



EXPERIMENTATION AND INNOVATION TEACHER RESOURCE

newarkmuseumart.org

THE
NEWARK
MUSEUM
OF
ART

WELCOME TO THE NEWARK MUSEUM OF ART!

Dear Teachers,

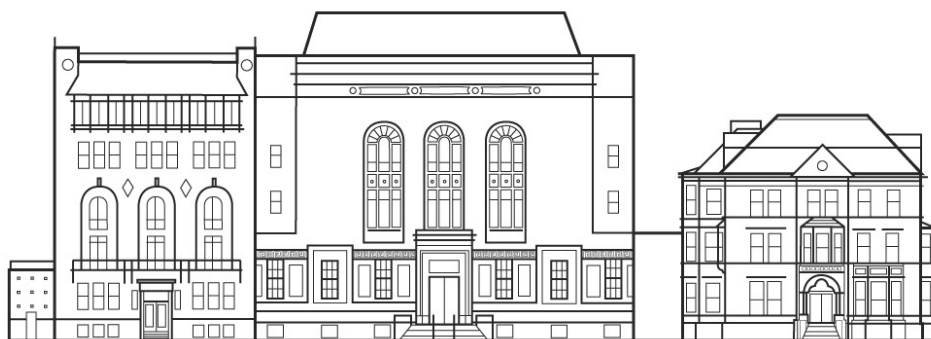
We are happy to present *Experimentation and Innovation* Teacher Resource. The goal of our school and teacher programs is to provide students an opportunity to connect museum objects with their own lives and understand how these objects connect to subject matter they are learning in their classrooms.

This teacher guide is based on our collection and provides a framework for you and your students. The discussions and activities introduce some key themes and concepts for classroom reflection and lessons.

We look forward to the conversations sparked among your students.

Thank you for choosing The Newark Museum of Art!

NMOA School Programs Team



CONTENTS



04

ABOUT THE PROGRAM

05

PRE-VISIT ACTIVITIES

06

WORKS AND
INFORMATION

12

POST-VISIT ACTIVITIES

14

RESOURCE LINKS

15

AT THE MUSEUM

16

ABOUT THE MUSEUM &
LEARNING STANDARDS

ABOUT THE PROGRAM

EXPERIMENTATION AND INNOVATION

"A life spent in making mistakes is not only more honorable but more useful than a life spent doing nothing."

—George Bernard Shaw

Experimentation and Innovation explores the role of process and creation in art. It brings attention to the making and reminds viewers of the (sometimes arduous) journey artists make to translate idea or material into artwork or artistic style. Material and technique are also not to be taken for granted and can give insights into a work's meaning, social history and cultural milieu, and the artist's statement.

Art is much more than visually pleasing. At its very core, art is innovation. Through the mastering and manipulating material, artists are tinkerers, experimenters, designers, scientists, engineers, and more. Students will be encouraged to do the same and cultivate their toolkits to include not only paintbrushes but also critical thinking and experimentation.

Students will be encouraged to engage in slow observation, engage in conversation, form connections to their personal lives, listen to diverse perspectives and cultures, participate in activities, and think critically.

PRE-VISIT

SPARK A CONVERSATION

Before getting into the meat of the lesson, we recommend that you and your students explore and discuss the themes of the resource. We have included some selected images from the collection, along with relevant information. You can print out the images or project them in your classroom.

Pre-visit Objectives:

- Introduce students to the artists and works in the collection
- Examine themes and topics students may encounter
- Explore the artistic process

1. Innovation and the Artistic Process

These works feature artists who innovated and created a new technique or approach to art never seen before in art history. Have a conversation with your students about the artistic process. How do artists make work? How do artists learn how to make art? Do they learn from each other? After the discussion, ask your students to reflect. Divide students into small groups and ask them to imagine they are the founders of a school for artists. What kinds of subjects would they teach? What do they think is essential to being an artist? Have the students write down their course offerings and then compare with other groups.

For older students and deeper discussion, introduce historic art schools such as: the Bauhaus, Black Mountain College, guilds, or groups (the Hudson River School, Spiral, the New York School, Vienna Secession, etc.). Assign them a group to research and present.

2. Experimentation

Have the students play a game. Inform them that the class will count to 20 as a group but with everyone's eyes closed and with only one person allowed to speak at a time. If two people speak at the same time, they have to start over at 1. See how many tries it takes to get to 20. Then 30. How high can they count?

