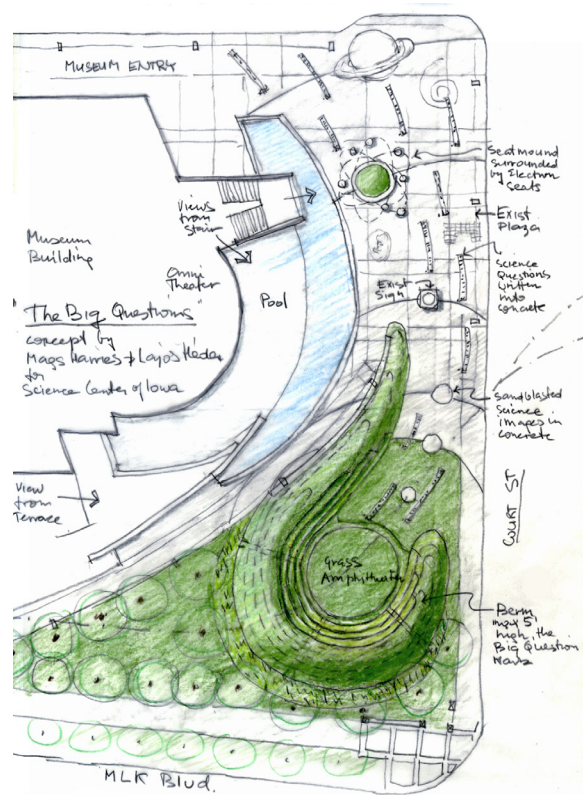


THE BIG QUESTION BY MAGS HARRIES AND LAJOS HÉDER



ABOUT THE ART AND THE ARTIST

The multi-faceted public art space of *The Big Question* combines nature, science, and practical use near the entrance just outside of the Science Center of Iowa. *The Big Question* prepares visitors to begin thinking about science even before they walk through the door, and it introduces them to a fundamental concept of science: asking a question and seeking the knowledge to answer it. Amidst an urban setting, the artists used the earth itself to sculpt what they called an “earth berm” in the shape of a question mark. In a green space adjacent to the Science Center, the ground is re-landscaped into a kind of grass-covered amphitheater formed by the curving contours of the question mark, thus creating a space where people can sit, exchange ideas, and discuss the other parts of the site. Nearby, an elevated round section of grass contained by a low concrete wall forms the period of the question mark and also represents the “nucleus” of an atom; several rounded granite seats surrounding this circle are designed to resemble electrons orbiting around the grassy, circular nucleus of an atom. Looking down at the concrete beneath their feet, visitors see images of celestial bodies, including a giant Saturn, and other planets. As they explore the site, they encounter questions that have been sand-blasted into the concrete: “Where does wind come from?” “Why can’t you tickle yourself?” “If you were huge, could the universe be your atom?” “What shape is your mind?” The entire site is intended to elicit curiosity and to start the scientific process of wondering, questioning, researching, and theorizing. The artists provide at least two ways of experiencing their work: viewers can walk among its parts with their feet on the ground, or they can look down at it through the glass wall of the second story of the Science Center, as if they had a telescopic view of the universe, questioning and questing for answers.

Mags Harries and Lajos Heder have been working in partnership as the Harries/Heder Collaborative, based in Cambridge, Massachusetts, since 1990. They have designed over 30 site-specific installations geared towards public engagement combining their backgrounds in architecture, art, urban construction, and site planning. Of their work, Harries and Heder write: “Our focus... is... to activate public space through art... We create public places that have on-going practical use as well as strong metaphoric significance. Mags Harries is a sculptor and designer who also teaches at the School of the Museum of Fine Arts in Boston. Lajos Heder integrates architecture and engineering as an urban planner; as part of the Boston Society of Architects Focus Teams, he has been involved in the re-design of public transit and the city’s waterfront. The artists collaborate not only with each other, but also with the community into which they site their works: urban planners, government and corporate officials, engineers, landscape architects, members of the public who comment on the plans, and many others.

adapted from <http://harriesheder.com/artists/>.

ART ACTIVITIES

AT THE SITE: CRAFT AN ART VOCABULARY DISCUSSION.

(Grades 9–12; ELA, Art, 21st Century Skills)

After introducing the vocabulary shown below, discuss and identify how Harries and Heder have addressed each idea in *The Big Question*. You may wish to have a print handout with the vocabulary and definitions for students to aid in this discussion. Rather than just sitting and talking together, ask students to get up and walk over to those areas piece they identify as demonstrating these vocabulary definitions, along with any other art ideas you’ve been discussing in class.

ART VOCABULARY

Cited from NY public garden & cultural center Wave Hill: “Remediate/Re-vision: Public Artists Engaging the Environment” This project, discussed on the Wave Hill (Bronx, NY) website, is in Broward County, Florida, along the east side of the Everglades.

