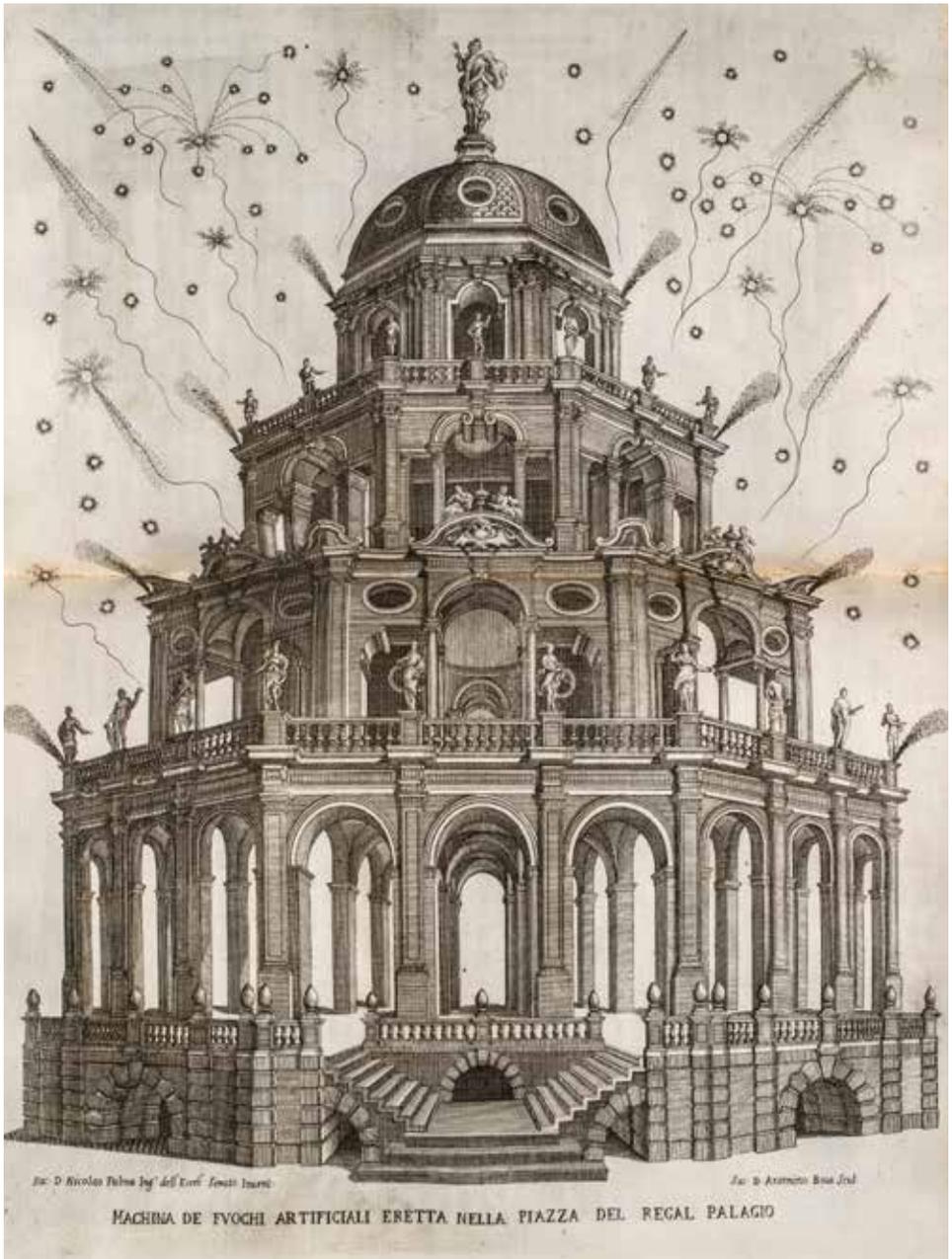


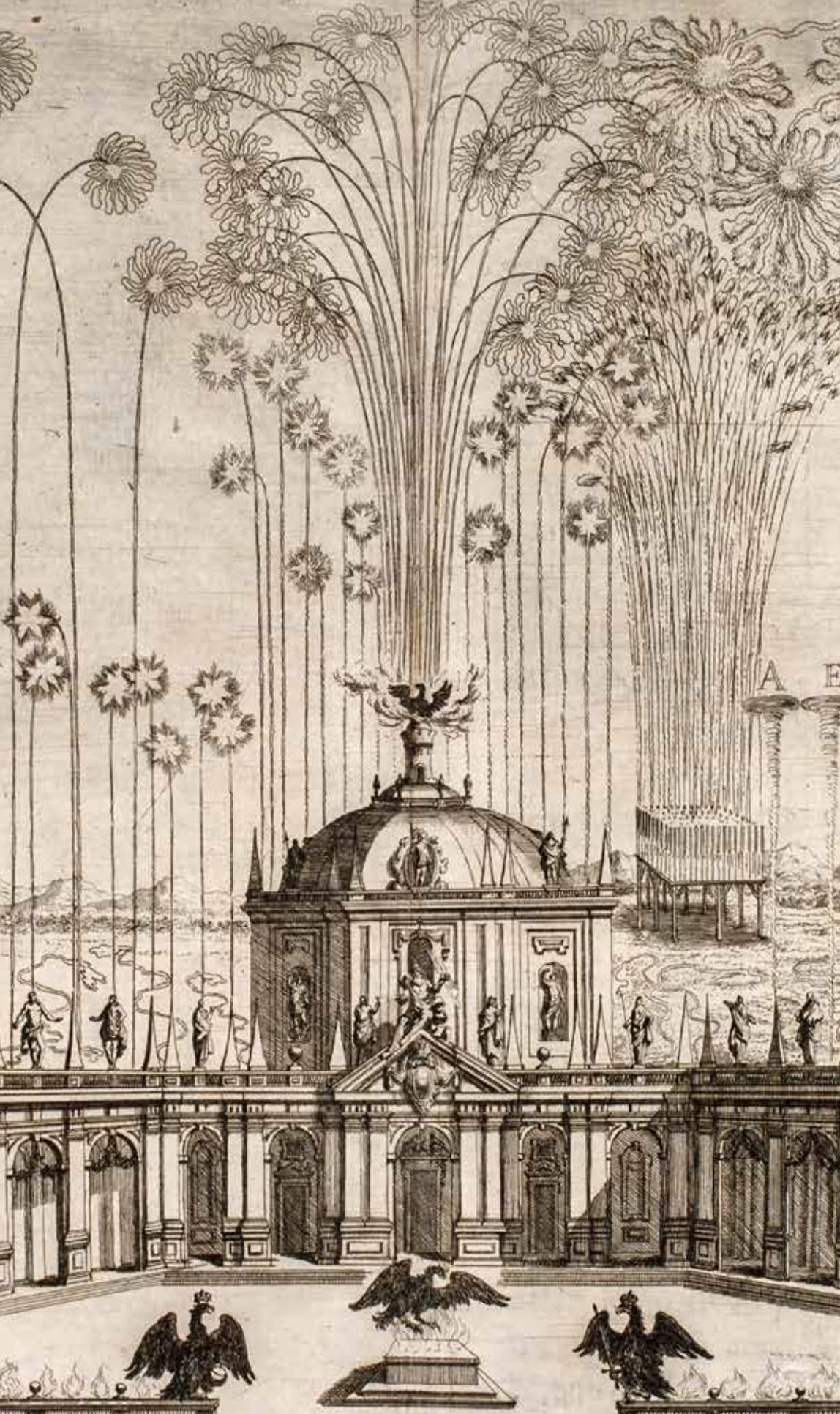
In the Library

Pageantry and Pyrotechnics in the European Fete Book

June 24 – September 6, 2019

National Gallery of Art





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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,

