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Israhel van Meckenem the younger (1440 or 1445–1503) born Meckenheim, Holy Roman Empire (present-day Germany); died Bocholt, Holy Roman Empire (present-day Germany) after Master of the Housebook (circa 1470–1500) *The Lovers*, late 1400s engraving

Gift of the Max Kade Foundation, 1969.0122

In the 15th century, gardens often inspired connotations of courtly love in chivalric medieval romances, poetry, and art. Sometimes referred to as gardens of love or pleasure gardens, these relatively private spaces offered respite from the very public arenas of court. Courtiers would use these gardens to sit, read, play games, roam the walkways, and have discreet meetings. Plants often contributed to the architecture of courtly gardens. Here, the suggestion of a grove sets the tone for the intimate activities of the couple. The smells of flowers and herbs, the colors of blooms and leaves, the sounds of birds, and of the running water of fountains all added to the sensuality of medieval pleasure gardens.

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Esaias van Hulsen (circa 1585-1624)

born Middelburg, Dutch Republic (present-day Netherlands); died Stuttgart, Duchy of Württemberg (present-day Germany)

Console of scrolling foliate forms with flowers and two birds, and a hunter shooting rabbits, circa 1610s

engraving

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2013.0204

In this engraving van Hulsen carries on the longstanding ornament print tradition of imagining complex, elegant botanical structures. Ornament prints encourage viewers to search through the depicted foliage for partially hidden figures and forms. In this artwork viewers can find insects and birds. Van Hulsen adds a relatively orthodox landscape populated by a rabbit hunter, his dog, and their quarry to this fantastic realm of plants and animals. At least two contemporary developments in printmaking inform this work: blackwork engraving and the *cosse-de-pois*, or peapod, style ornament.

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Unknown artist

present-day Germany

Neues Blumen und Laube Büchlein (New Book of Flowers and Foliage), 1600s

12 engravings

Museum purchase: Letha Churchill Walker Memorial Art Fund and Museum of Art Acquisition Fund, 1998.0687.01-.12

These elegant imaginary flowers fall in the category of ornament prints. In this case, a central plant or plant-derived ornament is flanked by houses, castles, or other manmade structures. The unknown creator of these images invented fanciful blooms with no real-world counterparts. Although the tiny people and places depicted in these plates suggest the artist's or their patron's curiosity about the world of humans, the beauty and peculiarity of the botanical realm takes center stage and everything else is pushed aside.

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Michiel Snyders (1586–1672)

born and died Antwerp, Southern Netherlands (present-day Belgium)

Untitled (Bouquets of Flowers in Ornate Vases, with Insects), 1612–1614

seven engravings

Museum purchase: Gift of Lucy Shaw Schultz, 2013.0205.01-.07

These meticulously engraved and scientifically accurate prints show cut flowers, an increasingly popular subject for artistic representation at the time. By the middle of the 16th century the first-hand observation of specimens grown in botanical gardens or compiled in herbaria (collections of preserved flora) played an essential role in the study of plants, particularly of their medicinal properties. Botanical prints such as these exemplify this development and demonstrate the considerable overlap between the work of artists and botanists.

Salomon Saverij (1593/1594-1683)

born Amsterdam, Dutch Republic (present-day Netherlands); died Haarlem, Dutch Republic (present-day Netherlands) after **François Lefebvre**

active France, 1635–1657

Livre de fleurs & de feuilles pour servir à l'art d'orfèvre (Book of Flowers and Leaves to Serve the Art of the Goldsmith), 1639

five engravings

Museum purchase: Barbara Benton Wescoe Fund, 2013.0044.01-.05

So-called "ornament prints," like these engravings of flowers and leaves, were made as models for the decorative arts. The use of these prints is articulated on the title page: "to serve the art of the goldsmith."

Plants offered artists aesthetically pleasing subject matter, ideal for the display of elegant curving lines and delicate, harmonious compositions, while simultaneously spurring their imaginations through the seemingly infinite possibilities inspired by the botanical world.

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Antoine-Jean Weber (1797–1875)

active Paris, France

after **Louise Adéone Drölling** (1797–1834)

active Paris, France

Une jeune personne calquant une Fleur (A Young Woman Tracing a Flower), 1820–1875

lithograph

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2002.0029

Weber's lithograph presents botany as a science that upperand middle-class women in the 19th century could, and often were encouraged, to practice from home. It also illustrates the intersections among science, drawing, and photography. The word photography derives from *photos*, meaning light, and *graphos*, meaning writing, delineation, or painting. This etymology signals the conception of photos as drawings made by light.

Victorian society deemed drawing and painting, along with sewing and playing music, to be beneficial skills for upstanding, middle-and upper-class young women. This image, which reproduces a painting by Louise Adéone Drölling now in the Saint Louis Art Museum, stresses the capabilities of the depicted woman in the realms of art and science. In addition to her study of the flower, numerous books, a musical instrument, a sculpture, and a portfolio of works on paper accompany her.



Carl Wilhelm Kolbe the elder (1759–1835)

born Berlin, Germany; died Dessau, Germany

Die Kuh im Sumpf (The Cow in the Swamp), circa 1800–1803 etching

Museum purchase: Anonymous gift of a KU unclassified professional staff member, 2010.0206

Kolbe, a critical figure in the period of German art between Neoclassicism and Romanticism, made this etching about 12 years after his compatriot Johann Wolfgang von Goethe (1749–1832) wrote *Versuch die Metamorphose der Pflanzen zu erklären* (*The Metamorphosis of Plants*). In this book, published in 1790, Goethe seeks to understand the enormous variety of plant forms and explain his theories about plant morphology.

Kolbe's most memorable works convey a sense of nature as an overwhelming force. Here he communicates this perception through a stifling eruption of enormous foliage. Perhaps Kolbe was attuned to the idea that Germany's past, as distinct from Greco-Roman antiquity, was rooted in ancient German forests. If so, are Kolbe's studies of giant vegetation an echo of German origins, or an expression of the forces of the natural plant world overwhelming humans, mythological figures, and animals alike?

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Rodolphe Bresdin (1822–1885)

born Le Fresne, France; died Sèvres, France

Le bon Samaritain (The Good Samaritan); originally titled Abdel el-Kader secourant un chrétien (Abdel el-Kader aiding a christian), 1861

lithograph, chine collé

Museum purchase: Helen Foresman Spencer Art Acquisition Fund, 2011.0011

The title of this lithograph originally referenced a renowned Emir of Algeria, Abdel el-Kader (Abd el-Kader, 1808–1883), who intervened to save a Christian community in Damascus, Syria, in 1860, the year before this monumental lithograph was completed. The fact that Bresdin changed the title to the more widely known biblical narrative of the Good Samaritan suggests that the title was secondary to the artist's vision of an imagined world overrun by plant life and the multitude of creatures it supports. The novelist Joris-Karl Huysmans praised this specific print, and notably its botanical content, in the text of his 1884 À rebours (Against the Grain), describing the picture as:

...a wild entanglement of palms, service trees, oaks, growing all together in defiance of seasons and climates, an outburst of virgin forest, crammed with apes, owls and screech owls, cumbered with old stumps shapeless as roots of coral, a magic wood, pierced by a clearing dimly revealing far away, beyond a camel and the group of the Samaritan and the man who fell by the wayside, a river and behind it again a fairy-like city climbing to the horizon line, rising to meet a strange-looking sky, dotted with birds, woolly with rolling clouds, swelling as it were, with bales of vapour. You would have thought it the work of an early Italian master or a half-developed Albert Dürer [sic], composed under the influence of opium.

Christopher Dresser (1834–1904)

born Glasgow, Scotland; died Mulhouse, France

Leaves and Flowers from Nature No. 8

in Owen Jones, *The Grammar of Ornament* (London: Day & Son, 1856)

lithograph

Intended Gift of The Weare-West Family Trust, EL2017.162

This sheet of botanical illustrations comes from *The Grammar of Ornament*, a design sourcebook from 1856 containing text by the influential architect and designer Owen Jones alongside 100 color lithographs depicting various patterns. Jones devoted the final chapter of his book, "Leaves and Flowers from Nature," to the historically and geographically common foundation shared by the best examples of ornament and design: natural forms, particularly those found in the botanical world. Jones envisioned the book as a valuable resource for students of design.

This plate is the only image in *The Grammar of Ornament* designed by Christopher Dresser, a botanist, artist, and student of Jones's at London's School of Design, where Dresser would eventually teach. Dresser and Jones were important figures in a campaign led by scientists and artists to reform the British design industry in light of the School of Design's policy of "wedding science with art." The science in question was heavily influenced by Charles Darwin's then hotly contested theory of evolution.

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Thomas Jeckyll (1827–1881)

born and died Norwich, England

Design for a bracket panel for a Japanese pavilion, 1876 pencil and blue wash

Museum purchase: Letha Churchill Walker Memorial Art Fund, 1977.0015

This drawing of a sunflower motif was made for the Japanese Pavilion in the Philadelphia Centennial Exposition of 1876. The pavilion was ground zero for the introduction of the perennial Kudzu vine (Japanese arrowroot) into the United States, where it has since been labeled an invasive species. Jeckyll has depicted a simplified rendering of one of the two spiraling forms that is indicative of the fundamental mathematics of the growth of florets that make up a sunflower seed head.

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William Morris (1834–1896)

born Walthamstow, England; died London, England

Double Bough, 1890

block print wallpaper

Museum purchase: Letha Churchill Walker Memorial Art Fund,

1989.0023

The late 19th-century English Arts & Crafts Movement, championed by William Morris, was largely a reaction against mass-production in the wake of the 18th-century Industrial Revolution. Morris and his firm, Morris & Co., believed in excellence of design and craftsmanship in the objects they produced for human environments: textiles, wallpaper, rugs, furniture, stained glass, and books.

Morris & Co. emphasized natural form in design on both aesthetic and ethical grounds to the extent that one scholar has referred to "William Morris's Socialist Biophilia," citing Morris's observation that "everything made by man's hands has a form, which must be either beautiful or ugly; beautiful if it is in accord with Nature, and helps her; ugly if it is discordant."

