EXHIBITION:

LEE ADAMS

GEORG D. EHRET

An Exhibition of Botanical Art & Illustration by

Lee Adams: nos. 1-29

Georg D. Ehret: nos. 30-70

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Hunt Botanical Library Carnegie Institute of Technology Pittsburgh, Pa.

Lee Adams

Lee Adams, a veteran of more than sixty one-man shows, is accepted as this country's outstanding artist for portraiture of tropical plants, and especially of tropical fruits. Born in Jacksonville, Florida, in 1922, and a graduate in biology from Rollins College, he has made a most successful career as a botanist and artist.

His prominence as a botanical artist followed eleven years of travel and artistic productivity compiling folios of tropical fruits of the world under the direction of the late David Fairchild, former Chief of the Bureau of Plant Introduction, U.S. Department of Agriculture.

More than 1,100 paintings of botanical and ornithological subjects have been produced by him, and while a majority are in private hands, they hang also in 26 institutional galleries and museums here and abroad. In 1965 he was commissioned to design and then executed the large mural that set the décor in the Florida Pavilion at the New York World's Fair. In 1966 he received the Rollins College Gold Decoration of Honor. For his production of a large suite of palm portraits he was awarded the Fairchild Tropical Garden's Robert H. Montgomery Palm Medal (gold). Today, with his wife and three children, Lee Adams continues to devote time to his art work while operating also an 1800 acre ranch near Jacksonville, Florida, where he makes his home. His mail address is: 1436 Avondale Ave., Jacksonville, Fla., 33205.

Tropical Fruits & Flowers

The water colors by Lee Adams in this exhibition are of the tropical fruits and flowers. With a few exceptions taken from this Library's holdings (nos.2,5,&22), they have been lent by him from his personal collection of field-produced studies. It is his practice, unless a work is commissioned to be unique, to retain the painting made in the field and to provide his client with a studio-produced copy. Only one such copy is made. The field-produced works, for which no copy has been made to date, may be commissioned from him. These are identified below by an asterisk (*). However, Mr. Adams will, on commission, paint a different composition based on any of the field-studies exhibited here.

Mat openings for the water colors in this group are approximately 27" \times 21".

- Avocado cv. 'Colinson' (<u>Persea americana</u>). This is one of the midwinter avocadoes grown in Florida. The fruit of this tree is known also as Alligator-pear. The species, <u>Persea americana</u>, first grown in Europe in the 1760's, is a native of <u>Central America</u> and <u>Mexico</u>.
- Avocado cv. 'Kendall Seedling'. A cultivar representing a selected seedling of the well known variety 'Kendall' popular in south Florida.
- 3. Baelfruit (<u>Aegle marmelos</u>). Related to the citrus fruits, but with a hard shell whose pulpy interior (in tangerine-like segments) is lemon-like in flavor with the consistency of a candied sweet-potato. Although a native of northern India, it is prized throughout much of the Orient. It is frequently used in beverages and sherbets.
- 4.*Banana cv.'Lady Finger' (<u>Musa sapientum</u>). The banana is believed by many to have come originally from Malaysia. It first flowered in Europe in Holland, where it was figured by Ehret (see p. 12 of this catalogue). Fruits were first shipped into this country, from Jamaica (?) in 1804. It is now cultivated throughout the tropics and more

