Teofilo Gallaccini, Reader of John Dee

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Among historians of architecture Teofilo Gallaccini (Siena 1564–1641) is by now a well-known figure. Although amid his many treatises and commentaries only his doctoral dissertation in philosophy *De Rerum Amore* was published during his lifetime, the 1767 publication, at the behest of the Venetian architect Antonio Visentini, of his *Delli errori degli architetti* (written by 1625, when Giulio Mancini read it to Pope Urban VIII) assured him a measure of notoriety. Eighteenth-century neoclassicists such as Consul Smith, Andrea Memmo, and their entourage in Venice conveniently tied their own critical posture vis-à-vis the late Baroque to the authority of the sixteenth- and seventeenth-century classicists, by hailing Gallaccini as an important prophet. Gallaccini and his work became thus associated with their 'avant-garde' commitment to architectural rationalism and sobriety.[1] His well-reasoned, though admittedly rather narrow criticism, long on theory yet short on actual examples, was expanded in 1771 by Visentini, who inserted, using the framework of Gallaccini's text, additional commentary and numerous images of 'faulty' architecture by Francesco Borromini, Gianlorenzo Bernini, and others, in an evident effort to add more visual fuel and punch

It is a pleasure to dedicate this essay to Joseph Connors as a memento not only of times spent at I Tatti, but also of happy moments of discussion and exchange spent long ago working alongside each other in the Vatican Library and enjoying coffees in the Vatican bar when I was researching the oeuvre of Gallaccini. I am especially grateful to Giovanni Fara for his invaluable help in preparing Gallaccini's manuscript for publication.

1. Pope Alexander VII Chigi, a former student of Gallaccini's and colleague in the Accademia dei Filomati, noted in his diary that he, too, had read the *Errori* (in the copy of the Biblioteca Apostolica Vaticana, Manoscritti Chigiani, I.V.164–166). The autograph copy read by Mancini to Urban VIII (and later owned by Consul Smith) is in the British Library (King's 281).

to his own group's aesthetic biases.[2] It is in this guise, on the margins of eighteenth-century architectural criticism, that Gallaccini made it into Julius von Schlosser's monumental *Die Kunstliteratur* of 1924.[3]

But the *Errori* were not Gallaccini's only engagement with architecture. His works on harbors, capitals, fortifications, and on an ideal temple (a counter-example to erring architects) have now surfaced one by one, as have his (likewise unpublished) work on perspective and his charming *Taccuino di viaggio*, a small diary of his trip from Siena to Loreto filled with spontaneous sketches of noteworthy monuments that caught his fancy along the way. Most recently I identified a series of drawings by Gallaccini (included in a collection of miscellaneous drawings by various artists in the Biblioteca Comunale in Siena) to be a commentary on Book III on antiquities and IV on the orders (1540 and 1537 respectively) by Sebastiano Serlio; through this discovery I could flesh out his artistic activity, which from his apprenticeship in the *bottega* of noted Sienese painter Francesco Vanni (1563–1610) extended over his entire lifetime (when he died in 1641 he was working on the treatise on perspective).[4] As an illustrated commentary to Serlio's books III and IV, this sketchbook is highly unusual in that, rather than a text, it consists of drawings, in which Gallaccini twists and splices, combines and recombines ancient ornamental details taken from Serlio or in his manner. As such this manuscript offers a unique

2. Antonio Visentini, *Osservazioni che servono di continuazione al Trattato sopra gli errori degli architetti, di Teofilo Gallaccini*, Venice 1771.

3. Scholarship focusing on Gallaccini's artistic activity originated with Isidoro Ugurgieri Azzolini in 1649, Giulio Piccolomini in 1650, and later Giovanni Antonio Pecci, Giovan Girolamo Carli, Leonardo De Vegni, and Giuseppe Ciaccheri, who sought to publish his work or discussed it at length. The tradition continued with Tommaso Temanza, Guglielmo Della Valle, Girolamo Tiraboschi, and Angelo Comolli; see *Bibliografia storico-critica dell'architettura civile ed arti subalterne* (4 vols., Rome 1788–1792, IV, pp. 252–258), which von Schlosser much appreciated and from which he probably derived his information on Gallaccini. For the bibliography on Gallaccini, see Alina Payne and Giovanni Maria Fara, "Teofilo Gallaccini e la critica architettonica a Siena fra XVI e XVII secolo", in *Architetti a Siena. Testimonianze della Biblioteca comunale fra XV e XVIII secolo*, ed. Daniele Danesi, Milena Pagni, and Annalisa Pezzo, Cinisello Balsamo 2009, pp. 141–189.

4. Alina Payne, "*Architettura con ornato.* Teofilo Gallaccini lettore di Serlio", in *Architetti a Siena* (as in n. 3), pp. 141–160.

glimpse into architectural transmission and the act of reading itself. It is a record of a form of critical and instrumental reading that accompanied seeing and examining ruins, and that lay at the basis of much architectural criticism in the era of the printed architectural treatise (Figs. 1, 2).