+ +

Karl Kröner (1887–1972)

born Zschopau, Germany; died Radebeul, Germany

Waldflechte (Forest Lichens), 1906

gouache on paper

Museum purchase: Letha Churchill Walker Memorial Art Fund, 1976.0005

Kröner completed this gouache painting, a type of watercolor, while he was still a student at the Royal Academy of Arts in Dresden, Germany. Although there is no written documentation accompanying it, it is easy to propose that this work is the result of an assignment in which students were instructed to carefully depict an element from the natural world and then gather from it examples of repeating decorative designs for tiles, wallpaper, etc. In this case, Kröner has beautifully depicted a specimen of forest lichen in the upper left and filled the rest of the sheet with patterns derived from it.



Orval Hixon (1884–1982) born Ray County, Missouri; died Lawrence, Kansas Sammy Baird, 1925 gelatin silver print

Gift of Mr. and Mrs. Orval Hixon, 1971.0359

Jazz dancer and instructor Sammy Baird stands *en pointe* before a curving, flowering branch that extends from an elegant vase. Baird, who lived and worked in Kansas City in the early 20th century, gazes intently at the plant as she contorts her body to mirror the contours of her botanical inspiration. Her satin robe, decorated with floral motifs, and the large, white flower affixed to her headband underscore the significance of her pose. Captured by renowned Kansas City vaudeville photographer Orval Hixon, this photo demonstrates the ongoing exchange between the world of plants and the visual and performing arts. Just as Baird and Hixon seem to have appreciated the parallels between human and botanical behaviors nearly a century ago, the movements and morphologies of the botanical world remain a focus for contemporary dancers, performance artists, and even painters.

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Jean-Émile Laboureur (1877–1943)

born Nantes, France; died Pénistan, France

L'Entomologiste (The Entomologist or The Insect Collector),

1932–1933

engraving

Museum purchase: Elmer F. Pierson Fund, 2016.0255

This engraving from the early 1930s is one of the artist's largest and most celebrated works. Among the hum of insect and plant life there is a clear expression of *biophilia*, a term coined by entomologist and biologist Edward O. Wilson in 1984. If "plant blindness" is the general notion that humans do not notice their slow-moving botanical environments, then this print expresses its opposite. We likely notice leaves, trees, and grasses and the insects they support before we notice the botanophiliac entomologist quietly at work.

Laboureur was an itinerant painter, watercolorist, lithographer, and book illustrator active in France, the United States, and Canada. He is best known for his elegant and sinuous handling of the burin, an engraving tool, in his engravings that are stylistically situated between Cubism and Art Deco.

Richard Alden Griffin (1944–1991)

born Palos Verdes, California; died Petaluma, California

"Aoxomoxoa," The Grateful Dead, The Sons of Champlin, Initial Shock, January 24-25-26, Avalon Ballroom, 1969 color offset lithograph

Museum purchase: Joe and Barb Zanatta Fund, 2002.0112

Cartoonist and graphic designer Richard Alden "Rick" Griffin produced numerous psychedelic posters advertising West Coast rock shows during the 1960s, including influential designs for the Grateful Dead. These posters often feature imagery and text that draw inspiration from Art Nouveau, as well as from contemporary notions concerning spirituality.

Griffin's poster displays his interest in breaking down the boundaries between the individual and the elements that make up the outside world. The relationship between human and plant sexuality, a concept famously explored by Swedish botanist Carl Linnaeus in the 18th century, seems to have captured Griffin's attention. Botanical and animal sexual systems combine in the poster to create a hybridized image of the world in which lotus flowers grow from wombs bearing human fetuses and the roots of trees resemble a woman's ovaries and a vagina. A phallic skull stands below a sun ringed with sperm, further reinforcing the proposed oneness of all things.



Mark Kostabi

born 1960, Los Angeles, California

Flaws are Opportunities, 1983

ink, crayon or pastel, graphite, and charcoal on paper
The Helen Foresman Spencer Museum of Art, The University of
Kansas, The Dorothy and Herbert Vogel Collection: Fifty Works
for Fifty States, a joint initiative of the Trustees of the Dorothy and
Herbert Vogel Collection and the National Gallery of Art, with
generous support of the National Endowment for the Arts and the
Institute of Museum and Library Services, 2009.0056

Painter and composer Mark Kostabi often says that flaws are opportunities, a sentiment that inspires the title and subject matter of this drawing. Although lacking a head, the figure holds a pot from which a plant grows to fill the emptied space above its neck and shoulders. The plant, which possesses an almost unlimited potential for growth and change, may be seen as both filling a void and allowing the figure to reach heights and achievements not possible with an ordinary human head. The pot itself resembles the body that holds it and seems as though it would fit perfectly in the hollow neck of the figure. Kostabi draws from the common conception of plants as symbols of hope and potential; for instance, the bud that blossoms into a beautiful flower or the seed that transforms over time into a towering tree. The headless figure in this artwork embraces possibility and opportunity in the face of adversity.

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John Gerard (1545–1612)

born Nantwich, England; died London, England **Title page** from The herball or Generall historie of plantes.

Gathered by Iohn Gerarde of London Master in Chirurgerie very much enlarged and amended by Thomas Iohnson citizen and apothecarye of London.

London: Adam Islip, Ioice Norton, and Richard Whitakers, 1636 Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, E53 Courtesy of Special Collections, Kenneth Spencer Research Library, University of Kansas Libraries

Gerard's herbal was based largely on the work of Rembert Dodoens (1517–1585), a Flemish botanist and physician. Both authors used many of the same sets of woodcut blocks to print their illustrations. This points to a key virtue of printmaking as stated by William M. Ivins, Jr.: the ability of prints to produce "exactly repeatable pictorial statements." It was this ability that gave printed images the same level of authority as the printed word. This had an enormous impact on the sciences because scholars were no longer reliant on unique, handmade copies of images and texts.

Nehemiah Grew (1641–1712)

born Warwickshire, England; died London, England The Anatomy of Plants with an Idea of a Philosophical History of Pants, and Several Other Lectures, Read before the Royal Society By Nehemiah Grew M.D. Fellow of the Royal Society, and of the College of Physicians

London: W. Rawlins, for the author, 1682 Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, E52

Plate 34, Sumach Branch Cut Transversely

Courtesy of Special Collections, Kenneth Spencer Research Library, University of Kansas Libraries

Nehemiah Grew, a leading botanist of his day, researched and wrote extensively about plant anatomy and used the relatively recent invention of the microscope in innovative and influential ways. In his celebrated 1682 publication *The Anatomy of Plants*, Grew includes 82 intricately detailed etchings illustrating a variety of botanical systems. Before Grew's innovations, botanists often studied the external shapes of plants but debated about their inner organs. Using a microscope, Grew became the first to identify stamens and pistils as male and female sex organs.

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Albertus Seba (1665–1736)

born East Frisia, Germany; died Amsterdam, Netherlands Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physiees historiam...

Amsterdam: J. Wetstenium, Gul. Smith, and Janssonio-Waesbergios, 1734–1765

Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, Ellis Aves H28

Volume 1, Plate I, Skeletons of Various Fruits

Courtesy of Special Collections, Kenneth Spencer Research Library, University of Kansas Libraries

Albertus Seba's 18th-century publication *Locupletissimi rerum naturalium thesauri*, better known simply as his *Thesaurus*, provided a wealth of botanical and zoological information. The four-volume study describes, illustrates, and categorizes a variety of *naturalia* from the author's own extensive and celebrated cabinet of curiosities. Although Seba died before completing the last two volumes, he managed to produce the illustrations for books III and IV to which textual descriptions were added and falsely attributed to him because of the credibility of his name. In this plate, Seba illustrates the intravenous systems, or "skeletons," of a number of fruits, including pears, a quince, apples, peaches, an apricot, and a plum, along with that of a mushroom.

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Albertus Seba (1665-1736)

born East Frisia, Germany; died Amsterdam, Netherlands Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physiees historiam...

Amsterdam: J. Wetstenium, Gul. Smith, and Janssonio-Waesbergios, 1734–1765

Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, Ellis Aves H28

Volume 1, Plate IV, Deciduous Leaves from Various Plants
Courtesy of Special Collections, Kenneth Spencer Research
Library, University of Kansas Libraries

Albertus Seba's 18th-century publication *Locupletissimi rerum* naturalium thesauri, better known simply as his Thesaurus, provided a wealth of botanical and zoological information. The four-volume study describes, illustrates, and categorizes a variety of *naturalia* from the author's own extensive and celebrated cabinet of curiosities. Although Seba died before completing the last two volumes, he managed to produce the illustrations for books III and IV to which textual descriptions were added and falsely attributed to him because of the credibility of his name. In this plate, Seba illustrates the intravenous systems, or "skeletons," of the leaves of a New Guinean massoy tree (a genus of evergreen trees belonging to the laurel family), along with four leaves, a flowering body, seed pods, and seeds from a plant identified to Seba only as a Caribbean "maizy tree," but which he notes closely resembles a Lathyrus plant (a genus in the legume family). The lower register depicts leaves from an undetermined New Guinean plant that Seba calls a "gilala tree," and the East Indian Syzygium jambos (sometimes called Rose apples, from the family Myrtaceae) and Ixora alba L. (from the family Rubiaceae) trees.

Albertus Seba (1665–1736)

born East Frisia, Germany; died Amsterdam, Netherlands Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physiees historiam...

Amsterdam: J. Wetstenium, Gul. Smith, and Janssonio-Waesbergios, 1734–1765

Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, Ellis Aves H28

Volume 1, Plate II, Root Systems of Various Plants
Courtesy of Special Collections, Kenneth Spencer Research
Library, University of Kansas Libraries

Albertus Seba's 18th-century publication *Locupletissimi rerum naturalium thesauri*, better known simply as his *Thesaurus*, provided a wealth of botanical and zoological information. The four-volume study describes, illustrates, and categorizes a variety of *naturalia* from the author's own extensive and celebrated cabinet of curiosities. Although Seba died before completing the last two volumes, he managed to produce the illustrations for books III and IV to which textual descriptions were added and falsely attributed to him because of the credibility of his name. In this plate, Seba illustrates the intravenous system, or "skeleton," and roots of a turnip; the grain, roots, and leaves of a species of Hordeum (a genus in the grass family that includes barley); and the root systems of members of the genera Scorzonera (in the sunflower family), Beccabunga (which includes the herb Brooklime), and Pyrus (pear trees and shrubs).

