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Lloydiana

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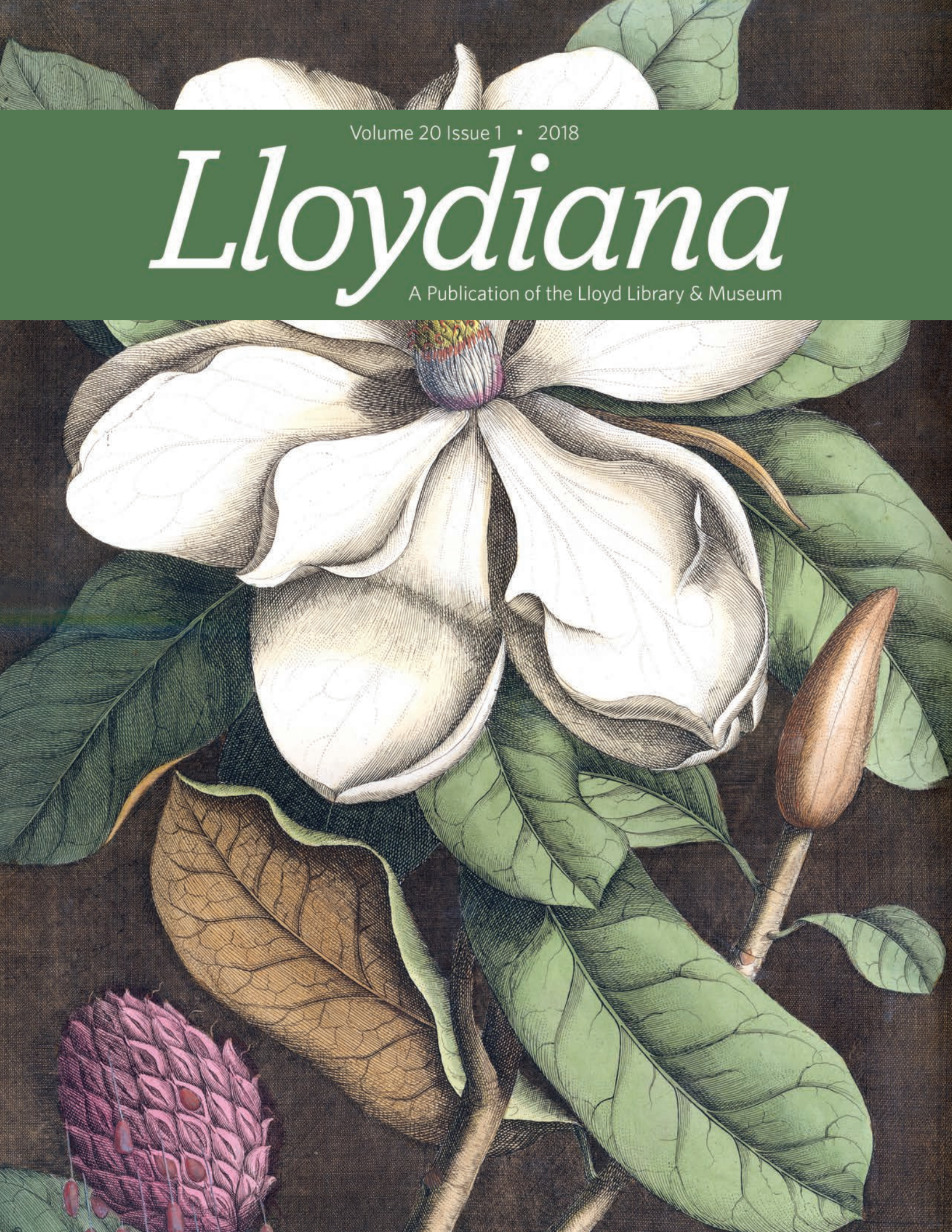

Message from the Executive Director

It's an exciting time at the Lloyd Library and Museum. The secret is out. The rich treasure trove of rare, scientific, and artistic resources is attracting a greater following. Scientists, historians, gardeners, healthcare practitioners, artists, naturalists, and ecologists, as well as those who are simply interested, are all drawn by what makes the Lloyd Library so unique. We continuously search for new ways to share our resources, use technology, form partnerships, engage communities and make an impact.

Fortunately for us, the Lloyd Library houses world class collections made accessible through a team of talented librarians and archivists whose knowledge runs deep. Highly respected in their field for their technological skills, creativity and innovative strategies, each member of our team wears many hats. Besides providing specialized reference service to in-person and remote researchers from across the globe, they curate exhibitions, process collections, make presentations, and write articles while continually strengthening their technical skills.

Of course, it's important to note that it's your support, whether individually or as part of a group, that helps make the difference. To our long-time supporters, I express my gratitude and applaud you. To newcomers, I invite you to be among those who 'Love the Lloyd' and count this as a place you intend to return. I'm grateful and appreciative of your time and willingness to share ideas and spread the word about our collections, exhibits, events and services.

Watch for more as we preserve and showcase the extraordinary resources of the Lloyd Library and together explore new ways to grow.

Patricia Van Skaik

Patricia Van Skaik
Executive Director, Lloyd Library & Museum

In this Issue:

By the Numbers (2017)

17	Events (183% increase)
53	Partnerships
121	Periodical subscriptions
139	Out of town users
186	Most visitors at single event
269	Researchers
329	Twitter followers (19% increase)
329	Instagram followers (142% increase)
802	Mailing list members (84% increase)
963	Program attendance (167% increase)
1,244	Facebook page likes (18% increase)
2,046	Visitors (66% increase)
8,680	Pages digitized

Lloydiana

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Our Mission
The Lloyd Library and Museum advocates for education in plant-based science, medicine, conservation, art and history. We provide resources to engage visitors and researchers from the community and around the globe.

The Lloyd Library and Museum is free and open to the public Monday-Friday 8:30 a.m.-4:00 p.m. and the third Saturday of the month 9:00 a.m.-4:00 p.m.

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Front Cover: Magnolia Grandiflora by Georg Ehret, Plate 61 of *The Natural History of Carolina, Florida and the Bahama Islands* by Mark Catesby, 1743.

Back Cover: Plate 14 from *Lehrbuch der Pflanzenkunde in Wort und Bild.*

Setting the Stage in 2017

In 2017, the Lloyd Library and Museum honored its past and set a direction for the future. With generous support from The Greater Cincinnati Foundation, the Lloyd embarked on the first stage of its strategic plan, the establishment of *Mission, Vision and Values*.

