

# Storm King Art Center Teacher Resource



## Sculpture: A 3-D Experience

Explore constructed, cast, and carved creations in Storm King's striking setting. Discover how sculptors invite us to engage with form, space, balance, scale, and materials. Recommended for grades K-12.

Dear Teachers,

We are delighted to welcome you to Storm King Art Center, a 500-acre outdoor museum located in New York's Hudson Valley, where visitors experience large-scale sculpture and site-specific commissions under open sky.

This resource is designed to help you prepare to explore the theme of "Sculpture: A 3-D Experience" with your students at Storm King. By approaching visits through a thematic lens, we hope to engage learners in focused close looking, activities, and conversation—providing a solid foundation as students construct connections throughout their experience.

Whether you have chosen a guided tour or will be facilitating your own visit, this resource offers pre-visit ideas to prepare for your trip, tips and tools for onsite engagement, and post-visit activity prompts for continued exploration.

During a guided visit, your educator might build the experience around a particular sub-theme related to Sculpture (ex: Scale, Process, Abstraction). Please be in touch at least two weeks before your program if you have specific interests.

While you may not see all the artworks in this packet during a guided program, we invite you to visit additional artworks after your tour if time allows. The artworks in this packet are situated within one mile of the School Group arrival area.

If you have additional questions about your upcoming visit, please contact us at:  
[groups@stormkingartcenter.org](mailto:groups@stormkingartcenter.org)

We look forward to welcoming you and your students soon!

Sincerely,  
The Storm King Learning and Engagement Team

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**Cover Image:** Alexander Liberman (American, born Russia, 1912–1999). *Adonai*, 1970–71 (refabricated 2000). Steel, 29 ft. 6 in. x 63 ft. x 52 ft. 8 in. (899.2 cm x 19.2 m x 16.1 m). Gift of the Ralph E. Ogden Foundation. © The Alexander Liberman Trust. Photo by Jerry L. Thompson

# Pre-Visit

## **INTRODUCTION TO STORM KING ART CENTER**

Storm King Art Center is a 500-acre outdoor museum where visitors experience large-scale sculpture under open sky. **We strongly recommend you download our free digital guide on the Bloomberg Connects app**, via the QR code here. You'll find photos, videos, audio recordings, maps, suggested routes, activities for children and families, and more. Use the guide to plan your visit, then easily access helpful insights onsite. Afterward, use it in the classroom to dive deeper into your favorite works. You and your students can also learn more about Storm King's [environmental stewardship](#), collection, and community connections in this brief [video](#).



## **INTRODUCTION TO THE THEME “SCULPTURE: A 3-D EXPERIENCE”**

Ask students what they think a sculpture is, and how it is different from a painting or drawing. A sculpture is a three-dimensional artwork, and some elements of sculpture that students will explore at Storm King include form, negative space, and balance.

**Form:** A sculptural form is a three-dimensional shape with length, width, and height. Invite students to create three dimensional forms with their bodies, paper, or clay. Can they create a form that is geometric (cone, sphere, cube)? An organic, or free-flowing, form? A form that represents something familiar? An abstract form?

**Negative space:** Negative space is the “empty” space within and around the form of the sculpture. Display an object with clearly defined negative spaces, like a chair with slats or a plant. Ask students to fully cover a sheet of paper with a pencil. Then, ask them to use an eraser to reveal only the negative spaces they see within and around the object (a demo might be helpful). Younger students can trace the negative spaces in the air with their fingers or create different shapes within the negative space of their bodies (a circle with their arms, a triangle with their legs, etc.).

**Balance:** Sculptors create pieces that are structurally and visually balanced. They need to think about the amount of weight in different areas and how that might affect a sculpture's center of gravity. One [activity](#) to explore center of gravity is to stack text books or blocks, and slowly slide the top object as far over the edge of the stack as it will balance (to its center of gravity). Continue all the way down the stack. Or, students could see how they need to shift their own center of gravity when they stand on one leg and then bend that leg.

## **OBSERVE AND DISCUSS**

Project or print an image of Alexander Liberman's sculpture, [Adonai](#) (page 7). Ask students what they notice about form, negative space, and balance in the sculpture. Share [installation images](#) of the work from Storm King's archive. In small groups or partners, ask students to discuss what they notice about the artist's choices and process. What do they wonder? What might they be excited about experiencing when they visit the sculpture in person?