This activity reinforces trying. It is fun to try and essential to not give up. Ask them to share a time they kept trying even though they faced adversity. Was it hard for them to keep trying? What did they take away from the experience? What would they say to someone who is struggling? Why is experimenting important?

MATTHEW BRANDT

PINE BARRENS 5187

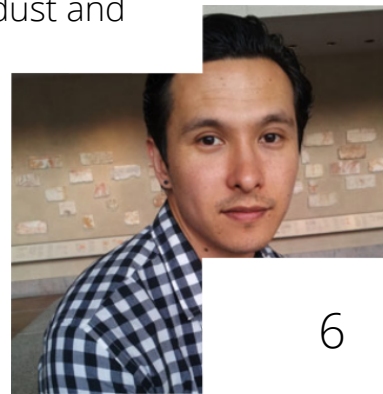


Matthew Brandt, *Pine Barrens 5187*, 2018
Pigment and glass, 87 x 51 x 1 in. (221 x 129.5 x 2.5 cm)
Purchase 2019 Helen McMahon Brady Cutting Fund 2019.7
©Matthew Brandt

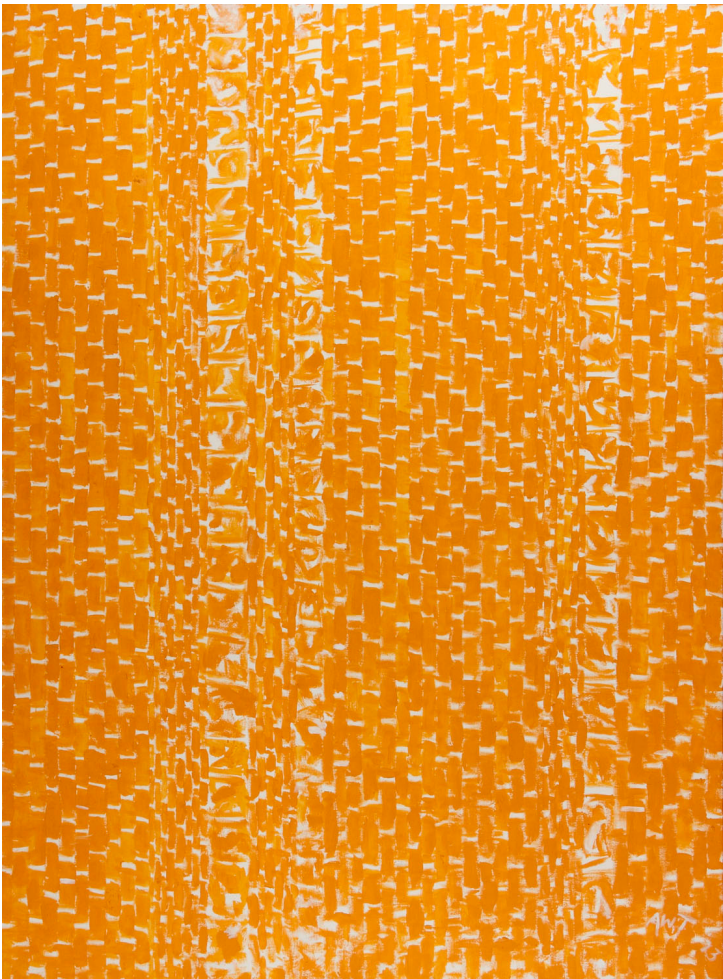
Matthew Brandt, who lives and works in Los Angeles, made several trips to Newark in 2017 and 2018, photographing natural sites throughout the state and engaging with the Museum's art and science collections. The resulting large-scale works capture the New Jersey landscape as both subject and material, incorporating rocks, glass, and other local elements.

