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FIRE ON WATER

THE DESTRUCTIVE FORCES BEHIND THE SIXTEENTH CENTURY NAVAL BATTLE

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Fire on Water

The Destructive Forces behind the Sixteenth Century Naval Battle

Felicia M. Else

In memoriam J.R. (Ronnie) Mulryne¹

Like many rulers of their time, the Medici Grand Dukes of Tuscany, from Cosimo I to Ferdinando I and beyond, included mastery over fire and water as part and parcel of their knowledge of and authority over the cosmos. Representations of fire and water, along with the other two elements of air and earth, were tied to Medici political power, territorial expansion and the avid collecting of wonders of art and nature. Giorgio Vasari's decorations of the *Sala degli Elementi* in the Palazzo Vecchio have walls dedicated to Fire showing Vulcan's Forge and water with the Birth of Venus². Walls dedicated to fire and water line the Studiolo of Francesco I where the Grand Duke's renowned collection of marvels, including naturalia like corals and objects of artifice like ornamented pistols or flammable compounds like sulfur, were stored in cabinets painted with relevant mythological and allegorical subjects³. Fire and water also came together in the remarkable festivals and theatrical productions put on by the Medici court. For the performance of *La Pellegrina* put on for the wedding of Ferdinand I to Christine of Lorraine in 1589 in Florence, audience members would have borne witness to a Dante-esque vision of Hell engulfed in flames in the fourth intermezzo and then a seascape strewn with water deities surrounding Amphitrite's seashell chariot in the fifth⁴.

There was another genre that brought the traditionally opposing forces of fire and water together but in even closer proximity. The naval battle, sometimes dubbed with its ancient moniker, *naumachia*, was staged throughout Early Modern Europe and spoke to the pretensions of political power in this age of territorial expansion and conflict. Tuscany was no exception, as shown in an engraving of a famous *naumachia* set in the Palazzo Pitti courtyard put on for the above-

1 A related version of this study can be found in the December 2020 edition of *Arti dello Spettacolo / Performing Arts Journal* dedicated to the memory of J. R. Mulryne.

2 On Vasari's Sala degli Elementi, see Jerry Lee Draper, 'Vasari's Decoration in the Palazzo Vecchio: The Ragionamenti translated with an Introduction and Notes', Ph.D. diss., Chapel Hill, University of North Carolina, 1973, vol. 1, p. 84-134; Ettore Allegri and Alessandro Cecchi, *Palazzo Vecchio e I Medici. Guida storica*, Florence, Studio per edizioni scelte, 1980, p. 63-73; Janet Cox-Rearick, *Dynasty and Destiny in Medici Art. Pontormo, Leo X and the Two Cosimos*, Princeton, Princeton University Press, 1984, p. 276-280; and Liana de Girolami Cheney, 'Sala degli Elementi in Palazzo Vecchio: The Symbolism of Water', *Discoveries*, 26/2, 2009, p. 1-6.

3 On the Studiolo, see Giulio Cesare Lensi Orlandi, *Cosimo e Francesco de' Medici alchimisti*, Florence, Nardini, 1978, p. 119-124; Luciano Berti, *Il principe dello studiolo. Francesco I dei Medici e la fine del Rinascimento fiorentino*, Florence, EDAM, 1967, p. 61-84; and Larry J. Feinberg, 'The Studiolo of Francesco I Reconsidered', in Cristina Acidini Luchinat et al. (eds.), *The Medici, Michelangelo, and the Art of Late Renaissance Florence*, New Haven/London, Yale University Press, 2002, p. 47-65.

4 For summaries and illustrations related to these intermezzi, see Alois Maria Nagler, *Theatre Festivals of the Medici, 1539-1637*, New Haven/London, Yale University Press, 1964, p. 84-88, and James Saslow, *The Medici Wedding of 1589. Florentine Festival as Theatrum Mundi*, New Haven/London, Yale University Press, 1996, p. 232-241.

