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GALILÆANA

Studies in Renaissance and Early Modern Science

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GALILÆANA

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– FOCUS –



THE ART OF MEMORY AND SCIENCES IN THE EARLY MODERN AGE

edited by Tommaso Ghezzani and Clément Poupard



Introduction

The art of memory and the sciences in the Early Modern Age

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Abstract

This focus concerns the relation between the tradition of the art of memory and the sciences during the Early Modern Age in Europe. Seven essays: from anatomy to mathematics.

Keywords

humanities and sciences, art of memory, Scientific Revolution, European Renaissance

How to cite this article

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The aim of this focus is to investigate a particular aspect relating to the tradition of the art of memory, during the Early Modern Age in Europe: the relationships between mnemonics and scientific development. The art of memory encompasses techniques for memorization that have been passed down from classical culture, particularly within the context of rhetorical training. For centuries, mnemonics were part of the *trivium* and only became an independent discipline during the Renaissance. This was due in part to the radical changes of the time, ranging from the invention of the printing press to the Scientific Revolution, which led to an unprecedented production and dissemination of knowledge. In his book *Clavis Universalis* (1960), Paolo Rossi emphasized the importance of mnemonic knowledge in the development of modern science. Using this work as a cornerstone for the history of philosophical and scientific ideas, we aim to expand Rossi's analysis by studying scholars he neglected or to examine more precisely the position of major figures in the early-modern natural philosophy. Furthermore, this focus aims to broaden Rossi's perspective by questioning the rise of experimental sciences and the mathematization of the world from a social and cognitive point of view.

The contributions collected here have the advantage of bringing together these topics within very broad and varied fields, thus allowing the reader to immediately get a clear idea of the important connection between mnemonics and sciences. In particular, the essay of Tommaso Ghezzi inquires how mnemonic and hermetic propaedeutics affected the visual tools and experimental habitus of early modern anatomy, and vice-versa. The essays of Annarita Angelini, Lucia Delaini, Koji Kuwakino and Ute Frietsch inquire the use of mnemonic tools by authors who focused in the methodology for structuring a renewed *encyclopedia* of knowledge, ranging among France, Italy, and England. At the end, the essays of Marco Matteoli and Clément Poupard inquire the evolution of the classical art of memory relating to the creation of new techniques to memorize kinds of information that were neglected up to that point, in particular in the mathematical fields.

Despite the exceptional breadth of disciplinary fields taken into account in this collection of studies, there is still a lot of work to be done in this direction and, through this focus, we hope to have at least sparked historiographical interest for further investigations in this sense. Study this topic remains fundamental to better understand at which degree both scientists and humanists continue to share the same "*outillage mental*" (Febvre, *Le problème de l'incroyance au XVIe siècle*, 1947).



Theatres of memory and anatomical theatres: Notes on Giulio Camillo, rhetoric, magic and anatomy between 16th and 17th century

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Abstract

The aim of this study is to highlight the links between rhetorical-mnemotechnical, magical-alchemical and anatomical investigation, starting with the works of Giulio Camillo Delminio (c. 1480-1544). Through this reconstruction, it is possible to observe how for Camillo and for others in his milieu, especially the Venetian academies of the 16th century, these *arts* were conceived in terms of profound interdisciplinarity, thereby moving towards a new *encyclopaedia* of knowledge. The key to this knowledge was memory and its *ars*, through which the *homo loquens* was able to dominate both the natural and transcendental worlds by rediscovering the innate traces of knowledge dormant in their soul. We will also observe the profound links between this cultural paradigm and the parallel birth of new tools used in anatomical investigation, including anatomical tables and, above all, anatomical theatres, paying particular attention to the case of the Anatomical Theatre of Bologna.

Keywords

art of memory, anatomy, theatres

How to cite this article

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Introduction

Scholarship is now in agreement on the cultural centrality of Giulio Camillo Delminio (c. 1480-1544). A rhetorician, philosopher, kabbalist, magician, and alchemist, his vision both of the world and the human being was integral to one of the most flourishing cultural trends of the European Renaissance: the consolidation of the Platonic tradition which, through the fundamental mediation of Marsilio Ficino and Giovanni Pico della Mirandola, had been conjoined with the ambiguous tradition of the Hermetic writings and the Jewish Kabbalah. The result was a single sapiential chain, reputed to be the philosophical image of Christian Revelation.¹ From this well-researched cultural ground, this study seeks to explore more deeply certain aspects which the historiography has undeservedly neglected: the influence of the nascent anatomical investigations of the sixteenth century on Camillo and, conversely, the influence of the cultural experiences described by Camillo on anatomy and its material *tools*.

By setting Camillo's rhetorical-mnemotechnical investigation against the background of his alchemical research and anatomical reflections, we will observe what anatomy meant for the philosopher and his milieu (especially the Venetian academies of the 16th century). Anatomy eroded the surface of the individual body in order to grasp its universal laws, just as the rhetoricians tried to move beyond a given speech to understand the universal knowledge that lay behind the structures of discourse. For Camillo, one aspect of such investigation was alchemical research, conceived as the extraction of the divine essence from the lowest matter: going beyond the surface of reality meant grasping its true providential design. Through this process, the wise man was able to become both a rhetorician and an alchemist, an anatomist and a divine being. The faculty of memory and the *ars* to control it became the means through which the *homo loquens* was able to dominate both the natural world and the transcendental world through *visuality*, rediscovering the innate keys of knowledge that lay dormant in his soul. Platonic *anamnesis*, through the mediation of Ficino and Pico and dialectical reform, was thus used to corroborate naturalistic investigations within a precise design of classification and domain of reality. In Camillo's work, the different disciplines are moreover traced back to the linguistic field. The rhetorical and mnemonic-visual prevalence of this common root allowed domination over a world still governed by analogical principles. In this world, through innate wisdom and its memory,

¹ The bibliography on Camillo is vast. For reference, see the following: Yates, *The Art of Memory*, 129-172; Stabile, "Camillo, Giulio, detto Delminio"; Bolzoni, *Il teatro della memoria*; and the rich introduction and bibliography by Bolzoni in her edition of works by Camillo, *L'idea del teatro, con "L'idea dell'eloquenza"*, 9-128. On Renaissance syncretism and the chain of *prisca philosophia*, an extremely broad theme, we refer to the studies and bibliographies collected in Garin, *L'umanesimo italiano*, 105-132; Muccillo, *Platonismo, ermetismo e "prisca theologia"*; Vasoli, "Note su tre teologie platoniche: Ficino, Steuco e Patrizi", 81-100.

the true philosopher was able to harmonize the superior with the inferior, natural science with divine science and the *studia humanitatis*. Both the mnemonic tool and sight (sensory and intellectual) constituted the nexus through which human beings were able to establish themselves as both a cosmological *trait d'union* and as the crossroads of all the *arts*.

At the conclusion of this study, it will also be possible to trace bilateral links between this specifically magical-analogical mentality and the aspirations and instrumental medical-scientific practices that were developing in that century. Paolo Rossi and Frances Yates, in their classic monographs on the art of memory, have already confirmed the continuity of certain mnemotechnical practices with respect to several undisputed protagonists of the scientific revolution, such as Descartes, Francis Bacon and Leibniz.² By following this privileged historiographical path, we will see, more specifically, how visuality and memory were considered a no less fundamental key for the anatomist.

