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Pirro Ligorio, the ‘Megala’ Ship and the Cortile del Belvedere

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Citation and Quotation in Early Modern Architecture

Transcodification: Arts, Languages and Media

Edited by
Simone Gozzano

Volume 5

Citation and Quotation in Early Modern Architecture

Lost and Found in Translation

Edited by
Andrew Hopkins

DE GRUYTER

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In memoriam Amanda Claridge 1949–2022

Contents

Andrew Hopkins
Introduction —— 1

Peter Fane-Saunders
Chapter One
Rewriting the Fables: Filarete and Ancient Descriptions of Near Eastern Architecture —— 7

Hubertus Günther
Chapter Two
Difficulties in understanding Vitruvius —— 43

Francesca Salatin
Chapter Three
Sources, Method, Understanding and Misunderstanding in Fra Giocondo's *Vitruvius* —— 89

César Manrique
Chapter Four
Tracing Renaissance Italian Architectural Books in Colonial Mexico —— 111

Andrew Hopkins
Chapter Five
Conjuring up the Wonders: from text to image —— 137

Erika Milburn
Chapter Six
Twisted Words and Borrowed Wisdom: Misleading Citation in Scamozzi's *Idea della architettura universale* (1615) —— 171

Shao-Lan Hertel
Chapter Seven
Formats and Functions of Large-Scale Calligraphy in Late-Ming and Qing-Period China and the Reconstruction of Architectural Spaces —— 199

Marco di Salvo
Chapter Eight
Pirro Ligorio, the 'Megala' Ship and the Cortile Del Belvedere —— 235

David Hemsoll
Chapter Nine
Invention, Imitation and Reiteration: The Case of Bramante's So-Called Palazzo Caprini and its Progeny —— 253

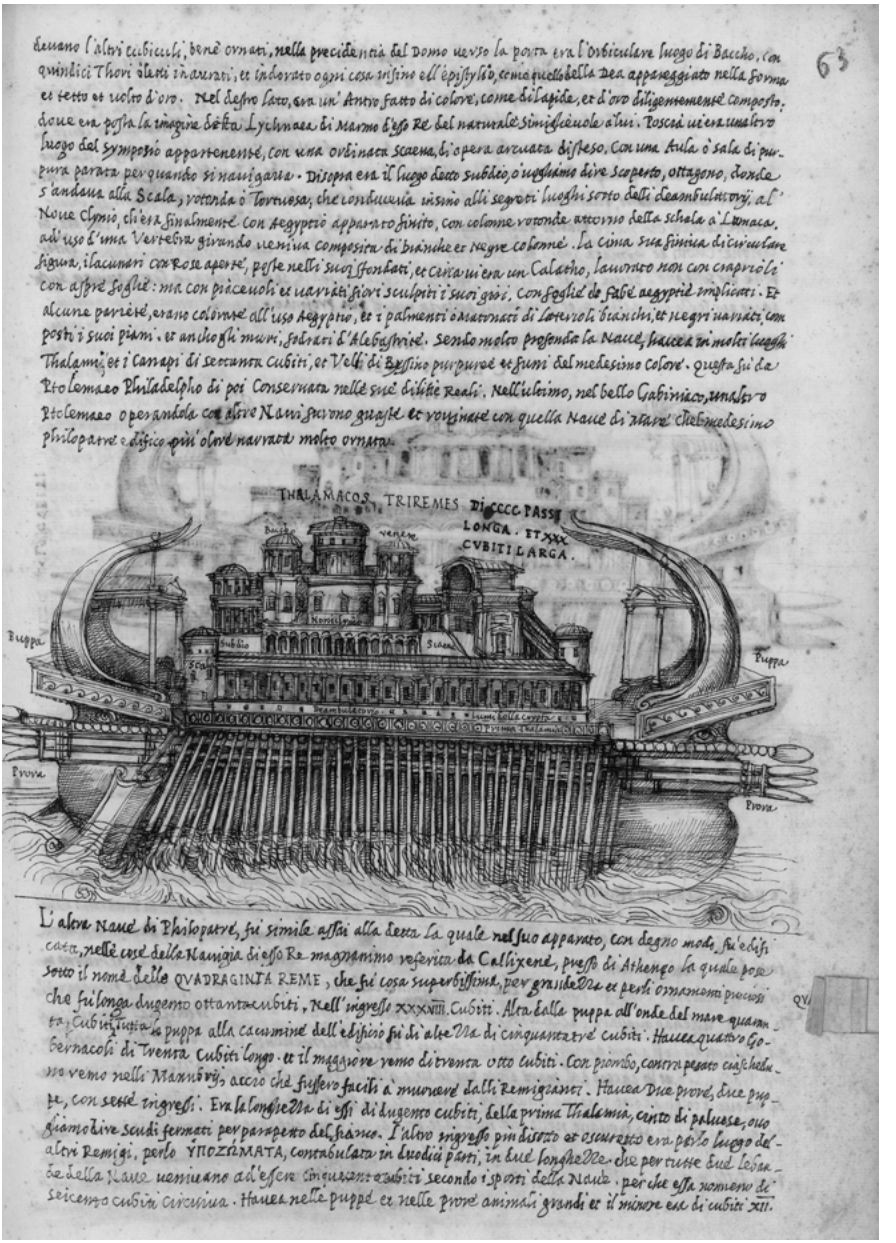
Gianmario Guidarelli
Chapter Ten
'Citing from Memory': Centralized Models and Basilica Plans in Venice of the Early Counter-Reformation —— 295

Hubertus Günther
Chapter Eleven
Old Forms with New Functions: Villa Emo and the Amtshaus Wörlitz —— 311

Richard Bösel
Chapter Twelve
Found and Reshaped in Translation: Architectural Models from the Centre to the Periphery —— 347

List of Contributors —— 379

Index —— 381



Pirro Ligorio, drawing of the '*Thalamegos trireme*' (Turin, ASTo, Biblioteca Antica, J.a.III.14, f. 63*r* [photo: Turin, ASTo]).

Marco Di Salvo

Chapter Eight
Pirro Ligorio, the 'Megala' Ship and the Cortile Del Belvedere

Because no known ancient ships survived into the Renaissance, humanists and antiquarians had to rely on descriptions found in Greek and Latin literature, yet these referred to measurements that were often inconsistent. So, when Pirro Ligorio (*c*.1512–83) came to collate and interpret information about some of the most celebrated vessels of antiquity, some information was mistranslated and misunderstood, and this had implications for the built forms of the '*Thalamegos trireme*'.

In the third century BC, the king of Egypt, Ptolemy IV Philopator (221–05 BC), commissioned the luxury riverboat '*Megala*' or '*Thalamegos trireme*', a kind of 'floating palace' with loggias, rooms for symposia, bedrooms and nymphaea, as well as a colonnaded *vestibulum* and a proscenium.[1] The idea has been advanced that this huge 'house-boat' with a 'double bow and stern' belonged to the Ptolemy dynasty until Julius Caesar (100/102–44 BC) conquered Egypt in the first century BC, yet a recent reinterpretation of the *Lives* of Suetonius (*c*.69–after 122) has rejected this hypothesis.[2] Nothing remains of Ptolemy's 'cabin-cruiser' except for the descriptions by Kallixeinos of Rhodes (fifth century BC), Plutarch (50–120 AD) and Athenaeus of Naucratis (second-third century AD).