Remediate Projects aiding the environment, improving conditions, while at the same time increasing awareness

Re-vision Artists pushing the boundaries to act as instigators, collaborators, activists and designers, bringing in a fresh point of view, working on a scale beyond the studio; connecting with communities and creating projects with a high level of functionality

Collaboration Created through interdisciplinary exchange, projects depend upon public engagement for success

Scale Part of large-scale projects where artists participate in the design of a park, building or infrastructure; or artist-initiated, individual-scale projects reflecting the immediacy of pressing environmental concerns

AT THE SITE: QUESTION TANGO

(Grades K-12; Art, ELA, 21st Century Skills)

Since questions are actually integrated into the artwork, have students form small groups of 2-3 and rotate among them, offering ideas about how to research the questions and theorizing about the answers. After students have rotated among all questions, have them create their own “Big Questions.” Coming back to a large group, share out student answers, as well as “Big Questions” to form another discussion circle.

CRAFTS FOR KIDS: SOLAR SYSTEM ART (PBS PARENTS)

(Elementary; Art, Science)

Using this lesson template, expand the art project to include all recognized planets of the solar system. Fun ideas for personalization can include using glitter, stickers, construction paper, pipe cleaners, and fuzzy balls. Challenge advanced students to also include major moons, and have all students add in their own imaginary planet! Be sure to have students label each planet and put them in their correct order around the sun. Older elementary students may also be required to include a brief description of each planet.

NASA SPACE PLACE

(Elementary – High School; STEM, Art, ELA)

NASA has provided several kinds of science lesson plans and projects all related to space and hosted conveniently on this section of their website. Experiments and projects offer plenty of hands-on learning, with projects such as Launch a Frisbee into Orbit; Telescope as Time Machine; Singin’ the Black and Blues; and Design a Spacecraft on a Chip. Brief synopses of each lesson are listed along with the Disciplines they address and their Activity type. Find lessons for lower elementary through high school on the above link.

While there, explore the [Education section of the NASA website](#) and find plenty of resources for your classroom broken into subtypes, including Educators K-4; Educators 5-8; and Educations 9-12.

DISCUSSION QUESTIONS

How does every element of the work of public art, including its placement in the plaza of the Science Center, contribute to the appropriateness of the art's title? Be sure to have shown students [The Big Question webpage](#).

What is your favorite part of this installation? Collaboration is important in the practice of these artists.

How might your favorite part collaborate with the Science Center?

How do you think the scale of this installation contributes to its effectiveness? Do you think it would be as effective if it were smaller? Larger?

Where else might you like to see this sort of installation in the greater Des Moines area? What would it look like?

INTERNET AND MEDIA RESOURCES

<http://harriesheder.com/>

The artists' website provides information on all projects, along with biographies and a news section. Find their projects-in-process and Recent Proposals with photos here as well. Projects are nicely broken down by type and location – use this guide to see if there are any Harries/Heder projects in your area!

International Association of Astronomical Artists: What is Space Art?

If your class is studying space and/or art, be sure to visit this fascinating website and stop at this page explaining “space art” or “astronomical art” first. As “the world’s only guild of artists dedicated to creating images of space,” the IAAA has open membership for those budding artists who take an interest in this type of art. Because of the higher lexile readability of the website, this site is best used in 9th grade+. Find a Glossary, Artworks & News, and Membership Roster here.

Waterworks at Arizona Falls. (02 June, 2013). Chrissy Dongell. YouTube video.

4 minutes, 38 seconds.

This short video provides information and live footage of the Mags Harries and Lajos Heder public installation in Phoenix. Students and visitors of The Big Question alike will enjoy seeing another art space in-action; use the links for this artwork found in the Cultural Passport section to learn more.

Cosmos: A Spacetime Odyssey

This National Geographic television series is hosted by astrophysicist Neil deGrasse Tyson, exploring “how we discovered the laws of nature and found our coordinates in space and time.” Accompanied young adult text can be found in the Literature Resources, below. This fascinating series makes an appropriate addition to middle and high school classes focusing on space who are visiting The Big Question in conjunction with a Science Center field trip. This official show website hosts current Cosmos clips, Behind the Scenes information, and even video clips of the 1980 Cosmos series featuring renowned scientist Carl Sagan.

Sandblasting Art 2016. (11 Nov., 2017). Farmer Joy. YouTube video. 5 minutes, 30 seconds.

Students will be fascinated to watch the sandblasting process from start to finish in this YouTube video. The artist focuses on sandblasting glass, the most common material for sandblasting art. For a 1 minute, 8 second video illustrating sandblasting in concrete, watch [Sandblasting Lettering into Concrete](#) (Blast It Clean It Paint It; 24 Sept. 2011).

LITERATURE RESOURCES

Sagan, Carl. *Cosmos*. Ballantine Books Trade Paperbacks, 2013.