"While in New Jersey, I visited several of Robert Smithson's original sites in which he collected rocks and minerals for his 'non-site' sculptures. One of the sites I visited was the Pine Barrens, an area rich in silica (a material central to glass production). I wandered and took photographs in and around the area. Also while in New Jersey, I learned that The Newark Museum was in the process of deaccessioning rocks from its Educational Loan Collection. These rocks were shipped to me and I ground them up into dust. I purchased leaded glass windows from a New Jersey Ebay seller. The individual glass panes from these windows were dismantled and individually silkscreened with a light adhesive to temporarily secure the rock dust. The panels were then heated in a kiln, and the materials fused together. After the rock dust and glass panels finished cooling, they were refitted back into the original leaded framework"

—Matthew Brandt on *Pine Barrens*



ALMA WOODSEY THOMAS ORANGERY



Alma Woodsey Thomas, **Orangery**, 1973
Acrylic on canvas, 68 x 50 in. (172.7 x 127 cm)
Gift of Harold Hart, 1992 92.109

Thomas was born in Columbus, Georgia, the oldest of four girls. In 1907, her family moved to Washington, DC, seeking relief from the racial violence in the South. Though segregated, the nation's capital still offered more opportunities for African Americans than most cities in those years. As a girl, Thomas dreamed of being an architect and building bridges, but there were few women architects a century ago. Instead, she attended Howard University, becoming its first fine arts graduate, in 1924. That same year, Thomas began a 35-year career teaching art at a DC junior high school. She was devoted to her students and organized art clubs, lectures, and student exhibitions for them. Teaching allowed her to support herself while pursuing her own painting part-time. Thomas's early art was realistic, though her Howard professors Lois Mailou Jones and James V. Herring challenged her to experiment with abstraction. When she retired from teaching and was able to concentrate on art full-time, Thomas finally developed her signature style. She debuted her abstract work in an exhibition at Howard in 1966, at the age of 75. Thomas's abstractions have been compared with Byzantine mosaics, the Pointillist technique of Georges Seurat, and the paintings of the Washington Color School, yet her work is distinct. Thomas became an important role model for women, African Americans, and older artists. She was the first African American woman to have a solo exhibition at New York's Whitney Museum of American Art, and in 2016 she became the first African American woman artist to be featured in the White House.



SOL LEWITT

BARS OF COLOR WITHIN A CIRCLE

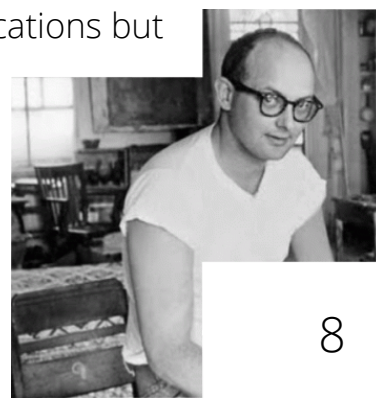


Sol LeWitt, **Bars of color within a circle, B: Red background**, 2002
Acrylic paint, 82 x 108 in. (208.3 x 274.3 cm)
Purchase 2002 Friends of American Art and The Alberto Burri Memorial Fund, established by Stanley J. Seeger and gift of Joseph and Marie Melone 2002.26.1B



Sol LeWitt, **Bars of color within a circle, A: Blue background**, 2002
Acrylic paint, 82 x 108 in. (208.3 x 274.3 cm)
Purchase 2002 Friends of American Art and The Alberto Burri Memorial Fund, established by Stanley J. Seeger and Gift of Joseph and Marie Melone 2002.26.1A

Sol LeWitt was a leading figure in the Minimalist and Conceptual movements. His belief in the artist as a generator of ideas was instrumental in the transition from the modern to the postmodern era. Conceptual art, expounded by LeWitt as an intellectual, pragmatic act, added a new dimension to the artist's role that was distinctly separate from the romantic nature of Abstract Expressionism. LeWitt believed the idea itself could be the work of art, and maintained that, like an architect who creates a blueprint for a building and then turns the project over to a construction crew, an artist should be able to conceive of a work and then either delegate its actual production to others or perhaps never make it at all. LeWitt's work ranged from sculpture, painting, and drawing to almost exclusively conceptual pieces that existed only as ideas or elements of the artistic process itself. LeWitt's refined vocabulary of visual art consisted of lines, basic colors, and simplified shapes. He applied them according to formulas of his own invention, which hinted at mathematical equations and architectural specifications but were neither predictable nor necessarily logical. For LeWitt, the directions for producing a work of art became the work itself; a work was no longer required to have an actual material presence in order to be considered art.

