The Cutting Edge in Print: Images and the Discerning Mind in Achille Marozzo's *Opera nova* (1536)

Miente Pietersma
University of Groningen

This article explores how Scholastic notions of the body, mind and cognition inform the didactic principles structuring the *Opera nova* (1536) by Achille Marozzo (1484-1553). A Bolognese fencing master, Marozzo belonged to a tradition of institutionalized martial training which had historically emphasized its connections to academic discourses of learning. In spite of this, Marozzo's own work has been interpreted as following a straightforward tradition of copying forms and patterns, without much of an underlying theoretical argument. This article argues that Marozzo does present several conceptual references to Scholastic ideas about the workings of the brain, however, in particular to the mind's dependence on mental images provided by the senses. Delving into these references not only helps to understand the didactic principles at work in the *Opera nova* as a whole, but also the specific role Marozzo seems to have attributed to the many woodcuts included in his book. In presenting this argument, this article then argues for the fruitful insights that can be gained from connecting fight books to both medieval and early modern Scholasticism, and the history of early modern art and science.

Keywords: Achille Marozzo, Scholasticism, Natural Philosophy, Aristotelianism, Epistemic Images, *Ingegno*, Cognition and the Senses

I. INTRODUCTION

In 1536, in Modena, the printer Antonio Bergoli published the first edition of what was to become one of the most widely disseminated Italian fight books of the sixteenth century.[1] In this *Opera nova*, the Bolognese fencing-master Achille Marozzo (1484-1553), presented technical instructions for a variety of martial disciplines, from sword and buckler to the two-handed sword and pole weapons, illustrated with 82 anonymous woodcuts.[2] The book would see no fewer than five reprints over the next 80 years, with numerous corrections and additions. The Bologna edition from 1546, for instance, was laid out in a slightly different typeset, later re-used in the Venice edition of 1567-68, while another Venetian edition, printed in 1550, returned to the original Modenese typesetting.

[1] The remainder of this article will use the common shorthand 'fight book' to refer to this work. In doing so, it departs from the recurring definition that considers such texts as transmitting 'in a systematised way a highly complex system of gestures or bodily actions' related to combat, representing 'a body of experience-based oral knowledge,' cf. Verelst, Jaquet and Dawson, 'Introduction', p. 9.

[2] For a full technical description of these editions including their images, cf. Bodemer, *Das Fechtbuch*, pp. 211-19; Gotti and Jaquet, 'Two Late Flying Prints', pp. 213-14.

While these reprints continued to make use of the original woodblock illustrations, the 1568-69 edition was fitted with new copperplate engravings, which would later feature in the final print, run from Verona in 1615. Some of the original woodcuts continued to circulate, however, with two surviving as flying prints from the late seventeenth century, and four finding their way into Carlo Giuseppe Colombani's (1676-1735/6) fight book *L'Arte maestra* in 1711.[3]

Much work remains to be done on the long publishing history of the *Opera nova*, especially regarding the earlier editions, although my article will not explore this particular topic.[4] The preceding overview merely illustrates how texts and images could quite literally be 'on the move'. Aside from inviting research into the logistics of designing, producing and acquiring illustrations for print-runs, the enduring impact of some images also raises a question about their epistemology. What was the purpose of using and re-using images in the transmission of martial knowledge, especially considering the significant effort and cost required to produce them?

Since the 1990s, the value and function of images in the transmission of knowledge has attracted considerable attention from both art historians and historians of science. Before, images were mostly seen as illustrative paraphernalia of scientific discourse, their form flowing from the technological means available to produce them, as well as from art-historical trends in taste.[5] Nowadays, however, researchers focus on the agency of images in knowledge transmission. They no longer see all illustrations as pursuing the universal objective of offering up a window to the world; naturalist 'intermediaries' designed to render visible parts of that world as accurately as possible. Instead, images are thought to express time- and context-specific paradigms of what reality is and how one can or should observe it.[6] In short, the manner in which images represent and work to produce knowledge is now seen as intrinsically historicised, leaving it up to the historian to explore their epistemology. The following article aims to do precisely this, for the woodcut illustrations in the *Opera nova* of Achille Marozzo, by demonstrating how the latter's views on knowledge and cognition were strongly indebted to then-current Scholastic thought.

Scholasticism is here understood as an approach to the study of philosophy and theology specific to medieval universities in Europe from the thirteenth century onwards, and one that drew heavily on Aristotle's writings on logic and natural philosophy.[7] Scholasticism would remain part of scholarly discourses well into the early modern period, and was far from monolithic and unchanging, instead featuring a continuous reception of Aristotelian

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[3] Gotti and Jaquet, 'Two late flying prints', p. 213.

[4] Ibid., p. 214.

[5] Swan, 'The Uses of Realism in Early Modern Illustrated Botany', p. 241.

[6] Jonker, 'Producing Knowledge in Early Modern Rome', p. 1; Daston, 'Epistemic Images', p. 18; Marr 'Knowing Images', p. 1005; Lüthy and Smets, 'Words, Lines, Diagrams, Images', p. 399; Dackerman, 'Introduction: Prints as Instruments', p. 20.

