



June 27, 2022



**Figure 53: Display of Fireworks on the Seine, Paris**, plate illustrating a colorful fireworks display from *Chemistry, Developed by Facts and Principles Drawn Chiefly from the Non-Metal*, 1884.  Science History Institute

The 4th of July is just one week away, and we're here for the fireworks. Join us tomorrow at the Wawa Welcome America festival for some **oooh-and-aaah-inspiring activities** or learn about the science of fireworks by registering for our **July First Friday**. We're lighting up the sky with the 1650 treatise *Artis Magnae Artilleriae*, which features an engraving of **military fireworks in clay pots**. And before you read about **Robert St. George Dyrenforth**, a "weather alchemist" who used fireworks and other pyrotechnics to

make it rain, we'd love for you to **take a short survey** on the kinds of programming you find engaging. But first we pause to remember philanthropist **Roy Eddleman**, a longtime member of our Board of Overseers who recently passed away.

## Share Your Feedback

This summer, we're working with research, evaluation, and strategy firm Kera Collective to learn more about the Science History Institute's key audiences. We invite you to take a short survey and tell us about the kinds of programming you find engaging.

[Take the Survey](#)

Completing the survey only takes a few minutes, but your input will help us tremendously. Thanks in advance for your participation!

## News & Notes



Roy Eddleman is pictured in 2019 at the Institute's "Rare Earth Elements: The Intersection of Science and Society" event held in LA.  [Science History Institute/Teresa Halton](#)

## **Science History Institute Mourns Death of Philanthropist Roy Eddleman**

The Science History Institute joins the scientific community in mourning the loss of **Roy T. Eddleman**, a passionate science lover and generous philanthropist who was a longtime member of our Board of Overseers. Eddleman, who passed away on June 11, 2022, at the age of 82, is being fondly remembered as someone who “lived his best life.” In 2000 the Spectrum LifeSciences founder gifted the Institute with 25 alchemy paintings, adding to one of the largest collections of alchemical art in the world. He held several patents, including for his “fleaker” lab container, and was the recipient of the Institute’s 2016 Richard J. Bolte Sr. Award for Supporting Industries.

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## **Institute, Penn to Serve as New Hosts of History of Science Society**

In a **unique partnership**, the Science History Institute and the University of Pennsylvania’s Department of History and Sociology of Science will serve as host institutions for the History of Science Society (HSS), a nearly century-old scholarly association. The arrangement, set to last for at least five years, highlights Philadelphia as a hub for history of science scholarship. The Institute will provide support as well as opportunities for onsite meetings, exhibitions, and other programming, and Penn will fund mentorship and work opportunities for students with HSS’s executive office.

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## **‘Downstream’ Wins 2022 AASLH Award of Excellence**

The American Association for State and Local History (AASLH) has **recognized the Science History Institute** with an Award of Excellence for *Downstream*, our current exhibition that explores more than 200 years of water analysis and protection in the Delaware Valley and beyond. The Award of Excellence is part of the AASLH Leadership in History Awards, the most prestigious honor for achievement in the preservation of state and local history.

## **Programs & Events**

*Programs and events are held online or at the Science History Institute unless otherwise noted.*

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Detail of a **colored Japanese print of fireworks** from *Pyrotechnics: The History and Art of Firework Making*, 1922.  Science History Institute

## **PECO Go 4th & Learn: A Cultural Journey**

*Public Events*

**Tuesday, June 28, 2022**  
**10:00 a.m.–12:00 p.m. EDT**  
**Franklin Square**  
**6th & Race Streets**  
**Philadelphia**

[Learn More](#)

Join the Science History Institute at the Wawa Welcome America festival for some ooh-and-aaah-inspiring activities exploring the **history of fireworks**. You'll find us alongside face painters, storytellers, lantern-making workshops, book giveaways, tai chi classes, and more. This event is free and open to the public.

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## **First Friday: The Science of Fireworks**

*Museum Programs & Activities*

**Friday, July 1, 2022**  
**5:00 p.m.–7:00 p.m. EDT**

[Register Now](#)

Celebrate July's **First Friday** with a bang as we explore the chemistry and artistry of fireworks through the ages. First Fridays are free and open to the public; registration is strongly encouraged. Attendees will receive a 10% discount to National Mechanics restaurant.