> *The Lloyd Library and Museum advocates for education in plant-based science, medicine, conservation, art and history. We provide resources to engage visitors and researchers from the community and around the globe.*
> *(Mission Statement)*

Treasures in the collection served as a launching pad for innovation, exploration, and engagement. Technology was used to share resources, form partnerships (with more than 50 organizations), expand holdings through large and significant donations, open a gift shop, and bring rare books to life through taxidermy.

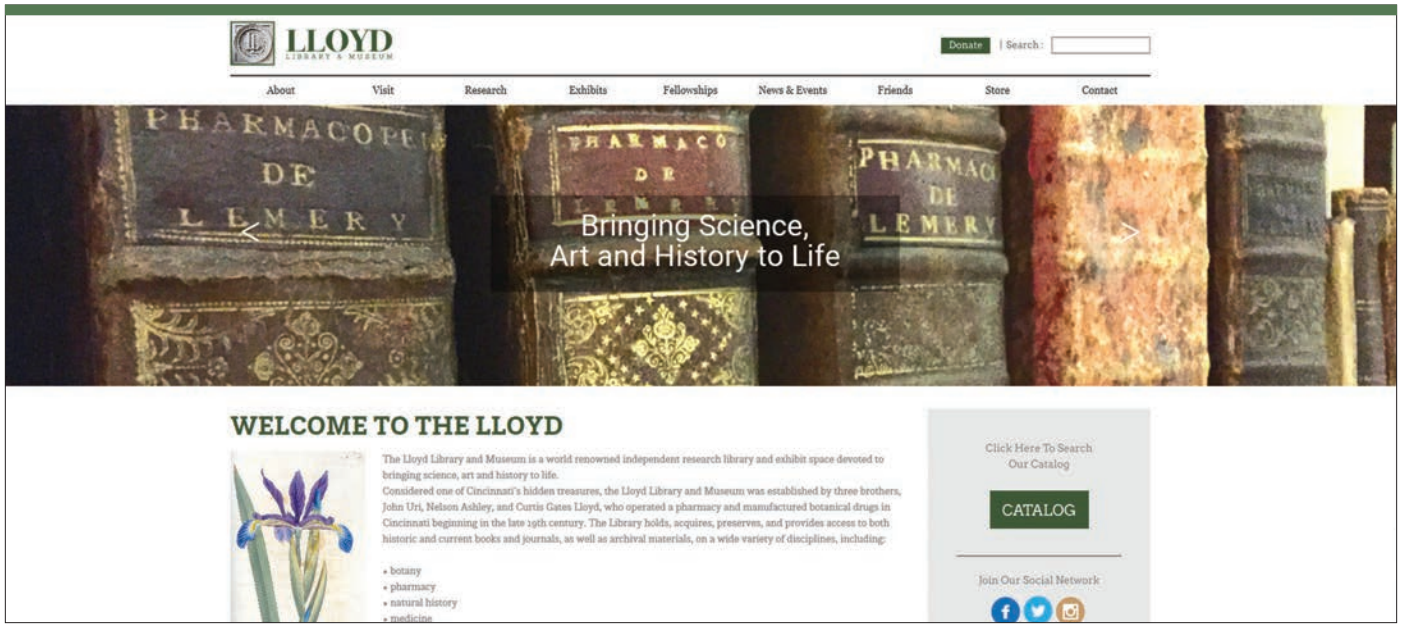
New Website Opens New Doors

A newly, redesigned website was one of the highest priorities in 2017. Last December **www.lloydlibrary.org** became more closely reflective of the Lloyd Library's mission while providing easier access to resources. Behind the scenes content was created and a structure was developed that would be more intuitive and easy to navigate in both mobile and desktop platforms. Additionally, the site is accessible to the visually impaired.

The new website is a gateway to the Library's research tools, complete with description of extensive collections, aids to manuscript collections, access to the catalog, research guidelines and forms, and contact information for remote users or to schedule appointments.

Digital collections preserve and showcase selections from featured shows. Flagship programs like the Lloyd Fellowship, which provide stipends for onsite research, are highlighted along with application forms and timetables. A portal to the past and the present, the redesigned website is fresh and up-to-date connecting viewers with programs, activities and events, news, social media as well as ways to:

- Learn more about astonishing resources, including pictures of plants and people of early 20th century Samoa (taken by Lloyd Library co-founder Curtis Gates Lloyd), historic glass slides of Cincinnati and Northern Kentucky, and photographs of noted ecologist, environmental advocate and botanist, E. Lucy Braun.
- Sample the art of leading medical illustrators from the Vesalius Trust collection, centuries old botanical engravings, and water color paintings of American wildflowers.
- Discover Lloyd's collection of medical and pharmaceutical artifacts.



Digitization of Rare Works Begins

In early 2017, the Lloyd Library in collaboration with the Public Library of Cincinnati and Hamilton County (PLCH), digitized its first book, *Erucarum Ortus, Alimentum et Paradoxa Metamorphosis* (1718) by Maria Sibylla Merian. It not only provided access to a rare work that would be featured in the 2017 exhibition, *Off the Page,* but it served as the first step in creating a digital collection of rare works. Digitizing this work also enabled the Lloyd Library to contribute to the online Biodiversity Heritage Library.

The Biodiversity Heritage Library (BHL) (https://www.biodiversitylibrary.org/) is "a consortium of natural history and botanical libraries that cooperate to digitize the legacy literature of biodiversity held in their collections and to make that literature available for open access and responsible use as part of a global 'biodiversity commons'" and an invaluable research tool. Member libraries from all over the world work together to upload digital files of public domain material, providing one website to host historical, image-rich scientific literature.

By year end, we digitized 37 volumes comprising 8,680 pages, resulting in free electronic access to Lloyd materials.