[7] Blair, 'Natural Philosophy', p. 366; Schmitt, *Aristotle and the Renaissance*, p. 4.

ideas that led to a wide range of schools of thought.[8] The Scholastic 'theory of mind' was no different in this regard, and is of special significance to this article because it attributed a special importance to images as an instrument of cognition. It has already been demonstrated how such ideas were used in the sixteenth-century education of artists, where it was a theoretical underpinning for exercises in draughtsmanship, for example.[9] This article shall outline how the images of Marozzo's *Opera nova* display a similar appropriation of Aristotelian thought.

II. IMAGES IN FIGHT BOOK SCHOLARSHIP

While images are not a new theme in fight book scholarship, the latter resembles the history of science in that it has long assessed the role of illustrations along the standard of 'accuracy'. This is what Sydney Anglo aims at, for example, in what is one of the most often-cited overviews on fight books published in English. Anglo is concerned with the fencing masters and 'the methods whereby they sought to systematize the activities pursued in their schools in order to convey essential information to absent third parties – that is their readers'.[10] Anglo's work does subsequently account for the existence of different traditions of notation and illustration. These are portrayed as different solutions to the same problem, however: the accurate notation of technical knowledge drawn from life, with some strategies being more effective than others.[11]

Other branches of fight book studies display similar views on the epistemic nature of images. The prolific German line of scholarship started with philologists studying *Fachliteratur*, or 'artisanal literature'. From the 1960s onwards, German Philology became interested in the process through which fields of knowledge that were originally transmitted orally, such as household medicine, gradually found their way into texts in the later Middle Ages. In his often-cited application of this perspective to the study of fight books, Jan-Dirk Müller accordingly outlines the early development of fighting lore from oral tradition into mnemonic verse.[12] Over time, these verse lines became canonical lore that was glossed and commented upon in a literary tradition, its initial connection to orality becoming more and more diluted. Contrary to Anglo, then, Müller does not consider early fight books as transmitting a systematized understanding of fighting techniques.[13] Instead, they heralded the institutionalisation of fencing as a scholarly field

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[8] Blair, 'Natural Philosophy', p. 371; Bianchi, 'Continuity and change in the Aristotelian tradition', p. 65.

[9] Cf. Summers, *The Judgment of Sense*; Jonker, 'Producing Knowledge in Early Modern Rome'; Leblanc, 'Federico Zuccari among the Scholastics'.

[10] Anglo, *The Martial Arts of Renaissance Europe*, p. 5.

[11] Ibid., pp. 2-3, 120-125.

[12] Müller, 'Hans Lecküchners Messerfechtlehre und die Tradition', pp. 399-400; Müller, 'Bild – Vers – Prosakommentar am Beispiel von Fechtbüchern', pp. 252-53; Müller, 'Zwischen mündlicher Anweisung und schriftlicher Sicherung von Tradition', p. 383.

[13] Müller, 'Hans Lecküchners Messerfechtlehre', p. 358.

of knowledge, although their intelligibility remained dependent on knowledge learned elsewhere in practice.[14]

Subsequent publications took up Müller's point by arguing that fight books should be seen as providing incomplete references *to* the living process of transmitting martial knowledge, not as its substitute.[15] As for the literary form of this 'reference', it has already been pointed out how fight book authors borrowed heavily from Scholastic motifs, by establishing a canon of authorities whose wisdom had to be extrapolated through extensive commentaries, for example.[16]

While historians have therefore been on the lookout for the time-specific literary motifs that make fight books not merely an ahistorical attempt at describing movement, the same cannot always be said for the study of images. Müller sees images as actually attempting to demonstrate knowledge, similar to how it would have been transmitted in actual teaching practices.[17] The richly illustrated manuscripts attributed to Hans Talhoffer (1410/15- 1482) feature a host of images describing specific techniques, all claimed to have been drawn from life, with Talhoffer himself demonstrating his craft. Müller thus presents them as simulating real-life demonstrations, with accompanying explanations by Talhoffer.[18]

In her dissertation on the stages of development in 500 years of fight book illustration, Heidemarie Bodemer maintains a view similar to Müller's, although there is ambivalence in the stated epistemic potential of images.[19] On the one hand, Bodemer considers the primacy of text over illustrations, suggesting that the latter only visualise and expand on what is laid out in words.[20] On the other hand, she argues that images are much more effective in communicating fighting techniques because they can display body postures directly, thus being more easily and instinctively replicated than descriptive text.[21] Where the text structures fighting techniques into a coherent system using specialized terminology, the images serve to display the positions and movements this terminology refers to.[22] In terms of knowledge transmission, then, images serve the universal purpose of aiding both the initial understanding of the text's meaning and the remembering of already acquired knowledge.[23] The more individual and historicized character of each

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[14] Müller, 'Bild – Vers – Prosakommentar', p. 262.

[15] Burkart,'Der Aufzeichnung des Nicht-Sagbaren', pp. 258-60.

[16] Bauer, 'Fechtmeister als Protagonisten', pp. 323-25.

[17] Müller, 'Bild – Vers – Prosakommentar', p. 272.

[18] Ibid., p. 274.

[19] Bodemer, *Das Fechtbuch*, p. 21.

[20] Ibid., p. 69.

[21] Bodemer repeatedly quotes Walter Koschatzky's adage that 'Das Bild drückt einen Sinn aus, es ist stets in seiner naivsten Form sinnfälliger als das geschriebene oder gedruckte Wort.' ('The image expresses a meaning that, even in its most naive form, is more meaningful than the written or printed word.' Translation by the author.) Ibid., pp. 70, 78-9.

[22] Ibid., p. 77.

