This watercolor is among the earliest works made by Asawa. It portrays the marshes around Rohwer, Arkansas, where she and her family were incarcerated in a concentration camp alongside other people of Japanese descent under Executive Order 9066. Most likely made during a supervised sketching trip outside the camp, this work built on the life drawing lessons Asawa participated in at the Santa Anita Racetrack, where she'd previously been detained. While there she'd studied under three artists who had worked for Disney Studios. "It was the art instruction by professional artists that kept our hope alive," she later said.

When a twenty-year-old Asawa arrived at Black Mountain College in 1946, she had three years of college art education and two exhibitions under her belt. Yet she decided to study with former Bauhaus teacher Josef Albers, whose design course trained students "to see materials, textures in a new way," as she described. Asawa honed her hand-eye coordination and developed a sharp attention to the role of ground in defining a figure through exercises such as drawing the Greek meander motif in one continuously twisting line. She also studied with other artists and scholars, including mathematician Max Dehn and architect R. Buckminster Fuller.

Vibrantly colored dogwood leaves covered the campus of Black Mountain College in autumn. In these paintings, unbroken lines curve, bend, and twist to form the outlines of leaves. Where some shapes overlap, one color can be seen through the other, creating a transparent effect. Asawa pursued porousness in two- and three-dimensional works over the course of her decades-long practice. "It was [Josef] Albers's word," she said about the beginnings of her interest in transparency. "I liked the idea, and it turns out my sculpture is like that. You can see through it."

In this early painting, selected by Josef Albers to represent Black Mountain College in a national exhibition, Asawa depicts eight figures with arms outstretched overhead. She developed these entwined circles into a motif for a series she called Dancers, making apparent the source of inspiration—dance lessons at Black Mountain with Merce Cunningham and Elizabeth Schmitt Jennerjahn. This experience likely informed Asawa's approach to form making: Like the movement of a dancer originating from within to activate the space around them, Asawa's compositions often begin at the center and radiate out.

While working at a student-run laundry facility at Black Mountain College, Asawa found a rubber stamp with the school's initials. Intrigued by its design potential, she applied the stamp to fabric with varying pressure in mirrored rows, forming undulating columns. The result was an allover pattern similar to that of a woven textile. Asawa's experimentation with the orientation and overlapping of stamps allowed her to alter the letters' visual forms, creating new shapes in the process—C's facing each other, for example, create H's.

These monochromatic looped-wire sculptures consist of repeating geometric forms, which is characteristic of Asawa's work from this period of early experimentation. Along with her vegetable-stamp prints and figurative and abstract paintings, the sculptures speak to the artist's fascination with repetition in both nature and daily life. "It's out of my own past, having worked on a farm and doing many things that were repetitive," Asawa said. "All these things make it very logical that I would select a way of work that would be very similar to that, only done in wire instead of plants."

In 1947 Asawa traveled to Toluca, a city in central Mexico, where she volunteered as an art teacher. At the local market, she saw vendors selling chicken-shaped wire baskets, which market-goers used as egg carriers. Asawa liked this application of wire, so she asked a craftsperson at the school to teach her how to make baskets. Upon her return to North Carolina she pushed the possibilities of the technique by tightening the rows of loops to create a fine mesh. She also reversed the orientation of the looping, turning it upward. Through experimentation, Asawa developed the basketry technique into a unique abstract sculptural language.



A looped-wire basket in the form of a chicken made by a craftsperson in Central Mexico. c. 1960. Wire, $14\frac{3}{16} \times 7\frac{1}{16} \times 8$ $^{11}\!\!/_{16}$ in. (36 × 18 × 22 cm). Collection of Marta Turok and Santiago Garfias Turok, Mexico City

Continuous Form Within a Form

Around 1951, Asawa developed what would become her most consequential contribution to abstract sculpture: what she called the "continuous form within a form." These sculptures were rooted in the basket forms she made at Black Mountain College and in her engagement with dance and ideas of transparency and negative space while there. They derive from a process in which a line of looped wire bends, curves, and interlocks with itself to form an open-ended sphere, then continues to form another open sphere around the previous one. "I have tried to make use of the space inside and find what is an outer surface can become an inner surface and then an outer surface and so on to completion," Asawa wrote.