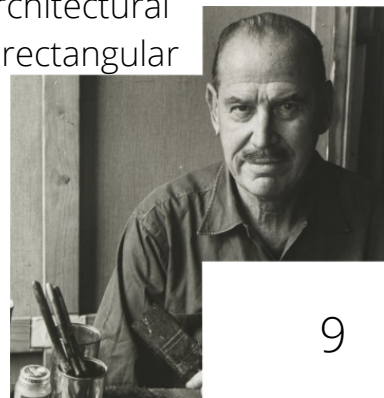


CHARLES GREEN SHAW POLYGON



Charles Green Shaw, **Polygon**, 1936
Construction of oil on shaped plywood with molding, 27 x 15¾ in. (68.6 x 40 cm)
Purchase 1976 The Members' Fund 76.180
Courtesy The Estate of Charles Green Shaw, D. Wigmore Fine Art, Inc., New York

Charles Shaw began painting when he was in his late 30s. A 1914 graduate of Yale, Shaw completed a year of architectural studies at Columbia University. In 1927, he began to take a serious interest in art and enrolled in Thomas Hart Benton's class at the Art Students League in New York. After initial study with Benton and George Luks, Shaw continued his artistic education in Paris by visiting museums and galleries. During the first week of a 1932 trip, he surveyed 13 galleries and was particularly impressed by the work of Cézanne and Picasso. From 1930 to 1932, Shaw's paintings evolved from a style imitative of Cubism to one inspired by it, though simplified and more purely geometric. In 1933, having returned to the United States, he began a series of works entitled *Plastic Polygon* that occupied his attention until the end of the decade. The best known of these are drawn from the architectural forms of the New York City skyline and are often painted on shaped canvases that echo the architectural silhouette of the skyscrapers. Within this structural framework, overlapping rectangular forms allude to different heights and widths of adjacent buildings. In them, illusory space is compressed; only the tonal variations of the colors and the subtle manipulation of rectangles evoke a sense of three-dimensionality.





MARIA MARTINEZ JULIAN MARTINEZ JAR

Maria Martinez and Julian Martinez (San Ildefonso Pueblo),
Bowl with Plumed Serpent, ca. 1925
Clay, 9½ x 6 in. (24.1 x 15.2 cm)
Gift of Amelia Elizabeth White, 1937 37.236

Maria Martinez (1884–1980), of Tewa heritage of the San Ildefonso Pueblo in the Rio Grande Valley of New Mexico, became world-renowned for her black-on-black pottery. Learning to make pots as a child from her aunt, Tia Nicolasa, and beginning with clay dishes she made for her playhouse, Maria was known as a potter among her peers. In 1908, Dr. Edgar Hewett, New Mexico archaeologist and director of the Laboratory of Anthropology in Santa Fe, had excavated some 17th-century black pottery shards and, seeking to revive this type of pottery, Hewett was led to Maria. Through trial and error, Maria rediscovered the art of making black pottery. She found that by using a special type of paint on top of a burnished surface, in combination with trapping the smoke of a cool fire with dried cow manure, a red-clay pot would turn black.

Maria, who made but never painted the pottery, collaborated with her husband Julian, who assisted in the gathering of the clay and building the fire, and, most importantly, painting the motif on the pottery. Julian painted Maria's pottery until his death in 1943. During their early years of pottery-making, Julian quit farming to become a janitor at the Museum of New Mexico in Santa Fe. It was there that he and Maria studied the pottery in the display cases, observing form, motif, and technique. His paintwork is "characterized by the abundant use of narrow lines and designs composed of many intricate elements [...] Julian was a perfectionist and an innovator, always searching for new ideas in technique and design."



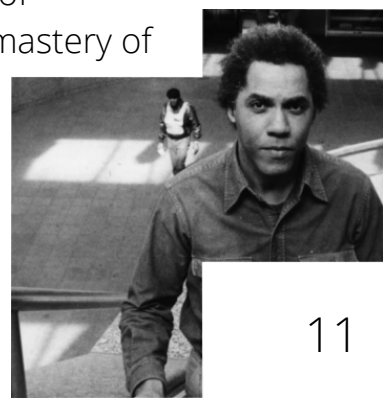
MARTIN PURYEAR

UNTITLED



Martin Puryear, **Untitled**, 1997-2001
Ash, pine, cypress, and rope, 143½ x 44 x 132 in. (364.5 x 111.8 x 335.3 cm)
Purchase 2006 Helen McMahon Brady Cutting Fund 2006.52