Melchior Kusel, plate (detail) from *Von Himmeln entzindete vnd durch allgemainen Zuruff der Erde sich himmelwerts erschwingende Frolokhungs Flammen . . .*, Vienna: publisher unknown, 1666, David K. E. Bruce Fund

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

Checklist

hic in flamma interior, quia sensum fit, nos later. Nec flamma tota illico perit, sed quae solium est in ambitu, nam quae in medio est, tandem manet, donec ad extremam in circuitu accipere perueniat, aliter in flammæ medio non esset. Sed flamma cessat quandoque agitur, vel ob imperium, vel repulsum, vel prohibentiam. Impetus fit vel ob multitudinem, vel ob celsitatem montium. Ligna igitur uisidia & multitudine flammæ, respicit cubitum fumo. Veni quoniam repellunt fumum, & angustia carnis prohibet exitum, uel si angustior sit in imo, ut non recipiat. Maxima autem causa est à uentis. Nam flamma aliam semper accendit tum ob imperium à flamma concepti, tum ob leuitatem. Vbi uentus occurrit, maxime in copia uisidia lignorum adit, retrogreditur & qui ex quatuor partibus foramina habet, ab omni uento impeditur nam uisidia parte. Annulla nobis ratione excogitatum in quatuor partibus, uisidia, ostendit meridie, septentrione, borea, & ocea canales lictet ex aduerso uisidia, ita ut ab eis flammam ferat, ut uisidia deorsum: nam impossibile est oculo uentos, quatuor inferius tendentes, equare autem superius à quatuor ceteri principibus regionibus spirare. Quod si flamma non potest retro pellicari, id etiam experimentum ad amissum comprobatum est. Aduersat autem non parum laetudo fascium in imo. Plerumque etiam uisidia canalis declinat tantam. Sed uisidia omnibus est qui uagina circumdantur, quae inferius non coheret tecto.

Causa sur
cedula fa
me replian
tur.
Causa sur
mam ad re
mittit.



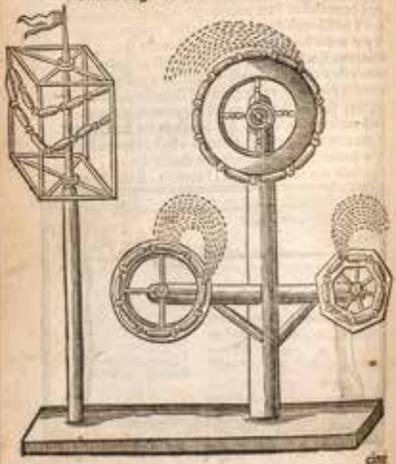
Cum igitur hoc ut ignis uisitia sine necessitate, pabuli, motus, & quod penetrat, cum in flamma motus maior sit manifestior, atque ideo etiam introitus qui ad motum uisidia maior, minus obsecratur est cur flamma reliquo igne sit uisidia: ideoque cerei dum flamma uiget tandem ardes donec repetit alimentum: cui flamma defuit, sponte uel motu uisidia peruenit extinguunt. Quia tamen flamma multum ab fumo aliam, ideo pariter minus durat premit: sed hoc non merito fit est.

Flamma sur
ignis alio ut
uicior.
Causa ma
guerit flama
marum.

1

that pertaineth the one, and entreth the breach of the other, the case that the rope passeth thorow is supposed to be behind the two rockets.

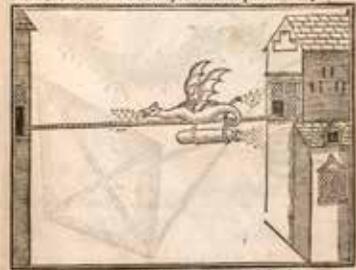
How to make Girouels, or fire Wheelles.
The making of fire wheelles consisteth onely in the pla-



cing of Rockets, with the mouth of one towards the tayle of another, round about certaine moveable wheelles, wherefore I thinke it sufficient only to describe the diversity of their fallions.

