The Artist and the Artisan— The Venetian Glassmaker of the Sixteenth Century

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A Thesis in The Department of Art History

Presented in Partial Fulfilments of the Requirements

for the Degree of Master of Arts (Art History)

Concordia University

Montréal, Québec, Canada

August 2022

CONCORDIA UNIVERSITY
School of Graduate Studies

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Entitled: The Artist and the Artisan— The Venetian Glassmaker of the Sixteenth Century

and submitted in partial fulfillment of the requirements for the degree of

Master of Arts (Art History)

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ABSTRACT

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The separation between art and craft in the contemporary fine art context is less black and white than before, although some mediums are still associated with crafts as opposed to fine arts. When considering the academic distinctions between craft and art, what could we learn from looking at a moment in time when the boundaries between arts and crafts were blurred, unsettled, or in the process of being created? Although these questions have been studied by scholars before, this thesis will re-examine the division between fine art and craft from the point of view of Renaissance glassmaking – a craft technique which shared many similarities with painting and sculpture, but which was not recognized as fine art at the time that painting was. Despite not being recognized as a fine art, Venetian glassmaking stood at an equal, if not at a higher position, than other visual arts of the fifteenth century. The art was thriving in the Renaissance, even before certain mechanical arts were elevated to the status of a fine art or liberal art. Looking at the concept of liberal arts—the intellectual and gentlemanly arts—and the concept of mechanical arts—the manual and instrumental arts—this thesis will examine the line separating the two categories and will challenge standard narratives about why some mechanical arts (namely painting) eventually became recognized as liberal arts, while others (namely glassmaking) did not. The art of Venetian glassmaking will also be studied through the intimate connection it shared with the city's image of itself as a divine state, and how certain socio-political aspects might have influenced the elevation of some crafts, and perhaps limited others.

ACKNOWLEDGMENTS

I would first like to thank Dr. Steven Stowell, my supervisor for this thesis. In addition to his incredible knowledge of Renaissance art and of the period pertaining to this research, Dr. Stowell pushed this thesis forward in terms of methodology and academic writing, which I will forever be grateful for. Thank you for your time, your dedication, your patience, and your flexibility for what felt like a roller coaster of the last two years.

I would also like to thank Dr. Elaine Cheasley Paterson for her insightful perspective and generative comments for my thesis. I could not have wished for a better reader. Once again, thank you for your flexibility and your patience during this step of the project.

I also want to thank Dr. Nicola Tullio Pezolet for his guidance during the two years surrounding the making of this thesis.

I began this research in 2020 with a ten-months old baby girl. Today, I am finishing it with a little lady about to turn three and a one-year-old baby boy. Needless to say, that none of this would have been possible without the help of my incredible husband, Léo, who not only gave me the opportunity to achieve this degree and write this thesis but cheered me on every step of the way.

Lastly, I would like to thank my parents, Richard and Guylaine for their love and support, always.

TABLE OF CONTENT

List of Figures

INTRODUCTION

A deep-seated interest of mine has been the dichotomy between arts and crafts. In the contemporary art world, the medium in which a work of art is made does not strictly dictate whether the work will be recognized as either an art or a craft. For example, in our contemporary setting, a needle and a thread can be found in museums that were once reserved for pigments and brushes. The very definition of the word craft—employed in this thesis as referring to artisanry and objects created by hand—is still questioned by current-day scholars such as Glenn Adamson. In *The invention of Craft*, Adamson argues that the concept of craft is a modern invention—a required 'opposite' to the new mechanical production of the 'industrial revolution'.[1] Although the separation between art and craft in the contemporary fine art context is less black and white than before, the discussion and the research surrounding such notions remain pertinent in our current and evolving understanding art. When considering the academic distinctions between craft and art, what can we learn from looking at a moment in time when the boundaries between arts and crafts were blurred, unsettled, or in the process of being created? Although these questions have been studied by scholars before, this thesis will re-examine the division between fine art and craft from the point of view of Renaissance glassmaking – a craft technique which shared many similarities with painting and sculpture, but which was not recognized as fine art at the time that painting was. Looking at how glassmaking was perceived in the Renaissance may help to understand what factors led to the elevation of some crafts and not others.

The choice of Venetian glassmaking for this comparison stems from the fact that it stood at an equal, if not at a higher position, than other visual arts of the fifteenth century. The art of

[1] Glenn Adamson, *The Invention of Craft*. (London: UK. Bloomsbury Academic, 2012), xvi.

glassmaking was thriving in Venice during the Renaissance, even before certain mechanical arts were elevated to the status of a fine art or liberal art. Taking a closer look at the concept of liberal arts—the intellectual and gentlemanly arts—and the concept of mechanical arts—the manual and instrumental arts—this thesis will examine the line separating the two categories and will challenge standard narratives about why some mechanical arts (namely painting) eventually became recognized as liberal arts, while others (namely glassmaking) did not. The history of glassmaking will therefore be analysed alongside the history of painting.

In Venice, glassmaking was considered a mechanical art— as was painting—yet some glassmakers would also share similarities with liberal artists. Some glassmakers in Venice acquired international renown, recognition of their intellectual qualities, and certain societal privileges that were unattainable to any other mechanical artists. Hence, the value, skill and state recognition given to glassmakers was comparable (if not higher at times) to that of painters, sculptors, and architects. This might lead one to expect that glassmaking would have obtained greater academic recognition during the Renaissance. Yet, glassmaking was never considered as a fine art or a liberal art, and never made a part of the art academies. This ambivalent status surrounding glassmaking thus generates the primary question of this thesis: What does the history of glassmaking in the Venetian Renaissance tell us about how and why certain mechanical arts were later elevated to the status of liberal art? By saying that one craft has been elevated to a higher status, this thesis does not mean to support such hierarchies; rather, this terminology is used to reflect the beliefs of the time. This thesis will argue that such changes of status, from mechanical to liberal art, were essentially constructed beliefs.

To appreciate the status of glass—worthy of such attention in the Renaissance—it is important to understand its place in Venetian society and the climate of the Republic. Venice

stood out in Europe as a result of its long history as a Republic, a form of governance rarely successful for such a long duration in the pre-modern period. In Venice, the highest political position was the Doge, who was the head of the State, elected for life, put forward and chosen in an elaborate process by the Great Council. The remaining offices were held by the Senate, the Council of Ten (Consiglio dei Dieci), the Minor Council (Minor Consiglio or Signoria) and the cabinet, or Collegio.[2]

This political system was intertwined with the social structure of Venice in which a lot of emphasis was placed on class and citizenship. The society of Venice during the Renaissance could be divided into three social classes. The first was the patricians or nobles, a hereditary class which held almost all positions of power in the Republic, sustaining a very oligarchic system. Following were the citizens—or more specifically *cittadini originari*, original citizens—also to an extent bound to heredity. This social class held most of the administrative positions in the State. The third and last societal class was referred to as the people (popolo); the *popolo grasso,*[3] commonly translated as the "fat people", were the newly rich in Venetian society—often wealthy landowners or merchants—and the *popolo minuto*[4] or "little people" were the artisans and the shopkeepers. It goes without saying that un-skilled workers and foreigners were not part of these social classes although they likely accounted for a significant portion of the population. The Venetian glassmaker would fall into the category of *popolo minuto*—although his position allowed for the possibility of advancement, a particularity which will later be discussed in this thesis.

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[2] Patricia Fortini Brown, *La Renaissance à Venise*. (Paris: Flammarion, 1997), 66-67.
[3] Frederic Chapin Lane, "The Growing Structure of the Commune." In *Venice, a Maritime Republic*, (103–35. Baltimore: Johns Hopkins University Press, 1973), 103.
[4] Frederic Chapin Lane, "The Growing Structure of the Commune," 103.

Venice in the sixteenth and seventeenth century held an auspicious geographical position that was not vulnerable to invasion. It was also economically successful and in control of a wide commercial empire with a strong Byzantine heritage.[5] According to the historian Patrick McCray, Venice was, at the time, the centre of the world economy, resembling an "early form of industrial capitalism."[6] Its highly developed arts and crafts industries, as well as its various ranges of workmanship, makes it a perfect setting to explore these overlapping dimensions of artistic labour in the Renaissance.

Venice stood out among Italian cities for erasing the distinctions between genres of crafts. The craft of glassmaking in the Renaissance, like any other mechanical art of the time, was regulated and contained within guilds—the association which would contain all makers to the same regulations. The trade of glassmaking held multiple guilds according to their specialisation: mirror glassmakers, crystal glassmakers, mosaic glassmakers, and bead glassmakers.[7] The guilds of Venice were institutions which levelled the industries so that they all had the same political status, and they all obtained the same benefits. Another particularity of the State of Venice stems from the additional institutions that united craftspeople the *scuole*.[8] In Venice, the *scuole* were religious associations similar to confraternities which acted as an additional form of social support and belonging to citizens and craftspeople.[9] The *scuole* were not bound to wealth or social class—they were not meant to unite members of a single trade, and thus rarely did so. However, one exception to this fact is the trade of glassmaking. As all the

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[5] Brown, *La Renaissance à Venise*. (Paris: Flammarion, 1997), 15.
[6] Patrick McCray, "'Masters of the Gold of Christendom': Renaissance Venice, the World Economy and Luxury Goods." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (15–32. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 19.
[7] N. Hudson Moore, "Venetian Glass." In *Old Glass, European and American*, (28–50. New York: Frederick A. Stokes company, 1924), 34.
[8] Scuole (Italian) being the plural form and scuola (Italian) being the singular form of the word.
[9] Patricia Fortini Brown, *La Renaissance à Venise*. (Paris: Flammarion, 1997), 96.

glassmakers of Venice resided on the island of Murano, they all belonged not only to the same guild, but the same *scuola* because of their shared geographical location.[10] This sense of belonging stands at the core of the glassmaker's craft.

This leveling of all guilds prevented the kind of hierarchy that began to emerge elsewhere in Europe at the time,[11] such as the art academies of Florence which separated painting and sculpture from other crafts such as glassmaking, masonry, etc. Such hierarchies only came to Venice in 1682, well into the seventeenth century, with the making of the first painter's guild[12] named the *Collegio dei Pittori.*[13] It is important to describe this Venetian context, in which the boundaries between all visual arts were leveled and minimized, because as this thesis will aim to demonstrate, the history of glassmaking challenges current narratives surrounding the elevation of certain mechanical arts to the status of liberal art. Henceforth, the focus of this paper will center around the craft of glassmaking in Venice and its relationship to other forms of visual art making in the Renaissance. First, it is important to consider some basic historical information about the making of glass and its trade.

Glassmaking in Venice can be traced back to as early as the tenth century. Glass in Venice was prized because of its unique techniques and innovations, from forms to colors and translucency. All glass pieces started with the delicate mix and preparation of the raw materials. Essentially, the process was as follows: a master glassmaker would mix raw ingredients such as sand, quartz river pebbles and plant ash, just to name a few, before melting them to a specific

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[10] Dennis Romano, "The World of Work: Guild Structure and Artisan Networks." In *Patricians and Popolani*, (148–201. Baltimore, Md: Johns Hopkins University Press, 2019), 195.
[11] Brown, *La Renaissance à Venise*, 42.
[12] *Encyclopedia Britannica Online*, Academic Ed., s.v. "guild." Accessed February 8, 2022, https://www.britannica.com/topic/guild-trade-association.
During the Renaissance, a guild constituted of a group of artisans or merchants, with the interest of regulating and furthering one's trade.
[13] Patricia Fortini Brown, *La Renaissance à Venise*, 42.

temperature for a specific amount of time in a furnace.[14] From there, when the raw material was ready to be used, he would reach into the melted glass with a blow pipe (a metal pipe with an opening at its center) or a punty (a solid metal rod) depending on what the glassmaker was making, to take glass out of the furnace and to work on the object with a variety of tools and techniques. As the glass needed to stay in a transitionary state between liquid and solid, the glassmaker would use a second heat source, essentially an oven with a slightly lower temperature than the furnace, to maintain the malleability of the piece. The artist could then create full glass pieces such as pearls, beads, or canes (slender pieces of pulled glass often used in the making of other pieces), and blown glass such as tableware, etc. When the piece was complete, it would have to be transferred to another type of oven, called an annealer, which provides a slow and controlled lowering of the temperature to reduce the risk of the piece breaking if cooled down too quickly.[15]

Glass workshops operated in the style of a family business; the family guarded their recipes secretly, because their name, reputation and livelihood were built upon the methods they used to create their products. In all fields of glassmaking, the master glassmaker of a workshop would often be the owner as well as the *pater familia* [16]—the father figure of the extended family working in the workshop. Regardless of the speciality, the master glassmaker held various responsibilities: such as producing pieces, teaching apprentices, maintaining, and enhancing the secret recipes and formulas—all while being the owner of the workshop and to some extent merchant of its production. The techniques and the recipes held by Venetian glassmakers and Venetian family workshops demonstrate experimentation, ingenuity, and teachable knowledge—

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[14] Attilia Dorigato, *Murano: Island of Glass*. (San Giovanni Lupatoto: Arsenale, 2003), 26.
[15] Patrick McCray, *Glassmaking in Renaissance Venice: The Fragile Craft*. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999.
[16] Patricia Fortini Brown, *La Renaissance à Venise*. (Paris: Flammarion, 1997), 52.

all core elements that permitted certain mechanical arts to be elevated to the level of liberal arts in the Renaissance, which will be later discussed in this thesis.

During the sixteenth century in Venice,[17] the skills and knowledge surrounding glassmaking reached its highest point. Although, as was stated above, the craftspeople in Venice were kept to the same social level as any other trade, the glassmakers were allowed various uncommon privileges for craftspeople. The glassmakers in Venice had special tax exemptions.[18] They had a form of unemployment insurance promising revenue even if work was unavailable.[19] The daughters of glassmakers had the exceptional privilege to marry into nobility and the children of these unions were recognized as noble.[20] The Venetian glassmaker of the Renaissance was wealthy, valued, socially elevated, and neighbouring territories often tried to lure them to move and set up workshops outside of Venice. Hence, in a State where crafts weren't elevated based on their academic merit, these privileges might lead one to predict that glassmaking would eventually find a place among the fine arts. In Florence, for example, where painting and sculpture held a similar prestige, these crafts were eventually elevated from their status as mechanical arts to liberal arts, and their makers benefitted from the social and economic privileges this afforded them.

However, the unusual privileges granted to glassmakers in Venice came with unusual restrictions. For instance, the craftspeople's movements were strictly controlled. The

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[17] The reach of Venetian glass in the global trade is felt as far as the Americas in the sixteenth and seventeenth century. Indigenous histories of beadwork record the use Glass *sungaujait* which was "introduced into Inuit society around the time of the earliest contact with Europeans". Krista Ulujuk Zawadski, "Glass Beads in Inuit Needlework from Past to Present." Inuit Art Foundation. Inuit Art, June 10, 2022. https://www.inuitartfoundation.org/iaq-online/glass-beads-in-inuit-needlework-from-past-to-present.
[18] Francesca Trivellato, "Murano Glass, Continuity and Transformation (1400-1800)." In *At the Center of the Old World: Trade and Manufacturing in Venice and the Venetian Mainland, 1400-1800*, edited by Paola Lanaro, (143–83. Centre for Reformation and Renaissance Studies, 2006), 159.
[19] Trivellato, "Murano Glass, Continuity and Transformation (1400-1800)," 159.
[20] N. Hudson Moore, "Venetian Glass." In *Old Glass, European and American*, (28–50. New York: Frederick A. Stokes company, 1924), 31.

glassmakers of Murano could not leave the island where they worked without a written consent from the State. Without this consent, leaving the island could be punishable by death.[21] These privileges and regulations testify to the value and significance of glassmaking for the State of Venice.