In late 2015, BHL received an Institute of Museum and Library Services grant to create the Expanding Access to Biodiversity Literature project, which provided funding for smaller, non-member institutions to contribute new material that would enhance the BHL database. The Lloyd Library was invited to participate in 2016 and began to make plans to do so by contacting the Public Library. Just three blocks from the Lloyd, PLCH has state-of-the-art equipment and trained staff capable of gently handling even the most fragile volumes. They were happy to digitize this material free of charge in exchange for allowing them to add Lloyd content to their Digital Library. (http://digital.cincinnatilibrary.org/digital/collection/p16998coll71)

Biodiversity Heritage Library

Ongoing digitization is a way to expand Lloyd's reach. The next step was to identify material that had not yet been added to the BHL site. In addition to the Merian work, the digital team chose *Botanicum Medicinale* (1768) by Timothy Sheldrake; *Botanica in Originali* (12 volumes, 1758-1764) by Johannes Kniphof; and *Flora* (1868) by Heinrich Witte. Perhaps the Lloyd's most important contribution is the first edition of *Flora Graeca* (1806-1840) by John Sibthorp, a ten-volume set containing 966 hand-colored illustrations of the plants of Greece and the Mediterranean. For much of 2017, the digital team carefully transported the books to PLCH and back to the Lloyd Library. Once scanning was complete, several weeks were spent uploading the images via Macaw, BHL's Metadata Collection and Workflow system.

By year end, we digitized 37 volumes comprising 8,680 pages, resulting in free electronic access to Lloyd materials. Many of the books were also added to BHL, putting the Lloyd in the company of the great botanical libraries of the world, including Smithsonian Institution, New York Botanical Garden, Missouri Botanical Garden, Harvard University, and Royal Botanic Gardens, Kew. The Lloyd Library looks forward to making more content available digitally and digging into the collection to find unique material to add to BHL.

To learn more about the Lloyd's participation in BHL, see their October 2017 blog post, http://blog.biodiversitylibrary.org/2017/10/lloyd-library-and-museum.html, and for Lloyd content on BHL see https://www.biodiversitylibrary.org/browse/contributor/LLM#/titles.

Betsy Kruthoffer, Lloyd Library Rare Book Librarian and Cataloger

Digitized Image of "The Red Rose," Plate 86. *Botanicum Medicinale* by Timothy Sheldrake, 1768

Upgrades Enhance Lloyd Library Experience

Visitors will now see the Lloyd Library in a whole new light. Over the past year there have been changes, inside and out, at the Lloyd. One of the most obvious enhancements is the new lighting in the first floor reading room where the overhead lighting has been upgraded to LEDs. Specialty LED lighting has been added to the display cases making them more visible. Each case is now illuminated with lighting installed and recalibrated to the specific area. For example, lower glass cases are lit by spotlighting, while taller, multi-level cases have floodlights that reduce shadows. These dimmable lights complement the ambient lighting, helping eliminate ultraviolet rays that could damage the rare materials on display. The upgrades not only provide a more attractive viewing and research experience, but result in increased efficiency as the longer life bulbs save energy and costs.

As part of its priority of maintaining a well-kept building, on the grounds as well as inside, the Lloyd Library's parking lot was resurfaced. Since age and weather took a toll on the concrete surface of the sidewalk along the rear of the building, it was also replaced.

Though not visible to the naked eye, improved wireless technology was another essential change made in 2017. To improve access to the online catalog, website and other Internet resources, along with better operation of wireless audio/video systems, wireless access points were upgraded. Visitors and staff now have more consistent online access extending to previous trouble spots such as the back of the reading room, the gallery, and conference room.

Visitors Enjoy New Upgrades to the Facility

Lastly, after many years of service, the old drinking fountain was no longer up to the task. So a new one was installed. Since the building was constructed in 1970, this is only the second replacement. Members and visitors can take comfort in knowing that the Lloyd Library strives to not only focus on its unique collections, but also the space in which they are offered. So stop by, take a tour – and enjoy a cool drink of water.

Alex Herrlein, Lloyd Library Reference Librarian and Office Manager

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In the News

The Lloyd Library and Museum made the news appearing in magazines, newspapers and on the radio. Comprehensive and engaging overviews of the Library and its history were featured in *Edible Ohio's* article "Loving the Lloyd" https://www.edibleohiovalley.com/eov/2017/loving-the-lloyd and the *Cincinnati Enquirer's Our History: Lloyd Library Is Legacy of Pharmacist.*

WVXU radio's *Cincinnati Edition* introduced listeners to Lloyd exhibits through interviews with Patricia Van Skaik, taxidermist Jeremy Johnson, Brian Jorg of the Cincinnati Zoo and Botanical Garden, and Christine Hadley of the Cincinnati Wild Flower Preservation Society.

CityBeat provided an in-depth look at materials featured in Lloyd exhibits in articles entitled, "Library Displays Rare, Artful Science Book" and "Where the Wild Things Are." The online arts journal, *Aeqai*, reviewed the current exhibit, *Winter Greens*, describing the exhibit, "The labels here are almost as interesting as the objects themselves, but the illustrations in these old and older books are beautifully delineated and worth looking at carefully."

Lloyd collections gained visibility when *Cincinnati Magazine* spotlighted the rare serial, *The Ginseng Journal*, in the article "Ginseng: A New Kind of Cash Crop." The magazine also ran a fun, personal portrait of Ms. Van Skaik in their Summer 2017 issue. Lloyd Rare Book Librarian, Betsy Kruthoffer authored "The Illustrious Life of Maria Sibylla Merian," for the cover story of the national magazine *HerbalGram*.

Taxidermy Brings to Life Works of 17th Century Naturalist

In late 2015 my naturalist and taxidermy organization, Meddling with Nature, began a collaboration with the Lloyd Library to bring to life the work of 17th century botanical illustrator, Mary Sibylla Merian. My team was tasked with using real specimens to replicate Merian's beautiful illustrations represented in her 1705 groundbreaking work, *Metamophasis Insectorum Surinamensium*.

When the Lloyd Library and my team decided on the theme, *Off the Page*, we had no concept of the sorts of multitasking and research that would lay ahead of us. After exploring the life and work of Maria Sibylla Merian, we began to source, preserve, replicate and display the plants and animals from Merian's 1705 and 1730 works.

Caiman Comes to Life through Taxidermy

Species identification was not as cut and dry as one might think. Since Merian's work was produced before systematic taxonomy practices, we needed to rely on the works of scientists from the 1700s as well as very recent works on the subject. When possible, Merian preferred to use regional and local names. Adding to the complication, she also preferred to write in Dutch, even though her native language was German. Lucky for us we had quite a lot of help. Regina Edwards of the Krohn Conservatory and staff from the Cincinnati Zoo offered assistance making entomological identification of several species much easier.