[23] Ibid., p. 79.

fight book mainly stems from the art-historical background that went into their making: the artistic styles, tastes and preferences of the target audience, and the technological means available to the makers.[24]

Jens Peter Kleinau reiterates these views while introducing a new methodology for the study of fight book images, considering fencing techniques as the raw data that had to be communicated through the interplay of text and images.[25] Whether they succeeded or not then depended on the technical skills of the artist, the time and money available for producing the fight book, and the interests of the target audience. Kleinau's approach is generally similar to that of Bodemer, although he does add several points of nuance.[26] He argues for the more autonomous roles images had in conveying information, for example, and explicitly distinguishes between the intended purposes of images as either instructive or mnemonic.[27] Nevertheless, the difference between '*aides-mémoire*' and teaching images is not presented as truly 'epistemic' in nature. The intended use by consumers would simply dictate which parts of the technique would be displayed, with mnemonic images depicting what was 'most helpful for remembering it [the technique]'.[28] In other words, while illustrators had to choose which part of a technique to convey, they would afterwards simply endeavour to render the chosen element as accurately as possible.

All these approaches seem to agree on one point: that the makers of fight book images sought to display knowledge 'existing' elsewhere. Either the images activated knowledge already lodged in the reader's mind, or they served as an imperfect understudy of bodily gestures that were ideally observed in real life. Eric Burkart has already criticized this view in his analysis of the manuscripts that Müller saw as reflecting Hans Talhoffer's teaching practices. To Burkart, fight book images are not 'neutral' naturalist depictions, but highly normative in character.[29] This means we should consider the possibility that these visualizations have features specifically designed to influence how people imagined, talked about or practiced a movement.[30] The images in Hans Talhoffer's manuscripts stand out for their exceptional bloodiness, for instance. Burkart views this not as a naturalist depiction 'from life', but rather as a deliberate strategy to vividly showcase the violence of techniques that was difficult to convey through words and demonstrations. While most

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[24] 'Jedes Fechtbuch ist für sich ein Unikat […] Die Ausführung und Gestaltung ist einerseits vom Adressaten abhängig, an den sich das Fechtbuch richtet, andererseits von den technischen Möglichkeiten, die die zunehmende Verschriftlichung bietet und nicht zuletzt vom ständigen Wandel der Gesellschaft, der Waffentechnik und dem jeweiligen Zeitstil, in den alles zuvor genannte einfließ,' ('Every fight book is a unique product […] its execution and shape is, on the one hand, dependent on the fight book's target audience and, on the other hand, on the technical means of production offered by the increasing 'textualization'. It also depends on the steady change of society, arms production and contemporary styles, in which the aforementioned characteristics are embedded.' Translation by the author.) Bodemer, *Das Fechtbuch*, p. 65.

[25] Kleinau, 'Visualised Motion', p. 94.

[26] Ibid., pp. 90-91.

[27] Ibid., pp. 94, 97-8.

[28] Ibid., p. 98.

[29] Burkart, 'Der Aufzeichnung des Nicht-Sagbaren', p. 255.

[30] Ibid., pp. 263-64.

of Talhoffer's techniques were potentially lethal, practicing them naturally necessitated a safe space where mistakes would not have had deadly consequences.[31] The lethal potential of techniques was thus off-limits during practice sessions, but could be safely depicted in manuscripts.

Aside from stressing the normative character of fight book illustrations, Burkart further remarks how, whatever the discursive intentions behind the image, the inherent embodied character of physical knowledge means the latter is impossible to be conveyed 'as is'.[32] Developments in the historiography of art and science would suggest that this challenge is not unique to fight books, however. Instead, no image can represent reality 'as is', whatever the knowledge tradition. Such a perspective only lends further weight to analysing fight book images, and presupposes close ties between the decision to include them and the epistemic culture prevalent at the time of their making.

III. EPISTEMIC IMAGES BETWEEN ART AND SCIENCE

Burkart's observations cited at the close of the previous section touch upon a crucial question in fight book scholarship: how can these texts even be considered to convey a knowledge that is so fundamentally practical? The chosen solution partially determines whether we can study Scholastic literary tropes and the stylistic aspects of illustrations are anything more than prestigious add-ons; whether they could be seen as capable of actively influencing the transmission of knowledge?

In this regard, it is helpful to consider the soaring scholarship on the role of images in early modern science. Since the 1990s, an ever-growing body of scholarship has ceased to consider images as passive 'illustrations of science', in part by questioning these very two concepts. As far as 'science' goes, historians first began to focus on its material and performative aspects, following up on the Sociology of Scientific Knowledge (SSK) that had been pointing out the situatedness of even modern science since the 1970s.[33] In short, the SSK contends that scientific knowledge should not be studied as a smooth, systematised collection of knowledge in texts, because that would ignore the messy experience of preparing and performing experiments.[34] Scholars thus began to analyse the 'coming into being' of knowledge through procedures, techniques and technologies. They argued that, if science is dependent on fleeting observations and on the specific know-how necessary for operating specialised equipment, its outcomes cannot be regarded as ontologically stable, since minute differences in this performative context will

[31] Burkart, 'Der Aufzeichnung des Nicht-Sagbaren', p. 272.

[32] Ibid., p. 265.

[33] Sibum, 'Science and the Knowing Body', pp. 275-77; Smith and The Making and Knowing Project, 'Historians in the Laboratory', pp. 218-19; Smith, 'Science on the Move', pp. 346-47; Golinski, *Making natural knowledge*, p. 27.