The basis of Camillo's project

If we are to begin from the cultural environment of the academies – and especially those of Venice, which Camillo addressed in a privileged way –, it would be useful to recall their origin. The first significant group to take its name from Plato's ancient institution was that of Marsilio Ficino in Florence. However, this academy was nothing more than a non-hierarchical cultural space in which a select group of associates, of co-philosophers, freely discussed philosophical mysteries, gathered together at a villa in Careggi which Cosimo de' Medici had given to Ficino. While they offered an alternative cultural model to that of traditional universities, the idea of the Ficinian academy as a more formally structured space is a false historiographical myth.³ The new philosophical model it proposed, that of Platonism reborn, was essentially based on the assumption of the analogical continuity of all levels of reality and on the role of the human being as a microcosm.⁴

During the 16th century, this form of gathering was exported from Florence throughout Italy and Europe, where it assumed significantly more structured and institutionalized forms. While not all remained faithful to the primitive and heterodox project of cultural renewal, those that Camillo frequented over a long period certainly fell into such a category. These academies frequently used the theoretical tools offered by the Hermetic-Platonic tradition and above all by the reborn study of rhetoric. On the one hand, the new philosophy had established the dignity of the human being, as well as the importance of the psychological powers of the imagination and fantasy, with which memory was consubstantial. On the other, there was rhetoric, of which the art of memory was one of its five parts, which

² See Yates, *The Art of Memory*, 368-89 and Rossi, *Clavis universalis*, 155-281.

³ See Hankins, "The Invention of the Platonic Academy in Florence", 3-38.

⁴ See Garin, "La filosofia dell'amore", 581-615, and Id., *L'Ermetismo del Rinascimento*.

had been re-founded on a new dialectical basis. These were considered the tools through which the system of knowledge, the *encyclopedia* of the world, could be reorganized. However, we must not overlook the contribution of a renewed understanding of Aristotelianism which, in certain academies, and especially that of the Infiammati, inherited the mission of refounding a knowledge which in other places was delegated to Platonism.⁵

The grandiose project on which Camillo worked throughout his life was fully inserted into this ideology: the construction (mental and material) of a great Theatre of the world (or of the memory). Various reconstructions of this impressive mnemonic-encyclopedic device have been attempted, ranging from plans of the classical theatre to that of the amphitheatre and beyond (Fig. 1).⁶ Camillo had originally trained as a rhetorician and was therefore very familiar with the classical and modern methods of the art of memory. He therefore perfectly grasped the evolution of the relationship between mental mnemonic loci and mnemonic images. The ancient art of memory had structured artificial memory through the placement of memory-images within a precise mental architecture which recalled their order. However, the culture of the 15th and 16th centuries began to radicalize the very theme of *order*. There was no longer a tendency to structure the order of memory through, for example, the simple order given by the succession of a series of rooms in a corridor. Instead, the order of loci, containers for the material to be memorized, was increasingly arranged in complex architectural forms composed of several orders and degrees. The order of the loci began to reflect the logical connection of the various information which they contained. In so doing, they were responding to the need for a new instrumentation to compose the new system of knowledge, which was the ultimate goal of the most active academies.⁷

⁵ Here, we refer only to the study and bibliography in Vasoli, “Le Accademie fra Cinquecento e Seicento”, 429-465, and Testa, *Italian Academies and their Networks*.

⁶ See the table in Yates, *The Art of Memory*, 144-145. Here, for convenience, the classical reconstruction of the Theatre proposed by Yates will be taken as the main reference. However, it is currently confirmed that the plan on which Camillo based his theatre was not that of the Vitruvian theatre but rather that of an amphitheatre, as indeed two unequivocal testimonies report, even if they refer not to the actual theater (never built), but to the wooden prototype, built by Camillo for the king Francis I of France. For an overview on this topic see Putti, *Il Teatro Universale di Giulio Camillo Delminio*, and Seip, “Giulio Camillo’s Theatre of Knowledge”, 59-83. In this sense, it is likely that among the reference models of the wooden prototype there were the precursors of the anatomical theaters (still conceived as ephemeral structures).

⁷ See in the first instance Rossi, *Clavis universalis*, taking into account the basic historiographical problem that he shares with Yates, *The Art of Memory*, i.e., the excessive extension of the genre of the treatise of the art of memory to texts of a different nature, such as that of Camillo. Indeed, between the 15th and 16th centuries, art of memory texts had become a very specific genre, consisting of a series of empirical teachings on how the reader could memorize the material he preferred. Texts such as Camillo’s instead adopted mnemotechnical tools so that the reader could memorize very specific information, decided *a priori* on the basis of a precise ideological or philosophical project. On this important distinction which, even today, gives rise to consid-

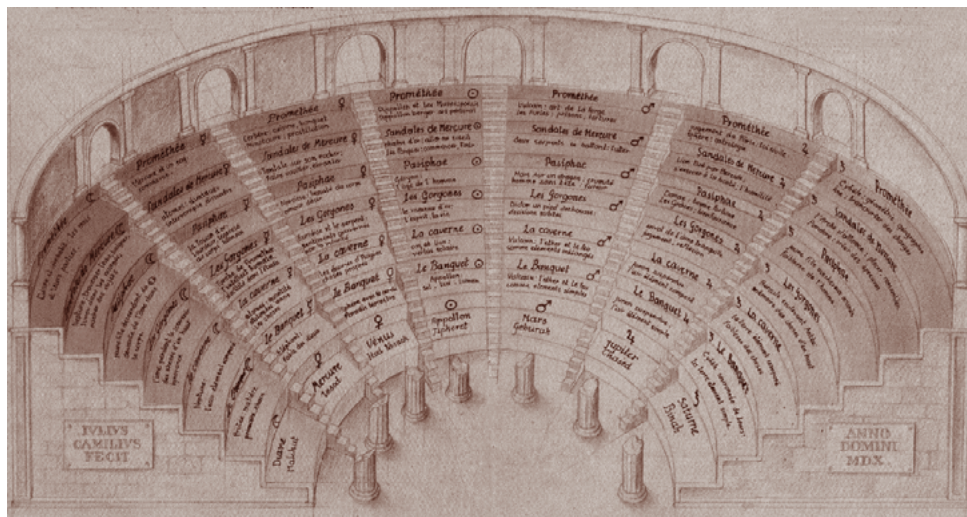


Fig. 1 – Anonymous artist's impression of Camillo's Theatre, 17th century.

Camillo used precisely this theoretical instrumentation to build a mnemonic system refounded on a universalistic and encyclopedic basis. His intentions required that it should be physically constructed. Where the art of memory proper required the user to develop his own personal system for individual purposes, Camillo instead built a handbook of images, set in a grandiose theatrical space, which was to be memorized as such by anyone who wished to master true knowledge. The observer of the images was not seated in the stalls but upon the stage, where he could observe the spectacle of memorable images arranged according to cosmological-astrological order: from the intelligible, to the celestial, to the terrestrial. However, Camillo only succeeded in having a prototype built. Although this has not reached us, it was fortunately immortalized in a letter of 1532 by the jurist Viglius van Aytta, who, having been escorted inside it by Camillo himself, described it as follows to his friend Erasmus of Rotterdam:

The work is made of wood, marked with many images and crammed, in every part, with small boxes; and there are different orders and degrees [...]. He [Camillo] calls this theatre of his by many names, saying now that it is an artificial mind and soul, now that it is a soul equipped with windows. He claims that all things the human mind can conceive and which cannot be

erable misunderstanding, see in particular Matteoli, *Nel tempio di Mnemosine*, 23-25. On the reform of the method see Vasoli, *La dialettica e la retorica dell'Umanesimo*. Regarding the mutual influence between the art of memory and different aspects of the cultural life of the Renaissance, see Bolzoni, *La stanza della memoria*.

seen with the bodily eye can nevertheless be [...] expressed by means of certain bodily symbols, in such a way that the observer may instantly perceive with the eye all that is otherwise concealed in the depths of the human mind.⁸

In the *Idea del Teatro*, published posthumously in 1550, Camillo drew a quick sketch of how the definitive project of the theatre was to be arranged. The structure was composed of two systems: one of vertical levels, each corresponding to a sefirah-planet, and one of horizontal degrees, each representing an ontological state according to the hierarchy of being. Through the intersection of degrees and levels, forty-nine loci were formed.⁹ In each of them were placed more images which represented every aspect of reality. As we learn from the account of Viglius, these images concealed compartments in which papers were crammed containing textual loci by exemplary authors, especially Cicero, on the subject represented. Apparently, therefore, this device was only useful to the rhetorician who, by memorizing the system of images and the texts that each image contained, could always have at his disposal the material with which to construct every possible discourse. It is no coincidence that the structure was described as a soul made *visible*: all the concepts which the human mind could conceive, in its own invisible depths, were here visually unveiled. In reality, the aim was much more complex, and to grasp it we must turn to Camillo's published and, above all, unpublished texts.