Maria Sibylla Merian (1647–1717)

born Frankfurt, Germany; died Amsterdam, Netherlands Histoire générale des insectes de Surinam et de toute l'Europe, contenant leurs descriptions, leurs figures, leurs differentes metamorphoses, de même que les descriptions des plantes, fleurs & fruits, dont ils se nourissent ... par Mademoiselle Marie Sybille de Merian, en deux parties in-folio

Paris: L.C. Desnos, 1771 Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, H25

Plate XXVI Cacao

Courtesy of Special Collections, Kenneth Spencer Research Library, University of Kansas Libraries

Artist and naturalist Maria Sibylla Merian traveled to the then-Dutch colony of Surinam to document and observe the local plant and animal life. Merian's depiction of the cocao plant exemplifies the European interest in New World subject matter. This plant had been cultivated for hundreds if not thousands of years by Indigenous Americans who roasted and ground its seeds to produce chocolate drinks and, in some cases, these seeds even functioned as currency. Many Europeans prized cocao initially for its supposed medicinal properties, and as it became a delicacy it was imported en masse along with other goods such as coffee and rubber to Europe during the 16th and 17th centuries.

Merian unifies pictorially the interwoven fabric of the lives of flora and fauna. Her 1671 publication, *Der Raupen wunderbare Verwandlung und sonderbare Blumennahrung (The Wonderful Transformation of Caterpillars and [Their] Singular Plant Nourishment*), both describes the transformation of caterpillars into moths and butterflies and also depicts the plants that these insects eat and inhabit. Indeed, she never depicted a plant without including the holes or nibbled edges left behind by hungry insects.



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Maria Sibylla Merian (1647–1717)

born Frankfurt, Germany; died Amsterdam, Netherlands
Histoire générale des insectes de Surinam et de toute l'Europe,
contenant leurs descriptions, leurs figures, leurs differentes
metamorphoses, de même que les descriptions des plantes, fleurs
& fruits, dont ils se nourissent ... par Mademoiselle Marie Sybille de
Merian, en deux parties in-folio

Paris: L.C. Desnos, 1771 Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, H25

Plate XXX Castor Oil Plant with Ricini Longwing Butterfly
Courtesy of Special Collections, Kenneth Spencer Research
Library, University of Kansas Libraries

Artist and naturalist Maria Sibylla Merian traveled to the then-Dutch colony of Surinam to document and observe the local plant and animal life. European audiences eagerly embraced plants she studied, including plant-based New World goods such as cocoa, coffee, and rubber, and began importing these goods en masse to Europe during the 16th and 17th centuries. Castor beans, native to tropical Africa, have been widely cultivated for a variety of purposes for thousands of years and have been found in Egyptian tombs dating back to 4000 BCE. The castor oil plant is the host plant of the Ricini Longwing Butterfly, two of which appear here along with an unidentified moth and larva of the Mimallonoidae family (or sack bearer moths). In the text accompanying this plate Merian derides the moth as "unsightly" and "totally wild-looking."

Merian unifies pictorially the interwoven fabric of the lives flora and fauna. Her 1671 publication, *Der Raupen wunderbare Verwandlung und sonderbare Blumennahrung (The Wonderful Transformation of Caterpillars and [Their] Singular Plant Nourishment*), both describes the transformation of caterpillars into moths and butterflies and also depicts the plants that these insects eat and inhabit. Indeed, she never depicted a plant without including the holes or nibbled edges left behind by hungry insects.

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& fruits, dont ils se nourissent ... par Mademoiselle Marie Sybille de
Merian, en deux parties in-folio

Paris: L.C. Desnos, 1771 Kenneth Spencer Research Library, University of Kansas, Department of Special Collections, H25

Plate XXXIV Grape Vine with Gaudy Sphinx Moth
Courtesy of Special Collections, Kenneth Spencer Research
Library, University of Kansas Libraries

Artist and naturalist Maria Sibylla Merian traveled to the then-Dutch colony of Surinam to document and observe the local plant and animal life. European audiences eagerly embraced plants she studied, including plant-based New World goods such as cocoa, coffee, and rubber, and began importing these goods en masse to Europe during the 16th and 17th centuries. In her commentary accompanying this plate, Merian wrote of the grapes that grew wild in Surinam: "It is regrettable that one can find nobody interested in cultivating them; it would not be necessary to bring wine to Surinam; rather it would be possible to bring wine from there back to Holland, for the grapes can be harvested more than once a year." Illustrations of the Gaudy Sphinx Moth's larval, pupal, and adult life stages accompany the grapes.

Merian unifies pictorially the interwoven fabric of the lives flora and fauna. Her 1671 publication, *Der Raupen wunderbare Verwandlung und sonderbare Blumennahrung (The Wonderful Transformation of Caterpillars and [Their] Singular Plant Nourishment*), both describes the transformation of caterpillars into moths and butterflies and also depicts the plants that these insects eat and inhabit. Indeed, she never depicted a plant without including the holes or nibbled edges left behind by hungry insects.

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Jost Amman (1539–1591)

born Zürich, Switzerland; died Nuremburg, Germany active Germany

after Wenzel Jamnitzer (1507/8–1585)

active Germany

III. Terra. Hexaedron from Perspectiva corporum regularium, (III. Earth. Hexahedron, from Perspective of Ruled Shapes), 1568

five etchings

title page and four plates illustrating the element Earth Museum purchase: Letha Churchill Walker Memorial Art Fund, 2014.0313.12-16

These etchings by Jost Amman render the five Platonic solids and the elements that were associated with them from antiquity through the Renaissance. There are exactly five Platonic solids, defined as polyhedra with equivalent faces composed of congruent convex regular polygons. Remarkably, knowledge of this special group of solids was known 1,000 years before Plato in Neolithic Scotland.

Amman's etchings are renderings of designs by goldsmith and printmaker Wenzel Jamnitzer, and they are an eloquent expression of the idea that all existence derives from fundamental mathematical principles. In addition to the creation of unique, inventive metalworks and designs, Jamnitzer also created mounts for *naturalia* to be included in curiosity cabinets. Metallurgical and astronomical equipment and life-casts of reptiles, insects, and other small animals produced by his workshop testify to Jamnitzer's diverse scientific and artistic interests. In 1568, Jamnitzer published his *Perspectiva Corporum Regularium* (*Perspective of Ruled Shapes*), the celebrated collection of studies of various polyhedra, which includes these etchings, among others. For the title page for *Earth*, Jamnitzer turned to botanical imagery, implying the mathematical underpinnings of botanical form.

James Caldwall (1739–1822)

born and died London, England

after Philip Reinagle (1749–1833)

born Edinburgh, Scotland; died London, England

Robert John Thornton (circa 1768–1837), author

born and died London, England

The Blue Passion Flower, 1800

colored aquatint, hand coloring, stipple engraving, line engraving from Robert John Thornton's *The Temple of Flora; or Garden of Nature Picturesque Botanical Plates of the New Illustration of the Sexual System of Linnaeus* (Published by Thornton, London, 1799–1807)

Intended Gift of The Weare-West Family Trust, EL2017.161

Initially more controversial than many 21st-century viewers may presume, this hand-colored engraving of a passion flower comes from English physician and botanist Robert John Thornton's *The* Temple of Flora; or Garden of Nature Picturesque Botanical Plates of the New Illustration of the Sexual System of Linnaeus. Thornton's decision to include sometimes quite dramatic illustrations of the sexual systems of plants as described by pioneering Swedish botanist Carl Linnaeus in his 1751 Philosophia Botanica, came on the heels of criticism of the sexual underpinnings of the Linnaean system of taxonomy. Linnaeus describes the petals of a flower as "...bridal beds which the creator has so gloriously arranged ... and perfumed with so many soft scents that the bridegroom with his bride might there celebrate their nuptials with so much greater solemnity." This sort of analogy with human sexual behavior upset many conservative and religious groups and even alarmed some of the more radical thinkers of the time.

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William Sharp (1803–1875)

born London, England; died Boston, Massachusetts

Untitled, portfolio and illustrations for John Fisk Allen's Victoria

*Regia or The Great Water Lily of America with a Brief Account of its

Discovery and Introduction into Cultivation, 1854

(far left)

Portfolio cover

letterpress

Gift of Hirschl & Adler Galleries, Inc., New York, 1999.0213

six chromolithograph plates (top to bottom, left to right)

Young plants, frontispiece

Gift of Hirschl & Adler Galleries, Inc., New York, 1999.0213.04

Opening flower

Museum purchase, 1978.0078.02

Under side of leaf

Gift of Hirschl & Adler Galleries, Inc., New York, 1999.0213.03

Intermediate stages of bloom

Museum purchase, 1978.0078.03

Complete bloom

Museum purchase, 1978.0078.04

View of the form of the flower mentioned on the thirteenth page

Museum purchase, 1978.0078.01

The Amazonian water lily (Victoria amazonica) is famed for its huge leaves that approach 10 feet in diameter, and its flowers that can be up to a foot in diameter. Four of these prints document the first successful cultivation of the species, then known as Victoria regia in the United States. The text by amateur botanist John Fisk Allen (1807–1876) discusses the "discovery" and early encounters with the plant by Europeans traveling in South America. Allen cites the account of French botanist Aimé Bonpland, who accompanied German geographer, naturalist, and explorer Alexander von Humboldt on his travels. Bonpland discusses the Amazonian water lily and the flour derived from its seeds by the indigenous peoples of Argentina. In England, Victoria amazonica was first successfully propagated and coaxed to bloom in 1849. Gardener and architect Joseph Paxton was impressed by the structure of the great lily's leaves, which reportedly was his inspiration for the design of the lace-like cast iron structure of the Crystal Palace at the Great Exhibition of 1851 in London.