[34] Sibum, 'Science and the Knowing Body', pp. 278-79; Hagendijk, 'Learning a Craft from Books', p. 202; Dupré and Somsen, 'The History of Knowledge and the Future of Knowledge Societies', pp. 186-87.

always engender different results.[35] This not merely aligns with Burkart's observation on the 'embodied' instability of fighting techniques, but suggests that all forms of knowing are in fact fundamentally unstable.

When looked at from this perspective, images cannot be studied as reporting stable truths and observations, progressing towards ever more faithful naturalist representations.[36] Where scholars have applied this approach to the history of early modern knowledge cultures, they reject the systematic comparative analysis of images on the basis of stable and seemingly timeless criteria.[37] This can affect such basic matters as what constitutes an image as a 'visual representation of science', an issue on which there consequently is no consensus.[38] Christoph Lüthy and Alexis Smets make a rare attempt at offering a general overview by defining images used in science as visual manifestations made 'with the intention of expressing, demonstrating or illustrating a theory'.[39] What is most important here is what they argue an image *not* to be, however. Briefly put, there are no ahistorical grounds upon which to distinguish images from non-images, illustrations do not possess a constant epistemic meaning through time, nor is it possible to draw up stable taxonomies of them.[40] Lüthy and Smets show how historical actors are often unclear in the distinctions they make between text and illustrations, applying categorizations that go beyond our modern concepts.[41] Images also create scientific entities in their own right; their visual forms serving as mental instruments influencing thought processes.[42] An excellent example of both these points is Ayelet Even-Ezra's recent work on the use of tree diagrams in the transmission of Scholastic thought.[43] Despite being an inherently visual way of organizing knowledge, these diagrams are so closely tied to the text that separating them in a modern analysis would miss out on rich layers of meaning. They illustrate the often gradual progression from 'pure scripture' to 'pure picture' stressed by Lüthy and Smets, and caution against making grand claims about the novelty of using images in the fifteenth and sixteenth centuries.[44]

Lorraine Daston resembles Lüthy and Smets in that she considers ideas to be a vital input for scientific illustrations. The 'epistemic image' for Daston serves as a substitute for the

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[35] Golinski, *Making natural knowledge*, pp. 28-9.

[36] Marr, 'Knowing Images', p. 1000; Swan, 'The Uses of Realism', p. 245; Kusukawa, 'Drawing as an Instrument of Knowledge', p. 41; Lüthy and Smets, 'Words, Lines, Diagrams, Images', pp. 400, 438; Daston, 'Epistemic Images', pp. 17-18.

[37] Marr, 'Knowing Images', p. 1001; Lüthy and Smets, 'Words, Lines, Diagrams, Images', p. 400; Daston, 'Epistemic Images', p. 17.

[38] Marr, 'Knowing Images', p. 1005.

[39] Lüthy and Smets, 'Words, Lines, Diagrams, Images', p. 399.

[40] Ibid., p. 400

[41] Ibid., pp. 411, 415; 422-423.

[42] Ibid., p. 238.

[43] Even-Ezra, *Lines of Thought*, pp. 198-99.

[44] Ibid.; Lüthy and Smets, 'Words, Lines, Diagrams, Images', p. 402; Swan, 'The Uses of Realism', pp. 244-45.

'working' object of science, however, not so much an idea *about* it.[45] Seen in this light, the image is a carefully constructed normative emblem which scientists can use to inform their *in-situ* observations of individual cases. The production of this ideal type then derives from different epistemic priorities that might clash or even be mutually exclusive, from 'objectivity' and 'precision' to 'replicability' and 'accuracy to nature'.[46] Moreover, the production of such 'objects of science' required a considerable network of technologies and artistic know-how, of which Susan Dackerman presents an excellent overview.[47] Images were represented in various formats, with or without accompanying texts, in a constant process of re-use and revision by authors, publishers and new owners.[48] Despite thus being in constant flux, the advantage of *printed* images was that they could be produced on a much larger scale than drawings made by hand. Woodcuts, engravings and etchings could circulate easily among a wide audience, making them suitable for communicating the theories or 'objects of science' described by Lüthy and Smets or Daston respectively.

Of course, images serving as a 'working object' to inform future knowledge acquisition simultaneously express the theoretical underpinnings of what people then believed reality and cognition to entail. It is this dual purpose that historians have observed for the epistemology of images in early modern botany, for example, while also tracing links with Scholasticism.[49] In the Scholastic reception of Aristotle's writings on cognition, the mind was seen as processing knowledge in the form of mental images. Art historians have postulated Scholastic theories of mind to be an important model for trying to understand how the inclusion of images in early modern texts on natural history could have served to 'hack' into this system of cognition. The remainder of this article shall argue how such arguments should not even be limited to texts on early modern natural history, but can also be applied to Achille Marozzo's *Opera nova*, and potentially, fight books in general. Including fight books in this field only makes sense considering that, over the last decades, the range of knowledge traditions analysed by the history of early modern science has expanded dramatically, and has come to include such disciplines as alchemy, astrology, midwifery and metallurgy.[50]

IV. SCHOLASTIC EPISTEMOLOGIES IN THE *OPERA NOVA*

On the face of it, the *Opera nova* has a fairly straightforward structure, consisting of five books with 273 chapters in total. Most of these detail sequences of steps, cuts and thrusts

[45] Daston, 'Epistemic Images', pp. 17-18.