The '*Thalamegos*' was neither a warship nor a cargoship, as underlined by Athenaeus. It was probably closer to those '*thalamegói*' on which banquets were still held on the swamps of the Nile during the reign of Caesar Augustus (63 BC–

1 The names '*Megala*' and '*Thalamegos trireme*' derive from Ligorio's 'Book XIII on the antiquities' (Turin, ASTo, Biblioteca Antica, J.a.III.14, fol. 62*v*). Based on Athenaeus's text, the word '*trireme*', correctly '*triere*' technically, used by Ligorio wrongly identifies it as a warship instead of a riverboat.

2 Gianna Gardenal, *Il Poliziano e Svetonio. Contributo alla storia della filologia umanistica* (Firenze, 1975), 37. Thomas W. Hillard, 'The Nile Cruise of Cleopatra and Caesar', in *The Classical Quarterly* 52/2 (2002), 549–54. Martina Callegaro, 'Houseboating in Ancient Times: *Thalamegos*, *Lusoriae*, *Cubiculae* and the Nemi Ships as Ancestors of Nowadays Floating Houses Trend', in Ernesto Fasano et al. eds, *Nautical and Maritime Culture, from the Past to the Future* (Amsterdam-Berlin-Washington, 2019), 62–3. See also Pietro Janni, *Il mare degli Antichi* (Bari, 1996), 425–52.

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AD 14), according to the *Geographia* of Strabo (64/3 BC–AD *c*.24).[3] At the same time, however, the 'cabin-cruiser' was something more than a simple riverboat, such as the cedar vessel 280 cubits long (*c*.127 m) that was built by pharaoh Sésostris (twentieth century BC) and mentioned by Diodorus Siculus (80–20 BC) in his *Historical Library* (II, 6).[4] In this regard, scholars have thought that perhaps a close relationship existed between Ptolemy's '*Thalamegos*', 'in the form of [a . . .] catamaran', and a 'luxurious Macedonian royal palace'.[5]

The allure of these ancient ships re-emerged during the Renaissance.[6] In this regard, Borso d'Este (1413–71), Lodovico Gonzaga (1460–1511) and the Prince-Electors of Saxony as well as members of the Venetian *signoria* commissioned a number of mostly smaller riverboats, with the exception of the extraordinary '*galia quinquereme*' designed by the humanist Vettor Fausto (1490–1546) and launched on 28 April 1529 from the shipyard of the Arsenale in Venice.[7] In addition, humanists, engineers, and architects such as Leon Battista Alberti (1404–72), Francesco di Giorgio Martini (1439–1501), Giuliano da Sangallo (1443/52–1516) and Leonardo da Vinci (1452–1519) were interested in ships, and a sixteenth century proto-Encyclopedia (*Libro XIII dell'antichità di Pyrrho Ligorio Patritio neapolitano et cittadino romano*) systematically investigated the subject of boats and shipping.

Of the thirty manuscripts of the Vatican architect, antiquarian and Neapolitan patrician Pirro Ligorio (1513/14–83) kept in the State Archive in Turin, here the focus is on 'Book XIII on the antiquities'.[8] One specific chapter of Book XIII is

3 Janni, *Il mare*, 450. Translating and commenting on Suetonius's *Vitae*, Angelo Poliziano mentioned the '*navem fluvialem*', a riverboat, by referring to Philopator's ship (Munich, Bayerische Staatsbibliothek, ms. Clm 754, fol. 217*r*).

4 During the Renaissance, it was possible to know about Sésostris's cedar vessel in the translation of Diodorus Siculus's *Historical Library*, see Poggio Bracciolini, *Diodori siculi historiarum priscarum a Poggio in latinum traducti* (Venice, 1476), II, n.p. 'Nave(m) ex cedro fecit ducento(rum) octaginta cubito(rum)'.

5 Michael Pfrommer, 'Fassade und Heiligtum: Betrachtungen zur architektonischen Repräsentation des vierten Ptolemäers', in Wolfram Hoepsen and Gunnar Brands eds, *Basileia, die Paläste der hellenistichen könige* (Mainz 1996), 101; Michael Pfrommer, *Greek Gold from Hellenistic Egypt* (Los Angeles, 2001), 16.

6 Lilio Gregorio Giraldi, *Lilii Gregorii Gyraldi derrariensis, de re nautica libellus, admiranda quadam & recondita eruditione refertus, nunc primum & natus & aeditus* (Basel, 1540), 41–2.

7 Giovanni Gobellino, *Pii secundi pontificis max. commentarii* (Frankfurt am Main, 1614), 308: 'Supra navim aedificatam fuisse domum existimant, qualem vidimus in Pado Borsii Ferrariensis, aut in Mintio Ludovici Mantuani, & qualibus in Rheno principes electores utuntur'; Corrado Ricci, 'Il foro d'Augusto – Il lago di Nemi', in *Gloriose imprese archeologiche* (Bergamo, 1927), 24; Ennio Concina, *Navis* (Torino, 1990), 4.

8 Author's translation: the original title is 'Libro XIII dell'antichità' (Turin, ASTo, Biblioteca Antica, J.a.III.14).

examined here: the description of the '*Thalamegos trireme*' (fols 62*v*–63*v*) according to the unpublished Italian translation (Fig. 8.1). Ligorio's text is then compared with primary sources to distinguish similarities and differences from Athenaeus's *Deipnosophistae*. Finally, the '*Fluviale Navigio Thalamagos*' is contextualized by analyzing similar boats built in the Hellenistic and Roman period.

Given the long-standing relationship between ships and architecture, one of the skills of an '*architecto*' (architect), was also to be a '*coaedificantis navibus*' (shipbuilder), as set out by Alberti in the prologue of his *De re aedificatoria*. In addition, Alberti also explored this subject matter in book V, chapter twelve, where he talked about the 'floating palaces' of Caligula (12–41) on lake Nemi, examined later by Francesco de' Marchi (1504–76) in the sixteenth century (Figs 8.2 and 8.3).[9] Though enriched with porticoes to lighten the weight of the structure, Caligula's vessels evoke the '*thalamegói*'.[10] In the mid-fifteenth century, encouraged by the enthusiasm and willingness of cardinal Prospero Colonna (*c*.1460–1523), Alberti—author of the lost codex *Navis*—attempted to have retrieved the ships from lake Nemi but was unsuccessful.[11] Flavius Blondus (1392–1463) described the episode in his *Italia illustrata* and had previously recorded the event in the margins of the ms. Ott.lat.2369:

> Leon Battista arranged wine barrels tied together in a number of rows ('*ordines*') on the lake with the idea of setting up winches on either side, as though from a bridge. With these,