And yet, even though Gallaccini's output on architecture seems extensive and his artistic profile is coming more and more into focus, the undertakings of this indefatigable humanist, academician, and professor of logic and mathematics at the University of Siena ranged even wider. Indeed, his oeuvre included commentaries, lecture notes, and painstaking annotations in books on astronomy and mechanics, anatomy and ballistics, history and epigraphy, mathematics and hydraulics, and instruments and language. In my work I have sought to capture Gallaccini's complex intellectual profile and to query how architecture came to be of such significance in the *paideia* of a humanist whose principal activities were devoted to practicing medicine and teaching mathematics and logic.[5] As an exact contemporary of Galileo Galilei (1564–1642) – whom he knew and whose public telescope sightings of the moon he witnessed in Siena in 1633 and recorded in a series of six exquisite drawings – his intellectual trajectory seemed doubly interesting: it offered a snapshot of the workings of a scientific mind on the eve of the Scientific Revolution, and it provided insight into the performance of these interests within the public sphere of the university, the academic world, the intellectual elite of scientists and patrons, the Church, and the artistic community itself (Fig. 3).[6]

In addition to the hitherto identified wealth of material (mostly in Siena with some holdings in Rome and a testament of his appeal to eighteenth-century English taste now in London), a previously unknown and important manuscript by Gallaccini has emerged in the Biblioteca Nazionale Centrale in Florence. The manuscript is a commentary on John

5. Alina Payne, "Architectural Criticism, Science and Visual Eloquence: Teofilo Gallaccini in Seventeenth-Century Siena", *Journal of the Society of Architectural Historians*, LVIII, 1999, pp. 146–169; and eadem, *The Telescope and the Compass: Teofilo Gallaccini and the Dialogue between Architecture and Science in the Age of Galileo*, Florence 2012.

6. Gallaccini's testimony of Galileo's experiment in Siena and his drawings in *Monade celeste* of the sightings of the moon were first identified and illustrated in Payne, "Architectural Criticism" (as in n. 5), p. 154.

Dee's *Monas Hieroglyphica* (first edition 1564; Fig. 4).[7] A mathematician and natural philosopher, Dee in this project exceeded the boundaries of natural science as he sought to understand the very unity of creation. To this end his work included magical optics, sacred geometry transmuted from talismanic magic, and alchemy, which were all dear to the Neoplatonists.[8] It also included a linguistic ambition: to recover the lost perfect language that allowed communication with the godhead. The monad was conceived as a mystical emblem and a "geometrical automaton" that could generate the alphabet of all languages.[9] In 1759 Giovan Girolamo Carli, perhaps the most accurate of Gallaccini's early biographers, recorded that the scientist had written this commentary (previously Giovanni Antonio Pecci had erroneously listed it as a comedy), but the whereabouts of the actual manuscript had hitherto eluded researchers.[10]

7. Biblioteca Nazionale Centrale di Firenze (hereafter BNCF), MS Targioni-Tozzetti 68.

8. Despite Dee's unorthodox approaches he was a sought-after scholar and held a prominent place in the European scientific elite. See William Shearman, *The Politics of Reading and Writing in the English Renaissance*, Amherst and Boston 1995. On the apparent contradictions between his scientific and hermetic personas see Deborah E. Harkness, *John Dee's Conversations with Angels*, Cambridge and New York 1999, pp. 1–16. On Dee's collaboration with Federico Commandino, see Enrico I. Rambaldi, "John Dee and Federico Commandino: An English and an Italian Interpretation of Euclid in the Renaissance", *Rivista di Storia della Filosofia*, XLIV, 1989, pp. 211–247.

9. See György E. Szönyi, "John Dee as Cultural, Scientific, Apocalyptic Go-Between", in *Renaissance Go-Betweens: Cultural Exchange in Early Modern Europe*, ed. Andreas Höfele and Werner von Koppenfels, Berlin and New York 2005, pp. 95–99.

10. Giovan Girolamo Carli, *Osservazioni sopra le opere manoscritte di Teofilo Gallaccini*, 1759, Biblioteca Comunale degli Intronati di Siena (hereafter BCS), MS C.VII.12, fols. 188–206: "6. *Monas Hieroglyfica Ioannis Dee Londiensis, Mathematica, Magica, Cabalistica, Anagogiceque explicata. Ad sapientissima Ro. Bohemiae, et Hungariae Regum Maximilianum*. Già presso il detto Morozzi in un To[mo] in folio, ove sono varie cose del Gallaccini, delle quali l'ultima è quest'Opuscolo scritto in carattere piuttosto largo (che par dell'Autore da giovanetto) in pp. 74, e con alcune fig. di poco rilievo, contenente un estratto dell'Opera di Gio. Dee, nella quale con vari Teoremi si discorre di certa Monada geroglifica, e de' suoi supposti misteri. Credo, che il Gallaccini facesse quest'estratto assai da giovane per suo esercizio. Il suo Latino non è di quel puro, ma ha dello scolastico: lo che sia detto per sempre. Il Pecci scrive, che la *Monada Gieroglifica* è una Commedia del Gallaccini. Tre errori, poiché questa *Monada* è in Latino, non in Toscano; è un Trattato scientifico, non una Commedia; è un