[46] Ibid., pp. 17-8, 27-8.

[47] Dackerman, 'Introduction: Prints as Instruments', pp. 19-20.

[48] Ibid., pp. 21-2.

[49] Swann, 'The Uses of Realism', p. 246.

[50] Smith, 'Science on the Move', p. 357; images in fight books have sporadically been referenced in publications as part of this development, but have not been extensively analysed as such, cf. Remond, 'Artful instruction', p. 108; Dupré, 'Sichtbarkeit und Unsichtbarkeit von Körperwissen', p. 113; Wellmann, 'Hand und Leib, Arbeiten und Üben', pp. 16-17.

in various armed disciplines, sequences that depart from a specific 'guard' or defensive position.[51] Only Book 5 deviates from this format by first offering a lengthy treatise on the proper causes and conduct for duelling, before continuing with several unarmed techniques for defending against a dagger-wielding opponent.[52] Books 1 to 4 are alike, however, in that they all feature cycles departing from a guard, the latter being displayed in large woodcuts, often at the start of each respective cycle. As Anglo already emphasised, Marozzo makes use of a consistent nomenclature to refer to guards and cuts, enabling him to describe complex sequences of movements.[53]

In spite of this systematisation, the general didactics of the *Opera nova* have long been considered as lacking any real theoretical footing. Ken Mondschein, who published an important overview on the Italian fight book traditions, considers the didactic structure of Marozzo as following medieval traditions of pattern-copying, meticulously running through defensive guards and attack sequences that are to be imitated by the student.[54] While Marozzo had not yet realised the printing press' 'full implications for the transformation of knowledge' through its enabling of a much wider dissemination of texts, subsequent authors would. [55] The *Trattato di Scienzia d'Arme*, authored by the Milanese engineer Camillo Agrippa (d. 1600) and published in 1550, is often considered a watershed moment in this regard. From then onwards, fencing masters would generally try to mathematically 'prove' their system, presenting a stable, rationalised analysis that was suitable for consumption by a wider audience otherwise unfamiliar with the author's teachings.[56]

While it is true that the use of mathematics becomes more prevalent in later fight books, we should be cautious of teleological arguments about progressive levels of rationalisation and argumentative rigor. In Marozzo's case, for example, there are other clues as to his intellectual indebtedness. These help to understand why Marozzo may have been content with listing seemingly endless sequences of attacks, steps and parries. First, when describing his own expertise in the introduction to Book 1, he repeatedly refers to his *ongegno e arte*.[57] The meaning of the term *arte* seems obvious enough for a fight book from this period, as fencing masters regularly tried to frame their contents as part of the *artes mechanicae*, the practical ancillaries to the *artes liberales* as put forward in the twelfth century

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[51] Bodemer, *Das Fechtbuch*, pp. 212-213; Anglo, *The Martial Arts of Renaissance Europe*, p. 47.

[52] The book on duelling is itself an abridged version of the book *De duello, vel De re militari in singulari certamine* written by Paride del Pozzo (1410-1493) and first published in 1471-2.

[53] Anglo, *The Martial Arts of Renaissance Europe*., p. 48.

[54] Mondschein, 'The Italian Schools of Fencing', p. 304; see also Bodemer's treatment of Marozzo, cf. Bodemer, *Das Fechtbuch*, pp. 212-19.

[55] Mondschein, 'The Italian Schools of Fencing', pp. 280, 305.

[56] Ibid., p. 301; Bas, 'Restitution des gestes martiaux', p. 74; Anglo, *The Martial Arts of Renaissance Europe*, p. 25; Anglo, 'How to Kill a Man at your Ease', pp. 5-6.

[57] *io me sono amorevolmente mosso l'ongegno e l'arte mia excitando per advertire questi tali audaci combattitori' ; 'amorevolmente mi sono eccitato lo ingegno e arte mia [...] quanto alla mia ingegnosa fatica pare.* Marozzo, *Opera Nova*, pp. 1r, 47r.

by Hugh of St. Victor.[58] The term *ongegno* – or *ingegno* – is more challenging, however. Nowadays it is a fairly general term denoting 'wits' or 'resourcefulness', yet Marozzo uses it to describe something closely connected to physical practice. He stresses how his own skills mainly stem from *ingegnosa fatica* – 'resourceful toil' – consistently distinguishing between *ingegno* and *arte*. Later on, he also considers *ingegno* as something that should be trained, encouraging everyone wishing to enter into combat to perform exercises preparing *ingegno* (*fatti essercitii preparare lo ingegno*).[59]

Complex and often puzzling, the concept of *ingegno* – or its Latin counterpart *ingenium* – forms the metaphorical tip of an epistemological iceberg. Very basically, it related to a philosophy of cognitive ability structured by the concept of *iudicium* – 'discernment' – that dealt with particulars, from sensory experiences to more complex moral questions of right and wrong.[60] *Ingenium* then referred to the inborn qualities that facilitated this process, having been passed down from writers such as Cicero and Quintilian, although based on the concept of *euphuia* in Aristotle's *Poetics*.[61] In Cicero's writings, *ingenium* denotes both the cognitive ability to discern qualities and the inventive deployment of this ability in a given situation. It is practical wisdom, a capacity to think on one's feet in response to rhetorical situations, where it would function alongside more theoretical rules or *arte*. Both the cognitive and inventive aspects of *ingenium* were therefore seen as fundamentally connected to the external world, helping to understand and act upon persons, objects and phenomena.[62] Juan Luis Vives (1493-1540), a humanist and important theoretician on *ingenium*, defined it as 'the force of intelligence by which our mind examines things one by one, knows what is good to do and what is not.'[63] The inventive side of the process facilitated by *ingenium* moreover rendered it suitable for describing the creative act of making art. Together with its vernacular translation, *ingegno*, or its numerous related concepts such as *discrezione* (discernment) or *invenzione* (invention), *ingenium* thus took up a central position in sixteenth-century art theory.[64]

