Navigating censorship: Galileo and Diodati's plan for the publication of the *Two New Sciences*

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Abstract

This article explores the background of the editorial operation that led to the publication of Galileo Galilei's *Two New Sciences* in 1638. As it was for the Latin editions of the *Dialogue* (1635) and the *Letter to the Grand Duchess Christina of Lorraine* (1636), Galileo actively participated in the printing operations of his final work, even though in the introductory texts he claimed to have no involvement whatsoever. The analysis of three manuscript sheets preserved at the Biblioteca Nazionale Centrale di Firenze highlights not only Galileo's active role in the editorial process but also his contribution to devising a plan to appear completely uninvolved in that publication. In the National Edition of Galileo's works edited by Antonio Favaro, it is noted that these three sheets are written in the same handwriting, without identifying the author. This article intends to show that the author of these manuscripts is Elia Diodati. The comparison of the handwriting on these sheets with other autograph letters by Diodati, alongside the reconstruction of the role played by the Parisian jurist in the editorial operation, supports this hypothesis.

Keywords

Galileo Galilei, Elia Diodati, Two New Sciences

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Introduction

The discovery of many fallacies in doctrines that have been followed in the schools for many centuries, and the partial communication and partial publication of these discoveries, has stirred such an indignation in the minds of those who wish to be regarded as the sole possessors of wisdom that, being exceedingly sagacious and powerful, they have been able to find a way to suppress what has been discovered and published, and to prevent the release of what I have yet to bring to light; they have found a way to obtain from the Supreme Tribunal a very strict order for the Inquisitors not to licence any of my works: an order, I say, of the broadest nature, covering *omnia edita et edenda*.¹

In the aftermath of his 1633 condemnation, Galileo Galilei often expressed a profound sense of distrust and bitterness in his communications with friends and correspondents. The harsh prohibition against publishing any of his works, along with the ban on discussing *sub poena relapso* the Copernican system, significantly constrained his scientific endeavours.² In addition to the stringent restrictions imposed by the Holy Office, in those years Galileo also faced personal tragedies, including the death of his beloved daughter Virginia in 1634 and the progressing deterioration of his eyesight, which ultimately led to blindness. During this challenging period, to avoid further persecution, Galileo had no choice but to adhere strictly to the silence imposed by the Holy Office.

Actually, the Pisan mathematician never truly considered abandoning the cause that had led to his harsh condemnation. In the months immediately following the decree, indeed, he resumed supporting various projects that kept him in close contact with the European scientific and intellectual community.³ Beyond his significant contribution to the publication of the Latin editions of the *Dialogue* and the *Letter to the Grand Duchess Christina of Lorraine*,⁴ Galileo was particularly active in responding to comments and criticisms from his opponents, which he countered through letters and annotations on texts.⁵ With the help of Vincenzo Renieri, he proposed to the Dutch government a method for calculating longitude based on the tables he derived from the movement of Jupiter's four moons.⁶ Through extensive correspondence with Pierre Carcavy, Elia Diodati, and

- ¹ OG, XVI, 361.
- ² Fulgenzio Micanzio informed Galileo about the ban on publishing any of his works in two letters dated 10th February and 10th March, 1635 (OG, XVI, 209, 230).
- ³ Raphael, "Printing Galileo's *Discorsi*: A Collaborative Affair", 483-485.
- ⁴ Bucciarelli, "Back to Battle: The Latin Edition of the Dialogue and of the Letter to Christina (1635-1636)", 93-101.
- ⁵ Particularly notable is Galileo's sharp response to Antonio Rocco's *Philosophical Exercises* (1633). OG, VII, 529-701, 712-50. See Hall, *Galileo's reading*, 71-101.
- ⁶ OG, XVIII, 304. See Drake, Galileo at Work, 374; Van Helden, "Longitude and the Satellites of

Lodewijk Elsevier in Toulouse, Paris, and Leiden respectively, he advocated for the possibility of printing a complete collection of his published and unpublished works.⁷ Finally, he tirelessly worked on composing a "treatise on a new subject in mechanics, full of many curious and useful speculations".⁸

This last reference alludes to the *Discourses and Mathematical Demonstrations Relating to Two New Sciences,* Galileo's last work. Painstakingly developed during his years in Padua, this treatise introduced a new theory of motion which sought to legitimize the scientific and astronomical positions already expressed in the *Dialogue*. In this theoretical framework, the Copernican model was intrinsically connected to the geometrization of motion and an atomistic conception of matter. The former, inspired by Archimedes, had already been employed in the *Dialogue* to counter Aristotelian arguments against the movement of the Earth;⁹ the latter was elaborated through the geometry of indivisibles and prominently featured in the first two days of the *Two New Sciences* dedicated to the strength of materials.¹⁰

Besides providing indirect but essential support to the Copernican system, Galileo's two most important works also presented an undeniable continuity:

Sagr. And let this be the final conclusion of our four days' arguments, after which if Salviati should desire to take some interval of rest, our continuing curiosity must grant that much to him. But this is on condition that, when it is more convenient for him, he will return and satisfy our desires – mine in particular – regarding the problems set aside and noted down by me to submit to him at one or two further sessions, in accordance to our agreement. Above all, I shall be waiting impatiently to hear the elements of our Academician's new science of natural and constrained local motions. Meanwhile, according to our custom, let us go and enjoy an hour of refreshment in the gondola that awaits us.¹¹

It is not difficult to read between the lines of the *Dialogue*'s epilogue the announcement of a new work: Salviati, Sagredo, and Simplicio would return with the same personas they had assumed years earlier, discussing new, interesting, and stimulating topics. In addition to the characters, in the *Two New Sciences* Galileo also revived the dialogic form, once again employing a rhetoric that was highly functional to the scientific structure.

Jupiter", 85-100; Stefani, "Un telescopio a due occhi? Favaro, Venturi e il celatone di Galileo", 169-185.

⁷ Camerota, Galileo Galilei e la cultura scientifica nell'età della controriforma, 545-547.

- ⁹ Galluzzi, Tra atomi e indivisibili. La materia ambigua di Galileo, 29-54.
- ¹⁰ Biener, "Galileo's First New Science: The Science of Matter, 262-287; Galluzzi, *Tra atomi e indivisibili. La materia ambigua di Galileo*, 91-114.

⁸ OG, XVI, 59.

¹¹ OG, XII, 489.

These stylistic and thematic choices caused apprehension among those who, still troubled by the risks faced by Galileo before the tribunal of the Holy Office, did not consider it prudent to revisit the elements and features that had characterized the ill-fated *Dialogue*. However, the fear of a recurrence did not discourage Galileo. Aware of the impossibility of freely publishing his work in the stifling cultural climate of Italy – a climate exacerbated by his own case – he had already devised a clever backup plan: the only solution to circumvent the enforced silence was to take the route leading to Europe. There, the cultural environment, already active through the Republic of Letters in publishing his other works, was eager to support Galileo's desire.

The printed edition of Galileo's final work, the one he cherished the most,¹² was about to become the last act of his ambitious scientific enterprise, with Galileo serving both as the author in writing and the covert director in the publication. The European context once again proved to be an exceptional cultural stage to enact Galileo's much-discussed script.

Building on this premise, this article intends to shed new light on the intricate editorial strategies that led to the publication of Galileo's *Two New Sciences*. The analysis of three manuscript sheets preserved at the Biblioteca Nazionale Centrale di Firenze, reveals Galileo's calculated efforts to appear uninvolved in the printing process of his last work, while also suggesting Elia Diodati's significant contribution. By comparing Diodati's handwriting with these manuscripts and by examining his key role in Paris, this study argues that Diodati was a crucial – if understated – figure in shaping the final publication of Galileo's *Two New Sciences*.

The historiography has long investigated key aspects of the *Two New Sciences*, viewing its edition as essential to understanding Galileo's later years and scientific legacy. Notable contributions in this field include Renée J. Raphael's article, "Printing Galileo's Discorsi: A Collaborative Affair," and Stèphane Garcia's monograph, *Élie Diodati et Galilée. Naissance d'un réseau scientifique dans l'Europe du XVIIe siècle.*¹³ The former provides essential context for understanding the network of contributors who participated in the production of Galileo's *Two New Sciences*. The latter has explored much of the Galileo-Diodati relationship, particularly in relation to the Latin edition of the *Dialogue* and the *Letter to the Grand Duchess Christina of Lorraine*. This article seeks to engage with these works to enrich the nuanced narrative behind the edition of Galileo's *Two New Sciences* and to add new perspectives to the interpretive layers that continue to shape our understanding of Galileo's last years.

¹² OG, XVI, 273.

¹³ Garcia, Élie Diodati et Galilée. Naissance d'un réseau scientifique dans l'Europe du XVII^e siècle.

The troubled edition of Galileo's Two New Sciences

Galileo began working on his new treatise during his stay in Siena with Archbishop Ascanio Piccolomini just a few weeks after his condemnation – a sign that his enthusiasm had not diminished but had, in fact, gained renewed vigour. Two years later, the first two days of the *Two New Sciences* were already completed, and by the end of 1635, he was finalizing the third day, which focused on local motion. In addition to drafting the text, Galileo promptly began organizing the printing operations. Managing this process, however, proved to be highly problematic and caused delays in the publication.

The Galilean historiography – in particular Rapahel's account – has reconstructed in detail the manoeuvres that prepared the way for the edition of the *Two New Sciences*. The copious correspondence that Galileo exchanged with his extensive network of contacts in those years, indeed, helps to understand that, despite the restrictions imposed by his condemnation and house arrest, in 1635 Galileo explored multiple avenues to secure a printer to his work.