Beyond the surface of the body and the theatre

Starting from the published texts, it is necessary to dwell in particular on the *Trattato della Imitazione* (c. 1530), which illustrates how to imitate exemplary texts. Camillo explains

⁸ “Opus est ligneum multis imaginibus insignitum, multisque undique capsulis refertum: tum varii in eo ordines et gradus. [...] Hoc autem theatrum suum auctor multis appellat nominibus, aliquando mentem et animum fabrefactum, aliquando fenestratum: fingit enim omnia quae mens humana concepit, quaeque corporeis oculis videre non possum, posse tamen diligenti consideratione complexa signis deinde quibusdam corporeis sic exprimi, ut unusquisque oculis statim percipiat quicquid alioqui in profundo mentis humanae demersum est” (Viglius, “From Viglius Zuichemus”, 29-30).

⁹ See Camillo, “L’idea del teatro”, in Id., *L’idea del teatro, con “L’idea dell’eloquenza”*, 150-155. The sefirot were a system of transcendent archetypal principles, encoded by the kabbalah, to which multiple worldly realities referred, similar in many ways to Platonic forms. However, while Platonic forms were a unitary and universal model for what manifested itself as multiple in the earthly world, the sefirot also possessed the prerogative of establishing continuity between the different degrees of being. On the absorption of the Jewish sefirot within the Platonic culture of the Renaissance, we refer to the study and bibliography collected in Busi, *La Qabbalah*. On the continuity between magic and astrology in the philosophical culture of the Renaissance, see the classic Garin, *Lo zodiaco della vita*, and Ernst-Giglioli, eds., *Il linguaggio dei cieli*.

that in order to imitate correctly, the writer must not steal words or rhetorical figures as they appear in classical texts, but instead return to the *topical order* from which these originated (that is, the logical mechanism that produced them) by stripping them of their contingent aspects.¹⁰ In this way, a new work can be created on the basis of the beauty achieved by the classical literary model taken as a reference. Camillo therefore recommends the anatomical dissection of exemplary texts in order to establish the universal logical norms that govern them. This process is compared (albeit seemingly only metaphorically, according to the text) to a real anatomical experiment that he had personally witnessed. He adds that:

I remember that in Bologna an excellent anatomist enclosed a human body in a box perforated all over and then exposed it to the current of a river, which, through those holes, in a few days consumed and carried away all the flesh of that body, which then showed the marvelous secrets of nature, only the bones and nerves being left. This body, supported only by bones, I compare to the model of eloquence, supported only by matter and by design.”¹¹

The mysterious anatomist may have been Berengario da Carpi or perhaps even Andrea Vesalio, who, like Camillo, frequented the Accademia degli Infiammati and was a friend of the architect Sebastiano Serlio.¹² In any case, just as the anatomist had to remove the superficial layers of the human body in order to grasp its hidden and universal functioning, the same was true for the rhetoricians who wished to discover the topical orders of their literary models. The text also abounds in parallels that Camillo establishes between his own method of imitation and that prescribed for figurative artists. The principle of *ut pictura poesis* is assumed as a methodological paradigm, though it is already implicit in an operation aimed at making verbal knowledge visible and storable. Indeed, Camillo did not hesitate to address figurative artists directly.¹³

Similar comparisons can also be found in an earlier letter to Marcantonio Flaminio (c. 1525). Here, among other things, a first version of the mnemonic system is outlined, al-

¹⁰ See Camillo, “Trattato della imitazione”, in Id., *L’idea del teatro e altri scritti di retorica*, 170-177 et seq.

¹¹ “Ricordami già in Bologna che uno eccellente anatomista chiuse un corpo umano in una cassa tutta pertugiata e poi la espose ad un corrente d’un fiume, il qual per que’ pertugi nello spazio di pochi giorni consumò e portò via tutta la carne di quel corpo, che poi di sé mostrava meravigliosi secreti della natura negli ossi soli et i nervi rimasi. Così fatto corpo, dalle ossa sostenuto, io assomiglio al modello della eloquenza dalla materia e dal disegno solo sostenuto” (*ibid.*, 192).

¹² On Vesalio see Carlino, *La fabbrica del corpo*. On the common environments of Camillo, Vesalio and Serlio see Carpo, *Metodo ed ordini nella teoria architettonica dei primi moderni*, and mainly Carlino, “Anatomia umanistica”, 77-94.

¹³ See Camillo, “Trattato della imitazione”, in Id., *L’idea del teatro e altri scritti di retorica*, 187 et seq.

though the structural model is neither an architectural work or the astrological system, as is the case in the *Idea del Teatro*. The first was deemed too humble, the second too complex.

On the one hand we had the method of the edifice mainly used by Cicero; on the other hand, that of Metrodoro of the twelve signs of heaven, in which he was very familiar with the three hundred and sixty loci according to the number of degrees. But seeing in the first little dignity, in the other much difficulty, and being both perhaps more suited to acting than to composition, we turned all our thoughts to the marvelous fabric [*fabrica*] of the human body. For we consider that if this has been called a small world since it has within itself the parts that are related to all the things of the world, according to its nature, it can adapt those parts to anything in the world, and consequently the words that express it.¹⁴

As a microcosm, the human body can provide a correspondence with everything in the world. Indeed, Camillo continues:

what more divine work came out of the hands of the eternal master than man? Certainly none. And I can say this assuredly not only because I have read the divine *Timaeus* several times with some diligence, in which Plato is with great amazement entirely occupied with the human body, and works on this subject by Galen, Aristotle, Cornelius Celsus, Marcus Tullius in the second book of the *Nature of the Gods*, Pliny, Lactantius and many others who have reflected on this fabric [*fabrica*] with divine thoughts; but also because I have been shown by an excellent anatomist the divine functioning of two human bodies, from limb to limb.¹⁵

¹⁴ “da una parte avevamo la maniera in alcuno edificio da Cicerone principalmente tenuta; dall'altra quella di Metrodoro ne' dodici segni del cielo, dove trecentosessanta luoghi secondo il numero de' gradi gli erano famigliarissimi. Ma veggendo ne l'una poca dignità, ne l'altra molta difficoltà, et ambedue forse più alla recitazione che alla composizione acconcie, rivolgemmo tutto 'l pensiero alla meravigliosa fabrica del corpo umano. Avvisando, se questa è stata chiamata picciol mondo per avere in sé parti che con tutte le cose del mondo si confacciono, potersi a qualunque di quelle accomodare secondo la sua natura alcuna cosa del mondo, e conseguentemente le parole quella significanti” (Camillo, “A M. Marc'Antonio Flaminio”, in Id., *L'idea del teatro e altri scritti di retorica*, 6).

¹⁵ “quale opra uscì mai fuori delle mani dell'eterno mastro più divina dell'uomo? Certo niuna. E ciò sicuramente posso dire non solamente per aver con alcuna diligenza corso più volte il divino Timeo, in che Platone è tutto d'intorno all'umano corpo con grande meraviglia occupato, le opere di Galeno sopra ciò, Aristotele, Cornelio Celso, Marco Tullio nel secondo della Natura dei Dei, Plinio, Lattanzio e molti altri che sopra tale fabrica con divini pensieri sono dimorati; ma per essermi ancora da uno eccellente anatomista omai in due corpi umani, di membro in membro, il divino magistero mostrato” (*ibid.*, 7). For other relationships between Camillo and anatomical investigations, see also West, “Atomies and Anatomies”, 582-603, and Putti, *Il Teatro Universale*, 164.