Asawa began experimenting with the structural possibilities of paper in works like this one while at Black Mountain College. In this accordion-folded sculptural relief, horizontal bands of ink emulate the shadows created by peaks of folded paper, enhancing the optical effect. Asawa later translated one of her paperfold forms into a wall covering design, swapping paper for vacuum-formed plastic, which she patented in 1959.

Wanting to dedicate her time solely to experimenting with looped wire, Asawa repeatedly applied for a Guggenheim Fellowship throughout the 1950s. She was endorsed by her influential mentors from Black Mountain College, including Josef Albers and architect R. Buckminster Fuller, as well as other figures, such as architect Philip Johnson. The applications outlined her innovations in sculpture. Both the form and volume of her sculptures were "made mostly of air," Asawa wrote, lending her work "the quality of an ink drawing, only it is three-dimensional." Despite applying five times between 1952 and 1959, she was never granted the fellowship.

In the mid-1950s Asawa developed a collaging technique with screentone, also known by its brand name, Zip-A-Tone. Commonly used by graphic designers and illustrators, screentone is a thin, transparent sheet on an adhesive backing, with a preprinted pattern that can be transferred to paper. Asawa used it to illustrate her looped-wire sculptures. By layering sheets of screentone, she was able to precisely depict the tonal gradations of these works' nested surfaces, in which interior elements are visible through their exteriors. She included reproductions of these collages in a Guggenheim Fellowship application she submitted in 1955.

In 1952 Asawa sold three textile patterns to Everett Brown, a San Francisco design company. In one of them she used her toddlers' footprints as a motif, and in the other, which the firm later named "Alphabet," she revisited her earlier laundry stamp prints featuring the initials for Black Mountain College. Asawa made these works using a copy of the college's rubber stamp she carved herself. The furniture company Englander reproduced "Alphabet" on a variety of products, from mattresses to lamp shades, without crediting the artist. "That was a very curious, interesting period, a really new idea," Asawa said about her foray into commercial design.



An advertisement for a folding bed covered in a mattress ticking designed by Asawa. San Francisco Chronicle, December 6, 1954

At mid-century, Asawa's work defied expectations of what sculpture could be, and she disregarded the traditional hierarchies of art disciplines. In a 2002 interview, she stated: "It doesn't bother me. Whether it's a craft or whether it's art. That is a definition that people put on things." Open to sharing her work in different contexts, she displayed a looped-wire sculpture and paperfold screen in design firm Laverne Originals' San Francisco showroom in 1951. A subsequent showroom presentation in New York drew the attention of various creative industries to Asawa's sculpture, resulting in features in domestic and international art magazines and even *Vogue*. It also piqued the interest of Peridot Gallery, leading to Asawa's first solo exhibition in New York in 1954. A few years later, she patented and mass-produced her paperfold design.

"When I put one shape next to another, I look at the new shape created in space," Asawa once remarked. Here, five chairs emerge from a mosaic of ink squares, while trails of ink squares outline two more chairs within the negative space at top right. Asawa created the square marks using a felt-tip marker. For other works in this series, such as the nearby *Untitled* (MI.121, Chair with Straw Bottom), she incised notches in markers, which created striations when applied to paper. Through these drawings, she investigated how patterns can prompt a new relationship between figure and ground, one in which outlines are as permeable as the networks of her wire sculptures.

Asawa's home was full of art, and not just her own. Over the years she forged a tight-knit creative community built around the exchange of artworks and ideas. Works in Asawa's collection included those by photographer Imogen Cunningham, Black Mountain College teacher Josef Albers, artist Ray Johnson, ceramicist Marguerite Wildenhain, and jeweler Merry Renk. A sampling of these objects, such as the wedding ring R. Buckminster Fuller designed for Asawa and a ceramic pot by Wildenhain, are displayed here alongside portraits by Asawa and other works her community inspired her to make.



Living room of Ruth Asawa's home in San Francisco, 1969. Photograph by Rondal Partridge. Courtesy Rondal Partridge Archive

After leaving Black Mountain College, Asawa maintained contact with Josef and Anni Albers, developing an enduring friendship with the two and deepening an artistic dialogue with her former teacher. Beginning in the early 1950s both Asawa and Josef Albers explored concentrically growing shapes— Albers in his painting series Homage to the Square, and Asawa in her "continuous forms within forms." The two artists exchanged such works; this sculpture was gifted to the Alberses in 1955.