So how was it done? Insect specimens were flown in from all over the world, even though all of them were native to Suriname. The process of positioning insects is very delicate. When we received the insects, they were curled up and completely dried. The first part of the work required carefully rehydrating them so they would be as flexible as the day they died, some of which were decades old. From here we used pins and foam blocks to carefully massage the legs, antennae, bodies, and wings to match the positions illustrated in Merian's work. Some of her favorite moths are members of the sphinx family, which have extremely long proboscis, or tongues, that curl in beautiful spirals. Sometimes it took as many as 15-20 pins to mimic that effect.

The plants we collected also ran a diverse range, from seeds and saplings to full grown adult plants. Tracy Blankemeyer of Meddling with Nature worked to restore the natural color and form of the specimens. Sometimes this involved chemically altering the plant material, other times it required careful dehydration, or even freeze drying.

Good old classic taxidermy was employed as another means to prepare the Merian show. One of the more complicated pieces to complete was the caiman, plate 69 from the 1730 edition of *Metamorphasis Insectorum Surinamensium*. While not part of the first edition, we felt a piece so dynamic and loved by the public should be included. So, where do you find naturally deceased caiman corpses that are legal to import? Serendipity. One of our contacts in Iowa, who had been helping us with plant preservation, happened to have a full adult and baby caiman in his freezer he obtained from his contacts of a reptile zoo. He even had an appropriate snake.

Taxidermy is an in-depth process that involves skinning the specimen; no actual bones are left. From the measurements we took, we constructed a polyurethane form. After the skin underwent a weeklong process of chemical treatments to change it from skin to leather, we used various resins and epoxy clays to work in final details as the form was "dressed," stitched, and appropriately colorized. The eyes were made of glass, and appropriately colored to match the living look of a caiman.

Through the course of taxidermy, we discovered the artistic license Merian had taken with the caiman. While most of her illustrations are accurate to minute detail, including size and positioning, this was not so for the caiman. In fact, the pose in the illustration depicting the caiman's curved spine does not naturally occur. Nonetheless, with taxidermy we were able to match the illustration.

Plate 69 had additional complications in terms of its accurate representation of nature. While Merian is credited with many discoveries and descriptions of ecology, there were some details that were, by intention or not, inaccurate and at times downright fanciful. The snake present in the caiman piece is one such anomaly. While the snake in the plate is described as a false coral, this species doesn't reach even half the size of the snake depicted. We needed to find an alternative snake to fit the bill. We needed to

balance art and nature. Merian (and her daughters) took many artistic licenses in *Metamorphosis*, and by her own admission this was done to capture the imaginations of her viewers, most of whom were not a part of the scientific community.

Merian focused heavily on the uses of plants and insects. In the notes accompanying her illustrations, she wrote in chastising tones about the farmers who were only interested in fast growing cash crops rather than some of the marvelous other native plants that centuries later would become extraordinarily popular. She took her cue primarily from native peoples and slaves. The pineapple is one such fruit that she admired, but she also focused on plants such as vanilla and even insects that have become indispensable to painters and bakers alike. In our work, we attempted to showcase a number of those plates.

Jeremy Johnson

Not only did we want to replicate the plates in life, but use elements of her descriptions. Due to guild laws, women were not permitted to work in oil color in Amsterdam, thus her focus on the watercolor medium. The display explaining Carmine red pigment (derived from beetles) is visible on her pineapple plate. She describes its marvelous red color and its uses in the painting industry, particularly in watercolor. We worked to tell some of those stories in the exhibit by replicating her creation of carmine pigments and describing the vanilla extraction to methods she likely used in printing, showcasing the diversity of techniques used by artists and scientists during the 17th and 18th centuries.

In the end, the work Meddling with Nature produced for the Lloyd Library's exhibition, *Off the Page*, was a learning experience for everyone involved and required the knowledge and advice from institutions and individuals across the globe. It was truly a collaborative work that made everyone involved very proud.

Jeremy Johnson, Taxidermist and Exhibition Co-curator

Naturalist Maria Sibylla Merian

As the daughter of a printer, engraver, and artist, Maria Sibylla Merian (1647-1717) was in a fortunate position to learn skills that most girls in her time were never allowed to pursue. Her early books contained illustrations of European flowers and insects, reflecting both her artistic training and scientific interests. As a resident of a Dutch Protestant community Merian was exposed to the exotic flora and fauna specimens that missionaries brought back from the colony of Suriname. She was so captivated with the insects that she and her daughter, Dorothea, sailed to Suriname on their own in 1699. They spent two years drawing and painting insects in their various life stages.

By 1705, Merian had published her life's work, *Metamorphosis Insectorum Surinamensium*, showing the true life-cycles of insects, a relatively new concept in early 18th century Europe. The immense cost of engraving, printing, and hand-coloring the pages required her to issue the book by subscription and and once it was completed, the book contained 60 plates with descriptions in Dutch or Latin. The Lloyd Library holds one of approximately 70 copies that have survived. It also has two copies of the 1730 printing, one colored and one uncolored, which has 12 additional plates depicting reptiles and mammals.

Sample plates can be found at: https://lloydlibrary.org/exhibits/digital-exhibits/

Harlequin Beetle on Citron, Adapted from Merian's *Metamophasis*

Off the Page Exhibit

Off the Page, an exhibition featuring the Lloyd Library's collection of rare works by 17th century artist and pioneering woman of science Maria Sibylla Merian (1647-1717), opened to the public on March 24, 2017. Over 500 people viewed the exhibition during its five-month run, which was extended due to popular demand.

Following a groundbreaking two-year expedition to Suriname, Merian combined her training as a botanical illustrator and painter with her interest in the life cycles of insects to create her 1705 masterpiece, *Metamorphosis Insectorum Surinamensium*. Upon discovering Merian's book at the Lloyd, taxidermist and artist Jeremy Johnson and his company, Meddling with Nature, were inspired to incorporate preserved insects, reptiles, and plants to recreate selected scenes from Merian's illustrations. The result was the Lloyd's most ambitious exhibition to date, with colorful butterflies, beetles, and caimans adorning the exhibit cases and complementing the five volumes of Merian's work that the Lloyd holds.

The year 2017 marked the 300th anniversary of Merian's death. The Lloyd Library was able to commemorate the life of this fascinating woman in a truly unique way and to bring her to the attention of many who would otherwise never know of her artistic and scientific accomplishments.

Wild About Wildflowers Grows Success

In 1917, Dr. E. Lucy Braun led the charge to establish a local chapter of the Wild Flower Preservation Society. The group's first meeting was attended by 72 people. The Cincinnati Wild Flower Preservation Society advocated for the preservation of native plants while spreading the word to local schools and community groups and participating in conservation projects. They met regularly for lectures on the local flora, animal life, and local natural history.