# Artwork Images and Information



Alexander Calder (American, 1898–1976). *The Arch*, 1975. Painted steel, 50 ft. x 41 ft. 6 in. x 34 ft. 10 in. (15.2 x 12.6 x 10.6 m). Purchase Fund and gift of the Ralph E. Ogden Foundation © 2021 Calder Foundation, New York/Artists Rights Society (ARS), New York. Photo by Jerry L. Thompson

## [The Arch \(1975\) by Alexander Calder](#)

Soaring above Storm King's native grasses, *The Arch* melds the biomorphic and the architectural, two styles that characterize Alexander Calder's sculptural work. The monumental structure is composed of three unique steel shapes that form an arch, through which viewers are invited to travel. Located near Storm King's entrance, *The Arch* welcomes visitors and announces one of the site's defining purposes: the presentation of sculpture in nature. Painted entirely black, the surface appears, from some vantage points, to be flat, punctuated by many lines of bolts securing the steel. From other angles, the structurally supportive ribs give the work a sense of movement. Calder based *The Arch* on a nineteen-inch-high model that he made around 1940. The final work, enlarged from a twelve-foot-high, black-painted steel maquette, was fabricated at Segre's Ironworks in Waterbury, Connecticut, in 1975, the year before Calder's death. *The Arch* arrived at Storm King in spring 1978 as a loan; it was acquired in 1982 and installed on a slightly raised mound, shaped by a few feet of gravel, on a site created by the late William A. Rutherford, Sr., Storm King's original landscape architect. It stands in the same location today.

Calder is renowned as a pioneer of abstract sculpture. In the mid-1920s he attended the Art Students League of New York, where he produced paintings congruous with the Ashcan

aesthetic, a painterly movement influenced by early twentieth-century American industrialization. His artistic sensibility continued to flourish in the heady climate of Paris in the 1920s, where he met and befriended many prominent artists and by Duchamp to describe Calder's new kinetic sculptures. In response to Duchamp, Jean Arp, another influential modernist in their circle, dubbed Calder's motionless constructions "stables." During the 1960s and 1970s, these stables gained colossal proportions, appropriate to the public sites for which they were often commissioned intellectuals, including Joan Miró, Fernand Léger, James Johnson Sweeney, and the Dada sculptor Marcel Duchamp. He developed a new method of sculpting: by bending and twisting wire, he essentially "drew" three-dimensional figures in space. Calder began making abstract constructions after a visit to the studio of the Dutch painter and art theorist Piet Mondrian in 1930, where he was struck by the environmental installation. In 1931 the artist conceived his first "mobiles," a term invented by Duchamp to describe Calder's new kinetic sculptures. In response to Duchamp, Jean Arp, another influential modernist in their circle, dubbed Calder's motionless constructions "stables." During the 1960s and 1970s, these stables gained colossal proportions, appropriate to the public sites for which they were often commissioned.

**Media:** Audio recording and photos available on our digital guide on Bloomberg Connects.





Tal Streeter (American, 1934–2014). *Endless Column*, 1968. Painted steel, 69 ft. 4 in. x 7 ft. 10 in. x 7 ft. 6 in. (21.1 m x 238.8 cm x 228.6 cm). Purchased with the aid of funds from the National Endowment for the Arts and gift of the Ralph E. Ogden Foundation. Photo by Jerry L. Thompson

### [Endless Column \(1968\) by Tal Streeter](#)

Reaching a height of nearly seventy feet, *Endless Column* is among the tallest works at Storm King. Tal Streeter called it “a kind of drawing in space, which will take your eyes in a staccato movement to the top and on into the sky.” Streeter worked out the sculpture’s engineering with the help of two maquettes, and he accentuated the linear, lightning-bolt-like form with a coat of bright red paint. This connection to lightning is not merely aesthetic: *Endless Column*, like many other tall steel sculptures at Storm King, is grounded with a cable that can direct lightning strikes safely into the earth, preventing damage to the sculpture.

*Endless Column* marks a pivotal moment in Streeter’s career, when his fascination with the act of looking upward led him to Japan to study kite making. Streeter, who remained in Japan from 1969 to 1971, met kite makers, attended kite festivals, and crafted his own kites, all while photographing and writing about his experiences. His travels soon extended throughout Asia, leading Streeter to develop publications and teach others about the creation and significance of kites. At the intersection of his contrasting practices of making several-ton steel sculptures and ethereal, seemingly weightless paper kites lay the impulse “to make objects that drew the eye away from the sculpture and led it right out into the landscape or sky.” The work’s title is a direct homage to the modernist sculptor Constantin Brancusi’s *Endless Column* (1937), installed in Târgu Jiu, Romania, which similarly takes the shape of an abstract, rhythmic column reaching up into the sky.