The same practical aspect of *ingegno* as a way of acting upon the world makes it understandable that a fencing master such as Marozzo would use the term, even maintaining its traditional juxtaposition with *arte*. This cannot only be seen as a fashionable reference to a classical idea related to rhetorical composition, however. Instead, his deployment of *ingegno* reflects contemporary philosophical debates concerning the extent to which *ingegno* was indeed an innate characteristic or something that could be taught. Over the course of the fifteenth century, humanists had established a paradigm where *ingenium* was equated with one's whole natural character that could not

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[58] Haage and Wegner, *Deutsche Fachliteratur*, p. 256.

[59] *aquelli che vorranno intrare in liza a combattere ad oltranza si debbon esercitare con li altri cavalieri et in sì fatti essercitii preparae lo ingegno et disponere le forze, fortificare l'animo, temperare li membri*. Marozzo, *Opera Nova*, pp. 92v – 93r.

[60] Summers, *The Judgment of Sense*, p. 23.

[61] Marr et al, *Logodaedalus*, pp. 20-3; Pons, 'Ingenium', p. 485.

[62] Posada, 'Genius, as *ingenium*', p. 745.

[63] Pons, 'Ingenium', p. 485.

[64] Dupré and Göttler, 'Introduction, Hidden Artifices', pp. 2-3; Posada, 'Genius, as *ingenium*', p. 748.

be changed.[65] In the first printed Latin dictionary, entitled *Thesaurus linguae latinae* (1531), however, Robert Estienne (1503-1559) stated that it was possible to train *ingenium.*[66] Likewise, Vives had argued in his *Introduction ad sapientiam* (1524) that *ingenium* was 'cultivated and refined by means of many arts.'[67] All of this shines an interesting light on the fact that Marozzo exhorts aspiring fighters to perform exercises strengthening the *ingegno* ('*fatti essercitii preparae lo ingegno*').[68] Nor was Marozzo the only practical expert giving this kind of advice, as Leonardo da Vinci (1452-1519) did something similar for painters. To bring about 'good judgment of the eye (*giuditio d'occhio*) in knowing to judge the truth concerning the breadth and length of things', da Vinci advised them to play a game where the lengths of random lines on a wall should be estimated from a distance.[69] So far then, we have explored the specific scholarly background that is likely to have been behind Marozzo's dichotomy of *ingegno* and *arte*. ways in which Marozzo seems to have envisioned the epistemic nature of his craft as consisting of both *ingegno* and *arte*. While *ingegno* referred in part to an innate ability, it could be sharpened through exercises and art. The text and images of his *Opera nova* can then be understood as a source of this art, and Marozzo even presents further indications as to how this process functioned, for which we must turn more specifically to Aristotle and Scholasticism.

While *ingenium* as a Latin concept had close ties to Ciceronian rhetoric, its role as facilitating the discernment of objects and situations in the world was also linked to Aristotelian ideas about sense perception and knowledge formation. The Aristotelian concept of discernment relates to a distinction between theoretical, practical and productive modes of thinking originally made by Aristotle in his book *De Anima* (On the Soul).[70] The rational soul is seen as divided into two parts: the contemplative, dealing with invariable and eternal principles, and the deliberative, which dealt with things admitting of variation. In the latter case, art (*techne*) is associated with making (productive knowledge) while prudence (*phronesis*) relates to doing (practical knowledge). Prudence is conceived as a 'rational quality concerned with action in relation to things that are good and bad for human beings.'[71] Where *phronesis* forms a 'mean' on the basis of many sensory experiences, *techne* can subsequently act upon this mean.[72]

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[65] Before, medieval authors had specifically referred to it as the inventive power of the soul, not one's entire disposition, cf. Marr et al, *Logodaedalus*, pp. 39-40.

[66] Ibid., p. 41.

[67] Ibid.

[68] *aquelli che vorranno intrare in liza a combattere ad oltranza si debbon esercitare con li altri cavalieri et in sì fatti essercitii preparae lo ingegno et disponere le forze, fortificare l'animo, temperare li membri.* Marozzo, *Opera Nova*, pp. 92v – 93r.

[69] Quoted in Summers, *The Judgment of Sense,* p. 173.

[70] Williams, *Art, Theory, and Culture in Sixteenth-Century Italy*, p. 35.

[71] Translation from Aristotle as quoted in Williams, *Art, Theory, and Culture in Sixteenth-Century Italy*, p. 35.

[72] Ibid., p. 34.