While the use of the human body as a mnemonic locus was a fairly common practice, both in the Middle Ages and in the Renaissance, what is significant in this passage is how, once again, the visual impact and order that emerge from the *anatomized* body illustrate Camillo's desired mnemonic operation, as well as revealing some of his important sources, specifically those of a medical nature.

The theme of the human being as a microcosm also acquires here a dimension of *artificiality*. Indeed, Camillo uses the lemma *fabrica*, derived from Cicero, to connote the body, and moreover the Ciceronian source is explicitly declared. But *fabrica* was also used in the specifically architectural field: it was the process of building the edifice.¹⁶ Cicero, in relation to the body of animals, spoke of the “wonderful fabric of limbs” and, in relation to the human body, of the “incredible fabric of nature”.¹⁷ The body therefore began to be seen as a compound on which the human being could radically act through a specific *ars*. To enrich this triangulation that we have established between body, word and architecture, we must also consider another well-known patron of the Accademia degli Infiammati, Daniele Barbaro, who, in his successful commented edition of Vitruvius' *De architectura*, explicitly spoke of rhetoricians as “architects of discourse”.¹⁸ The *ut pictura poesis* was thus reworked as *ut architectura oratio*.¹⁹

However, as we have observed, the two models that had been discarded in the letter to Flaminio later prevailed in the definitive preparation of Camillo's mnemonic system. Indeed, the final Theatre is governed by the theatrical architectural model fused with the astrological system of celestial images, recalling an already Vitruvian motif of correspondence between the layout of the theatre and the zodiacal system.²⁰ Nevertheless, it is also described as an artificial mind or soul, thus retaining certain echoes of the *body* system. Indeed, referring to the Theatre in the discourse *Pro sua de eloquentia theatro, ad Galloso Oratio*, Camillo speaks of it as an element with which one might fall in *love*. By engraving itself within the lover's memory, it would start the anamnestic process as if it were the physical body of a beloved one, the first level of the Platonic *scala amoris*. This artificial mind – the Theatre – “indeed presents itself entirely to the senses, throws itself entirely into their arms, so that it can be embraced, it can be held, like something you love”.²¹ In

¹⁶ On the multifaceted uses of the lemma see Carlino, “Anatomia umanistica”, 81-86.

¹⁷ “*admirabilis fabrica membrorum*”, “*incredibilis fabrica naturae*” (Cicero, *De natura deorum*, 238 and 256).

¹⁸ “*Architetti dell'oratione*” (Vitruvius, *I dieci libri dell'Architettura*, 115).

¹⁹ See *ibid.*, 9. On the parallelism between architecture and discourse that emerged from the text, see Panichi, *La virtù eloquente*, 68-74. On Barbaro, see mainly Angelini, *Sapienza, prudenza, eroica virtù*.

²⁰ See Yates, *The Art of Memory*, 170-172.

²¹ “*tota enim sensibus obiicitur, tota etiam ita sese brachiis dat, ut tamquam cara, tamquam amabilis amplecti, stringique possit*” (Camillo, *Pro suo de eloquentia theatro*, 39). On the connection

the final conception of the project, the mnemonic model based on the human being as a microcosm was therefore clearly preserved.

Thus, the lemma *fabrica*, together with the use of an architectural structure, reveals how Camillo was already placing emphasis on the artificial essence of both the body, opened up by the anatomist, and the soul, opened up by the rhetorician-philosopher. It should be remembered that almost twenty years after this letter Andrea Vesalio published the fundamental *De humani corporis fabrica*, with clear reference to the entire cultural tradition mentioned above.

According to the letter of the texts, the passages by Camillo on which we have dwelled up so far might be read as simple metaphors, albeit with some ambiguity. The veil of metaphor, however, can be removed through an important unpublished writing, the *Idea dell'eloquenza* (c. 1530). The lemma *idea* was to be read, including in this case, in all its Platonic weight. Camillo here explains a good part of his philosophical presuppositions. He investigates how the individual beauties which permeate each specific literary work are linked to an eternal and transcendent archetype, precisely the *idea*, of which the human soul has an imprint within itself.²² The memory discussed up to this point therefore coincides with Platonic anamnesis, and Camillo's mnemonic system, with all its ordered apparatus of symbolic images, is geared towards peeling oblivion away from the embodied human soul. Through this operation the soul could be reoriented, after becoming aware of its own inner traces of the ideal, towards the model of ideal beauty beyond the world that the Theatre sought to visually reproduce. Here lies the fundamental point, since it is precisely this idea of beauty that gives structure not only to eloquence but also to all the other arts, figurative and otherwise. Describing the descent of the idea from the transcendent to the sensible, Camillo makes it clear that "I will paint the universal idea not only of eloquence and grammar, but also of architecture, sculpture, painting and the art of fighting, and you will be able to consider how it is the same in the ideas of all the other faculties".²³ All knowledge and all the arts therefore could be brought back to a single key, from which unprecedented dominion derived. The condition of all this was the reshaping of the mnemonic-imaginative fabric, preparing it for the anamnesis of the transcendent.

At the same time, this principle also made it possible to remove the veil of metaphor from other much more heterodox arts. Camillo, in light of his enthusiasm for anatomical observation, not only sought to grasp the secrets of the human body but also claimed to

between memory and love within the metaphor of the window open to the heart, see above all Bolzoni, *La stanza della memoria*, 148-164.

²² See Giulio Camillo, "L'idea dell'eloquenza", in Id., *L'idea del teatro, con "L'idea dell'eloquenza"*, 249-250 et seq.

²³ "dipingerò l'idea universale non pur de la eloquentia e de la grammatica, ma de l'architettura, de la scultura, de la pittura e de la militia, ed il medesimo giudicar potrete essere ne le idee di tutte l'altre facultà" (*ibid.*, 272).

return to the very root of life, developing this knowledge in an esoteric direction, as his continuous references to hermetic and kabbalistic sources indicate. Returning to the published works, in the *Trattato delle materie* (c. 1535) he even refers, albeit incidentally, to the artificial creation of a newborn, a real *homunculus*.²⁴

This tendency can be seen above all in the *Discorso in materia del suo teatro* (c. 1530), where in the mask of an innocent comparison he reveals:

I have already read, I believe in Hermes Trismegistus, that in Egypt there were such excellent statue makers that, when they brought any statue to perfect proportion, it was animated by an angelic spirit, because such perfection could not be without a soul. I find that words are similar to statues made in this way by virtue of composition, the office of which is, as I have said, to keep in proportion graceful to the ear all the words that can fit a human concept [...]. Which words, as soon as they are placed in their proportion, are found when others pronounce them almost to be animated by harmony.²⁵

The reference is to the magical statues described in the *Asclepius*, a fundamental treatise of the *Corpus Hermeticum*.²⁶ The mysterious measures capable of capturing life, as mentioned in the hermetic text, are here subject to an aesthetic reinterpretation by Camillo. The key to life itself is thus the structure of beauty which, encoded by the word, is capable of fixing itself within the memory and revealing its deepest contents, regardless of the field of application.

The notion of eloquence as the privileged access point to the idea of beauty, and therefore superior to the other arts, seems moreover to be confirmed in one of Camillo's most obscure and intricate works, the *De transmutatione* (c. 1540). In the opening he weaves a comparison between what he considered the three *metamorphic* arts, that is, deification, eloquence and alchemy.

All three have a wonderful correspondence with one another. The purpose of the man who goes to God is to remove from himself (with divine help) all that is impure and created,

²⁴ See Camillo, "Trattato delle materie", in Id., *L'idea del teatro e altri scritti di retorica*, 130.

