

1631 The Year the Music Died: Exploring the Impact of the Plague on Venice's Music Printing Industry

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The Venetian music printing industry irreversibly declined in prosperity in 1640, with the deteriorating economic conditions of the 1620s long being considered the culprit. An often-overlooked aspect of this period is the 1630 plague that swept through Venice, killing thirty-three per cent of the population. This research uses a newly created database to investigate how the plague instigated a complete stop to all music printing. An examination of the aftereffects shows that while printers initially experienced an impressive economic recovery, the long-term impact of the plague was ultimately fatal to the industry. A comparison of new databases created for the 1630 and 1575 plagues shows that this economic impact was inconsistent between different outbreaks. Furthermore, examining other printing forms in Venice indicates that the halting of the printing presses was unique to the music printers. This paper concludes that the plague of 1630 was likely the cause of the industry's long-term decline.

The recent global pandemic, which resulted from the COVID-19 virus, has caused a surge of renewed interest in historical plague outbreaks. Medical historians, epidemiologists, public health officials, and plague historians alike are using this collective experience to explore historic outbreaks through a fresh lens. As a musicologist, I am no exception. The impact of the recent pandemic on the worldwide musical community has yet to be quantified. Still, those in the industry know through experience that the impact is negative and widely felt. The same can certainly be said for historical outbreaks of disease that often-struck Europe for longer and with even more destructive consequences. One such outbreak in 1630 in northern Italy devastated the city of Venice, which had long been an important centre of the European music industry, with the Basilica di San Marco at its heart. Indeed, as Deborah Howard notes, 'it would be scarcely an exaggeration to claim that the ducal chapel of San Marco was one of the leading musical centres of Renaissance Europe.'² That said, it was not only the music performed in Venice that contributed to its musical reputation. It was also the preeminent city for music publishing in Europe.

Scholars have often studied the music publishing industry in the sixteenth- and seventeenth-century Venice for its overall impact on the development of music

¹ ORCID ID: 0009-0000-7211-7142; This research was carried out while the recipient of an Australasian Centre for Italian Studies (ACIS) Save Venice Fellowship and Dino Di Poli Scholarship for Research on North-East Italy.

² Deborah Howard and Laura Moretti, *Sound and Space in Renaissance Venice: Architecture, Music, Acoustics* (New Haven, US: Yale University Press, 2009). 17.

printing as a whole, and its consequent influence on musical activity. Music publications have also been used to define broader musical trends and tastes during these centuries. For instance, Jane A. Bernstein has used the surviving primary sources to investigate the financial arrangements of larger Venetian publishing houses.³ Medical historian and musicologist Remi Chiu studied the connection between plague and music as a healthcare tool and an early form of medicine.⁴ Musicologist Tim Carter used the existing records to examine broader trends in the Venetian printing industry to determine the complex structure, both financial and occupational, of the industry, while more recently, Gideon Brettler and Cory M. Gavito have used databases of surviving prints to understand the broader trends in printing guitar music and *alfabeto* throughout the seventeenth century.⁵ Within this broader context, the plague crisis of 1630 stands out as particularly destructive. In the words of Lex Eisenhardt:

Venice suffered severely from the devastating plague of 1630, and in the year that followed, music publishing was suspended almost completely. Between 1620 and 1630 many collections of songs with *alfabeto* had been printed every year, but there are no such publications at all from 1631 and 1632.⁶

Most of these scholars acknowledge, at some point in their research, that the plague of the 1630s impacted the printing of music in Venice; however, none provide any significant analysis to quantify these impacts in detail.

The plague of 1630 was caused by the bacteria *Yersinia Pestis*, which was brought over the Alps in 1629 by troops involved in the War of Mantuan Succession.⁷ It arrived in Venice in the summer of 1630, killing around one-third of the population in eighteen months. Venice's stringent quarantine measures were invoked, and all

³ Jane A. Bernstein, *Print Culture and Music in Sixteenth-Century Venice* (New York: Oxford University Press, 2002).

⁴ Remi Chiu, *Plague and Music in the Renaissance* (Cambridge: Cambridge University Press, 2017).

⁵ Tim Carter, "Music Publishing in Italy, c.1580-c.1625: Some Preliminary Observations," *Research chronicle - Royal Musical Association* 20, no. 20 (1986); Gideon Brettler, "Revisiting the Music-Printing Market in Seventeenth-Century Italy and the Peculiar Case of Pietro Million's Guitar Books," *Journal of Musicology* 39, no. 1 (2022); Brettler, "Revisiting the Music-Printing Market in Seventeenth-Century Italy and the Peculiar Case of Pietro Million's Guitar Books."; Cory M. Gavito, "THINKING LIKE A GUITARIST IN SEVENTEENTH-CENTURY ITALY," *Early music history* 40 (2021).

⁶ Lex Eisenhardt, "Italian Guitarists at Home and Abroad," in *Italian Guitar Music of the Seventeenth Century*, Battuto and Pizzicato (Boydell & Brewer, 2015). 30.

⁷ Guido Alfani, Marco Bonetti, and Mattia Fochesato, "Pandemics and Socio-Economic Status: Evidence from the Plague of 1630 in Northern Italy," *Population Studies* 78, no. 1 (2024): 22, <https://doi.org/10.1080/00324728.2023.2197412>.

non-essential activities within the city were halted.⁸ A recent study has found evidence that of the major musical institutions in Venice, only at the Basilica di San Marco did any musical performances continue, and that was to a significantly reduced degree and with fatal consequences.⁹ The cessation of music making within the secular and ecclesiastical institutions that sustained musicians careers meant a complete standstill to musicians' jobs and financial security; however, these sacred and secular music institutions were not the only source of income for the city's musicians, who actively took advantage of the thriving music printing trade within the city.

The music printers and the musicians of Venice lived in a complex and mutually beneficial symbiotic relationship in which the city's musicians provided publishers with new compositions to sell, and the musicians, in return, had access to an additional stream of revenue as well as a valuable networking tool in an era where published music was one of the few ways to distribute one's music throughout Europe. Understanding the circumstances of printing during the plague months can therefore provide some insight into the conditions of the music industry more generally; however, so far, investigations into the seventeenth-century Venetian music publishing industry have not focused in depth on the plague of 1630. To address this gap, I have combined data from several existing databases and catalogues to create a more extensive database of surviving music prints from the seventeenth century, focused primarily on the plague years. To make this study possible, the existing catalogues had to be correlated to create a more complete database, as all those previously existing were incomplete in some way over this period of study. While previous databases, such as Jeffery Kurtzman's, focus on genera or certain instrumentations, the new database aims to highlight the entire body of work, enabling an industry-wide analysis. This more detailed database allows a closer focus on the plague years, including the lead-up and recovery years, to offer a more detailed insight into the impact the plague had on music printing.