The manuscript is bound with papers that belonged to the eighteenth-century polymath Giovanni Targioni-Tozzetti and also includes a manuscript by Gallaccini on anatomy (which had also been dutifully listed by his biographers, but had similarly escaped modern scholars) and several miscellaneous annotations, including the sketch of an Ionic capital (Figs. 5, 6).[11] Targioni-Tozzetti, who listed Gallaccini in his *Notizie degli aggrandimenti delle scienze fisiche accaduti in Toscana nel corso di anni LX del secolo XVII* (Florence 1780), collected manuscripts pertaining to his historical interests, and the Dee commentary was among them.[12]

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semplice estratto d'Opera d'altri, non parto del Gallaccini.…31. *Anatomia*. Già presso il detto Morozzi in folio grande di pp. 27 di carat[tere] originale densissimo, con 7 fig[ure] del Corpo umano poco ben disegnate. È scritta in Latino, piuttosto ordinato, e scolastico, ed è concisa al sommo. Mi sembra piuttosto una Selva Anatomica, che un Trattato. Il Pecci asserisce francamente, che il Gallaccini portatosi nel 1590 a Roma, *poco dopo* scrisse il *Trattato della Notomia*. Ma veramente non sappiamo, né dove, né quando egli lo scrivesse. Bensì lo credo cosa giovanile, e fatta per privato studio.…37. In quel Tomo posseduto già dal Morozzi, ove sono l'Anatomia (sopra al n. 31), e la *Monas Hieroglyfica* (al n.° 6), in mezzo ad altre sono 5 pagine in folio, ove sono scritte in Latino varie cosette d'erudizione Romana. Ma non mi sembran degne, che se ne faccia particolar memoria."

11. The manuscript is made up as follows: fols. 1–22r: *Anatomia*; fols. 22v–24v: *Ex Justo Lipsio in primum Corn. Taciti Annalium*; fols. 25r–62r: *Monas Hieroglyphica*; fol. 62v: blank; fols. 63r–64r: miscellaneous notes; fol. 64v: *Ex Miscellanii Politiani*; fol. 65r–v: *Ex annotationibus M. Anto. Sabel.* to *Naturalis Historia* of Pliny the Elder, chaps. 7–8; fols. 66r–67r: blank; fol. 67v: design of an Ionic capital with frieze; fols. 36, 63–65 are unbound pages of smaller dimensions. The texts are all in pen and ink. The drawings – except for those in red pencil on fols. 20v–21r and in black pen on fol. 67v – are in pen and ink, the outlines occasionally reinforced in black pencil.

12. Targioni-Tozzetti describes the manuscript in these terms: "Il Sig. Ferdinando Morozzi mi regalò un Manoscritto Autografo di questo medesimo Gallaccini, il quale per la metà appartiene a Notomia, ed è un laboriosissimo spoglio di Autori Antichi, non solamente Anatomici, e Medici, ma anche Filosofi, e Filologi, i passi dei quali concernenti la Struttura e gli Usi diversi delle Parti del Corpo Umano, gli ha ridotti ai seguenti Articoli. *1. Anatomia, 2. Quod Corpus pro Sectione eligendum sit. 3. Universa Corporis Humani praestantia. 4. Totius Humani Corporis in partes diviso. 5. Cutis. 6. Pinguedo, vel Adeps. 7. Venter Inferior, sive Abdomen. 8. Membrana Carnosa. 9. Musculus absolute.* [*sic*] Seguono varie Annotazioni spettanti ad Antiquaria, ed in terzo luogo vi è un estratto del Libro intitolato *Monas Hieroglyphica Io. Dee Londinensis*, stampato in Anversa nel 1564." Before Targioni-Tozzetti only Giovan Girolamo Carli had paid close attention to this composite manuscript (in his accurate and

To date, except for my 1999 article and a later, partial edition of his *Perigonia* (a commentary on Euclid's treatise on angles), little note has been taken of Gallaccini's scientific work.[13] The newly discovered manuscript, which extends over 20 folios, is a valuable testimony not only to Gallaccini's wide-ranging interests but also, more broadly, to the reception of Dee among scientists, and to interest in his work within academic circles in seventeenth-century Siena and beyond.[14] Gallaccini uses the first edition of Dee's *Monas Hieroglyphica* of 1564, although – testifying to the importance the author held for Sienese intellectuals – the 1591 Frankfurt edition was present in the library of his academic colleague Belisario Bulgarini, who had acquired it in February 1592 almost immediately upon publication. Gallaccini condensed his close reading of Dee's text in substantive notes – each theorem receives a commentary marked in the margin with Gallaccini's initials "T. G." – and these indicate that his scientific interests, which included everything from Euclid's geometry to Giovanni Sacrobosco and Niccolò Tartaglia, from hydraulics to artillery and measuring instruments, also exhibited an esoteric or hermetic dimension (Figs. 7, 8, 9).[15] This is of course unsurprising, since early modern scientific epistemes also embraced the occult, astrology, and other such 'lateral' practices as a matter of course. The absence of such interests from Gallaccini's readings and writings as known thus far was more surprising than their now attested presence. Nevertheless, his deep engagement with Dee's 1564 text, combined with the absence of other esoteric or hermetic

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exhaustive 1759 biography of Gallaccini, published in *Novelle letterarie* [Florence]), correcting Pecci's erroneous identification of the commentary of the *Monas* as a comedy. See also n. 8. Targioni-Tozzetti's 1759 publication was also the source for my discovery of Gallaccini's participation in Galileo's Sienese demonstration.