9 *DRA*, V, 12: 'Materiam omnem reprobant quae fissilis fragilis sidens, putricosaq(ue) sit clavos et ligulas eneas praeferunt ferreis ex navi Traiani per hos dies dum quae scripsimus commentarer ex lacu nemorensi eruta, quo loci annos plus mille .ccc. demersa, et destituta iacuerat adverti pinum materiam et cupressum, egregie durasse in ea tabulis extrinsecus duplicem superextensam et pice atra perfusam tela ex lino adglutinarant supraq(ue) id chartam plumbeam claviculis eneis coadfirmarant'. Francesco de Marchi, *Della architettura militare del capitano Francesco de Marchi bolognese* (Brescia, 1599), 42*r*–43*r*: 'non mi parerà fuori di proposito di parlare della Barca de Traiano, poiché il Biondo da Forlì, nella descrittione d'Italia, e il Faveno nelle Antigaglie di Roma, ne hanno parlato senza vederla; ma io, che l'ho veduta, e tocca con mano parlarò di quello che saprò. [. . .] ligai una parte della sponda della barca, la qual conressimo potuto carica doi buonissimi Muli, il qual legname era di più sorte, v'era Larice, Pino, e Cipresso, così fu giudicato in Roma da tutti gli valent'huomini; poi vi eran certi cavigli, li quali erano di Rovere, e venati così neri, che parevano di Ebano, & questo era per il gran tempo, che erano stati sotterrati, ma erano sani come il resto del legno. Vi erano ancora delli chiodi di ferro, li quali dimostravano di essere stati grossi, quanto è il dito grosso della mano, d'un huomo, & erano tornati sottili, come una penna d'occha da scrivere; e per la ruggine s'erano assottigliati e scurtati'.

10 Ricci, 'Il foro', 24; Marco Bonino, 'Alcune note sull'architettura e sulla tecnica costruttiva delle navi di Nemi e dei loro edifici', in Filippo Coarelli and Giuseppina Ghini eds, *Caligola. La trasgressione al potere* (Rome, 2013), 119.

11 See *DRA*, V, 12.

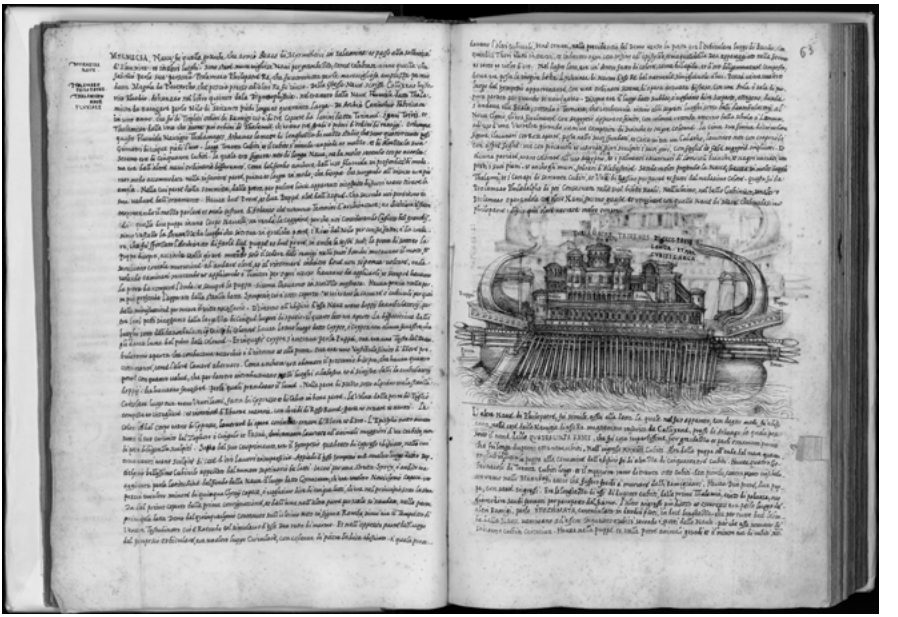

Fig. 8.1: Pirro Ligorio, drawing of the '*Thalamegos trireme*' (Turin, ASTo, Biblioteca Antica, J.a.III.14, ff. 62*v*-63*r*).

experienced carpenters would be able to use iron hooks suspended from especially thick ropes to attach them to the ship and draw it up.[12]

12 Vatican City, BAV, Ott.lat.2369, fol. 34*v*. Jeffrey A. White ed. and tr., *Biondo Flavio. Italy illuminated* (Cambridge MA, 2005), 191. Flavius Blondus, *Blondi Flavii forliviensis in Italiam illustratam* (Verona, 1482): 'nosterque Leo Baptista Albertus geometra nostri temporis egregius qui de re aedificatori elega(n)tissimos composuit libros. ad id operis e(st) vocatus. Qui vasa vinaria m[u]ltos colligata in ordines ea ratione i(n) lacu disposuit ut de ipsis tanq(uam) pontibus hinc inde penderent machinae quibus harpagones ferrei de(n)sioribus appensi rude(n)tibus captam mordicus navem fabri peritiores lignarii attraherent. Et a Genoa urbe maritima mercede conducti aderant piscibus q(uam) hominibus similiores no(n)nulli quorum partes fuerunt. In lacus profu(n)diora natando descendere. Et qua(n)ta esset navis q(uo)que integra sentire. Et de missos funibus harpagones in morsum captura(m)que applicare. Tandem capta ligataque ad proram navis quom integra no(n) sequeretur fracta e(st) et eius particula trahentes harpagones est secuta'. Flavius Blondus, *Roma ristaurata, et Italia illustrata di Biondo da Forlì tradotte in buona lingua volgare per Lucio fauno* (Rome, 1543), fols 110*v*–111*r*: 'fu à ciò chiamato Leon Battista Alberti [. . .] costui fe dunque ligare insieme in molti ordini alcune botti vote per pottervi tenere su quasi su ponti alcune machine, dove erano molti uncini de ferro attaccati co(n) lunge fune, e tirate poi su con ingegni da maestri legnai, che notavano come pesci, i quali sommozzando già nel fondo del lago sapevano dire la grandezza delle navi'. See also Concina, *Navis*, 4.

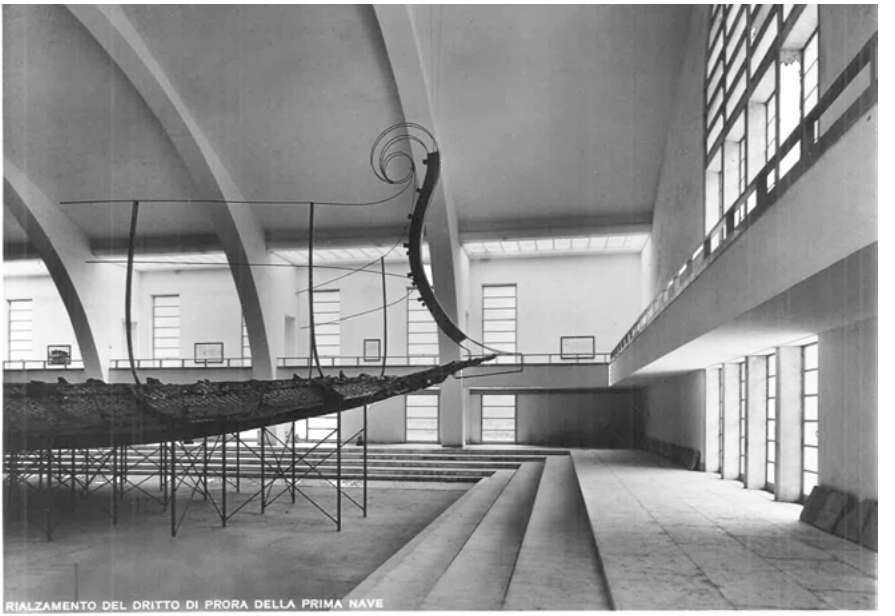

Fig. 8.2: Guido Ucelli, Caligula's ship (Guido Ucelli, *Per la ricostruzione del Museo delle navi romane del lago di Nemi* (Milan, 1948)).