The most complete existing database is RISM (*Répertoire International des Sources Musicales*), the International Musicological Society's online catalogue of printed music and manuscripts from archives and libraries worldwide.¹⁰ This was followed by Jeffrey Kurtzman and Anne Schnobelen who compiled *the Catalogue of Motets, Mass, Office, and Holy Week music printed in Italy, 1516-1770*, an open-access database hosted by the Journal of Seventeenth-Century Music that focuses solely on sacred works and includes some items not catalogued in RISM.¹¹ Additional sources can be found in the

⁸ Jane Stevens Crawshaw, "The Renaissance Invention of Quarantine," in *The Fifteenth Century XII: Society in an Age of Plague*, ed. Carole Rawcliffe and Linda Clark (Boydell & Brewer, 2013).

⁹ Brigette De Poi, *L'ira Di Dio: The Influence of the Plague of 1630 on Venice's Musical Institutions and Culture* (PhD diss., University of Sydney, 2025).

¹⁰ "Répertoire International des Sources Musicales (RISM)," <https://rism.info/>.

¹¹ *A Catalogue of Motets, Mass, Office, and Holy Week Music Printed in Italy, 1516-1770*, Journal of Seventeenth-Century Music, 2014, 2022, <https://sscm-jscm.org/instrumenta/instrumenta-volumes/instrumenta-volume-2/>.

Database of Printed Sacred Music in Europe 1500-1800, compiled by the Institute of Musicology, University of Fribourg, the Fondazione Giorgio Cini in Venice, and the Swiss RISM Office.¹² Like the Kurtzman and Schnoebelen database, it focuses entirely on sacred works and is therefore missing the large body of secular music printed between 1620 and 1640. The final database utilised was *The Universal Short Title Catalogue (USTC)*, created by the University of St Andrews as a search tool for books printed in several countries, including Italy, from 1450 to 1700.¹³ RISM and the USTC are the only databases that include all forms of music, sacred and secular, as well as vocal and instrumental, while the others have more specific focuses. While RISM is a comprehensive database, it is incomplete as several works are listed in other sources that do not appear in RISM. They have been added to my combined database to create a more extensive collection of works. In fact, very few publications in my database appear to have been included in all four of the previous databases, and none of these databases includes every single publication that appears in mine; thus, this newly correlated database provides a basis for insight and statistics not available in the previous ones.

While the primary focus of my database is on the eighteen months of the 1630 plague, it covers the years from 1615-1660 to determine trends in printing in the periods immediate before and after 1630-31. A second database covering the years around the 1575 plague has also been created, allowing a direct comparison of music printing in Venice during the two plagues. Gavito and others argue that waning economic conditions in the 1620s, the result of war, brought the end to Venice's dominance in the music printing trade, calling it the end of the 'Golden Age' of printing; this view is also argued by Lorenzo Bianconi.¹⁴ Brettler and Carter emphasise the economic decline of the 1620s as a contributing factor to the decline of the industry but also highlight several musicological factors.¹⁵ The weak economic conditions of the Venetian Republic in the early decades of the seventeenth century had a demonstrable impact on the publishing industry; however, my database demonstrates that this had less impact on the industry than previously thought. This analysis aims to isolate the plague as a separate event with significant importance in its own right. To determine if the plague had a decisive influence on the long-term health of the music publishing industry, this article not only examines the yearly output of the

¹² "Printed Sacred Music Database - Printed Sacred Music in Europe 1500-1800," 2014, 2022, <http://www.printed-sacred-music.org/pages/home>.

¹³ "The Universal Short Title Catalogue," 2025, <http://www.ustc.ac.uk/>.

¹⁴ Cory Michael Gavito, "The Alfabeto Song in Pring, 1610 - CA.1665: Neapolitan roots, Roman codification and 'il gusto popolare'." (Doctor of Philosophy The Universtiy of Texas at Austin, 2006). 64. & Lorenzo Bianconi, *Music in the seventeenth century* (Cambridge: Cambridge University Press, 1987).

¹⁵ Brettler, "Revisiting the Music-Printing Market in Seventeenth-Century Italy and the Peculiar Case of Pietro Millioni's Guitar Books." 4-6. & Carter, "Music Publishing in Italy, c.1580-c.1625: Some Preliminary Observations." 20-21.

music printers but also examines the music printing industry through another plague outbreak without economic hardship in the pre-plague period. In addition, it explores the non-music printing industry in Venice, which, while impacted by the plague to a certain degree, did not experience the complete stoppage to the presses that the music printers did. Thus, I argue that industries that experienced a plague without an economic downturn, or economic downturn without a severe impact of the plague, were able to survive and rebound. The music printing industry in Venice, however, experienced both, and as a result, by 1660, the industry was significantly reduced from its former heights. Thus, while the industry could probably have survived either the economic downturn of the 1620s or the plague, if it had occurred at another time, it was not possible for the industry to emerge unscathed from both in close succession. As a result, it can be hypothesised that if the 1630 plague had not occurred when it did, the long-term outlook for the Venetian music publishing industry might have been healthier than it was.

Surviving Prints in 1630: Chronology and Impact

To understand how the plague may have impacted the music publishing industry in Venice, I created a database of yearly printing numbers before, during and after the plague of 1630-31. During the period covered by this database, the two main competitors in music printing in Venice were Alessandro Vincenti and Bartolomeo Magni, both of whom account for most of the prints represented. Bartolomeo Magni was originally from Ravenna before becoming an apprentice to Angelo Gardano of the well-known Gardano press.¹⁶ He inherited the press in 1611 and was active until 1644.¹⁷ Alessandro Vincenti Magni's main competitor, has little information available about him. It is known that he was the son of printer Giacomo Vincenti, whose independent press was established in 1586 after a 20-year collaboration with Ricciardo Amadio.¹⁸ It appears Alessandro took over his father's press after his death in 1620. While these two competitors do not account for the entirety of the music prints seen in the database from 1615-1660, they represent a significant contribution in the industry.