**Media:** Audio recording and photos available on our digital guide on Bloomberg Connects.



Alexander Liberman (American, born Russia, 1912–1999). *Adonai*, 1970–71 (refabricated 2000). Steel, 29 ft. 6 in. x 63 ft. x 52 ft. 8 in. (899.2 cm x 19.2 m x 16.1 m). Gift of the Ralph E. Ogden Foundation. © The Alexander Liberman Trust. Photo by Jerry L. Thompson

### ***Adonai* (1970-71, refabricated 2000) by Alexander Liberman**

*Adonai* was one of a few sculptures Liberman made using six-foot-long gas storage tanks. “I use cheap materials for economic reasons,” he noted. “But also, there’s an odd, maybe a romantic longing to contact the earth. I like rust. I like earth. I like rocks. The quality of a primitive forge anchors a modern mind to the earth.” Over time, the rusted steel tanks in *Adonai* physically deteriorated, and the massive sculpture was refabricated in 2000. While the work suggests a number of visual analogies, from fallen columns to trees, Liberman cited the renowned medieval cathedral at Chartres, France, as his inspiration. He observed that cathedrals start with a basic portal, followed by a nave (the main longitudinal space of a church). Evoking this architectural formula, the artist positioned two vertical cylinders as a portal and a single horizontal cylinder as a nave, stating, “You build your own imaginary cathedral.”

Liberman’s title for the work, *Adonai*, is the Hebrew word for “god.” Many of his sculptures, including *Adam* and *Iliad* at Storm King, bear similar biblical and mythical references. When asked about his interest in heroic titles, Liberman claimed that his close friend the Abstract Expressionist artist Barnett Newman had been influential in this regard, but that he had come to dislike titles. “They mean nothing to me,” he stated, “and today everybody wants titles. It’s like attaching a wooden handle to something that hopefully cannot be pinned down.”

**Media:** Audio recording and photos available on our digital guide on Bloomberg Connects; [Archival images](#) of the installation of Alexander Liberman’s *Adonai*; Information about *Adonai*’s refabrication in [David Collens’ Oral History video](#).





George Cutts (British, b. 1938). *Sea Change*, 1996. Stainless steel, 20 ft. 5 in. x 11 in. x 13 ft. 9 in. (622.3 x 27.9 x 419.1 cm). Gift of the Ralph E. Ogden Foundation, the Horace W. Goldsmith Foundation, and the Margaret T. Morris Foundation. Photo by Jeffrey Jenkins

### *Sea Change (1996) by George Cutts*

*Sea Change* is composed of two identical stainless steel poles, slender and curving, that turn slowly in opposite directions. The poles are anchored to motorized disks, sunk below the ground and encased in a waterproof steel box secured to a thick concrete pad. The synchronized rotations produce fluid, undulating movements as the poles seem to sway and flex, blending the mechanical with the natural. Projecting a sense of ambiguity, the poles appear at times to rotate in opposite directions and, at others, in the same direction. As the sculpture moves and as one's vantage point changes, the relationship between the two forms similarly transforms as they weave together and come apart, the space between them shifting in kind. An experienced deep-sea diver, George Cutts has noted that he intended this lyrical kinetic sculpture to evoke seaweed moving with the flow of ocean waves and currents.

**Media:** Audio recording and photos available on our digital guide on Bloomberg Connects; Storm King Art Center's [Facebook video](#) of *Sea Change* in motion.

# During Your Visit to Storm King

## GENERAL INFORMATION

**PLEASE FULLY READ YOUR GROUP CONFIRMATION LETTER** for complete details about arrival, lunch, chaperones, trams, tours, and weather. Additional information about Group Visits can be found at <https://stormking.org/groups/> or by contacting [groups@stormkingartcenter.org](mailto:groups@stormkingartcenter.org)

**PREPARE TO BE OUTDOORS:** Storm King is a 500-acre outdoor sculpture museum. Keep in mind that your group will be outside for your entire visit to Storm King, rain or shine. We recommend dressing in layers and wearing comfortable shoes for lots of walking. It's a good idea to bring a refillable water bottle, sunscreen, bug spray, and weather-appropriate attire.