The Venetian government officials, more specifically the Senate and the Council of Ten, exerted power over the producers of manufactured goods. The Senate and Council determined what manufacturers were allowed to make, when they were allowed to make it, and who was allowed to participate in the trade. The glassmaking guild was no exception, and, in fact, it was perhaps the best example of such control at the time. For instance, the state would decide the period of 'vacation' for glassworkers each year—a period when furnaces were shut down for a designated period. However, this period changed often according to the needs and wants of the government, which was trying to regulate either the quality of the production or the demand of the market with rules such as mandatory vacations.[22] Another example of government control concerns immigration and citizenship: the government would vote upon rules that would either allow workers from abroad to fill in missing positions in times of need or forbid new arrivals when the market was saturated. This government's extensive involvement in the trade of glassmaking suggests that glassmaking was culturally significant for Venice—a topic which will be later discussed in more depth below.

What does the example of glassmaking in the Venetian Renaissance tell us about how and why certain mechanical arts were later elevated to the status of liberal art? This thesis will be divided in two chapters, both approaching this central question from a different perspective: The

[21] Moore, "Venetian Glass," 31.
[22] Gianfranco Toso, "Consolidations of the Murano Glass Industry." In *Murano: A History of Glass*, (45–60. Venice, Italy: Arsenale, 2000), 45.

first chapter will address the liberal arts and mechanical arts, and will explore the arguments that were made to elevate painting to the status of a liberal art. Then, in a series of six different case studies, glassmaking will be compared to painting in order to understand better why glassmaking was not recognized as an academic discipline. This chapter will therefore analyse the writing of Leonardo Fioravanti's in the book *Dello Specchio Di Scientia Universale* published in 1564 followed by the case studies on the concepts of: ingenuity, utility, the judgement of the product, the visual representation of craftsmanship in the Renaissance, the fame of the artist and the 'cult of personality.'

The second chapter will look at how glassmaking in Venice was intimately connected to the city's image of itself as a divine state. In the Renaissance, scholars have recognized how Venice promoted itself through propaganda and 'mythology' (ideas and images sometimes referred to as the 'myth of Venice' explained below). I will argue that the image of itself that Venice promoted was linked to its reputation for producing high quality glass. I will argue that the value given to the uniquely-skilled glass artisan—both locally within the unique social system of Venice and abroad in terms of international reputation—mirrors the self-image of the proud Republic. This glorification of the craft of glassmaking by the state will be linked to the mythology surrounding Muranese Glass. Lastly, this complex relationship between the state and the craft will be compared with the mythology surrounding paintings and painters of Florence—more specifically with the emergence of art academies. Looking at Florence will help speculate on why glass never obtained the status of a fine art and thus did not benefit from the social, economic and cultural privileges this status confers.

CHAPTER 1: The Notion of Intellectuality in The Concept of Liberal Arts

It is important to explain the division in the Renaissance between the mechanical arts and the liberal arts in order to understand the disciplinary division between arts and crafts at the time. The liberal arts were elevated over the mechanical arts based on their perceived intellectual qualities. Consequently, many arguments made by Renaissance humanists to elevate painting, sculpture, and architecture to the status of a liberal art emphasized their intellectual nature. Examining such arguments about painting, and comparing them to contemporary accounts of glassmaking – which as we will see also had intellectual qualities – reveals the arbitrary nature of these arguments, thus suggesting that other factors, besides the intellectual nature of painting, were at play when humanists and craftspeople attempted to elevate painting to a liberal art. Since painting was one of the few mechanical arts to be successfully recognized as a liberal art, the history of its elevation will help to understand why such a transformation did not happen to glassmaking. Juxtaposing Renaissance views on painting and glassmaking will challenge the standard historical narrative regarding the elevation of painting to the status of a liberal art and raise questions about the history of glassmaking.

The Liberal Arts, The Mechanical Arts, And the Elevation of Painting in the Renaissance

Before investigating the status of glass in Renaissance thought, it is important to outline the concepts of the mechanical and liberal arts. These concepts were part of a classification system used to categorize different types of knowledge. This system was inherited from Classical culture and passed on through the Middle Ages and the Renaissance.[23] In *The Seven Liberal Arts*,

[23] Paul Oskar Kristeller, "The Modern System of the Arts." In *Renaissance Thought II Papers on Humanism and the Arts*, (163–227. New York: Harper & Row, 1965),174-175.

historian H. Parker describes the liberal arts as the arts for free men: "A liberal education is a gentleman's education, and the *liberales artes* were the gentlemanly arts." [24] The liberal arts were valued for their intellectual, rather than manual nature, and were divided into two groups: the trivium and the quadrivium.[25] As stated in the Merriam-Webster encyclopedia, the quadrivium refers to the "group of studies consisting of arithmetic, music, geometry, and astronomy, […] forming the upper division of the seven liberal arts."[26] The arts of quadrivium deal with ideas of number, the abstract nature of which was considered higher and thus more pure. The trivium refers to the "group of studies consisting of grammar, rhetoric, and logic forming the lower division of the seven liberal arts." [27] These arts explore ideas with language and words and were therefore believed to be less pure because language was subject to interpretation.[28] Despite the hierarchy between the two groups, the liberal arts as a whole were valued for their intellectual nature.[29] Manual labour was stigmatized because it was associated with lower classes and statuses, among other reasons, and therefore intellectual pursuits were privileged over manual pursuits. [30]

In the Renaissance, both glassmaking and painting were categorized as mechanical arts. Similar to the liberal arts, the mechanical arts were a system of classification that originated in the Middle Ages. The introduction of the term 'mechanical arts' is believed to originate from the study of Martianus Capella's *Marriage of Philology and Mercury* by John the Scot in the

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[24] H. Parker, "The Seven Liberal Arts." (Oxford University Press, The English Historical Review, 5, no. 19 (July 1890): 417–61), 417.
[25] Kristeller, 175-175.
[26] *Encyclopedia Merriam-Webster Online*., s.v. "quadrivium." Accessed January 2, 2022, https://www.merriamwebster.com/dictionary/quadrivium.
[27] *Encyclopedia Merriam-Webster Online*., s.v. "trivium." Accessed January 2, 2022, https://www.merriamwebster.com/dictionary/trivium.
[29] H. Parker, "The Seven Liberal Arts." (Oxford University Press, The English Historical Review, 5, no. 19 (July 1890): 417–61), 417.
[30] Parker, "The Seven Liberal Arts." 417.

Carolingian period.[31] In his article *An Introduction to the Mechanical Arts in the Middle Ages*, Steven A. Walton observes that the Irish philosopher John the Scot "refers to the seven *artes mechanicae* that Mercury gave to his bride, Philology, after he had given her the seven *artes liberales*."[32] The seven mechanical arts comprise both technological and economic skills, ranging from "shoemaking, armaments, commerce, tailoring, metalwork, and alchemy, and occasionally agriculture, navigation, and music, among others."[33] It is important to note that all these activities were seen as predominantly manual labour.

In the twelfth century, the mechanical arts began to be discussed as beneficial to the liberal arts in Hugh of Saint Victor's *Didascalicon,* circa 1120.[34] In the medieval context where painting, sculpture, and all activities relying on manual skills were classified as mechanical arts, Hugh of Saint Victor explored the value of those arts for the thinker and the scholar. In the *Didascalicon,* Hugh of Saint Victor breaks down the multiple methods people can use to pursue wisdom: "the one which sought truth was called theoretical; the one which furthered virtue men were pleased to call ethics; the one devised to seek conveniences custom called mechanical." [35] In other words, Hugh of Saint Victor was the first to argue that the mechanical arts could help to achieve greater wisdom and knowledge. In his discussion of the mechanical arts, Steven Walton writes that, although "not the first thinker to do so, […] his [Hugh of St. Victor's] classification of the mechanical arts as one of the four branches of all knowledge set the pattern for future thinkers" and may have contributed to the eventual elevation of certain mechanical arts to the

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[31] Steven A. Walton, "An Introduction to the Mechanical Arts in the Middle Ages." AVISTA: Association Villard de Honnecourt for Interdisciplinary Study of Medieval Technology, Science and Art, (1991), 1.
[32] Walton, "An Introduction to the Mechanical Arts in the Middle Ages," 1.
[33] Walton, "An Introduction to the Mechanical Arts in the Middle Ages," 3.
[34] Walton, "An Introduction to the Mechanical Arts in the Middle Ages," 3.
[35] Roger Baron, ed., "Hugonis de Sancto Victore Epitome Dindimi in philosophiam: introduction, texte critique, et notes," Trad. XI (1955), 109-10, quoted in Hugh of Saint Victor. *The Didascalion of Hugh of Saint Victor*. (Edited and translated with notes by Jerome Taylor. New York: Columbia University Press, 1961), 12.

liberal arts. [36] The writings of Hugh of Saint Victor are thus considered as a significant step toward recognizing the academic value of the manual and the 'mechanical arts.'

The discussion regarding the intellectual qualities of various arts kept evolving in the Renaissance. The humanist movement brought new ideas to the liberal arts during the Renaissance, by broadening the arts and challenging their divisions.[37] With only seven total arts recognized as liberal arts, certain omissions were criticized by Renaissance humanists; a good example is poetry.[38] For instance, humanists argued that the art of poetry should have been included because it was part of the classical, gentlemanly education dating back to the Greek civilization. In addition to this history, poetry stood alongside many of the recognized liberal arts in terms of its intellectual qualities. Thus, in the fifteenth century, the humanist movement broadened the restrictive notions of the liberal arts with the introduction of the *studia humanitatis*, in which poetry was included with the academic studies of "grammar, rhetoric, […], history, moral philosophy, and ancient Greek and Latin studies."[39]

This reasoning was soon applied to the visual arts. Humanists argued that skills tied to the trivium and the quadrivium were used in the making of visual arts such as painting. Scholars of the period would also utilise the example of poetry as a gentlemanly art in their argument for the elevation of painting. Leon Battista Alberti is one of the humanists at the root of this campaign. In *On Painting*, Alberti connects painting to the quadrivium based on to whom painting was taught: "The excellent custom was especially observed among the Greeks that free-born and

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[36] Steven A. Walton, "An Introduction to the Mechanical Arts in the Middle Ages." AVISTA: Association Villard de Honnecourt for Interdisciplinary Study of Medieval Technology, Science and Art, (1991), 6.
[37] *Encyclopedia Merriam-Webster Online*., s.v. "humanist." Accessed February 9, 2022, https://www.merriam-webster.com/dictionary/humanism
[38] H. Parker, "The Seven Liberal Arts." (Oxford University Press, The English Historical Review, 5, no. 19 (July 1890): 417–61), 417.
[39] *Encyclopedia Britannica*., s.v. "studia humanitatis." Accessed February 22, 2022, https://www.britannica.com/topic/studia-humanitatis

liberally educated young people were also taught the art of painting together with letters, geometry and music."[40] Alberti thus argues that this tradition of the gentlemanly art acted as the bridge between the art of painting and the liberal arts.

Francis Ames-Lewis synthesizes Alberti's arguments in his book *The Intellectual Life of the Early Renaissance Artist*, writing that "painting should emulate the aims, intentions and methods of poetry. Like poetry, painting uses parts of the quadrivium—geometry and arithmetic—in theoretical basis; therefore, like poetry, painting should rank as a liberal art."[41] Alberti thus highlights the intellectual nature of both arts; where geometry and arithmetic were found in the compositions, the proportions and the perspective of painting, these skills were also required in the writing of poetry with verses, stanzas, and the various metrical feet working around the different patterns and prosody of the language.

In addition to the similar theoretical basis, poetry and painting were both described by the artist and writer Giorgio Vasari as sharing similar aims and intentions: both arts were capable—and to a certain extent, designed—to tell of a story, either through images or words. The similarities between the art of poetry and the art of painting are not only emphasized by Alberti, and Vasari, but other artists and scholars such as Leonardo da Vinci who went so far as to argue for the superiority of painting, as seen in some of his writings eventually published after his death in the *Treatise on Painting* from 1632. Historian Ames-Louis mentions that da Vinci's arguments were based on his belief that sight was the more "noble sense." [42] Indeed, speaking of da Vinci's writing, the historian Martin Kemp writes that "we may justly claim that the

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[40] Leon Battista Alberti, *On Painting*. (London: Penguin Books, 2004—1435), 63.
[41] Francis Ames-Lewis, *The Intellectual Life of the Early Renaissance Artist*. (New Haven: Yale University Press, 2000), 166.
[42] Francis Ames-Lewis, *The Intellectual Life of the Early Renaissance Artist*. (New Haven: Yale University Press, 2000), 166-167.

difference between the science of painting and poetry is equivalent to that between a body and it's cast shadow."[43] These examples demonstrate the ambivalent status of the visual arts in the Renaissance. Poetry and painting were juxtaposed to help augment one as a mechanical art and the other as a liberal art.

The Renaissance marked a time when artists started to broaden their interests to include topics such as proportions, anatomy, perspective, and they began to experiment with different pigments and mediums used, bringing them closer to the disciplines of mathematics and sciences.[44] More specifically, artists began to study nature through mathematical knowledge and skills associated to the quadrivium.[45] One of the most famous examples of an artist emphasizing the intellectual nature of visual art is Leonardo da Vinci. Da Vinci tried to define visual art as a science with a particular focus on the mathematics of geometry, perspective and proportions.[46] In Book III of *Leonardo da Vinci's Note-Books,* the artist writes:

> Among the various studies of natural processes that of light gives most pleasure to those who contemplate it; and among the noteworthy characteristics of mathematical science the certainty of its demonstrations is what operates most powerfully to elevate the minds of its investigators. Perspective therefore is to be preferred to all the formularies and

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[43] Martin Kemp in his introduction of *Leonardo on Painting: Anthology of Writings by Leonardo Da Vinci, with a Selection of Documents Relating to His Career as an Artist*. New Haven London: Yale Nota Bene, (2001), 23. As quoted in Francis Ames-Lewis, *The Intellectual Life of the Early Renaissance Artist*. (New Haven: Yale University Press, 2000), 166-167.

[44] Whilst discussing *On Painting* in her article *Painting and the Liberal Arts: Alberti's View*, historian Carroll W. Westfall mentions the argument of the humanist stating that "painting is supported by a sound theory based on intellectual principles, and the aim, intention, and method of painting is clearly related to that of any other liberal art."[44] Carroll W. Westfall, "Painting and the Liberal Arts: Alberti's View." University of Pennsylvania Press, *Journal of the History of Ideas*, 30, no. 4 (December 1969: 487–506), 494. As quoted in Steven Stowell, *The Spiritual Language of Art: Medieval Christian Themes in Writings on Art of the Italian Renaissance. Studies in Medieval and Reformation Traditions*, volume 186. (Leiden; Boston: Brill, 2014), 78.

[45] Carroll W. Westfall, "Painting and the Liberal Arts: Alberti's View." University of Pennsylvania Press, *Journal of the History of Ideas*, 30, no. 4 (December 1969: 487–506), 495.

[46] Paul Oskar Kristeller, "The Modern System of the Arts." In *Renaissance Thought II Papers on Humanism and the Arts*, (163–227. New York: Harper & Row, 1965), 182.