The following figure is a representation of the whole database, which covers the years from 1615 to 1660, and makes it clear that there was a significant disruption of music publication in Venice during the plague of 1630.

¹⁶ Stanley Boorman, "Magni," (Oxford University Press, 2001 2001).

<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000017450>.

¹⁷ Thomas W. Bridges, "Vincenti [Vincenci, Vincenzi], Giacomo," (Oxford University Press, 2001 2001).

<https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000029417>.

¹⁸ Bridges, "Vincenti [Vincenci, Vincenzi], Giacomo."

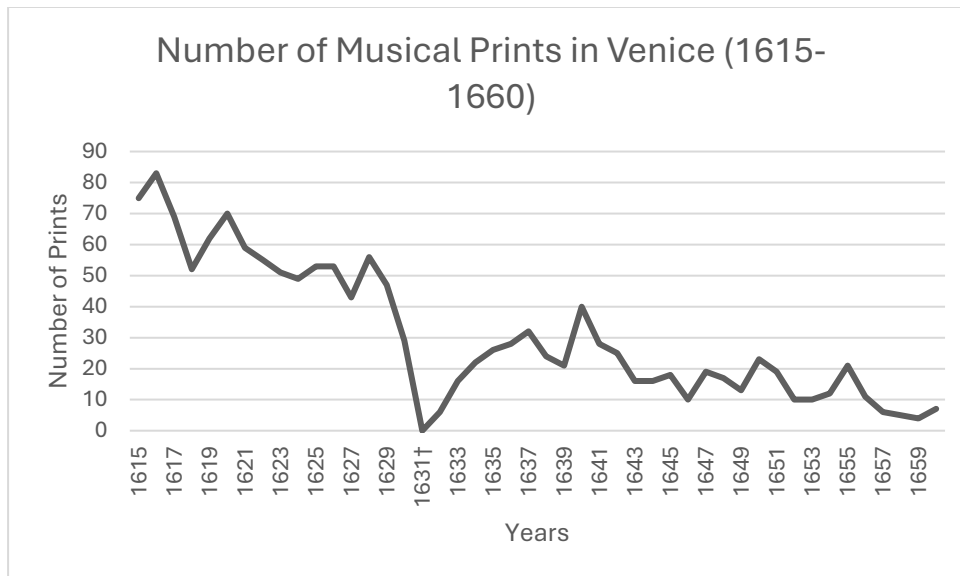


Figure 1 – Number of Music Prints in Venice represented in new database from 1615-1660¹⁹

Figure 1 shows the surviving number of music prints published in Venice from 1615-1660, indicating a significant reduction in the numbers once the plague reached the city in 1630-31. The previously discussed downturn in numbers in the 1620s is evident, though, as will be discussed below, it was not as prominent as previously thought, as the data shows that the numbers did begin to stabilise in the years before the plague. The evidence thus suggests that this decade does not represent an overall precarious trend in the industry's long-term health; instead, it simply represents a temporary reduction in output due to external economic circumstances from which the industry was beginning to recover before the plague. The database shows that in 1629, 47 musical prints were published in Venice, which is still on trend with the previous few years. In 1630, with the plague striking halfway through the year, however, the numbers decreased dramatically to 29. Then, in 1631, at the height of the plague, there are no surviving musical publications in Venice for the entire year represented in any database examined during this study.

To better identify the overall trends, the same data from Figure 1 is represented in Figure 2 with a three-year rolling average of yearly printing numbers. The use of a three-year average allows for the overall trends and patterns of the entire 45-year period to be more easily extrapolated. It reduces the impact of short-term fluctuations in printing numbers and can therefore better highlight long-term trends.

¹⁹ The cross symbol represents the years with plague.

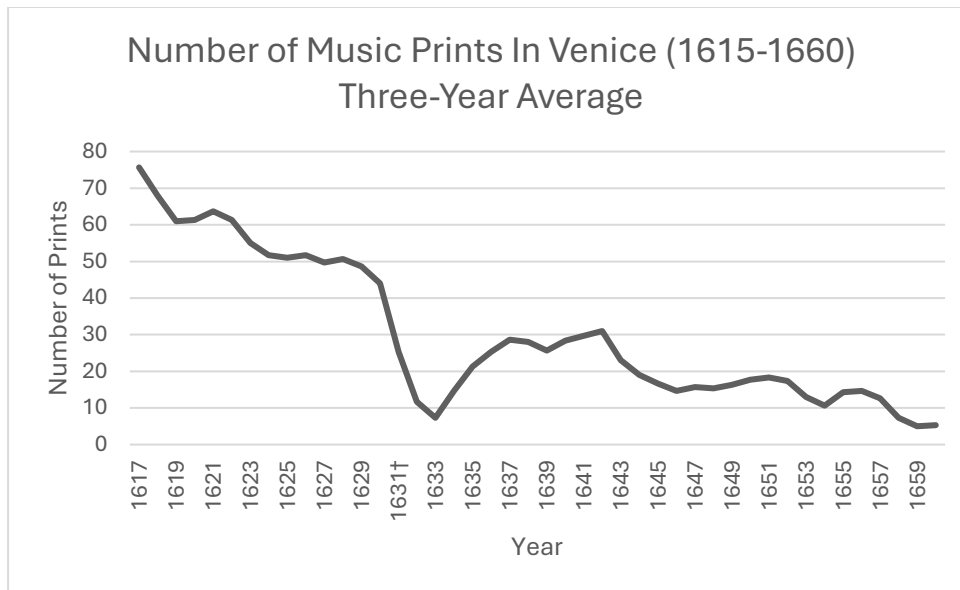


Figure 2 – Three-Year rolling Average of Music Printed in Venice 1615-1660

Figure 2 demonstrates that after the initial attempted recovery after the immediate plague period, when printing seemed to stop, the overall trend in the decades following was downwards.