**HELP US PROTECT THE SCULPTURES:** Touching, walking on, or climbing on most of the works of art at Storm King is prohibited. The sunscreen, hand lotion, bug spray, and even natural oils on your hands damage the surface of the sculptures. You might not think one touch matters but remember, about 200,000 people visit Storm King every year. Thousands of touches add up to lots of damage. Always refrain from climbing artworks for your own safety and the safety of others.



**INTERACTIVE ARTWORKS:** Artworks which visitors may touch are designated on the map and on the grounds with a hand icon, pictured at left.

**RESPECT WILDLIFE:** All kinds of animals and plants make their home at Storm King – be good guests by giving them plenty of space. Do not enter our long and native grass fields and please refrain from climbing trees.

**TERRAIN:** The Art Center's grounds comprise varied terrain including rolling meadows, hills, wooded areas, paved paths, and gravel paths. During guided tours, please be prepared to cover up to one mile on grass.

**ACCESSIBILITY:** Storm King Art Center is committed to offering a rich experience of art and landscape to every visitor. **Please let us know in advance if anyone in your group has accessibility needs.** Level, paved pathways traverse many parts of the Art Center; however, some areas may only be accessed via steep terrain, unpaved pathways, or mown grass. The visitor map indicates paved and unpaved paths and steep areas (where slope exceeds that of a wheelchair-accessible ramp, or 12.5%). [Learn more.](#)

**TIME:** We recommend planning at least 3 hours for your visit. Guided tours are usually 45-60 minutes. If your visit is self-guided, or you have time before or after your tour, you may have lunch at a designated picnic area and explore the grounds on your own.

**MATERIALS:** You may choose to bring pencils and sketchbooks or notebooks for students to draw and write during the self-guided portion of your visit. Check out the digital guide on

Bloomberg Connects and the tips and techniques for onsite engagement document on p.13 for more inspiration.

**MAP:** Access an up-to-date map of Storm King on our [“Plan Your Visit” webpage](#), or pick up a map when you arrive at the Art Center. The digital guide on Bloomberg Connects features a live map.

**MISCELLANEOUS:**

- Ball playing and other recreational items and sports are not permitted.
- Indoor galleries are located in the Museum Building on Museum Hill. We ask that you limit the number of students inside the galleries at one time to 10.
- Roadways are used by pedestrians and Storm King staff, trams, personal vehicles, and rented bicycles. Please use caution.
- Carry in, carry out. Be sure that all trash and recycling makes it into bins. If you have lunch at Storm King, tidy up after yourself to make sure the next hungry visitors can enjoy the area too.
- Storm King reserves the right to refuse entry or to eject any group for misconduct at any time. Groups that are asked to leave the site or that cause damage to the site may be prohibited from visiting in the future.

## **SCULPTURE: A 3-D EXPERIENCE**

Continue exploring the theme of sculpture with your students at Storm King. If you are on a self-guided visit, or have time before or after your tour, walk the grounds. What do students notice about form, space, and balance in each sculpture you encounter?

**Visit some or all of the artworks featured in this resource packet:**



**Artwork:** *The Arch* (1975) by Alexander Calder

**Location:** Meadows; see map on page 12

**Engagement:** Invite students to view, sketch, or photograph the work from multiple angles. What do they notice about form, negative space, and balance? What does the sculpture make them think of from each angle? How might it relate to architectural structures? To the natural world?



**Artwork:** *Endless Column* (1968) by Tal Streeter

**Location:** Meadows; see map on page 12

**Engagement:** Invite younger students to trace or recreate part of the sculpture with their bodies. The artist described this as “a kind of drawing in space which will take your eyes in a staccato movement to the top and on into the sky.” What sounds might students imagine as they follow the line of the sculpture up into the sky? Tal Streeter was also very interested in kites. Ask students to imagine or draw a kite design inspired by this sculpture.



**Artwork:** *Adonai* (1970–71, refabricated 2000) by Alexander Liberman

**Location:** Meadows; see map on page 12

**Engagement:** Walk around and through this sculpture. What are some different paths you can take? Students might create sketches of what they see through the negative spaces. The artist was inspired by the structure of cathedrals. How might this be similar and different from a grand building? Ask students to recall viewing images of the work before their visit. How would they describe their experience interacting with this large-scale sculpture in person?



