The Water Lilies by Arslan

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STREET ALLERING

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Nezka Pfeifer Museum Curator Stephen and Peter Sachs Museum

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Nymphs of the Garden: The Water Lilies by Arslan

Stephen and Peter Sachs Museum August 2020 – March 2021



Humans have been captivated by water lilies for millennia. As one of the earliest known groups of angiosperms (seed-producing flowering plants), water lilies are perfectly constructed for life on the water and in aquatic environments, both natural and humanmade.

Native to tropical and temperate climates, the family Nymphaeaceae is named from the Greek for the mythical water nymphs, feminine nature spirits that presided over bodies of water. Appearing in the fossil record from the Early Cretaceous period (125–115 million years ago), water lilies have been found as seeds, flowers, stems, pollen, and leaves. As aquatic rhizomatic plants, water lilies are rooted in soil in water, and the flowers and leaves emerge and float on the water's surface; they are pollinated by beetles, bees, and flies, but can also be self-or wind-pollinated. The ancient cultures of Egypt and Mexico were mesmerized by water lilies. These plants represented several deities, and the underworld, and were often considered a symbol of rebirth and everlasting life.

Nymphaea 'Jack Wood' and Dragonfly Nymphaeaceae (water Iily) Courtesy of the Missouri Botanical Garden







The Missouri Botanical Garden has one of the most significant and historic live collections of water lilies. Since the late 19th century, the Garden has hosted aquatic plants on the grounds and in the greenhouses, and several horticultural specialists have focused their talents and vision to propagate and design the Garden's water lily pools to have a spectacular show of many species and cultivars every summer. This exhibition focuses on the Garden's history and collections of these exquisite plants and offers an aesthetic interpretation of the beauty of the Garden's water lilies' by artist Arslan, who was inspired by Claude Monet's important series of water lily paintings, Les Nymphéas, which are on permanent view at the Musée de l'Orangerie in Paris. The artworks and specimens in the Sachs Museum were meant to be enjoyed (and juxtaposed) with the live water lily displays in the pools on the grounds of the Garden (which usually take place from May to October every year).



The Collections

The Missouri Botanical Garden has both live collections and herbarium specimens of water lilies from around the world, with several cultivars created and named here at the Garden in St. Louis, as well as rare species that are now extinct in the wild. Most water lily species have showy solitary flowers (some are fragrant and vibrantly colored) that are connected by stems to rhizomes (a stem system that puts out shoots and roots at intervals), and from which are connected petioles (stalks) that join the leaf (lily pad) to the plant. The leaves are round with a radial notch in *Nymphaea* and *Nuphar* species, but fully circular in the species of *Victoria* and *Euryale*.

There are two types of water lilies: hardy and tropical. Hardy water lilies are able to tolerate colder temperatures. Tropical water lilies flourish in warm and humid climates, and they have either day-blooming or nightblooming flowers. One of the most well-known tropical water lilies is the one named for Queen Victoria, *Victoria amazonica*, which Garden visitors will find thriving in the heated circular central pool located in the Garden's Central Axis pools outside the Climatron® during the summer season. Heated pools enable a longer growing season in the extreme temperature swings in Missouri, and, in future, will hopefully lead to a record-breaking year for Victoria lily pad size at the Missouri Botanical Garden.

Victoria amazonica Nymphaeaceae (water lily) Courtesy of the Missouri Botanical Garden





As angiosperms (seed-producing flowering plants), water lilies create pollen to reproduce, which needs to be cross-pollinated to create new plants. At the center of each water lily are the yellow stamens, on top of which are the anthers where pollen is produced. At the base of the water lily flower are the stigma and ovaries where seeds will form, once the plant is pollinated. Many water lilies take a couple of days to sexually reproduce. Once the bloom opens, there is a pool of fragrant liquid in the center of the flower covering the stigma. Insects who are carrying pollen from other water lilies visit in their search for the liquid, dropping the pollen and performing reproduction for the flower. After the second and third days, that flower's pollen is released, and it attracts different pollinators who are in search of the pollen and bring it to other flowers for crosspollination. However, for water lilies that are cross-pollinated under cultivation, such as in the greenhouses at the Missouri Botanical Garden, it is human hands that perform the pollination; in this case, Senior Nursery Manager, Derek Lyle.