13. Giovanni Targioni-Tozzetti (*Notizie degli aggrandimenti delle scienze fisiche accaduti in Toscana nel corso di anni LX del secolo XVII*, I, Florence 1780) was the only one of Gallaccini's biographers to evaluate his scientific work alongside his artistic interests. Teofilo Gallaccini, *Perigonia, o vero degli angoli (Ms. L. IV. 5 della Biblioteca degli Intronati di Siena, cc. 1r.–86r)*, ed. Annalisa Simi, Siena 2003 – an edition of half the manuscript of his lecture notes – is the only publication since my 1999 article that focuses on some of Gallaccini's commentaries on Euclid.

14. For the full transcription of the manuscript see *Teofilo Gallaccini: Writings and Library*, ed. Alina Payne, Florence 2012.

15. On some books owned and annotated by Gallaccini, see Payne and Fara (as in n. 3).

texts from his known library and writings, invites some speculation as to what role it played in his own scientific oeuvre.[16]

The dating of the commentary may help shed some light on this issue. In his *Monade celeste, o vero trattato di cosmografia*, an autograph manuscript treatise on astronomy, Gallaccini introduces two passages drawn from his commentary on Dee's *Monas* and actually mentions the Englishman's work. A comparison between his commentary and the explication of the two passages he gives in the *Monade celeste* indicates a very close connection, suggesting that the commentary was in progress at the time when he undertook his own astronomical work (Appendix, Docs. 1 and 2). The *Monade celeste* can be dated after August 1633, as it is here that Gallaccini describes Galileo's Siena experiment, which is known to have taken place during that month at the time of Galileo's stay in the city at the invitation of Archbishop Ascanio Piccolomini. If the *Monade* provides an approximate date *ante quem*, Gallaccini's *Sinonimi toscani*, his dictionary of Tuscan terms, dated 1631 (now in the Biblioteca Nazionale Centrale, Rome), provides a date *post quem*, since among the 505-page manuscript's exhaustive list of terms with their explications, he does not include the term *monade*, which he does use in the title of his own treatise and, extensively, in his commentary of Dee.[17]

Between these two dates lie a series of manuscripts by Gallaccini that are concerned with mechanics (a commentary on Tartaglia's *Scienza nuova*), the trajectories of projectiles (*Delle ragioni de' tiri dell'artiglieria*),

16. John Dee, *Monas Hieroglyphica*, Frankfurt 1591, BCS, MS CXII.I.4. The text is bound with several others texts (each with Belisario Bulgarini's note of ownership). The final page contains the date of acquisition of the volume with Bulgarini's signature: "Emit sibi librum Bellisarius de Bulgarinis, / Patricius Senensis ab Octavio Paierano / p[re]cio soluto librarum duarum / de variorum, Senis. Anno / Salutis 1591. die XX Mensis / Februarij. Laus Deo." Since in Siena the new year started on 25 March, the date is February 1592, modern style.

17. Teofilo Gallaccini, *Sinonimi Toscani*, 1631, Biblioteca Nazionale Centrale di Roma, Fondi Minori 626 (San Gregorio 7). The manuscript – not the autograph, although it contains a few autograph passages – has at times been mistakenly dated to 1629, but it is actually inscribed: "Introduzione al Libro de' Sinonimi Toscani di Teofilo Gallaccini. Lettore di Matematica nel pubblico Studio di Siena. Composta nell'Anno MDCXXIX"; MS C.III.16, fol. 53r. The following introduction (up to fol. 286) is dated 1629.

and astronomy (his *Monade*), as well as the conclusion of his work on fortifications (*L'idea della fortificazione*), the Dee commentary, and the account of his encounter with Galileo and the telescope sightings of the moon (Figs. 3, 10, 11, 12). It would seem, then, that in this period Gallaccini concentrated most of his activity on the 'new' science. One might even say that in his choice of topics he skirts the permissible limits of science at the time. Indeed, a recently discovered biography of Gallaccini datable to the end of the eighteenth century is particularly interesting, for it makes much of his moving within the orbit of Galileo and of his profound and painful disillusionment at the latter's condemnation, and by inference at the violence done to empirical scientific work by the Church tribunal.[18] It is also in this period that Gallaccini attempts to obtain the senior chair in mathematics at the University of Siena, and, despite years of experience teaching the subject, loses out to a younger and virtually inexperienced man, the architect Benedetto Giovanelli. The denial of the appointment occurs on 7 October 1633, two months after Galileo's visit to Siena; perhaps the governor of Siena, Prince Mattias de' Medici, preferred a candidate 'untainted' by public endorsement of Galilean science.[19]