One of the most important American sculptors working today, Martin Puryear is known for refined, handmade constructions, primarily in wood. Puryear's abstract forms, while evocative and familiar, elude specific or singular interpretations. In his work, motifs such as the Phrygian cap, human and animal heads, and vessels take on symbolic resonance, functioning as meditations on powerful universal concepts like freedom and shelter, even as they are distilled by the artist into essential forms. Puryear studied painting at Catholic University in Washington, DC, then spent two years in Africa with the Peace Corps (1964–66), teaching in a village in Sierra Leone. There, he made meticulously detailed drawings, recording local houses, plants, and animals, as well as the people around him. He also experimented with woodcuts; the surface texture of the block in these works prefigures his later sculptures in wood. Many forms and motifs that emerged from these early experiments recur throughout his career. From 1966 to 1968, Puryear studied printmaking at the Swedish Royal Academy of Arts in Stockholm. He explored a range of techniques—etching, aquatint, drypoint—involving incised lines and furrowed surfaces. Around this time, Puryear also began making sculpture. As he later explained, "It might have been the different ways of incising, which is a kind of carving, that got me considering again the way things are made." Puryear's mastery of material and mixing of minimalism and traditional craft has established him as a leading voice.



POST-VISIT ACTIVITIES

Post-visit Objectives:

- Enable students to reflect upon and discuss some of the themes and ideas from the exhibition
- Have students explore some of the artists' ideas through discussion, art-making, and writing activities

1. Reflection

After viewing the works, ask your students to take a few minutes to write about their experience. What new ideas did the works give them? Discuss the impact of seeing the works. For instance, did they see anything that challenges their perception of innovation? Did any of the works change their ideas on the role of experimentation in art? Explore more work by the artists in this resource by using the links on page 14.

2. Algorithmic Art

Have your students participate in an activity inspired by Sol LeWitt. Refer to the images on page 8 for an example. Have your students individually sketch a simple drawing. Give them 2 minutes to list instructions of how to achieve that exact drawing. Pair them with another student and have them sit back to back. Have one student read the instructions aloud as the other follows the directions and draws. Have them switch. How close were their drawings to the original sketch? What made it different? How could they improve upon their instructions? After the session, encourage the students to download the free app linked on page 14 that is a VR experience exploring LeWitt's studio and process.

3. Experimental Art

Have the students pick an artist. Challenge them to create a concept or image inspired by the artist using technology familiar to the student. How can they remix the existing process? Could they create mosaics of colors using their phones in the style of Alma Woodsey Thomas? How can they take elements of nature from their homes or neighborhoods and create a composition out of it like Matthew Brandt? Let them work in teams to brainstorm techniques.

4. Design Challenge

Take the students through the design thinking experience. Use the chart on page 13 as a reference. First introduce the students to minimal or abstracted furniture (i.e., in the Bauhaus style). Pair the students and challenge them to spend 5 minutes sketching a prototype, labeling key details such as materials. Next, challenge them to build a prototype using random supplies in 10 minutes. Did their object reflect their drawing? How did they improve upon the concept of a chair? Was it successful? Allow them to reflect and share ideas and experiences with their peers.

POST-VISIT ACTIVITIES

THE DESIGN THINKING PROCESS



EMPATHIZE

Learn about the audience.

*What is a chair?
Why are they important?*



DEFINE

Form a point of view based on user needs and insights.

Inspired by the Bauhaus movement, how can we improve upon the design and perhaps abstract it? What innovative technologies can we use?



IDEATE

Brainstorm for creative solutions

Spend 5 minutes sketching. What materials? What design? What shape? What size? Who is the target demographic?



PROTOTYPE

Build a model of your innovation.

Build.



TEST

Validate your design against your users.

*Reflect and share.
How could the design be improved?*

LINKS

Matthew Brandt

<https://matthewbrandt.com/>

<http://www.artnet.com/artists/matthew-brandt/>

<https://www.youtube.com/watch?v=f0r-txCHJ8Y>

Alma Woodsey Thomas

<https://americanart.si.edu/artist/alma-thomas-4778>

<http://www.artnet.com/artists/alma-woodsey-thomas/>

Sol LeWitt

<https://www.nytimes.com/2007/04/09/arts/design/09lewitt.html>

<https://massmoca.org/sol-lewitt/>

Sol LeWitt app <https://news.artnet.com/art-world/sol-lewitt-app-1910039>

Charles Green Shaw

<https://www.weinstein.com/exhibitions/charles-green-shaw-timeless-forms/>

<http://www.artnet.com/artists/charles-green-shaw/3>

Maria Martinez and Julian Martinez

<https://www.mariamartinezpottery.com/about-maria-martinez.html>

<https://wam.umn.edu/2019/11/19/native-american-heritage-month-maria-julian-martinez/>

