

Master's Degree Programme

in Digital and Public Humanities

Final Thesis

From the Archival document to the Digital:

News of religious, ethnic and political conflicts during the First English Civil War (1642-1646)

Supervisor Ch. Prof. Stefano Dall'Aglio

Assistant supervisor Ch. Prof. Dorit Raines

Graduand Antonello Mori Matriculation Number 887536

Academic Year 2021 / 2022

TRODUCTION

CHAPTER I

HISTORY, DOCUMENTS AND ARCHIVES

1. Salvetti: one man, a thousand documents	. 6
2. The historical context of the 'First English Civil War'	10
3. From paper to digital: MAP and the Euronews Projects	16

CHAPTER II

ISTRUCTIONS FOR THE AUDIENCE

1. Moving images	20
2. The tools of the trade	28

CHAPTER III

INSTRUCTIONS FOR ACADEMICS

1. Stats for nerds	. 34
2. Into the word wide web	52

CONCLUSIONS	55
APPENDIX	
BIBLIOGRAPHY	
MANUSCRIPT SOURCES	64
SITOGRAPHY	

INTRODUCTION

The following paper is intended as an explanatory support to the video and the website presented here, which has the ambitious goal of creating in a small way an effective synthesis between the academic and public worlds, between the analogue and digital archival worlds, between past and present. The initial objective was to generate a hybrid product of public history and digital humanities. Starting from the analysis of a specific historical event, in this case the so-called 'First English Civil War (1642-1646)'¹, the aim was to create a storytelling experience supported by digital animation and web design techniques that could involve and inform a non-expert audience and at the same time enhance the unpublished documentation consulted by performing specific analyses thanks to the tools made available by information technology, thus making the product interesting also for the academic and specialist component. This ambitious project has been realised thanks to the currence of skills I have acquired during the previous and the present Master's studies.

The unpublished documentation cited, which forms the foundation of the entire work, comes from the correspondence exchanged between the Grand Duchy of Tuscany and the Florentine resident in London, Amerigo Salvetti, and covers the years between 1640 and 1646. This corpus is held at the State Archives of Florence has been digitised by the Medici Archive Project², and is now available for viewing at the institution's proprietary online archive. Thanks to an internship with the Euronews Project³ at the University College of Cork, it has been possible to transcribe these documents and encode them according to the XML criteria enstablished by the consortium, and then to

¹ Michael Braddick, *God's Fury, England's Fire: a new history of English Civil Wars*, London, Penguin Global, 2009, pp. 240-478.

² For further details see page 16 of this report.

³ For further details see page 17 of this report.

submit appropriate modifications in order to test further analyses presented in this work⁴.

Focusing on the objectives set out above, it is necessary to explain the methodology and criteria used to achieve them:

• Regarding the Public History sphere of the project, it was first necessary to create a storytelling that could involve a non-expert audience, with the intention of providing information that could be easily understood. In order to achieve this goal, a simplification operation was needed, while respecting the imperative of reliability. In fact, the entire narrative makes use of unpublished archival documentation and an accurate bibliographical study with the aid of the main reference texts on the topic. The product resulting from this mediation has made it possible to produce a storytelling that lends itself well to an animated representation. The medium in question was not chosen randomly, but because of its many potentialities:

- its ability to involve any age group in the audience;
- the strong impressiveness generated by the audio/video combination;
- the ease of access and dissemination on the web through platforms such as YouTube or websites;
- the extreme flexibility in the creation phase that has allowed the generation of animated content limited only by the author's imagination.

• As for Digital Humanities, these have been both the technical tool used to carry out the research as well as object of the research. As already mentioned above, the documentation was accessed through the Medici Archive Project platform, where the documents were first transcribed and then encoded using an XML standard created by the EURONEWS Project. Later on, for the purposes of this study, I have decided to modify this standard, including a sample year of writings (1641) in order to manage a

⁴ For further details see page 18 of this report.

series of quantitative and qualitative analyses with the aid of a Python script created *ad hoc*. This choice was dictated by the desire to enhance the abovementioned documentation through the technologies and tools of the Digital Humanities, thus allowing to integrate in this work an output that could also be appreciated by the academic component and read with curiosity by any generalist user.

In short, it should be made clear that this paper, which is the result of the multidisciplinary nature of the field of Public & Digital Humanities itself, is intended to be only a beacon that illuminates the thousands of possibilities that could be achieved on the same documentation with the help of a longer study and a wider, interdisciplinary team.

CHAPTER I

HISTORY, DOCUMENTS AND ARCHIVES

SUMMARY: 1. Salvetti: one man, a thousand documents -2. The historical context of the 'First English Civil War' -3. From paper to digital: MAP and the EURONEWS Projects

1. Salvetti: one man, a thousand documents

After the return of the Count of Holland with the King's negative response, there were no further negotiations. Both sides are ready for war. Parliamentary troops march northwards to oppose the King's troops, who advance towards London.⁵.

With these words Amerigo Salvetti, resident in London on behalf of the Grand Duchy of Tuscany, warned his Prince of the start of open hostilities between the English King Charles I Stuart and his Parliament, a conflict that was destined to last almost ten years. Although this appears to be the historical starting point of the whole story under analysis, it is necessary to take a few steps back and dutifully present the author of the primary source of almost all the information discussed in this paper, namely Amerigo Salvetti, Born in 1572 in Lucca with the name Alessandro Antelminelli, in his youth he was a merchant operating in the Flanders and residing permanently in Antwerp from 1594 onwards. At the age of twenty-four, he was involved in a plot against the Republic of Lucca organized by the Grand Duchy of Tuscany, in which his brothers and father took part, according to the city's judges. The young man was forced to return to his homeland, but when he realized that his relatives had all been condemned to death or to life imprisonment, he decided to take refuge in Florence and then go to London, where he took the name Amerigo Salvetti to escape assassination attempts by the Lucca's authorities⁶. In the following years he tried several times to obtain the pardon and return to Lucca, but without success. Given the unsuccessful outcome, he obtained an employment with the Grand Ducal authorities in Florence, sending information to the court on events in

⁵ Archivio di Stato di Firenze, Mediceo del Principato, 4021, f. 343 v., Medici Archive Project, doc. 53155. (Later shortened to ASF, MdP, MAP).

⁶ Stefano Villani, Per la progettata edizione della corrispondenza dei rappresentanti toscani a Londra: Amerigo Salvetti e Giovanni Salvetti Antelminelli durante il "commonwealth" e il Protettorato (1649-1660), in Archivio Storico Italiano, Vol. 162, No. 1 (gennuary-march 2004), Verona, Casa Editrice Leo S. Olschki s.r.l., 2004, pp. 114-117.

England. In 1617 he became the official London resident of the Grand Duchy (role he was covering while writing the documentation used for this research)⁷. Thanks to his perfect knowledge of the language and his extensive network of contacts in the English court, he was able to send news of great interest to Florence, which was often copied and circulated in other circuits⁸. Salvetti never returned to his native land: he got married and grew old in London, where he died on the 2nd of July 1644. Several children were born from his marriage, among them his eldest son Giovanni, destined to take on the same role as resident thanks to his father's pressure. However, he turned out to be completely unsuitable and produced documentation in a very poor Italian⁹.

The file that has been selected for this study covers the chronological frame from 1640 to 1646 and consists of *avvisi* and letters. The former are first hand accounts of the events that took place in England, written in a formal tone and almost always prepared on Thursdays. The latter, on the other hand, were usually written in a less formal tone and used to communicate the tasks that Salvetti was required to carry out as a resident. Nonetheless, in many cases it is also possible to find within the cipher feelings, opinions and criticisms that he conveys about the turbulent events that characterised the period of time examined¹⁰.

We must not forget, however, that the interpretation of the facts and judgments reported in these sheets are subject to an exclusively political nature, even when it comes to religion, which is perceived only as a mean, an *Istrumentum Regni*, through which exercise power. And it was precisely the balance of power that the writer was intrested in throughout his career as a resident. The Grand Duchy not only had a close diplomatic and commercial relationship with the English crown, but even found hitself having some

⁷ Ibid., p. 119.

⁸ Ibid., p. 123.

⁹ Ibid., p. 120.

¹⁰ Ibid., p. 124.

relatives among the members of the royal family, such as Maria de' Medici herself, mother of the then Queen Enrichetta Maria, wife of Charles I Stuart.

It was precisely in regards to these balances that Salvetti poured a great deal of ink, carefully reporting the news in his notice sheet, and then often launched into a very sharp, crude and realistic analysis, with which he wished to provide the clearest possible picture of the situation to his lord in the enclosed letter, as for example in the case cited there:

Events worsen. The King and Queen are now subjugated by the Parliament, which regulates them in everything, without any possibility of opposing them.¹¹.

In his comments on the state of affairs, although he is referring to two of the most important sovereigns in Europe still formally in office, Salvetti wastes no time in attempting to make his analysis as polite as possible. On the contrary, protected by the cipher that very often covers these sharp comments of his, he provides a very effective picture of the condition in which the English monarchy found itself a few months before the outbreak of the so-called 'First English Civil War'.

Similarly, it is interesting to point out that Salvetti, throughout the whole documentation, was always opposed to the government of the people and Parliament, and referred to them with wide contempt and reserving for them some of the most cutting comments in the entire documentation.

The ambassador of Spain receives daily affronts from the people of London. The latter threaten to burn down his house because he is a good Catholic and because he has given asylum to Catholic clergymen. The lack of obedience of the people forces him to have a guard¹².

¹¹ ASF, MdP, 4201, f. 63 r., MAP, doc. 52902.

¹² ASF, MdP, 4201, f.19 v., MAP, doc. 52888.

The reason for this action is not only inherent in the logic of the writer himself, who belongs to a world in which the sovereign is a direct emanation of the divine will destined to rule over the multitude he calls the populace, but also for mere partisan interests, after all, his lord was closely linked to the English crown in both commercial and diplomatic spheres.

In summary, it can be said that the documentation produced by Salvetti lent itself well to the project:

- first of all, by providing a detailed commentary on some of the most important events of the so-called 'English Civil War';
- secondly, helping the work of storytelling, by allowing the integration of a contemporary voice in the story, one capable of giving a certain engagement: non-specialists, may find themselves fascinated to see that what they are hearing comes directly from the past without mediation of any kind;
- thirdly, allowing the specialised analysis carried out thanks to the schematic nature of the written notices (*avvisi*). It was possible to encode the documentation relatively easily, starting from an already preconstructed XML standard and adapting it, with the right modifications, to the given research purposes.

2. The historical context of the 'First English Civil War'

Despite the fact that the beginning of the so-called "First English Civil War" is conventionally fixed on the 22 August 1642¹³, it is more appropriate to treat the historical event by looking at the forty years preceding the outbreak of the conflict, because it was the result of a series of tensions that had already begun before the accession to the throne of Charles I Stuart.