The first attempt to circumvent censorship was made in Venice, where the political and intellectual environment was more permissive compared to the strict controls exercised by the Holy Office in other Italian cultural centres. Despite the diligent efforts of Fulgenzio Micanzio, who managed this operation, the ban on publishing any work by the author of the *Dialogue* remained unshaken. In a letter dated 10th February 1635, Micanzio informed Galileo of a conversation he had with the Inquisitor of the lagoon city, who had already prohibited the reprinting of Galileo's *Discourse on Floating Bodies* in observance of the general ban *de editis omnibus et edendis.*¹⁴

Micanzio's attempt in Venice demonstrated that publishing Galileo's work in Italy was impossible. Therefore, to avoid exacerbating an already tense situation, Galileo had no option but to seek publication in Europe. Even across the Alps, however, it was necessary to carefully consider the best route for sending Galileo's precious manuscript, as the presence of Jesuits in many cultural centres posed additional challenges.

In 1635, at the suggestion of Grand Duke Ferdinando, Galileo sent a manuscript containing the first two days of his work to the engineer Giovanni Pieroni, who was at the service of the Holy Roman Emperor in Vienna.¹⁵ Pieroni intended to have Galileo's work printed in Prague.¹⁶ However, the influence of the Jesuits in both Prague and Vienna was so strong that it impeded the publication. Pieroni had to seek the assistance of Cardinal Dietrichstein, Bishop of Olmütz, to establish contact with a local printing house.¹⁷ Although the engravings for the illustrations were prepared, Pieroni was eventually forced to

¹⁴ OG, XVI, 209.

¹⁵ *Ibid.*, 303-304.

¹⁶ *Ibid.*, 359.

¹⁷ *Ibid.*, 393.

abandon the project due to the sudden death of Cardinal Dietrichstein. He had no choice but to return the manuscript to Galileo.¹⁸

In the spring of 1636, while finalizing his studies on the projectile motion for what would become the fourth day of the *Two New Sciences*, Galileo welcomed the printer Lodewijk Elzevier at his residence in Arcetri, where he had returned to live two years earlier following a permit from Pope Urban VIII.¹⁹ That visit, facilitated by Elia Diodati, was not merely a courtesy but was pivotal in arranging the edition of the work. Although we lack specific details of the meeting, we know that the outcome was successful: in the following months, Galileo prepared a copy of the first three days of his work to be sent to Venice. There, Micanzio would deliver the manuscript to Elzevier, who was in the lagoon city on business.²⁰

At this point, historians have generally maintained that the final printing of the *Two New Sciences* by the Elzeviers was primarily the result of the efforts of Galileo's closest collaborators. However, as I intend to demonstrate in this article, Galileo did not relinquish his central role and continued to actively supervise the printing operations that led to the edition of his last work. In addition to supervising the operations, he also devised a plan to conceal his involvement, ensuring that no one could challenge his hidden role as the mastermind behind this delicate editorial undertaking. His contribution, although subtly concealed, emerges through unexpected channels and behind-the-scenes maneuvers that challenge the traditional narrative and reveal Galileo's active participation in shaping the final form of his *Two New Sciences*.

A crucial event for understanding Galileo's plan to print the *Two New Sciences* and to conceal his involvement in the editorial project was the visit he received in October 1636 at Arcetri from the Count of Noailles, the French ambassador in Rome to whom Galileo would later dedicate his work.²¹ As Galileo would later recount in the dedication, indeed, during that visit, the Count of Noailles received a valuable copy of the manuscript of the *Two New Sciences*. This detail is not merely a marginal note: as it will emerge in the second part of this article, the visit of the Count de Noailles and the alleged gift of the manuscript were crucial in portraying Galileo as completely uninvolved in the publication of his own work.

²⁰ *Ibid.*, 475.

¹⁸ Raphael, "Printing Galileo's *Discorsi*: A Collaborative Affair", 488-495.

¹⁹ OG, XVI, 452.

²¹ François de Noailles (1584-1645) served as the French ambassador to Rome from April 1634 to October 1636. He had met Galileo in Padua in 1603, where he had been one of his students. Following Galileo's condemnation in 1633, he attempted to lessen the severity of his punishment, though unsuccessfully. In 1636, he obtained a permission to meet with the Tuscan mathematician in Poggibonsi during his return journey to France. See Favaro, *Amici e corrispondenti di Galileo*, 1317-1346.

By the end of 1636, as revealed in a letter to Diodati dated 6th December, Galileo was still grappling with the parabolic motion of projectiles. He was working through notes from his Paduan studies and found "considerable difficulty in understanding many of the things discovered in his younger years".²² The text for the fourth day was not completed until March 1637. Once again, Micanzio sent this portion of Galileo's work to Elzevier, who on 16th March requested from the Venetian Servite "the remainder with the frontispiece".²³ In Galileo's plans, the "remainder" was intended to include a fifth day on the force of impact. However, Galileo's deteriorating health forced him to abandon this part of the project.