18. "[p. 6] Stante Teofilo in questo terribil lotta tranquillo, quantunque esso fosse scopertamente Galileano: ei si teneva in continua epistolare corrispondenza coi suoi molti amici di Roma fino a tanto che indecisa pendé la gran Causa; ma fermo sempre ed impavido nel suo proposito seguitava a dettar dalla Cattedra la vera disposizione del [p. 7] le orbite de' Pianeti rivolgentesi attorno il Sole; in ciò ben diverso dalla massima parte dei Fiorentini, sì ben dipinti dall'inimitabil pennello dell'Alighieri, i quali (attendere, è Gallaccini che parla) o ritiratisi sotto cortina abbandonaron vilmente, o rinnegarono il loro Lincèo, e forse eziandio per invidia o bassa gelosia l'accusarono d'eterodosso e di cinico, seco lui poscia congratulatisi in finto o sardonico riso al suo ritorno in Arcetri quando cessò la procella": Anonymous, "Sec. XVIII / Elogio / di Teofilo Gallaccini / Matematico ed Antiquario / Senese": BNCF, II, III, 502, fasc. 18. A transcription of this manuscript is included in Payne (as in n. 14).

19. See the notice by the University Committee to Principe Mattias de Medici, governor of Siena, about the candidates for the chair of mathematics left vacant by Giovanni Gargioli. At the bottom of the document following the signature ("Devotissimi et Obbligatissimi Servitori Deputati dello Studio") is a notation in contemporary handwriting: "Eleggiesi Benedetto Giovannelli. Firmato Andrea Cioli 7 d'Ottobre 1633." Archivio Storico Università di Siena (ASUS), Ruolo de Dottori et altro sopra lo Studio, I, 5, fascicolo anno 1633, documento non numerato.

It is in this context of a sustained preparation at a difficult moment towards advancement in his mathematical career that Gallaccini's reading of Dee is located – an effort to blend philosophy with science, a deeper meaning of the logic of the universe with empirical observation. The effort evidently failed – both politically within Sienese academe and scientifically – since his *Monade* is anything but a harmonious convergence of the two essentially contradictory ambitions. But neither success nor failure is ultimately important in this case. It is the bare fact of the attempt that is significant, for it offers a crisp image of 'normal science' in action on the eve of the Scientific Revolution.[20]

20. For the concept of 'normal science', see Thomas Kuhn, *The Structure of Scientific Revolutions*, Chicago 1962.

APPENDIX

Doc. 1. Teofilo Gallaccini refers to John Dee's *Monas* in his *Monade celeste* on two occasions, with reference to Dee's third and second theorems respectively. (Biblioteca Comunale degli Intronati di Siena, MS L.VI.31, fols. 1–111r.)

[fol. 14v] E perciò mirabilmente scrisse Giovanni Dee nel suo libro intitolato Monade Geroglifica, nel terzo Teorema: *Monadis igitur Hieroglyphicae conspicuum centrale punctum, terram refert, circa quam tum Sol, tum Luna, reliquique Planetae suos conficiunt cursus. Et in hoc munere, quia dignitatem Sol obtinet summam, ipsum, (per excellentiam) circulo notamus integro centroque visibili.* Adunque l'unità, che in se stessa racchiude in un cerchio, o più tosto dentro una ritonda superficie d'una Sfera la Terra, el Cielo con vivo carattere si dimostra per mezzo la figura tondeggiante, la quale di tutte l'altre è capacissima, contiene in sé tutta la pienezza delle specie dell'Universo, e secondo essa formatosi 'l movimento circolare de Pianeti e specialmente del Sole, padre della generatione, si generano e si conservano tutte le cose inferiori. Il centro della figura denota la Terra, conciossia che rispetto 'l Cielo sia un ponto; intorno la quale perpetuamente consiste il corpo celeste, e girano del continovo le stelle; e circondandola d'ogni intorno con ordine uniforme delle parti, la riguarda, e col minesterio fedelissimo delle stelle sopra essa quasi maschio verso la femmina industre ed assiduo participa le sue forze. Però con questa Geroglifica Monade si disegna il mondo tutto, che essendo bello, perfetto ed adorno, a gran ragione doveva notarsi con la più perfetta, e con la più bella figura Geometrica. E perciò che il mondo è un solo, ed un solo è il Cielo (avvenga che gli Astrologi, e Filosofi vi moltiplichino i Cieli) perciò si contrassegna con una figura sola, cioè con la circolare ridotta nella sua superficie piana, o con la sferica, come nel suo corpo naturale. Perciò che il cerchio di sua natura non è moltiplice, ma sempre un solo, ovunque si trovi; che benché tal'hora si veda massimo e grande, e tal'hora mediocre e [fol. 15r] piccolo o minimo, non di meno sempre è uno, e sempre l'istesso. Ragionevolmente adunque l'unità del mondo e del Cielo si raffigura col cerchio, sì per l'unità sua, sì anchora per l'unità di Dio suo Creatore, in esso con simiglianza mirabile impressa, essendo un solo producitore, ed un solo sommo Bene. Con la medesima figura si rappresenta l'unità del Sole che sì come egli è il primo fra Pianeti, così 'l cerchio, suo vivo carattere Geroglifico, è la prima figura fra le Geometriche, dalla quale come da primiera materia derivano tutte l'altre. Ella è la più uniforme e la più proportionata a dimostrar l'unità del più nobil Pianeta, che risplenda di propia luce nel Cielo. Sì come si può