There are a few different species of insects who perform pollination for water lilies, including beetles, honeybees, bumble bees, carpenter bees, and sweat bees; not all of the pollinators are represented here in this display. The insects most often identified with water lily habitat dragonflies and damselflies—are not actually pollinators of water lilies. They take advantage of the aquatic environment to mate, feed, and find suitable places to lay their eggs. The Sophia M. Sachs Butterfly House provided all of the specimens and research on all of the insects presented in *Nymphs of the Garden*.

Installation View – Evans Gallery







Nymphaea thermarum Rwandan pygmy flower Nymphaeaceae (water lily) Courtesy of the Missouri Botanical Garden Nymphaea thermarum is the world's smallest water lily. The flowers of *N. thermarum* grow vertically, and upon completing the flowering cycle, the plant bends itself into the water and mud below it. The mature plant then releases seeds, and when grown in the proper conditions, this species can self-pollinate, producing seeds that can propagate the plant.

N. thermarum traces its origin to Mashyuza, a hot spring in southwest Rwanda on the Bugarama plain. The species has since become extinct in the wild because its habitat has been destroyed, due to rerouting of water sources. In 2011 Carlos Magdalena at the Royal Botanic Gardens in Kew, England, planted *N. thermarum* by growing seeds in wet soil instead of planting in deep water like other water lilies. At the Missouri Botanical Garden, Senior Nursery Manager Derek Lyle has propagated this incredibly rare species in St. Louis.



Victoria 'Longwood Hybrid' is a hybrid water lily that was developed by Patrick Nutt of the Longwood Gardens in 1960.

A cross between *V. cruziana* and *V. amazonica*, 'Longwood Hybrid' is known for its creamy white petals and green or bronze lily pads that gradually fade to a dark red at the outer rim. Like its parents, this hybrid is massive, reaching up to 10 feet in spread! However, 'Longwood Hybrid' is hardier than either of its parents, withstanding lower temperatures and faster winds. Nutt (1930– 2015) was a widely admired English botanist, who was well known for his work at Kew Gardens and Longwood Gardens. Victoria 'Longwood Hybrid' Nymphaeaceae (water lily) Courtesy of the Missouri Botanical Garden





In the 1890s, Henry Shaw's first head gardener, James Gurney (who had worked at the Royal Botanic Gardens, Kew as a young man), introduced water lilies to both the Garden and Tower Grove Park, where he also later served as superintendent; Gurney worked at the Garden from 1867 to 1903. Later, Garden horticulturalist and superintendent George H. Pring started breeding water lilies at the Garden and introduced approximately 40 hybrid tropical water lilies during his lifetime; Pring worked at the Garden from 1906 to 1963. Today, Derek Lyle, Senior Nursery Manager at the Garden, plans and manages all greenhouse operations and is the water lily expert who creates the aesthetic displays in all of the water lily pools each summer at the Garden.



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 Derek places propagated water lily and root system into container
 Courtesy of the Missouri Botanical Garden







 Measuring Victoria lily pads in the Central Axis Courtesy of the Missouri Botanical Garden

• Water lily greenhousepropagation tubs with backup plants Courtesy of the Missouri Botanical Garden The Missouri Botanical Garden has a talented team of staff who planned and captured much of the material throughout 2019 that you see on view in this special exhibition. Every year, much time and work are committed to care for, propagate, plant, design and display, and maintain the Garden's live collection of water lilies. In spring, Derek Lyle, Senior Nursery Manager, orchestrates the cleaning and preparation of all of the Garden's pools, into which are planted a wide variety of species and cultivars from the Garden's collection that have been planted and propagated throughout the year in a special greenhouse outfitted with pools to store and grow the water lilies. Derek Lyle also stores and prepares the dormant tubers and seeds for future use, as well as for seed exchanges and seed storage in the Garden's own seedbank.