Ernst Haeckel (1834–1919)

born Potsdam, Kingdom of Prussia (present-day Germany); died Jena, Weimar Republic (present-day Germany) three chromolithographs from *Kunstformen der Natur* (*Art forms in Nature*), 1904

(left to right)

Moss (Muscinae)

Anonymous gift, 2017.0053.01.a,b

Nepenthes (Nepenthaceae)

Anonymous gift, 2017.0054.01

Orchid (Orchidae)

Anonymous gift, 2017.0055.01.a,b

Scientist and artist Ernst Haeckel was one of Charles Darwin's most outspoken supporters. Haeckel rendered natural forms in a style that exaggerated symmetry and the underlying geometrical structure of plant forms. The chromolithographs illustrating his *Kunstformen der Natur* (*Art forms in Nature*) have influenced generations of artists. Haeckel coined the appealing but false tenet that states "ontogeny recapitulates phylogeny," or the idea that the cellular development of an organism summarizes the organism's evolution. Through his artwork, he suggested the perfectibility of biological organisms, which has implicated him as an early formulator of eugenics.

These are the only three plates in *Kunstformen der Natur* that deal specifically with plant forms, with much of the volume illustrating invertebrates. The 100 plates of *Kunstformen der Natur* had a major impact on the decorative arts as well as the later years of the Art Nouveau movement.

S

Anna Atkins (1799–1871)

born Tonbridge, England; died Halstead Place, England *Robinia pseud-acacia America*, circa 1851–1854 from *Cyanotypes of British and Foreign Flowering Plants and Ferns*, 1854 cyanotype photogram Museum purchase, 1997.0033

This photogram originates from one of the earliest books to rely entirely on a photographic process: *Cyanotypes of British and Foreign Flowering Plants and Ferns* (1854). The author and photographer of this book, Anna Atkins, is among the first women photographers. Atkins produced thousands of images during her remarkable career. English mathematician, astronomer, and chemist Sir John Herschel first discovered the cyanotype process, which is similar to the blueprint process, in 1842. The process's most notable features include the resulting image's vibrant color and relative durability.

This photogram, which shows a sample of a Black Locust branch, comes from a rare presentation album, known in only one copy, which Atkins created as a gift for her childhood friend Anne Dixon in 1854. Dixon, a fellow botanist, likely helped with the production of the album as she was staying with Atkins following the death of Atkins's father. According to science historian Ann B. Shteir, Victorian society encouraged women to develop an interest in botany because plants were seen as suitably delicate, elegant, and beautiful.

Karl Blossfeldt (1865–1932)

born Schielo, Duchy of Anhalt (present-day Germany); died Berlin, Germany

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10 photographs related to *Urformen Der Kunst:*Photographische Pflanzenbilder (Archetypes of Art:
Photographic Images of Plants) and Wundergarten der Natur
(Magic Garden of Nature), 1926–1930

gelatin silver prints

Museum purchase: Gift in honor of Del and Carol Shankel from friends and colleagues, 1980.0039.01-.10

Karl Blossfeldt built his own camera with a long bellows for his extensive close-up work photographing plants. Blossfeldt generally collected his specimens in the countryside outside Berlin rather than in florist shops or botanical gardens. Taken together, his two volumes of close-up "plant portraits" against neutral backgrounds are a monument to New Objectivity (Neue Sachlichkeit) photography in Germany throughout the 1920s and 1930s. Blossfeldt took hundreds of detailed photographs for instruction in his classes at the Institute of the Royal Arts and Crafts Museum Berlin. He explained that his photographs were intended to "... portray diminutive forms on a convenient scale and encourage students to pay them more attention..."

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Dain L. Tasker (1872–1964)

born Beloit, Wisconsin; died Los Angeles, California *Fuchsia*, 1938

gelatin silver print from an X-ray

Museum purchase: Peter T. Bohan Art Acquisition Fund, 2016.0026

Dain L. Tasker was the chief radiologist at Wilshire Hospital in Los Angeles in the early years of radiology. In the 1920s he became involved with pictorial photography and in the 1930s he began experimenting with X-ray photographs of flowers. In this example, the X-ray reveals not only the elegant blooms, but also embryonic flowers developing within their buds.

George Andrew Tice

born 1938, Newark, New Jersey

(top to bottom) **Tree #12**, circa 1964–1965
gelatin silver print

Museum purchase, 1971.0016.05

Tree #19, circa 1964–1965 gelatin silver print Museum purchase, 1971.0016.10

George Andrew Tice's entrance to photography began at age 14 through camera clubs and taking portraits. His highly tonal work in black and white eventually led him to nuanced platinum printing. Many of his photographs appear in book form or as small portfolios, of which his *Trees* portfolio, begun in 1964 and published in 1968, is one of the earliest. In these two selections from *Trees*, Tice is focused on plant morphology, and specifically on the patterns of alternate buds on branches (*Tree #12*) and complex bipinnate leaves (*Tree #19*).

Clyde Butcher

born 1942, Kansas City, Missouri

(top to bottom)

Ghost Orchid Dancing, 2000 **Ghost Orchid 1**, 1999

Promised Gifts of Sam & Connie Perkins

In 1999, biologist Mike Owen invited Clyde Butcher to photograph the rare Ghost Orchid (*Dendrophylax lindenii*) in the Fakahatchee Preserve in Florida. Owen and Butcher returned to witness the same orchid blooming in 2000 and 2001, but by 2002 its host tree had been cut down and the orchid had been stolen. A similar occurence provided the story for Susan Orlean's non-fiction book *The Orchid Thief* (1998), which served as the basis for the 2002 Spike Jonze and Charlie Kaufman movie *Adaptation*.

The biological background of the Ghost Orchid that Owen shared with Butcher related to a similar orchid, the Star or Comet Orchid (Angraecum sesquipedale). This Comet Orchid specimen had been sent to Charles Darwin in 1862 by British horticulturalist and plant collector James Bateman. Darwin was puzzled by this orchid from Madagascar because he could not imagine a pollinator capable of reaching the nectar at the end of the extremely long (28 cm) nectar spur. Darwin speculated that a moth might be found in Madagascar capable of the task. Alfred Russel Wallace concurred, noting an African hawkmoth known as Morgan's Sphinx had a proboscis of adequate length. Indeed, a sphinx moth was identified in Madagascar in 1903, and given the name Xanthopan morganiipraedicta, in honor of Wallace and Darwin's prediction of its existence in Madagascar. It was finally documented pollinating a Comet Orchid in 1997.

The Ghost Orchid also has a comparably long nectar spur, which can be seen in *Ghost Orchid Dancing* arcing away and down behind the flower's stem. It is pollinated by the giant sphinx moth, *Cocytius antaeus*. Such examples of coevolution, in which species as disparate as an insect and plant evolve in ways that are mutually beneficial, exemplify the unfolding of natural selection.

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Terry Evans

born 1944, Kansas City, Missouri

Field Museum, Helianthus, 1905, 2000

Iris print

Museum purchase: R. Charles and Mary Margaret Clevenger Art Acquisition Fund, 2012.0063

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In 1998, Evans began photographing herbarium sheets in the collections of the Chicago Field Museum where she encountered this dried sunflower specimen. While documenting species from Midwestern prairie ecosystems, Evans also turned to other parts of the Field Museum to record collections of insects, birds, fish, reptiles, and mammals. The project culminated in 2002 with an exhibition at the Field Museum, *From Prairie to Field: Photographs by Terry Evans*.

Evans was drawn to the taxonomic details of herbarium sheets as well as the method of mounting the specimens. Through her photographs, Evans asks us to consider a variety of activities—research, collection, and consumption—as well as aesthetic considerations when reflecting on our relationship with the natural world.

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Peter Randall-Page

born 1954, Essex, England

Fibonacci Flip II, 2003

ochre, thumbprinting

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2017.0085

Peter Randall-Page works primarily in monumental sculpture inspired by biological forms. Recently, his work has become increasingly concerned with the underlying principles determining growth and the forms it produces. In his words "geometry is the theme on which nature plays her infinite variations, fundamental mathematical principles become a kind of pattern book from which nature constructs the most complex and sophisticated structures."

The title of this drawing references the famous Fibonacci number sequence, in which each number is the sum of the two preceding numbers (0, 1, 2, 3, 5, 8, 13, 21, 34, 55, etc.). This sequence turns up in surprising ways throughout the natural world, including spiraling florets in the head of a sunflower. Although Randall-Page's count is not an actual pair of adjacent Fibonacci numbers, they are (or are close to) double Fibonacci numbers, and double Fibonacci spirals have been documented in the heads of some sunflowers.

+

A. Mary Kay

born 1954, London, England active United States four mixed-media drawings

(left to right)

Some of the Sum Number 47. Milkweed, Iris, Trumpet Vine Seedpods, 2004–2008

Museum purchase: Gift of Colette and Jeff Bangert, 2016.0158

Turn and Return Number 20. Hosta Leaves, 2016

Museum purchase: Gift of Colette and Jeff Bangert, 2016.0161

Some of the Sum Number 11. Leaf Skeleton, 2004–2008 Museum purchase: Gift of Colette and Jeff Bangert, 2016.0159

Some of the Sum Number 28. Stem and Seeds, 2004-2008-2011

Museum purchase: Gift of Colette and Jeff Bangert, 2016.0160

Artist A. Mary Kay is an intrepid collector of the material remains of the biological environments of Kansas. Plant specimens—both preserved and in decay—seed pods, bark, excavated roots, reptile and mammal skeletons, eggs, nests, snakeskins, tortoise shells, and fossils are arrayed in trays and tubs in her studio amidst her works in progress.

Mary Kay's approach is to combine non-objective backgrounds with carefully observed and largely objective presentations of other-than-human life. In the exhibited works, she details three seedpods, a leaf skeletonized by the larvae of leaf miners, a combined image of an opened seed pod and a section view of a plant stalk, and withered Hosta leaves spotted with mold and well on their way to reentering the microbial realm of the soil.