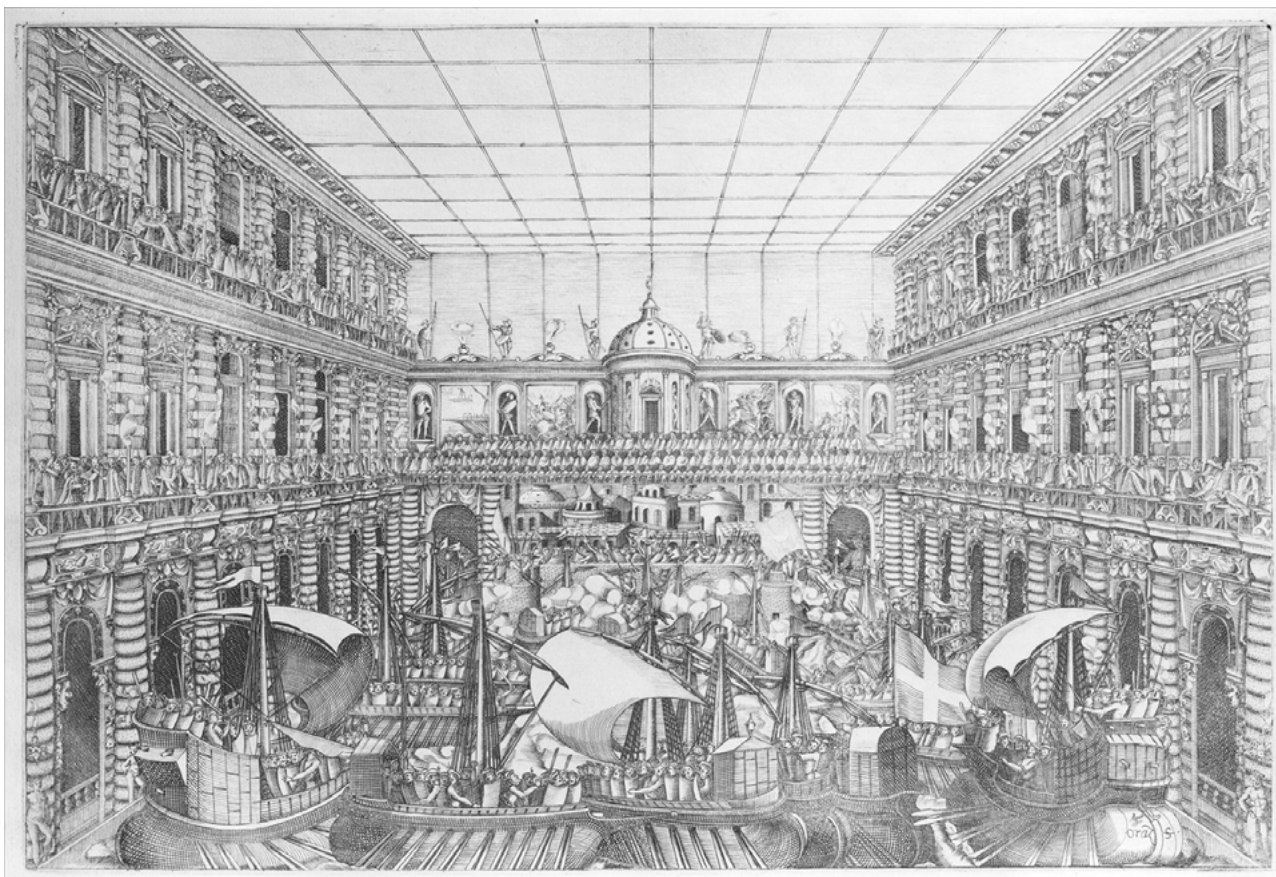


Fig. 78 : Orazio Scarabelli, *Naumachia in the Courtyard of Palazzo Pitti*, c. 1589–1592, engraving, 26,1 x 38,6 cm, New York, Metropolitan Museum of Art, 31.72.5(11)

mentioned wedding of Ferdinando I (fig. 78). Scholars of art and festivals have rightly emphasized the manipulation and visual splendor of water in such impressive maritime displays⁵. This study looks at the pairing of water and fire in 16th-century representations of naval battles, including two examples from the 1589 wedding of Ferdinando as well as important precursors in France and elsewhere. Naval battles in festivals struck contemporaries in their wondrous but terrifying displays of fire on water, whether in the form of fireworks, firearms or, in some cases, water literally set on fire. Sources reveal how water and fire conveyed an impression of destructive power, one altogether fitting given the terrifying experience of real maritime warfare underway at this time.

The sixteenth century saw a great many important naval battles as Western forces fought the Ottoman Turks and each other. Accounts of actual naval battles provided contemporaries with an impression of destructiveness wrecked by the forces of fire and water—ships afire tossed in a watery landscape—visible in dramatized painted representations, like Giorgio Vasari's *Emperor Maximilian Lifting the Siege of Livorno* in the Palazzo Vecchio (fig. 79) and Andrea Vicentino's *Battle of Lepanto* (fig. 80)⁶. In actual naval battles, ship combatants faced the perils of artillery fire and unfriendly

5 Research on this groundbreaking event will be cited in more detail later. For recent studies and bibliography relating to the provisioning of water for this, see J. R. Mulryne, 'Arbitrary Reality: Fact and Fantasy in the Florentine *Naumachia*, 1589', in Margaret Shewring (éd.), *Waterborne Pageants and Festivities in the Renaissance. Essays in Honour of J. R. Mulryne*, Farnham/Burlington, Ashgate, coll. « European Festival Studies : 1450-1700 », 2013, p. 143-175, and Felicia M. Else, *The Politics of Water in the Art and Festivals of Medici Florence: From Neptune Fountain to Naumachia*, London/New York, Routledge, "European Festival Studies, 1450-1700", 2019.

6 On the Vasari, see E. Allegri and A. Cecchi, *op. cit.*, p. 260-261, and Ugo Muccini, *The Salone dei Cinquecento of Palazzo Vecchio*, Florence, Le Lettere, 1990, p. 147-149. For the Vicentino, see Iain Fenlon, *The Ceremonial City. History, Memory and Myth in Renaissance Venice*, New Haven/London, Yale University Press, 2007, p. 172-173, and Roger Crowley, *Empires of the Sea. The Siege of Malta, the Battle of Lepanto and the Contest for the Center of the World*, New York, Random House, 2008, plate 16.