> systems of the schoolmen, for in its province the complex beam of light is made to show the stages of its development, wherein is found the glory not only of mathematical but also a physical science, adorned as it is with the flowers of both.[47]

Such ideas by Leonardo da Vinci, corroborated by the writings of Leon Battista Alberti, show how there was an opportunity for the boundaries between the mechanical and the liberal arts to be bent and questioned.

However, where there were opportunities, there were also challenges. Writers and artists who wanted to elevate painting to the status of a liberal art were challenged by the arbitrary nature of the divisions between liberal and mechanical arts. For instance, Paul Oscar Kristeller states in his article "The Modern System of the Arts" that painting struggled to be accepted as a liberal art due to the lack of classical authorities who supported this view. Furthermore, painting was not taught in an academic setting because of the manual nature of the trade. He writes for instance that "[…] the claim of Renaissance writers on painting to have their art recognized as liberal, however weakly supported by classical authority, [was a] significant […] attempt to enhance the social and cultural position of painting and of the other visual arts, and to obtain for them the same prestige that music, rhetoric, and poetry had long enjoyed."[48] Kristeller sees the fact that painting was not recognized as a liberal art by classical writers as a challenge to the humanist project. Whereas the roots of many arguments about the elevation of poetry had been supported by the Renaissance scholars' growing knowledge of the value of poetry in classical

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[47] Leonardo Da Vinci, *Leonardo Da Vinci's Note-Books*. (United Kingdom: Duckworth & Company, 1906), 210.

[48] Paul Oskar Kristeller, "The Modern System of the Arts." In *Renaissance Thought II Papers on Humanism and the Arts*, (163–227. New York: Harper & Row, 1965), 182. I also find this interesting when thinking of the glassmaker who, at least in Venice at the time, benefitted from a relatively high social status as well as an important cultural position. I can't help but wonder if benefitting from these privileges reduced the incentive to be recognized as a liberal art.

antiquity, similar arguments about the art of painting could not be found among classical authors.[49]

Painting was not taught in an academic setting, and this was also a challenge for its scholarly perception. Paul Kristeller explains that "the liberal arts [were] primarily sciences or teachable knowledge."[50] The historian Angela Dressen also confirms that teachable knowledge was an important characteristic of the liberal arts whilst mentioning the lack of intellectual methodology in the art of painting.[51] The visual arts, such as painting, were taught through practice in studios and workshops; environments where manual and physical training exceeded the theoretical aspects of the trade. Dressen goes on to argue that painting was only formally accepted as a liberal art with the formation of art academies which introduced a scholarly format of education and training surrounding the theory and the skills of the discipline.[52]

Another aspect of the visual arts, which was briefly mentioned above, is the manual component of the trade; the marginalization of manual labour was deeply rooted in the Renaissance and was one of the main challenges visual artists faced in their quest to be recognized as liberal artists. Historian Karen-edis Barzman notes that the "manual and productive aspects [were downplayed by writers championing the visual arts], emphasizing their

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[49] *Encyclopedia Britannica Online*, Academic Ed., s.v. "Greek literature." Accessed February 24, 2022, https://www.britannica.com/art/Greek-literature.
[50] Kristeller, "The Modern System of the Arts," 182.
[51] Angela Dressen, "Mechanical Arts versus Liberal Arts and Recommendations for the Artist's Education." In *The Intellectual Education of the Italian Renaissance Artist*, (26–69. Cambridge: Cambridge University Press, 2021), 31.
[52] Angela Dressen, "Mechanical Arts versus Liberal Arts and Recommendations for the Artist's Education." In *The Intellectual Education of the Italian Renaissance Artist*, (26–69. Cambridge: Cambridge University Press, 2021), 31. She writes: "Although these discussions were not always obviously connected to each other, they nevertheless depended on one another. The fact that the visual arts were able to demonstrate a theory of their own was certainly helpful for their academic acknowledgment. Not by chance the literato Leon Battista Alberti turned out to be the first to address this topic on a comprehensive scale."

intellectual basis and moral purpose."[53] Once again, Leonardo da Vinci highlights this academic barrier in his manuscripts. In a passage discussing painting, poetry and sculpture, a paragraph titled "How painting surpasses all human works by reason of the subtle possibilities which it contains" addressed to the poets and academicians of the fifteenth century, he writes:

> You have set painting among the mechanical arts! Truly were painters as ready equipped as you are to praise their own works in writing I doubt whether it would endure the reproach of so vile a name. If you call it mechanical because it is by manual work that the hands represent with the imagination creates, your writers are setting down with the pen by manual work what originates in the mind.[54]

It is thus without surprise that the physical, material, and manual aspects of painting were thereby minimized in the writings on painting during the Renaissance.

Having discussed the liberal arts, the mechanical arts, and having described how some authors sought to elevate the status of painting in the Renaissance, a series of case studies will now be introduced, each of which juxtapose the arts of painting and glassmaking. I will demonstrate that several Renaissance people recognized many of the same intellectual qualities in both the art of glass and the art of painting. The first case study to be discussed will analyze the writing of the scholar Leonardo Fioravanti in his book *Dello Specchio Di Scientia Universale* published in 1564. The main purpose of this case study will be to compare the academic

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[53] Karen-edis Barzman, "Disegno as a Disciplinary Practice: The Academy School." In *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, (143–81. Cambridge; New York: Cambridge University Press, 2000), 146.
[54] Leonardo Da Vinci, *Leonardo Da Vinci's Note-Books*. (United Kingdom: Duckworth & Company, 1906), 157-158.

description of both glassmaking and painting in the Renaissance. The second case study will research the concept of 'invention' and ingenuity in the mechanical arts of the Renaissance, particularly by juxtaposing innovations in both glassmaking and in painting. A brief study of the notion of utility will then be introduced, to demonstrate how the idea of functionality might have influenced the elevation of certain mechanical arts in this period. The criteria for judging glassmakers' and painters' products will be discussed after, focusing on the concepts of 'imitation of nature,' as well as the design style of skeuomorphism. This will be followed by an analysis of *The Invention of Oil Painting* (figure 1) by Stradanus, circa 1590 and *The Medici Glass Workshop* (figure 2) by Giovanni Maria Butteri painted in 1570. That analysis will center on the visual representation of both crafts in the Renaissance and the notion of manual labour. The last case study of this chapter will discuss the term 'cult of personality' in relation to Italian Renaissance artists in order to explore how individuality and fame might have impacted the elevation of certain mechanical arts of the period.

Fioravanti's Literature

Leonardo Fioravanti's book titled *Dello specchio di scientia universale* published in 1564 discusses all the worthy sciences of his time.[55] This book was published only a year after the creation of the *Accademia del Disegno* in Florence, considered as the first instance of an 'art academy' in Europe. This source is of particular interest because it discusses both painting and glass as forms of knowledge and offers an interesting view on the perception of these arts. Fioravanti's text reiterates humanist arguments by presenting painting as higher, or more academic, and of glassmaking as lower, or more utilitarian. Fioravanti's book presents an

[55] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. (Vol. 3. Venezia: Appresso il Sartoni, 1678). The title translated as 'mirror of universal sciences.'

example of a mid-sixteenth century author who was not part of the academic system classified these two arts.

Leonardo Fioravanti was known in the Renaissance as a doctor, or 'healer', a surgeon as well as a leader in the new medical fashion of incorporating alchemy into medical practice (figure 3).[56] Although little is known about the first thirty years of his life and his education, Fioravanti's notoriety grew heavily as a result of his many publications—aided by his location in Venice, which was known for its "famous printing houses."[57] The Italian historian Piero Camporesi writes that Fioravanti's publications were particularly interested in the emerging sciences of the time, particularly alchemy.[58]

The notions of scientific methods and 'teachable knowledge' are important to Fioravanti's definition of glassmaking and painting regarding their intellectual pursuit. In *Dello specchio,* Fioravanti prefaces his manuscript by acknowledging the power of 'teachable knowledge' when it is made accessible and shared in the world of scholars. The title of the book, *Dello specchio* alludes to this view of science as a pool of knowledge, ever-growing from the addition of new discoveries but mostly, the mutual collaboration between its various domains.[59]

Fioravanti's book is separated in short chapters discussing arts, crafts, and sciences. This case study will compare the chapters written on the art of glassmaking and the art of painting, both of which are referred to as an *arte*. In the section titled *Dell'arte de i Vetri & de'suoi*

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[56] William Eamon, "Pharmaceutical Self-Fashioning or How to Get Rich and Famous in the Renaissance Medical Marketplace." *American Institute of the History of Pharmacy*, Pharmacy in History, (Vol. 45, no. 3 2003: 123–29), 125.
[57] Eamon, "Pharmaceutical Self-Fashioning or How to Get Rich and Famous in the Renaissance Medical Marketplace," 124.
[58] Piero Camporesi, *Camminare il mondo: vita e avventure di Leonardo Fioravanti, medico del Cinquecento*. (1. ed. nei Saggi. Saggi. Milano: Garzanti, 2007).
[59] As an interesting tangent, the author will go on to write using both terms—art and science—in the same wholistic view—although the use of either appears sporadic.

miracolosi effeti[60], meaning *The Art of Glass & of its miraculous effects*, the author praises the technique for its ingenuity—particularly when mentioning the island of Murano—but does so with some qualification. Fioravanti describes the process of glassmaking based on information that was available to him, such as different types of raw materials, as well as the way to gather and process these materials; he also describes the fires raging day and night in the glass workshops.[61] He praises the techniques and the remarkable abilities of the glassmaker but says that they could not possibly be given justice through words alone and calls for the reader to witness the art with the eyes and the hands in order to grasp it fully: " […] I would have wanted to say more on the way of working this art, but for being such a thing, that cannot be understood with words alone, I leave it [alone, so as] to not bore the reader, because there is no one, that can understand it, if he does not see it with his own eyes, and does not touch it with his hands […]."[62] This passage emphasizes not only the complexity surrounding the art of glassmaking, but the need to physically and sensorially experience the process in order to fully access the knowledge. This excerpt is most interesting as it suggests that glassmaking cannot be comprehended without manual experience, which would make it unteachable theoretically in a scientific and academic sense.

In the section *Dell'arte del Dipintore & suoi belli effeti,* meaning "The Art of Painting & its beautiful effects," Fioravanti introduces the art of painting quite differently than that of glassmaking. In the chapter on glass, Fioravanti stressed the utility and necessity of glass in the first sentence: "A most delightful art was never found, like that of the glass: invention very

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[60] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. (Vol. 3. Venezia: Appresso il Sartoni, 1678), 114. Translated as: The art of Glass & its miraculous being.
[61] Fioravanti, *Dello Scpecchio Di Scientia Universale*, 116-117.
[62] Fioravanti, 117. Translated from : " […] Io avrei voluto dire il modo di lavorare di questa arte, ma per esser cosa, che con parole non si può dar ad intendere, lo lascio per non tediare chi legge, percioche non è nessuno, che lo possi comprendere, se non lo vede co i proprii occhi, e non lo tocca con le mani […]."

ingenious and very necessary to the world."[63] By contrast, he prefaces the chapter on painting by describing it as beautiful, but not particularly necessary to mankind: "The Art of the Painter, even though it was not a very necessary art to the world, is nevertheless the most beautiful and delightful art that can be done, for the fact that painters make appear things that are not [there]."[64] It is clear from these statements that Fioravanti associated the art of glassmaking with utilitarian needs, and painting with more abstract and intellectual pursuits.

The pages that follow emphasise the skills of the painters regarding imitation, particularly the imitation of nature, which according to Fioravanti, is the most accomplished skill of the trade. Doing so, the author discusses the importance of proportion, anatomy, perspective, and mathematics as skills required to achieve such imitation. Additionally, Fioravanti distinguishes and praises painting as an art which represents history not with words, but through images and effects.[65] Essentially, the art is associated much more with intellectual knowledge rather than its physical and material aspects.

The comparison between both these chapters is most interesting, especially considering that Fioravanti was not directly attached to the world of visual art. The art of painting as described by Fioravanti evokes the kinds of arguments used by scholars in the field of visual arts such as Leon Battista Alberti and Giorgio Vasari, demonstrating that such ideas were being absorbed and, to a certain degree, validated in broader academic circles. By emphasizing the academic and intellectual perspective of painting as opposed to the manual one—contrary to his

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[63] Fioravanti, *Dello Scpecchio Di Scientia Universale*, 114. "Non fù mai trovata la più dilettevole arte, quanto è stata quella de i Vetri: inventione invero ingegnosissima et molto necessaria al mondo."
[64] Fioravanti, 64. "L'arte del Dipintore, ancor che non fusse arte molto necessaria al mondo, nondimeno è la più bella, e dilettevol arte che si possi fare: imperoché i dipintori fanno parere quello che non è."
[65] Fioravanti, *Dello Scpecchio Di Scientia Universale*, 69.

description of glassmaking—Fioravanti perpetuates the idea that painting should be considered a liberal art, as Leon Battista Alberti and Giorgio Vasari had also argued.

These excerpts by Fioravanti are particularly interesting as they offer a glimpse of both the art of glassmaking and the art of painting seen from the perspective of one writer. This thesis will return to this primary source multiple times since it addresses many of the concepts which will be discussed in more depth, such as ingenuity, utility, imitation, materiality, and manual labour.

Ingenuity and Inventions

Leonardo Fioravanti presents contrasting images of glassmaking and painting, however by looking at other period sources in more detail, we see that some commentators also emphasized their similarities.

One of the qualities that painting, and glassmaking shared was the quality of "invention." To distance visual artists from the stigma of manual labour, Renaissance commentators emphasized and argued that the visual arts required the praised and highly valued notion of 'invention.' In this thesis, the term "invention" refers to the modern meaning of the word: defined as innovations and new ideas. It is important to make this distinction because Renaissance contemporaries used the word invention to refer both to innovations, but also more broadly to "creative practices" and "mental process of creating a composition depicting [a] subject."[66]

[66] Steven Stowell, *The Spiritual Language of Art: Medieval Christian Themes in Writings on Art of the Italian Renaissance.* Studies in Medieval and Reformation Traditions, volume 186. Leiden; Boston: Brill, 2014), 271-272.

To distance the visual arts from the mechanical arts and to emphasize the intellectual nature of the art, contemporary writers commented on artist's ingenuity and their invention of new techniques and new mediums. Vasari provides a good example of this phenomenon in *The Lives of the Painters, Sculptors, and Architects* and his biography of Antonello da Messina, the artist to whom he attributes the introduction of the art of oil painting in Italy after being invented by Giovanni da Bruggia (also known as Jan Van Eyck). Regarding the importance of invention, Vasari writes of Messina that:

> He was honorably buried by his fellow artists, in consideration of the benefit he had conferred on their art by making known the new method of colouring. And certainly he deserves as much credit for bringing this technique to Italy as Giovanni da Bruggia does for inventing it in Flanders. Both have enriched art, and we have since seen masters of oil painting paint with such excellence that their figures are all but alive. [67]

Vasari emphasizes the ingenuity and the teachability of this new technique and praises both artists equally. It is noteworthy to mention that Vasari's claims have been refuted by later historians. Concerning this section of Vasari's, *The Lives*, the scholar Allen Banks mentions that Messina most likely never met Giovanni da Bruggia and could hardly have been the sole contributor to the introduction of oil paint in Italy. [68] Banks writes, however, that Messina "was certainly one of the first to master this medium," which could explain why Vasari gave him credit for introducing the technique. Knowing that Vasari had bent or exaggerated the truth to

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[67] Giorgio Vasari, *The Lives of the Painters, Sculptors, and Architects*. (London: J.M. Dent & Sons, 1927),107.
[68] Comments by Allen Banks in 1870 on Vasari' *The Lives of the Painters, Sculptors, and Architects*, 108, saying that Messina probably never met Giovanni da Bruggia.

praise da Messina demonstrates the value associated with ingenuity and innovations in the Renaissance.[69] Vasari's account of Antonello da Messina's accomplishments thus demonstrates the academic importance that such innovation would bring to the art of painting.