Mike & Doug Starn

born 1961, Absecon, New Jersey

Structure of Thought 15, 2001–2005

ink jet print, Thai mulberry paper, Gampi and tissue papers, wax, encaustic, varnish

Museum purchase: Helen Foresman Spencer Art Acquisition Fund, 2008.0313

The Absorption of Light is a large body of work by Mike & Doug Starn that includes four groupings: Black Pulse, images of the vascular structure of leaves; Attracted To Light, primarily macroscopic views of moths; Structure of Thought, images of neurons or silhouetted trees; and Toshodaiji, images of the historical Buddhist figures Gyoki and Ganjin. An understanding of The Absorption of Light depends on our willingness to accept leaves, moths, trees, and spiritual figures as seekers of light, be it physical light, spiritual light, or light as knowledge and enlightenment.

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Ryan and Trevor Oakes

born 1982, Boulder, Colorado

(left to right)

Cauli-Cosmos, 2014

intaglio

Museum purchase: Peter T. Bohan Art Acquisition Fund, 2014.0335

Pine Cone Rhythm, 2014

intaglio in two colors

Museum purchase: Peter T. Bohan Art Acquisition Fund, 2014.0337

Ryan and Trevor Oakes have conducted numerous experiments making their own painting tools. For *Cauli Cosmos* they pressed romanesco broccoli into a grounded etching plate, effectively making an analog image of the fractal geometry of the plant. Similarly, *Pine Cone Rhythm* is the result of carefully rocking a pine cone across grounded etching plates.

Sebald Beham (1500–1550)

born Nuremberg, Holy Roman Empire (present-day Germany); died Frankfurt, Holy Roman Empire (present-day Germany)

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Untitled (Maskeron), 1543

engraving

Museum purchase, 1969.0008

Foliate heads, also known as leaf masks, originated in Roman architectural sculpture at the end of the first or beginning of the second century, and reappeared in church ornamentation during the fifth and sixth centuries. Later, artists such as Sebald Beham and Cornelis Floris included foliate heads in their designs for ornamental *mascaron grotesque* (grotesque faces), as seen in Beham's engraving here. These creatures offer a bridge between the seemingly dissimilar worlds of plants and animals. Additionally, they give audiences a chance to contemplate the relationship between plants and humans in ways that are typically ignored or even discouraged in Christian and Humanistic worldviews. Today, many different traditions have combined to form a somewhat unified concept of the "Green Man," as depicted in the adjacent work by Kahn & Selesnick.

T +

Kahn & Selesnick Nicholas Kahn

born 1964, New York City, New York

Richard Selesnick

born 1964, London, England

King of Weeds, 2013

archival pigment print

Museum purchase: R. Charles and Mary Margaret Clevenger Art Acquisition Fund, 2014.0338

King of Weeds forms part of the narrative of Kahn & Selesnick's recent performance and installation series: Truppe Fledermaus & The Carnival at the End of the World. The King of Weeds is one of several iterations of the Green Man theme in this series. The Green Man is a leaf-covered figure with a long history in folkloric traditions that can be traced from late antiquity to the artistic traditions of Austria, the Balkans, Britain, and Germany, as depicted in the adjacent engraving by Sebald Beham. The artists commented that King of Weeds "can be viewed as a symbol of invasive species spread by climate change and human migration." The work also asks us to contemplate what a weed is, and to whom, echoing Ralph Waldo Emerson's famous inquiry, "What is a weed? A plant whose virtues have not yet been discovered."

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Laurence Aëgerter

born 1972, Marseille, France four ultrachrome prints from the series *Healing Plants for Hurt Landscapes*, 2015

(left to right)

Taraxacum officinale i.a. - Gaza, Palestina Althaea officinalis - i.a. Al Ahmadi, Kuwait Ruta graveolens i.a. - Barrington crater, Arizona, USA Cannabis sativa i.a. - Coastal Japan

Museum purchase: R. Charles and Mary Margaret Clevenger Art Acquisition Fund, 2017.0108, 2017.0109, 2017.0110, 2017.0111

Healing Plants for Hurt Landscapes

artist's book, offset lithography Anonymous gift, 2017.0052.a,b

Healing Plants for Hurt Landscapes is an extension of Aëgerter's previous project, Herbarium Cataplasma, created in the neighborhood of Oldegalileën-Bloemenbuurt in Leeuwarden, Netherlands. As explained on the artist's website:

"Aëgerter led a careful reconstruction of the plan of the medicinal garden of the medieval Abbey of Saint Gall on an unused plot of land in Leeuwarden, which was once part of a convent. This project was realized in collaboration with the local residents who Aëgerter then invited to partake in a symbolic healing ritual. Photographs of ruined landscapes from the previous century were treated with the medicinal plants, each one with the appropriate antidote found in the library or through the residents' own experience (e.g. ginger against pain in burns). The 100 photographs were selected by searching Google for news photographs of a diversity of disasters in different parts of the world. Aëgerter took photographs of these landscapes to then be healed. Through this process, plants and landscapes merged into a new image."

Healing Plants for Hurt Landscapes

Taraxacum officinale i.a. - Gaza, Palestina

The healing plant *Rosmarinus officinalis*, also known as dandelion, is used to treat infections, bile and liver problems, and as a diuretic. It is also used as a way to promote digestion. The catastrophic background image shows a devastated building in the Gaza Strip, caused by bombings amid the Israeli-Palestinian conflict.

Althaea officinalis i.a. - Al Ahmadi, Kuwait

The healing plant *Althaea officinalis*, also known as mallow and marsh, is used for inflammation and irritation of the alimentary canal, for urinary issues, and for respiratory issues including bronchitis and excessive coughing. The catastrophic background image shows fires caused by the Iraqi Military bombing of roughly 700 oil wells in Kuwait between January and November of 1991.

Ruta graveolens i.a. - Barrington crater, Arizona, USA

The healing plant *Ruta graveolens*, also known as rue and herb of grace, is used as a stimulant and antispasmodic. It is also used to treat hysteria, excessive coughing, digestive issues, and headaches. The catastrophic background image shows the crater that was caused by a nickel-iron meteor in the Arizona desert more than 50,000 years ago.

Cannabis sativa i.a. - Coastal Japan

The healing plant *Cannabis sativa*, also known as marijuana, is used to treat cancer, glaucoma, HIV, seizures, pain, and nausea. The catastrophic background image shows a burning home in Sendai caused by the tsunami and earthquakes associated with the Fukushima nuclear disaster.

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Renée Stout

born 1958, Junction City, Kansas

Root Chart # 1, 2006

graphite on tracing vellum

Museum purchase: Letha Churchill Walker Fund, 2008.0329

Stout's art often engages with traditional African, Caribbean, and African American beliefs about the medicinal and spiritual qualities of plants as seen through Haitian and Creole hoodoo, vodue (or voodoo), and other religious practices of the African diaspora. Stout's primary artistic alter egos, Fatima Mayfield and Madam Ching, are both root-workers and herbalists with extensive knowledge of the magical properties of these roots, such as those detailed in this informative chart.

The concept of plants as healing agents informs a great deal of Stout's artwork, as creation, healing, and plants are all united in her mind. Stout collects herbs for use in daily healthcare as a means to ward off evil, or negative energy. These beliefs also become part of her artistic practice as she often hides these plants in her works. Regardless of the viewer's awareness of their presence, for Stout the medicinal values of these herbs imbue her art and artistic processes with some of the properties associated with these specific plant species.

Andrew Raftery

born 1962, Goldsboro, North Carolina

Autobiography of a Garden on Twelve Engraved Plates, 2016

(left to right, top to bottom)

January: Reading Seed Catalogs

February: Planting Seeds

March: Watering the Cold Frame

April: Edging the Beds
May: Cultivating Lettuce

June: Training a Passion Vine

July: Fertilizing

August: Deadheading September: Mowing

October: Bringing in Chrysanthemums

November: Digging Dahlia Tubers

December: Contemplating in the Snow

engravings transfer-printed on glazed white earthenware plates

Museum purchase: R. Charles and Mary Margaret Clevenger Art

Acquisition Fund, 2017.0004.01-.12

Andrew Raftery has distinguished himself in the world of contemporary printmaking through his mastery of printing techniques from the past. Eight years in the making, this set of 12 transferware plates chronicles a gardener's annual work cycle. The title references Gertrude Stein's 1933 work *The Autobiography of Alice B. Toklas*, in which Stein uses the narrative voice of her partner to provide insight into their shared life. Likewise, Raftery's depicted autobiography of his garden shares something of himself. His personal narrative, as told through the yearly cycle of his labors in his garden, takes on a central role in this series.



Herbarium sheets and two related specimens

Loaned by the R. L. McGregor Herbarium, Biodiversity Institute & Natural History Museum, University of Kansas

An herbarium is a systematically arranged collection of preserved plants. The R. L. McGregor Herbarium houses approximately 400,000 specimens collected over the past 150 years. These include dried plant specimens (exsiccatae), seeds, and boxed and fluid-preserved vascular plant specimens. The herbarium also houses the largest single collection of plants from the grassland biome of central North America, as well as the largest collections of lichens and vascular plants from Kansas.



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Herbarium sheets

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American Prairie Lepidella

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Amanita prairiicola Peck Collected by Elam Bartholomew in the open Kansas prairie, September 17, 1896 [Type specimen]

The American Prairie Lepidella is found in the tall grass prairie and high elevation desert of the central Unites States. This specimen is annotated, "type," indicating that it is a "type specimen," specifically an isotype. An isotype is a duplicate of the holotype, and a holotype is the specimen "chosen to represent a new species by the first author to describe it and with which the specific epithet remains associated during any taxonomic revision."

Wolf lichen

Letharia vulpina (L.) Hue Collected by Theodore L. Esslinger in Klickitat County, Washington, August 10, 1999 +

This variety of lichen is found among living and dead conifers in parts of western and continental Europe, the Pacific Northwest, and the northern Rocky Mountains of North America. This species is somewhat toxic to mammals, and has been used historically as a poison for wolves and foxes and by many Native American peoples as a pigment source for dyes and paints.

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Mead's Milkweed

Asclepias meadii Torr Collected by Ralph E. Brooks in Douglas County, Kansas, June 8, 1982

Common throughout much of the United States outside of the Southwest region, Milkweed is important for pollinators, and its foliage is a substantial food source for Monarch Butterflies and other insects. Mead's Milkweed, once common in the Midwest, is a rare variety that is now on the endangered species list.