The printing process continued until January 1638, when Elzevier sent Galileo the drafts of the final pages of the work, requesting the dedication and the title.²⁴ The former was sent to Leiden by Diodati after receiving formal approval from the Count de Noailles; the latter, chosen by Elzevier, was not well received by Galileo, who later described it as "too vulgar, if not plebeian".²⁵ After a tortuous and laborious collective effort involving many members of the Republic of Letters who had rallied around Galileo,²⁶ the *Two New Sciences* were finally published in the spring of 1638.

From the correspondence with his closest friends and collaborators, it is evident that Galileo was an active promoter of this editorial endeavour. However, he had to publicly present his work as if it had been edited without his knowledge. Although the *Two New Sciences* did not explicitly advocate Copernicanism, they nonetheless constituted a significant defence of the new natural philosophy underpinning the heliocentric system. The book, indeed, was presented to the readers as a publication made possible largely through the goodwill of the Count de Noailles, to whom the work was dedicated. Galileo's involvement was carefully concealed between the lines of his work.

Behind the scenes

The dedication to the French ambassador that precedes the text of the *Two New Sciences* is the principal document through which Galileo obscured any evidence of his involvement in the publication of his work:

I recognize as resulting from your excellency's magnanimity the disposition you have been pleased to make of this work of mine, notwithstanding the fact that I myself, as you know,

²⁶ Torrini, "Galileo e la Repubblica degli scienziati", 788-789; Raphael, "Printing Galileo's Discorsi: A Collaborative Affair".

²² OG, XVI, 524.

²³ OG, XVII, 45.

²⁴ *Ibid.*, 265.

²⁵ *Ibid.*, 370. We do not have information on the title Galileo intended to give to his work, apart from the initial word: *Dialogues*.

being confused and dismayed by the ill fortune of my other works, had resolved not to put before the public any more of my labors. Yet in order that they might not remain completely buried, I was persuaded to leave a manuscript copy in some place, that it might be known at least to those who understand the subjects of which I treat. And thus having chosen, as the best and loftiest such place, to put this into your excellency's hands, I felt certain that you, out of your special affection for me, would take to heart the preservation of my studies and labors. Hence, during your passage through this place on your return from your Roman embassy, when I was privileged to greet you in person (as I had so often greeted you before by letters), I had occasion to present to you the copy that I then had ready of these two works. You benignly showed yourself very much pleased to have them, to be willing to keep them securely, and by sharing them in France with any friend of yours who is apt in these sciences, to show that although I remain silent, I do not therefore pass my life in entire idleness.²⁷

How should we read this incipit? Evidently, this is a masterful act of dissimulation. Galileo, indeed, claims that after his condemnation, he had decided not to expose any of his "labours" to the public. Actually, he had not only been actively involved in the Latin editions of the *Dialogue* (1635) and the *Letter to the Grand Duchess Christina of Lorraine* (1636), but he had also pursued every possible avenue to publish his latest work. He now sought to convince his readers – and his opponents – that the publication of the *Two New Sciences* was entirely due to the Count of Noailles' magnanimity.

Besides, it is indicative that Galileo chose to dedicate his last work to the French ambassador. He could have honoured the Grand Duke of Tuscany or another eminent patron of the sciences. Why, then, did he choose the Count? Most likely, Galileo knew that the French ambassador was the only prominent figure upon whom he could plausibly place the burden and responsibility for the publication of the *Two New Sciences*. After all, the Count had been authorized by Urban VIII to visit Galileo in October 1636. Thus, in the eyes of the world and of the Holy Office, as Galileo emphasises in the dedication letter, it was credible that during his visit to Arcetri, the Count received a copy of the work that Galileo happened to have ready. However, as revealed by his correspondence with Micanzio, Galileo had sent the manuscript of the *Two New Sciences* to the printers months before his meeting with the Count de Noailles.

The details of this operation are documented in a manuscript letter (Fig. 1) preserved at the Biblioteca Nazionale Centrale di Firenze (MS Gal. 72, f. 30r):

Due to various unforeseen circumstances, particularly the death of the Emperor, the plan to dedicate my work to His Majesty has been abandoned. I have therefore thought that the Illustrious Count de Noailles, a dear friend and kind patron, if needed should say that

²⁷ Galilei, Two new sciences: including centers of gravity & force of percussion.

30 Sylando por vari amorganti, & in granti a lan por la morte doll Imporatore, taghato il di pano dintitolare la mia opora à S. SR to facto ponfioro che l'Att. Big Conto de Maraillos tanto miso antico, & brigno Prone, occorrondo, dica, 140 mil raffar' da quosto parti, o noll'abboccamte de forte more, io l' confignall' quorto Opono, porso la conorte approverso di po, Pafeiaffo sopria in qualizo Conoria famefa accio non fo no por for del fueto la momoria. Ini Gipuro poi, the in quality modo à not incognito no fia poroneta copia in mano a gl'Shouirig, i quali Phattino frampata from famamorto: ma como cofa mia, mi congenino adogo adodicatoria, of Protitolaziona : Ala qual registra io risponders', fignificandon, como mi a giunto nuoro inaffortato il fontin, oso forza alcora miafapio Gono stampato Ofer mice : & informe riforteconi do comparir un'altra lottora, firitta da me al soform Woaillos molto dubbia circa il rallogrestai scontristorni Bo forza driorno io confaporiolo, quiero mid Open efigino alla stapa; havordo qualizo qual agione & formore, so i mioi vigilantiffimi mimici fiano por mourarmonoqualizo diferesto, & - 30 poros fondo questo ocoduto da troppo afocto dol fronte, vorso di mo, go a fai fi comonina il comportario & pono. Si che poraques oddicata alla fua il defidenio mis era, chor Profozziona.