ritrarre dal secondo Teorema della Monade Geroglifica leggendosi: *At nec sine recta circulus; nec sine puncto recta artificiosè fieri potest. Puncti proinde Monadisque ratione, res, et esse coeperunt primo: et quae peripheria sunt affectae, (quantacumque fuerint figurae) centralis puncto nullo modo carere possunt ministerio.*

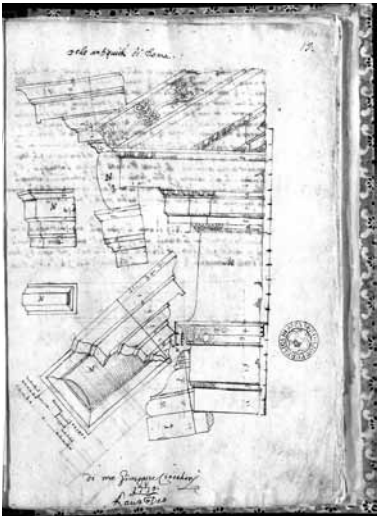
Dice che il cerchio non si può formar senza la linea retta, e la linea retta senza 'l ponto. E sì come da una sola linea retta (che è l'intervallo, o la misura dello intervallo, o ancho essa una; che sì come c'insegna Euclide nel primo lib. degli Elementi [*on the left margin:* Postulato 3], si antepone come principio, e come norma del cerchio) si trahe il cerchio; così da un [*crossed out:* sola linea] sol punto la linea. Adunque se una linea retta sola ci dà il cerchio, e se un punto solo ci dà la linea retta, potremo invece necessariamente concludere, l'unità e l'essenza del cerchio prender la sua prima origine dal punto. E perché nel medesimo stile, che sono, si rappresentano alla nostra cognitione, [fol. 15v] si può pertanto affermare, dalla unità del Geroglifico significante il Sole, il Mondo, e 'l Cielo, nascer la formale unità della maggior lampana del Mondo, e l'unità dell'Universo, e del Cielo, che il tutto circonda.

Doc. 2. Gallaccini's corresponding notes relative to the two theorems in his commentary to the *Monas.* (Biblioteca Nazionale Centrale di Firenze, MS Targioni-Tozzetti 68.)

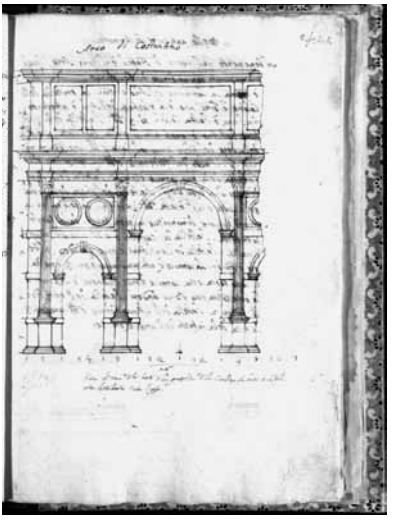
T. G. [*initials indicate Gallaccini's commentary*] Monadem constituit Circulum, totam hanc inquam circularem, vel orbicularem altitudinem universum totum claudentem. Tum quia totum universum orbe toto comprehenditur; tum quia per orbis motum, ac vires universa gignuntur, ac servantur; tum quia cuncta pene giro moventur, atque gignuntur, ac fiunt. Huius circuli centrum terra, circa quam volvitur caelum, eae quam ipsam respiciens circumquaque, atque in ipsam, ut mox in foeminam suas vires exercet. Terram esse punctum centrale, et M. Cicero in Somnio Scipionis demonstrat. Relata enim ad supera corpora est punctum indivisibile; hic tamen tantum conspicuum, quam sensu percipitur. Hac monade Hieroglyphica designatur Universum scilicet Mundus; quoniam cum perfectionem, ac pulchritudinem, atque ornatum, perfectioni, pulchriorique notatur figura. Et quoniam unus est mundus (quicquod dicant qui plures orbes constituent) una figura signatur scilicet circulari vel orbiculari. Circulus enim non est multiplex ex suimet natura sed unus ubicumque reperiatur; nam licet magnus, parvus, minimusque sit, nihilominus semper est unus, idemque circulus. Praeterea uni Dei imago existit, Deus enim circulus est a semetipso in semetipsum revolvens. Quare

iure monadem hanc circulo effingimus, cum ob mundi unitatem, cum ob unitatem Dei ipsius creatoris. Ab uno enim in quantum unum non prodit nisi unum [fol. 31r] figura monstratur. Hinc ea figura qua Deus, et Mundus significantur. Unde uti Deus est unus, et Mundus est unus, ita etiam Sol est unus. Praeterea Sol notatur monade circulari; quoniam in Sole ut in generationis patre omnia generabilia inbunt, totusque universus continetur, servatur, illuminatur, vivificaturque; idcirco caractere universi consignatur.