In order to have new specimens on view for the exhibition, Herbarium staff Mary Merello and Lauren Peters organized and collected the water lilies as they were growing in the Garden's pools during 2019 with the help of Derek Lyle and Steve Wolff (who also cared for the water lilies during his 50 years of service to the Garden before he retired). Mary Merello pressed and dried all of the vouchered specimens and then the Garden's plant mounters, Sally Bommarito and Rita Chiodini, mounted the dried plants onto the special herbarium paper and sewed them all in place to be ready for the exhibition display and afterwards for storage in the Herbarium.

Volunteer photographer Tom Incrocci documented the entire process of work on the water lily collections in 2019 in preparation for the presentation of *Nymphs of the Garden*. Derek slices open a Victoria amazonica to prepare plant for vouchering Courtesy of the Missouri Botanical Garden

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Mary arranges water lily to prepare for drying the plant material Courtesy of the Missouri Botanical Garden







Ecstasy of the water lily



Nymphaea 'Souther 1 Charin Nymphaeaceae (wawer lily) Courtesy of the Herbarium [04903663] Ancient cultures revered the water lily as a symbol of the afterlife and rebirth. Many water lily species are also edible (do not try this at home!) but they contain strong amounts of alkaloid compounds that cause altered states of consciousness and hallucinations.

The Maya civilization spanned thousands of years, encompassed much of what is now Central America, spoke over thirty languages, and worshipped hundreds of deities. The water lily has become one of the most recognized symbols in Maya iconography, having been found in both art and literature. The water lily depicted is most likely *Nymphaea ampla*, a day-blooming water lily with large white petals. The water lily is often included in artistic representations of the Netherworld known as Xibalba and with multiple gods; many gods are actually shown with water lilies as ears, including the Water Lily Serpent, Chahk (or Chaac), the Quadripartite God, and the Water Lily Jaguar. N. ampla was connected to the gods also due to its use as a recreational drug by shamans; this species is psychodysleptic, which induces a dreamlike mental state, and, in high doses, a hallucinogen. Both of these effects could be interpreted as visions or messages from the gods, leading to their association with the gods and other worlds. According to a researcher who actually ingested N. ampla, it also causes small muscle spasms, which shamans may have interpreted as "prophetic signs." It is perhaps for these reasons that the water lily was not only included in depictions of the gods, but also found on clothing and headdresses of notable individuals, which may indicate a connection with the gods or a godlike status.



While they were commonly known as lotuses, the water flowers included in the art and literature of Ancient Egypt were actually water lilies, specifically Nymphaea caerulea and Nymphaea lotus. Both species are day blooming lilies, meaning their petals open when the sun comes out and close as the sun sets. This daily cycle is believed to be the reason behind the Ancient Egyptians associating water lilie with the sun, as well as the cycle of birth, death, and rebirth. Water lilies, especially *N. caerulea*, were so integral to Ancient Egyptian culture that there was a god of the blue lotus, Nefertem (sometimes spelled Nefertum), who was also the Egyptian god of healing, rebirth, perfume, and the first sunlight of the day; Nefertem rose from a blue lotus every morning and was a son of Atum, the creator of everything. The water lily became a common symbol across Ancient Egypt, and were depicted in multiple media including architecture, where they were sometimes seen on columns (often around the top or bottom) and could be found on the interior and exterior of tombs. Water lilies were also depicted in jewelry and totems, where they may have been worn to grant protection or good luck. The blue lotus was also ingested by the Ancient Egyptians, who may have viewed it as either a medicine or a recreational drug. While its use as a hallucinogenic has been hotly debated by scholars, using N. *caerulea* as medicine is more accepted, as many cultures used it to treat stomach problems, fevers, liver disease, and even erectile dysfunction. If the blue lotus was used as a drug, scholars believe that the Ancient Egyptians would have dissolved some in wine, leading to possible hallucinations and euphoric feelings.