After the death of Queen Elizabeth I Tudor in 1603, the crowns of England, Scotland and Ireland were united under James I Stuart¹⁴. His reign was characterised by increasing tensions, especially in the religious sphere, which materialised with the growing resentment of the English Parliament towards the ruler, because James had embraced and spread an Anglicanism that tended more towards Catholicism than reformism in the pratice, creating dissatisfaction especially in Scottish circles, which at the time were closer to the more reformist fringes¹⁵. Already launched into an anti-Catholic paranoia, dictated by the failed conspiracy of 1605, the Anglican population reworked its religious demands in an orthodox key, generating the so-called 'Puritan fringe', composed mainly of wealthy Scots, who professed the restoration of the original values of Calvinism¹⁶.

In political affairs, the situation was no different, as the King completely bypassed the parliamentary consensus needed to impose new taxes or augument existing ones and pushed for an increase in the tax pressure, coming to blows with Parliament, to the point of dissolving it and not reconvening it for almost a decade.

The succession of Charles I in 1625 further exacerbated the already precarious situation in religious questions, due to his marriage to the Catholic

¹³ Michael Braddick, God's Fury, England's Fire: a new history of English Civil Wars, p. 242.

¹⁴ James Matusiak, *James I: Scotland's King of England*, Cheltenham, The History Press, 2015, pp. 112-113.

¹⁵ Ibid., pp. 28-42.

¹⁶ Roland H. Bainton, La Riforma Protestante, Torino, Einaudi, 2000, pp. 170-193.

Henriette Maria Bourbon. Parliament did not like this latest innovation, worried that the King might favour the Catholics of England, who were largely limited by a corpus of laws enacted during the Elizabethan period¹⁷.

Further tensions arose after Charles embarked on a disastrous campaign against Spain in an attempt to help his brother-in-law Frederick V Wittelsbach to regain some of his possessions. The large costs of the war, which were financed by Parliament at first and then by 'forced loans', combined with the military incompetence of the Duke of Bukingam, led to the kingdom's ruinous defeat and the promotion of the Petition of Right, according to which the King could no longer impose taxes without Parliament's approval¹⁸.

Another serious blow came in 1629, when Charles dissolved the chambers following the unrest generated by the sessions concerning the decision to collect the 'tonnage and pundage' tax. The King did not reconvene the Parliament for eleven more years after this episode, creating a personal government that permanently strained the relationship between Charles and the parliamentarians¹⁹.

Parliament was only reconvened when the King was faced with the financial crisis generated by the so-called Bishops' Wars²⁰, which he had at first tried to make up for with his own financial means²¹. During the first sessions, the Parliamentarians made various accusations against the King for some of his behaviour during the period of his personal government, forcing Charles to dissolve itself again. Because of this it was called Short

¹⁷ Pauline Gregg, *King Charles I*, London, Phoenix Press, 2001, pp. 115-116.

¹⁸ Ibid., pp. 295-302.

¹⁹ Ibid., pp. 304-307.

²⁰ Note: This is a conflict that took place between 1639 and 1641, in which the Scottish Royalists and the Royal Armies clashed against the so-called Covenanters. The cause was unresolved religious tensions that had existed since the Scottish Reformation of 1561 and were also exacerbated by the increase in the number of bishops following the reform made by James I, which frightened the Presbyterian faction. The level of tension exploded when in 1637 Charles decided to introduce a new prayer book in accordance with the Anglican model, in spite of the discontent of the Presbyterians who resented the innovations proposed by the monarch and dragged him into armed conflict.

²¹ Michael Braddick, God's Fury, England's Fire: a new history of English Civil Wars, pp. 108-140.

Parliament²². The monarch, confident that he could defeat the Scottish Covenanters on his own, continued his war campaign but suffered such heavy losses that he was forced to sign a peace treaty and end the so-called Second Bishops' War²³.

The structural, economic and political weaknesses that the kingdom had inherited from this defeat eventually convinced the monarch to call a new Parliament, this time definitively, in November 1640, which took the name of Long Parliament.²⁴.

The general atmosphere of instability ended up exasperating the already precarious religious balance, accelerating tensions between the Anglican-Puritan majority and the Catholic minorities, often resulting in deliberate acts of uncontrolled violence. The Parliament itself was not exempt from taking part in this real manhunt, so much that, in May 1641, parliamentarians embarked on a search for a supposed plot hatched by the Catholics:

After the death of the Viceroy of Ireland, Parliament concentrated on putting on trial some officers of the Royal Army suspected of having had dealings with the six Catholic gentlemen who had escaped in the past week. These fugitives had allegedly intended to rescue the Viceroy with the support of an army recruited in England.²⁵.

According to Salvetti, this false story was exaggerated with the aim of «[...] blaming the Catholics in order to ruin them, as they were still too well accepted by the King»²⁶. Politics, in the hands of parliamentarians, became a weapon to give light to a religious struggle, which is condensed into measures that appear more and more stringent day by day against the Catholics of England. Being Catholic again became the distinguishing

²² Pauline Gregg, *King Charles I*, pp. 310-312.

²³ Ibid., pp. 314, 315.

²⁴ Ibid., p. 371.

²⁵ ASF, MdP 4201, f. 32 r., MAP, doc. 52892.

²⁶ Ibid., f. 33 v.

feature that had characterised England in earlier years²⁷, and set in motion the process which refined and solidified the group identity of Anglicans and Puritans. The continuing pressures against the Catholics were keenly felt in Ireland, so much so that in October 1641 the island was hit by a rebellion that can be seen as the last strain that led the kingdom into civil war²⁸. Before continuing with the narrative, it is necessary to briefly explain the reasons behind this revolt.

The Irish population of the time was made up of the so-called Gaels, who were Catholics and natives of the island, alongside the descendants of the Norman settlers, called Old English, who also became Catholics and were increasingly incorporated into the Gaelic culture. After 1540 there was a third faction, the New English, who were Protestants and had benefited from the confiscation of land by the Tudors and then the Stuarts. They were joined by thousands of Presbyterian Scots who had settled on the island under James I, obviously dispossessing the Irish of their land.²⁹. The continuous political friction (wars, expropriations and new settlers), added to the religious friction (e.g. the desire of the English Parliament to eliminate Episcopalianism) and ethnic friction ended up, in a relentless escalation, in acts of open rebellion against the English Anglican "occupiers" and the Scottish Presbyterian "occupiers", without however ever wishing to betray their King, believing that the latter would help them in this fight.³⁰.

A month after the outbreak of the uprising, the ranks of the Catholic rioters became increasingly large, ready to attack Dublin. Because of these tensions, the Puritan faction in the London Parliament became increasingly

²⁷ James Scott Wheeler, *The Irish and British Wars, 1637-1654. Triumph, Tragedy, and Failture,* London-New York, Routledge, 2002, pp. 11-36.

²⁸ Jason McHugh, *The North Gentry and the Rebellion of 1641*, in *The Past: The organ of the Ui Cinsealaigh Historical Society*, No. 24 (2003), Dublino, Ui Cinesealaigh Historical Society, 2003, pp. 28, 29. Note: An in-depth analysis of the causes that led to the outbreak of the rebellion has not been reported in this paper due to the vast amount of information, which if analysed in full would have led the research off topic.

²⁹ James Scott Wheeler, *The Irish and British Wars*, 1637-1654. Triumph, Tragedy, and Failture, pp. 37-38.

³⁰ Ibid., pp. 38-47.

suspicious of the Catholic faction³¹. Between the end of November and the beginning of December 1641, the English Parliamentarians were faced with two problems: the impossibility of reaching Ireland due to poor weather conditions and the inability to decipher a suspicious letter sent by the rebels to the Spanish ambassador³². Moreover, in this climate of hysteria, phantom plots by Catholics to the detriment of all other confessions were sought, even going so far as to speculate on the King's real faith³³. This situation also began to exacerbate a much bigger conflict, namely that between Parliament and the King. The sovereign found himself having to reject parliamentary claims on matters of state and religion several times, which became more and more daring, attempt after attempt³⁴.

The Irish conflict lasted until May 1642, when the English and Scottish royal forces finally managed to quell the unrest, although not completely, through the use of violence³⁵. However, the question remained essentially open due to the worsening of the relationship between King and Parliament, so much so that the documentation provides us with an image of the monarchs increasingly powerless, deprived of all their prerogatives and at the mercy of a Parliament that denied them any authority³⁶.

Charles went so far as to move to the city of York³⁷, which disturbed the parliamentarians the most, who in their turn began to produce a long series of letters containing propositions aimed at finding an agreement that would bring the monarch back to the capital, but meanwhile the King began to call back knights and titled loyal to himself, without Parliament being able to prevent this in any way³⁸. What followed was a growing tension, fuelled by

³¹ ASF, MdP, 4201, f. 147 v. - 150 r., MAP, doc. 52955.

³² ASF, MdP, 4201, f. 154 r., MAP, doc. 52957.

³³ ASF, MdP, 4201, f. 159 v. – 160 r., MAP, doc. 52959.

³⁴ ASF, MdP, 4201, f. 167 v., MAP, doc. 52963.

³⁵ Robert Edmund Elkin, The interactions between the Irish rebellion and the English Civil Wars,

Urbana, University of Illinois at Urbana-Champaign, 1961, pp. 73-89.

³⁶ ASF, MdP, 4201, f. 63 r., MAP, doc. 52902.

³⁷ Tristram Hunt, *The English Civil War at First Hand*, London, Penguin Books Ltd., 2015, p. 157.

³⁸ ASF, MdP, 4201, f. 251 v., 254 r., MAP, doc. 53066.

demands that deprived the King of virtually all power, shifting everything in favour of Parliament³⁹. The monarch himself responded more and more harshly to these proposals as he worked to assemble a new army⁴⁰.

The situation came to a head in June 1642, when Parliament dissolved the people from the oath they had sworn to Charles, thereby legitimising them to take up arms against their monarch, triggering on the 22 August the so called First English Civil War⁴¹.

This brief historical introduction allows a better understanding of the causes behind the event dealt with in the video, which due to its very nature and limited length have been briefly mentioned within it. Regarding the event treated, the so-called First English Civil War, please refer to the mentioned video, in order to avoid unnecessary redundancies.

³⁹ Tristram Hunt, *The English Civil War at First Hand*, pp. 158-160.

⁴⁰ ASF, MdP, 4201, MAP, docs. 53068, 53100, 53106, 53114.

⁴¹ ASF, MdP, 4201, f. 293 v., MAP, doc. 53109.