- than 400 named varieties are grown, but of these only two or three are common in our markets.
- 5. Bougainvillea (<u>Bougainvillea glabra</u>). Named for the French navigator, de Bougainville, who found it in Brazilian gardens, this South American clambering shrub is now grown throughout the tropics and sub-tropics where more than 90 named varieties are known. Many are hybrids between this species and <u>B</u>. <u>spectabilis</u>. The showy colored bracts vary in color from white to orange, through shades of red to purple. The tubular cream-colored flowers at the center of the bracts provide an interesting contrast.
- 6. Breadfruit (Artocarpus communis). This fruit, from a large evergreen tree native of many South Sea islands, was made famous through Capt. Bligh's ultimately successful effort to introduce it to the West Indies without it Mutiny on the Bounty would not have been written. The fruit of most cultivated sorts is seedless. It is eaten, fried or baked, more as a vegetable than a fruit.
- 7.*Cacao, or Chocolate (<u>Theobroma cacao</u>). A small tree native to tropical America and widely cultivated in plantations for its fruit, from whose seeds ("beans") cocoa and chocolate are made. Cocoa differs from chocolate primarily in that the vegetable oils of the "bean" are removed, whereas in chocolate they are retained. The white beeswax-like fat extracted in the manufacture of cocoa is used as a flavorant and in pharmaceutical preparations.
- 8. Citron (<u>Citrus medica</u>). A shrub or small tree, long known to the Greeks and Romans, whose fruit is candied for use in confectionary products. Its production is a major enterprise on Corsica. The variety known as 'Corsican' was introduced to this country in 1894 by David Fairchild. The name <u>citron</u> is applied also to preserved watermelon rind and is used in baking and fruit confections.
- 9. Durian (<u>Durio</u> <u>zibethinus</u>). A stately tree of Malaya 80-100 feet tall, whose fruit is eaten throughout much of the southwestern Pacific areas by those who acquire a taste for it. It is malodorous, but its taste is delicious. Westerners not yet fully appreciative of its qualities as a delicacy, may describe its bouquet as a mixture of "either rotten cabbage and carrion," or one of "old cheese and onions, flavored with turpentine." The fruit has a high food value and contributes to the diet of millions of persons in southeast Asia.
- 10. Ilama (<u>Annona diversifolia</u>). A small tree to 25 feet tall, native from Salvador to Mexico. Widely grown in Central America as a dooryard fruit tree, its highly perishable fruit rarely gets to other than local markets. The cream-colored to pink flesh is of soft cheese-like consistency, with a pineapple-like aroma and bland flavor.
- 11. Japanese Persimmon cv. 'Okame' (<u>Diospyros kaki</u>). One of the seedless cultivars developed in Japan and grown in Florida and

- California. The red-orange fruit, when fully ripe, has a sweet pleasing flavor and a consistency that makes it seemingly melt when eaten.
- 12.*Mango cv. 'Anderson'. (Mangifera indica). The mango tree grows to 70-90 feet high and produces India's most important fruit crop. It serves more people throughout the world than have ever eaten an apple. More than 1,400 varieties of the fruit have been named and described. Perhaps 100 have been grown in this country. The flavor is difficult to describe, always aromatic, it is akin to a combination of apricot and pineapple. In poor varieties it may have more than a suggestion of turpentine and with a fibrous rather than custardy texture. In this country it is used increasingly in beverages, preserves, and ices, and always is prized as a chilled fresh fruit. The 'Anderson' is a large-fruited cultivar developed in the U.S.
- 13.*Mango cv. 'Cecil'. A cultivar developed from Cambodian and Chinese varieties, grown in Florida as a dooryard fruit tree.
- Mango cv. 'Fascell'. A Florida-produced clone grown for the smooth non-fibrous texture and delicious flavor of its fruit.
- 15.*Mango cv. 'Julie'. A favorite variant of the late David Fairchild and grown by him in his Coconut Grove garden, at the Kampong.
- 16.*Mango cv. 'Kent'. This is a relatively new mango bred in Florida and whose current popularity matches that of the well known 'Hayden'.
- 17. Monstera, or Ceriman. (Monstera deliciosa). A woody Central American and Mexican tropical vine of the aroid family, sometimes grown in the north as a foliage plant. Its fruit is commonly eaten in the tropics, but only when fully ripe and when its pulp has a texture-flavor combination suggestive of a pineapplebanana hybrid.
- 18.*Mountain Soursop (<u>Annona montana</u>). A forest tree of the West Indies sometimes cultivated in tropical gardens for its fruit. The latter, of minor importance for food, is sweet with a slightly acid flavor.
- 19. Night-blooming Cactus (<u>Harrisia</u> <u>fragrans</u>). A climbing or clambering species of cactus, native to the West Indies and southern Florida, found frequently in the palms and pines of the Florida Keys.
- 20.*Noronhia (<u>Noronhia emarginata</u>). A shrubby evergreen tree, from Madagascar, related to the olive, having thick leathery leaves and a drupe-like fruit that is purple when ripe. It is occasionally grown as a dooryard tree in Florida. Its fruit pulp is sweetish and may be eaten raw or cooked.