Asawa's first outdoor commission was for a fountain in San Francisco's Ghirardelli Square. Responding to the waterfront location, she delivered a sculpture of two nursing mermaids surrounded by frogs and turtles. "I thought of all the children and maybe even some adults who would stand by the seashore waiting for a turtle or a mermaid to appear," she explained. The mermaids' busts were based on a life cast of her friend Andrea Jepson. To create the tails, Asawa cast a looped-wire form in bronze a study for which is shown here. The fountain was criticized by the Square's architect, Lawrence Halprin, who envisioned an abstract design. Asawa rebutted: "When you work out in the public, it's just not the place to express yourself. You need to do something that will allow people who see it to respond to it."

In these two prints, Asawa portrayed her father, Umakichi, in formal attire with a pentagonal pendant— likely a fabric *omamori*, a type of amulet sold at Japanese Shinto shrines and Buddhist temples. Temporarily based in Los Angeles for her Tamarind residency, Asawa visited her aging parents in nearby Anaheim and drew them in moments of respite. Both prints were created with the same stone, presenting Umakichi in an abstracted floral field. The negative image resulted from a chemical treatment of the stone that caused ink to adhere to the parts of the design that had previously repelled it.

In 1975 Asawa was commissioned to design fountains and bench decorations for a renovated street in San Francisco's Japantown mall complex. The artist first modeled her designs in paper, revisiting some of the origami forms she learned as a child, and developed a lotus flower and vase. She then cast these paperfolds in steel to create two large-scale sculptures. She also worked with the children of local store owners on baker's clay panels depicting objects related to Japanese holidays as well as flora and fauna. The panels were cast in concrete and used to adorn the ends of benches along the street.

Asawa first made this figure of a conjoined mermaid and merman out of baker's clay to form the letter S in the word *Christmas*. The decorative sign was displayed in an exhibition of holiday art at Ghirardelli Square in 1964. She originally developed baker's clay—a simple mix of flour, salt, and water—to "keep the children busy" but immediately recognized the artistic potential of the material. By casting the clay relief in bronze, she was able to translate the perishable dough into a permanent work. Asawa later used this piece to illustrate her proposal for the *San Francisco Fountain*, commissioned by the Grand Hyatt Hotel for Union Square in 1973.

In 1973 the Grand Hyatt hotel commissioned Asawa to design the *San Francisco Fountain* in Union Square. The artist enlisted the help of more than 250 family members, friends, and children to sculpt a panorama of city scenes out of baker's clay, which were later cast in bronze. The fountain's multiple panels are filled with landmarks like the Golden Gate Bridge and scenes including a Lunar New Year dragon dance parade and anti–Vietnam War protests, as shown in the section here. Rooted in everyday materials, group involvement, and audience interaction, the project exemplified Asawa's approach to teaching and creating art.

Asawa's last commission commemorated nineteen students of Japanese descent from San Francisco State University who were removed from the campus and incarcerated in camps during World War II. She proposed a Japanese-style rock garden, for which she collaborated with landscape designers Isao Ogura and Shigeru Namba. It featured a bronze commemorative plaque, a waterfall, and ten boulders scattered around a meadow in a configuration representing the locations of the concentration camps in the US interior. "I want this memorial to be a place for people to gather, to think, and to enjoy," Asawa declared. "It's a reminder that . . . we need to watch out for our liberty."

Disappointed with the unimaginative art exercises their children were assigned at school, Asawa and architecture historian Sally Woodbridge cofounded the Alvarado School Arts Workshop in 1968. The program, which brought practicing artists into Alvarado Elementary School to teach, eventually expanded to more than seventy schools across San Francisco. The same year she started the workshop, Asawa was also appointed to the San Francisco Art Commission. Striving to effect lasting change in arts education, she subsequently served on the California Arts Council and National Endowment for the Arts. On these commissions, she advocated for the necessity of artists participating in general education while continuing her work with San Francisco schools.