A century later the Lloyd Library's *Wild About Wildflowers* exhibition celebrated the society's continued efforts and history by displaying items from their archives alongside images of local, native wildflowers. Collaborating partners included Cincinnati Wild Flower Preservation Society, the Cincinnati Zoo and Botanical Garden, and the Margaret H. Fulford Herbarium at the University of Cincinnati. Featuring photography by Brian Jorg, Manager of the Native Plant Program at the Zoo, the exhibition focused on plants native to Ohio and Kentucky. Jorg's modern photography was paired with botanical illustrations and photography from the 1960s by former member of the Society, Elizabeth Brockschlager, whose works are housed at the Lloyd Library.

Plant collections serve as references for plant identification. While researching the plants and tracking down illustrations, it became clear that throughout the history of botany, there has been a common thread of plant collection in some form. For instance, some of the most vibrant illustrations displayed were inspired by plants collected at the Chelsea Physic Garden in London. By the 1700s, the garden had become a premiere hub for botany and plant exchange, hosting two of the most compelling botanical artists of the time, Elizabeth Blackwell and Georg Dionysius Ehret. Their work came to the attention of Christoph Jacob Trew, a German physician, botanist, wealthy sponsor and collector. Trew contracted with them to illustrate his upcoming books, which would serve as authoritative sources for botanical medicine. Places like Chelsea collected physical plants while individual botanists, like Trew, collected illustrations of plants that paired with his descriptions of their uses and became significant to the growth of botanical knowledge.

Twentieth century botanists like Curtis Gates Lloyd and Lucy Braun collected plant specimens that are housed and preserved at the Margaret H. Fulford Herbarium at the University of Cincinnati. Elizabeth Brockschlager, a contemporary of Braun, collected photographic slides of the plants she found with detailed descriptions as to when and where they were located. Similarly, modern native plant enthusiasts collect plants they find through photography.

A celebration of wildflowers and the people who love them, *Wild About Wildflowers* was a 'blooming' success. From September 9 through November 18 of 2017, it attracted over 500 visitors. This impressive turnout is a testament to the thriving community of the Cincinnati Wild Flower Preservation Society (as well as the interest generated by the Lloyd Library's outstanding exhibition partners).

Erin Campbell, Lloyd Library Reference Librarian and Curator

Mary Elizabeth Brockschlager Archives

Among the Lloyd Library's esteemed collections is the *Mary Elizabeth Brockschlager Archives* (1899-1991). In 1923, Elizabeth Brockschlager moved to Cincinnati from Indiana where she was an elementary school teacher. A nationally recognized botanist, she gained expertise through self-education and field work. Brockschlager's keen interest in prairies inspired a life-long quest to document their flora through an extensive photographic record. Her knowledge of prairies made her a valuable consultant to The Nature Conservancy and the U.S. Department of Natural Resources.

Elizabeth Brockschlager's Photograph of Annette and E. Lucy Braun during Fieldwork in Adams County, OH

The Brockschlager Archives (1899-1991) are rich in documenting her personal commitment to ecology preservation and environmental history. She deeded her archives to the Lloyd Library on June 22, 1990, about six months before her death. Comprising 20.5 linear feet, the collection consists of research notes and notebooks, correspondence, subject files and scrapbooks about plants, eco-systems and archaeology of the Ohio River Valley and Appalachian Mountains, particularly in Adams County, Ohio and the surrounding areas.

Among the highlights in Brockschlager's archives are 6,084 slides of plants, archaeology and nature scenes, dating from 1950-1980, as well as her research notebooks written in her hand. Her life's work encompassed advocacy for ecology preservation and encouraged individuals and government to preserve eco-systems. These pathways to advocacy through education, memberships in organizations, archaeology, political advocacy, and her life-long friendships with renowned scientists Lucy and Annette Braun are well documented in Brockschlager's archives.

Brockschlager's correspondence with the Braun sisters illustrates the investigative methods utilized by 20th century botanists. The collection contains numerous letters from the long-time friends working together in their quest to extensively document the flora and geography in Ohio and the surrounding states. The Braun sisters regularly went on month-long field trips surveying plants and geography throughout the United States, but Brockschlager's career as an elementary school teacher often prevented her from joining them.

It is challenging to discern the realms in which Brockschlager's ecology preservation advocacy had the most influence. Her archives reflect that she made an indelible impression on her elementary school students. In the words of one of her most successful students, the late William Mallory, "Each of us has been blessed by having one particular teacher who made a profound impact upon his or her life. One such teacher is Ms. Mary Elizabeth Brockschlager, a sixth-grade teacher who taught black students at 12th District School and later at Stowe School in the West End."

Elizabeth Brockschlager led a remarkable life. Her archives document a noteworthy legacy. In March 1966, as President during the 50th Anniversary of the Cincinnati Wild Flower Preservation Society, she spoke to the membership, "In these days of the omnipresent bulldozer, let us, as an organization and as individuals, resolve to rededicate ourselves to the purpose for which this Society was organized some forty-nine years ago, the preservation of our native flora." The Lloyd Library is honored to be the repository and make accessible the *Mary Elizabeth Brockschlager Archives*.

Devhra BennettJones, Lloyd Library Archivist

The Color This Winter IS Evergreen

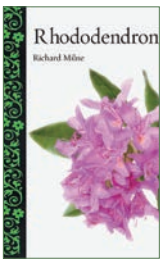
On view through March 23, 2018, *Winter Greens: Seasonal Illustrations from the Lloyd Library*, provides a bright spot in the long, gray Ohio Valley winter. The exhibit features a colorful array of books and periodicals highlighting lovely illustrations of evergreens, plants known around the world as symbols of life and rejuvenation. From 16th and 17th century herbals demonstrating medicinal uses of evergreens, to 18th and 19th century botanical descriptions of newly discovered plants, and to 20th century works describing their cultivation, art and science are on full display in brilliant color and in detailed line drawings.