Fig. 1 – MS Gal. 72 f. 30r, Biblioteca Nazionale Centrale di Firenze.

during his visit here and during our meeting, I entrusted him with these works so that he could keep them and leave a copy in some renowned library to ensure they are not completely forgotten. I then imagine that, in some way unknown to me, a copy has reached the Elzeviers, who have printed it spontaneously: however, as it is my work, they now ask me for the dedication and title. To this request, I would respond that I have just learned that, unexpectedly and without my knowledge, my works have been printed. I would also decide to issue another letter, written by me to Count de Noailles, expressing my uncertainty about whether to rejoice or lament that these works of mine have been printed without my awareness. I have some legitimate reason to fear that my vigilant enemies might cause me trouble, and thus considering that this situation stems from the Count's excessive affection towards me, it would be fitting for him to bear the consequences, thus making it my desire that the work be dedicated to his protection.²⁸

The author of this letter is Galileo, who communicates to his correspondent the script to feign his ignorance of the Leiden edition. The key figure in this charade is the Count of Noailles. Through his correspondent, indeed, Galileo requests the Count to state, if necessary, that "when passing through these parts, and during our meeting, I handed him these works". The scheme continues with the staged publication of the *Two New Sciences* in Leiden: a manuscript copy of Galileo's work somehow made its way to the Elzeviers, who then requested a dedication and a title from the author. To this request, Galileo would respond that he had been "newly and unexpectedly informed that my works had been published without my knowledge". Once again, the intention was to convince the readers that the work had been published without the author's consent.

The plan to draft the dedication was ready. But who was the recipient of Galileo's letter containing these instructions? Folio 30r bears the heading "Copy"; indeed, the handwriting on the letter is not Galileo's. Who made this copy? The author of this copy – and most likely the recipient of Galileo's missive – was Elia Diodati. A comparison of this folio with other autograph letters by the Parisian jurist supports this hypothesis (Fig. 2).²⁹ In the *National Edition of Galileo's works*, Antonio Favaro notes that folio 30r is written "in the same handwriting as the manuscripts of the dedication and the preface to the *Discourses and Mathematical Demonstrations Concerning Two New Sciences*".³⁰ Indeed, folios 28r-v (Fig. 3, Fig. 4), which contain the dedication to the Count of Noailles, and folios 31r-v and 32r (Fig. 5, Fig. 6, Fig. 7), which include an almost final version of the printer's letter to the readers (i.e., the preface), also appear to be written in Diodati's hand.

²⁸ OG, VIII, 365.

²⁹ Confront, for example, Diodati's handwriting in the manuscript letter he sent to Roberto Galileo on 2nd June 1637, currently preserved at the Archivio di Stato di Firenze, 5351, c. 4r-v (digital version: <u>https://opac.museogalileo.it/imss/resource?l=en&uri=00005773</u>).

³⁰ OG, VIII, 365, note 1.

particoland la A' di questi

Fig. 2 – Comparison of the letter *f* in manuscript 31*r* and in an autograph letter by Diodati.

Beyond the calligraphic evidence, we can identify the Parisian jurist as the author of these folios for his pivotal role in the publication of the *Two New Sciences*. The instructions for finalizing the printing of the dedication and the preface were sent to Elzevier through Diodati in January 1638. As it was for the Latin editions of the *Dialogue* and the *Letter to the Grand Duchess Christina of Lorraine*, Diodati oversaw the editorial operations of the *Two New Sciences* from Paris, presumably after receiving instructions or approval from Galileo himself.

In the specific case of folio 30r, it is unclear whether Galileo was directing the jurist on how to write the dedication or merely informing him of the strategy he had employed to compose it. In the first scenario, it is possible that Diodati wrote the dedication according to Galileo's instructions. In the second scenario, Galileo may have sought the Count of Noailles's approval for the orchestrated narrative surrounding the printed edition of his work through Diodati before drafting the dedication.

Regardless, the text of the dedication on folios 28r-v is essentially identical to the one later published in March 1638.³¹ Folio 30r, however, precedes the drafting of the dedication itself, as it seeks a form of authorisation from the Count of Noailles to approve the strategy. For his part, on 10th January 1638, the French ambassador effectively granted his consent for the dedication. However, his letter to the Pisan mathematician suggests that he had neither read Galileo's *Two New Sciences* nor, quite possibly, even received the manuscript. He only noted that Diodati had informed him about the book:

³¹ The five variations between the manuscript and the printed text are insignificant and are noted by Antonio Favaro (*Ibid.*, 43-44).