Fig. 79 : Giorgio Vasari, *Emperor Maximilian Lifting the Siege of Livorno*, detail of the *Salone dei Cinquecento*, 1563-1565, fresco, Florence, Palazzo Vecchio
(© Heritage Image Partnership Ltd / Alamy)

seas. In the battle of Lepanto of 1571, historian Niccolò Capponi references the Ottomans' use of flaming pots and fire tubes and how the relentless fire of the Venetian galleasses appeared as 'all one flame'. A passage he cites by Giovanni Battista Contarini references how men fell by the forces of fire and water:

There happened a mortal storm of harquebus shots and arrows, and it seemed that the sea was aflame from the flashes and continuous fires lit by fire trumpets, fire pots and other weapons... many Turks and Christians had boarded their opponents' galleys fighting at close quarters with short weapons, few being left alive. And maces, daggers, axes, swords, arrows, harquebuses and fire weapons. And besides those killed in various ways, others escaping from the weapons would drown by throwing themselves into the sea, thick and red with blood⁷.

⁷ Niccolò Capponi, *Victory of the West: the Great Christian-Muslim Clash of the Battle of Lepanto*, Cambridge, Da Capo Press, 2007, p. 267 and p. 273-274. Roger Crowley also cites similar passages, titling his chapter on Lepanto 'Sea of Fire'. See R. Crowley, *op. cit.*, p. 266-277.



Fig. 80 : Andrea Vicentino, *The Battle of Lepanto* (1571), 1594-1605, oil on canvas, Venice, Palazzo Ducale (© The Picture Art Collection / Alamy)

Throughout the foreground of Vicentino's painting can be seen bodies strewn about the water; another painting by Vasari, *The Defeat of the Turks at Piombino*, shows the head of a drowned Turk next to a classicizing personification of the Tyrrhenian Sea in the foreground (fig. 81).

Erudite Latin poems about the battle of Lepanto similarly evoke death and slaughter among the forces of fire and water, sometimes hailing classical subjects. One epic poem composed by Juan Latino, a black African former slave who worked his way to become a professor of Latin in Granada, praised the deeds of one of the battle's key commanders, Don Juan of Austria, likening him to Neptune. Latino describes the battle scene with the Genoese commander Andrea Doria: 'Culverins sank countless ships with sulfurous fire while the harquebus issues a stream of bullets...Volleys of flaming tow launched with Vulcan's art scatter sparks at the Turks to ignite their ships.' At one point, Don Juan gazes at the torches and firestorms on the water, decrying 'What of the lightning that bursts from the cannons and flashes across the water?' In addition to the expected glorification of the Christian forces, scholars have also noted Latino's sympathetic portrayals of the Muslim adversaries, including the Ottoman admiral Ali Pasha. He described the point of view of Pasha in the face of Don Juan's ships – 'he [Pasha] shudders at the powers of the sea, the fickle deities, Neptune's realm turned against him...'. Latino then has the Ottoman admiral, if faced with survival but defeat, boldly proclaim 'if as leader and Pasha, I survive the battle, I pray... Let Scylla crush me, let merciless Charybdis herself swallow me alive in her whirlpool, and drown me in her massive vortex'⁸. Another similar poem brings out the



Fig. 81 : Giorgio Vasari, *The Defeat of the Turks at Piombino*, 1563-1565, fresco, Firenze, Palazzo Vecchio, Salone dei Cinquecento (© Heritage Image Partnership Ltd / Alamy)

8 Elizabeth R. Wright, Sarah Spence and Andrew Lemons (eds. and transl.), *The Battle of Lepanto*, Cambridge/London, Harvard University Press, coll. "The I Tatti Renaissance Library", 2014, p. ix-x, 428, 484; and Poem XXII, Juan Latino, 'The Song of John of Austria', in *ibid.*, p. 296-297, 312-315, 340-341, 344-345, 357, and 361.

violent spectacle of the dead in the water: 'See how in retreat the infidel's ship was plowing stained with blood that the drowned barbarian corpses had shed... Phoebus dipped his light and Neptune sank bodies under the red waves'⁹.

In the realm of festivals, staging naval battles formed an important part of the idealized political image promoted by such spectacles, and it was a genre especially tied to violence and danger as well as loud noises and showy pyrotechnics. Several examples, particularly in France, struck viewers with their juxtapositions of the destructive forces of water and fire. In Richard Cooper's study of French festivals, he described a scene of acrobatics among fire and water at the coronation of Henri II at Reims in 1547. A boat manned by dark-skinned sailors of African origin, dubbed by contemporaries as 'Sauvages', engaged in a precarious river battle, and Cooper cites a French contemporary: 'they finally came into his Majesty's view, and secured the ships to each other with grappling irons to allow hand to hand combat; they performed wonders of defending themselves, each side firing flames and rockets like spears, and other fireworks, with the result that the ship's mast, its top and its pilot were all artfully shot into the air, whilst the Sea monsters and the Savages were suddenly diving underwater one after the other, so as not to be harmed by the flames'¹⁰.

The *naumachia* performed for Henri II at Lyons in 1548 was described in terms that, as Margaret McGowan points out, 'simulated real warfare'. She points out how the description by the festival organizer Maurice Scève highlighted the pandemonium, the noise of trumpets and firearms, the flames erupting across the water and the intense emotions, including fear, felt by the spectators from this violent spectacle whom, she points out, 'expected fatalities, their feelings vying between intense joy and overwhelming fright'. Scève made sure to conclude his description with a reassurance that 'thus ended the naval battle without hurt to any person whatsoever', a state that, of course, could not apply to real naval battles¹¹. Henri was so impressed that he ordered another naval battle for his entry into Paris in 1549. In this case, no less than thirty large galleys were launched to attack a bastion on the Isle of Louviers on the Seine. Defenders wound up setting the tower on fire to block the entrance to the port, and the noise of the artillery was so strong that, according to a contemporary, the stained-glass windows of a nearby church fell out, and, despite safety precautions, there were several casualties¹².