The other trend, more visible as a result of the data being represented as a three-year average, is the pre-plague economic downturn in the 1620s, discussed in several previous papers. For instance, Carter notes that:

...although it is clear that the Venetian houses were facing increased competition over the 1600s, their actual output does not seem to have decreased significantly until the economic slump of the early 1620s. Certainly, there is little evidence to suggest a serious decline in their activities until this time: on the contrary, 1585-1620 appears to be the peak period of Venetian music publishing.²⁰

This 'slump' that Carter refers to is clearly visible in both Figure 1 and Figure 2; however, when considered in the light of the more comprehensive data collated in my new combined database, this downturn is not as prominent as previously thought. The database that Carter uses shows 63 music prints in Venice in 1620, compared to my database, which shows 70. Additionally, Carter shows 41 in 1625 compared to my 53. Consequently, the result of my new database shows that the decline in numbers in the 1620s, while still evident, was not as damaging to the industry as perhaps previously presumed. Furthermore, the period immediately following the economic downturn and the decrease in the number of prints shows that the industry was stabilising to an extent, albeit with fewer prints per year than previously. From 1623

²⁰ Carter, "Music Publishing in Italy, c.1580-c.1625: Some Preliminary Observations." 20.

to 1629, the three-year average showed less fluctuation in the yearly number of prints than in any other period of the 45 years represented in the database, a sign that the impact of the earlier economic hardships was beginning to wane, and the industry was reviving. This stabilisation was, however, entirely undone by the appearance of the plague in the following years and while the data shows an attempt by the industry to recover in the decade following, ultimately, recovery proved to be impossible. Thus, if Carter believes that the industry was strong before this 'slump' and my data shows that the economic decline, while impactful, does not appear to have inflicted as much long-term damage as previously thought, this further implicates the plague as being more damaging than previously suspected.

The initial impact of the 1630 plague is difficult to determine because, at first glance, the quantity of publications for 1630 as a whole year may suggest that there was still a reasonable amount of printing occurring in the city during the plague time. However, focusing on the year independently of the other data makes it clear that this is not the case. Of the 29 surviving prints, 14 can be dated exactly thanks to the printer's foreword.

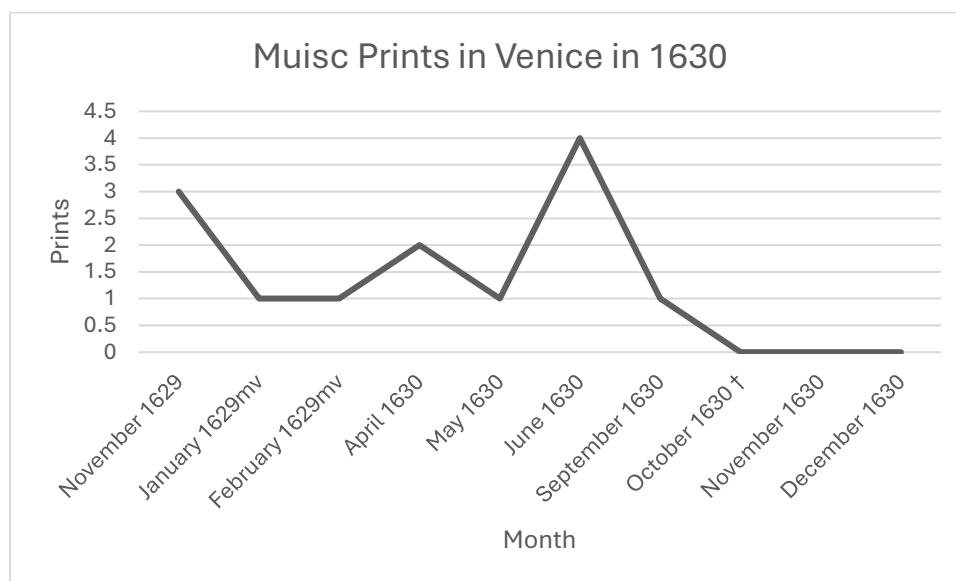


Figure 3 – Timeline of Musical Prints from 1630 with known dates

Three of these prints were dated 1629 in the printer's foreword but 1630 on the title page. This suggested they were completed in late 1629 and printed in early 1630, as the printer's foreword was written before printing. The other possibility is that the forwards were signed in the Venetian calendar, *More Veneto*, while the front page was not as the music was likely to be distributed outside of Venice and, thus, followed the

calendar conventions of followed by the rest of the Italian city-states.²¹ Ten of the remaining eleven prints were printed before July, with the last published in September. The exact timing of the plague's arrival in Venice was a source of contention, even in 1630, as doctors disagreed on whether the disease present in the city was the plague or not.²² Recent research shows, however, that the index case entered the lagoon in early June and that by July, plague had spread into the city.²³ The debate was over by October, however, as the plague had completely taken hold by then and the death rate began to soar. Therefore, even if the plague hit Venice in the summer of 1630, its impact was not felt until over half of the year was complete, meaning that all these pieces were printed before the plague became out of control within the city. While the last 15 prints remain undated at this time, it appears from the current data that the decline in printing was not gradual, as the line graph may suggest, but was sudden and in line with the period when the plague struck. This, in conjunction with the knowledge that there is no evidence of any prints in 1631 when the plague was at its worst, indicates that music printing stopped entirely during the 1630-31 plague.

Looking back at Figure 1, we can see that 1632 saw a reintroduction of music printing with just six prints. The industry then started to slowly gain momentum again, with 16 prints in 1633, with the numbers then gradually increasing until finally we see 40 prints in 1640, the last peak number of prints seen in the database in the post-plague period and less than what was seen in the years leading up to 1630. This is not a slight recovery by any means and is impressive given the post-plague economic and social disruption the city was experiencing. This short-term recovery post-plague is a point that Brettler agrees with when he states:

the resurgence toward the 1640 post-plague peak in output was still driven by the Venetians..., demonstrating the industry's resilience and undermining the plague as a root cause for its collapse.²⁴

While this initial recovery in the immediate aftermath of the plague is remarkable and, as Brettler states, a testament to the industry's strength before the plague, it was not to last, as music printers in Venice were ultimately unable to maintain these numbers.

²¹ The *More Veneto*, the Venetian calendar, starts on the 1st of March instead of the 1st of January. Thus, a date such as the 1st of February 1630 in the Gregorian calendar, would be written as the 1st of February 1629(MV) in the Venetian.

²² See the writings of Protomedico Cecilio Fuoli for more information about the debate that raged among doctors in the early stages of the 1630 plague, *Provveditori e Sopraprovveditori alla Sanità*, b.742, Archivio di Stato di Venezia, Venice.

²³ Brigette De Poi, *L'ira Di Dio: The Influence of the Plague of 1630 on Venice's Musical Institutions and Culture* (PhD diss., University of Sydney, 2025). Chapter 5.

²⁴ Brettler, "Revisiting the Music-Printing Market in Seventeenth-Century Italy and the Peculiar Case of Pietro Millioni's Guitar Books." 11.