Relatively recent research has suggested a dating for all manuscripts of the thirty 'Books on the antiquities' to after 1568, when Ligorio went to Ferrara in the service of duke Alfonso II d'Este (1533–97). Book XIII, along with the other twenty-nine volumes, was purchased in Rome in 1615 by Carlo Emanuele I (1562–1630), Duke of Savoy, for the considerable sum of 14.000 *ducati*, demonstrating the desirability at that time of Ligorio's studies of classical culture.[13]

Maria Cristina (1606–63), the 'madama' and Duchess of Savoy refused to cede these manuscripts despite requests from cardinals Richelieu (1585–1642) and Mazzarino (1602–61) as well as Queen Christina of Sweden (1626–89), notwithstanding the favorable opinions of her ambassadors Carlo Moretta (d.1678) and Onorato

13 See Eugenia Salza Prina Ricotti, *Villa Adriana in Pirro Ligorio e Francesco Contini* (Rome, 1973); Isabella Massabò Ricci, 'Note sulla conservazione nella capitale sabauda dei manoscritti di Pirro Ligorio e sulla loro alterna fortuna', in Caterina Volpi ed., *Il libro dei disegni di Pirro Ligorio all'Archivio di Stato di Torino* (Rome, 1994), 47; Andrea De Pasquale, 'Le biblioteche personali di Cristina di Francia e di Maria Giovanna Battista di Savoia Nemours', in Franca Varallo ed., *In assenza del re: le reggenti dal XIV al XVII secolo, Piemonte ed Europa* (Florence, 2008), 496.

Fig. 8.3: Guido Ucelli, Caligula's ship (Guido Ucelli, *Per la ricostruzione del Museo delle navi romane del lago di Nemi* (Milan, 1948).

Gini. Consequently, except for a short time in the Bibliothèque de l'Institut de France during the 'First Empire', all the volumes have remained in Turin.

Among all the codices, 'Book XIII, On the antiquities by Pirro Ligorio, Neapolitan patrician and Roman citizen, in which he reflects on the most celebrated cities and the most distinguished places, and those noteworthy of being recorded such as mountains and rivers', was described by Ligorio himself as the '*picciolo libretto*' or '*picciolo volume*'.[14] It, together with the other twenty-nine codices, has been dated to between 1569 and 1583 but, because historical events within the text are not well defined, other scholars urge caution and there remain unre-

14 Author's translation. The original title is 'Dell'antichità di Pyrrho Ligorio Patritio Neapolitano et Cittadino Romano, nel quale si tratta dele città più famose, et dei luoghi più illustri, et degni di memoria come sono montagne et fiumi' (Turin, ASTo, Biblioteca Antica, J.a.III.14).

solved questions about its precise historical context and dating.[15] It consists of several dictionary entries listed in alphabetic order from '*Narda*', '*città dela Syria*' (a Syrian city), to '*Ozóli*', the Locride people of Southern Italy. The entry for '*Nave*' (ship) brings together a long list of boats including the '*Megala*', as it was named by Plutarch (*c*.46–after 119) (according to Ligorio's text), or '*Thalamicon nave fluviale*', which was commissioned by '*Ptolomeo Philopatra Re*'.[16]

The principal ancient source of Book XIII is Athenaeus's *Deipnosophistae* and Ligorio may have known this text from the first Latin translation (from the Greek) in *Athenaei Dipnosophistarum sive Coenae sapientum Libri XV* of 1556, printed in Venice by the typographer Andrea Arrivabene (*fl*. 1515).[17] On the contrary, it is unlikely Ligorio knew the translation by Angelo Poliziano (1454–94) based, perhaps, on the 'luxury' codex Plut. 60.1 (BMLF).[18]

Despite mentioning Poliziano, the tutor of Giuliano de Medici (1475–1521), Ligorio's interest in the *Deipnosophistae* was limited to those philological aspects connected to the word '*Thalamegos*'. But Poliziano's translation, like the studies of Philippo Beroaldo (1453–1505) and Marc Antonio Sabellicus (1436–1506), attests to the spread of Athenaeus's writings at the end of the fifteenth and beginning of the sixteenth centuries.[19] By 1514 Aldo Manuzio (1450–1515) and Andrea Torresano (1451–1529) had published a Greek version in Venice, edited by the humanist Marco Musuru (1470–1517). This was followed by a second edition printed in 1535 in Basel by Johann Walder (1493–1541). In contrast to these publications, Ligorio's manuscript also contains drawings of ships.[20] Yet, up until now, Book XIII has not been analysed and Ligorio's translation has not been examined in comparison to the Greek and

15 Ginette Vagenheim, 'La collaboration de Benedetto Egio aux *Antichità romane* de Pirro Ligorio: à propos des inscriptions grecques', in Eliana Carrara e Silvia Ginzburg eds, *Testi, immagini e filologia nel XVI secolo* (Pisa, 2007), 205–24.

16 It is interesting to note that the same king Ptolemy IV also distinguished himself by commissioning four golden elephants to replace those sacrificed to win a battle against Antiochia, as claimed by Plutarch in the *De sollertia animalium* or *On the intelligence of animals*.

17 Athenaeus of Naucratis, *Athenaei Dipnosophistarum sive Coenae sapientum Libri XV* (Venice, 1556), 84–5. Charles Burton Gulick tr. (Eng.), *Athenaeus. The Deipnosophists* (London-Cambridge, 1957). Luciano Canfora tr. (It.), *I deipnosofisti. I dotti a banchetto* (Rome, 2001). Gabriele Burzacchini, *Ateneo di Naucrati. Deipnosofisti (Dotti a banchetto). Libro V* (Bologna, 2017).

18 Gardenal, *Il Poliziano*, 55.

19 Thomas W. Hillard, 'The Nile Cruise of Cleopatra and Caesar', in *The Classical Quarterly* 52/2 (2002), 553.

20 Concina, *Navis*, 49. On Ligorio's drawings see Marcello Fagiolo and Maria Luisa Madonna, 'La Casina di Pio IV come 'enciclopedia'', in Daria Borghese ed., *La casina di Pio IV in Vaticano* (Turin, 2010), 58–77. Other boats sketched by Ligorio are to be found in codex Barb.lat.5085 (Vatican City, BAV): see Clara Lombardi Cima, 'Le favolose navi di Pirro Ligorio in un codice della Biblioteca Apostolica Vaticana', in *L'esopo* 29 (2007), 25–40. On the manuscripts dating see Nico-

Latin sources. The same holds true for the representations of ships, which became well-known through inaccurate reproductions (perhaps derived from a copy of codex Barb.lat.5085) by Nicolaas Witsen (1641–1717) prepared for his *Architectura navalis et regimen nauticum* of 1690, where the '*Thalamegos*' is called '*Oudt Koninklijk Aegiptisch Schip*' (Old Royal Egyptian Ship) (Fig. 8.4).[21] Witsen's captionless illustration of the ship altered the proportions, increased the height of buildings, regularized the porticoes, flattened the huge niche and replaced architectural elements.