3. From paper to digital: MAP and the Euronews Projects

As previously mentioned, the work presented here was made possible by the documentation found within the Medici Archive Project's MIA platform, which was accessed thanks to an internship with the Euronews Projects research group of the University of Cork. Both research projects can be framed within the framework of Digital Humanities, as they make use of IT tools to enhance and preserve "analogue" archival documentation.

It is therefore good to briefly introduce both bodies in order to provide as clear a picture as possible. Quoting the Euronews web page, the project deals with the so called "*avvisi*", a Renaissance invention consisting of weekly or biweekly semi-public manuscript newsletters which were istributed in multiple copies, becoming the ancestors of the printed journalism. The subject of distributions has been, until now, less known than the structures of distribution, an imbalance created by the huge volume of material and technical issues to would obstacle massive analysis.

This material could have shaped peoples' lives, world's view, and mental horizons, but conjectures about what there was in this material have been, so far, built upon little or no evidence. The largest and more diversified repository of this type of source is the Medici papers at the Florence state archive. It includes sheets which come from all over Europe and contain news from places like Ireland, Scandinavia, the eastern Mediterranean, Asia and the New World. In order to recreate the news environment that gave shape to the early modern times, EURONEWS aims at studying this and other repositories⁴².

Given the nature and objective of the project, it was possible to access a type of document, the *avviso*, that lends itself well to being processed to create a part of the narrative for the non-expert audience. As mentioned

⁴² <u>https://www.euronewsproject.org/</u>, page accessed on: 22/02/2022

above, the double strength of an archive documentation lies in the possibility of fascinating the end user as a direct voice of times gone by, as well as being an excellent source for enriching and enhancing a historical narrative, also the result of a single compilation work.

In addition to the transcriptions needed to obtain a narrative, the *avviso* proved to be an excellent sample on which to proceed with XML encoding, something already tackled by Euronews itself, to which, however, appropriate experimental modifications have been made here in order to achieve certain given research goals⁴³.

The entire work was tackled remotely using the equipment provided by the Medici Archive Project, a research project founded by Edward Goldberg and Hester Diamond in the early 1990s to foster the study of the Mediceo del *Principato*, the epistolary collection of the Medici Grand Dukes (1537-1743). The most complete documentation of a princely regime of that time is represented by the Mediceo del Principato, which has survived virtually intact. It occupies a mile of shelf in the Florence Archivio di Stato and it comprises over four million letters. It was signed by many diplomats and informants of Medici family, and around three million letters portray the political and cultural changings in Asia, Africa, Europe and the Americas. Avvsi are part of this corpus, back in the days they were sent along with the letters of Florentine ambassadors who were located in major Northern European, Mediterranean and Near Eastern urban centers. These letters documented the world outside of Tuscany and also how the Medici court was connected with its administrative detachments, such as the legislative, judicial, financial, and public health branches of government. The Mediceo del Principato also attested the events of the Medici family and what happened at court»⁴⁴.

⁴³ For further details see chapter III of this report.

⁴⁴ https://www.medici.org/mission/, page accessed on: 22/02/2022

The access, transcription and encoding of the documentation (in the first time) used in this work was carried out via MAP's proprietary platform called MIA, which allows scholars to «upload and store their digitized documents from any of the five Medici archival collections"⁴⁵. It enables them to assign its peculiar documentary kind to a digitized document from De Medici and to embed these digitized documents with basic or advanced metadata. MIA permits to access to Medici's libraries of digitized works from all around the world and to work with them; it also makes possible to study other libraries of digitized Medici texts which were uploaded by other scholars. It is an important tool because it is a way to begin to preserve these archival collections, since now Italian archives are under unpredictable closures and manuscripts are not always available. Furthermore, MIA platform allows to catalogue Medici documents in a simple and clear indexing way, and also to search for targeted results among this vast and heterogeneous archive.

As for the technical details of the platform, these will be dealt later in detail, when the XML encoding work and the design of the Python script for the analyses carried out will be explained.

⁴⁵ Ibid.

CHAPTER II

ISTRUCTIONS FOR THE AUDIENCE

SUMMARY: 1. Moving images – 2. The tools of the trade

1. Moving images

Dealing with the complexity of the documentation, the multitude of events that took place during the time period in question and the target audience, it was decided to use a simple but visually striking medium, the animated video.

Even though some of the benefits of this media have already been mentioned above, it is worth summarising them in order to analyse them in detail⁴⁶.

The animated video is a flexible tool, limited only by the imagination and skills of the creator. Moreover, thanks to the great accessibility of professional software and high-performance hardware, it is very cheap to produce. Equally important is the capacity to convey information to the public without being boring by linking certain concepts to specified images and/or sounds, which will then be memorised by the spectator⁴⁷.

Once the medium had been chosen, I have proceeded to set the following parameters to refer to during the design phase:

1. First of all, the video had to be simple without becoming trivial, so it was essential to use a language that was accessible to a general audience, capable of conveying a message not only with words but also with images. The choice of our target audience, children, was fundamental, because if they could learn something from what we were proposing, everyone would be able to do so.

2. Immediacy: the main showcases in which the video is shown are the dedicated website and Youtube; therefore, I wanted to create a product that could be on par with those videos that are broadcast on a loop in an exhibition, so shortness and the possibility of viewing it from anywhere had to be fundamental. By making the video short, not only it is possible to make

⁴⁶ For further details see the introduction chapter of this report.

⁴⁷ Thomas Cauvin, *Public History: A textbook for pratice*, London, Routledge, 2016, p. 92.

the most of the subject's attention without boring them, but it also allows those who interface with the video that has already started to be able to wait for it to be repeated in order to catch up on the lost parts. In a public place these are the elements that we consider fundamental for a good user experience.

3. Reliability: simplifying does not mean trivialising the contents. The background as a historian has provided the conceptual tools of meticulous research and clarity of the sources used⁴⁸. Although short, the text has been revised and reliable sources have been used in order to provide a contribution that, although it may appear simple, hides solid research behind it. In fact, the work began reading again all the documentation taken into account and then combine it with a meticulous bibliographic research, looking for elements that could be in line with the chosen style of narration.

After having checked that the product met the requirements described above, a storyboard was created to determine how many animated scenes and characters should be drawn. Unlike almost all the phases of the work undertaken, the storyboard was not created digitally, but simply using an A3 sheet of paper and a pen, as can be seen in fig. 1.

⁴⁸ Thomas Cauvin, *Public History: A textbook for pratice*, pp. 44, 45.

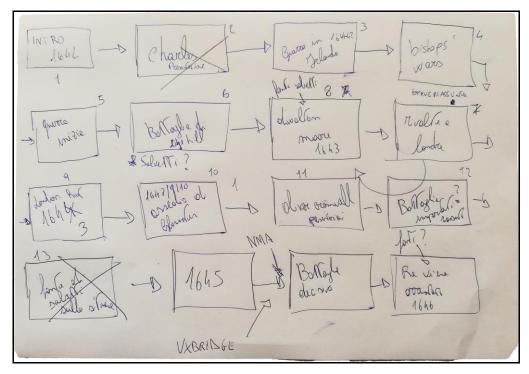


Figure 1 – Storyboard made for the video.

This image testifies a non-linear process, which is very different from the final product, as corrections, additions and removals were made during the course of the work, some even during editing, when it was realised that some elements might appear boring or unnecessary for the narrative, but also scenes that were too difficult to animate.

The second step consisted in designing and drawing the main characters of the story. In line with the designated target and with the limitation represented by the fact that only myself was animating, it was decided to create simple characters, very caricatured, who could then quickly associate the face of known historical figures thanks to the exaggeration of some distinctive traits. For example the case of Charles I, designed by emphasising the characteristic moustache and long hair, an image that has been passed down to us in some of the most famous paintings (fig. 2)⁴⁹.

⁴⁹ Portrait of Charles I Stuart made by Anthony van Dyck. Source taken from https://commons.wikimedia.org/wiki/File:Dyck_Charles_I_Stuart_(detail).jpg

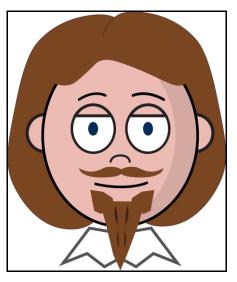




Figure 2 – Charles I Stuart's comparison.

The drawings were made with the help of two software packages: Adobe Illustrator and Adobe Photoshop. Each character can be classified as a vector drawing (a set of gemoetric primitives on various levels) to which colours and shades have been added⁵⁰, giving us the idea of objects and/or body parts. The motivation behind this choice is twofold: firstly, the creation of a character allowed a new subject to be generated with just a few small changes, for example as with Oliver Cromwell (fig.3). Secondly, the simplicity of these designs not only makes them easy to animate, as the levels of which they are composed by can be individually articulated, but they can also be produced by people who are not familiar with drawing, thus creating products with a considerable visual impact. Lastly, it should be remembered that vector graphics are not composed of a grid of pixels. Thus, images do not de-grain when enlarged, as is the case with common raster graphics⁵¹. This allowed greater flexibility in the creation phase, especially with backgrounds.

⁵⁰ Brain Wood, *Adobe Illustrator CC Classroom in a book*, San Jose, Adobe Press, 2018, pp. 97, 98.

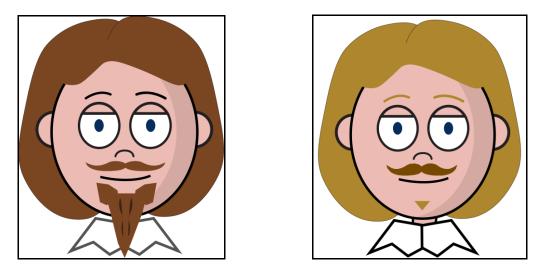


Figure 3 Charles I and Oliver Cromwell. By changing the colour of his hair and the shape of his moustache and beard, the model of Charles becomes a new character.

Once all the necessary models had been created, we proceeded to create and search for a set of backgrounds that could match the style of the characters. Due to the complexity of some of the backgrounds, libraries of images were purchased which were suitable for narration, while the simpler backgrounds were constructed using the same technique as the main characters in the video. In order to save time and money in the creation of the backgrounds, some images were reused with simple tricks of perspective and zoom (Fig. 4-5).



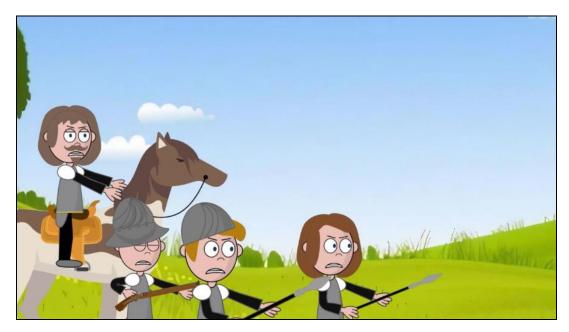


Figure 4-5 – The two frames shown here belong to two different scenes, but notice that they are the same background, which in figure 5 has been zoomed in order to create a new one, adding some clouds in the background and altering the colours.