The inventive aspect of glassmaking was similarly important and significant. Just as ingenuity and innovation helped painting to achieve academic recognition; certain individual glassmakers and family workshops were elevated socially when the innovative qualities of their technique were recognized. This phenomenon is apparent through the study of the Barovier family (which will be more closely discussed below). Angelo Barovier was a glassmaker of Murano known to be working in the trade from 1422 to circa 1460. He ultimately achieved fame and recognition through the innovations he incorporated into his glassmaking. Indeed, the invention of the new techniques; *cristallo* glass, *chalcedony* glass, and *lattimo* glass [all techniques which will be described later in this thesis], (figure 4, 5, 6) are partly attributed to the maker Angelo Barovier. According to historian Patrick McCray, this marks the "first time that a unique innovation in glassmaking technology was clearly attributable to specific individuals." [70]

The accreditation of such innovation is first recorded in the *Trattato di architettura* by Antonio Averlino il Filarete written between 1458 to 1464. In Filarete's description of the royal palace of an ideal city, he wrote that "the glass [of the palace] will be made by a close friend of mine, *maestro* Angelo da Murano [...] the person who does that beautiful *cristallo*[71]
Commenting on this quote, the historian Gianfranco Toso, writes, that in this passage "*cristallo*

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[69] Comments by Allen Banks in 1870 on Vasari' *The Lives of the Painters, Sculptors, and Architects*, 108, saying that Messina probably never met Giovanni da Bruggia.
[70] Patrick McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (96–140. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 100.
[71] Gianfranco Toso, "Consolidations of the Murano Glass Industry." In *Murano: A History of Glass*, (45–60. Venice, Italy: Arsenale, 2000), 48.

is 'officially' recognized [as Barovier's invention]". The recognition of such invention carried substantial weight and gave status to the family workshop. Additionally, the renown which stemmed from the recognition of certain glassmakers' techniques was accompanied by an early form of 'copyright,' which protected recipes such Angelo Barovier's *cristallo* recipe. The strict rules around whom was allowed to produce and sell sought-after glass pieces enhanced the value of Barovier.[72] This early practice of copyright laws is unique to Venice at the time.

In addition to the uncommon fame achieved by this individual craftsperson and his family workshop, modern scholars also compare the glassmakers of Murano to mathematicians because of their material and technical innovations. Historian Patrick McCray, for instance, compares glassmakers and scientists: "empirically derived recipes and craft instructions were antecedents of future work based on experimentation, testing, and empirical observation, all of which became part of the Baconian scientific method."[73] Indeed, the author writes how glassmakers not only required a strong knowledge of mathematics and chemistry in their field but were also pioneers of the way modern scientists would later conduct research. This can be perceived in Fioravanti's chapter on the art of glassmaking, which mentions ingenuity as a guiding quality for glassmakers, which he also called essential to the modern world.[74] This connection challenges the juxtaposition between the methodology of both the mechanical arts and the liberal arts. This evidence suggests that glassmaking is not purely a mechanical art and was appreciated for its inventive qualities.

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[72] McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice," 124-25.
[73] McCray, Patrick. "Consumers and Competitors: The Distribution of Glass and Glassmaking Knowledge." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (141–63. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999),151.
[74] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. (Vol. 3. Venezia: Appresso il Sartoni, 1678), 114. "Non fù mai trovata la più dilettevole arte, quanto è stata quella de i Vetri: inventione invero ingeniosissima, et molto necessaria al mondo."

In conclusion, both painting and glassmaking were appreciated for their innovative, ingenuous, and intellectual qualities. This parallel demonstrates that innovations and inventions, although present is both mechanical arts, did not obtain the same level of academic recognition. Indeed, the similarities between both crafts makes us wonder, how much did ingenuity influence the elevation of mechanical arts in the Renaissance?

Contemporary Judgements/Appraisals of Glass and Painting

Looking at the contemporaneous judgements of the art of painting and the art of glassmaking, the expected narrative is that one would be elevated over the other. The writings of Fioravanti certainly corroborate the academic distinctions between both crafts. However, when taking a closer look at the judgement of beauty and the concept of the imitation of nature, this superiority of painting over glassmaking becomes less clear.

Fioravanti wrote of glass as a useful and purposeful craft, reflecting current day glassmaking.[75] It seems obvious from our contemporary perspective that the final object created by the glassmaker should be utilitarian: from mirrors to wine glasses, however complex or luxurious, the product of glassmaking prioritized functionality. Our contemporary viewpoint on art forms such as painting, sculpture, and architecture tends to downplay their utility, reflecting the modern mentality of 'art for art's sake.'

The saying 'l'art pour l'art', as coined by the French philosopher Victor Cousin in the early nineteenth century, argues that "art needs no justification, that it need serve no political,

[75] Fioravanti, *Dello Scpecchio Di Scientia Universale*. 114. "Non fù mai trovata la più dilettevole arte, quanto è stata quella de i Vetri: inventione invero ingeniosissima, et molto necessaria al mondo."And Fioravanti, 64. "L'arte del Dipintore, ancor che non fusse arte molto necessaria al mondo, nondimeno è la più bella, e dilettevole arte che si possi fare: imperoché i dipintori fanno parere quello che non è."

didactic, or other end."[76] It would be a mistake however to retrospectively apply this autotelism into the Renaissance, despite the evidence of Fioravanti. It is important to recall that during the peak of the glassmaking trade in Venice, no mechanical art was elevated over any other, meaning that all trades shared the notion of utility. In the Renaissance, a painting, for example, would be commissioned and made to be useful, just as an object of luxury glass. The State, the Church, or perhaps a wealthy member of society, would commission a piece to serve a particular intention and purpose. Fioravanti himself, although stating that painting was not a necessary art, writes of painting as a unique way to record history, facts and effects that were simply impossible to convey through rhetoric alone.[77] Henceforth, when looking at the context surrounding the mechanical arts in Venice during the Renaissance, in conjunction with Fioravanti's writing on both the art of painting and the art of glassmaking, perhaps the true difference is not that painting was not useful, but rather that its uses were viewed as more intellectual.[78]

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[76] *Encyclopedia Britannica Online*, Academic Ed., s.v. "art for art's sake." Accessed January 2, 2022, https://www.britannica.com/topic/art-for-arts-sake.

[77] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*, 68-69. "[...] because she [that is, painting], and history show to us the antiquity of our ancestors, history says it to us with words reading in books, and painting shows it to us in deed [...]" "[…] percioche ella, et la istoria ci mostrano l'antichità de' nostri antecessori, l'istoria lo dice a noi con parole leggendo ne i libri, e la pittura la mostra a noi in fatto [...]."

[78] According to Kristeller, the slow addition of manual crafts to the concept of liberal art in the Renaissance was accompanied by a growing comparison between the liberal arts and painting, sculpture, and architecture. For example, the juxtaposition of painting and poetry—perhaps the most common one at the time—fostered this "point of view of reader, spectator, and listener, rather than of the artist." This concept of the viewer and spectator differs from the 'user' and 'tactile' perspective of glassware, where pieces were only in very few instances, placed in a position of observance. Therefore, the possibility of growth through the exploration and contemplation of viewers was not available from the utility and haptic context of glass production in the Renaissance—a privilege which I believe affected the elevation of paintings, sculpture, and architecture much more than the overall question of 'utility'. Paul Oskar Kristeller, "The Modern System of the Arts." In *Renaissance Thought II Papers on Humanism and the Arts*, (163–227. New York: Harper & Row, 1965), 225.

The Judgement of Painting and Glass

Although Fioravanti suggests that painting and glass could be separated on the concept of utility, further evidence suggests that the way they were evaluated was not always so different. For example, when looking at how glass and painting were judged, evaluated, and described, oral and written descriptions of painting and glass reveal similar attitudes. The historian Patrick McCray states that descriptions of Venetian glass products used terms similar to those used to describe painting. The author emphasises the ambiguous lines between the writings on glass and the writings on painting and argues that both were "centred around the general concept of harmony,"[79] a descriptor commonly associated with the art of painting. The notion of harmony is used frequently in the writings of Leon Battista Alberti, Lorenzo Ghiberti, and Giorgio Vasari and is a key element of the liberal art of painting in the fifteenth and sixteenth century. To give one example, in his text *On Techniques*, Vasari shows that harmony is a quality of intellectual minds: "One can recognize in those pictures which possess these qualities that the intelligence of the painter has by the harmony of his colours assured the excellence of the design, given charm to the picture, and prominence and stupendous force to the figures."[80] Patrick McCray argues that the notion of harmony, like that of "order, symmetry, measure, and proportion" are all present in the writings of painting and glassmaking. [81] One example of this can be found in the writing of Italian patron Isabella d'Este from Mantua who would, according to McCray's research, ask for specific forms and designs from the glass workshops of Murano.[82] She

[79] Patrick McCray, "Demystifying the Demand for Renaissance Glass." In *Glassmaking in Renaissance Venice: The Fragile Craft*. (66–95. Aldershot, Hants, England: Brookfield, Vt. : Ashgate, 1999), 92.
[80] Giorgio Vasari, *Vasari on Technique.* Edited by G. Baldwin Brown. Translated by Louisa A. Maclehose. (London: J.M. Dent & Company, 1907), 220.
[81] Patrick McCray, "Demystifying the Demand for Renaissance Glass." *In Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 92.
[82] McCray, "Demystifying the Demand for Renaissance Glass," 92.

commissioned a piece in 1496 requesting for "beautiful proportion […] without a foot […] and with a handle of gold."[83] These shared descriptors further suggest that the division between painting and glass was not as settled in the Renaissance as it would later become. The glass market was aware of the consumer demands surrounding form and proportion and obliged in their production style. The similar descriptions found in both the art of glassmaking and painting once again present both as disciplines with much in common the Renaissance.

Imitation of Nature

In the Renaissance, the art of painting and the art of glassmaking shared another similarity in terms of how contemporary commentators judged and praised them: both crafts were valued for imitating nature.[84] The concept of mimesis and the 'imitation of nature' is found in academic and philosophic writing as far back as Plato and Aristotle. In book ten of Plato's *Republic* and in Aristotle's *Poetics*, poetry and painting are linked to the concept of mimesis. Both philosophers emphasized that the imitation of nature was a core aspect of both disciplines, an ideal that artists should work towards, but which was impossible to reach.[85] Plato, when speaking of a painter or a poet imitating a man-made object draws a rather negative view on imitation, saying that the "The imitative art is an inferior who marries an inferior, and has inferior offspring," a comment which

[83] Isabella d'Este, from letters collected in Brown Clifforf, *Isabella d'Este and Lorenza da Pavia*. Geneva, (1982, 214-16) as quoted in Patrick McCray, "Demystifying the Demand for Renaissance Glass." *In Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 92.

[84] *Oxford Dictionary Online*, s.v., "Mimesis" Accessed December 20, 2021, https://www.oxfordlearnersdictionaries.com/definition/english/mimesis. The entry writes "the way in which the real world and human behaviour is represented in art or literature."

[85] Plato, and Benjamin Jowett. *The Republic of Plato: The Ten Books - Complete and Unabridged*. (Adansonia Publishing, 2018), and Aristotle, and Malcolm Heath. *Poetics*. (Penguin Classics. London; New York, N.Y: Penguin Books, 1996).

refers to the separation between the painter's product and the original God-made natural thing.[86] Aristotle, on the other hand, acknowledges the place of mimesis and imitation in the arts more positively.

The imitation of nature was reconsidered and studied by many scholars, thereafter, including Leon Battista Alberti and Vasari, both of whom are key sources for this thesis. Alberti writes of imitation: "So great is the force of anything drawn from nature. For this reason always take from nature that which you wish to paint, and always choose the most beautiful."[87] According to historian Armen Carapetyan, Alberti would advocate for the imitation of nature in its essential qualities as opposed to its external qualities alone.[88] For Vasari, the imitation of nature was an objective of the art of painting and sculpture.[89] Historian James Clifton writes that "Vasari consistently advocates the imitation of excellent models," by which he meant referring to live models.[90] Vasari, like many before and after him, valued the imitation of nature as a skill through which 'true' art was established.[91] Both Alberti and Vasari, advocated for the imitation of nature as the foundational pillar of great art. Fioravanti certainly supported such an idea, stating in his chapter on painting that artificial things were easy to imitate as opposed to "natural things [that] are very difficult to imitate, […] because nature does not want to be imitated by

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[86] Plato, and Benjamin Jowett. *The Republic of Plato: The Ten Books - Complete and Unabridged*. Place of publication not identified: Adansonia Publishing, 2018.
[87] Leon Battista Alberti, *On Painting*. London: Penguin Books, 2004 (1435), paragraph 56, Book III.
[88] Armen Carapetyan, "The Concept of 'Imitazione Della Natura' in the Sixteenth Century." *American Institute of Musicology Verlag Corpusmusicae*, Journal of Renaissance and Baroque Music, 1, no. 1 (March 1946: 47–67), 59.
[89] Giorgio Vasari, *Vasari on Technique.* Edited by G. Baldwin Brown. Translated by Louisa A. Maclehose. (London: J.M. Dent & Company, 1907), 221.
[90] James Clifton, "Vasari on Competition." 23–41, The Sixteenth Century Journal 27, no. 1 (Spring 1996), 37.
[91] A more recent comparison of this interpretation could be made through the writings of Ernst Gombrich, in *Art and Illusion* published in 1960.

us."[92] Thus, being successful at imitating nature was, for Fioravanti, the most accomplished skill a painter could master.[93]

In glassmaking as in painting, the notion of illusion and the imitation of natural material contributed to the 'spectacular' element of the crafts. Although we do not always think of the illusory nature of glass, it was a material that had, in the words of McCray, the incredible ability to "imitate other more precious materials."[94] This is apparent when looking at replicas of precious stones made of glass and incorporated as decorative elements on ornate objects or jewellery. This picture (figure 7) shows a pair of earrings from the second half of the sixteenth century.[95] This piece of jewellery from a private collection is made out of glass and had for intention to emulate the looks of an emerald or an amethyst. With respect to such objects, McCray writes that "[g]lass made to evoke other materials allowed persons unable to afford the original to buy something visually similar for their own personal display."[96] This might give the impression that Renaissance glass was an inexpensive option although this was far from being the case. Buyers praised and sought glass precisely because it had the capacity to imitate other materials—especially precious, naturally-occurring materials. Their appreciation may be related to the desire for naturalism in painting and sculptures.[97] Patrick McCray states that glassmakers were admired for the "the cleverness and ingenuity of [...] formulating the different glass

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[92] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. (Vol. 3. Venezia: Appresso il Sartoni, 1678), 65. "Le cose naturali son molto difficil da imitar: & questo è perche la natura non vuole esser imitate da noi. "
[93] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*, 65.
[94] Patrick McCray, "Demystifying the Demand for Renaissance Glass." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 69.
[95] See figure 7. 'Emerald' and 'Amethyst' glass eardrops, circa 1550-1600, Rome.
[96] McCray, Patrick. "Demystifying the Demand for Renaissance Glass." In Glassmaking in Renaissance Venice: *The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 84.
[97] McCray, "Demystifying the Demand for Renaissance Glass," 69.

compositions which so closely imitated nature."[98] In other words, like Renaissance paintings and sculptures, the mimesis of nature was the highest and most sought-after skill.