These twelve colorful compositions were made by children and teenagers from schools across all five boroughs of New York this year as portraits of their communities. Inspired by Asawa's work in baker's clay with San Francisco schools, included in her 1973 mid-career survey in an installation similar to this one, this project uses the same framework to bring Asawa's vision of collaborative, community-based relief making to life in contemporary New York. The video nearby shows the students' process of making one of the panels. Each session was facilitated by a teaching artist.



Installation view of Asawa's mid-career survey at the San Francisco Museum of Art, featuring a baker's clay relief installation the artist collaboratively realized with students from San Francisco schools, 1973. Photograph by Laurence Cuneo

Asawa's work on the San Jose memorial unfolded during a time of rising awareness of the history of exclusion and confinement of Japanese Americans during World War II. In 1990, following years of campaigning and organizing by former detainees, the US government formally apologized and paid reparations to Japanese American citizens, including Asawa's family. Wanting to represent other families whose rights were stripped, Asawa, with the help of her daughter Addie, placed ads in magazines and local organizations asking people to send the crests, or mons, of their families. She then incorporated the mons into the memorial's design; columns of them flank the central narrative composition.

Approximately 120,000 people of Japanese ancestry were forcibly relocated and held at concentration camps under Executive Order 9066 between 1942 and 1946. Some forty years later, in 1989, Asawa was commissioned by the city of San Jose to design a memorial. Working with a small team that included her friend Nancy H. Thompson and her son Paul Lanier, the artist undertook a multiyear research project, during which she collected stories from archives and formerly incarcerated Japanese Americans in her community. This research as well as her personal experiences and family history informed the design of the memorial, which Asawa made out of baker's clay before casting it in bronze and unveiling it in 1994. The materials on view here offer a window into the artist's archive and her design process.

This work is the first known tied-wire sculpture by Asawa as well as her first freestanding one, or "stabile," as she wrote at the time—a portmanteau of *stable* and *mobile*. It began with a challenge posed by a desert plant from Death Valley she'd been gifted. Finding herself unable to draw the complex tangled plant, Asawa turned to her material of choice: wire. She tied, bent, and divided the pliable strands into branching forms. Over the next decades, Asawa continued exploring the possibilities of working in this method, developing many hanging and wall-mounted tied-wire works.

In the second half of the 1960s, Asawa developed a way to open the centers of her tied-wire sculptures, delineating negative space not only in between the branches and making it the focal point of a composition. The artist's use of negative space was informed by her observations of nature. "If you study the principles of nature, then the answers are all there," she declared. "The foreground and background become equally important . . . the space that [an object] makes is as important as the object itself."

Throughout her practice, Asawa made inventive use of reproduction technology. In the 1970s she used a mimeograph to duplicate and overlap a drawing of a chrysanthemum blossom on the same sheet of paper. With the increasing availability of Xerox machines, Asawa began employing them in her teaching practice and research. In the series displayed here, she made compositions using plants and objects around her house, turning them into improvised blackand-white arrangements. Like lithography, the photocopy machine also allowed her to reverse positive images into negative ones.

Soon after inventing the tied-wire method, Asawa found a way to physically materialize the idea of growth in her wire sculptures. Her process involved electroplating: an industrial technique in which an electric current causes metal particles to accumulate on the surface of a metal object when submerged in a chemical bath. With help from a plating firm, Asawa repurposed this technique to achieve a coarse surface rather than the glossy effect typical of industrial uses. In her studio, she installed an electroplating tank and placed wire sculptures in an acid bath. Over time, copper particles encrusted the strands, generating the organic texture the artist sought. After discovering that electroplating made her sculptures brittle, Asawa stopped using the technique.

In these "open window" works, fluted petals protrude outward from and seem to cascade down along the surface of a spherical or cylindrical shape. Compared to earlier examples, such as the large work on view here (S.039), the wire looping of the open windows Asawa produced in the final decades of her life is often looser and the resulting surfaces more porous. She arrived at this form by chance in 1954, while working on a sculpture: She cut a wire to correct a mistake, which caused the mesh surface to splay open and curve upward. The artist frequently revisited this form in later years, continuing her career-long quest to push the infinite potential of a single material.