Having drawn all the necessary components, I proceeded with the most complicated phase of the video's realisation, the animations. These can be divided into two macro-categories: characters and transitions, such as Salvetti's arm and the maps.

The first ones were created with the help of Adobe Character Animator software, which allows you to manage the individual layers of each vector image in order to create points of articulation and areas designated to the face components. This allows us to make the body of one of our protagonists completely jointed with just a few clicks, making him able to walk and wave with his hand.

The real power of the software is shown by the possibility of animating the face directly by tracing it from a real face with the help of a digital camera and some motion tracking points. As can be seen in Fig. 6, the software draws a tracking mask on the subject's face, then returns individual movements, such as lip and eye movements, to the drawing. The more levels contained in a character, the more fluid and realistic the face animations will be. In our case, this feature allowed us not only to move the lips and eyes convincingly, but also to capture certain facial expressions such as the movement of the eyelids and eyebrows.

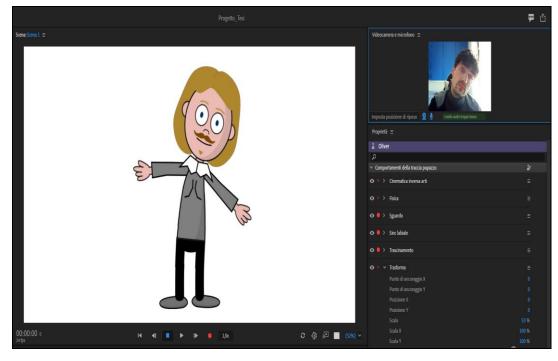


Figure 6 – Adobe Character Animator's motion tracking. It is possible to see how tracking points have been applied to the real model, and how the digital model responds to suggested movements.

This made it possible to make the protagonists of our story "alive" and engaging. In the video they manage to transmit emotions such as fear, anger and happiness (fig.7).

It should be noted that for every single scene in the video, all the protagonists in the field were animated, giving each individual its own set of articulatory and facial movements (whether simple or complex). In some cases, even some elements of the background were animated, such as the birds in the distance or the smoke produced by the fire.

In some cases, the same set of animations was reused for two different scenes, just changing the background, the clothes of the on-screen characters or simply mirroring the whole image.



Figure 7 – In this scene you can see the different expressions of the characters on stage, including fear, anger and happiness.

The whole animation phase took more than two months to produce about ten minutes of product. Obviously, this did not result in a finished video, but only in a few clips, which required additional hours of work in the editing phase and the inclusion of additional animations during this phase.

2. Tools of trade

The editing phase is a delicate moment in the production, as it gives the final shape to the product. The entire work was managed with the aid of Sony Vegas Pro 17, an editor chosen for its flexibility, capable of breaking the usual approach of editing software (source/destination), configuring itself as a tool that works in real time on different audio/video tracks with heterogeneous files. This suited the needs of the project, having different outputs to combine together (e.g. mp4 videos from Adobe Character Animator, png files for drawn and non-animated images, wav audio files).

The editing performed involves three main macro-phases:

• the creation of frame-by-frame animations and transitional animations necessarily handled during this production stage.

• the actual editing stage, in which the animated scenes already rendered by Adobe Character Animator are ordered, making the necessary cuts to their length.

• the creation of transitions to link different scenes together.

• the audio production and mixing phase, during which the necessary sounds are researched and produced and the voice-over narration is recorded.

In the first phase, all animations not created with Adobe Character Animator are handled, but rather created frame by frame. To better understand the process, take Salvetti's hand and the animated maps as examples. Both elements were drawn with Adobe Illustrator, trying to create them with a style and colours that blended well with the rest of the animations. In the case of Salvetti's hand, what is seen on the video is nothing more than the sum of three distinct images, an arm with a pen, the writing and a sheet of paper, moved frame by frame for the entirety of the screen time (fig. 8-9). These were placed in that order, and frame after frame (each second of video is 25 frames), the arm was moved by a few pixels, leaving the paper as a static background, while the writing had a mask applied to it, which made it appear by following the movement of the pen frame by frame.

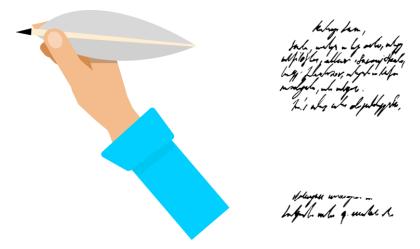


Figure 8-9 – The drawing of the hand and the handwriting. Note that the hand appears in the video at varying angles and zooms in order to simulate movement.

As for the countless maps in the video, they were animated in a very traditional way, by creating a different draw for each frame and quickly putting them in succession during editing. The movements that the camera makes on the map are the result of a digital zoom added during the editing phase, simplifying and considerably reducing the work (fig.10).

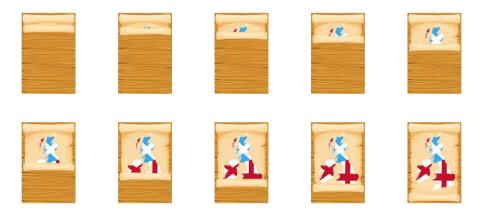


Figure 10 – The frames that compose the animation of the opening map.

Another example are the simple fires that appear on the already mentioned maps to indicate the beginning of a battle. The animation in question is made up of two frames, consisting in the same drawing simply mirrored and repeated for a set period of time, in order to give the illusion of a burning fire.

Once the animation was obtained (fig.11), it was placed on the video track in question. Since the image has a level of transparency, during the editing phase it was possible to obtain the effect that the fire was present above the map.

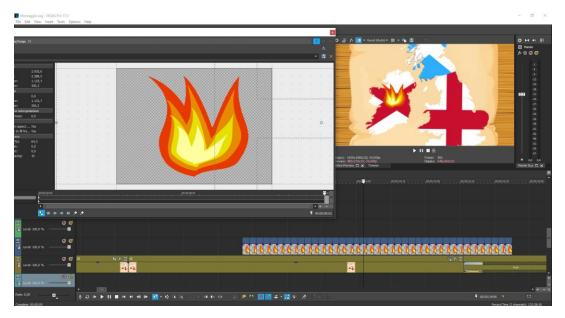


Figure 11 – On the left you can see the frame of the fire, while below, on the timeline, the alternating repetition of the same so as to give the illusion that the fire is alive.

Once all these animations had been created, the actual editing phase took place, in which all the animations were arranged in such a way as to form a meaningful narrative with a well-defined order.

It was often necessary to repeat cuts and adjustments in the length of the animations because during the audio editing phase there was a need to synchronise an audio that was perhaps too short in duration compared to the video. It should be stressed that, despite its apparent simplicity, this phase defined the real appearance of the final product, generating the actual 'timeline' of the video.

Focusing on the third point of our montage, we dealt with the transitions seen in the video. These were created using the pool of choices that the editing software provides for the user. The choice was not random, but an attempt was made to make each transition as coherent and 'smooth' as possible. For example, when we have Salvetti's hand writing (fig.12), a transition simulating the flip of a page has been used to create a sense of coherence and continuation between two different scenes (fig.13).



Figure 12-13 – he two frames clearly show off the 'page' style transition described above.

Once these three phases had been completed, the video was practically complete on the visual level. The audio section had to be included, as there were no ambient sounds or a voiceover narrating the events. The audio editing phase was considerably complicated, as open-source audio libraries containing the necessary environmental sounds are not easy to find. In this case, sounds from the OpenAL⁵² software library were used, while others were downloaded from freesound.org⁵³. These were modified in the editing phase in order to obtain, as in the battle scenes, a convincing and not too invasive ambient sound, so as to avoid covering the narration.

The narration was realised with the help of Audacity, an open-source software with which it is possible to act directly on the recorded material to improve its quality and apply a series of effects or make corrections.

In the end, the sum of all these operations results in the final product, which needs to be rendered. In this case an mp4 format with full hd

⁵² https://www.openal.org/, page accessed on: 22/02/2022

⁵³ https://www.freesound.org/, page accessed on: 22/02/2022

resolution has been chosen, which is well suited in terms of size and quality to uploading onto online streaming platforms.

CHAPTER III

INSTRUCTIONS FOR ACADEMICS

SUMMARY: 1. Stats for nerds – 2. Into the World Wide Web

1. Stats for nerds

Moving into the field of the 'traditional' Digital Humanities, as previously mentioned, a series of analyses were performed on the examined documents. They are well suited for XML schematisation and econding thanks to the rigid structure with which Salvetti composes the *avvisi*. In fact, after my work of transcription and encoding in XML during my internship at the Euronews Project, I thought of how to use this documentation to show a methodology that would allow the valorisation of otherwise unused documents. The idea was to make these *avvisi* useful in order to obtain quantitative and qualitative information that would be impossible to collect "manually" on such a large scale.

All the documentation has been encoded with an XML standard that I have designed, different from the one decided by Euronews. This made it possible to perform three macro-analyses:

• A social network analysis of the characters in the 1641 documentation.

• A sentiment and emotion analysis of the *avvisi* over a period of several years.

• A series of quantitative analyses of certain elements of the avvisi, such as the mentioned places and the used language in different samples.

Starting with social network analysis, this was made possible thanks to the creation of the *<newsactor>* tag, which was previously absent from the original XML. This, applied to each news item in the *avvisi*, allows to mark the characters involved.

This allowed me to link the characters to the news only when they act or undergo an action within the narrated episode. The operation was tricky, because it was not uncommon to find narratives in which characters who seemed to play a concrete role were mentioned, but in the end they turned out to be completely marginal or just mentioned. Another issue were the unidentified characters. Infact, the lack of information did not allow me to recognise them. One example are the ambassadors and army captains without names in the documentation. This tag made it possible to mark the main actors in order to perform the social network analysis⁵⁴.

I have defined the principle that when different actors are present in a news, they are linked together. The overall linkage framework, using the adhoc created python script⁵⁵, allows us to visualise how all actors are linked together across the entire news corpus under consideration.

The result reveals a well-defined network in which it is possible to see the existence of clusters of actors that predict the factions that will form with the outbreak of the subsequent civil war. In fact, it is clearly shown how the King and the Parliament constitute two poles of attraction for other actors, how some of these are only connected to one of the two, and above all how both poles have a quantitatively higher number of connections, a sign of great importance inside the network.

This simple graphic representation allows us to anticipate what has been done next, namely a series of analyses dedicated to the social network. (fig. 14).

⁵⁴ For an in-depth study of the topic read Xiaoming Fu, Jar-Der Luo, Margarete Boos, *Social Network Analysis: Interdisciplinary approches and case studies*, Boca Raton, CRC Press, 2017, pp. vii-viii.