Ce sera donc, Monsieur, avec beaucoub de joye et d'honeur, que ie verray mon nom a la teste du livre duquel M.^r Deodati m'a parlé; en recognoissance de quoy il n'y a chose au monde que vous puissies desirer de moy, que ie ne sois prest de vous rendre.³²

What follows in the dedication letter to the Count of Noailles meticulously adheres to the plan outlined by Galileo in his script. The Tuscan mathematician asserts that he decided to dedicate his work to the Count only after acknowledging that the Elzeviers were printing it without his prior knowledge. According to Galileo, it was the French ambassador who, "out of zeal for the public good," had sent the manuscript to the printers. Had the decision been his alone, Galileo "would have been content for the work to remain in more confined spaces". However, since the Count of Noailles had chosen to publish it to "enhance my fame by allowing it to spread its wings freely under the open sky", dedicating the work to the French ambassador seemed imperative. The dedication concludes with a heartfelt plea for protection, with Galileo asking the Count to "defend my reputation against those who would seek to harm it, as you have placed me in the arena against my adversaries".³³

The readers of this dedication could not have suspected that Galileo's words were a cunning strategy to evade censorship. Nor could they have imagined the extensive behind-the-scenes efforts that Galileo and his correspondents had undertaken over three years, out of the Holy Office's sight, to realise the 1638 edition. Without Diodati's adept diplomatic manoeuvring and Elzevier's foresight, Galileo's final work might not have achieved the widespread circulation it did across Europe.

Diodati was not only the facilitator of the agreement between the author and the publisher for the publication of the *Two New Sciences*; presumably, he was also the author of the printer's letter to the readers that opened the work. In the printed edition, this letter is unsigned by Elzevier, and several clues suggest that the Parisian jurist was its likely author. The fact that the Dutch publisher did not compose the letter to the readers is corroborated by Galileo's own words to Fulgenzio Micanzio in the postscript to a letter dated 16th August 1636: "The title, dedication, and proem *Ad lectorem* will be sent in due time. This is a notice for Mr. Elzevier".³⁴

In the manuscript Gal. 72, housed in the Biblioteca Nazionale Centrale di Firenze, folios 31r-32r contain the autograph version of the printer's letter to the readers written in Diodati's hand. This letter was presumably sent by the Parisian jurist to Galileo for review before its publication in the 1638 edition of the *Two New Sciences*. The fact that this manuscript has passed through several hands is corroborated by the outer part of the letter – folio 32v (Fig.

- ³³ OG, VIII, 44.
- ³⁴ OG, XVI, 476.

³² OG, XVII, 246.

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Fig. 3 – MS Gal. 72, f. 28r, Biblioteca Nazionale Centrale di Firenze.

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Fig. 4 – MS. Gal. 72, f. 28v, Biblioteca Nazionale Centrale di Firenze.

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8), which shows two classificatory inscriptions "Prefazione" written by two different hands.³⁵ Furthermore, a collation between the manuscript and the 1638 printed edition reveals several variants, suggesting that this manuscript was not merely a copy made after the Leiden publication but was likely sent by Diodati to Galileo specifically for supervision and approval. The variants in the manuscript compared to the printed edition mostly involve syntactic choices, reordering of some adjectives, or different adjective selections. Additionally, some of Galileo's titles are omitted in the printed edition, in which Galileo is referred to only as "Accademico Linceo", while the manuscript includes his full title "Linceo e meritamente Primario Matematico del Ser.mo Gran Duca di Toscana, con grandissima preminenza".³⁶

In addition to the handwriting and the prominent role played by Diodati in the edition of the *Two New Sciences*, it is the content of the text that further connects the printer's letter to the Parisian jurist. The letter opens with a comparison to ancient ages when inventors were honoured and even deified. Similarly, those "who, with the sharpness of their intellects, have reformed already discovered things, uncovering the fallacies and errors in many propositions put forth by distinguished men and accepted as true for many ages, are worthy of great praise and admiration". The author goes on to assert that such "praise" should be particularly directed towards the "most perceptive intellects" who, "in recent centuries", have renewed arts and sciences. Among these intellects, Galileo stands out prominently. His distinction is attributed to two primary reasons:

for having demonstrated the inconclusiveness of many arguments regarding various conclusions, confirmed with solid demonstrations (as his already published works are full of them), and also for being the first to discover and report, using the telescope (which had originally emerged in these our regions but was then perfected significantly by him), the news of Jupiter's four moons, of the true and certain demonstration of the Milky Way, of the sunspots, of the roughness and nebulous regions of the Moon, of Saturn's tripartite nature, of the crescent phase of Venus, and the nature and arrangement of the comets; discoveries unknown to ancient astronomers and philosophers, so that it can be said that through these revelations, he brought a new light into the world and revitalized astronomy.

