In the Library

Pageantry and Pyrotechnics in the European Fete Book

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National Gallery of Art
The exact origins of fireworks remain unknown. They probably originated in Asia sometime around the ninth century and are most often attributed to China, although pyrotechnics were known to have been used in ancient India as well. At some point in the Middle Ages the technology found its way to Europe, where the Italians were the first to manufacture fireworks. By the fourteenth century, fireworks were well established features of religious festivals and public entertainment. So-called fire masters were tasked with creating ever more complex displays, and pyrotechnic schools were established throughout Europe during the Renaissance. Written descriptions of fireworks displays at festivals and events are found in sources dating into the sixteenth century. But it was in the seventeenth century that artists began attempting to visually capture these ephemeral events. This coincides with both the rise of the fete book and of etching and engraving as the primary media for fine book illustration.

A fete book, or festival book, is a volume devoted to recording the apparatus, participants, and events planned around things such as religious festivals, state visits, aristocratic marriages, military victories, coronations, and royal birthdays. These publications are meant to celebrate and promote the power of those taking part in or sponsoring the event in question. They are usually illustrated with etchings and engravings, which offered seventeenth-century artists more flexibility than the woodcut. These techniques allow finer lines, easier production of larger prints, and, particularly in the case of etching, more direct involvement of the artist’s hand with the surface that produces the final print.

Representing ephemeral displays that usually involved a series of explosions in a single still image proved quite challenging, and several different strategies were adopted. German baroque prints, for example, often use a tiered approach in which the foreground shows the mechanics of the display and the resulting explosions appear in the background. Some artists attempted to condense various stages of a *feu d’artifice* into a single image, while others chose to freeze a particular moment as a stand-in for the whole production. Some focused on showing the individual rockets and effects, while others aimed to create an overall sense of the spectacle,
foregrounding expression over accuracy. Disappointing or disastrous outcomes of such unpredictable displays were not uncommon, but artists usually opted for idealized views that reflected well on those sponsoring the events.

These technical manuals and festival books drawn from the Special Collections of the National Gallery of Art Library present an array of techniques and strategies. Representing many different times and places, they show how the technology and artistry of fireworks displays and the methods for recording them evolved in seventeenth- and eighteenth-century Europe, as rulers projected their power and prestige through pyrotechnic delights.

Artist unknown, detail from Giovanni Battista Isacchi, *Inventioni*, Parma: Seth Viotto, 1579, David K. E. Bruce Fund
DE ELEMENTIS

The second Book.

How to make Greenets, or Fire Wheels.

The making of the wheels is described only in the pl-

of Fire-works.

The flying Dragon is somewhat troublesome to com-
Information about explosives, for both military and entertainment purposes, is found in many Renaissance books such as this encyclopedic survey of the scientific knowledge of the day. Here the Italian polymath Girolamo Cardana provides a chapter on the elements that includes a lengthy description of the properties of fire and its various types and applications.

Etienne Binet's compendium, first published in 1621 and shown here in its twelfth edition, covers practical applications of science, from papermaking to architecture, and from heraldry to artillery. Chapter nine gives a brief description of the alchemical development of gunpowder — attributing it to a German who may have brought it from China — and then discusses its use in cannons and other military applications.

Giovanni Batista Isacchi was an engineer from Reggio who crafted a wide variety of machines and objects, from fountains and water wheels to surveying instruments and a heliograph. Most famous were his military inventions, including over fifty gunpowder formulas used for weaponry and festive purposes published in this volume and illustrated with woodcuts.

The second edition of John Bate’s book of mysteries adds over one hundred pages to his work published the previous year on art, science, and mechanical magic. In addition to manuals on drawing, painting, other arts, medicinal formulas, and various water effects, an entire book is devoted to fireworks, providing detailed instructions and woodcut illustrations depicting effects like those shown here for a rotating fire wheel and a flying dragon.
On December 11, 1622, King Louis XIII of France (1601–1643) and his wife, Anne of Austria (1601–1666), visited the city of Lyon. A variety of festivities were held in their honor, and the event was commemorated in the two fete books bound together here that detail the triumphal arches, floats, monuments, and fireworks displays created for them. The engravings show water-based pyrotechnic structures set off on the Rhône.

The triumphant entry of Bernard de Nogaret (1592–1661), duke of Epernon and governor of Burgundy, into Dijon in 1656 was an occasion to celebrate the centralization of power in French politics. Plates describe the procession, the *petite decoration* at the city entrance, four temporary arches, and eight allegorical statues constructed for the occasion, and the sixteenth and final etching shows a spectacular fireworks display. This copy belonged to the famous nineteenth-century pyrotechnician Desire Ruggieri.
King Louis XIV of France (1638 – 1715) traveled through Nord, France, in 1680 to celebrate his recent conquests of Flanders and Hainaut. In Lille he was feted with an emblematic fireworks display in two parts. The first part depicted the victory of Jupiter over the Titans, with the latter given the traits of the enemies of France while Jupiter’s thunderbolt was transformed into the sun (an allusion to Louis XIV, known as the Sun King). The second part of the fireworks display, in the etching shown here, depicted an allegory of rebirth from war. A large monument of peace surrounded by flaming altars rose from the debris of war and the corpses of the Titans while four trumpeting figures proclaimed the glory of the king and the pacification of Europe.