River battles were featured on several occasions at Nantes, and one staged in 1551 deserves special attention because of its reference to a noteworthy fire-related naval weapon. Magnificently decorated galiots, galleons and a rowing barge pitted Bretons against 'moors and other foreigners'. A contemporary Bonaventure Coppegorge described the combat: 'Then the trumpets sounded and those combatants began to dart about and rush at each other, firing artillery and, rowing hard, to engage, grapple, attack, sound the alarm, throw spears, light flares and Greek fire, which burned as well on the water as it would have done in dry straw, not without danger to these combatants...all of which was very good to see and hear'¹³. Greek fire references a material developed and used by Byzantine naval forces. As Coppegorge's description suggests, Greek fire was a liquid substance that once ignited, could burn on water, and, in fact, attempts to douse it with water only intensified its

9 Poem XV, Anonymous, 'I will now sing of the happy deeds', p. 108-109 in *ibid*.

10 Translation by Richard Cooper. See Richard Cooper, 'French Renaissance Waterborne Festivals in the Sixteenth Century', in M. Shewring (ed.), *op. cit.*, p. 23-24, and Luigi Zangheri, *Storia del giardino e del paesaggio. Il verde nella cultura occidentale*, Florence, L. S. Olschki, coll. "Giardini e paesaggio", 2003, p. 260.

11 Margaret M. McGowan, 'Lyon: a Centre for Water Celebrations', in M. Shewring (ed.), *op. cit.*, p. 44, and Katherine Poole, 'Christian Crusade as Spectacle: the Cavalieri di Santo Stefano and the Audiences for the Medici Weddings of 1589 and 1608', in Sarah Blick and Laura D. Gelfand (eds.), *Push Me, Pull You*, vol. 2, *Physical and Spatial Interactions in Late Medieval and Renaissance Art*, Leiden/Boston, Brill, coll. "Studies in medieval and reformation traditions", 2011, p. 404.

12 M. McGowan, art. cit., p. 44-45, and Monique Chatenet, 'Parisian Waterborne Festivals from Francis I to Henri III', in M. Shewring (ed.), *op. cit.*, p. 54-55.

13 Translation by R. Cooper. Other naval battles at Nantes took place in 1548 and 1565. See R. Cooper, art. cit., p. 24-26.

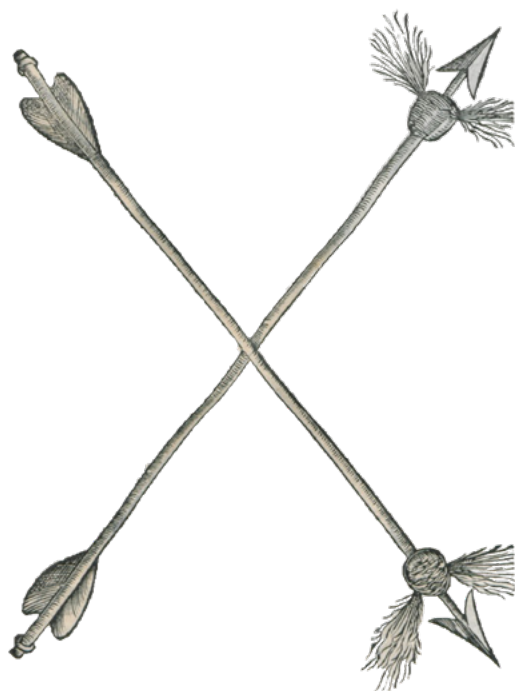


Fig. 82 : Woodcut illustration of incendiary arrows from Girolamo Ruscelli, *Precetti della militia moderna, tanto per mare, quanto per terra*, Venice, 1568, fol. 48 r° (© Firenze, Biblioteca nazionale centrale, Fondazione Biblioteca Europea di Informazione e Cultura, BEIC)

burning. Historians have pointed out that the formula for Greek fire was lost in the sack of Constantinople in 1204, and even today its composition remains a mystery¹⁴. However, a source from Venice published about twenty years after the Nantes Festival could bear some relevance and attests to the widespread interest in such spectacles of fire and water. Paul Hills has discussed how the interplay of fireworks and water had long fascinated Venetian audiences, and in 1572 Girolamo Ruscelli published a book on the pyrotechnics of weaponry, including Greek fire and other flames that would burn on water or on skin, accompanied by woodcut illustrations of flaming projectiles, such as incendiary arrows (fig. 82)¹⁵. What the festival organizers at Nantes had used remains unknown, but it clearly drew on a fascination that audiences felt about such unusual weapons, ones that allowed for fire and water to co-exist beyond their natural boundaries.