The first reason is a cryptic allusion to the *Dialogue*, in which the "inconclusiveness of many arguments" concerning the Ptolemaic system and, by extension, the doctrine of the Earth's immobility, is demonstrated. The second reason pertains to Galileo's telescopic discoveries, through which a new light appeared to the world and revitalized astronomy. In celebrating these discoveries, Diodati employs nearly the same words he used in 1636,

³⁵ Two classificatory inscriptions by two different hands also appear on the outer part of the manuscript containing the dedication (MS Gal. 72, f. 29v).

³⁶ OG, VIII, 45-46.

when in the preface to the Latin edition of the *Letter to the Grand Duchess Christina of Lorraine* he remarked that:

Indeed, having brought the Dutch telescope to a higher level of perfection, like another Prometheus, with this optical instrument that illuminates the hidden recesses of the heavens, he was the first to reveal to us celestial bodies, that is, new stars unseen and unknown to the ancient astronomers; [he discovered] the much-sought cause of the Milky Way, which was doubtful and obscure to ancient philosophers and astronomers, the sunspots, the roughness of the Moon and scattered shadows here and there, Saturn's tripartite nature, the crescent phase of Venus, and the distinctive characteristics of the other planets, as well as the fact that they all receive light from the Sun (from which [discoveries] the ineffable light of astronomical science has shone).³⁷

Just five years after Galileo's condemnation, Copernicanism reappeared in disguise, concealed behind Diodati's veiled prose. Indeed, the Parisian jurist subtly referenced the opening of the *Dialogue* when, in discussing astronomy, he wrote:

from the excellence of which (as in the heavens and in celestial bodies the power, wisdom, and goodness of the Supreme Creator shine with greater evidence and admiration than in all the other creatures) results the great merit of those who have revealed this knowledge to us, by making such bodies distinctly visible to us, despite their almost infinite distance.³⁸

The celebration of Galileo's enterprise continued with the presentation of his latest work. Diodati introduced the author of the treatise as a pioneering figure in the two new sciences addressed. Galileo was praised for having geometrically demonstrated those two disciplines from their fundamental principles and for having revealed a wide array of phenomena and propositions related to them that had not been previously observed.

The theme of scientific progress through the new experimental method was evidently dear to Diodati. Consistent with the Latin editions of 1635 and 1636, the conclusion of his preface reflected one of the primary goals of his cultural project – the promotion of scientific investigation for the betterment of humanity:³⁹

Of these two new sciences, full of propositions that will be endlessly expanded over time by

³⁷ OG, XVI, 194.

³⁸ OG, VIII, 27.

³⁹ Garcia, Élie Diodati et Galilée. Naissance d'un réseau scientifique dans l'Europe du XVII^e siècle, 348-363.

Andfazion. Lo stampatore à i Loton: 13 both this and Fractoriondon la Vita fruite, motionto Printico or mande water forcer to be ghe heromini, ghe with work of alts, for and to principalmente Refords (15 ft) of works singu soto of growther Sight for Bright for tone grando froma, & moto mump latta savia Atta-gita: manto pin artilo, o sublanto à frata gadios muntions Lanto maggior lando, of Gorond no 3 Fato attribuito a " A ministon; fin ad oner fati Isigrati Chanondo ghi "his mint, our commun " Emporifo, con tat fogno Di fegnono honon votuto portotuar la moniona de ghi aiston dol loro bono offore) Parimont & quotis ; quality con brout once De à loro royogen; hanno riformato Bass de gra frounde learnow on to fallan's of ghisring Inmotes, so inates propositioni, portato da fuermini infigeni, Engrantes por word, por mothe sta, fone Dogni di gran lade, ot america time adolo mid financetor des tale frammento à landabiles for bond 2 mod firm fearnton, handfons Blamontia vienoffa la falfita forga intro erno la worth ports tanto Difficilo Da configuite comform aldette Sol Principo So gli gratini V timam tam facile poffor arora or ponne quare falle some income gtim Jacti, quosta lodo a Dounta à quosti nostri steimi freste no i quak, & prist's scientis in firms foreste Da gli Antichi, por ogrom Di por prica fin ingtomi, fons por moto prow & spononged frate nouter a gran poporeone la qualo ogen di va and connerito pi et in pier sicher, po que apparite with sidness Diatomatics & with quali lafrida ; Sinorsi, 20 fi a fore this tate our gran boos at gran i anom, or part gardening, at some gallos Satilis Accadomico Lincos, + montandato Primario Pratomato gol sor: Gran daice di Tofearia, con grand gradminanza

Fig. 5 – MS Gal. 72, f. 31r, Biblioteca Nazionale Centrale di Firenze.

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Fig. 6 – MS Gal. 72, f. 31v, Biblioteca Nazionale Centrale di Firenze.