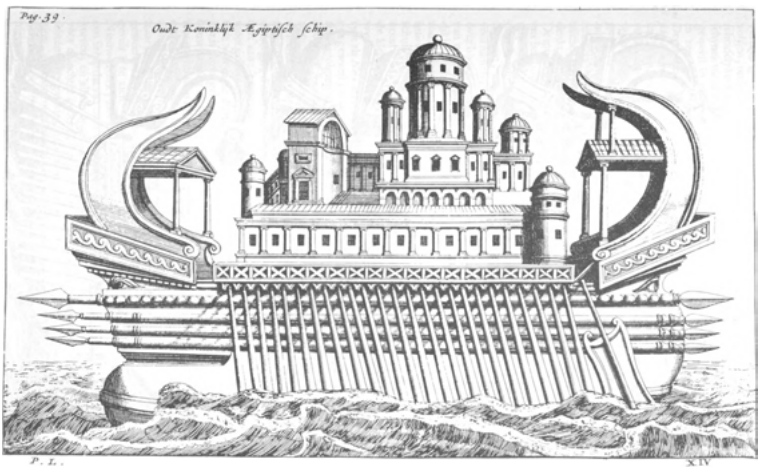

Fig. 8.4: Nicolaes Witsen, engraving of the '*Thalamegos trireme*' (*Architectura navalis*, pl. XIV).

The size and shape of this ship's description most likely impressed Witsen, and in this regard, Ligorio wrote:

> Athenaeus indicates a half a stadium long, that are 400 'geometer' steps of five feet each. 30 cubits broad, and a cubit is equal to a foot and a half, and its 'scene' was 50 cubits high.[22]

Considering the measure of an ancient Roman foot at 0,296 m, its description at 2.000 ft long, 45 ft wide and 75 ft tall would translate into 592 m long, 13 m wide and 22 m tall. Yet Poliziano's notes indicated 40 cubits high, so 60 ft or 18 m. In

letta Balistreri, 'Epigrafi ligoriane nel carteggio tra Theodor Mommsen e Carlo-Vincenzo Promis', in *Historiká. Studi di storia greca e romana* III (2013), 159–87.

21 Nicolaes Witsen, *Architectura navalis et regimen nauticum* (Amsterdam, 1690), 39; Ab Hoving, *Nicolaes Witsen and Shipbuilding in the Dutch Golden Age* (Texas TX, 2012), 240.

22 'Atheneo la mette di longhezza di mezzo stadio, che sono quattrocento passi giometri di cinque piedi l'uno. Larga trenta cubiti, et il cubito s'intende un piede et mezzo, et di altezza la sua scaena era di cinquanta cubiti' (Turin, ASTo, Biblioteca Antica, J.a.III.14, fol. 62*v*).

addition, 'half a stadium long' equals 300 ft and not 2.000 ft or 592 m. Therefore, Poliziano's measures were correct and correspond with contemporary English and Italian translations from the original Greek text. By comparison, Ligorio's version was confusing as the antiquarian wrote: 'in the treaty on the riverboat called *Thalamicon* to sail the Nile, of 600 feet long and 40 [feet] broad'.[23] Hence, here its length was 600 ft and not 2.000, its width was 40 ft and not 45. Therefore, the '*longitudo*', '*latitudo*' and '*altitudo*', length, width and height referred to by Ligorio, correspond to 178,9 and 18 m respectively: the '*Thalamegos*' was a very long, but also a very narrow boat.[24]

Philopator's 'houseboat' was a large, ancient ship, but it was not the earliest prototype of this kind of vessel. In the third century BC, Hieron or Hiero II (306–215 BC), tyrant of Syracuse, commissioned from the architect Archias of Corinth (third century BC) the vessel '*Syrakosía*', later renamed '*Alessandrina*', an enormous ship.[25] The '*Syrakosía*' was mainly a cargo ship used to transport wheat, but also could function as a warship filled with soldiers, knights, towers and a '*ballista*', a war machine similar to a crossbow designed by the physicist, mathematician and engineer ('*ho mechanikos*') Archimedes of Syracuse (287–212 BC).[26] To all this were added 'luxury' cabins with mosaic floors depicting episodes from the *Iliad*, a gymnasium, peripatetic schools, gardens, fountains, porticoes, a Venus *sacellum*, stables for horses and other rooms. Several years later, Hieron II gifted the '*Syrakosía*' to king Ptolemy III Euergetes (d. 221 BC). Upon a closer reading, this episode could represent a knowledge transfer with reference to shipbuilding.

While nothing remains of the '*Thalamegos*' nor of the '*Syrakosía*', between 1929 and 1944 two of Caligula's vessels, comparable to these 'floating luxury buildings', were put on display in a museum at Nemi. Guido Ucelli (1885–1964), engineer, humanist, and founder of the Museo della Scienza e della Tecnica in Milan recorded the boats' sizes: the larger was 71,30 m long and 20 m wide, less lengthy,

23 'Nel trattato della Nave Fluviale detta Thalamicon da navigare per lo Nilo di seicento piedi longa et quaranta larga' (Turin, ASTo, Biblioteca Antica, J.a.III.14, fol. 62*v*).

24 By comparison with contemporary vessels, the Danish shipping company Daewoo and Maersk had launched the Triple-E in 2013, the world's greatest container ship (400m long, 59m wide and 73m tall).

25 According to Thucydides, *The Peloponnesian War* (I, 13), the Corinthians were the first to introduce the '*triere*' in Greece. On this topic, see Janni, *Il mare*, 140. Ligorio suggested a reconstruction of the *Syrakosía* in Book XIII, fol. 64*r*. See also, Giraldi, *Lilii Gregorii Gyraldi*, 42–3.