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Western Prairie fringed Orchid

Habenaria leucophaea (Nutt.) A. Gray [new recognized as Platanthera praeclara Sheviak & M.L. Bowles]

The Western Prairie fringed Orchid is found in the Midwest, west of the Mississippi River. This orchid enjoys a symbiotic relationship with specific fungi found in the soil and is fertilized by moths of the hawkmoth family. This species is primarily found in unplowed tall grass prairies and meadows. This species is threatened by habitat loss, herbicide use, and by orchid enthusiasts' unsustainable collection methods.

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Whitetinge sedge

Carex albicans Willd. ex Spreng. var albicans
Collected by Lewis David de Schweinitz, circa 1812–1821

The sharp leaves and stem edges of the genus *Carex* give it its name, which derives from the Latin *secare*, meaning "to cut." This specimen was collected by Lewis David de Schweinitz (1780–1834), presumably while he lived in Salem, North Carolina, and is one of the oldest specimens in the McGregor Herbarium.

Canadian anemone

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Renunculaceae /Anemone pennsylvanica [Anemone canadensis L.] Collected by Lewis Lindsay Dyche in Lawrence, Kansas, circa 1878–1915.

The Canadian anemone is native to Kansas, as well as to much of the Midwest, Eastern United States, and southern Canada. This specimen was collected by the naturalist Lewis Lindsay Dyche, whose career was based at the University of Kansas. In 1882, Dyche joined the faculty and offered courses in natural history, anatomy and physiology, taxidermy, and zoology.

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Sweetgrass

Savastana odorata (L.) Scribn. [now recognized as Hierochloe odorata (L.) P. Beauv.]

Collected by Frederick Funston on Khantaak Island, Alaska, June 20, 1892

Sweetgrass permeates many aspects of Native American life, from basket weaving to ceremonial practices. For example, it is one of the four sacred medicines of the Chippewa peoples, along with tobacco, sage, and cedar.

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Blacksamson echinacea

Echinacea angustifolia DC.
Collected by Vernon L. Harms in Hut

Collected by Vernon L. Harms in Hutchinson County, South Dakota, Jun. 27, 1960

This perennial plant is related to the daisy and is native to much of the central United States. Several varieties of *Echinacea*, including Blacksamson echinacea, have traditionally been used for a variety of medicinal applications by many Native American peoples. In recent years, these applications have been heavily marketed as herbal remedies.

Terry Evans

born 1944, Kansas City, Missouri Courtesy of Terry Evans

(left to right)

Flora of Kansas, Anton Olson, white daisy, 1886, 2000 archival inkjet print

Flora of Kansas, Anton Olson, blue wild indigo, 1886, 2000 archival inkjet print

Flora of Kansas, Anton Olson, oenethera, 1886, 2000 archival inkjet print

Flora of Kansas, Anton Olson, grass, 1886, 2000 archival inkjet print

Flora of Kansas, Anton Olson, green milkweed, 1886, 2000 Iris print

Terry Evans's photographs of Anton Olson's herbarium, which is bound in a single album, are one facet of her *Prairie Specimens project*, in which she photographed plant and animal specimens housed in the Chicago Field Museum, the National Museum of Natural History, and elsewhere.

Reflecting on this project Evans noted:

I've been exploring the vast collections in the storage areas of Chicago's Field Museum, one of the world's largest natural history museums. I am equally moved by the beauty of both the virgin prairie and the carefully collected and preserved specimens.

Olson created his herbarium while studying at State Agricultural College of Kansas, later Kansas State University, in the 1880s. Botany classes were mandatory for all students, and the courses' requirements included the preparation of plant specimens gathered from nature.

Mark Dion

born 1961, New Bedford, Massachusetts *Herbarium*, 2007–2011

hand-painted acrylic wash, spitbite aquatint, à la poupée photogravure, with hand-applied letterpress labels and stamps in seven parts in bleach stained folio

Museum purchase: Lucy Shaw Schultz Fund, 2017.0047, 2017.0047.02-.08

Mark Dion's work draws heavily from the historical traditions of naturalists to address the ecological challenges facing us today. His approaches often involve working with portable collecting and laboratory gear in constructed situations that allow his audiences to stumble upon the contradictions, ironies, and insights that stem from human involvement with the natural world and the environment.

Dion's *Herbarium* is a reimagining of Dr. Henry E. Perrine's early 19th-century attempts to cultivate, propagate, and capitalize on tropical species from the Florida Keys. Perrine's home and collections were incinerated, and he was killed in an attack during the Seminole Wars (1817–1858). To emulate Perrine's lost collections, Dion collected, dried, and photographed seaweed samples, and made stamps and labels to recreate the aesthetic of 19th-century herbarium sheets. Dion's work gives us a way to consider the relationships between a naturalist's collection and study of botanical specimens and the connections of these activities to colonialism, imperialism, and the exploitation of natural resources.



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Mark Dion

born 1961, New Bedford, Massachusetts

The Seed Smuggler's Luggage, 2008

antique Boy Scouts of America rucksack, cotton batting, plastic containers, seeds

Courtesy of the artist and Tanya Bonakdar Gallery, New York

Mark Dion's work *The Seed Smuggler's Luggage* has prompted discussion about the historical smuggling of Brazilian rubber trees by the English who then set up their own rubber plantations in Malaysia. Dion's use of a Boy Scout backpack and compartmentalized plastic containers suggests that the problem of seed smuggling is ongoing. Seeds play a powerful role in artworks dealing with bio-engineering, sustainability, and biodiversity, as in Eduardo Kac's *Edunia Seed Packs* and Dornith Doherty's *Archiving Eden: the Vaults,* both in this exhibition.

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Mark Dion

born 1961, New Bedford, Massachusetts selection of eight field guides produced by Mark Dion and his many collaborators artist's books, offset lithography Courtesy of the artist and Tanya Bonakdar Gallery, New York

(top to bottom, left to right)

Field Guide – Buffalo Bayou Invasive Plant Eradication

Unit, 2011
2015.0159

A Field Guide and Handbook of Thoughts, Musings, Observations, Case Studies, and Histories (Alternative, conventional & Otherwise) on the Elevated Structure Formerly and Now Known as the HIGH LINE of the Borough of Manhattan, 2013 2015.0156

The Jenks Society presents A Brief Guide to THE LOST MUSEUM, Providence, R.I., 2014 2015.0158

Field Guide to Ohio University Collections, 2009 2015.0155

Mark Dion's Urban Wildlife Observation Unit, Field Guide to the Wildlife of Madison Square Park, July 11–October 31, 2002, a Project of the Public Art Fund, 2002 2015.0161

Field Guide to Dr. Fairchild's Kampong Laboratory with Notes on the Surrounding Garden and Flora, 2016 2017.0061

Field Guide to the Wildlife of Mark Dion's Seattle Vivarium, Olympic Sculpture Park, after 2004 2015.0160

Mobile Gull Appreciation Unit / Field Guide, 2008 2015.0162

Mark Dion's artistic activities often take the form of large installations and site-specific commissions. As an interpretative strategy, Dion frequently creates informational texts and illustrations to accompany his projects in small artist's books that are printed in the format of traditional field guides. This selection gives an overview of Dion's many areas of activity, as well as his overarching interest in finding avenues between art and science, in this case by blurring the boundaries of artist's books, technical manuals, and field guides.

José Antonio Suárez Londoño

born 1955, Medellín, Colombia

The Herkimer Suite, 2014

suite of six line etchings with watercolor additions by hand, handmade Khadi white paper

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2017.0088.01-06

José Antonio Suárez Londoño is known as a pictorial diarist who produces "yearbooks" composed of his daily drawings. While living in an apartment on Herkimer Street in Brooklyn, Londoño worked on a project that eventually took on the name of the street. The first and smallest sheet of the resulting suite incorporates images of plants and leaves he picked up in the neighborhood, as well as animals, the head of a black man, and the motif of densely connected concentric circles that recurs in every print in the series.

Additionally, the daily drawings of *The Herkimer Suite* are layered with references to colonial Columbia. The first plate addresses Londoño's inspiration for this subject matter: the 1783–1808 botanical expedition to Columbia of José Celestino Mutis, which received the patronage of the Spanish king. The "Mutis herbarium" contained more than 24,000 plant specimens that undoubtedly informed the 6,000 drawings by the Mutis team. In this suite of etchings, Londoño thoughtfully interweaves his work as a visual diarist with his biological and political-historical interests.

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Sarah Hearn

born 1978, Oklahoma City

*Artificial Lichen Colony 10, 2015

cut photographs

Courtesy of the artist

Sarah Hearn's recent photo-collage project *Invisible Landscapes* is focused on the symbiotic union of algae and a type of fungus that we know as lichen. Hearn implies that we can learn much from this exemplary model of the mutual interdependence of life forms. The beneficial alliance of algae and lichen relies on their sharing of nutrients. Through photosynthesis, algae offers sugars to both symbionts, while the fungus contributes some of the minerals and water needed by both organisms.

Hearn elaborates:

Invisible Landscapes calls attention to unnoticed terrestrial life forms while realizing new artificial ones. These works incorporate photographs and drawings of lichen specimens I have collected, identified, studied, and donated to herbariums... Lichen serves as a form of visual white noise that once noticed in nature appears to be living everywhere. These unassuming marvels occupy an estimated 8% of our terrestrial world and are capable of growing on glass, brick, metal, rock, branches, and the occasional animal. Lichen defy rules, behave symbiotically, and can live to be over 1,000 years old.

Haudenosaunee (Iroquois) or Mi'kmaq (Micmac) peoples

active United States and Canada small basket with lid, late 1800s-early 1900s sweetgrass, plant fiber, velvet, weaving, dyeing Source unknown, 2007.2561.a, b

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This small basket tells a surprisingly complex story about Indigenous peoples' relationships with the environment, economic development, and heritage revitalization. The basket's materials reflect the diversity of the local environment, with the ash splints coming from the forests and the sweetgrass from coastal wetlands.