- 21. Nutmeg (Myristica fragrans). A native of tropical Asia, the tree is now naturalized in the West Indies. It is grown for its fruit, whose seed is the nutmeg of commerce. This seed is partially enveloped by a red fleshy web, or aril, from which is made mace of the spice trade.
- 22. Purple Wreath (<u>Petrea volubilis</u>). A twining spring-blooming vine of the American tropics with a showy rather persistent lavender calyx and usually darker purple corolla. A native of the Verbena family.
- 23. Rauwolfia (Rauwolfia ternifolia). This tropical genus, sometimes spelled Rauvolfia, occurs in both the New and the Old World and is being studied intensively for medical therapeutic properties.
- 24. Sea-grape (<u>Coccoloba uvifera</u>). A tropical American evergreen shrub common to costal dunes and grown as an ornamental for its leathery foliage and edible fruit; the latter makes a good jelly.
- 25. Star-apple (<u>Chrysophyllum cainito</u>). Dense evergreen tree of tropical America, grown as an ornamental and for its edible fruit. The pulp of the latter, when tree ripened, is gelatinous in texture and refreshingly delicious.
- 26. Sugar-apple (Annona squamosa). Known also as the sweet-sop, the fruit of this small tropical American tree has an edible white delicate pulp, sweet in taste and rose-like in fragrance. Common in West Indian markets.
- 27. Tamarind (<u>Tamarindus indica</u>). A large spreading tropical (probably African) tree of the Legume family. The acid brown pulp of the fruit is used for beverages and preserves, and in the Orient is an ingredient with mango fruit of some chutnies.
- 28.*Vanilla (<u>Vanilla fragrans</u>). A climbing Mexican orchid grown throughout the tropics for its pods which, when ripe and dried, make the "Vanilla Bean" of commerce and from which pure vanilla extract is made.
- 29. White Sapote (Casimiroa edulis). A large Mexican evergreen tree, grown in the tropics as a shade tree and for its fruit. The latter are peach-like in flavor (slightly bitter when first tasted with a sweet after-taste), and are soft and creamy in texture.

Georg Dionys Ehret

Georg Dionys Ehret (1710-1770) dominated the field of botanical illustration in the mid-eighteenth century. His involvement with the world's leading botanists and the pictorial botanical publications of his age gave scope to the robust illustrative skill and botanical precision that place him among the finest plant illustrators of any age.

Ehret was the son of a Heidelberg market gardener. His talent as a flower painter and his knowledge of gardening attracted influential patrons. Notable among these was Dr. Johann Wilhelm Trew, a wealthy Nuremberg physician, who impressed on the young man the importance of accuracy, and who was to remain a lifelong friend and patron. After working in Paris, and Holland, where he learned much botany from such eminent scientists as de Jussieu and Linnaeus, Ehret settled in England in 1736, where his career flourished until his death in 1770. Sir Hans Sloane, founder of the British Museum and patron of the Chelsea Physic Garden, was one of several influential men who helped him gain success. Among the daughters of England's titled rich, particularly, Ehret became popular as an instructor in flower painting. Nonetheless, despite this mundane bread-and-butter occupation, his mark was made and today stands as a flower portraitist of eminence.

Though Ehret's art appears in many well-engraved published plates (some by his own hand) the quality of his art cannot be adequately judged without seeing his paintings. The bulk of them are in European collections, and few are known to be in this country. We are particularly fortunate to be able to add these ten splendid examples to the six paintings previously in the Hunt collection. Painted in rich opaque colors, they are characteristic of Ehret's best work. One of them, that of the Christmas-rose was reproduced in full color in this Library's Christmas-report for 1966. (A limited number of copies is available on request.) Art and science are both served in these works by a style that in Ehret is vigorously masculine, as compared with the more gracefully quality to be seen in works by such later masters as Redouté, the Bauer brothers, and Bessa.

A Recent Acquisition

Featured at this time are ten opaque water colors on vellum, by Ehret, given to this Library last year by the late Mr. Roy A. Hunt. Their existence in California came to our attention when, late in 1965, their owner, Mr. Fred C. Daugherty, reported having received them by bequest from his brother and that he was seeking information on Ehret and his work, with a view towards disposal of them as a single collection. Subsequent study of each of the vellums satisfied us that they are originals by Ehret and not later copies. At the same time, no evidence has been found that they have been reproduced although the reproduction of Ehret's trumpet-vine (Campsis radicans) in Wilfrid Blunt's Georg Dionysius Ehret (Guilford, 1953) plate no. 5, strongly suggests that no. 39 of this catalogue may have been an earlier study for the painting there reproduced (the original is at the Victoria and Albert Museum).