²⁵ "Ho già letto, credo in Mercurio Trismegisto, che in Egitto già erano fabricatori di statue tanto eccellenti che, condotta che aveano alcuna statua alla perfetta proporzione, ella si trovava animata da spirito angelico, perché tanta perfezione non poteva star senz'anima. Simili a così fatte statue io trovo le parole per virtù della composizione, l'ufficio della quale è, com'io dissi, di tenere in proporzion grata all'orecchio tutte le parole che possano vestir concetto umano [...]. Le quai parole, subito che sono messe nella loro proporzione, si trovano sotto l'altrui prononzia quasi animate d'armonia" (Camillo, "Discorso in materia del suo teatro", in Id., *L'idea del teatro e altri scritti di retorica*, 31).

²⁶ See Hermes Trismegistus, "Asclepius", 556-558 and 582-586. On the reception of the *Corpus hermeticum* in the Renaissance, starting with Marsilio Ficino, still relevant is Yates, *Giordano Bruno and the Hermetic Tradition*, 1-189. Also useful is Garin, *L'ermetismo del Rinascimento*.

and to become infinite by entering the divine abyss. The aim of those who wish to possess eloquence is to remove the impure and created, and to find the product that is infinite, and eternal. The purpose of the natural transmutator is to liberate the seed of virtue, which is infinite, from the impure and created, which is finite.²⁷

All three are united by the same mechanism, namely the removal of *surface impurity*. We might observe that the position of eloquence between the other two arts is significant, as if language, aspiring to the world of ideas, were a bridge that on the one hand allowed one to reach God and on the other allowed dominion over the quintessence, extracted from the lower material world. *Res* and *verba* coincide in a dialectic of physical visuality, imaginative visuality and intellectual visuality. The wise rhetorician-philosopher, master of all the arts, must therefore actively investigate reality, dissecting and anatomizing the world beyond the superfluous layers of Creation. Only in this way can the divine measures contained in the human being as a microcosm come to light and strengthen human work.

Visuality: a bridge between occult memory and naturalistic practice

Many of the greatest achievements of the culture of the 16th century, all related to each other, coincide in the cultural experience represented by Camillo's investigation, which established its conditions of existence in the visual language of memory and in the self-control of the imagination. As Camillo himself makes explicit on several occasions, chief among these are:

- rhetorical and poetic production
- the revaluation and emancipation of figurative art
- new anatomical approaches

It is sufficient to consider the famous passage from Aristotle's *Poetics* – which, at the time of Camillo, was itself being rediscovered and widely disseminated among a vast public of intellectuals – that underlines the philosophical and truth-revealing weight of literary production: the poet's task is to succeed not in slavishly imitating reality as it appears, but in *purging* it of all accidental events.²⁸ In poetic imitation, which is specifically a *per-*

²⁷ “tutte e tre fra loro haver una marevegliosa corrispondenza. Il fine del huomo che va a Dio, è da levare da sé (con l'aiuto divino) ogni impuro et creato, et diventar infinito intrando nel divino abisso. Il fine di chi vole possedere l'eloquenza è levando l'impuro et creato, et di trovare il prodotto che è infinito, et eterno. Il fine del transmutatore naturale è di sligare la virtù seminaria, che è infinita, dal impuro et creato, che è finito” (Camillo, “De transmutatione”, in Id., *L'idea del teatro, con “L'idea dell'eloquenza”*, 281).

²⁸ See Aristotle, *Poetics*, 28 (IX, 1451 b1-b15). On the rediscovery and influence of Aristotelian poetics see Vasoli, “L'estetica dell'Umanesimo e del Rinascimento”, 376-385; Weinberg, *A History of Literary Criticism*, 2 voll; Garin, “La diffusione della ‘Poetica’ di Aristotele”, 447-451.

fective imitation, the universal essence of the human being was to be represented in all its purity, which was not the case in ordinary experience. It is not surprising to witness the widespread reabsorption of this passage, including by Platonic authors, or at least authors who did not consider themselves strictly Aristotelian.²⁹ Furthermore, pictorial comparisons are continually present in *Poetics*, and the comparison between literary work and organic body plays nothing less than a vital role, radicalizing the link between textuality, memorability and visuality:

Moreover, any beautiful object, whether a living organism or any other thing made up of parts, must have those parts not only in proper order but also on an appropriate scale. Beauty consists in scale as well as order, which is why there could not be a beautiful organism that was either minuscule or gigantic. In the first case, a glimpse that is so brief as to be close to vanishing-point cannot be distinct. In the second case – say, of an animal a thousand miles long – the impossibility of taking all in at a single glance means that unity and wholeness is lost to the viewer. So, just as physical bodies and living organisms need to be on an appropriate scale that allows them to be taken in by the eye, likewise stories should have an appropriate length, which is such as to enable them to be held in memory.³⁰

It is certainly not of secondary importance that the literary genre Aristotle dealt with was precisely drama, capable of revealing the ideal order that was hidden under the apparent surface of the worldly chaos and impressing it on the viewer's memory. This helps to explain Camillo's choice of the theatrical building for his system, although, as we have observed, the fluidity between literary-theatrical experience and the art of memory in the proper sense was well established.

In parallel to the Aristotelian reflection on the right dimension of the literary *body*, Giordano Bruno's *Cantus Circaeus* (1582), one of the most significant treatises on the art of memory of the century, offers a specific recommendation concerning the dimension of mnemonic images: "as far as the size of the shapes is concerned, make sure you take images that are neither too small nor too large. The former do not in fact exert any stimulus on the senses; the latter, on the contrary, confuse the acumen of the inner sight precisely because of its excessive extension".³¹ Such examples could be multiplied, since here Bruno does nothing more than take up a motif that was widespread among treatises on the art

²⁹ In this sense, the *Naugerius sive de Poetica* (1555) by Girolamo Fracastoro is significant: see Fracastoro, *Naugerius*. Camillo too, in certain passages, tended to loosen the polarization between Aristotelianism and Platonism: see, for example, Camillo, "L'idea dell'eloquenza", 268-269.

³⁰ Aristotle, *Poetics*, 26-27 (VII, 1450 b35 – 1451 a9).

³¹ "quod vero ad quantitatem continuum attinet, caveto a parvis imaginibus et ab immodicis. Illae enim sensum non excitant, istae vero extensione sua visum internumque obtutum dispergunt" (Bruno, "Cantus Circaeus", 698).

of memory. Giovan Battista Della Porta discusses the preferable size of images for correct understanding and retention in the mnemotechnical field with explicit reference to the theatrical experience: “if we wish to remember a story or a fable where different characters appear, we will reduce the story into a compendium that includes people and things, and we will adapt it to the loci. I sincerely appreciate the rule followed by writers of tragedies and comedies, who represent their work with as few characters as possible; and there cannot be a story so full of variety of things that nine or ten characters cannot optimally represent it”³²

As we have said, the rediscovery of classical poetic-theatrical precepts should not be separated from other great cultural revolutions, including the gradual professional and intellectual emancipation of the figurative artist from the role of mere *artisan*.³³ Leon Battista Alberti was one of the first figureheads of this neither straightforward nor rapid development, and a passage from *De Pictura* reveals him to be Della Porta’s true source. Writing of how the painter should represent a certain event, he specifies that “in a *historia*, I sincerely appreciate the rule that I see followed by the authors of tragedies and comedies, whereby they use as few characters as possible to communicate their work to us. In my opinion, in fact, there cannot be a *historia* full of so much variety of things that cannot worthily be represented with nine or ten characters.”³⁴ Theatricality, memory and painting intermingle deeply in a profoundly gnoseological understanding of the human being. Moreover, in this period, the figurative artist also increasingly undertook precise intellectual and empirical research. For example, as Michelangelo illustrates in a famous sonnet, the artist’s aim was to remove the “superchio”, the superfluous that held the work of art prisoner within a sterile materiality.³⁵ The need to cleanse the worldly experience of accidents was therefore recalled in order to go back to the ideal plot of being, which we have seen acting in dramaturgical activity. Ultimately, the absorption of Neoplatonic tendencies clearly contributed to the revaluation of the figurative artist as *Saturnian* and fully involved in intellectual investigation through his own activity.