In recent generations, sweetgrass and ash baskets have played an important role in cultural heritage revitalization efforts among Northeastern tribes. Basket-making has been a major focus of cultural programs that connect elders and youth to teach traditional arts and help with language preservation. Unfortunately, inter-tribal communities have also had to come together to halt the forces that threaten their access to basket-making materials. Ash trees are in danger from both deforestation and attacks from pests, and construction developments have destroyed or prevented access into long-standing sweetgrass harvesting sites, making traditional materials increasingly scarce.

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Potawatomi peoples

active United States and Canada

prescription stick, circa 1865

wood, carving, incising

Gift from the Menninger Foundation, 2007.5810

As the U.S. federal government forced Native American societies further west, removing them from their homelands, or sought to eliminate them entirely through genocide, it became necessary for these peoples to preserve the teachings and shared knowledge of their rapidly disappearing cultures. Writing provided some groups with at least one way to accomplish this goal. Midwestern tribes including the Potawatomi, Anishinabe, and Fox Indians recorded a variety of formulae for making plant-based medicines. These medicinal recipes were carved on wooden sticks, often called "prescription sticks," using pictograms that represent local plant species.

This stick was carved following the forced relocation of many Potawatomi to areas including Kansas, Nebraska, and Oklahoma by the federal government. As such, it serves not only as a testament to the significance of the plant world to many of the Native peoples of North America, but also as a reminder of the loss of knowledge resulting from the genocide and forced cultural assimilation of Native Americans.

Unknown artist Rochester Lithographing and Printing Co.

active Rochester, New York, 1870-1900s

apple tree salesman's sample book, early 1900s

12 chromolithographs bound into accordion fold book

Museum purchase: Elmer F. Pierson Fund, 2013.0043

This early 20th-century traveling salesman's sample book advertises 11 varieties of apple trees. About the time that this sample book was printed there were several thousand apple varieties commercially available, but this is now reduced to five or six parent varieties: Red Delicious, Golden Delicious, Jonathan, Macintosh, and Cox's Orange Pippin.

The ancient origins of the apple point to the mountainous regions in Kazakhstan, but it has since undergone a long trajectory of selection and cloning by humans. Author Michael Pollan asks, has the apple trained people to assure its remarkable success as a plant? As Pollan reminds us, Henry David Thoreau had expressed these ideas in rough form when he noted, "It is remarkable how closely the history of the apple tree is connected with that of man."

Isabella Kirkland

born 1954, Old Lyme, Connecticut **Taxa**, 2007-2008

portfolio of six inkjet prints

Museum purchase: Helen Foresman Spencer A

Museum purchase: Helen Foresman Spencer Art Acquisition Fund, 2011.0017.02-.07

Kirkland's *Taxa* is a well-researched study of the comings and goings of species. The individual compositions depict a total of about 400 species and are grouped in pairs: *Descendant* (endangered, protected) and *Ascendant* (non-native/invasive species); *Trade* (depleted by both legal and illegal markets) and *Collection* (desire to possess, study, exhibit, admire); *Back* (brink of extinction or believed to be extinct, now larger populations) and *Gone* (extinct since mid-1880s).

The significance of death and extinction in this series recalls in some respects a 17th-century Dutch *vanitas* flower painting or still life, in which the presence of insects or of dead and dying leaves suggests the fleeting nature of life and serves as a *memento mori*, or reminder of one's own mortality.

Kirkland's *Taxa* offers a fascinating group of case studies that detail changes in Earth's biodiversity, especially under recent ecological pressures. *Taxa* was realized as a series of paintings, each of which took a year or more to complete. The works exhibited here are detailed inkjet prints made after Kirkland's paintings.



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Dornith Doherty

born 1957, Houston, Texas eight selections from *Archiving Eden: the Vaults*, 2008-2012

(left to right, top to bottom)

Incubator USADA ARS, National Center for Genetic Resources Preservation, Fort Collins, Colorado, USA Antique Seed Collection, Western Australia Threatened Seed Centre, Kensington, Western Australia Seed Vault, Kuban Experimental Station of the VIR, Krasnodar Territory, Russia Vault Interior, Svalbard Global Seed Vault, Spitsbergen Island, Norway

Acai Research, EMBRAPA Genetic Resources and Biotechnology, Brasilia, Brazil Nordic Genetic Resource Center Seed Vials, Svalbard Global Seed Vault

Barley Collection, Vavilov Institute for Plant Industry, St. Petersburg, Russia

Greenhouse, Millennium Seed Bank, Royal Botanic Gardens, Kew, West Sussex, England

archival pigment prints

Museum purchase: Peter T. Bohan Art Acquisition Fund, 2018.0009-.0016

This group of photographs is selected from photographer Dornith Doherty's ongoing project *Archiving Eden: the Vaults*, which documents many of the world's seedbanks. Seedbanks play a vital, if precarious, role in protecting the Earth's genomic heritage. The stored seeds must be germinated periodically to test their viability. Doherty explains the genesis of this ongoing photographic project:

"Spurred by the impending completion of the Svalbard Global Seed Vault, I initiated *Archiving Eden: the Vaults* in 2008 to explore the role of seedbanks and their preservation efforts in the face of climate change, the extinction of natural species, and decreased agricultural diversity. Serving as a global botanical backup system, these privately and publicly funded institutions assure the opportunity for reintroduction of species should a catastrophic event or civil strife affect a key ecosystem somewhere in the world."

Jim Richardson Compass Plant, 2009

inkjet print Loaned by the artist

While working at The Land Institute in Salina, Kansas, agroecologist and soil scientist Jerry D. Glover perfected a method of gathering and preserving the exceptionally long roots of perennial prairie grasses. Glover buried 12-inch-wide tubes in the ground into which he inserted 10-inch-wide tubes filled with a special growing medium. Grasses grown in these tubes can later be removed and separated from the growing medium, producing specimens with roots up to 10 feet long.

Glover brought a sample specimen to *National Geographic* photographer Jim Richardson. To photograph the specimen, they placed it on a long sheet of Plexiglas and took a series of photographs, roughly 12" by 18" each, while sliding the specimen under the camera. The resulting detailed photographs were then digitally stitched together.

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Jim Richardson Switchgrass, 2009 inkjet print Loaned by the artist

While working at The Land Institute in Salina, Kansas, agroecologist and soil scientist Jerry D. Glover perfected a method of gathering and preserving the exceptionally long roots of perennial prairie grasses. Glover buried 12-inch-wide tubes in the ground into which he inserted 10-inch-wide tubes filled with a special growing medium. Grasses grown in these tubes can later be removed and separated from the growing medium, producing specimens with roots up to 10 feet long.

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Susan Davidoff

born 1953, El Paso, Texas

(left to right)

Regiones Botánicas de la Tierra: Antillas No. 1, 2001 color lithograph, dirt, collage Lawrence Lithography Workshop Archive, 2002.0039

Regiones Botánicas de la Tierra: Antillas No. 2, 2002 color lithograph, Xerox transfer, dirt, collage Lawrence Lithography Workshop Archive, 2002.0040

Throughout her career, Davidoff has combined aspects of her research into the interface of the botanical and human realms by invoking maps, printed botanical lore, plant profiles, and soil. These elements are thoughtfully combined in these two lithographs from the artist's *Historia Natural* series of 2001–2002, and are key components of some of her current projects, such as *Simplified World*, which deals with sustainability and diversity in nature. Davidoff has commented on these two lithographs:

"This series of images is based on *Historia Natural – Botanica*, a botanical reference book published in Barcelona in 1894... Its brown, fragile pages, scientifically accurate descriptions, and cross-sections of plants contrast with the drawn forms and, for me, become symbols for a continued spirit of observation and investigation of our place in the natural world."

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Anaïs Tondeur

born 1985, Paris, France

Chernobyl Herbarium, 2011–2016

30 inkjet prints after photograms of living irradiated plants from the Chernobyl Exclusion Zone

Anaïs Tondeur, Chernobyl Herbarium, 2011–16

For her Chernobyl Herbarium, Tondeur collected specimens of living, radioactive plants in the Chernobyl Exclusion Zone following the 1986 Chernobyl nuclear disaster. Among these plants were common flax, flax-leaf heath myrtle, bastard toadflax, ivy-leaved geranium, lilac cranesbill, gooseberry, velvet bean, and figwort. She then produced photograms of the collected plants and published them in the form of archival inkjet prints. Photograms are created by laying objects on photo-sensitive paper and exposing them with controlled light, producing images with accentuated silhouettes. This project caught the attention of philosopher Michael Marder, who visited the coast of the Black Sea as a child and was exposed to radiation from the Chernobyl disaster. Marder and Tondeur collaborated on a book focusing on Tondeur's Chernobyl Herbarium project. In his text, Marder articulates the connections between the Chernobyl Herbarium images, Tondeur's thoughts about connections to the World War II bombing of Hiroshima and Nagasaki, and the role of plants as active witnesses of nuclear disasters.

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Eduardo Kac

born 1962, Rio de Janeiro, Brazil

(top to bottom)

Plantimal I, 2009

Plantimal II, 2009

Plantimal IV, 2009

Lambda prints

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2014.0014-16

Eduardo Kac is a pioneer in the field of Bioart, which incorporates living organisms. Kac's work challenges widely held beliefs about human beings and their role in nature. His *Plantimals* are plants that are not found in nature, but are the result of combining his own DNA with a petunia's DNA. The existence of the *Plantimal* challenges the widely held belief that humans ought not mingle or interfere with nature. Further, the *Plantimal* expresses the complexity of humans' relationships to the plant world. For instance, humans are made up of the same materials as plants and are therefore similar to botanical beings.

Eduardo Kac

born 1962, Rio de Janeiro, Brazil

(top to bottom)

Edunia Seed Pack #1, 2009 Edunia Seed Pack #4, 2009

lithographs on paper, seeds, magnet, plastic

Museum purchase: Helen Foresman Spencer Art Acquisition Fund, 2013.0122-23

Kac's *Edunia Seed Packs* are packages of seeds from his *Plantimals* (see the adjacent works). Each contains seeds of the Edunia, a plant that is not found in nature and contains DNA of a petunia combined with Kac's DNA. According to Kac, the seed packets and the Edunia are "a reflection on the contiguity of life between different species. It uses the redness of blood and the redness of the plant's veins as a marker of our shared heritage in the wider spectrum of life."