These ten paintings are here exhibited for the first time, and the Library is grateful to Mr. Hunt for his generous interest in having provided a suite of paintings that the late Rachel McMasters Miller Hunt (Mrs. Roy A. Hunt) would have treasured with justifiable pride and enthusiasm.

These paintings were done in the 1740's. The subject of each is identified by the then current but polynomial identifications, written by Ehret in his characteristic hand on most of the vellums. These long cumbersome names preceded the system of binomial nomenclature introduced by Linnaeus in 1753. They are not repeated in the following entries, where only the current common and Latin names are given. For each painting the mat opening size is given in inches.

- 30. Barleria (Barleria solanifolia). Signed, undated. 17 $1/2'' \times 13 1/4''$.
- 31. Catalpa (Catalpa bignonioides). Signed, dated 1740. 20 3/4" × 14".
- 32. Chokeberry, red (Aronia arbutifolia). Signed, undated. 17 3/4" \times 12 1/2".

- 33. Christmas-rose (Helleborus niger). Signed, dated 1745. 17 3/4" \times 13 1/2".
- 34. Haworthia (Haworthia arachnoides). Signed, dated 1741. 20 1/4" \times 13 1/2".
- 35. Honey-locust (Gleditsia triacanthos). Signed, dated 1744. 18 $1/2'' \times 13 1/4''$.
- 36. Iris (Iris susiana, I. xiphioides). Signed, dated 1745. 20 $1/2'' \times 14''$.
- 37. Redbud, or Judas Tree (Cercis canadensis). Signed, undated. 18" \times 13 3/4".
- 38. Rhubarb (Rheum rhaponticum). Signed, dated 1741. 20 1/4" \times 14".
- 39. Trumpet-vine (Campsis radicans). Signed, undated. 19" × 13".

Ehret paintings acquired before 1960

When the late Mrs. Hunt gave her collection to this Library, six paintings in opaque water color had been acquired from various sources. Those dated are later than the ones of the Daugherty acquisition. Three are on paper (nos. 40-42) and three are on vellum (nos. 43-45). Mat opening sizes are given in inches.

- 40. Bouquet (Tulip, fritillary, gentian, stock). Signed, dated 1749. 12 3/4" \times 9 1/4".
- 41. Cherry-laurel (Prunus laurocerasus). Signed, undated. 15 $3/8" \times 11"$.
- 42. European Red Elder (Sambucus racemosa). Signed, undated. 15 $3/8" \times 10$ 7/8".
- 43. Horse-mint (Monarda punctata). Signed, dated 1763. 9 7/8" \times 6 3/4".
- 44. Summer Phlox (Phlox paniculata). Signed, dated 1764. $10'' \times 6 \ 3/4''$.
- 45. Tree peony (Paeonia suffruticosa). Signed, dated 1756. 17 1/8" \times 11 3/8".

Ehret Plates from Trew's Plantae Selectae

Christoph Jakob Trew (1695-1769) was a Nuremberg physician who produced two of the 18th century's most sumptuous botanical colorplate works: Plantae selectae (1750-73) and Hortus nitidissimus (1768-86, in 3 vols.). The former (see also p. 14) owes much of its fame to its 100 engraved and hand-finished color plates made from Ehret paintings — another 200 paintings done by Ehret for two successive volumes that were to follow were never published due to Trew's sudden death. Botanically, the work never became important since its text is uncritical and Trew refused to accept, through the first nine of the ten separately issued parts, the then new binomial nomenclature of Linnaeus. Nonetheless, these reproductions of Ehret's paintings establish his supremacy among the botanical artists of his day. Since these are engravings, sizes given below are of the plate marks made by impression of the copperplate.