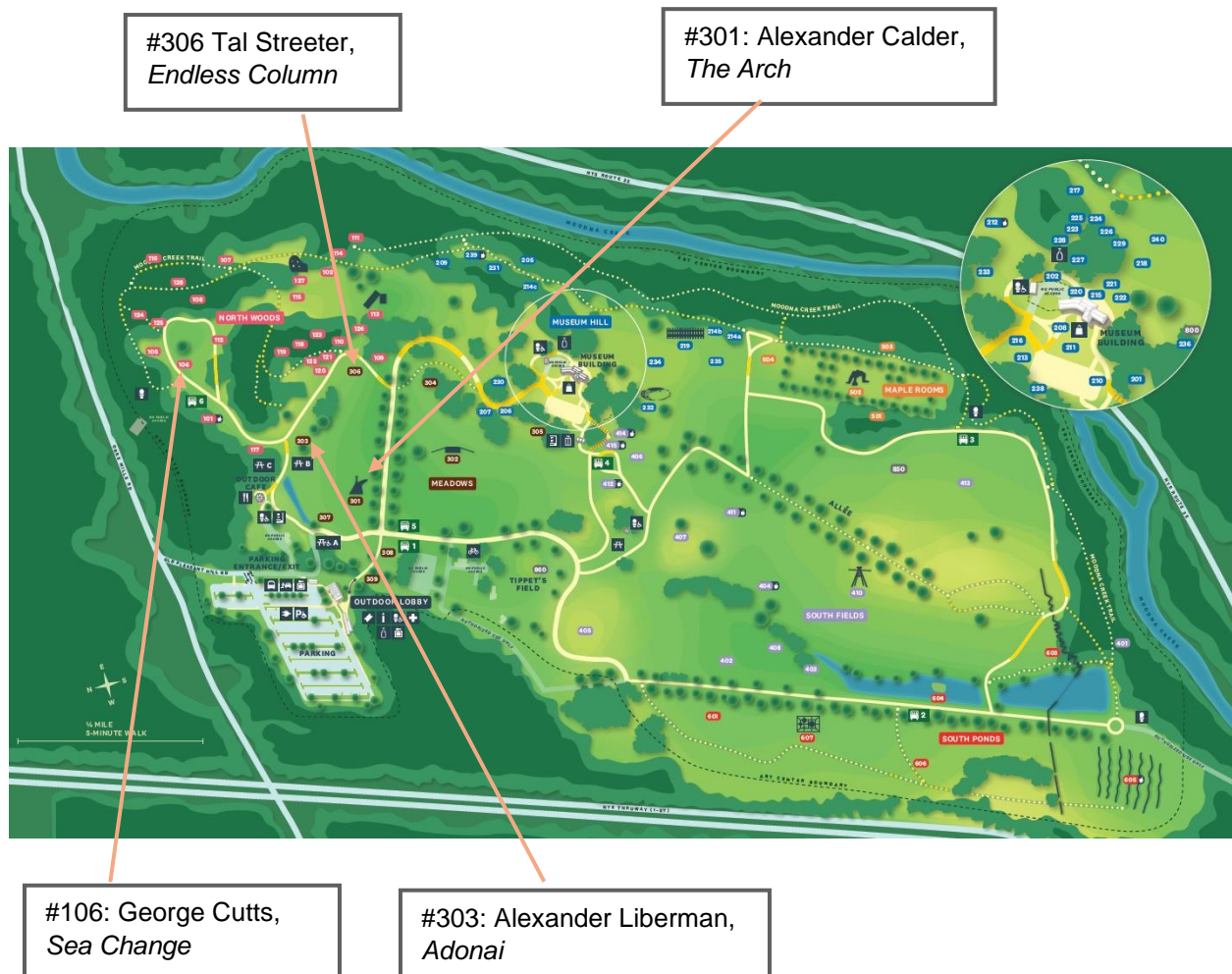
**Artwork:** *Sea Change* (1975) by George Cutts

**Location:** North Woods; see map on page 12

**Engagement:** How many words can students use to describe this work? Challenge students to work in groups to choreograph a brief dance or series of movements inspired by this sculpture. Compare and contrast with other works you’ve explored at Storm King. Consider the role that movement, form, and negative space play in your experience of each one.



## **“SCULPTURE: A 3-D EXPERIENCE” ARTWORK LOCATIONS**



Artworks featured in this resource packet are located within 1 mile of the main entrance.

This route includes paved paths and grass.