This volume documents two festivals held in Rome in honor of King Louis XIV of France (1638 – 1715), which were organized and funded by Cardinal César d’Estrée, the French crown’s leading diplomat at the Vatican. The second festival, held in April 1687 and recorded in etchings by Vincenzo Coronelli, included torch-laden obelisks lighting the way down the Piazza di Spagna through a temporary forest of orange and lemon trees. After a delay due to heavy rains, a massive fireworks display of six thousand rockets dazzled throngs of people who drank wine spouting from the Baraccia fountain.
After being installed as stadtholder of the Provinces of the Netherlands in 1672, William of Orange (1650 – 1702) left Holland in 1688 and set his sights on replacing James II as king of England, Scotland, and Ireland. Following his successful Glorious Revolution, William III of England made a triumphant return to the Netherlands in 1691, where he was celebrated in The Hague with a festival noting his military successes and political accomplishments. The festivities were capped with an astounding fireworks display recorded in this etching by Romeyn de Hooghe. Figures can be discerned amongst the smoke and fire lighting the combustibles.

This series of nine large prints depicts the festivities in Brussels celebrating Holy Roman Emperor Leopold I (1640 – 1705) and his capture of the city of Buda, Hungary, from the Turks in 1686. Shown here is one of two illustrations of the massive fireworks display executed for the event. De Hooghe’s inclusion of figures in his etching, including the fire masters responsible for setting off the fireworks and tamping out stray sparks and the various small vignettes in the foregrounded crowd, evoke the spirit of the event beyond the ephemeral incendiary displays.

To kick off Vienna’s month-long celebration of the December 1666 marriage of Holy Roman Emperor Leopold I (1640 – 1705) and Margarita Teresa (1651 – 1673), infanta of Spain, a multistage fireworks display was performed in the gardens of the Imperial Palace to “represent with fire the ardent love of the wedded pair.” The fireworks were arranged by Ernst, Graf von Abensperg und Traun, and Bartholome Peissker and included star fireworks, fire pumps, star grenades, and rockets. As the three engravings in this book show, the displays were accompanied by human figures acting out scenes of mounting tension as the fireworks begin on the outside edges with recreations of Mount Etna and the forge of Vulcan on the left and Mount Parnassus with the nine muses on the right, then move to two arches bearing the couple’s initials set ablaze by the god of marriage, and finally the plate shown here with the central structure alight with the flames of the phoenix.
Holy Roman Emperor Charles VI (1685–1740) was made the Count of Flanders in 1717, and a festival was organized to celebrate his entry into Ghent. Three of the plates in this book show the fireworks displays done for the occasion, including this etching and engraving by Jacobus Harrewijn showing a night scene with three fire trees — large temporary structures made of lattice work and filled with hundreds of lamps — against the backdrop of the illuminated town hall.

The first book in Italian to be devoted exclusively to recreational fireworks, Alberti’s treatise covers all of the technical facets of the art, from materials and chemistry to construction and artistry. More than twenty etchings show everything from the basic building blocks to fully realized displays. The manual also describes water- and wind-resistant street lamps, pyrotechnics for theater productions, and special effects including aquatic fireworks and techniques for forming shapes such as the sun, moon, and stars.
This volume records a celebration on the occasion of the coronation of the Virgin of Santa Maria della Giara in the Church of San Nicolo in Verona. As was often the case in religious festivals, the celebration consisted of a series of events throughout the city, including ephemeral apparatuses, ingenious machines, allegorical processions, theatrical performances, music, oratory, and, finally, the performance of the “Pantheon stripped of false identity,” a fireworks display that symbolized the triumph of good over evil. All the designs and construction were done by local artisans. The text describes the incendiary spectacle as engaging all the senses of the audience, even, for example, using the release of sulfur fumes to create the scent of lightning striking down the demonic masked figures dancing below the pyrotechnics.
This book records the lighting of the city of Turin for the marriage of King Charles Emmanuel of Sardinia (1701–1733) and Princess Elisabeth-Thérèse of Lorraine (1711–1741). In addition, there was a public exhibition of the Holy Shroud, including a fireworks display on the roof of the town hall shown here in the etching by Georg Kaspar Prenner after Ignatius Massonus.