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## **Women in Chemistry Tour**

*Museum Programs & Activities*

**Saturday, July 9, 2022**  
**2:00 p.m. EDT**

[Learn More](#)

Join our museum's Gallery Guides for a "drop-in" **Women in Chemistry Tour** highlighting the central role of women in shaping chemistry and the material sciences throughout history. Admission is free and no reservations are necessary.

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## **Family Day**

*Museum Programs & Activities*

**Saturday, July 16, 2022**  
**11:00 a.m. EDT**

[Learn More](#)

Dive into a day of family-friendly, *Downstream*-related activities that includes storytime and exploration of our exhibitions. **Family Day** takes place the third Saturday of each month. Admission is free and no reservations are necessary.

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## **Science & Activism Tour**


*Museum Programs & Activities*

**Saturday, July 23, 2022**  
**2:00 p.m. EDT**

[Learn More](#)

From Rachel Carson to ACT UP, our "drop-in" **Science & Activism Tour** explores how scientists and activists have shaped discovery and created change with stories of environmental justice, patients' rights, and community science. Admission is free and no reservations are necessary.



An image of a technocrat pulling the world's weather levers appeared on the cover of *Collier's* in 1954.  *Estate of Frederick Siebel*

## Manufacturing the Weather

With dynamite, cannons, and even fireworks, Robert St. George Dyrenforth hoped to end drought in the late 19th century.

[Read the \*Distillations\* article >>](#)

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## Boom Times

Follow the birth, life, and demise of the Hercules Powder Company, which once dominated the explosives industry in the United States.

[Read the \*Distillations\* article >>](#)

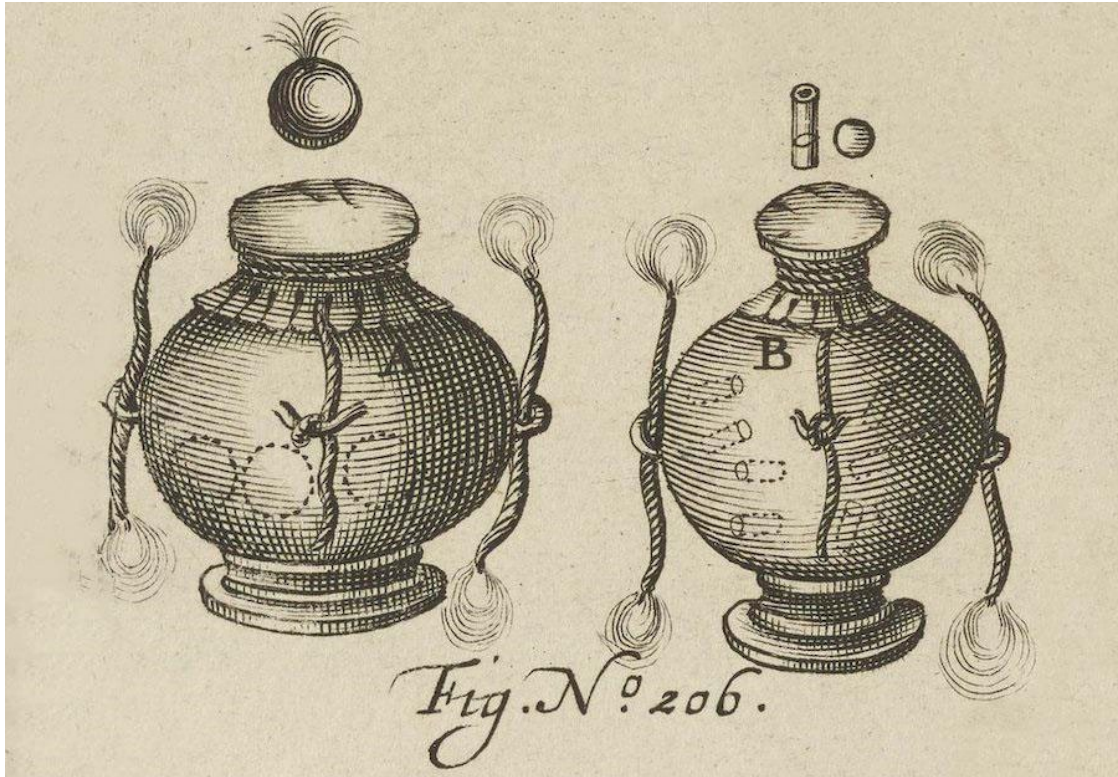
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## Cycles, Circulations, and Systems

We live in a relational world. Technoscientific images help us see that way.