An appreciation for the imitation of nature can also be found in *Magiae Naturalis*, a volume written by Giovani Battista Della Porta published in the year 1558, which describes the counterfeiting of precious stones. In the publication, an entire section of the book is dedicated to the "Counterfeiting [of] Precious Stones,"[99] through the art of glassmaking with chapters giving details on techniques such as 'How to dye a Saphire,'[100] 'How to counterfeit the colour of the Amethyst,'[101] 'To counterfeit the Topaze,'[102] and 'To Counterfeit an Emerald,'[103] just to name a few. The full title of the book, *Natural Magic "Wherein are set forth all the riches and delights of natural sciences*",[104] makes it clear that making of a glass objects that appear to be sapphires or emeralds was seen as one of the "riches and delights" in the sciences of nature.[105] In addition to the "counterfeiting of precious stones," glass was praised for imitating rock crystal as well as other mineral used to make luxury vessels. The most important innovations of the period comprise of *cristallo*, mentioned earlier, a clear glass resembling rock crystal, and *chalcedony*, a glass imitating the variegation of agate, jasper, or other minerals.[106] The appreciation for the imitation of nature once again, highlights the similarities between painting and glassmaking.

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[98] McCray, "Demystifying the Demand for Renaissance Glass," 69.
[99] John Baptista, *Natural Magick*. (London: Three Pigeons and Angel in St. Paul's Church-yard, 1658), 178.
[100] Baptista, *Natural Magick*, 181.
[101] Baptista, *Natural Magick*, 181.
[102] Baptista, *Natural Magick*, 181.
[103] Baptista, *Natural Magick*, 182.
[104] John Baptista, *Natural Magick*. (London: Three Pigeons and Angel in St. Paul's Church-yard, 1658), book cover.
[105] John Baptista, *Natural Magick*. (London: Three Pigeons and Angel in St. Paul's Church-yard, 1658), book cover.
[106] Patrick McCray, "Demystifying the Demand for Renaissance Glass." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 70.

Glass was not only spectacular in its ability to imitate nature, however; it was also appreciated for its ability to imitate other manufactured materials. The concept of imitating man-made material was only given a name in the 20th century: Skeuomorphism. The term was first introduced by the archeologist Gordon V. Childe in 1936,[107] but Skeuomorphism as applied to glassmaking is defined more thoroughly by Michael Vickers and David Gill in 1994 as "the manufacture of vessels in one material intended to evoke the appearance of vessels regularly made in another."[108] McCray, again writing about the demand for glass in the Renaissance, alludes to this notion of Skeuomorphism when speaking of the different techniques and innovations in the finish of glass—all of which were developed in Venice during the fifteenth century. The most important of which, and most relevant to the topic of man-made material is the *lattimo* technique, an opaque and white glass mimicking porcelain.[109] The appeal of such objects was not simply to own a vase which looked like porcelain, but rather because viewers were amazed to see glass imitating porcelain in such a successful manner. Therefore, imitation of both nature and man-made products were front and center in the production of glass.

These similarities between both painting and glassmaking —challenges the expected narrative that painting was intellectually superior to glassmaking. In conclusion, the historical accounts of glassmaking and painting share a lot of similarities in terms of their purpose, their utility, their form (harmony), and their imitation of nature. Therefore, the arguments made by contemporary scholars such as Alberti and Vasari to elevate painting to the level of a liberal art instrumentalized notions, skills and characteristics that could similarly be applied to the art of glassmaking. The focus of the following section will therefore shift to the concept of manual

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[107] Gordon Vere Childe, and Mark R. Edmonds. *Man Makes Himself*. Nottingham: Spokesman, 2003.
[108] Vickers, Michael, and David Gill. Artful Crafts: Ancient Greek Silverware and Pottery. (Issued in paperback. Oxford: Clarendon, 1996).
[109] McCray, "Demystifying the Demand for Renaissance Glass," 70.

labour, along with the physical and sensorial interaction between the public and the product of glass.

Representation of Craftsmanship

Visual representations of the art of glassmaking and the art of painting present another opportunity for comparison. This section will therefore compare two images from the sixteenth century that illustrate the craftsmanship of both disciplines. This comparison will reveal how the manual labour of each of the two mechanicals arts was represented differently, and how such representation might have affected the academic status of the crafts in question.

The first image is a print made by Netherlandish Jan Collaert I and Jan van der Straet, also referred to as Stradanus, circa 1590. This plate, depicting a painting workshop, is titled *The Invention of Oil Painting* (figure 1) and is part of a series called *New Inventions of Modern Times* [*Nova Reperta*].[110] The contrasting image is a painting by the Italian Giovanni Maria Butteri depicting a glass workshop. The image is titled *The Medici Glass Workshop* (figure 2), and dates back to the year 1570.[111] Comparing these illustrations will demonstrate the emphasis that was put on the spectacle of glassmaking labour. Both images were produced in the last decades of the sixteenth century, thus shortly after the elevation of certain guilds to the level of academies in Florence. This context situates them well before similar institutions were created in Venice, and during which time, the arts of painting and glass were controlled and regulated through the same guild system. Although both images portray workshops outside of Venice, the historical accounts

[110] See Figure 1. Jan Collaert, *New Inventions of Modern Times [Nova Reperta], The Invention of Oil Painting*, plate 14, ca. 1600. Engraving, 27 x 20 cm. New York, The Metropolitan Museum of Art. https://www.metmuseum.org/art/collection/search/659725.
[111] See Figure 2. Giovanni Maria Butteri, *The Medici Glass Workshop*, 1570. Florence, Palazzo Vecchio, Studiolo of Francesco I. https://renvenetian.cmog.org/chapter/look-inside-renaissance-venetian-glasshouse.

of Muranese workshops resemble the depiction by Butteri as can be seen in a print by Vannoccio Biringuccio, from the early sixteenth century, showing a glass furnace in Murano (figure 8).

Looking closely at the first image, *The Invention of Oil Painting*, the craftspeople are here portrayed as calm and concentrated, in a clean, organized, and well-lit studio. None of them are shown carrying out extensive physical strength or activity, besides the one man who appears to hold a canvas in the rear corridor. Some craftspeople are shown in the act of painting, some drawing, and some are shown in the process of mixing and working the pigments to make oil paint. All workers are well dressed, some better than others, perhaps according to their status within the workshop.

When we compare this scene to *The Medici Glass Workshop*, the contrast between the two is immediately evident. The glassmaking workshop is portrayed as dark, perhaps at night, alluding to the fact that furnaces were almost never shut, and that labour was continuous throughout day and night. The only source of light comes from the raging furnace, whose bright fire creates the heat and the energy needed to melt glass. The craftspeople are also depicted differently than the painters in *The Invention of Oil Painting.* The glassworkers are portrayed as strong working men, their muscles—alluding to the intense manual labour—are emphasized by the light and by their lack of clothing. Some craftspeople appear to be naked altogether, suggesting the heat and the extreme conditions in which the workshop operated.

The overall portrayal of the glass workshop emphasizes the incredible strength, skill and endurance of the craftspeople who produced glass objects. The contrast between the extremely arduous and harsh environment of the glass workshop, juxtaposed with the delicate and fragile glass product may have contributed to the spectacular aspect of the craft person's process and manual labour. For instance, we know that many wealthy visitors travelled to Murano in the

Renaissance to experience the spectacle of strength and skills of the glassmakers.[112] Such spectacle arguably added to the overall value of the glass and the manual aspect of glassmaking held much value to the trade. Patrick McCray writes that **"**[In] the Renaissance, intellectual activities were viewed as superior to manual work. Yet, this apparent disdain for physical work was opposed by the Renaissance person's love of virtuosity."[113] The historian Henri Lucie-Smith writes of this dichotomy as the "most disconcerting aspect of Renaissance attitude towards the crafts." [114] Such emphasis on manual labour was also mentioned by Fioravanti, who stressed the necessity of hands-on knowledge to properly comprehend the art of glass.[115]

Knowing that the Venetian glassmakers of the Renaissance were praised, respected, and elevated because of their manual skills is an important factor to take into consideration when comparing the art of glassmaking to the art of painting. Writers on painting such as Alberti, Da Vinci, or Vasari emphasize the painter's use of mathematics, geometry, and anatomy; this helped the craft of painting to penetrate the academic world, by disassociating with manual labour as much as possible. As Edis-Barzman writes with respect to the establishment of painting as an academic pursuit, "manual and productive aspects [were downplayed], emphasizing their

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[112] Patrick McCray, "Demystifying the Demand for Renaissance Glass." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 86. He writes: "There was the Queen of France in 1502 and the Duke of Urbino in I 532· other visitors include papal legates (1510 and 1520), Federico Gonzaga of Mantua (1517), the Duke of Ferrara (1531), and numerous archbishops. All of these visitors came to Murano specifically to see the glass artisans at work."

[113] McCray, "Demystifying the Demand for Renaissance Glass," 160.

[114] Lucie Smith as quoted by Patrick McCray, "Demystifying the Demand for Renaissance Glass." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (66–95. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 88. He refers in this section of Henri Lucie-Smith *The Story of Craft*. (Oxford, Phaidon, 1981), 160. The writings of Lucie-Smith are mentioned in McCray's chapter on "Demystifying the Demand for Renaissance Glass" as a nod to the admiration granted to the glassmaker as a result of his manual skills.

[115] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. (Vol. 3. Venezia: Appresso il Sartoni, 1678), 68.

intellectual basis and moral purpose."[116] As the prestige of glass relied so heavily on the reputation of its makers along with the spectacle of the glassmaking process, the idea of downplaying the manual and productive aspect of the craft was surely out of the question for contemporary glassmakers. Therefore, and as mentioned by Lucie-Smith and McCray, the Renaissance person's love of virtuosity, in the case of glassmaking, surpassed the intellectual value of the trade.

By contrast, Stradanus' print of the painting studio emphasizes the intellectual aspects of the craft. This is visible through the making of oil paint being present in the composition, one of the ingenious inventions of the fifteenth century as previously mentioned by Vasari. It is also visible by the presence of some classical artefacts, such as the Roman bust present on the forefront table. In comparison, the glassmaking workshop does not present any of the intellectual values of the craft such as the mathematics and the chemistry necessary for many of the new recipes and techniques of the fifteenth century. Instead, the image showcases a spectacle of strength. Lastly, it is noteworthy to mention that the painting of the glass workshop comes from Florence, where glassmaking was not as celebrated as it was in Venice, and therefore the image may reflect this Florentine view of the craft. However, there is no equivalent to Stradanus print—an image highlining the intellectual qualities of a workshop—for the glassmaking trade, neither in Florence, nor in Venice. The lack of intellectual qualities shown in the representation of glass workshops combined with the emphasis on the spectacle of strength indicates how manual labour was valued, idealised, and even utilized as a tool to promote and elevate the trade of glassmaking in the Venetian Renaissance. And although intellectuality and ingenuity were

[116] Karen-edis Barzman, "Disegno as a Disciplinary Practice: The Academy School." In *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, (143–81. Cambridge; New York: Cambridge University Press, 2000), 146.

essential features to both trades—painting and glassmaking—the emphasis on manual labour in the representation of glassmaking certainly impacted the categorisation and the elevation of certain crafts in relation to the liberal arts of the Renaissance.

Individuality and the 'Cult of Personality'

The last case study of this chapter will look at fame, individuality, 'the cult of personality' and self-recognition. The elevation of certain mechanical arts during the Renaissance raised the status of certain artists and artisans in society. Historian Rudolf Wittkower describes this phenomenon in his article "Individualism in Art and Artists: A Renaissance Problem":

> It is an undeniable achievement of Renaissance artists that they raised art from the level of a mechanical to that of an intellectual occupation. By allying art to science, they drove a wedge between the arts and the crafts and, at the same time, rose in their own eyes and those of the world to the level of an elite. For the first time the artists were also capable of seeing their art as an act of self-expression. […] For the first time in western history the initiated public bowed before the artist and acknowledged his special place in society.[117]

This distinction between arts and crafts is defined by Wittkower as the avenue through which artists such as painters, sculptors and architects rose above their peers of the mechanical arts. The birth of the 'modern artist' is therefore, often associated by scholars to this social change and

[117] Rudolf Wittkower, "Individualism in Art and Artists: A Renaissance Problem." *University of Pennsylvania Press*, Journal of the History of Ideas, (22, no. 2. 1961: 291–302), 297-298. Additionally, Wittkower writes that: "During his lifetime Michelangelo was called "divine" and ranked above the princes of the blood. Never before had such honors been accorded to an artist."

growing individualism of the Renaissance artist, particularly in Italy. Scholar Peter Eisenman also discusses of the fame of the Renaissance artist, writing that:

> Before the Renaissance, all art was in some way believed to be mediated through God the creator and was thus regarded as an absolute phenomenon. However, during the Renaissance, the idea of history [(historia)] replaced art as an absolute register. With this history came the idea of a subject in relationship to a work, an individual artist as a "creator," with a name, a signature, and ultimately the potential for fame.[118]

A closer look into the art of painting in Venice reveals the unusualness of the Republic in terms of individuality and fame. Unlike neighbouring States such as Florence or Rome, Venice preserved the *Arte dei Depentori*—a professional membership like a guild or a confraternity—comprised of "figure painters, gilders, textile designers and embroiderers, leatherworkers, makers of playing cards, mask makers, sign painters, and illuminators" well into the seventeenth century.[119] As mentioned before, the art of painting was first separated institutionally from the other *arte* of Venice by a senatorial decree which created the academic institution for teaching painting in the city through the *Collegio dei Pittori* in 1682. The creation of a college for painters was much later than in Florence, which founded the *Accademia del Disegno* in 1563. Even after the formation of the *Collegio* in Venice, there was very little difference in the overall position of painters regarding their contribution to the guilds, their relationship with liberal arts, and the social ranks of individual artists and family names since, as the historian David Rosand writes,

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[118] Peter Eisenman, "Fame as the Avatar of History." *Famous*, The MIT Press on behalf of Perspecta, 37 (2005),164–71.
[119] David Rosand, "Introduction: The Conditions of Painting in Renaissance Venice." In *Painting in Cinquecento Venice: Titian, Veronese, Tintoretto*, (1–46. New Haven: Yale University Press, 1982), 10.