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interno a an foggoto sedres, principalificos in Alatere, for solato Da tati i Gran forfi, fogra il qual, i fono moti firm amines stum forth: Darlo, sol Choto Locale. Matoria, frame grad, Vinfinit' accid one formirrandi , Stiftens Del quali, non & finque imo com forcato, non ego, dimostrato da akuno: Lettra Scienzia Facal hear principy, dimostrate, & intorno alla nofist. Auno das nout Coqui Solidi, all offer que violonga, stazzati ofo farmo i Do artilità, l'mafime nothe sciongio, the ata Notifia Biti }; icze, it of a anora, pina dacadonti of proportion que, non officerate Di quosto dres nerous Scientia. dello Di Progranitioni, ago in infinita faranno accorfinge a;); anna tomps, deglingogni Strestetizi, m. progooffo Doc at dis to Libro, fi aprons lo prime portes & con non pricesto conge tion Dimostrate fi adita il grogeoffo, ing of o drig altre infinites; fi come da gl Jord Rigonti, tragaffo, ad mp of facilmonto stofo, of riconglisto. A min slend) Toplato ngfin nonoffer bildins atops antun omi ghi ticgel. hui resous le int nindah rego

Fig. 7 – MS Gal. 72, f. 32r, Biblioteca Nazionale Centrale di Firenze.

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Fig. 8 – MS Gal. 72, f. 32v, Biblioteca Nazionale Centrale di Firenze.

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speculative minds, in this book the first doors are opened, and with a considerable number of demonstrated propositions, it points to the progress and transition to countless others, as will be easily understood and recognized by the learned.

Galileo epitomised the new savant – both discoverer of a new science and promoter of the dissemination of a new knowledge, which fostered hopes for the long-awaited cultural renewal. The powerful instruments wielded by the Church to hinder the free exchange of ideas appeared ineffective against the inexorable momentum of science, which, with both determination and caution, dismantled every barrier erected by dogmatism. Galileo's latest work was the most striking testament to this phenomenon: ostensibly, it addressed only geometric problems, such as the theory of motion and the behaviour of spherical objects. However, a more perceptive reader would discern, woven into Galileo's sharp rhetoric, the profound connection between the new Earth and the new heaven, and would recognize that the motion and the spheres studied with geometric precision were, in fact, reflections of the movement and nature of the planets. In this regard, the *Dialogue* and the *Two New Sciences* are distinctly complementary for a comprehensive understanding of the Universe's order – mathematics and philosophy, inseparable.

Conclusion

The strict controls following Galileo's 1633 condemnation left no room for the free circulation of scientific texts, severely limiting the publication of new works. These measures rendered the dissemination of ideas and manuscripts extremely difficult, compelling many intellectuals to operate in secrecy and to resort to clandestine channels to circulate their writings.⁴⁰ The editorial operation that led to the publication of the *Two New Sciences* represents a prime example: bundles of letters, cleverly concealing the pages of Galileo's work, travelled through the hands of his most trusted friends and collaborators, following a route that from Venice and Paris led to the Elzeviers' presses in Leiden.

The Galilean historiography, particularly Raphael's work, has made considerable strides in highlighting the significant contribution of Galileo's closest collaborators to the publication of the *Two New Sciences*. Focusing on the figure of Elie Diodati, my analysis seeks to strengthen this thesis while also emphasizing the central role that Galileo himself continued to play in directing the editorial operation of his work. His involvement remained decisive: despite the pervasive censorship of the time, he orchestrated complex strategies to ensure that his ideas could reach a wider audience.

In addition to the strategies arranged to circulate the manuscript of the Two New Sci-

⁴⁰ Marcus, Findlen, "Deciphering Galileo: Communication and Secrecy before and after the Trial", 953-995.

ences, Galileo and Diodati devised a subtle plan to obscure the author's inevitable involvement in this delicate editorial operation. Garcia's monograph skilfully reconstructs the figure of Elie Diodati and his relationship with Galileo. His work remains essential for understanding the collaboration between the two during Galileo's final years, particularly in relation to the Latin edition of the *Dialogue* and the *Letter to Christina of Lorraine*. My analysis of Diodati's role in the edition of the *Two New Sciences*, supports Garcia's thesis, providing new evidence that documents the Parisian jurist's involvement in the material production of Galileo's final works.

Beyond logistical and editorial support, my analysis aims to highlight another dimension of the relationship between Galileo and Diodati: following Galileo's directions, Diodati meticulously prepared every page of the writings preceding the *Two New Sciences*, forging so a profound intellectual partnership with the Tuscan mathematician. The depth of this collaboration is immortalized in the manuscripts preserved at the Biblioteca Nazionale Centrale di Firenze, serving as an enduring testimony to the carefully orchestrated efforts and to the unwavering commitment that enabled the *Two New Sciences* to defy censorship and reach a wider audience. This legacy underscores the significance of Galileo and Diodati's shared mission to advance knowledge and preserve the integrity of scientific inquiry, even in the face of a formidable opposition.

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