Rohini Devasher

born 1978, New Delhi, India

Archetype - 1, 2007

archival pigment ink print with hand coloring Museum purchase: R. Charles and Mary Margaret Clevenger Art Acquisition Fund, 2017.0148

Devasher's imaginings of hybrid life forms in her series of Archetypes (botanical hybrids) and Chimeras (animal, plant, mechanical hybrids) suggest future beings whose genetic origins are obscure but whose organic details are strangely familiar. In these fusions of synthetic life and bio-engineering, Devasher allows us to fast forward to potential outcomes of our rapidly expanding bio-technological capabilities and reflect on their implications. She places her work in dialogue with Johann Wolfgang von Goethe's 1790 publication *The Metamorphosis of Plants*, in which Goethe discusses his significant theories about plant morphology. Devasher summarizes Goethe's thinking as a search for the archetypal plant, "one basic form that manifests in the multitude of single plant individuals; and within this basic form, there lies the potential for endless transformation, by which manifoldness is created out of oneness." Devasher further explores this concept through her artwork.

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Rohini Devasher

born 1978, New Delhi, India

Chimera - 2, 2008

archival pigment ink print with hand coloring

Museum purchase: R. Charles and Mary Margaret Clevenger Art

Acquisition Fund, 2017.0149

Devasher's imaginings of hybrid life forms in her series of Archetypes (botanical hybrids) and Chimeras (animal, plant, mechanical hybrids) suggest future beings whose genetic origins are obscure but whose organic details are strangely familiar. In these fusions of synthetic life and bio-engineering, Devasher allows us to fast forward to potential outcomes of our rapidly expanding bio-technological capabilities and reflect on their implications. She places her work in dialogue with Johann Wolfgang von Goethe's 1790 publication *The Metamorphosis of Plants*, in which Goethe discusses his significant theories about plant morphology. Devasher summarizes Goethe's thinking as a search for the archetypal plant, "one basic form that manifests in the multitude of single plant individuals; and within this basic form, there lies the potential for endless transformation, by which manifoldness is created out of oneness." Devasher further explores this concept through her artwork.

Justin Amrhein

born 1979, Sacramento, California

(left to right)

Mechanical Orchid Parts Catalogue, 2015

screenprinted artist's book Anonymous gift, 2017.0056

Mechanical Orchid Triptych, 2014

10-color screenprints on artisanal graph paper Museum purchase: Letha Churchill Walker Memorial Art Fund, 2017.0002.a-c

Working with both technical engineering and architectural rendering and lettering, Amrhein's prints propose a hybrid botanical-mechanical achievement that combines artificial photosynthesis and electro-hydraulic methods of growth, seed, and fragrance dispersal. An accompanying artist's book takes the form of a "parts catalogue" for the 74 parts of the mechanical orchids. *Mechanical Orchid Triptych* was one of Amrhein's first "botanicals" and includes three species of orchid, each with the same subsoil engineering and with different flowering attachments: *Cypripedium acaule, Vanda coerulea*, and *Psychopsis papilio*.

These works are related to Amrhein's current series of largescale drawings of "replacement trees," which would provide for photosynthesis and the visual presence of trees in a future plantless world.

Katie Paterson

born 1981, Glasgow, Scotland

Future Library (certificate), 2014

two-sided foil block print on paper

Museum purchase: Letha Churchill Walker Memorial Art Fund, 2017.0003

Future Library is an ongoing public artwork by Scottish artist Katie Paterson. One thousand trees planted in Nordmarka, Norway, will be made into paper and used to print an anthology of books that will be circulated and read for the first time in the year 2114. This certificate-print guarantees the holder a complete set of the 100 texts printed on paper made from the Future Library trees after their eventual harvest. Proceeds from sales of the certificates support the artwork throughout its century-long gestation. Until then, each spring a different author will provide a commissioned manuscript to the Future Library Trust in a special ceremony held in Nordmarka.

Read more about the Future Library.



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Lori Nix

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born 1969, Norton, Kansas (top to bottom)

Observatory, 2015

pigment print

Museum purchase: Gift of Ellie LeCompte, 2016.0127

Mall, 2010

pigment print

Museum purchase: Gift of Ellie LeCompte, 2016.0126

Photographer Lori Nix has built her career photographing handmade dioramas that she designs and that are then fabricated by her partner Kathleen Gerber. Nix photographs the completed dioramas with a large format film camera, creating high-resolution renderings of the meticulously hand-crafted settings. Works from her post-apocalyptic series *The City* feature vignettes of a ruined human environment overrun with plant life in the absence of humanity.

Ackroyd & Harvey Heather Ackroyd

born 1959, Huddersfield, England

Dan Harvey

born 1959, Dorking, England

The Satanic Formula (after Senanayake), 2017

seedling grass, ball clay, photosynthetic stencil

Heather Ackroyd and Dan Harvey have produced many provocative works concerning the natural world, focusing specifically on the role of plants in sustaining life on Earth. Recently, the duo has also been working with the text "The Satanic Formula" by Dr. Ranil Senanayake that expresses the rise of greenhouse gasses at the expense of oxygen due to human activity. The title comes from William Blake's reference to the "dark satanic mills" of the early Industrial Revolution, and therefore to the inception of human activity that has led to the climate crisis.

"Simply, it states that burning fossil Hydrogen and fossil Carbon (Oil, Gas, Coal) using biologically created Oxygen, creates 'new' Carbon Dioxide and 'new' water vapor that never existed in the atmosphere before. These 'new' gaseous inputs into the atmosphere accelerate the current trends of rampant global warming and climate change. But there is another feature about this formula that really makes it sinister and that is the fact the global Oxygen concentration is falling and the only thing that keeps the global concentration levels up is photosynthesis by leaves and plankton."

-Ranil Senanayake, 2017

Read Senanayake's full article.



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Ackroyd & Harvey Heather Ackroyd

born 1959, Huddersfield, England

Dan Harvey

born 1959, Dorking, England

Andi | Standing Rock Dakota, 2018

seedling grass, ball clay, photosynthetic photography

These two works are part of the artists' *Protector Series*, where activists protecting land from fossil fuel exploitation are captured in chlorophyll through a unique photographic process. The medium is nature itself. Blades of seedling grass provide a highly light-sensitive surface that the artists project a negative onto, creating a complex image imprinted on a molecular level through the production of chlorophyll and photosynthesis. Andi, active in the Standing Rock Dakota campaign, was photographed at Haskell Indian Nations University in Lawrence, Kansas, in 2018.

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Ackroyd & Harvey Heather Ackroyd

born 1959, Huddersfield, England

Dan Harvey

born 1959, Dorking, England

Lottie | Leith Hill No Drill, 2018

seedling grass, ball clay, photosynthetic photography

These two works are part of the artists' *Protector Series*, where activists protecting land from fossil fuel exploitation are captured in chlorophyll through a unique photographic process. Ackroyd & Harvey create artworks that reveal an intrinsic bias toward process and event, referencing memory and time, urban political ecologies, anthropogenic climate change, and biodiversity loss. Lottie, active in the campaign to stop oil drilling in an Area of Outstanding Natural Beauty in England, was photographed on Leith Hill, Surrey, in 2016. She holds a sign to express her solidarity with the protectors of the Standing Rock Indian Reservation.

Mathias Kessler

born 1968, Kempten, Germany Austrian citizen, living and working in New York

After Nature (coding and re-coding nature), 2011, ongoing greenhouse (Model: Snap & Grow Plus), desktop computer, plant EEG, electrodes probes, SQL databank, cameras, planters for botanical experiment, assorted house plants used for NASA air purifying experiment in 1977

In his project, *After Nature*, Mathias Kessler plays with scenarios in which humankind contemplates the possibility or impossibility of replacing and coding nature. The greenhouse hosts an experimental setup that alerts us to the plants' needs in response to factors such as sunlight, water, ventilation, and environmental stress. This information, gathered by complex sensors that run on algorithms and Unix software, helps to determine if we can actually understand how plants react to stresses. Ultimately, the project hopes to provide the data needed to create a plant-care algorithm. Kessler collaborated with project manager Dr. Wendelin Weingartner, software engineer Ovidiu Farauanu, hardware engineer George M. Gallant, Jr., and KU research engineer Ed Komp to adapt an EEG health monitor and software to communicate stress symptoms in plants.

Plants, like any lifeform, emit very low electrical charges that can be measured, recorded, and analyzed. Upon entering the greenhouse, a voice-equipped robot interacts with machines that in turn maintain a relationship with the plants through analytic software, and brings our attention to watering, ventilation, and UV-intake needs. The voice command function of the robot informs visitors of the current status of the plants and announces any upcoming actions that the machines might take. Sensors record this data on the greenhouse's computer, which uploads the information to a website.



Sandy Winters

born 1949, Arcadia, California

Long Night's Journey Into Day, 2017-present graphite, charcoal, oil crayon, and artist tape on black (acid free) paper, birch plywood, and aluminum Courtesy of the artist

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Sandy Winters's work explores the evolution of visual ideas, and often begins with collages of collected paper scraps found on the floor of her studio, which ultimately culminate into states of temporary resolution. For Winters, *Long Night's Journey Into Day* is a dialogue depicting the clash between nature and culture. It began with a preexisting drawing of an industrial form taking on anthropomorphic characteristics, ultimately consumed by trees and vines.

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Sandy Winters

born 1949, Arcadia, California

The Signal and the Noise, 2013-present block print collage, graphite, conté, flashé acrylic paint, on black paper, foam core board, birch plywood, newspaper Courtesy of the artist

The myth of Dionysus has been a unifying theme in Winters's work for decades. The Greeks associated the grapevine with Dionysus, in part, because the cutting of the vine makes possible a bountiful harvest each season. *The Signal and the Noise* depicts an organic tree-like structure emerging from a print block, surrounded by several other block prints and abstract organic characters inhabiting the landscape.

Mathias Kessler

born 1968, Kempten, Germany

**After Nature*, 2011–2018

greenhouse installation

for the exhibition

**Big Botany: Conversations with the Plant World*