"the Senate had decreed a Collegio, not an Accademia dei Pittori."[120] Rosand emphasizes that "a Venetian *Accademia dei Pittori e Scultura* was not established until 1754, after nearly every major city in Italy and most of Europe boasted an academy of Fine Arts, and nearly two centuries after the creation of the first such Academy in Florence."[121]

However, despite the effort of the Republic to limit the reach of ambitious artists, history shows that some painters working in this context rose above the restrictions put in place. Giovanni Bellini, Gentile Bellini, Giorgione, Tiziano Vecelli, Tintoretto, Paolo Veronese and Jacopo Bassano are only a few examples of the successful and recognized artists who navigated the conservative climate of Venice with success. Even when successful, artists were nevertheless restrained when compared to artists of neighbouring States. As discussed earlier, Venetian painters had limited academic recognition, and the mediums they used were also restricted. In the fifteenth and sixteenth century, many States such as Florence—arguably supported by Vasari's writing—began to view visual arts and liberal arts as "no longer divided by their material differences but […] united by their common intellectual bond."[122] This belief allowed artists greater freedom in terms of medium of creation. For instance, some Florentine artists would work in painting, sculpture, and architecture, without limiting themselves to one area. Michelangelo and da Vinci are, once again, good examples of artists praised for their intellectual merit who worked across mediums. In David Rosand's "Introduction: The Conditions of Painting in Renaissance Venice," the author mentions how "[such] creative adaptability was, in effect, illegal in Venice, for it would have involved a violation of the protected precincts of the

[120] Rosand, "Introduction: The Conditions of Painting in Renaissance Venice," 10.
[121] Rosand, "Introduction: The Conditions of Painting in Renaissance Venice," 14.
[122] Rosand, *Painting in Cinquecento Venice: Titian, Veronese, Tintoretto*, 15.

different arti," and how ultimately these regulations would hinder the advancement of painting to the level of liberal arts in the Republic.[123]

Having established that there were certain limitations preventing practitioners of various arts in Venice from rising to a higher social and intellectual status, it is worth asking whether any glassmakers began to rise above these limitations, as certain Venetian painters, mentioned above, had managed to do. In fact, there is some evidence of this, as Patrick McCray has shown by investigating the concept of the 'cult of personality' in relation to the art of glassmaking. In the introduction of *Glassmaking in Renaissance Venice: The Fragile Craft,* McCray writes that mythmaking and fame were accorded to both glassmakers as well as painters, but to a different scale. The author mentions one glassmaking family in particular, the Barovier, who "attained a legendary position in the pantheon of Muranese glassmakers."[124] However, McCray emphasizes that, in general, glassmakers lived in anonymity, and that individual examples of glassmaking would rarely, if ever, be associated with the fame of particular glassmakers.[125] Scholars of the twentieth century have attempted to attribute certain glass pieces to individual makers, but there is simply not enough material or literary evidence to do so confidently.[126] McCray suggests that this desire to individualize glassmakers is "an attempt to compensate for a lack of a 'cult of personality' in Renaissance glassmaking."[127] The use of the notion 'cult of personality' is introduced by McCray as a key concept to illuminate the position of the glassmakers. Looking closely at this concept provides an additional perspective on the arbitrary separation between 'fine art' and 'craft' in the Renaissance.

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[123] Rosand, *Painting in Cinquecento Venice: Titian, Veronese, Tintoretto*, 15.
[124] Patrick McCray, "Introduction." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (1–14. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 5.
[125] McCray, "Introduction," 5-6.
[126] McCray, "Introduction," 5-6.
[127] McCray, "Introduction," 5-6.

The notion of the 'cult of personality' is most often used today by scholars to discuss topics of propaganda, communism, totalitarianism, and Stalinism. The term is often used to mean a strong interest or a form of veneration for an individual person or character. Consequently, the term 'cult of personality' is used to describe situations where people show high esteem toward, or idolize, someone as a result of propaganda. The term has been applied to the attitudes towards artists in Florence, which will be discussed in greater detail in the following chapter. However, in this section, the idea of the 'cult of personality' will first be applied to the context of the Venetian glassmakers.

In the thirteenth century, glass objects were made in many cities near Venice and Murano, such as Ravenna, Vicenza, Padua, Treviso, Bologna and Mantua.[128] However, the Venetian glass industry would, in time, significantly surpass the competition and become the center of glass production in the region. Among glassmakers in Venice, the Barovier family would acquire much power in the fifteenth century, partly as a result of innovative regulations surrounding the glassmaking trade. The prestige acquired by the Barovier family is mostly attributed to the master glassmaker named Angelo Barovier, son of Iacobo Barovier, who lived circa 1400 to 1460 and opened shop in Murano during the year 1422, according to a license of construction.[129] Angelo Barovier is associated with the invention of many revolutionary

[128] N. Hudson Moore, "Venetian Glass." In *Old Glass, European and American*, (28–50. New York: Frederick A. Stokes company, 1924), 30.
[129] Gianfranco Toso, "Consolidations of the Murano Glass Industry." In *Murano: A History of Glass*, (45–60. Venice, Italy: Arsenale, 2000), 50.

techniques earlier mentioned: cristallo,[130] chalcedony[131] and lattimo.[132] These innovations would ultimately revive and strengthen the glass industry in Venice in the fifteenth and sixteenth century.

Angelo Barovier can be associated with the concept of the 'cult of personality' because the invention of the *cristallo* technique was mostly attributed to him. According to McCray, "the association of the Barovier, Mozetto, and d'Angelo families with new glass types such as *cristallo* marked the first time that a unique innovation in glassmaking technology was clearly attributable to specific individuals."[133] The invention of *cristallo* along with the strict State regulations meant that only members of the Barovier workshop could produce pure *cristallo Veneziano*. Indeed, a decree passed in 1455 shows that the State of Venice gave the Barovier family "the exclusive right to produce '*Cristallo Veneziano'* (Venetian Crystal)."[134] This decree, essentially made the Barovier the only glassmakers allowed to produce objects using the *cristallo* technique, and is interestingly still being honoured today as it appears on the introductory page of the current *Barovier & Toso* company website. [135] This uncommon privilege granted to the Barovier family along with the arrival of a patent system in Venice (1647) meant that the makers

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[130] *Corning Museum of Glass Dictionary*., s.v. "cristallo." Accessed November 30, 2021. https://www.cmog.org/glass-dictionary/cristallo. A term first used in Venice in the 14th century to describe glass that resembles colorless rock crystal. Most Venetian cristallo, however, has a gray or brownish tint.
[131] *Corning Museum of Glass Dictionary*., s.v. "calcedonio." Accessed November 30, 2021. https://www.cmog.org/glass-dictionary/calcedonio. Chalcedony is a glass technique in which different materials are added to a clear glass with the intention to color the material in a way that imitate the marble effects of certain semiprecious stones such as jade, agate, etc.
[132] *Corning Museum of Glass Dictionary*., s.v. "lattimo." Accessed November 30, 2021. https://www.cmog.org/glass-dictionary/lattimo. Lattimo, or milk-glass as it is sometimes referred to, is a technique that imitates the opaque white of porcelain.
[133] Patrick McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (96–140. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 100.
[134] "Barovier & Toso, Venezia 1295" Barovier&Toso Fondamenta Vetrai. Accessed December 2, 2021. https://www.barovier.com/en/1295
[135] "Barovier & Toso, Venezia 1295" Barovier&Toso Fondamenta Vetrai. Accessed December 2, 2021. https://www.barovier.com/en/1295

of glass held power over their individual recipes and their produced goods, giving motives to buyers of luxury glass to know and ultimately be concerned with the provenance of the items. The result of this new reality meant that some master glassmakers were renown, socially elevated and self-aware of the worth of their work and knowledge.

The value and the uniqueness of the Venetian glass was being recognized by buyers in a way perhaps similar to painting in Florence. The skills of individual glassmakers began to be recognized by consumers as evident by patent decrees which protected their products.[136] On the other hand, the notion of the 'cult of personality' conflicted with Venice's values. Indeed, Venice viewed individuality and personal fame negatively since the good of the State was always expected to be put above personal gains. The Venetian desire to limit individuality may help to understand why glass makers did not go on to achieve the fame of painters and other artists.

The phenomenon of the 'cult of personality' arose among practitioners of certain mechanical arts as certain individuals were identified as worthy of academic recognition. Whereas individual glassmakers could be appreciated in ways similar to painters and sculptors, the phenomenon was never widespread in this trade. This could arguably be as a result of the limitations on the artisans of Venice, as will be further discussed in the following chapter.

Conclusion

Looking at the various primary sources such as humanist texts, printed books and images, this chapter has shown that in the eyes of contemporary observers, glassmaking and painting shared many of the same characteristics in terms of their intellectual features, their ingenuity, their aesthetic characteristics, their ability to imitate nature and their technical value. These sources

[136] By this I am referring to the patents decrees and laws which were starting to appear in the fifteenth century around the glassmaker's 'secret recipes' and right to make and sell products on the Venetian market.

have shown that glassmaking was recognized as possessing a lot of the same qualities which Renaissance scholars believed were required of academic endeavours. Yet glassmaking was never elevated to a liberal art. The manual labour used in glassmaking appears to have been the most prominent difference between perceptions of the art of glassmaking and the art of painting.

The following chapter will explore another possible reason that glassmaking never rose to the same status of painting during the Renaissance, namely the geographical, cultural, and political context of Venice. The unique setting of Venice during the Renaissance will be studied in the following chapter as a possible factor which kept glassmaking among the mechanical rather than the liberal arts. Looking at how Venice intentionally controlled glassmaking throws conventional ideas about the elevation of crafts based on their intellectual characteristics into question.

CHAPTER 2: The Myth of Venice

This second chapter will examine the status of Venetian glassmakers in relationship to other crafts people from the point of view of their cultural, social, and political standing. A closer look into the role of glassmaking in the Venetian Republic will help to understand the evolution of the craft and its relationship with the visual arts of the period. The glass industry played an important role in Venice and the popularity of glass contributed to the "mythology" surrounding the State, as will be described below. In order to comprehend how Venetian glass contributed to the "myth of Venice", a discussion on the symbolism of the material will be introduced. The conclusion of this chapter will offer a comparison between the role of glassmaking in Venice and the role of painting in Florence. I will argue that both arts contributed to the mythology of the respective States, which suggests that the idea of 'fine art' was socially constructed in the Italian Renaissance.

The Role of Glassmaking in Venice and the Social Status of the Glassmaker

The State of Venice began to get more involved in glassmaking in the second half of the fifteenth century, attempting to control the growing glass market.[137] A law created in 1474 could be perceived as an attempt to control the glass market by political means. This law gave patent protection for innovations made in glassmaking, and it is interpreted today as the first instance of a 'copyright' regulation for inventions.[138] For the glassmaker of Venice, this novel protection for

[137] Gianfranco Toso, "Consolidations of the Murano Glass Industry." In *Murano: A History of Glass*, (45–60. Venice, Italy: Arsenale, 2000), 50. On the 28th of February 1482, an official decree from the Council of Ten was published and accounts for the beginning of the State's interest in the art of glassmaking.
[138] Francesca. Trivellato, "Murano Glass, Continuity and Transformation (1400-1800)." In *At the*

their 'secret recipes' meant that the chemical formulas and their intricate and evolving techniques carried more value than before—both socially and economically. Ultimately, the attention given to the craft by the State benefited the advancement of glassmaking by exercising control on the industry's rules and standards. As briefly mentioned in the introduction of this thesis, these rules were strictly enforced, but the rules could also change according to the circumstances of the glass market at any given moment. McCray notes that the Venetian government controlled such things as: "the annual vacation period [which] was balanced between a need to keep workers employed in Murano and a need to control the amount of glass produced. [139] The quality of production was equally controlled by the "limiting the numbers of working holes (bocche) in each furnace [as well as the fact that no] Venetian was allowed to sell broken or damaged glass; there was a penalty of 3 lire for each infraction.[140] These rules were accompanied by a strict control over the raw material used in glassmaking, where, for example "the use of fern ash as a flux [was forbidden] under the pretext that it produced a glass of poor quality."[141] In 1587, new measures were taken to demolish all glass works and installations found within cities of Venice's nearby *terra forma* (cities on the mainland), which left Murano as the sole maker of Venetian glass[142]

Considering the important role accorded to glassmaking in Venice, it is perhaps surprising to learn, as historian Patrick McCray has shown, that glassmaking did not actually

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Center of the Old World: Trade and Manufacturing in Venice and the Venetian Mainland, 1400-1800, edited by Paola Lanaro, (143–83. Centre for Reformation and Renaissance Studies, 2006), 154. At least when speaking of Europe.

[139] McCray, "Master Aldrevandin's World: Glassmaking in Pre-Renaissance Venice," 46.

[140] McCray, "Master Aldrevandin's World: Glassmaking in Pre-Renaissance Venice," 45.

[141] McCray, "Master Aldrevandin's World: Glassmaking in Pre-Renaissance Venice," 46.

[142] Toso, 61. In his book, Toso refers to the "boundaries at Treviso, Padua and Vicenza" as the places in which glass workshops were destroyed. Besides talent and knowledge shared over generations, but this was the case outside of Venice as well at the time.

have a major impact on the economy of Venice.[143] The fact that the State went to great lengths to be involved in the glassmakers' guild and to control every aspect that could potentially affect the production and market value of the luxury good suggests that the opposite would be true. The skill, fame and international renown of Venetian crafts people would also suggest that glassmakers made an important contribution to their economy. Despite its relatively minor economic importance, however, McCray explains that "official state documents of the mid-fifteenth century refer to the glass industry as a 'worthy ornament to our state' and as 'the glory and ornament of the city.'"[144] This suggests that the importance of the glass industry in Venice might have been cultural, rather than economic.

One of the institutions through which glassmakers might have obtained political power is their guild. McCray describes the Venetian guild system as the "link [between] the commercial, administrative, and industrial aspects of life in Venice."[145] In the Renaissance, however, Venetian Guilds, unlike guilds in Florence, did not hold the same political power. McCray states that in Venice "guilds were in a respected but subordinate position to the State. […] This exclusion was part of the general pattern of the Venetian nobility to limit the role that the *Popoli* had in the running of state affairs."[146]

As briefly discussed in the introduction of this thesis, however, the Venetian glassmaker held an exceptional status in that society despite the relatively minor contribution glassmaking made to the Venetian economy, and despite the guilds' lack of power. The advantages accorded

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[143] McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice," 136.
[144] Patrick McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice." In *Glassmaking in Renaissance Venice: The Fragile Craft*, 96–140. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 19990), 136.
[145] Patrick McCray, "'Masters of the Gold of Christendom': Renaissance Venice, the World Economy and Luxury Goods." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (15–32. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 24.
[146] McCray, "'Masters of the Gold of Christendom': Renaissance Venice, the World Economy and Luxury Goods," 23-24.

to glassmakers ranged from tax exemption[147] and income for the unemployed[148] to the privilege of marrying into nobility (the children of such unions would also keep noble status).[149] The glassmakers of Venice were wealthy, valued, socially elevated, and often lured by neighbouring States who wanted to acquire the immense cultural value of their skills and knowledge.

It is difficult to account for the unique status and privileges of glassmakers because the industry was not economically important. However, the cultural importance of glass to Venice may have been a motive for the elevated status of the glassmaker: the unique recipes and the skills mastered by glassmakers were precious and essential to the upkeep of the famous Venetian glass. The cultural rather than economic value of glass may also explain why the Venetian State prioritized higher quality products as opposed to a larger profit.[150] In other words, the unique social status of the glassmaker in Venice might be a direct response to the cultural role glassmaking played for the State: to maintain the successful image Venice presented of itself, sometimes referred to by scholars as the 'myth of Venice.'

The Myth of Venice

The concept of the 'myth of Venice' is important to understand when studying the Venetian Renaissance. The 'myth of Venice' encapsulates a range of ideas which presented the Republic as a successful and divine State. The following definition of this concept from *Encyclopedia Britannica* allows for a good first look at this concept:

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[147] Francesca Trivellato, "Murano Glass, Continuity and Transformation (1400-1800)." In *At the Center of the Old World: Trade and Manufacturing in Venice and the Venetian Mainland, 1400-1800*, edited by Paola Lanaro, (143–83. Centre for Reformation and Renaissance Studies, 2006), 159.
[148] Trivellato, "Murano Glass, Continuity and Transformation (1400-1800)," 159.
[149] N. Hudson Moore, "Venetian Glass." In *Old Glass, European and American*, (28–50. New York: Frederick A. Stokes company, 1924), 31.
[150] Patrick McCray, "Desire Fulfilled: The Technology of Glassmaking in Renaissance Venice." In *Glassmaking in Renaissance Venice: The Fragile Craft*, 96–140. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 19990), 136.