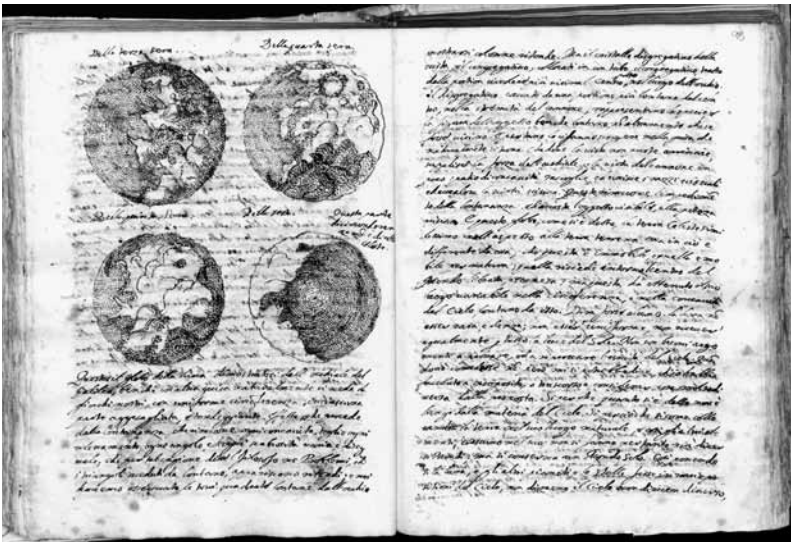
T. G. Et quoniam ex Uno Sole, unoque Deo solo Mundi universi creatio, gubernatioque, ita ex eodem Microcosmi recreatio servatioque per unicum lignum sacratissimae, salutiferaeque Crucis, in qua Dominus noster Jesus Christus in Calvariae monte, supra primi hominis capite pependit.
T. G. Is etiam Iustitiae Sol merito Circulari Monade exprimi valet, quoniam (ut ipse habet) circulum complevit. Exivi a Patre, et veni in mundum, iterum relinqui mundum, et vado ad patrem. Per excellentiam circulo notatur, quoniam ipse solus est qui est, ex eo vita, veritas, et via; ex ipso, per ipsum, in ipso, et cum ipso sunt omnia. Ipse enim est unus, et omnia. Quoniam speciosus forma prae filiis hominum.



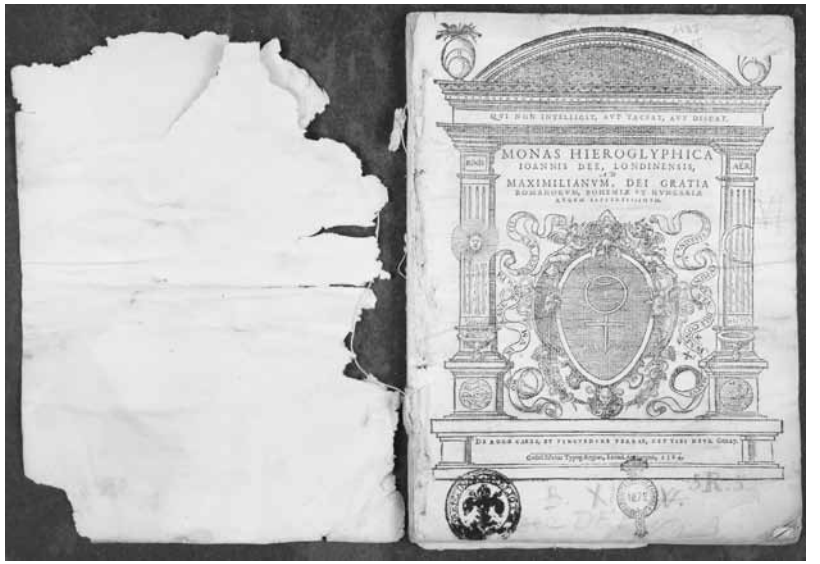
1. Teofilo Gallaccini, "Delle antichità di Roma", in Biblioteca Comunale degli Intronati di Siena (hereafter BCS), MS S.II.4, fol. 30r.