Aristotle's account about discerning particulars was later modified by Scholastic thinkers during the medieval and the early modern periods. Speaking of Marozzo's own time, the sixteenth century would witness the rise of Thomism, when Thomas Aquinas' (1225-1274) *Summa Theologiae* became *the* authoritative theological text, having been preceded in the centuries before by Peter Lombard's (1096-1160) *Libri Quatuor Sententiarum* (Four Books of Sentences).[73] Aquinas' philosophy was not the only one available to sixteenth-century authors, as there existed many diverging schools of thought.[74] However, Aquinas has been and is a pre-eminent authority, and a rather accessible one at that, making him an appropriate starting point to explore the putative Scholastic influences in Marozzo. Particular attention will be paid to the notions of the intellect, observation and perception that would have drawn from the *Summa Theologiae*.[75] Crucially, Aquinas viewed the body's sensory experiences as a necessary condition for the development of knowledge, although they did not generate knowledge in and of themselves. Whereas Aristotle was content with having the contemplative soul – which dealt with eternal principles – being informed by the rational soul – which dealt with particulars – the same was not true for Aquinas. Thomist philosophy held that the more contemplative aspects of the soul, being closer to the divine, could not be directly influenced by the worldly senses.[76] Instead, the senses could merely discern specific qualities possessed by the object under consideration: its colour, sound, movement etc.[77] These disparate impressions would then be put together by the inner senses into a *phantasma*, a complete form of the observed object in its materialized, singular state. The *phantasma* would subsequently be elevated to a higher and more abstract level by the so-called 'agent intellect', thus becoming devoid of its material aspects and suitable for abstraction into a pure concept or *phantasmata* by the 'possible intellect': the higher echelons of the mind.[78] The *phantasmata* would ultimately be stored in the memory and would serve as a 'means' to help the formation of a *phantasma* in the future, enabling a quick synthesis of sensory impressions because the singular object to which they belonged was already known in its abstract state.[79] What is crucial here is that for Aquinas, and virtually all subsequent Scholastic thinkers, the *phantasmata* stored in the memory would take the form of an image.[80]

That Marozzo was familiar with at least the broad contours of such a philosophy of mind becomes clear in Book 5, dealing with the rules and principles of duelling. Here he explicitly refers to Aristotle (*lo philosopho*) when he ponders which fighter should be accorded the victory if they cut each other simultaneously, with one fighter losing his nose

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[73] Cf. Schmutz, 'From Theology to Philosophy', pp. 221-3.

[74] Leijenhorst, 'The Nature of the Understanding', p. 476; Bianchi, 'Continuity and change in the Aristotelian tradition', p 65.

[75] Leijenhorst, 'The Nature of the Understanding', p. 475.

[76] Ibid., pp. 476-77.

[77] Eardly and Still, *Aquinas, a Guide for the Perplexed*, p. 80.

[78] Leijenhorst, 'The Nature of the Understanding', p. 477.

[79] Ibid.

[80] Leijenhorst, 'The Nature of the Understanding', pp. 490-91.

and the other his eye. He resolves the matter by stating how Aristotle considers the eye to be the most important sense organ, although the understanding of sensory perception that he presents is decidedly in line with the previous account of Aquinas' philosophy. Marozzo describes how the eye is the most noble instrument of the *anima sensitiva* (sensitive soul), the way through which the *mente* (spirit) sees.[81] It is the eye through which one pleasingly knows and discerns everything in nature (*cognosce & discerne tutte le cose della natura*), after which the image of what was seen is stored and represented in the mind and the heart (*la imagine del qualo allo cervello & al core* […] *conservano la memoria delle cose visive*).[82] A few chapters before, Marozzo outlines the primacy of eye-wounds over lost teeth in an almost identical way, although without explicitly referring to Aristotle, stating how the eyes are the closest to the spirit (*piu propinquo a l'anima*).[83]

This passage really allows the historian to zone in on Marozzo's epistemology of the senses and, by extension, of fighting. The *anima sensitiva* – or 'sensitive soul' – was responsible for the aforementioned interaction between the outer and inner senses, forming a coherent *phantasma* out of the dispersed sensory impressions.[84] Because the mind was furthermore seen as quite literally synthesising by means of mental images, the eyes were the prime sense organs contributing to this process. This also marks another point of overlap between Marozzo and Leonardo da Vinci, illustrating that Scholastic ideas about cognition could be accessed and appropriated by authors outside the university as well. Leonardo da Vinci wrote about the act of seeing that: 'the eye receives the similitudes of objects and from there to the *impressiva*, and from this *impressiva* to the common sense (*senso communo*), and there it is judged (*è giudicata*)'.[85] The *senso communo* – or common sense – was the first stage of the *anima sensitiva*, and the location where *phantasma* were formed. With the subsequent abstraction of *phantasma* – the *phantasmate* – explicitly taking the form of images in Scholastic theories of cognition, it also makes sense that Marozzo would refer to images as the building blocks of memory. Following these Scholastic influences on Marozzo, it becomes possible to understand the latter's premise that the *ingegno* – or discerning ability – could be trained ('*fatti essercitii preparae lo ingegno*').[86]

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[81] *lo philosopho dice, come noi in un altro Capitolo havemo referito, che l'occhio è l'instrumento de l'anima sensitiva e la mente vede mediante l'occhio & imperò quanto più è eccellente il membro, tanto è più quanto che per la sua percussione causa maggior dolore: per questo ha maggiore honore quello che privò.* Marozzo, *Opera Nova*, pp. 124r-v.