How to make flying Dragons.

The flying Dragon is somewhat troublesome to compose; it must be made tyether of dry and light wood, or Crooked-lane plates, or of thin whalebones covered with Muscovie glasse, and painted over. In the body therof, there must be a voyde cano to passe the rope



through; into the botome of this cano must be bound one or two large rockets, according as the dignitie and weight of the Dragon shall require; the body must be filled with diuers petras, that may consume it, and a sparking

4

1 Girolamo Cardano, author; artist unknown, *Hieronymi Cardani mediolanensis, medici, De subtilitate: Libri XXI*, Lyon: Gulielmum Rouillium, 1559, David K. E. Bruce Fund

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.

2 Etienne Binet, author; artist unknown, *Essay des merueilles de nature, et des plus nobles artifices: Piece tres-necessaire à tous ceux qui font profession d'eloquence*, Paris: Jean Pocquet, 1657, David K. E. Bruce Fund

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.

3 Giovanni Batista Isacchi, author; artist unknown, *Inventioni*, Parma: Seth Viotto, 1579, David K. E. Bruce Fund

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.

4 John Bate, author; artist unknown, *The mysteries of nature and art.: In foure severall parts. The first of water works. The second of fire works. The third of drawing, washing, limming, painting, and engraving. The fourth of sundry experiments.*, London: Ralph Mabb, 1635, David K. E. Bruce Fund

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.



5

5 Author unknown; Pierre Faber, engraver, *Reception de tres – chrestien, tres-juste, et tres-victorieux monarque Louys XIII. roy de France & de Navarre . . .*, Lyon: Iaques Roussin, 1623, David K. E. Bruce Fund

Bound with *Le soleil au signe du Lyon d’ou quelques paralleles sont tirez, avec . . . Louys XIII. roy de France & de Navarre, en son entree triomphante dans sa ville de Lyon*, Lyon: Jean Jullieron, 1623.

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.

6 Giuseppe Berneri, author; Jean Godran, draftsman; A. Mathieu, etcher, *Les armes triomphantes de Son Altesse, monseigneur, le duc d’Esperron*, Dijon: Philibert Chanvance, 1656, David K. E. Bruce Fund

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.



6

7 Author and artist unknown, *Description des feux d'artifices faits a l'honneur du Roy a Lille*, Lille: Jean Chrisostome Malte, 1680, David K. E. Bruce Fund

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.

8 César d'Estrée, author; Vincenzo Coronelli, etcher, *Roma festeggiante nel Monte Pincio / Roma triomphante sur le Mont Pincius*, Venice: Vincenzo Coronelli, c. 1687, Gift of the Circle of the National Gallery of Art

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.



7





9 Govard Bidloo, author; Romeyn de Hooghe, etcher, *Komste van Zyne Majesteit Willem III. Koning van Groot Britanje, enz. in Holland*, The Hague: A. Leers, 1691, David K. E. Bruce Fund

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.

10 Romeyn de Hooghe, etcher, *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

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.

11 Author unknown; Melchior Kusel, engraver, *Von Himmeln entzindete vnd durch allgemainen Zuruff der Erde sich himmelwerts erschwingende Frolokhungs Flammen...*, Vienna: publisher unknown, 1666, David K. E. Bruce Fund

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 Bartholme 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.