Such spectacles of water and fire and the panoply of sensory overload that accompanied them had an appeal well beyond France. For the wedding of Prince Elector August of Saxony with Anne of Denmark at Torgau in 1548, ships stormed a fortress on the

Elbe with combatants dressed as 'Turks', 'Tartars' and 'Germans' and an astonishing display of pyrotechnics—over 2,000 charges in the castle alone—which, as Mara Wade emphasizes, was enhanced by the water's surface¹⁶. In Edinburgh for the wedding of John Fleming to Elizabeth Ross in 1562, Mary Queen of Scots included a naval assault on a fort on Duddingston's Loch complete with fireworks and artillery shots, intended to evoke the 1560 Siege of Leith where Scottish and French forces were successful against the English¹⁷. Closer to Florence, Alfonso II d'Este staged an elaborate aquatic tournament in Ferrara for Archduke Karl of Austria in 1569. On a moat outside the walls of Ferrara, fifteen 'monster-boats', that is, water vessels constructed to resemble hybrid mythological figures such as Glaucus, Tritone and Forco, contained seamen with devices to shoot fire for an attack on a castle on an enchanted island. The spectacle presented a fantastic panoply of fire and water – the boats appeared lit from inside with colored flames scattering around them as well as from the island¹⁸.

14 Likened to napalm, substances such as red phosphorus, pine resin or naphta, a petroleum-type material, have been suggested but still remain speculative. John Pryor illustrates a manuscript from the 12th century showing a Byzantine *dromon* with a siphon spewing this Greek fire on to another ship. See John Francis Guilmartin Jr., *Gunpowder and Galleys: Changing Technology and Mediterranean Warfare at Sea in the Sixteenth Century*, Cambridge, Cambridge University Press, coll. "Cambridge Studies in early modern history", 1980, p. 60, and John H. Pryor, 'From Dromōn to Galea: Mediterranean Bireme Galleys AD 500-1300', in Robert Gardiner (ed.), *The Age of the Galley: Mediterranean Oared Vessel since pre-classical Times*, London, Naval Institute Press, coll. "Conway's history of the ship", 1995, p. 105.

15 Girolamo Ruscelli, *Precetti della militia moderna, tanto per mare, quanto per terra*, Venice, eredi di Marchio Sessa, 1572, and Paul Hills, 'Titian's Fire: Pyrotechnics and Representations in Sixteenth-Century Venice', *Oxford Art Journal*, 30/2, 2007, p. 194-199.

16 Mara R. Wade, 'Waterfront Entertainments in Saxony and Denmark from 1548-1709', in M. Shewring (ed.), *op. cit.*, p. 338-340.

17 Pesala Bandara, 'Mary, Queen of Scots' Aquatic Entertainments for the Wedding of John Fleming, Fifthe Lord Fleming to Elizabeth Ross, May 1562', in *ibid.*, p. 203-205.

18 Alessandro Marcigliano, *Chivalric Festivals at the Ferrarese Court of Alfonso II d'Este*, Bern, Lang, coll. "Stage and

When Grand Duke Ferdinand I de' Medici planned for his wedding to Christine of Lorraine, a French royal princess of the house of Valois and granddaughter of Catherine de' Medici, he would have been building on a robust legacy of naval battles and waterworks in festival celebrations. Florence may have been a sophisticated player in the arts, but when it came to maritime displays of power, like naval battles, this inland city was very much a newcomer¹⁹. The political incentives were considerable, as Arthur Blumenthal argues, 'more blatantly than any previous festival, the occasion was used for political ends: to impress the royalty of Europe with the status of the house of Medici'²⁰. An impressive staff of humanist writers, artists, musicians and organizers was brought together, and the result was a landmark achievement that was copiously documented and disseminated²¹.

Two naval battles were staged, both differing in their settings but both building on the earlier traditions that featured the forces of fire and water together. As Christine journeyed from Marseille to Pisa, she was treated to a sumptuously outfitted flagship and impressive displays of naval power, waterborne floats, magnificently – adorned ports and a battle between Christian and Turkish fleets on the Arno. The naval battle in Pisa, referred to as the 'Battle of the Galleon' was a deliberately public affair, set along a popular course of the Arno, and it broke new ground in the tradition of festivals put on by the Medici, the first of its kind in Tuscany²². Descriptions by contemporaries such as Giovanni Cervoni and Raffaello Gualterotti noted how the audience ranged from members of the court on balconies to untold numbers of boats (*'infiniti Navicelli'*) loaded with all sorts of persons, all encouraged not just to watch the proceedings but to participate²³.

screen studies", 2003, p. 60-63, 74-75 and 106-108.

19 On the theme of water, art and festivals in Medici Florence, see F. M. Else, *op. cit.*

20 Arthur R. Blumenthal, 'Medici Patronage And the Festival of 1589', in Marilyn Lavin (ed.), *IL 60. Essays Honoring Irving Lavin on his Sixtieth Birthday*, New York, Italica Press, 1990, p. 97.