- 46. American Turk's-cap Lily (<u>Lilium superbum</u>). 19 1/4" × 12 1/4". Plate 11. "Drawn from a specimen flowering in August 1738 in Dr. [Peter] Collinson's garden."
- 47. Bull-Bay (Magnolia grandiflora). 16 5/8" × 11 1/8". Plate 33.
- 48. Ellisia (Ellisia nyctelea). 14 $1/4" \times 9 1/8"$. Plate 99.
- 49. Frangipani (Plumeria rubra). 18 3/4" \times 12 5/8". Plate 41.
- 50. Gladiolus (Gladiolus tristis). 15 $1/2" \times 9 7/8"$. Plate 38.
- 51. Guava (Psidium guajava). 16 7/8" × 11". Plate 43.
- 52. Moth Mullein (Verbascum blattaria). 16 3/4" × 11". Plate 16.
- 53. Papaya (Carica papaya). 16 7/8" × 11 1/4". Plate 7.
- 54. Pinxter-Flower Azalea (Rhododendron nudiflorum var, roseum). 15 $1/2" \times 9 1/8"$. Plate 48.
- 55. Shooting-Star (<u>Dodecatheon meadia</u>). 17 3/8" × 10 5/8". [cropped size]. Plate 12.
- 56. Spider-lily (Pancratium americana). 17 $3/8" \times 11 7/8"$. Plate 27.
- 57. Watsonia (Watsonia meriana). 15 $1/2" \times 9 3/4"$. Plate 40.

Ehret prints from other works

Ehret's work was in demand. Early, after leaving his native Heidelberg, where he painted flowers for Johann Weinmann, he went to Nuremberg, and then to Holland where he was engaged by George Clifford and worked closely with Linnaeus. A bibliography of paintings by Ehret, as reproduced in published works, is long overdue. A small selection is given here. All are hand-colored engravings unless noted otherwise. Sizes are of platemarks, in inches.

58. Abutilon, yellow-flowered (Abutilon indicum, with a pink-flowered species of Sida). 13 1/4" × 8 1/4". Miller, Philip - Figures ... of plants described in The gardeners dictionary ... London, 1760. Vol. 1, pl. 3.

Ehret, who married Miller's sister-in-law, prepared many plates for Miller's work, and used plants grown by Miller for many of the plates he painted for others.

- 59. Banana (<u>Musa sapientum</u>?) Engraving, uncolored, 25" × 18 1/4". Drawn and engraved by Ehret "in 1736 from a specimen belonging to Baron Joseph Ayloffe." - <u>fide</u> autobiographical sketch written in 1758.
- 60. Carolina Allspice (<u>Calycanthus floridus</u>). Signed, undated. 16 1/8" × 10 3/8". Plate identified as "Tab. I" from an unknown publication. Caption identifies the subject by the pre-Linnaean polynomial: "<u>Bevreria</u>" <u>petalis coriaccus oblongis, calycis foliolis reflexis</u>," and the plant to have been received from Mark Catesby. The plate is dated 1755.
- 61. Cluster Pine (Pinus pinaster). Engraving, 21 3/4" \times 15 5/8". Lambert, A. B. A description of the genus pinus ... London, 1803-24. Vol. 1, pl. 5.
- 62. Moss Rose (Rosa centifolia var. ?). $15" \times 10$ 1/2". Trew, C. J. Hortus nitidissimus, ... Nuremberg, 1750-86. Vol. 2, pl. 34.

63. Sea-grape (Coccoloba uvifera). 14 5/8" × 10 1/4". Catesby, Mark - The natural history of Carolina, ... London, 1730-43. Vol. 2, pl. 96.

Books containing reproductions of Ehret's work

The Hunt Botanical Library possesses a majority of the books in which Ehret's work is represented. Space permits the display of only a selection of these volumes, chosen either for the excellence of the reproductions or for the preponderance of reproductions of his paintings.

64. Browne, Patrick - <u>Civil and natural history of Jamaica</u>. London, 1756.

Of the 50 engraved plates, all 38 of the botanical subjects, and five of the zoological, are made from Ehret's drawings. Many are dated 1755, a period when his popularity as an instructor in flower painting among the high-born ladies of England was so great that he refused Browne's offer of a premium price to engrave the plates himself.

- 65. Catesby, Mark <u>The natural history of Carolina</u>, <u>Florida and the Bahama Islands</u>. London, 1731-43.
 - Ehret produced three of the plates in this work. The remainder were drawn and engraved by Catesby himself. This work, famous as a colorplate book of American plant and animal life, antedates Audubon's still more famous work by a century.
- 66. Linnaeus, Carl Genera plantarum ... Lugduni Batavorum, 1737.