Highlights include the massive *Pinetum Britannicum: A Descriptive Account of Hardy Coniferous Trees Cultivated in Great Britain*, published in 1884. When Queen Victoria saw its proof pages, she commanded that the authors dedicate it to her late husband, Prince Albert. Also featured is François André Michaux's *Histoire des Arbres Forestiers de l'Amérique Septentrionale*, published 1810-1813 and illustrated by Pierre Joseph Redouté and Pancrace Bessa. It is considered the foundation of American forestry and is on display alongside a letter from Thomas Jefferson to the author. Since evergreens include plants other than pines, Joseph Dalton Hooker's *The Rhododendrons of Sikkim-Himalaya* from 1849 has a prominent place in the exhibition. Hooker was the first European to collect Himalayan plants. The large hand-colored illustrations of these flowering evergreens provide a variety of colors among an abundance of green.

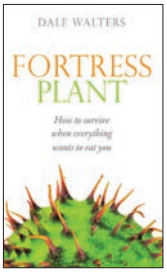
In showcasing one small part of the plant world, *Winter Greens* is an example of the depth of the Lloyd Library's collection of botanical and horticultural resources. Spending time with it will not only give the viewer a new appreciation for the rich resources the Lloyd Library holds, but also for that hardy group of plants known as evergreens.

Book Notes

Botanical Medicine for Women's Health by Aviva Romm, MD.
Elsevier, 2017.
Herbalist, midwife, and medical doctor Aviva Romm updates this comprehensive guide to women's health in a new edition, available in the Lloyd's reference section. Romm begins with an overview of herbal medicines in history, especially as they pertain to women's health, and includes a mention of the Lloyd Library's namesake Lloyd Brothers as part of a discussion of Eclectic medicine. The remainder of the book combines health topics with corresponding botanical therapeutics, including additional resources in the appendices, such as chemical constituents of medicinal plants and a dose chart with common and scientific names of plants.



Rhododendron by Richard Milne.
Reaktion Books, 2017
Part of the Reaktion Botanical series of books, *Rhododendron* joins volumes like *Cactus* and *Yew* in blending history, culture, botany, and photography into one unassuming volume. Milne leads readers across continents and through time with chapters addressing all things rhododendron-related. Plenty of color photography highlights not only the different varieties of the plant, but also examples of rhododendrons in art, popular culture, and consumer goods.



Fortress Plant: How to Survive when Everything Wants to Eat You
by Dale Walters.
Oxford University Press, 2017.
It's tough being a plant! Luckily, plants have developed a sophisticated array of defenses to ward off attacks from insects, fungi, and microbes. Written in an engaging style, Walters discusses how humans have occasionally joined the fight or taken a lesson from plant defenses. Color plates and a glossary round out this account of botanical battles with barley rust, pea aphids, and other threats.

Noongar Bush Medicine: Medicinal Plants of the South-West of Western Australia
by Vivienne Hansen and John Horsfall.
UWA Publishing, 2016.
Organized in field guide format, *Noongar Bush Medicine* focuses on the medicinal plants used by the indigenous people of the far southwest of Australia, known as the Noongar people. The Noongar trace their history over 50,000 years before the colonization of Australia, using plants from the region to treat a variety of ailments. Incorporating firsthand research with Noongar elders and healers, the authors provide a unique look at both Noongar culture and the plants of southwestern Australia.

Lloyd Events Mix It Up

With the announcement of the 2017 opening reception of the *Off the Page* exhibition, word traveled fast and far about this innovative exhibit combining rare books and taxidermy. Lines out the door ushered in the largest group to attend a single event in Lloyd Library history, 186 visitors. The trend continued as subsequent exhibition openings and receptions for *Winter Greens*, which is currently on display, and *Wild About Wildflowers* drew large numbers.

Andrew Lane Gibson, *The Buckeye Botanist*

The Lloyd Library presented several guest lectures in conjunction with fall and winter exhibitions, many to sold out audiences, including: Andrew Lane Gibson (the Buckeye Botanist) *Ohio's Rarest Plants and Habitats*; Brian Jorg (Cincinnati Zoo) *Wildflowers of Ohio*; Martin McAllister (The Nature Conservancy) *Lynx Prairie*; and Byron Baxter (American Conifer Society) *Conifers 101: Backyard Gardening*.

Lloyd Library resources inspired programming. Poetry and writing workshops, presented in partnership with Women Writing for (a) Change, were stimulated by in-house collections. *Paint like Merian* attendees used water colors to create 17th century style illustrations from Maria Sibylla Merian's engravings. Plus, wreath makers used natural winter greens to create holiday decorations. The Lloyd Library also sponsored its first theatrical production with Alice Jones presenting a powerful one-woman show in collaboration with and at the Cincinnati Zoo and Botanical Garden. The play was based on the work of E. Lucy and Annette Braun, their fight to save virgin forests, and their impact on the fields of ecological science and environmental conservation.

Likewise, some of these exhibitions stirred interest in outdoor hikes. Partnering with the Cincinnati Wild Flower Preservation Society, the Lloyd Library co-sponsored a *Fall Colors Hike* at the C.G. Lloyd Wildlife Management Area, established by library founder Curtis Gates Lloyd, and donated by him to the Kentucky Department of Fish and Wildlife. The Lloyd Library is also collaborating with Spring Grove Cemetery and Arboretum for a *Winter Walk*, led by their Director of Horticulture, Dave Gressley.

Wreath Making Workshop

2018's lineup once again follows YOUR interests. While scholarly lectures and opening receptions will continue to be the cornerstone of Lloyd Library events, a lively array of programs will be also part of the mix. Group tours and programs can be customized to meet the special interests of book club readers, gardeners, herbalists, teachers, librarians, archivists, astronomers, medical students, museum curators and more. Share your ideas or schedule group visits by emailing contact@lloydlibrary.org.

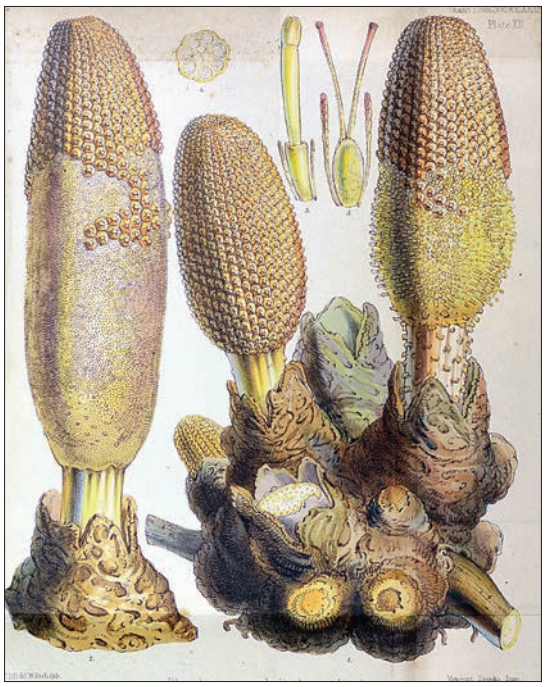
And on this wooden desk so grand
A tiny vintage book in my hand
1856 how you speak to me
The words flow freely from my pen
In this quiet sacred space
Where science and nature blend
Women together
Unknown to me
I feel each of you and
Want to be part of you ...if only
for this lovely fall morning
So much peace in such a lovely space
O' the joy we share
A gentle smile, a knowing nod
We want to be one, to lift up
and let go...of our daily woes and chores
The nurturing soul of a woman
Rekindled