⁵⁵ The code is available at the link: <u>www.newsfromsalvetti.eu</u>, page accessed on 02/05/2022.

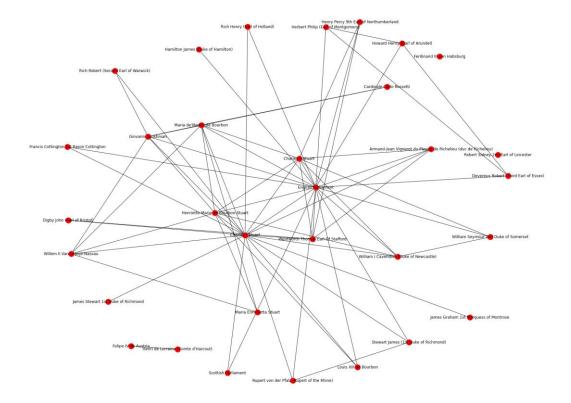


Figure 14 – The social network graph obtained from the documentation. The central nodes correspond to King Charles I and the English Parliament.

The graph shows each character (node) as a red circle, while the links (edges) with the other characters are described by the use of straight lines connecting the two nodes. At first glance, the graph shows that some nodes have more links than others, reflecting their greater importance and recurrence in the documentation. Similarly, it is also possible to see clusters of characters that are partially disconnected from the whole and connected only by a node to the rest of the network.

The first analysis I carried out consisted into measuring the density of the network. This concerns the level of effective exchange between individual nodes. Translated into the reality of things, this indicator allows us to understand how many connections are needed to get from a specific node (character) to another one. The more connections are needed, the less effective the connections are. The density result returned to us is a number and in our network it is 0.13709677419354838. The reference scale is the range of numbers between 0 (a network with no connection between nodes) and 1 (a network where each node is connected to the other and therefore perfectly connected). In our case, the result is low, indicating a low efficiency of connections (which confirms the fact that there are main nodes (characters) through which the other nodes must interface in order to come into "contact" with the rest of the actors). Despite this, the index is quite far from zero, thus indicating the presence of some well connected nodes.

The second analysis performed was the calculation of degree centrality, which is a simple measure that counts how many neighbours a node has. Translated into reality it is possible to state that «a node is important if it has many neighbours, or, in the directed case, if there are many other nodes that link to it, or if it links to many other nodes»⁵⁶. In the case of our analysis, this gives us the most important and most connected characters in our network. The result confirms the historical analysis. In Salvetti's news, the King and the Parliament play a central role, with a large number of nodes (characters) directly connected to them. This index is also calculated on a scale of 0 to 1 and for the nodes examined we had values of 0.61 and 0.65.

Following on from what was done previously, I then proceeded to analyse the closeness centrality coefficient of each node (character). This index allows us to understand which nodes have the ability to contact others efficiently (directly).

As before, the result confirms the hypothesis that the King and the English Parliament are the main nodes in this network. Infact, on a scale of 0 to 1, they had 0.67 and 0.69 each other, indicating their importance in terms of connections with other nodes (characters).

The last analysis performed on the network is the average clustering coefficient⁵⁷. The index, on a scale of 0 to 1, shows whether nodes within the

⁵⁶ https://www.sci.unich.it/~francesc/teaching/network/degree.html, page accessed on: 22/02/2022.

network are prone to creating cliques (clusters). This actually translates into the presence in our network of clusters of nodes (characters) interconnected and isolated, and then connected by a single relationship with another node outside the clique. The result obtained is 0.6447237886382624, an indicator of a tendency on the part of the nodes to form clusters, which is already visible in the graph and corresponds to the birth of micro-factions that find themselves being directly connected only with one of the main nodes (King and Parliament), validating the hypothesis of the creation of royalist and parlamentarian factions.

The second macro-analysis was focused on a larger documentary corpus with the purpose of performing a sentiment and emotion analysis of the *avvisi* during the years: 1641-1642-1643.

Before proceeding further, it is necessary to briefly explain what is meant by emotion and sentiment analysis⁵⁸. They both belong to the field of natural language processing and deal with the identification and extraction of opinions and feelings from the text under examination. This is possible through techniques such as keyword spotting, lexical affinity search and the training of specific systems through machine learning⁵⁹.

In the case of this research, we proceeded to use FEEL-IT, a Python library that computes Emotion and Sentiment Analysis thanks to artificial intelligence 'trained' on existing Italian corpora⁶⁰. About the emotion analysis, the library used is able to identify four basic emotions in texts (anger, fear, joy and sadness), while the sentiment computes the positivity or

⁵⁸For more information read Federico Alberto Pozzi, Elisabetta Fersini, Enza Messina, Bing Liu, *Sentiment Analysis in Social Networks*, Cambridge, Elsevier, 2017, chapter I.

⁵⁹Erik Cambria, Björn Schuller, Yunqing Xia, Catherine Havasi, *New Avenues in Opinion Mining and Sentiment Analysis*, in *IEEE Intelligent Systems*, vol. 28, n. 2, Washington, IEEE Computer Society, 2013, pp. 15–21

⁶⁰Federico Bianchi, Debora Nozza, Dirk Hovy, *FEEL-IT: Emotion and Sentiment Classification for the Italian Language*, in *Proceedings of the Eleventh Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis*, online, Association for Computational Linguistics, 2021, pp. 76–83.

negativity of the sentiments into the text, not including neutrality, which is present in many libraries that perform the same analysis in English⁶¹.

The choice of this type of analysis led me to a number of problems which need to be explained in order to avoid any misunderstanding of the obtained results.

• - The first obstacle is the documentation itself: the years taken into account do not all have the same number of *avvisi*, and in some cases there is a substantial difference between them. This, when analysing the year as a whole, can create discrepancies in cases where there may be a very small number of *avvisi* transcribed and coded, leaving out of the analysis the unfinished majority. This results in the possibility of attributing to the specific year a result which could differ if the analysis will be repeated with the finished documentation. It should be noted, therefore, that the proposed results are exclusive of the documentation examined.

• The second issue was the language in which the *avvisi* were written, a non-standard Italian. It took several tests to ascertain that the library actually gave reliable results even with non-standard Italian. I checked a series of *avvisi*, (from those that had language closer to standard Italian to others that contained a lot of old words) that the emotions and feelings detected by the library were genuine. The results were highly satisfactory and I therefore decided to go ahead. Obviously, as with any similar analysis, there is always a tolerable percentage of errors made by the machine when faced with expressions that may be ambiguous and/or complex as in the case of negations that have the value of truth.

• The third issue is human error in the transcription and codification of documents. This has been taken into account and seen as tolerable, as well as unavoidable.

⁶¹ For data on the accuracy of the library, see the article above.

• The last point to be clarified is the presentation of the results, which refer in percentile to the total number of news items contained in the total number of *avvisi* in each year. To each *avviso*, the software assigned a feeling and an emotion based on the text contained, the sum of which then generated the pie chart, expressing the percentages of presence of these feelings in relation to the individual year.

Once the issues have been set out, I will now proceed to show the results year by year.

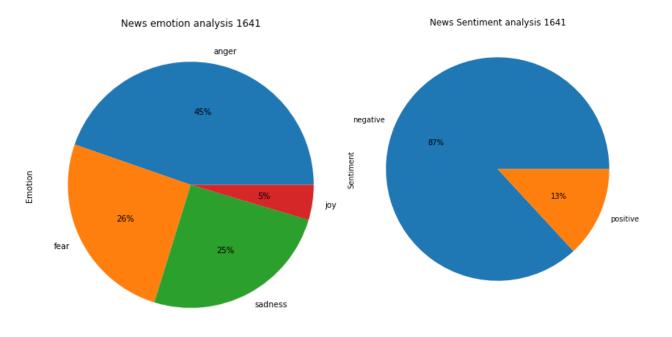


Figure 15-16 – Pie charts referring to emotion and sentiment analysis done on 1641 documentation.

Analysing this first graph referring to 1641, it is possible to see that the majority of the *avvisi* are characterised by fear and anger, followed by sadness and a small amount of joy. The result is in line with the sentiment analysis, in which a majority of negative sentiments were found within the 1641 news. The results are in line with what is written in the *avvisi* and what we know about the situation in England during that year. In fact, the year opened with the Parliament's search for those responsible for supposed plots

against the King and religion. The question seemed to be resolved with the execution of Thomas Wentworth, Viceroy of Ireland, and the beginning of the intensification of the Anglican "persecution" of the Catholics. Towards the end of the year, a conflict breaks out in Ireland, which at first creates great difficulties for the British crown.

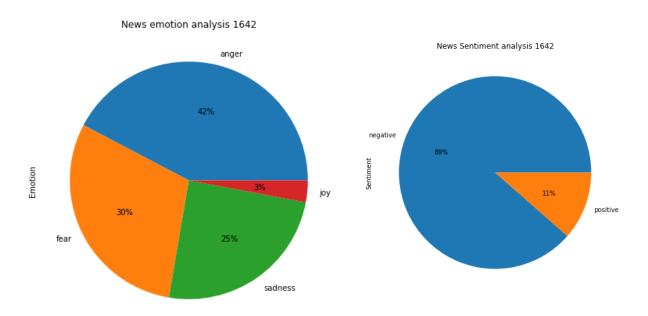


Figure 17-18 – Pie charts referring to emotion and sentiment analysis done on 1642 documentation.

The situation in 1642 is very similar: anger still qualifies as the dominant feeling, followed by fear which, compared to the previous year, slightly increases. Sadness remains unchanged, while the number of *avvisi* reporting joyful events decreases. The graphs reflect well the situation of this year, which was characterised by friction between the Parliament and King Charles I. These intensified, especially around August of the same year, degenerating into an open conflict known as 'the First English Civil War'. Moreover, the year opened with the closing stages of the Irish conflict, of which our writer provides some rather bloody reports.

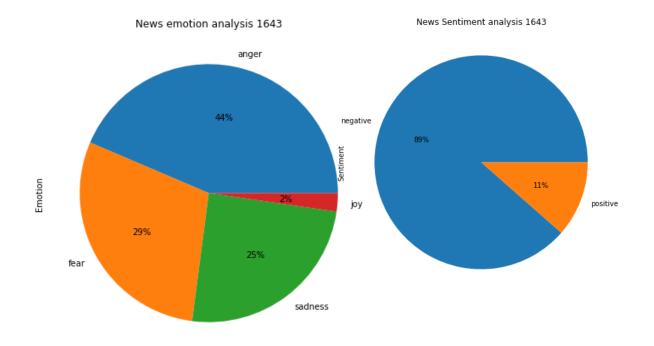


Figure 19-20 – Pie charts referring to emotion and sentiment analysis done on 1643 documentation.