 This plate, by Ehret, but not so identified, was drawn to depict the diagnostic features of the classes of Linnaeus' sexual system of classification (so-called, since it was based in part on the number of units comprising the male and female elements of the flower). The original, done in color, is in the Botanical Department of the British Museum (Natural History). It is an adaptation of an independently published "Tabella" engraved and sold by Ehret (1736) when in Holland. Subsequent editions of the Genera Plantarum (of which the third (Paris, 1743) is shown here), usually included this plate.
- 67. Hughes, Griffith The natural history of Barbados. London, 1750. Hughes, an Oxford graduate, was rector of a Church of England parish in Barbados. It is believed that all but seven of the 35 plates in this work are engraved after Ehret's drawings. (although only 12 are signed by him). The plates are dedicated mostly to royalty and the peerage (this being a "device" of that era by

which an author would solicit contributions from the dedicatees to help meet publication costs). One plate is addressed to Dr. Richard Mead, physician to George II, and friend of Ehret. The American woodland plant, Dodecatheon meadia, commemorates Dr. Mead.

- 68. Linnaeus, Carl Hortus Cliffortianus ... Amstelodami, 1737. The frontispiece and 35 plates of this work - the only one out of several hundred titles by Linnaeus to be substantially illustrated - are engraved reproductions (by Jan Wandelaar) of paintings by Ehret, executed while in the employment of George Clifford of Hartekamp, Holland, Botanically it is important for Linnaeus' detailed descriptions of the plants, and was published by Clifford to provide an illustrated catalogue of the plants growing on his estate. Clifford, a wealthy banker and a director of the Dutch East India Company, was able to establish and maintain the most extensive collection of exotic plants of his day, due largely to his standing order to all ships in the Company to bring seeds, bulbs, and plants back to him from every foreign land visited. For this reason, many species new to Europe's gardens entered through Clifford's estate, and a substantial number of those illustrated here by Ehret were figured in print for the first time in this book. Clifford had the remarkable foresight to hire both the brilliant young Swedish naturalist (engaged also as his private physician), and one of the most promising flower painters of the day, to produce this volume.
- 69. Trew, Christoph Jakob Plantae selectae ... Nuremberg, 1750-73. This sumptuous volume has been called by the bibliographer of botanical art. Claus Nissen, "one of the most beautiful flower books ever published in Germany." It is certainly a handsome memorial to the long and close association between Ehret and his patron Dr. Trew. The 100 plates (plus 20 published in a supplement) are engraved by Johann Jacob Haid after Ehret paintings. Haid's engraved portrait appears in the book, along with those of Trew and Ehret. The colored engravings of the flowers are exquisitely hand-finished, mostly in opaque water colors - a notably successful treatment for line-engravings. The effect is further enriched by the rendering in gilt of the generic names in plate titles. The Hunt Botanical Library possesses copies of two editions of this work, both richly colored, as well as twelve detached plates (acquired separately) and included in this exhibition (see nos. 46-57).
- 8 vols. Regensburg, 1737-45.

 Weinmann, a Regensburg apothecary, employed a succession of local physicians to draft plant descriptions, as well as several draughtsmen and engravers, for the illustrations, to produce

70. Weinmann, Johann Wilhelm - Phytanthoza iconographia ...

illustrated on some 1,025 plates - a good record of flowers, fruits, and vegetables cultivated in Germany in the early eighteenth century. This highly successful work, which appeared also in a Dutch translation, may be considered a blending of the old herbal tradition (emphasizing practical application) with that of the baroque flower book. Many of its plates were copied for use by the famous Meissen porcelain factory.

Ehret, in his first important commission, prepared about 500 water color drawings for Weinmann, who paid him a mere pittance. It is generally supposed that Ehret's drawings were used for the earliest of the plates, which are unsigned.

In many of the plates a sort of mezzotint color printing is attempted. The plate was roughened only in certain areas to carry fine-grained tones (in a true mezzotint the whole plate is roughened, and tonal gradations achieved by scraping away more or less of the roughened part). The process is here combined with etching, giving a line-and-tone effect, which is completed by hand retouching in color.

this work. Approximately 4,000 plants, native and exotic, are