³² “At si historiae, aut fabulae, in quibus plures personae introducuntur, historiam in personarum et rerum compendium reducemus, locisque accomodabimus. Id vehementer placet quod a poëtis tragicis et comicis observatum video, ut quam paucis personis possint, fabulam monstrent, neque ulla erit tam rerum varietate referta historia, quam novem aut decem personae optime repraesentent” (Della Porta, *Ars reminiscendi*, 10).

³³ See Kristeller, “Il moderno sistema delle arti”, and Chastel, “L’artista”.

³⁴ “in historia id vehementer approbo quod a poëtis tragicis atque comicis observatum video, ut quam possint paucis personatis fabulam doceant. Meo quidem iudicio nulla erit usque adeo tanta rerum varietate referta historia, quam novem aut decem homines non possint condigne agere” (Alberti, *De pictura*, 71). On the resumption of this passage by Della Porta see Bolzoni, *La stanza della memoria*, 220 et seq. On the intersection between dramaturgical performance and the art of memory, see Torre, “Theatro, corpo, memoria”.

³⁵ See Michelangelo, *Rime*, 82 (sonnet 151).

It is not surprising to observe the interest of visual artists in anatomical investigations which, in turn, focused on the removal of the superficial exterior in order to discover the secrets of the body, as Camillo summarizes in his recollection of the anatomical experiment. But the same anatomy, during the 16th century, was not isolated from all these cultural environments. Anatomical tables and so-called anatomical theatres were certainly among the most revolutionary tools of the century. Anatomical images of a purely mnemotechnical nature were constructed, clearly codified according to the dictates of the art of memory; their genuine aesthetic and transdisciplinary value reveals significant variations in their use and audience.³⁶ As can be seen in an image illustrating Vesalio's *De humani corporis fabrica* (Fig. 2), anatomized bodies were arranged in impressive dramatic poses, situated in recognizable places, landscapes or architectures, and imbued with metaphorical significance, all in order to facilitate memory through a specific visual *choreography*. Thus, even the didactic image, regardless of its user, entered the gray area of the imaginative faculties: visibility, memorability and drama again intermingle. The printing revolution made it possible to accompany the anatomical text with precise illustrations, though their use was not limited to a purely professional audience of physicians and anatomists. As we have noted said, such illustrations also captured the interest of artists and, more generally, of the *curious* public. Moreover, these images fully represent the result of collaboration between anatomists and artists.

It is therefore not misleading to say that medical and anatomical discoveries were displayed in the theatre, not only through the visualization strategies adopted in anatomical images but also, in a literal sense, within the buildings that housed lectures and public demonstrations. Indeed, towards the end of the 16th century, the so-called anatomical theatres increasingly became permanent, rather than ephemeral, structures.³⁷ As with other developments, this began precisely in the cities of the Po Valley, where the need for the new *encyclopedia* of knowledge was so acutely felt and where Camillo's work had circulated for a long time. After all, even anatomy had been absorbed into the humanistic project of refounding knowledge that was perpetrated in the academies. As we can observe in the first example of a permanent anatomical theatre, that of Padua, completed in 1595, the image of the classical theatre and its mnemonic role were enthusiastically adopted.³⁸ However, a more emblematic case for our purposes is provided by the later anatomical theatre of Bologna, designed in 1637 by Antonio Paolucci (the so-called Le-

³⁶ See Carlino, "Cadaveri, corpi metaforici, corpi memorabili", and Carlino, "Cultura visiva e illustrazione anatomica nel Rinascimento".

³⁷ See Carlino, "L'anatomia a teatro"; Mascardi, "I teatri anatomici nella cultura moderna"; Messeri, "La rivoluzione storica del teatro anatomico", 61-3; Beese, "Imaginationsraum oder Sehmaschine?".

³⁸ More specifically, on the theatre of Padua see Semenzato, ed., *Il teatro anatomico*, and Klestinec, *Theaters of Anatomy*.

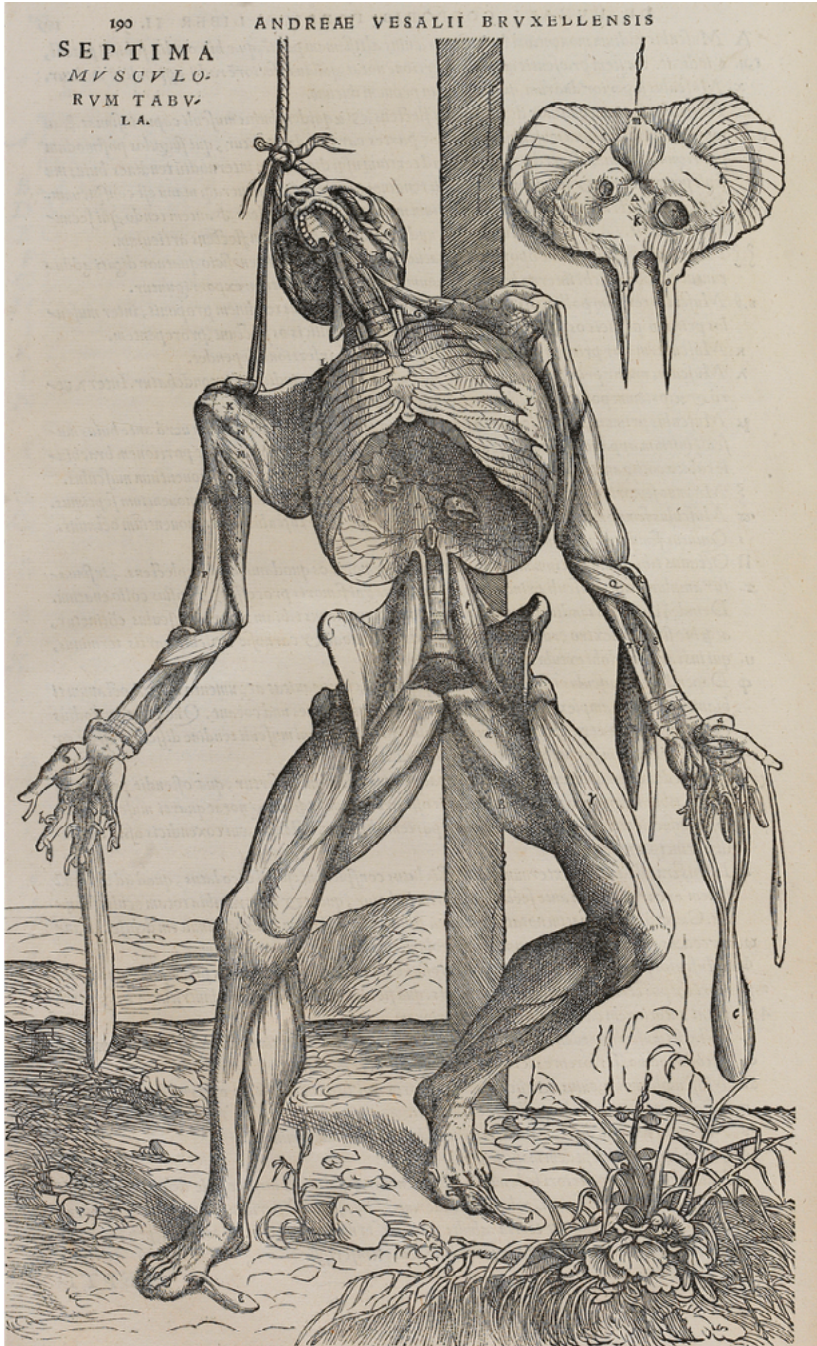


Fig. 2 – Table from Andrea Vesalio, *De humani corporis fabrica*, Basel, 1542.