For the first year of the civil war (1643), the situation appears almost unchanged from the previous one, reflecting a war that leaves room only for negative feelings that are reflected in the documentation. The gradual fading of the joy in the news can be observed. It is possible to deduce, having read the examined documentation, that the negativity is dictated precisely by the kind of news Salvetti reports, namely his continuous concern for the monarchical order and for the Catholics of the kingdom who are constantly harassed. About the positive news it is possible that these refer to the numerous battles won by the royalist party during 1643.

Regarding the conclusions of this analysis, it is possible to affirm that the results obtained fit in very well with what was reported in the documentation during the narrative period considered. The atmosphere of uncertainty, war and changes that prevailed in those years are greatly reported by Salvetti and is well represented here by the graphs above. However, there is a lack of, and consequent need for, tools that can carry out this kind of analysis on such

complex documentation. This problem can already be seen in the lack of resources for standard Italian, which is exacerbated in an exasperating manner for ancient Italian.

The last part of the studies on the documentation focuses on collecting quantitative data on the following elements:

1. The creation of wordclouds for *avvisi* ranging from 1641 to 1643 with the aim of identifying the most recurrent words in the texts, in order to see if they can in any way summarise the main features of the events that took place in those years.

2. Understand the topics dealt within the documentation (years 1641-1642-1643), presenting the results in percentiles.

3. To obtain a map and count of the places mentioned in the *avvisi* concerning 1641.

Starting with the first point, the aim is to create wordclouds which turn out to be representations that are easy for the final user to understand. These allow the most frequently used words in a text to be identified at a glance, thanks to an image that places the most frequently repeated words in a larger font and the least frequently used words in a smaller font.

The work was always done via the python script I created with the integration of the wordcloud library⁶². The script has counted the most frequent terms for each year, obviously eliminating all the so-called 'stop words', in other words those terms that are not related to the specific subject matter in a text, such as conjunctions or articles.

⁶² For more information on the library visit: <u>https://github.com/amueller/word_cloud</u>, page accessed on 22/02/2022.

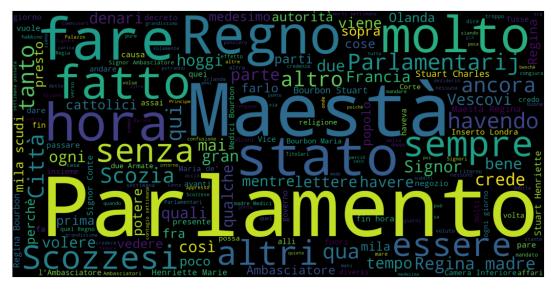


Figure 21 – Wordcloud of the news contained in the corpus of 1641.

For the year 1641 it can be seen that the most frequently used terms were *Parlamento*, *Maestà*, *Regno* and *Stato*. These words fit well with the situation in England, with Parliament engaged in restricting the king's powers in every way through a series of excuses, such as a constant search for conspiracies. Moreover, the first two words immediately make us understand who the main actors of Salvetti's *avvisi* are.



Figure 22 – Wordcloud of the news contained in the corpus of 1642.

With the arrival of 1642 and the outbreak of the civil war, the protagonists of our *avvisi* remain *Parlamento* and the Maestà, with the word '*città*', a term

Salvetti uses to refer to the citizenship of London⁶³. Thus it is clear here that the conflict also involves the people of London, who in the year in question were hostile to the King and loyal to the Parliamentarians.



Figure 23 – Wordcloud of the news contained in the corpus of 1643.

The wordcloud of 1643 also proves to be in line with the previous two, so it is worth spending a few words on the secondary ones that appear as *accomodamento*, *Oxonoia* and *esercito*. For obvious reasons, *esercito* becomes more and more frequent as the fighting in the field intensifies in 1643⁶⁴. The word *Oxonia* is the term Salvetti uses for the city of Oxford, the King's seat at that time, indicating that many of these *avvisi* contain information about the state of affairs at the new royal seat. Lastly, the term *accomodamento* links well with *Oxonia*, as the first is used by Salvetti to describe Parliamentary attempts to reach peace with the King, and these very often consisted of sending delegations to Oxford.

So, interpreting these graphs with the eyes of someone who has never read the documents, it is reasonable to say that they allow us to identify at least the two main actors of the events. They prove to be most profitable

⁶³ ASF, MdP, 4201, f. 220 r., MAP, doc. 53055.

⁶⁴ Tristram Hunt, The English Civil War at First Hand, pp. 180-189.

when the user knows the historical events and the documentation contents, allowing the user to make correlations.

In conclusion, it would be interesting to compare these wordclouds with others generated through *avvisi* written by Salvetti prior to the period of conflict between King and Parliament, in order to understand if the subject matter and protagonists of his *avvisi* turn out to be the same.

Focusing on the second analysis proposed, this has the task of extracting from the documentation the topics contained in the single news items of the *avvisi* concerning the years 1641-1642-1643, with the aim of understanding their general composition. This was accomplished with the help of the python script that I created ad hoc. It should be pointed out that it is possible to have more than one topic for each news item, as facts are reported that are often not limited to one topic. The list of the latter was compiled by the Euronews Project and consists of: commerce, culture, diplomacy, dynasty, government, health, law and order, military, movement, natural events, politics, religion.

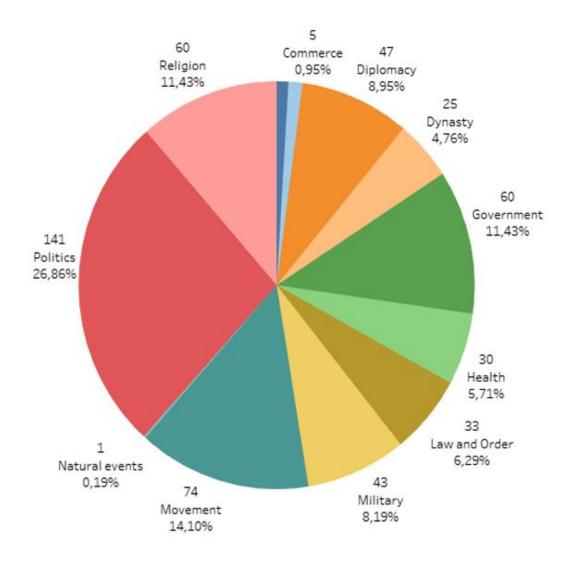


Figure 24 – Results on percentage topic count contained in news items from 1641.

From the pie chart produced by the script (fig. 24), it can be seen that the majority of news items are of a political nature, followed by news about movement, government and religion.

These results fit in perfectly with the historical situation of the year under consideration (1641), and it is also possible to deduce that Salvetti's interests in communicating with his Grand Duke were mainly political and diplomatic, which is justifiable given the relationship that the Tuscan state had with the English crown. With the year 1642 things look different (fig. 25). The outbreak of war saw a substantial increase not only in the amount of news sent in the *avvisi*, but also in the political, military, and governmental topics⁶⁵. This shows an increase of work by the Parliament and the King in proceeding with recruitments, battles, government decisions and hostile or unfriendly political acts.

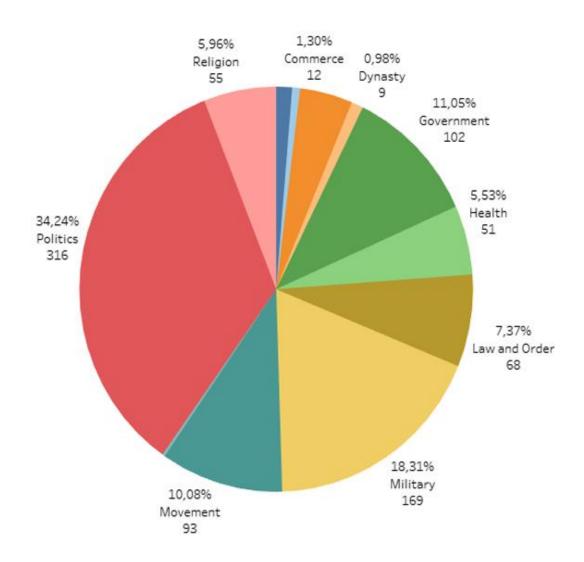
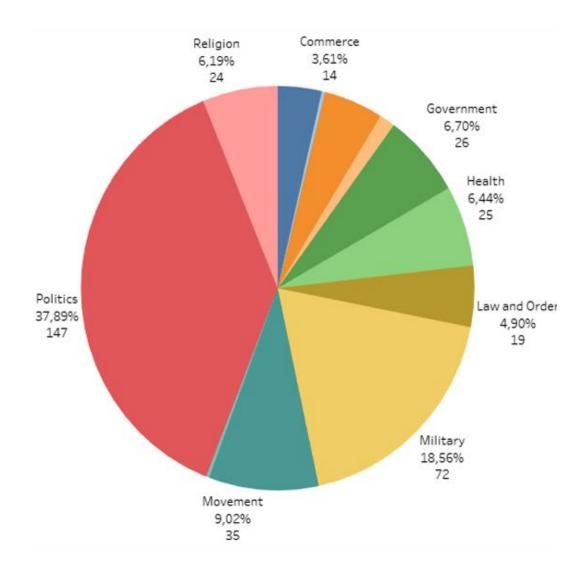
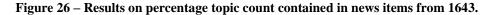


Figure 25 – Results on percentage topic count contained in news items from 1642.

⁶⁵ Ibid., pp 162-170.

In 1643 (fig. 26), the situation was similar to the previous year, since the war continued to rage within the kingdom. The news concerning politics and military aspects still constitute the majority of those reported by Salvetti.





In conclusion, it is also worth noting that although they make up a minority part of our graphs, religious news items are always present and maintain a constant percentage throughout the years analysed, proving that conflicts and frictions within the English kingdom fed and were fed by religious disagreements. Salvetti captures and reports them because they are against the Catholic minority, the same religious group the writer and the Grand Duke belong to and are therefore felt more keenly.

The last point of this quantitative analysis deals with the geographical origin of the news in Salvetti's *avvisi* for the year 1641. The purpose is not only to show a graph with the related data, but to transpose the data on a map in order to provide a spatial visualisation. Again, just like topics, each news item can have several tags concerning the places where the event takes place.

Similarly to what was done before, the locations of the individual news items were extracted from the XML files using the ad hoc created script. Afterwards I counted the total number of places and their proportions to create the graph presented here (fig.27).

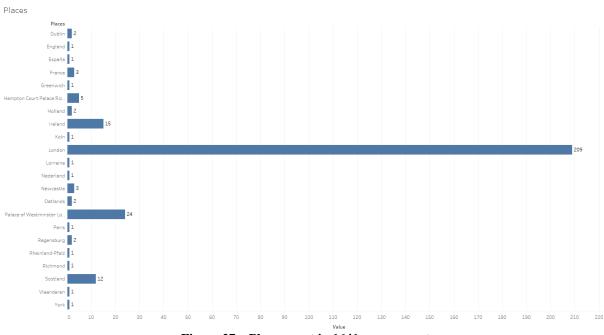


Figure 27 – Place count in 1641 news reports.