21 *Toscana* (Florence, 1589); Aby Warburg, 'I costumi teatrali per gli intermezzi del 1589. I disegni di Bernardo Buontalenti e il Libro di Conti di Emilio de' Cavalieri (1895)', in *Id.*, *Gesammelte Schriften*, ed. Fritz Rougemont and Gertrud Bing, Leipzig, B. G. Teubner, 1932, vol. 1, reprinted Nendeln, Liechtenstein, Kraus Reprint, 1969, p. 259-300; A. M. Nagler, *op. cit.*, p. 70-92; Annamaria Petrioli Tofani, 'Nozze di Ferdinando I dei Medici e Cristina di Lorena-1589', in Giovanna Gaeta Bertelà and *Ead.* (eds.), *Feste e apparati medicei da Cosimo I a Cosimo II. Mostra di disegni e incisioni*, Florence, L. S. Olschki, coll. "Gabinetto disegni e stampe degli Uffizi", 1969, p. 67-85; Roy Strong, *Splendor at Court. Renaissance Spectacle and the Theater of Power*, Boston, Houghton Mifflin, 1973, p. 172-196; A. R. Blumenthal, *Theater Art of the Medici*, exh. cat., Dartmouth College Museum and Galleries, Hanover, University Press of New England, 1980, p. 2-27; *Id.*, art. cit., p. 97-106; Annamaria Testaverde Matteini, 'L'officina delle nuvole. Il Teatro Mediceo nel 1589 e gli *Intermedi* del Buontalenti nel *Memoriale* di Girolamo Seriacopi', *Musica e Teatro, Quaderni degli amici della Scala*, 11/12, 1991; J. Saslow, *op. cit.*; Elvira Garbero Zorzi and Mario Sperenzi, 'L'apparato architettonico per le nozze del Granduca Ferdinando I con Cristina di Lorena-1589', in *Eid.* (eds.), *Teatro e spettacolo nella Firenze dei Medici. Modelli dei luoghi teatrali*, Florence, L. S. Olschki, coll. "Cultura e memoria", 2001, p. 169-189; M. A. Katritzky, 'Aby Warburg and the Florentine *Intermedi* of 1589: Extending the Boundaries of Art History', in Richard Woodfield (ed.), *Art History as Cultural History: Warburg's Projects*, Amsterdam, G+B Arts International, coll. "Critical Voices in art, theory and culture", 2001, p. 209-258, quotation, p. 213; and various essays and catalog entries by A. Testaverde, Silvia Castelli, Monica Bietti, Margherita Cinti, Mercè Valderrey, Nadia Bastogi and Maria Sframeli in M. Bietti and Annamaria Giusti (eds.), *Ferdinando I de' Medici, 1549-1609. MAIESTATE TANTUM*, exh. cat., Livorno, Sillabe, 2009, p. 50-125.

22 J. Saslow, *op. cit.*, p. 121-132 gives an overview of the various stages of Christine's journey. Among primary sources, Cervoni provides the most detailed description of this naval spectacle. See Giovanni Cervoni, *Descrizione de le pompe e feste fatte ne la città di Pisa per la venuta de la Serenissima Madama Christierna de L'Oreno Gran Duchessa di Toscana*, Florence, Giorgio Marescotti, 1589; Raffaello Gualterotti, *Descrizione del regale apparato per le nozze della Serenissima Madama Cristiana di Loreno*, Florence, Antonio Padovani, 1589, p. 17-18; Francesco Settimanni, *Diario fiorentino*, vol. V, *Memorie fiorentine regnante Don Ferdinando Medici Granduca di Toscana 3.o anno 1587* (Florence, Archivio di Stato, *Manoscritti*, n. 130, fol. 115; Maria Alberti, 'Battaglie navali, scorrerie corsare e politica dello spettacolo: Le Naumachie medicee del 1589', *California Italian Studies*, 1/1, 2010, p. 1-33; Maria Ines Aliverti, 'Water Policy and Water Festivals: the Case of Pisa Under Ferdinando de' Medici (1588-1609)', in M. Shewring (ed.), *op. cit.*, p. 123-125; and K. Poole, art. cit., p. 405-408.

23 G. Cervoni, *Descrizione de le pompe e feste*, *op. cit.*, p. 17 and M. Alberti, art. cit., p. 6.

At nightfall, two galiots (a vessel smaller and faster than a galley) manned with figures dressed in Turkish clothing and weaponry simulated a pirate attack by firing artillery at the Torre del Ponte a Mare²⁴. Sailing to the rescue was a large, magnificently equipped Galleon bearing the *impresa* of the House of Lorraine and the Medici. The fight took dramatic turns, as the Turks proved masterful in defending their galiots from boarding and carried out four attacks on the Galleon. As Maria Alberti has shown in detail, the naval battle combined fictive scenography with verisimilitude, an elaborate display of staged combat resembling a kind of 'nautical choreography' ('*coreografia nautica*') but using maneuvers based on the practices of real maritime warfare as well as authentic costumes, armaments and sailors. Cervoni emphasized the lifelike quality of the event to actual battles, and Alberti highlights details such as the tactics of on-board combat, the sending of parties by small boats to confer over terms, the taking of prisoners and the use of heavier artillery by larger ships. As summed up by Maria Ines Aliverti, the festival was part of 'the Grand Duke's strategic plan... to win regal sovereignty for Tuscany... counting precisely on maritime ports and shipyards and on the prestige of the Order of Santo Stefano, that is, on Livorno and Pisa respectively'²⁵. Fire and water were part of this remarkable, politically charged display. Gualterotti describes the veritable transformation of the course along the Arno by torchlight, noting how the 'many lights' ('*molti lumi*') made shine the Arsenale, the tower and the whole city so that 'it seemed that the rooves, the windows and the terraces all burned so that the beautiful sight... extended along the Arno' and the many artificial fires ('*fuochi artifizioli*') and fireworks ('*girandole*') served 'to drive away the night' ('*discacciare la notte*'). In addition, artillery fire was abundant, one episode lasting for an hour. As the battle reached a climax, Gualterotti described a dangerous maneuver, resulting in 'shots and flames worked up in such abundance and so large that the galiots, Galleon and the river seemed entirely one flame' ('*tutto un fuoco*')²⁶.