Fig. 3 – Central detail of Apollo on the ceiling of the anatomical theatre of Bologna, by Antonio Levanti, 1645.

vanti).³⁹ Its coffered ceiling, decorated in 1645 (Fig. 3), displays the allegories of fourteen constellations to which Apollo is added at the center. The patron god of medicine is therefore surrounded by a series of constellations, each considered to have a precise effect on a specific part of the human body. This astrological system is already present in Camillo's *Idea del Teatro*, albeit lacking the specific variation regarding the relationship between constellations and parts of the body. The fifth level of his Theatre, symbolized by the general memory image of *Pasiphae and the Bull*, dealt precisely with the union of the soul with the body. Each of the seven planets-sefirot was entrusted with a specific part of the body along with the zodiacal signs that influenced it.⁴⁰ Another significant detail is that the central corridor of Camillo's Theatre was dedicated to the Sun, thus also giving a central role to the image of Apollo.⁴¹ Obviously, we do not intend here to trace Camillo's

³⁹ On the theatre of Bologna and its context see Mascardi, "I Teatri anatomici di Bologna Parte I", 293-335, and Mascardi, "I Teatri anatomici di Bologna Parte II", 1-50.

⁴⁰ See Camillo, "L'idea del teatro", 219-228.

⁴¹ *Ibid.*, 156-157 and 171. It should be noted that, in order to ensure greater visibility, the image of Apollo was offset from that of the other six planets.

influence on Levanti, direct or mediated, but rather to detect the presence of certain cultural resonances still felt in the 17th century.

An even more significant detail in this regard is the fact that the constellations dominate the lower space of the actual structure of the anatomical theatre.⁴² To understand the importance of this aspect, it is necessary to move almost a century beyond Camillo and travel to England. Here we meet Robert Fludd (1574-1637), who, rightly or wrongly, has been credited with having built “what is probably the last great monument of Renaissance memory. And, like its first great monument [Camillo’s Theatre], Fludd’s memory system takes a theatre as its architectural form”.⁴³ In the second section of the second volume of his monumental work, the *Utriusque Cosmi Historia* (1617-1621), dealing with human interior technical accomplishment, there is a chapter dedicated to the art of memory.⁴⁴ The architectural model is once again a theatre and, once again, it merges with the astrological system. Fludd distinguishes between an *ars rotunda* and an *ars quadrata*, the former referring to *natural* (incorporeal) elements, the latter to *artificial* (corporeal) elements.⁴⁵ Fludd proposed a fusion of the two. In his memory system, the *ars rotunda* provided the celestial orbits as mnemonic loci, while the *ars quadrata* provided the physical architecture, again as loci.⁴⁶ The specifically human *ars* was therefore naturalized, made closer to the metaphysical design of reality. Fludd therefore diverges from Camillo not only in the typically Elizabethan (as opposed to classical) plan of his theatre, but also by employing two theatres, rather than a single one intrinsically fused with the astrological system. These theatres also appear to be *extrinsic* to that astral system.

To better understand Fludd’s work, it is useful to consider the rich images that accompany it. While the author paid the utmost attention to these, they – probably deliberately – retain a veil of ambiguity.⁴⁷ Fludd proposed the design of a theatre which was to be used in two ways (Fig. 4). Two theatres, one *eastern* and one *western*, were arranged according to the same plan but decorated differently, one with daytime colors, the other with nocturnal colors. These theatres were physically placed within the astral system of planetary spheres, although it is not clear whether they were situated in every sky and/or for every zodiac sign: Fludd’s drawing, on the page adjacent to that of the theatre, shows only the example of the two theatres within the sign of Aries (Fig. 4). In any case, the fusion between the two systems, the architectural and the astral, differs from that of Camillo. In Fludd, they seem to

⁴² On the ceiling in particular, see Loreta, “Il teatro anatomico dell’Archiginnasio”, 223-231.

⁴³ Yates, *The Art of Memory*, 321.

⁴⁴ For an overview of this section of the work, see *ibid.*, 320-341. It is also useful for the relationships between Fludd’s theatre of memory and the Globe Theatre, *ibid.*, 342-367 and Yates, *The Theatre of the World*.

⁴⁵ See Fludd, *Utriusque Cosmi Historia*, vol. 2-II, 50 et seq.

⁴⁶ *Ibid.*, 54 et seq.

⁴⁷ See Yates, *The Art of Memory*, 324 et seq.



Fig. 4 – Robert Fludd, *Utriusque Cosmi Historia*, vol. 2-II, Frankfurt, 1619, 54-55.

relate in a heterogeneous way. However, as Yates noted with regard to the image of the theatre, attention must be paid to the detail of the ceiling, which is absent in Fludd's drawing.⁴⁸ It is most likely that he based the design on the real building of the Globe Theatre, and the majority theatres of this period had a ceiling decorated with the system of celestial spheres (Fig. 5). Indeed, in the construction of the Teatro Olimpico of Vicenza – commissioned by the Accademia Olimpica, a cluster of Venetian intellectuals influenced by Camillo – great attention had been paid to the ceiling, which was painted to represent a sky, albeit without astrological detail. Moreover, Yates adds, we must consider that in Fludd's text the designs of the celestial spheres and mnemonic theatre are paginated in such a way that they overlap perfectly when the volume is closed. This fact seems to reaffirm the mutual reflection of the two systems, but also suggests a more concrete structural detail regarding the ceiling of the theatre. In light of this, a mirroring game of analogies, of a kind very dear to the hermetic

⁴⁸ *Ibid.*, 347 et seq.

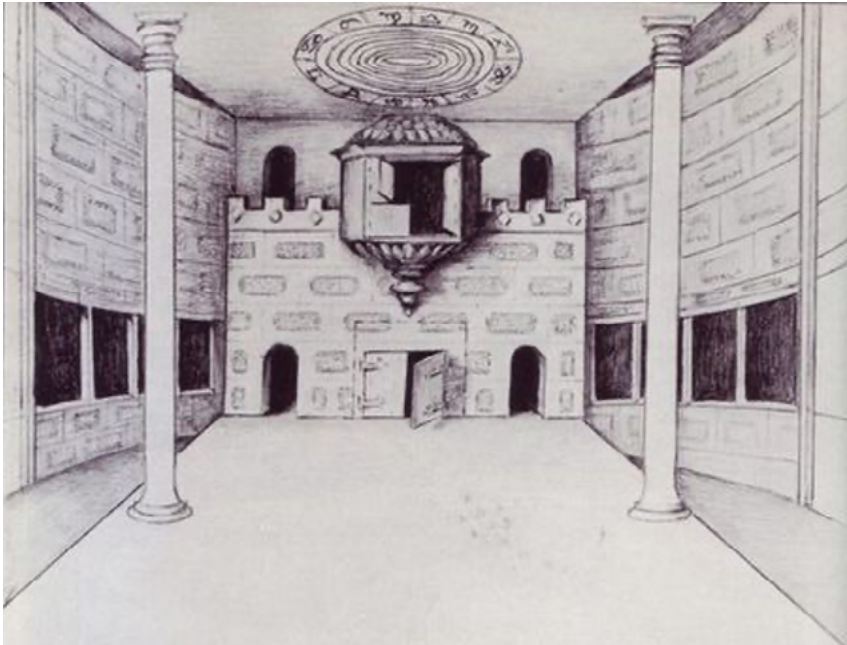


Fig. 5 – Reconstruction of Globe Theatre by Frances A. Yates, *The Art of Memory*, London, 1966.

tradition of the Renaissance, is revealed. Not only were the two theatres to be imagined as extrinsically inserted within the celestial orbits, but internally they reflected those same orbits. This brings Fludd's theatres closer to Camillo's Theatre, with a strong connection between the transcendent and immanent, between metaphysical design and human work.