Ann Elizabeth Ohmer
Composed at the Lloyd Library/September 2017

From Ghost Pipes to Maltese Mushrooms: A Journey in the Exploration of Parasitic Medicinal Plants

As a young child, I was deeply curious about a plant I found growing in the woods behind my home in Virginia known as ghost/Indian pipes, *Monotropa uniflora*. This curiosity sparked a lifelong interest in the ecology and ethnobotany of plants deemed parasitic.

Monotropa uniflora is a herbaceous perennial parasitic plant native to temperate regions of Russia, Asia, North America and northern South America. Parasitic plants derive some or all of their nutritional requirements from another living plant. *Monotropa uniflora's* intake of carbohydrates is gained from mycorrhizal fungi that are attached to the roots of other vascular plants.



Rhopalocnemis Phalloides by J.D. Hooker, *Transactions of the Linnean Society of London*, 1846

In the 1898 edition of *King's American Dispensatory*, John Uri Lloyd and Harvey Wickes Felter described *Monotropa uniflora's* medicinal benefits including that of pain killer, sedative and antispasmodic. According to Lloyd and Felter, "It has been used as a substitute for opium without any deleterious influences." Modern day herbalist, author and photographer Steven Foster has suggested in conversation that *Monotropa uniflora* could be a possible aid in curbing opioid addiction. Could this plant have an affinity to opioid receptors? Felter and Lloyd went on to say, "This plant is undoubtedly one of value, and deserving of more confidence and attention than is at present bestowed upon it."

After taking the job as Director of United Plant Savers, I found myself on the high-altitude mountains of Colorado studying the sustainable harvesting practice of osha (*Ligusticum porteri*), a plant whose habitat is rich in parasitic plants, including *Pedicularis*, commonly known as parrot's beak and elephant head, describing the flower's form. The genus *Pedicularis* comprises 600 species worldwide and constitutes the largest genus of the family Orobanchaceae. *Pedicularis* is considered partially or hemi-parasitic, because it photosynthesizes and forms a haustorium to attach to its host to absorb nutrients.

While participating in various conservation projects, I noticed a gap in the research literature. Most literature on parasitic plants refers to their invasive nature as weeds or "pests" wreaking havoc on agricultural crops. Less has been written about parasitic plants with medicinal properties, many of which have very specific habitat requirements. It came as no surprise to learn that the Lloyd Library, with its origins in Eclectic medicine, fills that research gap. The Lloyd Library was critical to this study, as it houses one of the most extensive collections worldwide related to the history of botanical medicine. As a recipient of the 2017 Curtis Gates Lloyd Fellowship, I had the opportunity to dig into these vast resources.

I started my fellowship by tracing the historical understanding and knowledge of parasitic medicinal plants in hopes of bringing to light how early botanists viewed parasitic plants. My study began with the investigation of Leonhart Fuchs' *De Historia Stirpium Commentarii Insignes* (1543). Fuchs described three parasitic medicinal plants: dodder (*Cuscuta*), mistletoe (*Viscum*) and eyebright (*Euphrasia*). Like other medieval herbalists, Fuchs believed that parasitic plants derived their medicinal value from the properties of their host plant. In his description of dodder, Fuchs described its relationship with its host, "It strangles it with its filamentous stems or by continuously sucking of its mother sap, reducing it to exhaustion." With regards to dodder's medicinal properties, Fuchs reported, "It has the quality of purging and is endowed with property of strengthening with some astringency…It loosens impediments of the liver, clears up the ailments of a bloated and blocked spleen, frees the veins of rheumy and bilious fluids."

I turned my research to *Pedicularis*. While I first encountered the plant in Colorado, Eastern Asia is considered the hot spot of diversity for *Pedicularis*. Interest in the plant dates back more than 300 hundred years. At the Lloyd, I uncovered the first extensive study of *Pedicularis* in the Himalayan region, "The Species of Pedicularis of the Indian Empire and Its Frontier" published as part of the series *Annals of the Royal Botanic Garden, Calcutta* (1890). The study began by chronicling the recognition of this parasitic plant, noting that Carl Linnaeus defined the genus *Pedicularis* in 1737 and would go on to describe 16 species in the next 30 years.

Research on *Pedicularis* has continued through the present. In 1998, Daniel Moerman in *Native American Ethobotany* described *Pedicularis'* medicinal uses to relieve pain and treat a variety of stomach ailments. Recent ethnobotanical analysis by O'Neil and Rana of parasitic plants in Nepal also revealed that endemic *Pedicularis oliveriana* is found to treat pain, reduce inflammation and relieve stomach ailments. O'Neil and Rana concluded that this parasitic plant species exhibits high diversity in the Himalayas and is important to the bio-cultural relationships that may help inform future environmental management projects in the region.

Some medicinal parasitic plants originally defied solid classification. Due to the unusual form of plants like the Maltese mushroom (*Cynomorium coccineum*) of the plant order Balanophorales, botanists debated whether these plants were instead fungi. Known as tarthuth or fungus rock and believed to treat a variety of ailments from sexual dysfunction, dysentery, internal bleeding and anemia, it was highly prized during the 16th century by the knights of Malta, who controlled the trade from the island where it grew, sending samples to European royalty.

In the 1856 article, "On the Structure and Affinities of Balanophoraceae," which appeared in the *Transactions of the Linnean Society*, J.D. Hooker demonstrated that *Cynomorium* was in fact a plant and not a fungus. Hooker justified his conclusions with detailed dissections of the plant's flowers. Hooker described 28 species, which he and other botanical explorers collected from America, Asia, Australia and Africa.