<https://kinggalleries.com/maria-martinez-pottery-signatures/>

Martin Puryear

<https://www.nytimes.com/2019/05/03/arts/martin-puryear-venice-biennale.html>

<https://art21.org/artist/martin-puryear/>

<https://www.moma.org/artists/4758>

<https://www.youtube.com/watch?v=rIQwUY9bGjc>

AT THE MUSEUM

The Museum supports teachers, administrators, and parents through an array of programs carefully designed to connect different levels of curricula to the Museum collections.

For more, visit: <https://newarkmuseumart.org/learn/school-programs/>

Field Trips

Field trips are available to students, educators, and parents. Designed to include our permanent collection, Planetarium, and special exhibitions, our programs provide curriculum connection in all subject areas.

Professional Development

The Museum provides professional development opportunities for educators, administrators, and parents.

Residencies

For art and STEM residencies, the Museum partners with schools with teaching artists to create projects that connect to Museum objects.

Scout Programs

Each onsite experience is a fun and educational way to earn badges while connecting with the global offerings of the Museum.

Birthday Parties

With the magic of the Museum as a backdrop, our educators lead a one-of-a-kind activity for your child and your guests.

Camp NMOA

Summer begins here! Join us for six weeks of building community through project-based learning where campers can develop their skills in art and science.

ABOUT THE MUSEUM

We welcome everyone with inclusive experiences that spark curiosity and foster community.

The Newark Museum of Art, in Newark, Essex County, New Jersey, is the state's largest museum. It holds fine collections of American art, decorative arts, contemporary art, and arts of Asia, Africa, the Americas, and the ancient world. Its extensive collections of American art include works by Hiram Powers, Thomas Cole, John Singer Sargent, Albert Bierstadt, Frederick Church, Childe Hassam, Mary Cassatt, Edward Hopper, Georgia O'Keeffe, Joseph Stella, Tony Smith and Frank Stella.

Founding Director John Cotton Dana believed that museums were established to promote the appreciation, understanding, and enjoyment of the arts and sciences. Together with a group of public officials, prominent businessmen, and local collectors, he established the Museum in 1909 at the Newark Public Library. He provided the intellectual leadership that made it one of the most progressive cultural institutions in the country.

LEARNING STANDARDS

8.1.2.IC.1; 8.1.2.DA.3; 8.1.2.AP.1; 8.1.2.AP.3, 8.1.2.AP.4; • 8.1.2.AP.5; 1.5.12acc.Cr1b, 1.5.12adv.Cr1a, 1.5.12adv.Cr1b; 1.5.12prof.Cr2b; 1.5.12adv.Cr2c, 1.5.12prof.Cr3a, 1.5.12adv.Cr3a, 1.5.12prof.Pr6a, 1.5.12acc.Pr6a, 1.5.12prof.Re7a, 1.5.12acc.Re7b, 1.5.12adv.Re7b, 1.5.12adv.Re7a, 1.5.12prof.Re8a

IMAGE CITATIONS

Matthew Brandt

https://louvre.com/roguewave-artist.cfm?tArtist_id=417

Sol LeWitt

<https://www.rhoffmangallery.com/artists/sol-lewitt>

Alma Woodsey Thomas

<https://www.nytimes.com/2009/10/11/weekinreview/11cotter.html>

Maria Martinez and Julian Martinez

Julian and Maria Martinez, San Ildefonso Pueblo, n.d. Wyatt Davis (American, born 1906) gelatin silver print 8 x 10 in. (20.3 x 25.4 cm) Courtesy Palace of the Governors Photo Archives (NMHM/DCA) #4591

Charles Green Shaw

Sidney J. Waintrob (American, 1902–2002) and Abraham L. Waintrob (American, 1908–2004). Charles Shaw, 1963. Gelatin silver print. Collection Albright-Knox Art Gallery, Buffalo, New York; Gift of Samuel I. Hoffberg, 1981 (P1981:25.52). © The Waintrob Project for the Visual Arts, Inc.

Martin Puryear

Steve Kagan for the New York Times

Cover Photography by [Mike Peters](#)