Nymphaea (Detail)
 Nymphaeaceae (water lily)
 Courtesy of the Missouri Botanical Garden
 [04903663]







The art of the water lily



Nymphaea "George T. M Nymphaeaceae (water li Courtesy of the Herbari [6932271, 6932272]

> Nymphaea avalanche Nymphaeaceae (water lily) Courtesy of the Herbarium [6931660, 6931661, 693166

Water lilies have been depicted by many artists in the last couple of centuries, but none to the same renown as those of French painter, Claude Monet. An avid gardener and lover of plants and flowers, Monet moved to Giverny, France, in 1883, where he planted a large garden that was the subject of the work he painted for the rest of his life. Monet became obsessed with water lilies in 1889, when he first glimpsed Bory Latour-Marliac's hybrids at the Exposition Universelle in Paris. Latour-Marliac was a French lawyer and horticulturalist who founded a water lily nursery in Le Temple-sur-Lot, France, in 1875 to breed and hybridize hardy water lilies, and achieved his goal to successfully build a collection of water lilies whose palette ranged from delicate vellow to fuchsia and deep red. Upon seeing this collection of water lilies, Monet ordered them for his water garden in Giverny. In 1903, Monet started painting his newly expanded water garden and created more than 250 paintings of water lilies during the latter part of his career.

The tragedy and loss of the first World War in France and Europe affected Monet greatly. He found refuge in observing and painting his serene water lilies as the war devastated small communities around the continent. As a gift to the nation of France, Monet decided to donate 22 large-scale paintings of his water lilies, *Les Nymphéas*, to create a monument to peace for all of the public to enjoy. Today, you can see these series of water lily paintings on view at the Musée de l'Orangerie in Paris, where they are installed in two large ovoid rooms to allow the viewers to be immersed in the pools of water lilies as Monet saw them through the season and through the course of every day and night.

In this exhibition at the Sachs Museum, artist Arslan has painted *Les Nymphéas: A Different Point of View, Immersion*, which comprises 6 large canvases to create a contemporary immersive environment reminiscent of Monet's *Les Nymphéas*.





Immerse yourself in a different artistic point of view on water lilies

The genesis for this exhibition at the Sachs Museum was the work of artist Arslan. Born in Dagestan and based in New York City, Arslan is a sculptor and painter, and his work often embodies both human and animal forms. He uses this perspective in his drawings and paintings to give immense texture to his canvases, and affect the physical space the paintings inhabit. Arslan's series for this exhibition is directly inspired and influenced by the important painter identified with 19th– and 20th–century French Impressionism, Claude Monet.

Arslan's multiple series of artworks in the exhibition illustrate his inspiration and process in developing, drawing, and painting that culminate in the immersive installation at the Museum. *Les Nymphéas: A Different Point of View* is an art installation that was not only inspired by the world-renowned and splendid water lilies of the Missouri Botanical Garden, but also pays homage to one of art history's great painters, Claude Monet and his water lily paintings, *Les Nymphéas*. Les Nymphéas, Installation View Lower Gallery Arsion 2010-20















In Arslan's series *Immersion*, there are six large canvases that create a contemporary immersive environment reminiscent of Monet's Les Nymphéas that are on view in the Musée de l'Orangerie in Paris, France. *Immersion* surrounds the viewer around the lower level gallery at the Museum, and depicts the multi-colored hues of water lilies and the pools and water they reside in. The reflections and light on the water, the clouds and mist that hover over them, and the greenery and vegetation that overwhelm the water offer cooling calm, fiery sunset, and the stillness of the night that a viewer experiences throughout the course of a day surrounded by water lilies and their environment. Arslan follows Monet's course, painting layer after layer of color and detail onto each huge canvas. The details of the plants and pools draw your eye, but the integration of hues create an abstracted landscape and atmosphere that provide fodder for meditation and contemplation.