It is clear that the majority of news items are from London, followed by those coming directly from the London Parliament, from Ireland and lastly from Scotland.

These results clearly describe three events that took place in the year in question: firstly, the continuous workings of an important capital like London and above all the increasingly precarious relationship between the Parliament and the King, who end up being the protagonists of almost all the news. Secondly, news from Ireland reminds us that a revolt broke out on the island towards the end of 1642, which was only partially suppressed in blood in the following year. Lastly, the significant amount of news from Scotland shows us not only the problem of the Scottish army stationed in English territories since the so-called 'Bishops' Wars' waiting for war pay, but also the weight that the Scottish Parliament is beginning to gain in the war matters between the King and the Parliament in London.

In fig. 28 you will find the spatial representation of the places mentioned within the news on a national basis with related data.



Figure 28 – Map of places mentioned in the news of 1641.

2. Into the Word Wide Web

The last stage of this report explains how the whole project came to the public through the creation of a one-page website⁶⁶. This was achieved in stages, as follows:

- The decision of which and how many elements should be showed and in which order.
- The creation of the site's wireframes in order to obtain a product that provides an optimal user experience⁶⁷.
- The search for a free hosting that would also allow to connect a sql database to install the Wordpress CMS.
- The actual creation of the site using the Wordpress CMS.
- The creation of graphics and content to be inserted on the pages.

For the first point I decided that the centre of the whole experience should be the video, to which information about the documentation used was appended. Therefore, these elements were placed on the top of the page, followed by general information about the project, the results achieved and access to the python's script code.

After that I drew the wireframes (prototype) of the site on paper. This operation is very important because it allows me to understand how to organise the elements of the page in order to achieve an optimal user experience. In the creation of my wireframes, I have tried to take into account the so-called Eight Golden Rules of Interface Design⁶⁸. The purpose, as with the video, was to create a website that would be user-friendly and accessible to all, trying to take into account the principle of usability⁶⁹.

⁶⁶ Thomas Cauvin, Public History: A textbook for pratice, pp. 198-199.

⁶⁷ Ben Shneiderman, Catherine Plaisant, Maxime Cohen, Steven Jacobs, Niklas Elmqvist, *Designing the user interface: strategies for effective human-computer interaction*, Boston, Pearson, 2017, pp. 168-174.

⁶⁸ Ibid., pp. 95-115.

⁶⁹ Ibid., pp. 126-141, 149-155.

Next, I looked for a hosting service and ended up selecting altervista.org. The latter not only provides free hosting and a database, but also a free domain.

Once registered, I installed Wordpress in the host space obtained. I chose this CMS first of all because it is open source and therefore free, it is also easy to use and above all, I worked with it for several years and I know all its functions extensively⁷⁰. This made my job a lot easier, because once installed and connected with the database, it took only three hours to get the site to an almost final version.

The last step involved the creation of the project graphics and the insertion of the contents in the page. For the graphics, the logo for the project was created using Adobe Illustrator and Adobe Photoshop, combining a vector drawing of a pen with a public domain portrait of Charles I Stuart. Obviously, the creation process was not straightforward, as in the images below (fig. 29-30). you can see a discarded draft compared with the final version of the logo.



Figures 28-29 – Left: an initial version of the logo. Right: the final version.

Once the site had been completed, all the necessary tests were carried out with a series of users who assessed above all the accessibility and immediacy of navigation, given that the product is intended to be

⁷⁰ In computer science, a content management system (CMS) is a software tool installed on a web server, whose task is to facilitate the management of website content, freeing the webmaster from specific technical knowledge of web programming.

something that can be consulted by the widest possible range of users without creating a bad browsing experience.

CONCLUSION

As I mentioned in the introduction, the aim of this work is to create an effective synthesis between the academic and the public worlds, between analogue and digital archives, between past and present, with the intention of generating a hybrid product between public history and the digital humanities.

This document was intended to provide explanatory support to anyone wishing to explore how the various stages of the work were approached and what problems and results were achieved. Once again, the entire project is intended as a beacon that illuminates the thousands of possibilities that documentation offers us through the use of methodology tested over a longer period of time and with the help of a wider, interdisciplinary team.

First of all, the combination of public history and digital humanities in this product is extremely successful. The documentation has been enhanced to the maximum by both disciplines, while they both need each other in order to achieve the outputs proposed there. Just considering the video, whose citations were only included thanks to the documentation, which was reached through the digital archive platform of the Medici Archive Project (MIA).

In the second instance, going back to the documentation, this was not considered simply as a source of information that was pedestrian to the narrative, but through encoding and subsequent analysis perpetrated with the help of the python script used it was possible to obtain results in the linguistic, statistical and social network analysis fields. It must be emphasised that these results would not have been achieved without the whole range of tools provided by the digital humanities, so if I had limited myself to using documentation only as a support for the narrative, these elements would have been lost. The third and final 'result' is the enormous educational advancement I have achieved thanks to the work presented here. Although some of the knowledge used to create this product was already in my possession, it should be noted that in many cases it was necessary to learn how to use new software (as in the case of Adobe Character Animator) or to improve existing knowledge, as in the case of the Python programming language. Even though these results are not strictly related to the final product, they should be taken into account as they add value to the thesis work, which not only served the purpose of presenting its own work, but also enriched the knowledge of the presenter.

APPENDIX

Note to the text.

The following transcription of the manuscript documents used for this paper presents loose abbreviations, corrections of a spelling nature, proper accents and capitalization and punctuation according to modern usage for a better understanding of the text. Any imperfections or distortions have been left intact only when they do not affect the meaning of the phrase. Additions, difficult or doubtful readings and gaps in the text with possible reconstruction have been placed in square brackets.

Archivio di Stato di Firenze, Mediceo del Principato, 4021, f. 343 v., Medici Archive Project, doc. 53155.

Doppo il ritorno del Conte di Holanda con la accennata risposta del Re, non si è più trattato d'aggiustamento, anzi tutti tende ad una guerra ben crudele ognuno preparandosi con armi et con altro alla difesa et offesa. Le truppe del Parlamento cominciono a marciare verso le parti settentrionali per opporsi a quelle del Re, che, come dicono s'avvanzavano per qua et per quanto qui si divulga, commettevano molte insolenze come fanno anche ne contorni di Londra quelle del Parlamento.

Archivio di Stato di Firenze, Mediceo del Principato, 4021, f. 63 r., Medici Archive Project, doc. 52902.

Le cose continuano di male in peggio, et sempre con molta perdita del Re et Regina ridoti oggi alla disposizione del Parlamento dal quale vengono regolati in tutto et per tutto senza nessuna contradizione et pure che ha passino più avanti come se ne dubita grandemente.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f.19 v., Medici Archive Project, doc. 52888.

Questo Ambasciatore di Spagna riceve ogni giorno qualche affronto da questo popolaccio, fino al minacciarlo di abbraciarli la sua casa, non per altro che per essere buon cattolico, et havere ricoverato nella sua casa alcuni religiosi. Se ne sta su la sua guardia poichè di rimediarvi per la via solita di doglienza sarebbe in vano, non essendoci più obbedienza.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 32 r. – f. 33 v., Medici Archive Project, doc. 52892.

Doppo la morte del Vice Re d'Irlanda tutto il pensiero del Parlamento fu applicato nel fare esaminare diversi, et in particolare uffiziali dell'Armata Regia, con la quale si vuole, che quei sei gentilhomini, (fuggiti la settimana passata), havessero havuto intelligenza per fare avvanzare in questa parti tutta l'armata, et con essa tenere in timore tutto il Parlamento, et in conseguenza salvare il Vice Re. [...] L'universale non parla d'altro, che di questa congiura facendola una delle più grandi che sia mai stata da un tempo in qua, et fa quanto può mai per annestarvi anche questi poveri cattolici, per havere maggiormente occasione di rovinarli, ancor che innocentissimi.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 400 r., Medici Archive Project, doc. 53624.

Finalmente le due armate si sono azzuffate et battute molto fieramente. L'avviso si dette qui martedì passato di buon hora come domenica passata a due di questo, l'esercito Parlamentario comandato dal conte d'Essex attaccò il regio su le due hore doppo mezzo giorno, et come la battaglia duro sin alla notte, che li separò fin ad hora non ne va attorno la relazione, et i diversi discorsi sono vari che malamente se ne può sapere le peculiarità. Accennerò dunque quel che se ne sente.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 115 v., Medici Archive Project, doc. 52940.

A pochi avvisi, poche righe. Non habbiamo né Corte, né Parlamento et tutto il mondo fuori alla campagna. Tutto quello che si può accennare, e, che l'ultimo giorno del Parlamento furno nella Camera Superiore grandi divisioni, e, contrasti. Una parte di quei signori voleva la confermatione del libro delle preghiere, è, l'altro no. Si che la prima ne fece l'atto, et la segonda gli protestò contro, non la pretendendo materia da trattarsi di voto. D'altro canto, la Camera Inferiore ha proibite diverse cerimonie pretese essere state introdutte nella lor chiesa, ben che antica, et stabilite fin quando cabiorno di religione et n'ha fatto stampare l'ordine, acciò sia osservato, stando in sustanza alla Ginevrina. Il popolo ne mostra gran contento, et con la sua solita insolenza li fa esseguire con minaccie, fin al mettere mano lui stesso al demolire altari, pitture, et altri ch'habbia punto di similitudine alle chiese cattoliche. Tutto si riduce a confusione, ne si sà vedere rimedio, havendo il popolo preso tanto ardire, che come hora senza freno et fa tutto quello che vuole.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 495 r., Medici Archive Project, doc. 54088.

Doppo tanti giorni di consulte risolvette finalmente il Parlamento di mandare dal Re i suoi deputati con le condizioni con le quali intendeva che si concludesse la sospensione d'armi, et conseguentemente s'entrasse nel trattato d'accomodamento. I deputati dovevano essere sei, ma, come s'accennò, havendo il Re negato di ammettere alla sua presenza il Visconte Saj, si contentò il Parlamento di mandare gli altri cinque, cioè il Conte di Northumberland per la Camera Superiore, et quattro gentilhuomini per la Inferiore.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 592 r., Medici Archive Project, doc. 54619.

Il Re trova più ostinazione negli assedi della città di Glocester di quelli li fu fatto credere quando ci andrò ad assediarla. Il Parlamento vi ha di qua spinto il Generale Essex col suo esercito per soccorrerla, il quale deve a quest'hora esservi gionto, se però non si sia fermato per strada ad assediare la Regina in Oxonia, et in questo modo necessitare il Re di abbandonare questo assedio per venire a soccorrere questo, di che se ne attende di sentire ben presto la certezza.