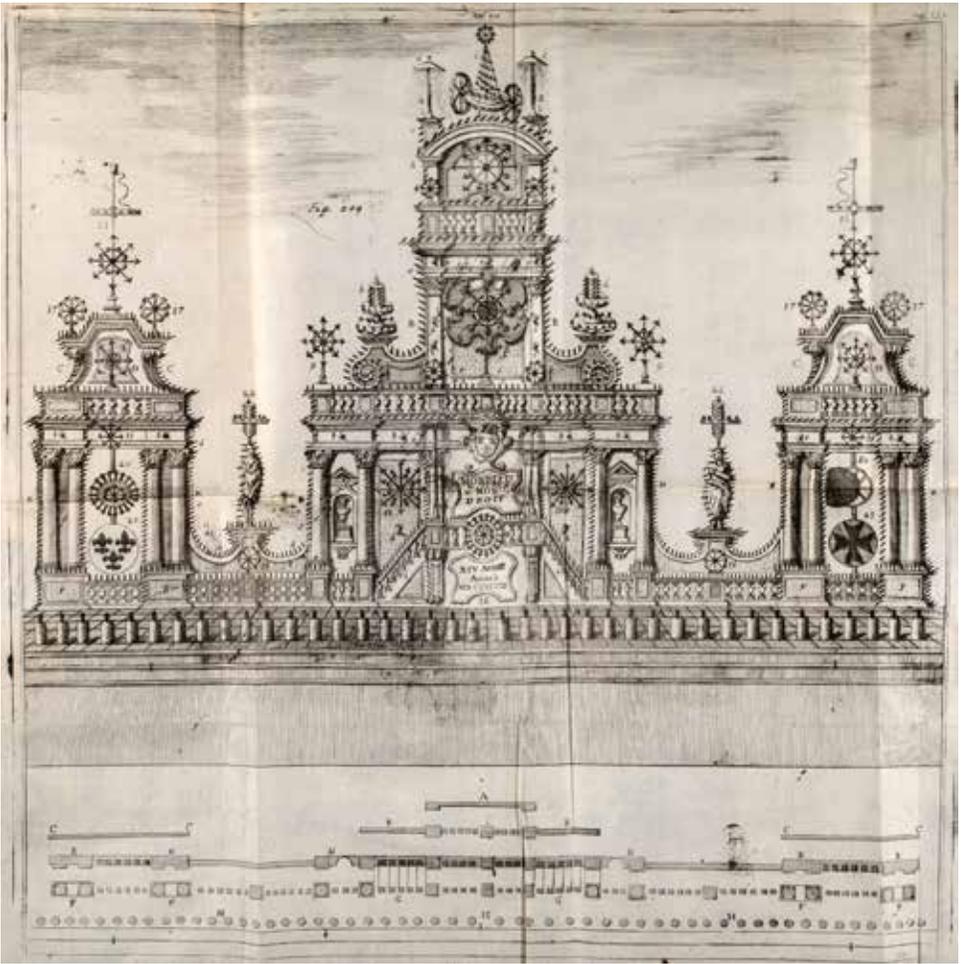
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12 Author unknown; Jacobus Harrewijn, draftsman and etcher, *Relation de l'inauguration solennelle de Sa Sacrée Majesté imperiale et catholique, Charles VI., Empereur des Romains, toujours auguste*, Ghent: Augustin Graet, 1719, David K. E. Bruce Fund

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.

13 Giuseppe Antonio Alberti, author; artist unknown, *La pirotechnia, o sia, Trattato dei fuochi d'artificio*, Venice: Gio. Battista Recurti, 1749, Mark J. Millard Architectural Collection

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.



13

14 Germano Benoni, author; Giuseppe Scolari, engraver, *La maestà coronata*, Padua: Giovanni Manfrè, 1714, David K. E. Bruce Fund

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.



14



15

15 Author unknown; Ignatius Massonus, designer; Georg Kaspar Prenner, draftsman and engraver, *La sontuosa illuminazione della citta di Torino per l'augusto sposalizio delle Reali Maesta' di Carlo Emmanuele, re di Sardegna, e di Elisabetta Teresa, principessa primogenita di Lorena, con l'aggiunta della pubblica esposizione della santissima Sindone*, Turin: G. B. Chais, 1737, David K. E. Bruce Fund

This book records the lighting of the city of Turin for the marriage of King Charles Emmanuele of Sardinia (1701 – 1773) 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.