In the long term, the plague had the final say, as immediately after 1640, the numbers declined rapidly. In 1641, for example, only 28 music prints were published in Venice, and only 18 by 1648. By the 1650s, the industry struggled to maintain even ten prints a year, with the 21 seen in 1655 as a statistical outlier, with the next best year being a measly 12 in 1654. Eventually, by the end of this database in 1660, the industry only produced seven prints, which is slightly more than the four of 1659. Thus, while there was an immediate surge in post-plague music printing in Venice, the industry never again attained pre-plague numbers in the period studied and produced insignificant numbers by the start of the 1660s.

Both Carters assessment and the data presented in Figures 1 and 2 show that the Venetian music publishing industry was healthy in the years leading up to the plague of 1630. While there had been some reduction in numbers as a result to external economic factors in the early 1620s this decline has been shown to not have been as detrimental as previously estimated and the industry was showing signs of stability and strength. This all changed in 1630-31 when the plague stopped music publishing and inflicted lasting damage to the industry. Figures 1 and 2 show that while there had been an initial attempt to save the industry in 1632-1640, the plague ultimately had a lasting influence on the decline of music publishing in Venice, and by 1660, the industry was publishing a fraction of its former numbers. When economic pressures hit in the 1620s, the industry was affected, but it took only a handful of years before it could halt the decline and regain stability by the mid-1620s, as can be seen when represented in a three-year average in Figure 2. The same cannot be said after the 1630 plague when industry strength allowed some level of post-plague recovery, but ultimately, it was not enough to save printers. It is difficult to determine whether the industry would have been able to withstand the plague if the economic downturn of the 1620s had not occurred, though the evidence presented below suggests it could have been possible. It is clear that the industry was in a strong position to survive the 1620s hardships if the plague had not occurred. Thus, the timing of the plague in conjunction with the recent 1620s economic conditions having just occurred was a combination that was too much for the industry to stand.

The Economics of Plagues

The recovery of an industry in a post disaster period is a more complex procedure than simply deciding to start the presses again. While, as discussed above, there was an impressive attempt at a recovery in the years around 1640, a decade after the plague, the immediate post-plague recovery in the Venetian music printing industry was not instantaneous. The situation in Venice in late 1631 is one that modern musicians, printers, and scholars can relate to personally by examining the current economic recovery following the recent COVID-19 outbreak. One only has to turn on the news to see a different story of the recent pandemic's impact on labour and supply

chains. Many cities worldwide find the post-pandemic and post-quarantine economic conditions challenging. Quarantines cause some cities to suffer a diaspora of people leaving the city and create a labour shortage while unemployment is at a record low, meaning the replacement of staff is increasingly difficult for surviving businesses. In conjunction with rising supply costs and inflation, this has created an economic environment that makes it challenging for businesses to thrive. This is nearly identical to the situation seen in Venice in 1632. Venice experienced a prolonged and strict quarantine that put pressure on the economy with the added difficulty of a thirty-five per cent mortality rate. Curiously, the 1630 plague had a different economic profile to earlier plagues that struck the city and may account for why the music printing industry was impacted differently.

Economic historians such as Guido Alfani have studied the 1630s plague because it deviated from the financial norms of Renaissance post-plague recovery.

Even the worst epidemic, the “San Carlo” plague of 1575-1577 that struck many important cities in the north, had been mainly an urban event involving a limited area. The damage it caused was quickly mended thanks to the availability of large surplus populations in the countryside. There would be no such surplus after the two great epidemics of the seventeenth century.²⁵

Alfani discusses in detail how previous plagues in Northern Italy had little long-term impact on the economy of the cities as there was a surplus population in the rural areas to replace the lost urban workers, or vice versa. The first significant plague outbreak of the Second Plague Pandemic, The Black Death of 1348, is known for its favourable socio-economic impact on Europe and its importance in changing social structures.²⁶ The labour shortage created by the catastrophic loss of life inflicted on Italy by the Black Death meant that previously disenfranchised social classes had the power to dictate working terms and wages previously unattainable. As the plague continued to ravage the peninsula through the centuries, the same principle held that there would be a surplus population to replace the dead population. Therefore, the economic damage from plague outbreaks was limited. As stated by Alfani above, the plague of 1630 proved a different beast. It devastated the urban and rural communities alike, meaning the usual surplus population also suffered heavy casualties and was not available to alleviate the post-plague transition. The result was that, unlike previous outbreaks, the rural population was not able to come into the cities to replace the deceased urban populace creating a widely felt labour shortage throughout all

²⁵ Guido Alfani, "Plague in seventeenth-century Europe and the decline of Italy: an epidemiological hypothesis," *European Review of Economic History* 17, no. 4 (2013). 414.

²⁶ Guido Alfani, "Pandemics and Asymmetric Shocks: Evidence from the History of Plague in Europe and the Mediterranean," *Journal for the history of environment and society* 5 (2020). 198.

layers of social classes. The consequence of this was a hit to the Venetian economy that was harsher and more prolonged than previously felt in early outbreaks.

When considering all of the above in the context of the music publishing industry, it is essential to remember that the industry's recovery would take time and effort. Not only were there supply and labour constraints in the city, but the personal impact of the plague on individual printing houses is unknown; several printers have been found in Venetian death records, indicating some disruption to the industry resulting from death. Further, the impact on the employees within the printing houses doing the bulk of the manual work is unknown, but assuming it was similar to the city mortality rate of thirty-five per cent, the effect on the ability to maintain a constant level of publications would have been vast. While the main music publishers, by all accounts, survived, it is likely that among these numbers of casualties were several of their staff. Training employees within a printing shop is a several years long process; therefore, replacing them would take time, effort, and money. In conjunction with this, some of their more regular clients and composers were impacted.²⁷ For example, Alessandro Grandi, a well-known composer who was a prolific composer for publishers, died of the plague, as did Leonardo Simonetti, who also appears regularly in my database.²⁸ The effects of the plague, however, were two-pronged and felt at different times. The immediate aftermath of the plague would have been a difficult period for music publishers in Venice, who faced several challenges in restarting their presses. This is reflected in the lower printing numbers of 1632 and 1633. Once the printers had restarted, however, by 1640, it is clear through the decline in numbers through the 1650s that the economic conditions of Venice post-plague no longer allowed for the large amount of publishing that had occurred in the decades before the plague.