Cynomorium coccineum is now considered a threatened species protected by law, leading contemporary botanists to revisit its lineage. DNA-based research by Nickrent and Anderson (2005) strongly indicated that *Cymorium* is not related to other members of the *Balanophoraceae*, as Hooker and others previously believed, and that the two lineages have separate origins. Researchers are also taking a new look at the medicinal potential of these plants. Recent studies by X. Wang in *Chemistry Central Journal* (2012) revealed chemical compounds with strong antioxidant activity in Balanophora. In 2013, P. Zucca reported in the journal *Nutrients* that similar studies of *Cynomorium* in Asia showed promising antioxidant potential.

The knowledge of the properties, habitats and medicinal values of parasitic plants is constantly evolving. My research has brought to light historically important botanists, manuscripts, and publications that play a significant role in our current understanding of parasitic medicinal plants and deeply informed my fellowship experience. Parasitic plants provide fertile ground for important research in nutrient exchange, mycorrhizal fungi, adaptation, mutualism, alkaloids and the conservation of fragile ecosystems.

Susan R Leopold, Ph.D., is Executive Director of United Plant Savers and 2017 Curtis Gates Lloyd Fellowship recipient. For a copy of this article with full source citations, visit https://lloydlibrary.org/fellowships/ .

2017 Curtis Gates Lloyd Fellows

Annually, the Lloyd Library and Museum selects a class of recipients of the Curtis Gates Lloyd Fellowship, which provides stipends for research at the Lloyd Library on the topics of botany, natural history, early travel and exploration, and the history of science, medicine and pharmacy. The resulting research projects bring wider awareness and original perspectives to the history and uses of plants. In 2017, the Lloyd Library hosted fellows Alyncia Mason and Susan Leopold.

Alyncia J. Mason, a recent graduate from the University of Cincinnati in Biology, delved into Curtis Gates Lloyd's archives. Her project, *Historical Ethnobotany of Samoa: Notes and Observations of Curtis Gates Lloyd* integrated research of Lloyd's plant specimens at the University of Cincinnati's Margaret H. Fulford Herbarium with Lloyd's field notes, housed at the Lloyd Library, from his 1904-1905 expedition to Samoa. Mason collected and transcribed Lloyd's notes to identify extinct plants and identify plants still used in Samoa one hundred years after Lloyd's exploration.

Susan Leopold, Director of United Plant Savers, an organization whose mission is to protect native medicinal plants of the United States and Canada, conducted research for her project, *The History and Conservation of Parasitic Medicinal Plants* in the fall. Most literature on parasitic plants refers to their invasive nature as weeds or "pests" wreaking havoc on agricultural plants. By contrast, Leopold researched early botanic literature tracking the medicinal uses of parasitic plants.

Both Mason and Leopold presented their research findings at Fellows lectures at the culmination of their projects. Watch for the announcement of this year's Curtis Gates Lloyd Fellows.

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The Lloyd expresses its appreciation to The Greater Cincinnati Foundation for a grant that supported the Lloyd Library and Museum's first phase of our Strategic Plan, the establishment of *Mission, Vision and Values*, and to FotoFocus for financial assistance for the Lloyd's upcoming exhibit, *Digging Deep into the Archives*, and related programming (fall 2018).

Lloyd Library & Museum Manuscript Donations

In a little more than a year, the Lloyd Library received two significant manuscript donations enriching the scope of documentation on scientific research for scholars and historians. The esteemed Dr. Norman R. Farnsworth (1930-2011) was an exceptional scientist and advocate of pharmacognosy in the twentieth century. His leadership established the University of Illinois, Chicago's prestigious reputation in pharmacognosy research. Following several years of accession dialogue, the Lloyd is honored to be the repository of the *Norman R. Farnsworth Archives*.

Dr. Ronald L. Stuckey is Professor Emeritus of The Ohio State University and an internationally admired authority on the identification of aquatic plants and the historical exploration of the eastern United States. The Lloyd began working with him in the autumn of 2012 on the accession of the *Ronald L. Stuckey Archives*. The Library is grateful for the on-going submission of his archives and monetary contributions towards archival processing.

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Special thanks to our partners for their participation and support of our programs and exhibitions:

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Cincinnati Zoo and Botanical Garden
Meddling with Nature
Over-the-Rhine Holiday Home Tour
Spring Grove Cemetery and Arboretum
The Nature Conservancy
The Public Library of Cincinnati and Hamilton County
University of Cincinnati's Margaret H. Fulford Herbarium
Women Writing for (a) Change

Donation from Richard Schade

University of Cincinnati Professor Emeritus Richard Schade donated several special items to the Lloyd Library. The first is a two-volume set of Thomas Bewick's *A History of British Birds*, printed in Newcastle in 1816. Bewick (1753-1828) is known for revolutionizing the art of woodcut printing by developing wood engraving, a technique which allowed for extremely small but sharp details in a picture. *A History of Birds* is considered the forerunner of the modern field guide.

Professor Schade also donated two framed prints from the Frankfurt printing house of Matthaus Merian (1593-1650), father of the subject of the Lloyd's 2017 *Off the Page* exhibition, Maria Sibylla Merian. Dated 1623 and 1635, they portray the symbols of individual members inducted into the Fruitbearing Society, a 17th century German literary group whose purpose was to standardize vernacular German and to promote it as a scholarly language.

Thank you to Professor Schade for entrusting the Lloyd Library with these special items.

Lloyd Library and Museum
917 Plum Street
Cincinnati, Ohio 45202

April 6

Opening Reception:

***Garden to Table* Exhibition**. Friday, April 6, 5:30-8:30 p.m. at the Lloyd Library and Museum. This exhibition explores historic gardens, featuring illustrations from the Lloyd collection dating back to the 1600s, and today's gardens with a focus on family and community gardens. In collaboration with the Civic Garden Center and the Walnut Hills Redevelopment Foundation, *Garden to Table* runs through July 13. Watch for an exciting program series to accompany the exhibit.

March 10

Upcoming Lecture:

Medicinal Properties of Yews in History. Saturday, March 10, 1:00-3:00 p.m. at the Lloyd Library and Museum. Michael Vincent, Miami University's Curator at the Willard Sherman Turrell Herbarium, discusses the derivation of medicines from plants, using the story of the discovery and development of an anticancer drug from Pacific Yew. Free and open to the public. Reservations required. Call (513)721-3707 or visit lloydyews.eventbrite.com.

July 20

Save the Date:

Phar'-ma-cog-no-sy Illustrated: A History of Natural Pharmaceuticals opens on July 20.