[Read the collections blog post >>](#)

## Selections from Our Digital Collections



**Plate W, Fig. 206: Military Fireworks in Clay Pots**, engraving included in *Artis Magnae Artilleriae* [The Great Art of Artillery], 1650.  Science History Institute


Our **digital collections** house more than 12,800 curated items on a variety of topics, including fireworks:

- ***Elémens de Pyrotechnie*** [*Elements of Pyrotechnics*], historical account of the art and science of fireworks, 1811
- **Program of Fireworks Exhibited at Everbreeze**, list of fireworks from an exhibition held in the Everbreeze region of Bucks County in Pennsylvania, July 1, 1860
- ***Vier Bücher der Ritterschafft***, German-language edition of *De re militari* [*Concerning Military Matters*], a 4th-century work by Vegetius that includes depictions of more contemporary technologies such as handguns, cannons, and fireworks, 1529
- ***Pyrotechnics: The History and Art of Firework Making***, volume on the history of pyrotechny, firework

manufacturing, and classifications of fireworks and their display, 1922

## Scientist Spotlight



Alan MacDiarmid is pictured at the Science History Institute in 2000.  *Science History Institute/Douglas Lockhard*

### **Alan MacDiarmid**


Chemist Alan MacDiarmid (1927–2007) received the 2000 Nobel Prize in Chemistry with Alan Heeger and Hideki Shirakawa for the discovery and development of conductive polymers. His love of science began during his childhood in New Zealand, where he learned how to make fireworks for Guy Fawkes Day—also known as Fireworks Night—by reading the 1924 book *The Boy Chemist*. After attending Victoria University of Wellington, MacDiarmid won a Fulbright Fellowship to the University of Wisconsin, earning an MS and PhD in inorganic chemistry. He held a postdoctoral appointment at Cambridge University before joining the faculty at the University of Pennsylvania in 1955. He became a full professor in 1964 and taught chemistry there for the rest of his career.

[Learn more about MacDiarmid >>](#)



# On View in Our Museum



View of our award-winning *Downstream* exhibition.  Science History Institute/Emma Gothelf

## Hach Gallery

- ***Downstream*** (through July 31, 2023)

## Horiba Gallery

- **Permanent Exhibition** (ongoing)
- **Object Explorer** (ongoing)
- **ExhibitLab: Making Milk: Dairy, Science, and Foodways** (through December 2022)

## DuPont Gallery

- ***The Whole of Nature and the Mirror of Art*** (ongoing)

## Lobby

- ***Enabling Transparency*** (through September 2023)

## Building Façade

- ***Water Pics*** (through October 1, 2022)

You can also explore our new ***Redefining Nude*** digital exhibition, book a **group tour**, or check out our **museum programs and activities**.

## Support Our Mission

Gold  
Transparency  
2022

**Candid.**

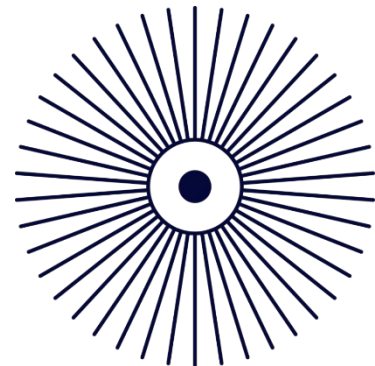
Now more than ever it's important to tell the stories of science. Help us continue this work by supporting the Science History Institute.

Make a gift before we close the books on fiscal year 2022 on June 30!

[Give now >>](#)

## Stay Connected

Explore [sciencehistory.org/learn](https://sciencehistory.org/learn) and discover the stories of science. Resources and activities include [role-playing games](#) for students and [Distillations](#) articles, podcasts, and videos. You can also visit our [museum](#), book a research appointment at our [library](#), or plan an event at our [conference center](#). Please review our [COVID Information page](#) before your visit.



Comments, suggestions, questions? Email us at [enews@sciencehistory.org](mailto:enews@sciencehistory.org).