Non-Music Publishing

In 1630, music was not the only form of printing taking place in Venice. The publishing industry was bustling with various printing styles in the government and private sectors, including pamphlets and books of various genres. Books were the primary focus, with around 40 presses in the city by the time of the 1630 plague.²⁹ An examination of the printing database available on the 'Universal Short Title Catalogue' website shows some curious similarities between the two industries; however, it also presents two significant distinctions: non-music publishing, while reduced, never

²⁷ Jane A. Bernstein, *Music Printing in Renaissance Venice: The Scotto Press (1539-1572)* (New York: Oxford University Press, 1998), 55-7.

²⁸ Rodolfo Baroncini e Marco Di Pasquale, *Monteverdi A San Marco. Venezia 1613-1643* (Lucca: LIM, 2020), 92 & 100.

²⁹ Sandy Thorburn, "What News On The Rialto? Fundraising and Publicity For Operas in Seventeenth-Century Venice," *Canadian university music review* 23, no. 1/2 (2003), 186.

ceased during the plague, and as a result, the long-term impact from 1650-60 does not show a decline in industry but instead a recovery. This indicates that what befell the industry during the plague (i.e., whether it stopped or not) may have had an influence on the industry's long-term health. Figure 4 shows the non-musical prints in Venice on a rolling three-year average scale from the same year range as the musical database, as found on USTC.

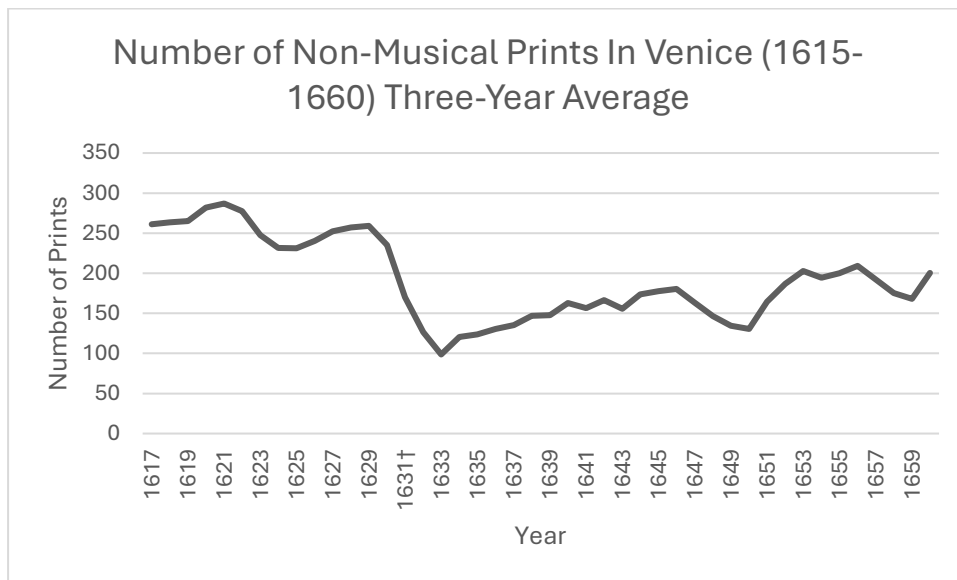
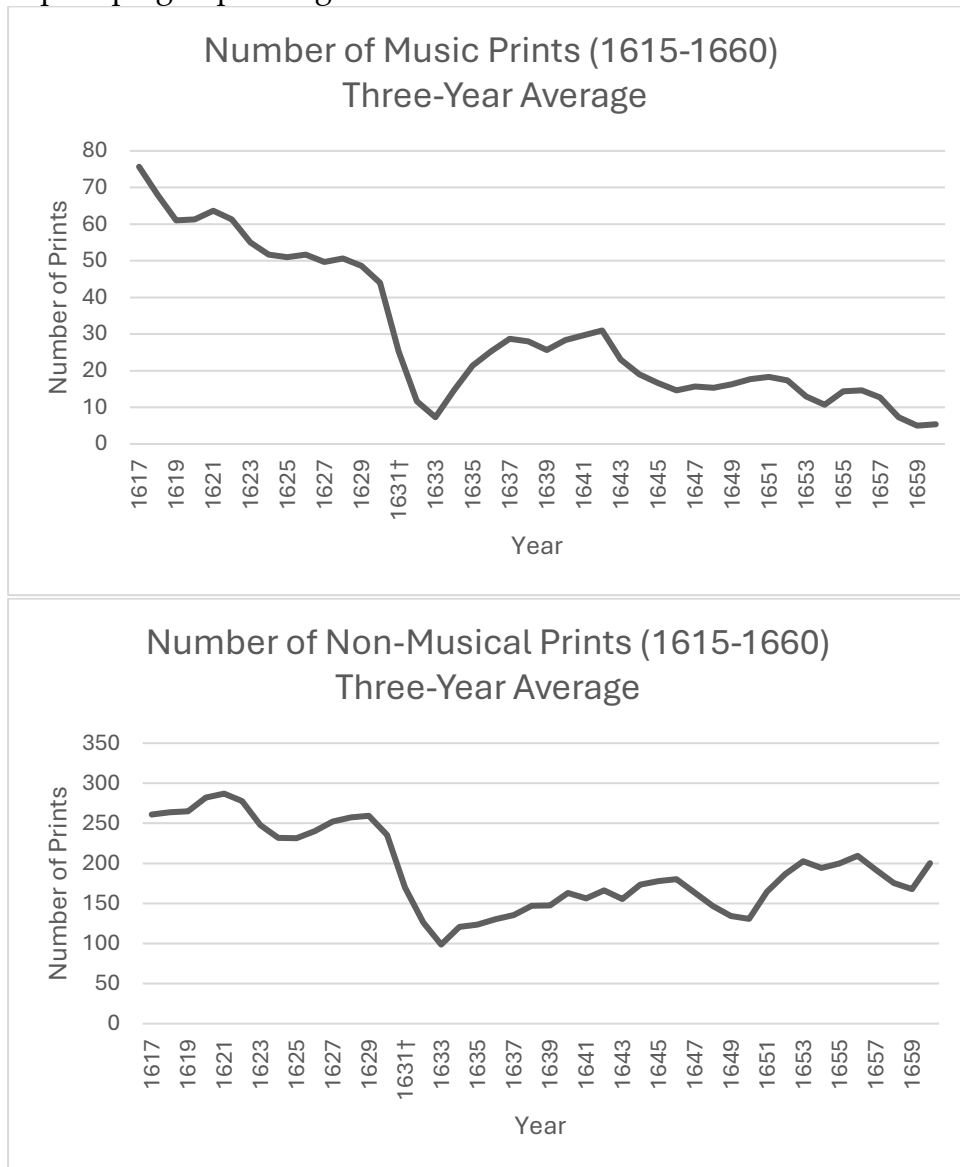