For more information about accessibility, or to request alternative suggestions for this theme, please contact [groups@stormkingartcenter.org](mailto:groups@stormkingartcenter.org)



## **TIPS AND TECHNIQUES FOR STUDENT ENGAGEMENT AT STORM KING**

**EXPLORE PERSPECTIVE.** View sculptures and vistas from afar, close up, above, and below. Move around and through artworks to experience them from different angles. Invite students to create a rectangle with their hands to use as a viewfinder, “zooming in” on details and “cropping” views. Try photographing the same artwork or area from multiple perspectives. Ask students to imagine or draw what something might look like from a bird’s-eye view or a worm’s-eye view.

**ASK OPEN-ENDED QUESTIONS.** Engage students in conversation by asking open-ended questions such as: What do you notice? What does this make you think of? What do you wonder? What artworks or areas do you like the most? Why?

**ENGAGE YOUR SENSES.** Take the time to slow down and breathe deeply. What scents do you notice? What sounds do you hear? Invite students to create a six-word poem or story inspired by their sensory experiences. In addition to feeling the tickle of breezes and grass blades, we invite visitors to interact with sculptures marked on the map with a hand icon.

**EMBRACE THE LANDSCAPE.** Enjoy cloud gazing, downhill rolling, and creature and critter watching. Please engage with the land safely and respectfully.

**SKETCH.** Ask students to try capturing sculptures and vistas with single-line contour drawings, challenging them to create quick sketches without lifting their pencil from the page. Try drawing the same artwork or area from multiple angles. Zoom in on details. Experiment with mark making to capture different textures and create compositions featuring both sculpture and landscape.

**GET MOVING!** Encourage students to explore ideas with their bodies. They might physically recreate shapes they observe or respond to art and nature through dance and movement.

**CONSIDER TITLES.** The digital guide and Storm King [website](#) can provide additional information about each artwork, and many works have nearby placards listing the artist and title. You might add an additional layer to group conversations by considering how a title might relate to an artwork.

**TUNE INTO THE AUDIO GUIDE.** Accessible on Storm King’s digital guide on Bloomberg Connects. Make the most of your visit with audio and video commentary by artists and Storm King staff. Artwork lookup numbers can be found on the map and on the label next to each artwork. Download the Bloomberg Connects App via the QR code below.



# Post-Visit

## REFLECT

Ask students to individually journal or talk with a partner about their visit to Storm King. What are some sculptures and ideas they explored?

## MULTIPLE DIMENSIONS

Look back at images of four sculptures from Storm King (pages 4-8). Each of the artists used a type of metal called steel. However, they each had different approaches to creating three-dimensional forms from that material.

Invite students to consider similarities and differences between the sculptures. What choices did each artist make about form, negative space, and balance? Which sculptures do students find most engaging? Why?

## ART EXPLORATION

Prompt for Students: Using **one material**, how will you create a sculpture that features **form**, **negative space**, and **balance**?

Offer students one material, such as clay, aluminum foil, or paper. If using paper, you might want to also provide tape or glue.

First, lead students in an inquiry with the material. What are all the different ways that they can transform it (ex: roll, bend, etc.)? How can they make the material balance and stand on its own?

After students experiment with the material, share the prompt to create a sculpture that features form, negative space and balance.

Once students have created their sculptures, invite them to create a drawing that shows a space where they imagine their sculpture being displayed. How will they show the scale of the sculpture? The scale is a sculpture's size compared to people, spaces, and objects around it. They might also give their sculpture a title.

Invite students to share some of their choices with the class or do a "gallery walk" around the room to explore one another's sculptures and sketches.

# Resources

Storm King Art Center Collection

<https://collections.stormking.org/index.php/About/collection>

John P. Stern Oral History

<https://collections.stormking.org/Detail/oralhistory/4867>

Exploratorium Teacher Institute. "Take It from the Top: How does this stack up?"

<https://www.exploratorium.edu/snacks/take-it-from-top>

Tal Streeter Archival Images

<https://collections.stormking.org/Detail/entities/126>

Alexander Liberman's *Adonai* installation photos available on our website

[https://collections.stormking.org/Browse/archival/facet/rel\\_entity\\_facet/id/115](https://collections.stormking.org/Browse/archival/facet/rel_entity_facet/id/115)

Information about the refabrication of Alexander Liberman's *Adonai* in David Collens' Oral History (begin at 0:55, through 2:08)

<https://collections.stormking.org/Detail/oralhistory/4866>

George Cutts' *Sea Change* video on Storm King's Facebook page

<https://www.facebook.com/watch/?v=4956901761043819>

Storm King Art Center Groups

<https://stormking.org/groups/>