Archivio di Stato di Firenze, Mediceo del Principato 4201, f. 915 r., Medici Archive Project, doc. 54690.

Questo è l'ottavo giorno del Congresso di Uxbridge, senza che habbi fin ad hora fatto altro, che riconoscere scambievolmente le Commissioni de Commissari, nelle quali havendo trovato qual che difetto, è, bisognato correggerle, anzi che potessero dare principio al trattato di pace, asserendo i Parlamentari che in quella de Realisti non veniva il Parlamento riconosciuto come conveniva, et i Realisti, che l'autorità di trattare siando data a tutti i sedici unitamente et quelli mancandovene uno, che restò ammalato, non potessero gli altri quindi fare cosa che fusse valida, onde convenne mandare a Oxonia per correggere la Regia, et qua la Parlamentare.

BIBLIOGRAPHY

Ben Shneiderman, Catherine Plaisant, Maxime Cohen, Steven Jacobs, Niklas Elmqvist, *Designing the user interface: strategies for effective human-computer interaction*, Boston, Pearson, 2017.

Brain Wood, *Adobe Illustrator CC Classroom in a book*, San Jose, Adobe Press, 2018.

Federico Alberto Pozzi, Elisabetta Fersini, Enza Messina, Bing Liu, Sentiment Analysis in Social Networks, Cambridge, Elsevier, 2017.

Federico Bianchi, Debora Nozza, Dirk Hovy, FEEL-IT: Emotion and Sentiment Classification for the Italian Language, in Proceedings of the Eleventh Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis, online, Association for Computational Linguistics, 2021.

Erik Cambria, Björn Schuller, Yunqing Xia, Catherine Havasi, New Avenues in Opinion Mining and Sentiment Analysis, in IEEE Intelligent Systems, vol. 28, n. 2, Washington, IEEE Computer Society, 2013.

James Scott Wheeler, *The Irish and British Wars*, 1637-1654. *Triumph, Tragedy, and Failture*, London-New York, Routledge, 2002.

Jason McHugh, *The North Gentry and the Rebellion of 1641*, in *The Past: The organ of the Uì Cinsealaigh Historical Society*, No. 24 (2003), Dublin, Uì Cinesealaigh Historical Society, 2003.

James Matusiak, *James I: Scotland's King of England, Cheltenham*, The History Press, 2015, pp. 112-113.

Michael Braddick, *God's Fury, England's Fire: a new history of English Civil Wars*, London, Penguin Global, 2009.

Pauline Gregg, King Charles I, London, Phoenix Press, 2001.

Robert Edmund Elkin, *The interactions between the Irish rebellion and the English Civil Wars*, Urbana, University of Illinois at Urbana-Champaign, 1961.

Roland H. Bainton, La Riforma Protestante, Turin, Einaudi, 2000.

Stefano Villani, Per la progettata edizione della corrispondenza dei rappresentanti toscani a Londra: Amerigo Salvetti e Giovanni Salvetti Antelminelli durante il "commonwealth" e il Protettorato (1649-1660), in Archivio Storico Italiano, Vol. 162, No. 1 (gennuary-march 2004), Verone, Casa Editrice Leo S. Olschki s.r.l., 2004.

Thomas Cauvin, Public History: *A textbook for pratice*, London, Routledge, 2016

Tristram Hunt, *The English Civil War at First Hand*, London, Penguin Books Ltd., 2015.

Xiaoming Fu, Jar-Der Luo, Margarete Boos, Social Network Analysis: Interdisciplinary approches and case studies, Boca Raton, CRC Press, 2017.

MANUSCRIPT SOURCES

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 451 v.-454

- r., Medici Archive Project, doc. 54082.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 657 v.-570 r., Medici Archive Project, doc. 54613.
 - Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 537 v.- 540
- r., Medici Archive Project, doc. 54607. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 591 v.-593
- r., Medici Archive Project, doc. 54619. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 595 v.-598
- r., Medici Archive Project, doc. 54620. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 366 v.-369
- r., Medici Archive Project, doc. 53503. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 363 v.-366
- r., Medici Archive Project, doc. 53502. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 385 v.-387
- r., Medici Archive Project, doc. 53506.
 - Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 374 v.-376
- r., Medici Archive Project, doc. 53505.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 400 v.-401

- r., Medici Archive Project, doc. 53624.Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 309 v.-310
- r., Medici Archive Project, doc. 53120. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 320 v.-321
- r., Medici Archive Project, doc. 53141. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 418 v.-419
- r., Medici Archive Project, doc. 53633.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 115 v.-118 r., Medici Archive Project, doc. 52940.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 410 v.-411 r., Medici Archive Project, doc. 53626.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 7 v.-9 r., Medici Archive Project, doc. 52882.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 93 v.-96 r., Medici Archive Project, doc. 52930.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 247 v.-248 r., Medici Archive Project, doc. 53065.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 26 v.-29 r., Medici Archive Project, doc. 52890.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 11 v.-14 r., Medici Archive Project, doc. 52884.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 435 v.-436

r., Medici Archive Project, doc. 54077.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 525 v.-526

r., Medici Archive Project, doc. 54095.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 444 v.-445

r., Medici Archive Project, doc. 54080.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 9 v.-10

- r., Medici Archive Project, doc. 53571. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 459 v.-460
- r., Medici Archive Project, doc. 54083.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 474 v.-475

r., Medici Archive Project, doc. 54084.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 11 v.-12 r., Medici Archive Project, doc. 53572. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 437 v.-437 r., Medici Archive Project, doc. 54078.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 448 v.-449

- r., Medici Archive Project, doc. 54081.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 516 v.-517
- r., Medici Archive Project, doc. 54093. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 478 v.-479
- r., Medici Archive Project, doc. 54085.Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 428 v.-429
- r., Medici Archive Project, doc. 53635. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 499 v.-500
- r., Medici Archive Project, doc. 54089. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 440 v.-441
- r., Medici Archive Project, doc. 54079. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 520 v.-521
- r., Medici Archive Project, doc. 54094.Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 489 v.-490
- r., Medici Archive Project, doc. 54087.
 - Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 415 v.-416
- r., Medici Archive Project, doc. 53627.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 15 v.-

- 16 r., Medici Archive Project, doc. 53580.
 - Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 305 v.-306
- r., Medici Archive Project, doc. 53114.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 325 v.-326

r., Medici Archive Project, doc. 53143.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 331 v.-332

r., Medici Archive Project, doc. 53145.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 289 v.-289 r., Medici Archive Project, doc. 53107.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 3 v.-4

- r., Medici Archive Project, doc. 53568.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 274 v.-276 r., Medici Archive Project, doc. 53102.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 54 v.-57 r., Medici Archive Project, doc. 52900.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 48 v.-52 r., Medici Archive Project, doc. 52898.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 432 v.-432

r., Medici Archive Project, doc. 53636.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 280 v.-281 r., Medici Archive Project, doc. 53104.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 42 v.-45 r., Medici Archive Project, doc. 52896.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 285 v.-286

r., Medici Archive Project, doc. 53106.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 293 v.-294 r., Medici Archive Project, doc. 53109.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 37 v.-40 r., Medici Archive Project, doc. 52894.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 17 v.-22 r., Medici Archive Project, doc. 52888.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 32 v.-35 r., Medici Archive Project, doc. 52892.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 60 v.-63 r., Medici Archive Project, doc. 52902. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 270 v.-271 r., Medici Archive Project, doc. 53100.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 66 v.-70 r., Medici Archive Project, doc. 52906.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 257 v.-259 r., Medici Archive Project, doc. 53068.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 252 v.-253

r., Medici Archive Project, doc. 53066.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 495 v.-496 r., Medici Archive Project, doc. 54088.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 511 v.-512

r., Medici Archive Project, doc. 54092.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 87 v.-92 r., Medici Archive Project, doc. 52922.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 404 v.-405 r., Medici Archive Project, doc. 53625.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 483 v.-484

r., Medici Archive Project, doc. 54086.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 47 v.-50 v., Medici Archive Project, doc. 53584.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 423 v.-424

v., Medici Archive Project, doc. 53634.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 7 r.-8

v., Medici Archive Project, doc. 53570.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 5 r.-6 v., Medici Archive Project, doc. 53569.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 71 v.-76 r., Medici Archive Project, doc. 52917. Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 78 v.-82 r., Medici Archive Project, doc. 52919.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 17 r.-21 v., Medici Archive Project, doc. 53575.

Archivio di Stato di Firenze, Miscellanea Medicea, 255, ins. 12, f. 45 r.-46 v., Medici Archive Project, doc. 54362.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 63 v.-66 r., Medici Archive Project, doc. 52905.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 83 v.-86 r., Medici Archive Project, doc. 52920.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 313 r.-314 r., Medici Archive Project, doc. 53138.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 317 r.-317

r., Medici Archive Project, doc. 53139. di Stato di Firenze, Mediceo del Principato, 4021, f. 343 v., Medici Archive Project, doc. 53155.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 63 r., Medici Archive Project, doc. 52902.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 147 v.-150 r., Medici Archive Project, doc. 52955.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 153 v.-156 r., Medici Archive Project, doc. 52957.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 157 v.-160

r., Medici Archive Project, doc. 52959.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 914 v.-917 r., Medici Archive Project, doc. 54690.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 98 v.-102 r., Medici Archive Project, doc. 52932.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 103 v.-106 r., Medici Archive Project, doc. 52934.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 107 v.-110 r., Medici Archive Project, doc. 52936.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 111 v.-114

- r., Medici Archive Project, doc. 52938.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 123 v.-126
- r., Medici Archive Project, doc. 52944.

Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 129 v.-132

- r., Medici Archive Project, doc. 52947.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 134 v.-136 r., Medici Archive Project, doc. 52949.
- Archivio di Stato di Firenze, Mediceo del Principato, 4201, f. 138 v.-142 r., Medici Archive Project, doc. 52951.

SITEGRAPHY

https://commons.wikimedia.org/wiki/File:Dyck_Charles_I_Stuart_(detail). jpg, page accessed on: 22/02/2022.

https://www.euronewsproject.org/, page accessed on: 22/02/2022.

https://www.freesound.org/, page accessed on: 22/02/2022.

https://github.com/amueller/word_cloud, page accessed on: 22/02/2022.

https://www.medici.org/mission/, page accessed on: 22/02/2022.

http://www.newsfromsalvetti.eu/, page accessed on 02/05/2022.

https://www.openal.org/, page accessed on: 22/02/2022.

https://www.sci.unich.it/~francesc/teaching/network/degree.html, page accessed on: 22/02/2022.