Les Nymphéas, Installation Views Lower Gallery Arslon, 2019–20

Les Nymphéas (Sunrise) (Detail)
 Arslan, 2019–2020





In the Museum's South Gallery, thanks to lenders Barbara and Steve Brodie and Shyqeri Kuqi who worked with Bee Tham to provide two sets beautiful diptychs to the Sachs Museum exhibiton. Les Nymphéas: Mist et Clouds—lent by the Brodies and Les Nymphéas: Reflections et Weeping Willows lent by Kuqi—Studies is a series of preparatory work Arslan painted before committing to the large canvases of Immersion.







Arslan has also shared a series of monotypes that present 48 images that impacted him during the creative process of planning the Immersion installation. This series called *Sediments* represents the diversity of Arslan's oeuvre, his classical art training, his unique perspective, and the multitude of energy and elements that showcase his closeness to nature and focus on reality. These images depict all manner of daily life, showing glimpses of people and views into their lives. Flowers, trees, water lilies, forests, landscapes, emotional moments, stages of life from youth to old age, all executed with an incisive eye and experienced hand. The exceptional range of imagery creates a kaleidoscopic impact and reveal the poetry and humility of life that Arslan observes around him, transmuting mundane moments into contemplative and atmospheric engagement.

 Les Nymphéas. Installation View South Gallery Arslon, 2019-20









 Les Nymphéas. Installation View Lower Gallery Arslon, 2019–20

Les Nymphéas. Installation View South Gallery Arslon, 2019–20

Nymphs of the Garden: The Water Lilies by Arslan marks the first exhibition at the Sachs Museum that features a collaboration with the Horticulture Division (the Sachs Museum is a part of the Science & Conservation division) and showcases a key narrative that emphasizes the important horticultural, collections, and conservation work the Garden does, here in St. Louis, but also how that impacts the world of botanical research and conservation. The Garden's talented staff and wondrous collections make it a natural source for art and inspiration, and to have an artist capture the beauty and awe of why we (and other humans long before us) are fascinated by water lilies. Curating an exhibition like this—in which botany, history, and art intersect—is one of Museum Curator Nezka Pfeifer's key goals for the Museum and the unique role it has to play in the Garden at large (for this subject and any other we featured). And thankfully for those us who can enjoy the Garden in person, these plants are on view for us year after year. We look forward to seeing these botanical nymphs in the Garden for many years to come!







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 Aerial Photograph of Central Axis Pool with water lily species only (non-cultivars) Cassidy Moody, 2020

Appendix of Artworks



Les Nympheas: Reflections et Weeping Willows Arslan, 2019 Oil on canvas Courtesy of Shyqeri Kuqi and The Bee in the Lion, NYC



Les Nymphéas: Mist et Clouds Arslan, 2019 Oil on canvas Courtesy of Barbara and Steve Brodie & The Bee in the Lion, NYC



Les Nymphéas: Sediments Arslan Oil on canvas Courtesy of Shyqeri Kuqi & The Bee in the Lion, NYC





Les Nymphéas: A Different Point of View, Immersion (Sunrise) Arslan Oil on canvas Ca. 2019–2020 Courtesy of The Bee in the Lion Gallery, NYC



Les Nymphéas: A Different Point of View, Immersion (Morning) Arslan Oil on canvas Ca. 2019–2020 Various dimensions Courtesy of The Bee in the Lion Gallery, NYC



Les Nymphéas: A Different Point of View, Immersion (Clouds) Arslan Oil on canvas Ca. 2019–2020 Courtesy of The Bee in the Lion Gallery, NYC



Les Nymphéas: A Different Point of View, Immersion (Reflections) Arslan Oil on canvas Ca. 2019–2020 Courtesy of The Bee in the Lion Gallery, NYC



Les Nymphéas: A Different Point of View, Immersion (Sunset) Arslan Oil on canvas Ca. 2019–2020 Courtesy of The Bee in the Lion Gallery, NYC



Les Nymphéas: A Different Point of View, Immersion (Night) Arslan Oil on canvas Ca. 2019–2020 Courtesy of The Bee in the Lion Gallery, NYC