In 1734 the Spanish Bourbons were able to wrest control of Naples and Sicily from their Austrian Hapsburg relatives, and King Charles III of Spain (1716–1788) came to Palermo for his coronation as ruler of those territories decades before he would ascend to the Spanish throne in 1759. The volume documenting the occasion, issued two years later, includes engravings describing the town houses of the local nobility as they were decorated for the event as well as the temporary structures assembled along the parade route, including the fireworks display erected in the square of the royal palace shown here.

The so-called “Most Illustrious Gathering” is one of the most lavish German baroque festival books ever published. It commemorates the events organized in 1678 by Johann Georg II (1613–1680), elector of Saxony, for the month-long visit to Dresden of his three younger brothers: August (1614–1680), duke of Sachsen-Weissenfels, Christian (1615–1691), duke of Sachsen-Merseburg, and Moritz (1619–1681), duke of Sachsen-Zeitz. The finale on February 28 was a fireworks display on the walls of the Dresden castle conceived and directed by Johann Georg II himself. A giant grotto represented the mouth of hell, and sculptures of Hercules, the three Furies, and the three-headed hound Cerberus were assembled. Three girandoles of fifty to one hundred rockets each, plus two hundred additional rockets, were set off, amongst which performers carried out an eight-act ballet. The text records details including the weight and caliber of the rockets and other devices, and the folding engraving shown here depicts the frenetic action.
18  Balthasar Neumann, author and designer; Andreas Nunzer, engraver, *Beschreibung der brennenden Feuer-Bühn, welche zu hochen Ehren der durchlauchtigsten Fürstin und Frau, Frau Elisabeth, Gebohrnen Erb-Printzessin zu Hungarn und Böheimb . . .*, Würzburg: Heinrich Engmann, 1725, David K. E. Bruce Fund

Commemorating the visit of Archduchess Maria Elizabeth of Austria (1680 – 1741) to Würzburg, September 23 – 25, 1725, this set of works was partially authored by the famous architect and military engineer Johann Balthasar Neumann, who designed the fireworks display and provided the written description of it. The fireworks were placed in the pavilion of the Fortress Marienberg and illuminated both the fortress and the nearby river, as seen in Nuremburg engraver Andreas Nunzer’s rendering shown here.

19  Thomas Lediard, author and designer; Christian Fritsch, engraver, *Eine Collection curieuser Vorstellungen, in Illuminationen und Feier-Wercken, so in denen Jahren, 1724. biss 1728. inclusivè, bey Gelegenheit einiger publiquen Festins und Rejouïssances, in Hamburg . . .*, Hamburg: Philipp Ludwig Stromer, 1730, David K. E. Bruce Fund

This volume commemorates several baroque festivals staged in Hamburg from 1724 to 1728. Thomas Lediard wrote the text and designed the nineteen double-page engravings that were executed by Christian Fritsch. The festivals focused on the close ties between the British and German aristocracy and other European courts, and fireworks were staged in front of panoramic backdrops of cityscapes or simple gardens lined with gilt columns. The plate shown here depicts the fireworks display for the Hanoverian King George’s birthday, which was presented in front of a backdrop of London. Most festivals included an opera production, but this one was accompanied by trumpets and drums. It began with a forty-five-gun salvo from boats on the Thames, then fireworks were launched from atop columns with star covered pyramids and a large sun in white and letters and numbers in blue. Neptune rose from the water to ignite the word “VIVAT” before the production concluded with the launch of rockets from the helmets of the grenadier guards.

20  Author unknown; Hieronymous Sperling, engraver, *Vollständiges Diarium von den merckwürdigsten Begebenheiten die sich vor, in und nach der höchst-beglückten Wahl und Crönung des allerdurchlauchtigsten, grossmächtigsten und unüberwindlichsten Fürsten und Herrn, Herrn Carls des VII., erwehlten Römischen Kaysers . . .*, Frankfurt: Johann David Jung, 1742 – 1743, David K. E. Bruce Fund

The election and coronation of Charles Albert, elector of Bavaria, as Holy Roman Emperor Charles VII (1697 – 1745) in Frankfurt in 1741 and 1742 was marked by a series of fireworks displays recorded in ten large plates in this volume. The Spanish and French delegations attempted to outdo one another in ever more elaborate displays, pitting the skills of German artillery officer Johann Friederich von Uffenbach for the Spanish against the talents of the French engineer, a Monsieur de Mouy. The two ambassadors’ residences were used to stage the displays, and the Spanish ambassador also offered illuminations and displays in his garden. The most breathtaking displays were done along the bank of the river Main, as in the illustration by Augsburg engraver Hieronymous Sperling shown here.

back cover  Romeyn de Hooghe, “Ignium Nocturna Hilaria” (detail), plate 9 from Divo et invictissimo Leopoldo I. P.F.A. fidei in Hungaria assertori, rebellium dormitori, Turcarum debellatori ob Budam septimò inexpugnabilem armis victricibus occupatam, ignes triumphales Bruxellis extractos dedicant consecrant[que] fama et gloria, c. 1686, Nell and Robert Weidenhammer Fund