2. Teofilo Gallaccini, "Arco di Costantino", in BCS, MS S.II.4, fol. 52r.

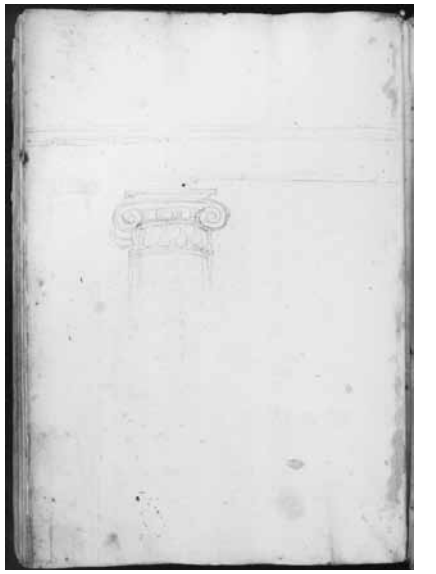


3. Teofilo Gallaccini, *Sightings of the Moon*, in *La Monade celeste (L'unità del cielo)*, BCS, MS L.VI.31, fol. 108r.



4. Title page of John Dee, *Monas Hieroglyphica*, Antwerp 1564, Biblioteca Nazionale Centrale di Firenze (hereafter BNCF), MS Magliabecchiano Misc. 1137.15, fol. 1r.

5. Teofilo Gallaccini, "Musculus absolute", in *Anatomia*, BNCF, MS Targioni-Tozzetti 68, fol. 21r.



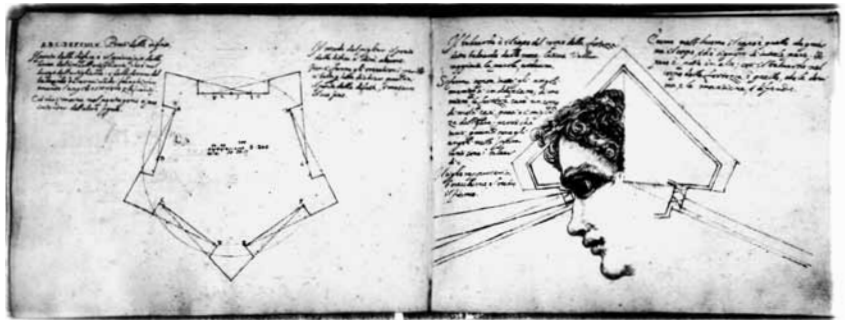
6. Teofilo Gallaccini, *Ionic Capital*, in BNCF, MS Targioni-Tozzetti 68, fol. 67v.

7. Teofilo Gallaccini, "Arbor Raritatis", in *Monas Hieroglyphica*, BNCF, MS Targioni-Tozzetti 68, fol. 25r.

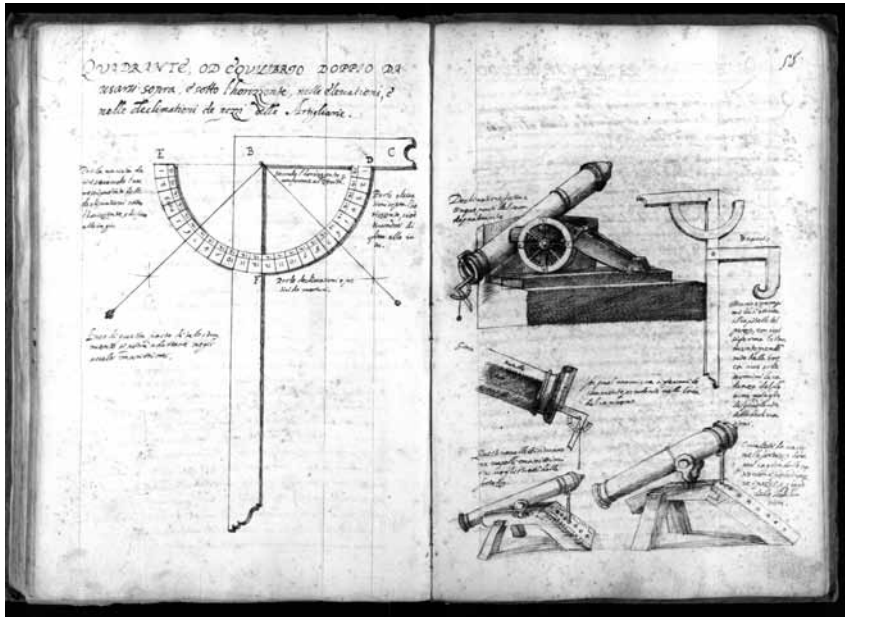
8. Teofilo Gallaccini, "Monas Hieroglyphica", in *Monas Hieroglyphica*, BNCF, MS Targioni-Tozzetti 68, fol. 30v.

9. Teofilo Gallaccini, Manuscript page showing T. G. initials, in *Monas Hieroglyphica*, BNCF, MS Targioni-Tozzetti 68, fol. 36r.

10. Teofilo Gallaccini, "Propositione VIII. Prob. VIII", in *Della nuova scientia di Niccolò Tartaglia*, BCS, MS L.IV.2, fols. 47v–48r.



11. Teofilo Gallaccini, *Bulwarks*, in *L'idea della fortificazione*, BCS, S.IV.2, fols. 34v–35r.



12. Teofilo Gallaccini, "Quadrante ad equilibrio doppio", in *Delle ragioni de' tiri. Dell'artiglieria*, BCS, MS L.IV.2, fols. 57v–58r.