16 Pietro La Placa, author; Niccolo Palma, designer and draftsman; Antonino Bova, engraver, *La reggia in trionfo per l'acclamazione, e coronazione della Sacra Real Maestà di Carlo infante di Spagna, re di Sicilia, Napoli, e Gerusalemme . . .*, Palermo: Antonio Epiro, 1736, David K. E. Bruce Fund

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.

17 Gabriel Tzschimmer, author; Johann Alexander Boener, engraver, *Die durchlauchtigste Zusammenkunfft, oder, Historische Erzehlung: Was der durchlauchtigste Fürst und Herr, Herr Johann George der Ander, Herzog zu Sachsen*, Nuremberg: Christian-Siegmund Froberger for Johann Hoffmanns, 1680, David K. E. Bruce Fund

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 höchten Ehren der durchlauchtigsten Fürstin und Frau, Frau Elisabeth, Gebohrnen Erb-Prinzessin zu Hungarn und Böhemb . . .*, Würzburg: Heinrich Engmann, 1725, David K. E. Bruce Fund

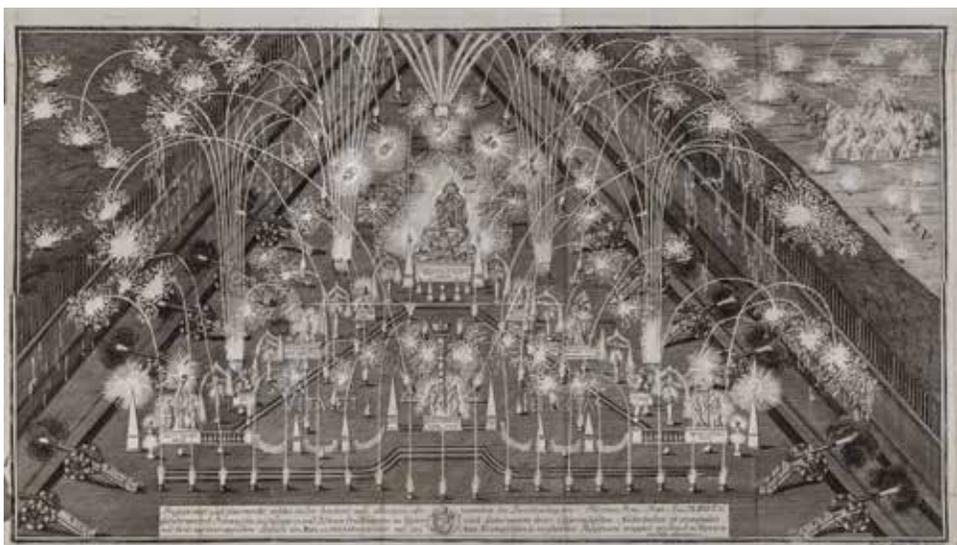
Commemorating the visit of Archduchess Maria Elizabeth of Austria (1680–1741) to Würzburg, September 23–25, 1725, this set of works was partially authored by the famous architect and military engineer Johann Balthasar Neumann, who designed the fireworks display and provided the written description of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

19 Thomas Lediard, author and designer; Christian Fritsch, engraver, *Eine Collection curieuseur Vorstellungen, in Illuminationen und Feier-Wercken, so in denen Jahren, 1724. biss 1728. inclusivè, bey Gelegenheit einiger publiquen Festins und Rejouissances, 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., erwählten Römischen Kayzers . . .*, 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.



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Brochure of the exhibition *In the Library: Pageantry and Pyrotechnics in the European Fete Book*, June 24 – September 6, 2019. © 2019 Board of Trustees, National Gallery of Art, Washington. Brochure text written by Yuri Long.

For more information, please visit nga.gov/exhibitions/2019/european-fete-book.html

front cover Niccolo Palma and Antonino Bova, plate (detail) from Pietro La Placa, *La reggia in trionfo per l'acclamazione, e coronazione della Sacra Real Maestà di Carlo infante di Spagna, re di Sicilia, Napoli, e Gerusalemme . . .*, Palermo: Antonio Epiro, 1736, David K. E. Bruce Fund. **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