Figure 4 – Three-year average of the number of non-musical prints in Venice (1615-1660)

It shows that in the pre-plague period, the 1620s' slump' resulting from the period's economic conditions also occurred in the non-music publishing industry. That said, while the musician printing industry was plateauing during the late 1620s, the non-music publishing industry showed clear signs of recovery towards its former yearly numbers of prints. This was before the plague struck in 1630-31, and the graph shows a significant impact, though, seemingly crucially, the industry did not completely shut down like the music printers did. In the first decade after the plague, non-music publishing showed a similar trajectory to that of music publishers. The numbers steadily increased to a peak in 1640, albeit still significantly fewer prints than in the pre-plague period, before declining again in the early 1650s. During the decade of the 1650s, the two industries reacted differently to one another. While the music publishers saw a significant reduction in their yearly print numbers, ultimately ending in an almost extinct industry by 1660, the non-music printing industry did the opposite. From 1651 to the end of the study period in 1660, the non-music printers of Venice once again began to steadily increase their yearly output. Besides a slight dip in numbers in 1658 and 1659, which is quickly corrected, the non-music publishers show signs of rebuilding their industry.

Below are Figures 2 and 4, comparing the two industries in Venice and their pre- and post-plague printing numbers.



Figures 2 & 4

While it is difficult without further information to speculate on the reasons for this difference in the long-term impact on the industries, it does have to be wondered if the reaction during the plague could be one. It is clear from the above examples that while the plague severely impacted the music printing industry to the point of closure, the same could not be said for other forms of printing within the city. The non-music publishing industry reacted differently to the plague by not shutting down, albeit reducing significantly, and in its ability to recover in the long-term. The reason behind this perceived difference in industry standards is unclear, but what is clear is that, despite some similarities, there was some disparity in reaction between Venice's music and non-music publishers.

Plague Vs Plague: A Comparison

While the 1630 plague may have been the final outbreak to devastate Venice, it was certainly not the first, with 23 visitations of the plague between 1348 and 1630.³⁰ As a result, there is a previous outbreak available for comparative data to investigate how the music printing industry reacted to them: the 1575 plague mentioned by Guido Alfani. Similar to 1630, the 1575 plague lurked around Northern Italy for some time before entering Venice in the summer. This outbreak lingered in the city for two years, causing waves of illness and death, with 1577 being the deadliest year.³¹ This plague killed as much as one-third of the population, again comparable to 1630, though over a more extended period with more peaks and troughs of disease; however, as noted above, the city's overall economic recovery from this plague was more rapid.³² This outbreak also occurred when music printing in Venice was at its zenith, with its two foremost houses, Gardano and Scotto, being European leaders of music printing.³³ The mid to late sixteenth century is an era in music printing in Venice that has been abundantly written about and commented on, notably by Jane Bernstein and Tim Carter, who have both written extensively on this period of music history, making it ideal for a case study.³⁴

A complete stoppage in music publishing in this era could have proven catastrophic to the printers economically; however, while various writers have, albeit briefly, mentioned the 1630 plague in their writings, there is little to no references in the research regarding the plague of 1575–1577. This suggests that while the plague occurred, it may have had little impact on the music printing industry in Venice, and thus, no explanation or commentary was required in the scholarship. Figure 5 represents the yearly music printing numbers in Venice in the years around the 1575 plague.

³⁰ Catherine Jenkins, "Curing Venice's plagues: pharmacology and witchcraft," *Postmedieval* 8, no. 2 (2017), <https://doi.org/https://doi.org/10.1057/s41280-017-0046-2>.

³¹ Jr Samuel K. Cohn, *Cultures of Plague: Medical thinking at the end of the Renaissance* (Oxford: Oxford University Press, 2009). 1.

³² Alfani, "Plague in seventeenth-century Europe and the decline of Italy: an epidemiological hypothesis." 414.

³³ For more information, see, Bernstein, *Print Culture and Music in Sixteenth-Century Venice*.

³⁴ Jane A. Bernstein, "Financial Arrangements and the Role of Printer and Composer in Sixteenth-Century Italian Music Printing," *Acta Musicologica* 63, no. 1 (1991). & Bernstein, *Print Culture and Music in Sixteenth-Century Venice*. & Tim Carter, "Music-Printing in Late Sixteenth- and Early Seventeenth-Century Florence: Giorgio Marescotti, Cristofano Marescotti and Zanobi Pignoni," *Early Music History* 9 (1990).