Returning to Bologna, it is therefore extremely significant to observe a ceiling just above the anatomical theatre that depicts a sky full of astrological references. However, as we have already reiterated, the current state of research does not yet allow us to investigate a more precise network of influences and purposes among the various artists involved in its construction. The influence of the hermetic-Platonic and academic cultural environments, although probably *superficial*, is difficult to deny and constitutes a precious testimony to a still active dialogue between two worlds: that of the scientific revolution and that of hermetic culture, although at this date the two are still hard to separate in a clear way.⁴⁹ The strength

⁴⁹ According to current thinking, the iconographic program of the ceiling appears to obey a decorative need more than a genuinely doctrinal one. Indeed, as Loreta has noted, the constellations presented on the ceiling did not reflect their true order but merely obey a criterion of compositional symmetry, and those represented were most likely chosen on the basis of privileging human figures, deemed more suitable in an anatomical context.



Fig. 6 – Woodcut of the ceiling of the anatomical theatre of Bologna, by Matteo Barboni and Lorenzo Tinti, 1668.

of visuality and the aesthetic and memorial power of the imaginative faculties of the human soul, observer of the complex spectacle of nature and the human body, remain fundamental tools for both anatomists and philosophers (hermetic or otherwise).

However, I believe it is valuable to return again to a detail of the ceiling, and one to which previous scholarship does not seem to have paid due attention. If we refer to the 1668 woodcut attributed to Matteo Barboni and Lorenzo Tinti, in addition to the inverted arrangement of Andromeda and Sagittarius we may observe that the figure of Apollo is vertically oriented, giving symmetry to the overall composition, but also stasis (Fig. 6). This difference further reveals the remarkable dynamism of the actual ceiling, which is facilitated precisely by the diagonal positioning of Apollo within its octagonal coffer. Freezing Apollo's dance in this position seems to convey a *circular* trend to the figure, as if the god were progressively indicating the various astrological figures that surround him. The adoption of a central octagonal coffer, used only for Apollo, seems to make a circular movement more natural within a square frame. This brings us even closer to the circular trend of the illustrations of celestial orbits seen in Fludd, but also traceable to Camillo's Theatre; and

it also recalls another tradition, that of the Lullian wheels. At the time, this tradition had been readily absorbed both in treatises of the art of memory and by the major philosophical and hermetic addresses. Indeed, the graphic representation of Lullian combinatorics within moving wheels had captured the attention of Renaissance intellectuals, who merged them in the most disparate contexts.⁵⁰ The most radical experimenter on the fusion between the art of memory and combinatorial wheels was undoubtedly Bruno, yet remarkably this union is present in one of the first printed mnemotechnical treatises, the *Ars memorativa* (1485) by Jacobus Publicius.⁵¹ Here, in a complex system of syllabic construction, Publicius proposes a figure made of combinatorial wheels in which the rotating dynamism is emphasized through the *vermis* placed in the center, which, fixed to the page with a string, can rotate freely⁵² (Fig. 7). However, the image used by Bruno in the *Articuli adversus mathematicos* (1586) to indicate the different types of mnemonic loci seems closer to the case of Apollo (Fig. 8). At the center there is a human figure, this time fixed, but whose diagonal arrangement (both of the body and of the open arms) suggests a similar circular dynamism, although the figure is inserted in a square space. Once again, we do not claim to trace a direct link but, at least, to detect the choice of analogous iconographic solutions in cultural contexts and practices that continually refer to: the dynamism of the combination wheels; their visual strength; their reabsorption into mnemonics systems based on the rotation of the celestial spheres; and the mirroring of the celestial world, theatre and human body. Within the theatre of Bologna, viewers of the anatomical spectacle beheld not only the progressive unfolding of the mechanism of the human body but also the rotating dance of Apollo and the constellations. The corporeal and celestial *fabrica* were united within the theatrical *fabrica*, a place of training and control of imaginative and mnemonic visuality.

To conclude, it can therefore be stated that in Camillo and his cultural environments the paradigm of the human being as a microcosm, an image of the world, remained alive. However, the shift from this *natural* form towards the *artificial* architectural form of the theatre, a new image of the world, highlights a radicalization at that time of trust in human *ars*. This new concept would profoundly undermine the metaphor of the *theatre of the world*, which had survived throughout the 16th century, understood in a derogatory sense to indicate the deceptive nature of theatrical representation parallel to the impossibility of understanding the ultimate root of worldly reality. Theatrical reality, with all its semantic shifts, became the key to reality itself. As Aristotle willed, the dramatic text was able to purify reality of

⁵⁰ See especially Yates, *The Art of Memory*, 173-98 and Rossi, *Clavis universalis*, 63-102.

⁵¹ On Bruno, see Matteoli, *Nel tempio di Mnemosine*, 187-273.

⁵² On the wheel see *ibid.*, 155-158. In some editions of the text, other objects appeared instead of the *vermis*. On the complexity of the printed textual tradition of this work, see Merino Jerez, "Jacobus Publicius's *Ars Memorativa*", 85-105. A kind of *vermis*, similarly fixed with the string within the combinatorial wheels, also appeared in the 1520 edition of the very popular *Congestorium artificiosae memoriae* by Johannes Romberch.

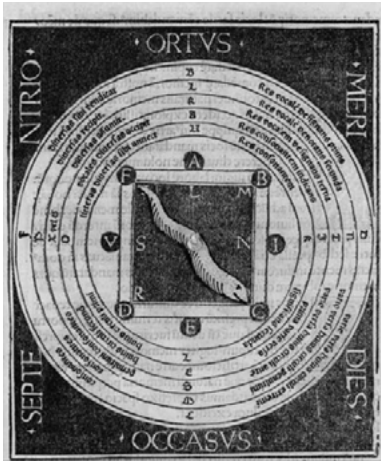


Fig. 7– Jacobus Publicius, *Ars memorativa*, Venice: 1485.

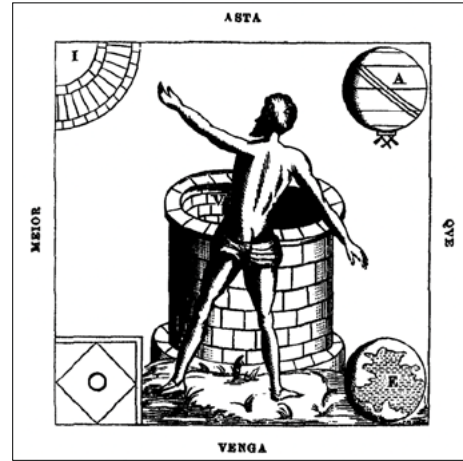


Fig. 8 –Giordano Bruno, *Articuli adversus mathematicos*, Prague: 1586.

superficial chaos, just as the visual dimension of drama established order in the thoughts, and therefore in the memory, of spectators. Based on what we might define the *truthful* theatrical paradigm, which replaced the human figure as *imago mundi*, it follows that the world and human being were no longer *living bodies* but became *living machines*, as the title of Vesalio's work also suggests. The secrets of their gears lay in the hands of *homo loquens*, the builder of mental and physical worlds through visible and memorable speech.⁵³ In these contexts, the disciplinary and, above all, methodological distance to which contemporaneity has become accustomed disappeared, showing us the profound link between the theoretical and practical conduct of philosophers-magicians, physiologists and anatomists, all of whom were interested in the threshold between the physical and incorporeal faculties of the human being. After all, was not Memory the mother of all the Muses?

⁵³ As regards the paradigmatic value of architecture in the constitution of the new circle of knowledge, see mainly Angelini, *Sapienza, prudenza, eroica virtù*, and, more specifically on the hybridization between theatrical performance and encyclopedic practice, see West, *Theaters and Encyclopedias*.

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