26 Italian Rai Radio 3, *Dalla terra alla storia*, 07.09.2019. Fausto Zevi, 'Il Porto per Traiano', in Fiorella Festa Farina et al. eds, *Tra Damasco e Roma. L'architettura di Apollodoro nella cultura classica* (Rome, 2001), 101–24; Fausto Zevi, 'Inquadramento storico relativo ai porti di Roma', in Anna Gallina Zevi and Rita Turchetti eds, *Le strutture dei porti e degli approdi antichi* (Soveria Manelli, 2004), 211–20.

but larger than the '*Thalamegos*'. It had a clay roof, a floor in *opus sectile* and walls covered in marble and mosaic. The smaller vessel was only 24 m long. Near these shipwrecks were four large columns and archeologists found a terracotta frieze in the hold as well as statues and silver vessels. Based on this evidence, Ucelli recognized a similar arrangement to sixteenth century *galere*, the galleys commissioned by the Granduke of Tuscany Cosimo I (1519–74), perhaps similar to those vessels illustrated by Baccio Del Bianco (1604–57).[27]

Previously, evoking ancient boats, Giuliano da Sangallo (*c.*1455–1516) had represented '*Qu(a)driremi*' and a '*liburno*' with rudders, eyes, and rostrum in the codex Escurialensis (El Escorial), fols 66*v* and 67*r*, as well as in Barb.lat.4424 (BAV) and in the same vein Francesco di Giorgio Martini (1439–1501) had illustrated ship-details on fol. 97*v* of the codex Saluzziano 148 (BRT). Nevertheless, his interest mainly concerned warships and freighters, sketched in the ms. Vat.urb.lat.1757 (BAV), fol. 17 and fols 18*v*-27*r*, as well as the codex Ashburnham 361 (BMLF) and the codex Saluzziano 148 (BRT). Examples of boats attributed to Martini include a warship with a central tower, similar to the later representations of Noah's Ark drawn by Maerten van Heemskerck (1498–1574) and engraved by Philipp Galle (1537–1612), which are close to Ligorio's '*nave rostrata turrita*' (Fig. 8.5).[28] In this respect, Noah's Ark was the greatest ship described in the Bible, and its dimensions were also well-known in Italian literature during the Renaissance. In the translated *Biblia vulgarizata* of 1471 by Nicolò Malerbi (1422–82) the text reads: 'the length of the Ark will 300 cubits, the width will 50 cubits, and its height will be 300 cubits', that is to say 133 m long, 22 m wide and 133 m tall.[29] On the contrary, Leonardo demonstrated a greater attention

27 Guido Ucelli, *Per la ricostruzione del Museo delle navi romane del lago di Nemi* (Milan, 1948), 8. Actually, Ucelli did not specify the name of the Granduke of Tuscany, but Giuseppe Carlo Speziale, 'Navi Medicee', in *Dedalo. Rassegna d'arte diretta da Ugo Ojetti* 3 (1932), 854–81, had spoken about 'the solicitude of the Granduke [Cosimo I] for the Navy'.

28 See Concina, *Navis*. For tower-ships see the codex 5541, IT.IV, 3–4 (Venice, BNM). A ship with a central tower had been published in Roberto Valturio, *Ad magnanimum et illustrem heroa Sigismundum Pandulphum Malatestam splendissimum ariminensium regem ac imperatorem semper invictum Roberti Valturii rei militaris librum* (Verona, 1483). Turin, ASTo, Biblioteca antica, J.a.III.14, fol. 64*v*.

29 The same book is perhaps mentioned in Leonardo's manuscripts (codex Madrid II, fol. 2*v*). Nicolò Malerbi, *Biblia italica, Nicolao de Malermi interprete* (Venice, 1487), fol. a6: 'la longheza de l'archa sarà treciento cubiti: la larghezza sarà cinqua(n)ta cubiti: & la sua alteza trece(n)to cubiti'. See also Giacomo Filippo Foresti, *Chronica de tutto il mondo vulgare* (Venice, 1491), fol. 5*r*: 'disse Dio: fa per te una archa de legni composta: bene impesata dentro et de fuora: la quale sia de mesura de trece(n)to gomiti geometrici: seco(n)do Augustino d(e) longheza. El gomito geometrico. come lor vogliono. sono sei gomiti usuali. la qual misura noi diciamo perticha. Sia adunque de longheza de trecento pertiche, di cinquanta de largheza, et de trenta d'alteza, cioè dal fondo in-

to technical features and applications related principally to military purposes, especially in the ms. B (BIF), emphasized by controversy about Alberti's anemometer (a device that measures wind speed and direction) noted in the ms. F: 'against Battista Alberti, who gives a general rule to measure wind velocity per hour'.[30]

Fig. 8.5: Pirro Ligorio, drawing of Athenaeus's ships (Turin, ASTo, Biblioteca Antica, J.a.III.14, ff. 63*v*-64*r*).

In view of the above, an examination of Ligorio's translation reveals a plausible correlation with the Vatican Belvedere by specifically considering the following sentence:

> In the upper part there was a place named 'open-air' ('*subdio*') which is uncovered and octagonal, whence you went to a staircase, circular or winding [that is a companionway] that led to secret places under the covered promenades ('*deambularorij*') [or] to the '*None*

sino a le (sic should read la) trave del palco, over del tetto de largheza d'uno gomit, sia la suoa sommità. Nella quale ci(n)que camere et portichi farai, et una fenestra, et ancora la porta da lato farai.'

30 'co(n)tra a Batista Alberti che dà regola generale qua(n)to il ve(n)to cacci un navilio p(er) ora' (Paris, BIF, ms. *F*, f. 82*r*).

> *Clynio*', which finally was decorated in Egyptian style, with round columns around the helical staircase, such as a vertebra turning, it is composed by white and black columns.[31]

By examining the first phrase, the '*subdio*' or '*subdivo*' identifies an uncovered area ('*sub coelo*' or '*sub aere*') with the same meaning being attested to in Vitruvius's treatise and Cicero's *In Verrem* oration, as well as in Giocondo's translation of *De Architectura* and by an ancient tombstone recorded by Carlo Promis (1808–73).[32] By comparison, Poliziano chose '*subdialis*', another analogous word derived from '*subdio*', also used by Francesco Mario Grapaldo (1464–1515) at the beginning of Book II of his *De partibus aedium*, which also distinguishes between ancient marble workers and carpenters.[33] So Ligorio's choice of terminology ('*subdio*' instead of '*subdialis*') does not indicate influence from Poliziano's translation, while a correlation is more likely with the *Athenaei Dipnosophistarum* cited above, where Arrivabene had previously employed the term '*subdio*'. In addition to the lexical choice, by recalling the passage from Book XIII, Ligorio interpreted the form and shape of this uncovered place.

In this regard, neither Athenaeus nor Poliziano described the plan, while Ligorio specified that it was octagonal. Perhaps, due to a misunderstanding of the word '*ostij*' with 'Ostia', the antiquarian imagined a regular plan like that of Rome's great port of Ostia.[34] This ancient harbor was hexagonal, however. As an alternative, as demonstrated by the following passages on the '*Thalamegos*' description, a correlation with the Statue Court plan seems more probable. The next

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31 'di sopra era il luogo detto subdio, o vogliamo dire scoperto, ottagono, donde s'andava alla Scala, rotonda o tortuosa, che conduceva insino alli segreti luoghi sotto delli deambulatorij al None Clynio, ch'era finalmente con Aegyptio apparato finito, con colonne rotonde attorno della schala à Lumaca ad uso d'una Vertebra girando veniva composita di bianche et negre colonne' (Turin, ASTo, Biblioteca Antica, J.a.III.14, fol. 63*r*).