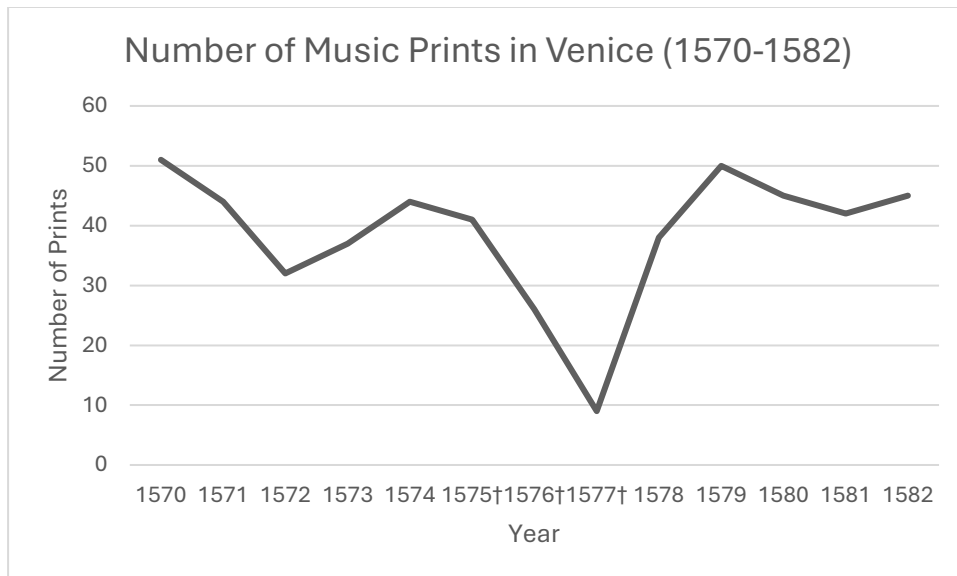


Figure 5 – Number of Music Prints in Venice from 1570-1582

This chart tells an interesting story: the presses continued working throughout the worst of the plague, a complete divergence from the music printers of the 1630 outbreak. Like Figure 1, it is immediately apparent that there was a significant reduction in publishing numbers during the worst of the outbreak; however, a closer analysis of the data shows that at no point during the two-year-long outbreak did music publishing appear to stop completely. In 1575, the impact was scarcely recognisable, with a reduction of only three prints to 41 from the previous year's 44. In 1576, the numbers decreased as expected, similarly to 1630, though unlike 1630, the plague had existed within the city already for six months to a year before production decreased. By 1577, the numbers had reduced to nine, showing a similar downward trajectory as seen in 1630 but still with significantly more prints than in the later outbreak. The economic recovery of the music publishing business following the 1575 plague is also evident in Figure 5. It was swift and robust, with the music publishers returning to pre-plague numbers within a year. This is in comparison to 1630, which took ten years to regain some momentum, after which it once again began to decline rapidly. Interestingly, the difference between the two plagues does not extend to the type of music being produced. A cursory examination of the genre of musical prints that appear in the databases before and after both plagues reveals little to no long-term changes in the genre of music being published.

To fully understand the difference in recovery between the two plagues, Figure 6 shows the publications for the two plagues side by side.

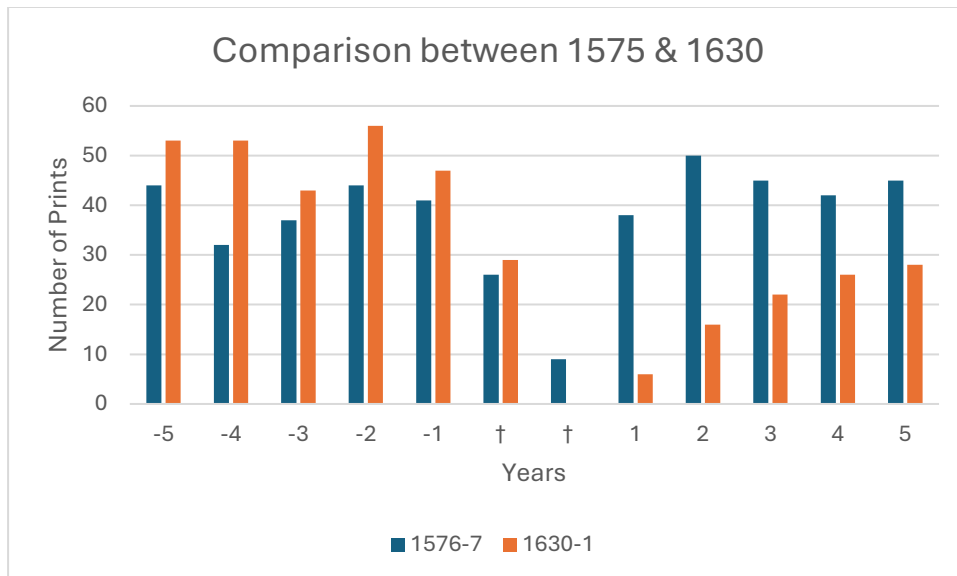


Figure 6 – Comparison of Music Prints in Venice during the 1575 and 1630 plagues ³⁵

In 1575, the industry did slow down, with a significant decrease in the music printed during the plague years. That said, at no point does the data show that the industry stopped completely, with music being published throughout the entirety of the time the plague was active within Venice. The recovery was then almost instantaneous, with no long-term impact of the plague present in either the chart or the scholarship. In 1630, printing stopped completely and swiftly. Once the industry started up again, it took nearly a decade to recover even partially, after which it once again began to decline and by 1660, printing was but a fraction of what it had been in previous years. This data aligns with Alfani's observation regarding the economic recovery of the two plagues being significantly different. The reason for this difference is not immediately clear, given the comparable mortality rate between the two outbreaks; however, the one defining difference between the two is the economic conditions leading into the plague. While the 1630 data does show that the industry was in the process of stabilising after the economic issues of the 1620s, it had not yet reached its former heights when the plague of 1630 struck. The difference in long-term results between the two outbreaks of 1575 and 1630, as well as the difference between music and non-music publishing in Venice, suggests that the combination of the 1620s economic issues in conjunction with the complete stoppage of printing in 1631 was a death knell and the music printing industry was unable to recover in the long term.

³⁵ The numbers on the X axis represent the years before and after the plague years of 1576-7 and 1630-1. For example, 1 represents the years 1578 and 1632, whilst -1 represents the years 1575 and 1629.

Conclusion

By correlating this new database, I have re-examined the decline of the music printing industry in seventeenth-century Venice and connected it to the plague of 1630. The database being larger than those correlated before allowed for a reconsideration of the previously explored recession of the industry in the 1620s and found it to be less damaging than previously assumed. This, in conjunction with a further analysis of the non-music printing industry and the industry's different reactions to the 1575 plague, promotes the hypothesis that it was the 1630 plague occurring so soon after the economic 'slump' of the 1620s that was the ultimate downfall of the industry. While this paper has focused on the plague's impact on music publishing in Venice, the database created for it can also answer other possible investigations about the seventeenth-century Venetian music printing industry. It presents future opportunities to study changes in genre throughout the century, trends in musical styles, the popularity of certain composers, and the impact of business practices on individual printing houses. Beyond the individual database, the investigation into the plague's impact on music printing and, consequently, the musical community of Venice brings forth questions regarding human interaction with the plague. Disease and death are universal human experiences that transcend time and place. Investigating historical manifestations of the plague and its impact on cultural institutions can also provide insight into the long-term consequences of these events. These crises can permanently modify cultural institutions within a city, as seen in 1630 Venice, where the demise of the music printing industry not only affected those directly employed by it but would have had broad ramifications for the entire musical community of Venice and beyond. By investigating the impact of the plague on the music printing industry in Venice, this article underscores the reality that the cultural impact of a crisis can long outlast the events that caused it.