With a readability level of 3rd-7th grade but an interest level for all ages, *Cosmos* is “one of the best-selling books of all time.” Sagan “retraces the fourteen billion years of cosmic evolution that have transformed matter into consciousness, exploring such topics as the origin of life, the human brain, Egyptian hieroglyphics, spacecraft missions, the death of the Sun, the evolution of galaxies, and the forces and individuals who helped to shape modern science.” Classroom teachers screening parts of the television show counterpart may wish to use excerpts from this book in accompaniment.

Hawking, Stephen. *The Illustrated Brief History of Time*. Bantam Press, 1996.

The seminal tome of space and time research by the late Stephen Hawking is an absolute must in the library of any person interested in outer space. Considered a “landmark volume in writing,” the book has sold over nine million copies and been translated into over forty languages. Young adults and older readers alike will be intrigued by this enhanced edition, providing more than 240 full-color illustrations, photographs from the Hubble Space Telescope, computer-generated images, and satellite images.

Tyson, Neil deGrass. *StarTalk Young Adult Edition*. National Geographic Children’s Books, 2018.

This abridged book for young adults accompanies Tyson’s popular podcast *StarTalk*, that eventually “became an Emmy-nominated talk show on the National Geographic Channel in 2015....Featuring vivid photography, thought-provoking sidebars, enlightening facts, and fun quotes from science and entertainment luminaries like Bill Nye and Josh Groban, *StarTalk* reimagines science’s most challenging topics.”

Dickinson, Terence. *From the Big Bang to Planet X: the 50 Most-Asked Questions about the Universe ... and Their Answers*. Camden House Publishing, 2006.

Appropriate for grades 5-12, thoughtful questions are answered for the reader just starting their research exploration into space. Dickinson’s book will prove to be a useful resource for its broad nature of inquiry. Readability is high, with diagrams and photographs included. Questions are answered such as “What is a black hole?”; “What exactly is the Big Bang?”; and “What came before the Big Bang?”

Editors of *Time for Kids Magazine*. *Time for Kids Book of How – All about Space*. Time for Kids Books, 2014.

This colorful book on space is geared for children ages 8-12, answering over 250 questions like “How does the sun stay hot?” and “How do astronauts train?” Full of graphics and photos, this *Time for Kids* book is wonderful for use in a classroom or for the curious child interested in outer space and its tools and transportation.

STAMP YOUR LOCAL CULTURAL PASSPORT

Science Center of Iowa (Des Moines, Iowa)

Since you are visiting The Big Question right outside, come in to the Science Center, where you can experience hands-on exhibits and unique programming for all ages, and view a film in the IMAX Dome Theatre (one of only 92 in the world!). For visitors attending without a school group, the Science Center has an admission charge, and tickets can be purchased ahead of your visit. Tickets for the IMAX Dome Theater can be purchased separately.

STAMP YOUR NATIONAL CULTURAL PASSPORT

Smithsonian National Air and Space Museum (Washington, D.C.)

This Smithsonian Museum has two locations to showcase the thousands of artifacts as part of “the world’s largest and most significant collection of aviation and space artifacts”: one building is at the **Museum in Washington, D.C.**, and the other location is the **Steven F. Udvar-Hazy Center**, near the Washington Dulles International Airport. This location is a hangar-like setting showcasing large space and aircrafts. If you can’t make it to the physical locations, be sure to explore thousands of photos of the objects in the collection here: <https://airandspace.si.edu/collections>

Asaroton (Boston, Massachusetts)

Asaroton is a work of public art by Mags Harries in a Boston neighborhood where a farmers market is held each week. The title, meaning “unswept floor,” refers to a kind of ancient Roman floor mosaic that depicted trash thrown on the ground. Working in bronze, the artist sculpted items of debris that would be left after a busy market day and then embedded these into the concrete pavement. These depictions are part of the general atmosphere when the farmer’s market occurs, and on the off days, the installation acts as a sort of “memory of the market.” As in the Des Moines installation, the artist directs our attention to the ground, inviting viewers to walk around the site to see all of its elements, a feature that encourages us to look at what is often overlooked. Find this in the major crosswalk on the Boston Freedom Trail, connecting historical Boston sites.

Waterworks at Arizona Falls (Phoenix, Arizona)

This public installation is actually a canal and water space, created by Harries and Heder in 2003. Commissioned by the Phoenix Office of Arts and Culture, “this award-winning public art project transformed Arizona Falls from a fenced hydroelectric plant on the Arizona Canal into a public space where walkers, joggers and bicyclists can sit and enjoy the cooling effects of the canal and waterfall.” Additional information can be found on the hyperlink above, or on the following link, where you can also take a virtual tour of the Arizona Falls: <https://www.srpnet.com/water/canals/azfalls.aspx>

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