32 Carlo Promis, *Vocaboli latini di architettura posteriori a Vitruvio oppure a lui sconosciuti raccolti da Carlo Promis a completamento del lessico vitruviano di Bernardino Baldi* (Turin, 1875), 190: 'Subaedanus, subaedianus. Gli operai di fabbriche (e qui dico specialmente di marmorari e legnaiuoli) tenevan loro officine quali allo scoperto, chiamandosi perciò Subdiales da Sub Dio; quali in luoghi coperti e chiusi, ed allora avevan nome di Subaediani, perché stanti Sub Aedibus'. Giovanni Giocondo, *Vitruvius iterum et Frontinus a Iocundo revisi repurgatique quantum ex collation licuit* (Florence, 1513), fol. 104*v*: 'in aegyptiis autem supra columnas epistylia, & ab epistyliis ad parietes qui sunt circa, imponenda est co(n)tignatio, supra eam coaxatio & pavimentum, sub dio ut sit circuitus'.

33 Francesco Maria Grapaldo, *De partibus aedium* ([Parma], 1494); Carlo Promis, *Vocaboli latini di architettura posteriori a Vitruvio oppure a lui sconosciuti raccolti da Carlo Promis a completamento del lessico vitruviano di Bernardino Baldi* (Turin, 1875).

34 Athenaeus of Naucratis, *Athenaei Dipnosophistarum sive Coenae sapientum Libri XV* (Venice, 1556), 85: 'postea locus subdio suppositi ostij formam accipiebat'.

sentence, in particular, highlights a relationship with the Belvedere site. But the expression '*deambulatorij*' should also be considered, given that Ligorio previously used this term to illustrate the Vatican courtyard in Book II: 'another Belvedere is the Papal building and garden in Rome on the Vatican hill. This place was richly ornamented with porticoes, statues, water sources and woods as well as several ambulatories (*deambulatorij*)'.[35]

One of those '*deambulatorij*' was that corridor ('*Corridore*') commissioned by pope Julius II (r. 1503–13) and designed by Donato Bramante (1444–1514) at the beginning of the sixteenth century. It was noted in a letter of 31 January 1506 written to the Marquess of Mantua, Francesco Gonzaga (1466–1519), by Geronimo Arsago (d. 1542), the bishop of Nice: 'every day [Your Holiness] is pleased by seeing and designing those buildings that he is realizing from the Papal Palace to the Belvedere'.[36] In addition, and no less important, the '*Corridore*' consists of three orders thus evoking Ptolemy's vessel: the '*Thalamegos* has three order of rowers, that are three decks, named *trireme* by Latin people'.[37] Here, Ligorio confuses 'rowers' with 'decks', showing his limited familiarity with nautical terminology as well as his low, but well-documented, knowledge of Latin and Greek vocabulary, as has been noted. This condition clearly emerges in the next 'cryptic' sentence with reference to the '*None Clynio*' that is, according to Ligorio, an uncertain room 'decorated in Egyptian style'. Instead, '*None Clynio*' means 'nine couches', a kind of ancient 'unit of measure' used to indicate the size of a room, just as a '*triclinium*' identifies a room with three beds or couches as described by Isidore of Seville (*c*.560–636) in his *Etymologiae* or *Origines* (XV, III, 8).

Finally, the circular companionway is the last issue. Even here, Ligorio did not rely on Poliziano's Latin translation.[38] Poliziano had noted '*scalae tortiles*' and '*ambulatorium*' while Ligorio had chosen '*Scala, rotonda o tortuosa*' and '*deambulatorij*' recalling, perhaps not by chance, '*tortuosa scala*' and '*deambulatorium*' used

35 'un altro [Belvedere] è edificio et giardino ponteficale in Roma sul colle Vaticano. Luogo ornatissimo di portichi, di statue, di fonti et de boschi con diversi deambulatorij' (Turin, ASTo, Biblioteca Antica, J.a.III.6, fol. 36).

36 'S(ua) S(anti)tà [. . .] pigliassi ogni giorno per spasso in andar(e) vedando et designando li fabrigi el fa dal palazo fino a Belveder(e)', (Mantua, ASMn, *Archivio Gonzaga, E. Dipartimento affari esteri*, b. 857, f. 10).

37 'fu di triplici ordini di Remigi cioè di tre coperte da latini detta trireme' (Turin, ASTo, Biblioteca Antica, J.a.III.14, fol. 62*v*).

38 Gardenal, *Il Poliziano*, 64: 'ubi et scalae tortiles quae ad ambulatorium conducunt occultum'.

in Arrivabene's edition.[39] Therefore, this correlation suggests a reasonable transliteration from *Athenaei Dipnosophistarum* published in Venice in 1556, except for some significant variations not derived from Athenaeus's *Deipnosophistae*.

Consider Athenaeus: 'for the columns built at this point bulged as they ascended, and the drums differed, one being black and another white, placed alternately'.[40] In contrast to the original source, Ligorio associated the columns with the ship's staircase or companionway, called '*Scala, rotonda o tortuosa*' or '*schala à Lumaca*'. In addition, Ligorio specified column shapes, which was not such a self-evident thing to do in the fifteenth and sixteenth centuries, given that an intellectual architect like Francesco di Giorgio had remarked: 'many kinds of columns, which are triangular, and quadrangular or circular'.[41] It even seems that the antiquarian was referring to a real staircase such as Bramante's '*lumaca*', built against the east side of the villa or '*palatium*' of Innocent VIII (1484–92), as it was radically modified by Julius II.

After all, Ligorio was hardly foreign to the Papal Court: in the 1560s, he and Sallustio Peruzzi (1511/12–72)—the son of the celebrated Baldassarre (1481–1536)—were the Pope's architects, as is confirmed by several payments from the Apostolic Camera. They oversaw the construction of Pius IV's casino ('*Casina*'), the 'square garden' and the new '*Corridore*' (parallel to the one built by Bramante) as well as various restoration work. Thus Ligorio's '*Thalamegos trireme*' ought properly to be considered as having been composed in the light of these other Vatican buildings. Thus, two corridors, the paired ambulatories ('*doppij deambulatorij*'), extend from the double stern to the double bow of the ship, recalling the '*Corridoi*' on the S. Egidio hill. Near the covered promenades and the '*scaena*' there is a huge niche like Ligorio's '*Nicchione*', built in the 1560s. Lastly, a staircase named '*scala*' is sketched at the end of the '*Deambulatorio*' similar to that in the Belvedere Courtyard. In this view, those 'white and black columns' probably allude to the type granite shafts found in Bramante's '*lumaca*', characterized by 'little white pieces, and black [pieces] well-differentiated' as Faustino Corsi (1771–1846)

39 Athenaeus of Naucratis, *Athenaei Dipnosophistarum sive Coenae sapientum Libri XV* (Venice, 1556), 85: 'ubi tortuosa scala aderat, quae ad secretum deambulatorium perducebat'.

40 Witsen's text does not derive from Ligorio's *Book* – neither from the ASTo nor the BAV – but perhaps he used the *Athenaei Dipnosophistarum* (Venice, 1556). Nicolaes Witsen, *Architectura navalis et regimen nauticum* (Amsterdam 1690), 40: '[. . .] hier op quam een wentel-trap uit, die na een andre wandel-plaatze leidde, en een eet-zaal, met negen legerplaatzen, al Egyptisch werk'.