> Reacting to their physical environment and to a variety of cultural influences—from Italy, northern Europe, and the East—the Venetians consciously designed their city as an exceptional place. They regarded it as a divinely ordained centre of religious, civic, and commercial life, a community blessed by St. Mark, protected by its lagoon, and governed by a balanced constitution incorporating monarchy, aristocracy, and republican liberty. Historians refer to this perception as the "myth of Venice." [151]

Venetians in the Renaissance were very civic minded and took great pride many aspects of their city, from the natural beauty of its geography to its architecture.[152] There are, however, sizable discrepancies between recorded historical facts and Venetian beliefs about 'Venice-as-the-chosen-city.'[153] The reputation of Venice in the Italian Renaissance was both the result of its success as a state, but also a result of the propaganda and mythology circulated by Venetians and observers of the city. Historian Edward Muir's interpretation of the 'myth of Venice' divided it into three separate areas:

- "The 'Republic of a mixed government' myth claimed that the Venetian institutions of great council, Senate, and Doge constituted an ideal combination of democracy, aristocracy, and monarchy."[154]

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[151] *Encyclopedia Britannica Online*, Academic Ed., s.v. "Venice." (Accessed November 28, 2021), https://www.britannica.com/place/Venice.
[152] Edward Muir, "The Myth of Venice." In *Civic Ritual in Renaissance Venice*, (3–61. Princeton, NJ: Princeton Univ. Press, 1981), 13.
[153] Muir, "The Myth of Venice," 16.
[154] Muir, "The Myth of Venice," 33.

- "The 'Commonwealth of liberty' myth eluded both to Venice's freedom from foreign powers and to its alleged security from domestic tyranny." [155]
- "The myth of 'the gallant city' arose in response to Venice's dramatic city scape and to its toleration of libertine amusements."[156]

The city's strong stability (and consequent reluctance for change) was anchored in Venice's republicanism and its mixed government. Muir stresses Venice's unique political stability by contrasting it with cities such as Florence, where a strong interest for social change occurred in the fifteenth and sixteenth century.[157] In this context, Venice's stable political institutions were often praised by neighbouring states, and this helped to establish belief in the 'myth of Venice.'

The historian David Rosand also explores the concept of the 'myth of Venice' by comparing the Republic to a work of art—the work of art being "the imagery developed by la Serenissima Repubblica, the Most Serene Republic of Venice, to represent itself."[158] Such representation is described by Rosand as being similar to propaganda distributed to create the image of a perfect State. The choice of the word 'myth' to describe this propaganda is quite appropriate, since the term often refers to fictions and half-truths.[159] Rosand's view that Venice's public image can be interpreted as a work of art can be applied to Venice's civic rituals.[160] Venetians organized elaborate civic rituals (which included large processions, for example) which can be considered heightened self-representation of themselves as a people; these rituals

[155] Muir, "The Myth of Venice," 33.
[156] Muir, "The Myth of Venice," 33.
[157] Edward Muir, *Civic Ritual in Renaissance Venice*. (Princeton, NJ: Princeton Univ. Press, 1981), 13.
[158] David Rosand, *Myths of Venice: The Figuration of a State*. Bettie Allison Rand Lectures in Art History. (Chapel Hill: University of North Carolina Press, 2001), 1.
[159] Rosand, *Myths of Venice: The Figuration of a State*, 2.
[160] Muir, "The Myth of Venice," 16.

contributed to the success of the State by making citizens value and take pride in their place in their society and thus encouraging their duty to contribute to the Republic.

Thus, glorified self-representations of Venetian citizens contributed to what contemporary historians call the 'myth of Venice'. Despite not always reflecting truth or historical reality, these myths were an effective method of promoting the state: the Republic of Venice, or the 'gallant city,' lasted over a millennium before its fall in the second half of the eighteenth century.

The Reputation of Venetian Glassmaking

Having established that glass did not have a big economic impact on the city of Venice, I have suggested that the craft might have held cultural rather than monetary value. Following this hypothesis, we would expect to see some relationship between the public perception of glass and the myths about Venetian greatness. The image of Venice and of glassmaking was well controlled within its borders, but how was the art of glassmaking perceived by foreigners, and how might this have contributed to perceptions of the 'myth of Venice'? The views of outsiders might help us understand why it was so important for the Republic to control the craft of glassmaking because it would suggest that glassmaking was viewed as part of the larger myths about Venetian greatness. The account of F. Leandro Alberti in his 1550 book on the different cities of Italy, entitled *Descrittione di tutta Italia*, presents a good example of how glass making was perceived by non-Venetians. In this book, Alberti claims that the island of Murano in the vicinity of Venice produces the best glass work in the world.

> In this land so excellent, they make various glass vessels that surpass all other vessels made of the same material in all the world. The makers would continuously find new ways to make them more elegant and ornate by means of diverse techniques.[161]

The author also praises a maker of glass, named Francesco Ballarin, by stressing his particular "ingenuity in making glass vessels."[162] This was, of course, not the only instance in which Venetian glassmaking was acclaimed in Renaissance literature. Leonardo Fioravanti—mentioned in the first chapter of this thesis—a doctor, surgeon, and alchemist from Bologna, who wrote *Dello Specchio Di Scientia Universale,* offers a view on Muranese craftmanship as seen by an outsider.

> It has never been found, the more pleasing art, as much as has been the one of Glass, an ingenious invention, and one very necessary to the world: and today it is so thin, that I believe it cannot be much improved: and that little remains to be added to it: […] and that this is true, which I say, that in no other place in the world to this date, has it been possible to make such art, in such perfection, and beauty, as is done in the said Murano.[163]

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[161] Leandro Alberti, *Descrittione Di Tutta Italia*. (Rome: Anselmo Giaccarelli, 1550), 468. "In questa terra tanto eccellentemente si fano vasi di vetro. Che a varieta & etiandio l'artificio d'essi, superano tutti gli altri saffi fatti di simile materia, di tutto il módo. Et sempri gli artefici (oltra la preciosita' della materia) di continuo ritrovano nuvole modi da farli piú eleganti, & ornati con diversi lavori, l'uno dell'altro."

[162] Gianfranco Toso, "The 16th Century—The Golden Age." In *Murano: A History of Glass*, (61–88. Venice, Italy: Arsenale, 2000), 69.

[163] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. Vol. 3. (Venezia: Appresso il Sartoni, 1678), 114. "Non fù mai trovata la più dilettevole arte, quanto è stata quella de i Vetri: inventione invero ingeniosissima, et molto necessaria al mondo: er al dì d'hoggi è tanto assottigliata, che per me credo, che non possi passare molto avanti: et che vi resti poco da poterui aggiungere, […] et che sia il vero ciò, ch'io dico, in nissuno altro luogo del mondo fino hora è ancor stato possibile di poterui far tale arte, in quella perfettione, et bellezza, che si fà in detto Murano."

Fioravanti brings up the terms of the myth of Venice by calling the Republic "the divine city of Venice," and Murano a place "that […] was made by God": "Murano, a beautiful place, and most agreeable, inhabited by virtuous and good people; a place, which seems as if it had been made by God and by nature to make these glass [works]." [164] As Fioravanti mentions, the island of Murano was, during the Renaissance, both an oasis for the important and the wealthy, as well as the sole maker of certain technical innovation or invention (mastery of materials) as well as cultural capital (artistry) for glass, unmatched in Europe at the time. The natural environment of Venice and Murano is mentioned by Fioravanti as a unique collection of surroundings "made by God" which was integral to the level of success and production of such luxury glass.[165] These three excerpts from contemporary academic writers demonstrate that glassmaking was implicated in glorified views of Venice as perceived by outsiders.

The Spiritual Metaphor of Glass

In addition to claiming that its geographical situation and ecosystem was a product of divine creation, Venice also associated itself with particular symbols that were promoted in its mythology. For instance, the myth of Venice presented the city as a pure and virgin land, never once conquered by foreign invaders. This myth, in turn, was supported by being known as the city where glass and *cristallo* were produced, substances which were symbolically associated with purity and virginity.

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[164] Leonardo Fioravanti, *Dello Scpecchio Di Scientia Universale*. Vol. 3. (Venezia: Appresso il Sartoni, 1678), 114. " […] imperoche ella è quasi tirata dove si può tirare, come si vede chiaramente, e massime nella inclita, e divina Città di Venetia, in un certo luogo ivi vicino, che si chiama Murano, luogo bellissimo, et amenissimo, habitato da gente virtuosa, et da bene: sito, che pare, che sia stato fatto da Dio, et dalla Natura per fare essi vetri […]."

[165] Fioravanti, *Dello Scpecchio Di Scientia Universale*. 114.

The analogy between Venice and virginity is present in many of the contemporary writings on Venice, such as the description of the Republic by the English traveler Thomas Coryat, from 1611: "It is a matter very worthy of consideration to thinke how this noble citie hath like a pure Virgin and incontaminated maybe… kept her virginity untouched these thousand two hundred and twelve years[...]."[166] In addition to this comparison, it is noteworthy to mention that Venice celebrated its founding on the 25th of March, the day of the Annunciation, and thus the very day when Mary conceived Christ.

Glass as a material shared many of these symbolic properties. For instance, the translucent qualities of glass inspired many spiritual metaphors, many of which can be traced back to the Middle Ages, during which time transparency was likened to the pregnancy of the Virgin Mary, as well as the birth of Jesus. For instance, the pregnancy of the Mary, which left her virginity untouched, was compared to light passing through a glass window. Historian Sarah M. Dillon writes of this metaphor saying "[t]hat the metaphor of glass was extensively employed to describe the ultimate example of the undisturbed passage, the virgin birth, suggests it may have had a unique place among materials when it came to symbolizing such paradoxical beliefs."[167] The author also provides an example of this analogy through a verse from the thirteenth century:

As the sunbeam through the glass

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[166] Thomas Coryat, *Coryats Crudities*. (London: W.S.; 1611) as cited by David Rosand, *Myths of Venice: The Figuration of a State*. Bettie Allison Rand Lectures in Art History. (Chapel Hill: University of North Carolina Press, 2001), 38. & Hills, 347. In addition, in the article "Interpreting Renaissance Colour," the historian Paul Hills points to the transparency of glass and this quest toward the "de-colorization" of the material, yet another successful and precious progress from Venice in terms of visual art and the mastery of colour which acts as an added value to the image of the 'myth of Venice."

[167] Sarah M. Dillon, *Seeing Renaissance Glass: Art, Optics, and Glass of Early Modern Italy, 1250-1425*. (New York: Peter Lang, 2018), 90.

> Passeth but not staineth,
>
> So the Virgin as she was
>
> Virgin still remaineth.[168]

In addition to the symbolizing Mary's Virginity, glass was also used to display and encase religious relics.[169] The use of glass in this context may have recalled Christ's resurrection, in which Jesus was able to leave his tomb without disturbing it; likewise, the glass permits the relic to be seen without touching them. [170]

The Republic therefore supports its myth of purity by being known as a maker of this unique material. The transparency and purity of glass becomes especially important in the sixteenth century once *cristallo* glass is developed, a material which had properties that exceeded the possibilities available with rock crystal in terms of clearness and transparency. [171] Muranese crystal drinking-glasses with baluster stems [figure 6.] are the perfect example of the transparency, the purity and the luxury sought after in terms of glass products.[172] These were commonly described by contemporary buyers as proportionally perfect.[173] The former director of the Murano Museum of Glass Attilia Dorigato writes that

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[168] Dillon, *Seeing Renaissance Glass: Art, Optics, and Glass of Early Modern Italy, 1250-1425*. 89.
[169] Paul Hills, "Interpreting Renaissance Colour." In *The Italian Renaissance in the Twentieth Century*, edited by Allen J. Grieco, Michael Rocke, and Fiorella Gioffredi Superbi, 337–52. Florence: Leo S. Olschi, 2002), 347.
[170] Dillon, *Seeing Renaissance Glass: Art, Optics, and Glass of Early Modern Italy, 1250-1425*, 90.
[171] Hills, "Interpreting Renaissance Colour," 347.
[172] See figure 9: from Attilia Dorigato, *Murano: Island of Glass*. (San Giovanni Lupatoto: Arsenale, 2003), 89.
[173] Patrick McCray. "Consumers and Competitors: The Distribution of Glass and Glassmaking Knowledge." In *Glassmaking in Renaissance Venice: The Fragile Craft*, (141–63. Aldershot, Hants, England: Brookfield, Vt.: Ashgate, 1999), 167.

> In spite of the burgeoning of new decorative techniques and manufacturing processes during the course of this century, totally clear and pure crystal glass would continue to account for most of the island's output; equilibrium and harmony of design reflected the renewed classical tastes of the age, and these were exemplified in the formal simplicity and elegance of many of the objects that Murano produced."[174]

The Role of Painting in Florence

Glass is seen as being very important culturally for the image of Venice, but simultaneously controlled and restrained like the other crafts, guilds, and *scuole* of the Republic. We might wonder, therefore, why the Venetian government did not decide it was in the best interest of the Republic to elevate glass to a liberal art. A comparison between glassmaking and painting may help to shed light on this question. What can we learn from looking at the role of painting in the city state where it was most celebrated: Florence?

During the same period as the height of Venetian glassmaking, the status of painting was being elevated and was given a place in academia in Florence. There are many similarities between the role of glassmaking in Venice and the role of painting in Florence since both contributed to the cultural renown of each city. Painting was considered as an academic subject by 1563. As mentioned earlier, Paul Oscar Kristeller identifies the foundation of the first academy of art in Florence in 1563 as the first meaningful "cut [from] their previous connection with the craftsman's guild"; he goes on to note that the "Academy of art (Accademia del

[174] Attilia Dorigato, *Murano: Island of Glass*. (San Giovanni Lupatoto: Arsenale, 2003), 90.

Disegno), [was] the first of its kind that served as a model for later similar institutions in Italy and other countries."[175]

The *Accademia del Disegno* in Florence was closely connected to the Medici leadership, and both painters and the ruler benefitted from each other. A closer look into the motives surrounding the introduction of the *Accademia del Disegno* will help to understand how it benefited Florence. The success of painting in Florence made the city culturally renowned, and in this way, it played a similar role to glassmaking in Venice.