After Christine made her procession through Florence, she and select wedding guests were treated to another naval battle, this one in the private courtly residence of the Palazzo Pitti courtyard. This *Naumachia* began with an element of surprise. Guests dining inside the Palace were interrupted by the sounds of military instruments and artillery fire. Abandoning their meals, they returned to their places to find the courtyard, which only hours before was empty and host to a land-based tournament, had somehow been transformed into a veritable 'sea' ('*veramente il mare*'), the entire grounds filled with approximately four feet of water and bearing eighteen ships, both large and small²⁷. Orazio Scarabelli's engraving of the Florentine *Naumachia* of 1589 shows densely-packed rows of spectators, lit torches, and, along the central wall facing the viewer, a fortified Turkish castle. As J. R. Mulryne points out, Scarabelli's 'motorway pile-up' of ships may have evoked a general sense of the violence, noise and congestion described by chroniclers, but it is a far from accurate rendering of the event. The image, created a few years after the wedding, does not give any sense of the different types of ships, relying instead on a generic 'stock of images' used

24 G. Cervoni, *op. cit.*, p. 17 and M. Alberti, *art. cit.*, p. 7. On the Barbary galiot in the sixteenth century, see Angus Konstam, Gerry Ambleton, *The Barbary Pirates, 15th-17th Centuries*, London, Bloomsbury, coll. "Elite ser.", 2016, p. 45.

25 M. Alberti, *art. cit.*, p. 6-14, and M. I. Aliverti, *art. cit.*, p. 124-125.

26 Author's translation from Gualterotti. See R. Gualterotti, *Descrizione del regale apparato*, *op. cit.*, p. 17-18; F. Settimanni, *Diario fiorentino*, vol. V, fol. 115; G. Cervoni, *op. cit.*, p. 14-25; and M. Alberti, *art. cit.*, p. 7-13.

27 The exact height of the water remains unclear because sources give contradictory figures. Pavoni describes an enclosure of three *braccia*, about four feet, and Cavallino gives a figure of four *braccia* (over six and a half feet) for the water. A. Testaverde Matteini proposes a dramatically lower height of just less than one meter based on the quantity of wood requested to support the enclosure as well as a reference in an anonymous description. Mulryne cites Gherardo Silvani's biography of Buontalenti which claims the courtyard was flooded to the depth of a man's height. For the time being, this study accepts the approximate figure of four feet put forth by Mulryne, as anything too much lower would not have allowed the ships to maneuver. See G. Pavoni, *art. cit.*, p. 36 and 40; Simone Cavallino, *Raccolta di tutte le solennissime feste nel sponsalizio della Serenissima gran duchessa di Toscana fatte in Fiorenza il mese di maggio 1589*, Rome, Paolo Blado, 1589, p. 44; A. Testaverde Matteini, *art. cit.*, p. 141-142; M. Alberti, *art. cit.*, p. 22-23; and J. R. Mulryne, *art. cit.*, p. 156-160, 164 and 166.

in prints in general. The sails billow in contrary directions; the depth of the water is insufficient; the varied costumes and armaments of the participants are indistinguishable and the cramped arrangement of ships gives no indication of any credible maneuver or assault. With regard to the dynamics of fire and water, the lack of color and atmosphere is particularly misleading. Scarabelli's crisp, linear panorama would have been shrouded in nocturnal darkness punctuated by cannon blasts, smoke and the flickering lights of over 80 torches, all set below a rose-tinted canvas covering above and the reflective surface of water below²⁸.

Scholarly documentation on the Pitti *Naumachia* has been rich and extensive with research from scholars like Mulryne, Alberti, James Saslow and Annamaria Testaverde among others, showing the effort that went into producing a magnificent and vividly lifelike display²⁹. The sailors themselves comprised actual seamen, many professionals employed at Pisa but also some from locales across the Mediterranean. Contemporaries noticed authentic details such as the cries in Turkish during the battle³⁰. The vessels themselves were actual functioning ships as opposed to superficial ephemeral crafts³¹. Scholars agree that the setting of this watery field of battle put this event on the map. Despite the pleas of his *provveditore* to host the battle on the Arno like at Pisa, Ferdinand insisted on placing it inside the courtyard, thus recreating one of the most incredible water-related feats of Ancient Rome, the flooding of inland structures, most notably the Colosseum, for naval battles. This was very much a culmination of the Medici's efforts to harness the forces of water in the realms of art, water management and festivals³². Not only was this new to Florence, but the Pitti *Naumachia* may be one of the first, if not the first European naval battle spectacle since antiquity in which a full-scale architecturally-defined space on land was flooded in a brief period of time. As Alberti suggests, Ferdinand must have wanted the Pitti *naumachia* not to repeat the publically-oriented event at Pisa but to show Florence as a distinct center of power, staging a more technically and visually innovative version to a more restricted, elite audience³³.

28 J. Saslow, *op. cit.*, p. 96 and J. R. Mulryne, art. cit., p. 160-162 and 169-170.

29 As Maria Alberti notes, the '*alla greca*' style references not classical but contemporary Greece under Ottoman control. Saslow discusses the different sources for the event as well as the costumes and fabrics for the wedding in general. A. Testaverde Matteini supplements her analyses with a transcription of Girolamo Seriacopo's *Memoriale*. See M. Alberti, art. cit., p. 21-22; J. Saslow, *op. cit.*, p. 3-5; 58-72 and 169; and A. Testaverde Matteini, art. cit., p. 146 and 176-249.