41 'sono variate gienerationj chome se triangholari quadrangholarj e cci(r)chularj', (Torino, BRT, codex *Saluzziano 148*, f. 28*r*). Instead, Isidore of Seville (XV, 8, 14) had only named circular columns: 'columnae pro longitudine et rotunditate vocatae, in quibus totius fabricae pondus erigitur. [. . .] Genera rotundarum quattuor: Doricae, Ionicae, Tuscanicae, Corinthiae [. . .]'.

had defined granite in 1828.[42] But considering the size of the '*lumaca*', whose inner diameter is equal to 8,87 m, it would have been impossible to place Bramante's staircase on the '*Thalamegos*' (9 or 13 m wide) so this 'overlapping' is exclusively an idealization.

By examining the octagonal '*subdio*', a correlation emerges between this uncovered place and the Statue Court. Indeed, on folio 25 of the codex *Coner* (SJSM), attributed to Bernardo della Volpaia (1475–1521/22) and dated between 1514 and 1515, the '*giardino delle statue*' has an octagonal plan, something emphasised subsequently in 1774 by the architect Michelangelo Simonetti (1724–81) in a Neoclassical style for pope Clement XIV (1705–74). However, an identification remains to be established for the three buildings in the '*Thalamegos*' courtyard (Fig. 8.6). One of these is named 'Venus' ('*Venere*'), but it is unlikely that there was a relationship with the Venus statue in the villa.

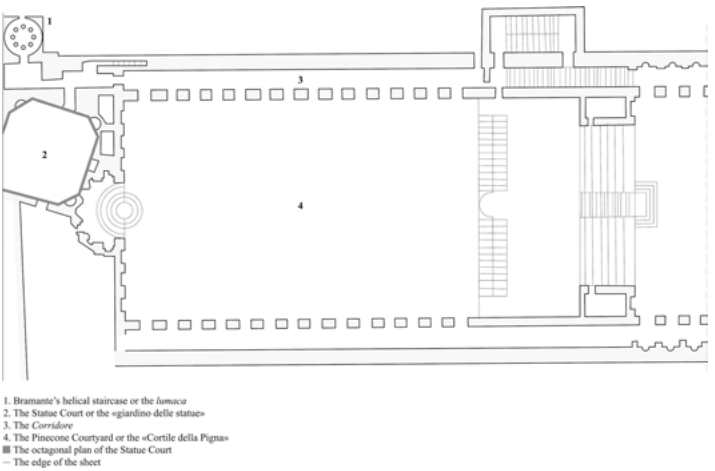

Fig. 8.6: Bernardo della Volpaia, plan of the Belvedere Courtyard (London, SJSM, Codex Coner, f. 25; redrawing by M. Di Salvo).

In the end, the '*Thalamegos*' description is something more than a simple transliteration from Athenaeus's *Deipnosophistae*. Actually, Ligorio modelled Ptolemy's ship on papal palaces by unknowingly applying a kind of 'Antique-ing process' in which the Vatican buildings came to compose an imaginary reconstruction of the

42 Fausto Corsi, *Delle pietre antiche libri quattro di Faustino Corsi romano* (Rome, 1828), 131: '*picciole parti bianche, e nere fra loro distinte*'.

lost '*Thalamegos*'.[43] Given the Belvedere underwent a dramatic reclassification as ancient in many texts of the sixteenth century, in Ligorio's *Book XIII* Ptolemy's vessel evokes almost systematically the architecture of the Belvedere. Lastly, it should be noted that a relationship between the Vatican palaces and vessels was consolidated, and in this respect, Biondo established a close correlation when he wrote about '*naumachiae ubi fuerit*' when describing the Vatican Belvedere in his *Roma Instaurata*; Perin del Vaga (1501–47) also represented a '*naumachia*' in the Vatican Courtyard in a fresco housed in Castel Sant'Angelo (Fig. 8.7).[44]

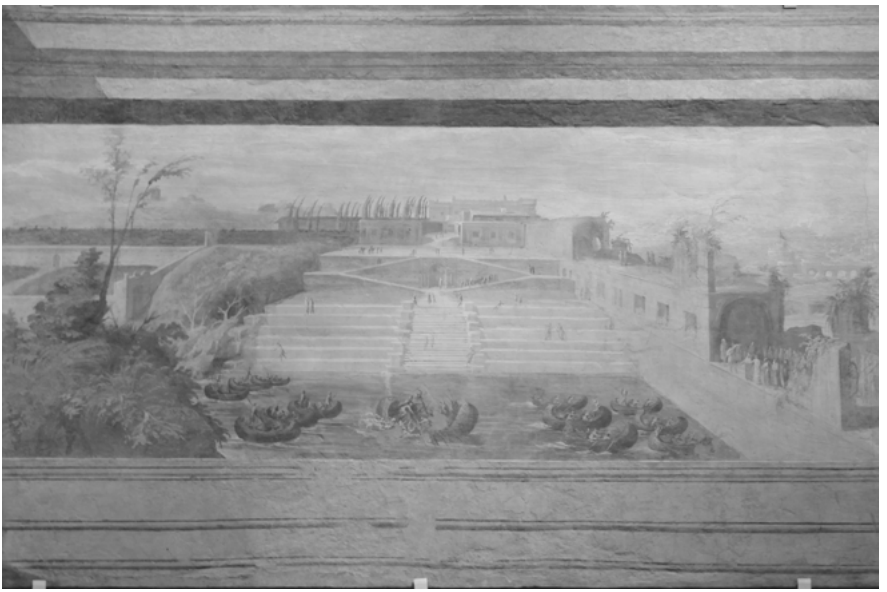

Fig. 8.7: Perin del Vaga, *Naumachia* (Rome, Castel Sant'Angelo; photo M. Di Salvo).

43 This condition recalls the *Adoration of the Magi* engraved by Philips Galle, but originally drawn by van Heemskerck, where Bramante's '*lumaca*' becames a temporary shelter for the Holy Family.

44 Flavius Blondus, *Blondi forlivensis viri praeclari Romae Instauratae* (Verona, 1481), I, 44: 'navale autem stagnum sive ut graeco vocabulo appellant Naumachiam fuit secus ipsum montem sub aurei montis radicibus qua ad portam Pertusam itur, et ubi nuper hortos exicato limo vidimus inchoatos, unde in multis quae legimus apocrifis magna Vaticani pars naumachia appellatur, et in vita beati Petri de qua diximus etiam habetur ecclesiam sancti Petri extructam fuisse apud naumachiam pariterque hospitale quod Leo papa tertius aedificavit e regione ecclesiae sancti Andree a Simacho primo papa dedicata. et sancta Petronile qua templu(m) Apollinis in Obeliscum vergit ad naumachiam appellatum est'.

Abbreviations

ASMn	Archivio di Stato di Mantova
ASTo	Archivio di Stato di Torino
BAV	Biblioteca Apostolica Vaticana
BIF	Bibliothèque de l'Institut de France
BMLF	Biblioteca Medicea Laurenziana di Firenze
BNM	Biblioteca Nazionale Marciana
DRA	Leon Battista Alberti, *L'architettura: De re aedificatoria*, ed. and tr. (Italian) Giovanni Orlandi and Paolo Portoghesi, 2 vols (Milan, 1966)
SJSM	Sir John Soane's Museum