Duke Cosimo I de' Medici (1519-1574) became a key figure in the development of Florentine painting. Cosimo I, was elected as the head of the State of Florence in 1537.[176] Throughout his reign, many scholars agree that Cosimo I would "[use] the visual arts systematically to political and dynastic ends."[177] Just as Venice portrayed itself as the pioneer of the art of glass, historian Karen-edis Barzman writes that "Florence had long been recognized as a leading Italian centre, and Cosimo hoped to sustain this tradition of local preeminence, among other things, as a means to promote the status and hegemony of his fledging Tuscan state."[178] In time, Cosimo became deeply involved in the support of the *Accademia del Disegno*.[179] Furthermore, beyond supporting the creation of the *Accademia*, Cosimo I elevated the art of painting—along with the art of sculpture and the art of architecture in Florence. When the ruler was eventually granted his title of "Grand Duke of Tuscany" in December of 1571, Barzman writes that Cosimo I would "release artists in Florence from membership and the old guilds to

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[175] Paul Oskar Kristeller, "The Modern System of the Arts." In *Renaissance Thought II Papers on Humanism and the Arts*, 163–227. New York: Harper & Row, 1965), 182.
[176] *Encyclopedia Britannica Online*, Academic Ed., s.v. "Cosimo I" Accessed January 31, 2022, https://www.britannica.com/biography/Cosimo-I
[177] Henk Th. van Veen, "Republicanism in the Visual Propaganda of Cosimo I de' Medici." *The Warburg Institute*, (Journal of the Warburg and Courtauld Institutes, 55 (1992): 200–209), 200.
[178] Karen-edis Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*. (Cambridge; New York: Cambridge University Press, 2000), 144.
[179] Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, 144.

which they had belonged for centuries" and "[concede to the art academy] the regulatory and juridical authority of a guild itself."[180] The support of the Medici and Cosimo I for the Florentine art of painting essentially transformed the academy into "an official organ of the State" which centralized and supported the Medicean reign.[181] It is perhaps fair to say that painting contributed to what may be called the mythology of Florence by being an emblem for Florentine intellectuality and evolving academic prowess.[182] In her essay *Artist into Heroes: the commemoration of artists in the art of Giorgio Vasari,* Joan Stack writes that "the Accademia del Disegno was created to promote the interests of artists in association with the Medici government" which in turn, funded and maintained its activities.[183]

After a closer look into the role of painting in Florence and the role of glassmaking in Venice, a great number of similarities were raised, namely that they both contributed to the cultural renown and mythology associated with both States. Florentine painting was elevated by the State, particularly by Cosimo I in the sixteenth century, as a way to advocate for the academic and intellectual superiority of Florence and in turn, the rule of the Medici. This role was put in place by Cosimo, not only by supporting the creation of the *Academia del Disegno*, but by supporting the writings of scholars such as Vasari who acclaimed Florentine and Tuscan art as superior.[184] Yet, a question seems to linger: why wouldn't Venice have also wanted to promote glassmaking to a liberal art, if this was so successful for painting in Florence? This essay explored many possibilities as to why Venice declined this course of action for

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[180] Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, 59.
[181] Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, 27.
[182] Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, 27-28.
[183] Joan Stack, "Artists into Heroes: The Commemoration of Artists in the Art of Giorgio Vasari." In *Fashioning Identities in Renaissance Art*, edited by Mary Rogers, (163–75. Aldershot, [England]; Brookfield, VT: Ashgate, 2000), 166.
[184] Karen-edis Barzman, *The Florentine Academy and The Early Modern State: The Discipline of Disegno*. (Cambridge; New York: Cambridge University Press, 2000), 144.

glassmaking, starting from the ties of glassmaking to manual labour to the conservative views of the Serenissima. Ultimately, the simple act of asking this question challenges the way we interpret the history of the elevation of mechanical arts, and the factors which both contributed and hindered, that process.

Conclusion

The study of the myth of Venice surprisingly revealed that glassmaking was not an important agent of Venice's economy in terms of numbers, but was, on the other hand, a growing facet of the image of Venice as a maker of luxury goods. Venice was ruled by governing councils, especially the council of ten, which had in mind a wholistic approach regarding the Republic and the 'myth' of its superiority. Like most dimensions of the State of Venice, the good of the Republic was the primary goal, reiterating the concept of loyalty and patriotism. This imposed homogeneity on all mechanical arts in Venice allowed the state to control the guilds and to prevent certain fields from looking at their individual advancement before the good of the State. The privileges accorded to the glassmakers attests to their value in Venice. Ultimately the role of glassmaking for the Republic was to contribute to the 'myth of Venice". This was seen through the beliefs that regarded Venice as a holy place, and glass as a holy material, rich in symbolism.

By comparing the role of painting in Florence and the role of glassmaking in Venice, the similarities between both States furthers the argument that the inclusion or omission of visual arts within the realm of the liberal art was extremely political in the Renaissance. Venetian glass can be interpreted as an aspect of the 'myth of Venice', and similarly, painting in Florence can be interpreted as an emblem for Florentine intellectuality and the Medici reign. Hence, such juxtaposition supports the idea that the elevation of some mechanical arts to the level of liberal

arts in the Renaissance was in fact, greatly influenced by outside factors—in this case mostly political.

CONCLUSION

What does the example of glassmaking in the Venetian Renaissance tell us about the way certain mechanical arts were later elevated to the status of liberal art? After researching in detail the craft in question, the Republic as it stood during the Renaissance, and the concept of mechanical art and liberal art discussed in the fifteenth and sixteenth century in Europe, I would like to pose a parallel question: had the height and strength of sixteenth century glassmaking occurred in a different state than Venice (thus putting aside the geographical, economical and circumstantial origin of this evolutionary growth)—one less supressing in terms of government authority, less conservative in its values, and frankly more opportunistic, individualistic, and capitalistic in its nature—would glassmaking have obtained greater academic recognition? In other words, did the socio-political context surrounding the art of glassmaking play the biggest role in its exclusion as a 'liberal art'? Based on the evidence examined in this thesis, it seems possible that had glassmaking flourished in a city which celebrated the intellectual qualities of individual makers, (as painting in Florence) it could have risen to the status of liberal art. The elevation of some mechanical arts to the level of liberal arts in the Renaissance, as seen by looking at the role of glassmaking in the 'myth of Venice' and the role of painting in the Medici reign of Florence, was in fact, greatly influenced by socio-political factors.

The first chapter of this thesis began by exploring the expected narrative with regards to glassmaking; one of the mechanical arts, lower than the art of painting. The discussion of Fioravanti's writing displayed some of this narrative, while also planting the seed for a deeper analysis of how visual arts were valued in the Venetian Renaissance. The chapter thus turned to the notion of the intellectual nature of the mechanical arts and the liberal arts, noting that there were more similarities than differences between the art of glassmaking and the art of painting.

The different case studies exploring the utility of the object, the judgement of the product, the imitation of nature and the representation of the craft supported these similarities.

The first chapter also questioned the notion of the 'cult of personality' introduced by Patrick McCray in his book *Glassmaking in Renaissance Venice: The Fragile Craft* using the case study of Angelo Barovier. The 'cult of personality' associated with certain artists in the Renaissance art scene, namely in Florence with painters such as Michelangelo and Da Vinci, helped the craft of painting to be elevated to a liberal art. The taboo on individuality in Venice might have made it difficult if not impossible for glassmakers to achieve similar recognition. This phenomenon is again, a result of the unique culture of Venice.

The second chapter discussed the 'myth of Venice' to show the extent to which the Republic controlled its own image both for its subject and internationally. One way Venetian contemporaries used to promote the unique skillset of the Republic was to emphasize the manual labour required for glass, as well as its sensorial qualities. Affluent people would travel far to witness such prowess. The spectacle of glassmaking and the strength required was appreciated, but ultimately distanced it from the intellectuality of the liberal arts. When painters, sculptors and architects of Florence were downplaying "manual and productive aspects, emphasizing their intellectual basis and moral purpose" [185] with the objective to ascend into academia, glassmakers were emphasizing the manual labour of their craft to benefit the Venetian market and most of all, the international recognition of the Venetian glassmaker's skills and strength.

The good of the State—the image (or myth) of the State—would often dictate whether a change would or would not occur within the Republic. The nature of the conservative State

[185] Karen-edis Barzman, "Disegno as a Disciplinary Practice: The Academy School." In *The Florentine Academy and The Early Modern State: The Discipline of Disegno*, (143–81. Cambridge; New York: Cambridge University Press, 2000), 146.

naturally reduced the likelihood of any changes. Knowing that the only people of power in Venice were found in government, all decisions concerning the State must be beneficial to it above all. Both the art of painting and the art of glassmaking had to navigate these regulations. The Venetian government regulated and controlled the glass industry, gave it status, but also limitations. The State utilized the craft as a tool in the international campaign surrounding the image of Venice, as supported by the idea of the 'myth of Venice.'

The ascent of certain mechanical arts to the level of liberal arts during the Renaissance is certainly a complicated affair to deconstruct. What glassmaking in Venice brings to the discussion is a new perspective which stems not from the crafts that were elevated to 'fine' or 'high' art, but rather from the craft that was not.[186] This focuses our attention on the role that social and political issues played. Going back to the guiding question of this thesis: What does the example of glassmaking in the Venetian Renaissance tell us about the way certain mechanical arts were later elevated to the status of liberal arts? Glassmaking shed light on the complexity of the cultural and academic change in the Western world. It challenged common narratives about 'craft' in relationship to 'fine art', which focus on the beauty, content, and utility of a given art or craft object. Researching Venetian glassmaking in the Renaissance demonstrated that there were many interesting similarities between mechanicals arts of the time. This thesis thus argues that the existence of such similarities between the art of painting and the art of glassmaking means that we must look to political and cultural issues to understand why one was elevated and the other was not. Consequently, it is tempting to argue that glassmaking, given a different context than the Republic of Venice, could have been elevated to the level of

[186] The concept of craft, as Glenn Adamson would describe "making something well through hand skill" is a perspective which challenges the dual lens of 'high' and 'low' art. Glenn Adamson, *The Invention of Craft*. (London: UK. Bloomsbury Academic, 2012), xxiv.

liberal arts. As has been demonstrated, glassmaking shared many similarities with painting, sculpture, and architecture, thought it seems that its evolution was shaped by conservative policies of the State in which the craft was developing. Nevertheless, such hypothetical assumptions cannot be the end of this thesis. What this essay recognizes, is the thin line that separated the mechanical arts in the Renaissance, and the contextual elements which impacted upon the evolution of certain mechanical arts and their elevation into academia.

Figures

Figure 1. Jan Collaert, *New Inventions of Modern Times [Nova Reperta], The Invention of Oil Painting*, plate 14, ca. 1600. Engraving, 27 x 20 cm. New York, The Metropolitan Museum of Art. https://www.metmuseum.org/art/collection/search/659725.

Figure 2. Giovanni Maria Butteri, *The Medici Glass Workshop*, 1570. Florence, Palazzo Vecchio, Studiolo of Francesco I. https://renvenetian.cmog.org/chapter/look-inside-renaissance-venetian-glasshouse.

Figure 3. Portrait of Leonardo Fioravanti, 16th Century, Venetia: Gli Heredi di Melchior Sessa, 1582. Woodcut portrait. https://www.jstor.org/stable/community.24735618

Figure 4. Goblet, circa 1550-1600, Made in Venice, Italy, H: 17.6 cm; Rim Diam: 14.6 cm; Foot Diam: 8 cm, Corning Museum of Glass, New York. https://www.cmog.org/artwork/goblet-205

Figure 5. Calcedonio Pitcher, circa 1500-1525, Made in Venice, Italy, H: 30 cm, W: 20.2 cm, Diam (max): 14.5 cm; Rim Diam: 8 cm, Corning Museum of Glass, New York. https://www.cmog.org/artwork/ewer-24

Figure 6. The Rothschild Bowl, circa 1500-1510, Made in Venice, Italy, H: 5.9 cm; Rim Diam: 14.1 cm; Foot Diam: 6.3 cm, Corning Museum of Glass, New York. https://www.cmog.org/artwork/rothschild-bowl

Figure 1: These 'emerald' and 'amethyst' glass eardrops in the Renaissance style were presumably assembled in the second half of the 16th century. The mounting is partially silvered copper. The green glass 'gems' are 6 mm in diameter. Courtesy of a private collection near Rome, Italy; photo by Carlotta Cardana.

Figure 7. 'Emerald' and 'Amethyst' glass eardrops, circa 1550-1600, Rome. https://www.researchgate.net/profile/Annibale-Mottana/publication/320037541_Counterfeiting_Gems_in_the_16th_Century_Giovan_Battista_Della_Porta_on_Glass_%27Gem%27_Making/links/5a45282f458515f6b05473a9/Counterfeiting-Gems-in-the-16th-Century-Giovan-Battista-Della-Porta-on-Glass-Gem-Making.pdf?origin=publication_detail

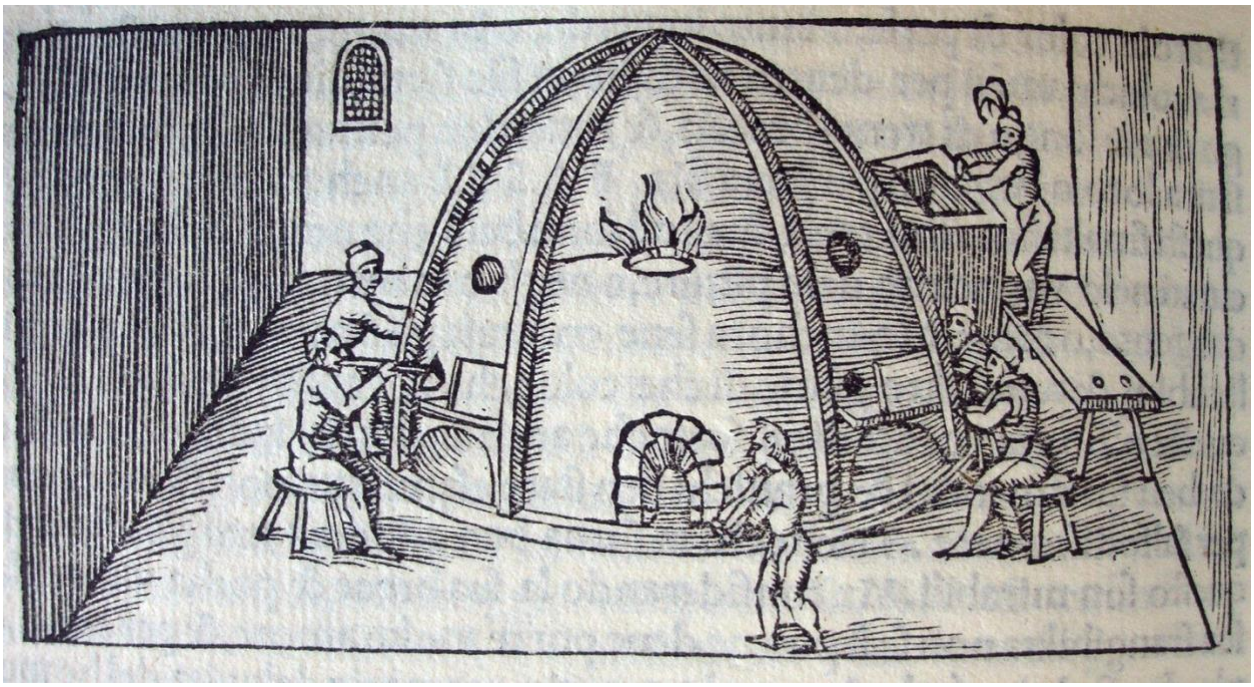

Figure 8. Glass furnace, showing the upper annealing chamber. Vannoccio Biringuccio (Italian, 1480–1539). In *De la pirotechnia*, [Venice], 1540. Print. Rakow Research Library, The Corning Museum of Glass (93699). Photo: The Corning Museum of Glass. https://www.cmog.org/article/vannoccio-biringuccio-de-la-pirotechnia-1540

Figure 9. Crystal drinking-glasses with baluster stems, sixteenth century, Murano, Glass Museum. From Dorigato, Attilia. *Murano: Island of Glass*. (San Giovanni Lupatoto: Arsenale, 2003), 89.

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