30 J. Saslow, *op. cit.*, p. 169 and M. Alberti, art. cit., p. 23-24.

31 Some of the new vessels are identified as being built at Livorno and some in a Florentine workshop, possibly under the carpenter Fossetta, as recently proposed by M. I. Aliverti and Lucia Nuti in Mulryne's study. Alberti identifies six boats used at Pisa, including Osmeo's Galleon serving as the Galleon with three masts and the corsair galleys, two of the Turks and two of the Moors serving, as the four large galleys. Alberti and Aliverti discuss the important links between the naval spectacles at the two cities, calling the Pisa battle an '*anteprima*' to that of Florence. See G. Pavoni, *op. cit.*, p. 40; A. Testaverde Matteini, art. cit., p. 145-146; M. Alberti, art. cit., p. 22-25; M. I. Aliverti, art. cit., p. 123-125; and J. R. Mulryne, art. cit., p. 164-165.

32 As Mulryne notes, even modern scholars could not conceive of how a vast space like the Colosseum could be flooded for such a temporary event though recent archaeologic work has shed light on the credibility of this feat. See J. R. Mulryne, art. cit., p. 152-156. Butters points out evidence that the Pitti *naumachia* was Ferdinand's own invention. On the *naumachia* represented near Ferdinand's villa in Rome by Pirro Ligorio as well as other reconstructions of ancient naval battles in the sixteenth century, see Suzanne B. Butters, "'Magnifico, non senza eccesso': riflessioni sul mecenatismo del cardinale Ferdinando de' Medici", in Michel Hochmann (ed.), *Villa Medici. Il sogno di un cardinale. Collezioni e artisti di Ferdinando de' Medici*, exh. cat., Rome, De Luca/Accademia di Francia a Roma, 1999, p. 40-41; and *Ead.*, 'Princely Waters: An Elemental Look at the Medici Dukes', in Arturo Calzona and Daniela Lamberini (eds.), *La civiltà delle acque tra Medioevo e Rinascimento*, Florence, L.S. Olschki, 2010, vol. 1, p. 408; and Silvia Tomasi Velli, 'Pirro Ligorio, tra ricostruzione antiquaria e invenzione: i circhi e le naumachie di Roma', in Eliana Carrara and Silvia Ginzburg (eds.), *Testi, immagini e filologia nel xvi secolo*, Pisa, Edizioni della Normale, coll. "Seminari e convegni", 2007, p. 225-246.

33 Entry to the event was heavily guarded and required a ticket made from porcelain. See J. Saslow, *op. cit.*, p. 165; A. Testaverde Matteini, art. cit., p. 146, and M. Alberti, art. cit., p. 19.

The battle itself was suitably dramatic, as Turkish and Christian forces took turns dominating the field, and the spectacle swirled with the destructive forces of fire and water. Contemporary Giuseppe Pavoni describes one engagement with the enemy galleys in which 'artificial fire was employed which burned all the way to the water' – reminiscent of Greek fire – and one heard 'cries in Turkish of those who were wounded and fell into the water' where they continued to battle with Christians who had fallen earlier³⁴. When the Christian armada attacked the castle, a great cacophony of artillery fire followed – 'noise so great that it seemed the heavens might fall and fill up the sea, and the air was filled with smoke so that no one could see anything, and it was judged that [...] in this assault had been fired off over three thousand shots'. In the din and the smoke, the Christian forces scaled the walls with rope ladders and faced off against Turks who used intense firepower to repel them back into the water. In the end, the Christians finally persevered, seizing the fortress³⁵.

In this and other examples, it is certainly clear how the manipulation of water and fire in 16th-century naval battles was tied to representations of political power, and this final example would have especially highlighted these effects being set within an enclosed space. As Alberti put it, Ferdinand and his team of artificers were 'shutting the Mediterranean within the interior of a princely palace courtyard' (*'rinchiudendo il Mediterraneo all'interno del cortile del palazzo principesco'*), intensifying the effects of light, sound and water³⁶. The awning above, the torches and the flames and artillery within would have been reflected by the water-filled courtyard below, casting shades of red and yellow throughout³⁷. Furthermore, such an enclosure would have expanded its effects beyond the senses of sight and hearing: who would not have smelled the smoke or felt, perhaps even tasted, the heat and humidity here? It seems fitting to conclude with an astute observation by Mulryne that Christine was thinking about such an unpleasant experience when she decided to set the next naumachia in Florence, not in the Pitti courtyard but in daylight and 'on the less potentially threatening confines of the river Arno'³⁸.

34 G. Pavoni, *op. cit.*, p. 40-42, and M. Alberti, *art. cit.*, p. 24.

35 Author's translation from G. Pavoni, *'un romore d'artiglierie tanto grande, che pareva il ciel cadesse, empiendosi il mare, e l'aria di fumo, che più non si scorgeva cosa alcuna: e fù giudicato che...in questo assalto fosse sparrato più di tre mila tiri'*. See G. Pavoni, *op. cit.*, p. 42-43, and S. Cavallino, *op. cit.*, p. 45-46.

36 M. Alberti, *art. cit.*, p. 25, and J.R. Mulryne, *art. cit.*, p. 170.

37 J. Saslow, *op. cit.*, p. 96, and J.R. Mulryne, *art. cit.*, p. 160-162 and 169-170.

38 *Ibid.*, p. 179.