cereus giganteus is *Carnegiea gigantea*.

Cereus tweedei is considered to be a synonym of *Cleistocactus baumannii*.

Wittia amazonica is now usually called *Pseudorhipsalis amazonica*.

Cactus flagelliformis is *Aporocactus flagelliformis*.

Echinocactus oxygonus is *Echinopsis oxygona*.



Figure 11. *Pereskia bleo* Plate 3478.

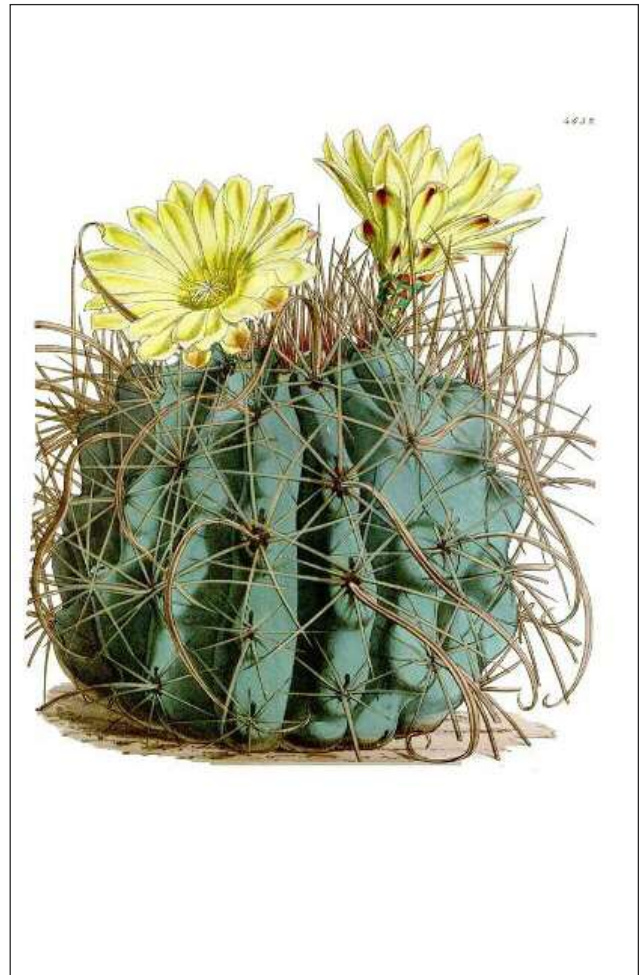


Figure 12. *Echinocactus longihamatus* Plate 4632.

References

1. CATHERINE W. (2018). Curtis's Botanical Magazine. *The Botanical Artist* **18**(3).
2. ANONYMOUS. Curtis's Botanical Magazine. [Internet] years 1801–1920; Available at: [https://www.biodiversitylibrary.org/bibliography/706#/. Accessed 4 Feb 2019.](https://www.biodiversitylibrary.org/bibliography/706#/)
3. ANONYMOUS. *The Botanical Magazine or Flower Garden Displayed*. years 1787–1801; Available at: [https://www.biodiversitylibrary.org/bibliography/307#/. Accessed 5 Feb 2019.](https://www.biodiversitylibrary.org/bibliography/307#/)
4. Cactus and Succulent Digital Library. [Internet] Available at: <https://www.cactuspro.com/biblio/en:accuei1>. Accessed 4 Feb 2019.
5. ANONYMOUS. *Tropicos*. [Internet] 2019; Available at: <http://www.tropicos.org/>. Accessed 5 Feb 2019.

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