Appendix of Specimens

Euryale ferox Nymphaeaceae (water lily) Courtesy of the Herbarium [3648631]

Right Nuphar advena Nymphaeaceae (water lily) Courtesy of the Herbarium [3579374]





Nuphar lutea Nymphaeaceae (water lily) Courtesy of the Herbarium [6393180]

Nymphaea alba Nymphaeaceae (water lily) Courtesy of the Herbarium [2190566]



Left & Right Nymphaea 'Albert de Lestang' Nymphaeaceae (water lily) Courtesy of the Herbarium [6931669] [6931670]





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Nymphaea amazonum Nymphaeaceae (water lily) Courtesy of the Herbarium [2279908]

Right Nymphaea ampla Nymphaeaceae (water lily) Courtesy of the Herbarium [5694355]





Nymphaea 'Awesome' Nymphaeaceae (water lily) Courtesy of the Herbarium [6932277]

Nymphaea caerulea Nymphaeaceae (water lily) Courtesy of the Herbarium [3916336]





Left & Right Nymphaea carpenteriae Nymphaeaceae (water lily) Courtesy of the Herbarium [6932285] [6932286]







Left

Nymphaea colorata Nymphaeaceae (water lily) Courtesy of the Herbarium [4063275]

Right Nymphaea 'Detective Erika' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933825]





Left Nymphaea elegans Nymphaeaceae (water lily) Courtesy of the Herbarium [2377650]

Right Nymphaea 'Emily Grant Hutchings' Nymphaeaceae (water lily) Courtesy of the Herbarium [4237848]





Left & Right Nymphaea 'George T. Moore' Nymphaeaceae (water lily) Courtesy of the Herbarium [6932271] [6932272]





Left

Nymphaea glandulifera Nymphaeaceae (water lily) Courtesy of the Herbarium [3585707]

Right Nymphaea 'Henry Shaw' Nymphaeaceae (water lily) Courtesy of the Herbarium [3916335]





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Nymphaea leibergii Nymphaeaceae (water lily) Courtesy of the Herbarium [1221715]

Right Nymphaea mexicana Nymphaeaceae (water lily) Courtesy of the MoBot Herbarium [6933827]





Left Nymphaea micrantha Nymphaeaceae (water lily) Courtesy of the Herbarium [4063267]

Right Nymphaea nouchali Nymphaeaceae (water lily) Courtesy of the Herbarium [5948388]







Nymphaea odorata Nymphaeaceae (water lily) Courtesy of the Herbarium [04903663]

Nymphaea ovalifolia var. gigantean Nymphaeaceae (water lily) Courtesy of the Herbarium [1173003]





MILLOUR BUTTANEZA LAMINA AUTOLAULA ILIUMIANIA Nº DIZINIA

Nymphaea 'Purple Joy'

Nymphaeaceae (water lily) Courtesy of the Herbarium [6933826]

Nymphaea 'Rattana Ubol' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933818]

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Nymphaea 'Southern Charm' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933815]

Nymphaea 'Tan-Khwan' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933817]





Nymphaea tetragona Georgi 'Joanne Pring' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933831]

Right Nymphaea thermarum Nymphaeaceae (water lily) Courtesy of the Herbarium [6933814]





Nymphaea 'Wanvisa' Nymphaeaceae (water lily) Courtesy of the Herbarium [6933834]

Victoria amazonia Nymphaeaceae (water lily) Courtesy of the Herbarium [6931448]





Victoria cruziana Nymphaeaceae (water lily) Courtesy of the Herbarium [6933833]

Victoria 'Longwood Hybrid' Nymphaeaceae (water lily) Courtesy of the Herbarium [6931449]









- George Pring in the water lily pools
 Courtesy of the Missouri Botanical Garden Archives
- 1 INSIDE COVER: Victoria 'Longwood Hybrid' Nymphaeaceae (water lily) Courtesy of the Herbarium [04903663]
- FRONT COVER. Les Nymphéas (Night) Arslan Ca. 2019–2020

MISSOURI BOTANICAL GARDEN