[82] *esser l'occhio membro nobilissimo, e per esser collocato in eminente loco, è dignissimo membro per esser posto in testa, quale è il principale & governatore di tutti gli altri membri humani, attento che li guida & conduce, con lo instrumento dello lume, dover a lui pare & piace & per quello si cognosce & discerne tutte le cose della natura, la imagine del qualo allo cervello & al core rapresentano e conservano la memoria delle cose visive.* Ibid., pp. 124r-v.

[83] 'se dice che colui che perdera l'ochio per essere membro piu propinquo a lanima sera piu incaricato de quello che perde li denti, si anchora che l'ochio comprende tutti li sensi del corpo.' Ibid., p. 122r.

[84] De Boer, 'The (Human) Soul', pp. 414-15.

[85] As quoted in in Summers, *The Judgment of Sense*, p. 71.

[86] *aquelli che vorranno intrare in liza a combattere ad oltranza si debbon esercitare con li altri cavalieri et in sì fatti essercitii preparae lo ingegno et disponere le forze, fortificare l'animo, temperare li membri.* Marozzo, *Opera Nova*, pp. 92v-93r.

That an author like Marozzo would have been familiar with Scholastic receptions of Aristotle is not really surprising. Aristotelian and pseudo-Aristotelian learning was available in a vast range of formats during the fifteenth and sixteenth centuries, from existing scholarly traditions of Latin commentaries to new editions in original Greek and synopses that seeped through into lay culture.[87] Lay readers did not necessarily pursue the study of Aristotelian philosophy in a systematic fashion, but could make use of a variety of compendia in the vernacular that started to become available in the sixteenth century.[88] Aristotle's theories of the mind and the senses continued to be a staple of academic teaching programs and anyone with a university degree or enough fluency in Latin would have been able to understand the widely disseminated academic textbooks. The massively popular *Margarita Philosophica* ('Philosophical Pearl') by the Carthusian monk Gregor Reisch (1467-1525) is a good example. First published in 1503, this work saw at least twelve reprints and plagiarisms in the sixteenth century, with print runs of about 500 copies and the 1517 edition costing just over a day's salary for a builder.[89] Taking the form of dialogues between a teacher and his apprentice, the work offered a systematic but accessible distillation of, amongst other things, the Scholastic approach to the soul and its cognitive powers.[90]

The snippets of Scholastic thought offered by Marozzo are sporadic, but they do enable the historian to better understand his epistemology and the special role images hold therein. According to his thinking, upon discerning the scattered impressions of nature through 'common sense', a mental image was then created that would preserve it in the brain and heart of the beholder, ready for re-use later on. This shines a new light on the long sequences of attacks and parries listed in the *Opera nova*. It now becomes plausible to suggest that Marozzo viewed his work as an aid for his readers to develop the mental images seen as vital for the workings of the mind.

V. DIDACTICS AND EPISTEMIC IMAGES IN THE *OPERA NOVA*

Having covered the general importance ascribed to mental images by the Scholastic epistemology that is likely to have informed the *Opera nova*, we can turn to consider the specific role of its woodcuts, with Figures 1 and 2 displaying two crucial images. The latter is even mentioned by name in the very first chapter of the work, despite only occurring in Book 2. In fact, it held such special significance for Marozzo to recommend that any aspiring instructor should put it up on a wall wherever they would teach.[91] Aside from this, it is interesting to consider the terminology Marozzo uses to describe this image, that of the *segno*. He argues that this *segno*, together with the accompanying text, serves as a kind of alphabet. Making a comparison with learning how to read, where memorizing the

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[87] Refini, *The Vernacular Aristotle*, p. 34; De Boer, 'The Human Soul', p. 415.

[88] Schmitt, *Aristotle in the Renaissance*, pp. 46, 63.

[89] Cunningham and Kusukawa, 'Introduction', p. xxxi.

[90] Ibid., pp. x-xi; De Boer, 'The Human Soul', p. 415.

[91] *tu lo metterai a li scontro del ditto segno ilquale sera segnato innel muro e alqual segno li sar in li soi luochi le littere che dimostraranno tutte le botte principale che se tranno in la spada.* Marozzo, *Opera Nova*, p. 1v.

alphabet is necessary as the source from which all words emerge, he presents the target displayed on this image as the *segno* from which all cuts emerge (*di quello* [*segno*] *ne esce tutte le botte*).[92]

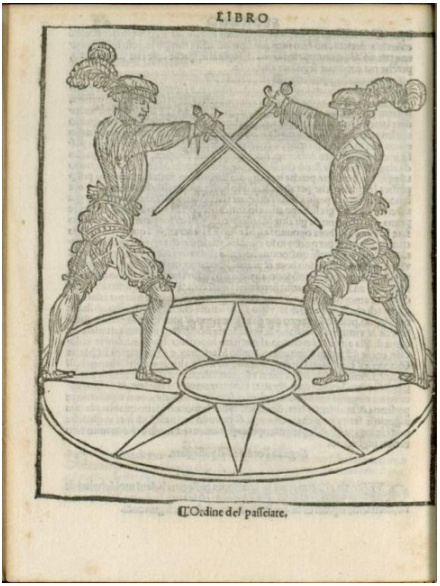

Fig. 1 (47v): Diagram of the steps; and Fig. 2 (48v): the human body with the strikes

The perspective chosen for the image in question is unique in that it is the only woodcut showing a figure from full front instead of at an angle. Although this reduces the depth of the image, it does allow for a clear marking of the cuts targeting both sides of the body and shows the target from the viewpoint of the reader, or prospective attacker. Chapter 145 of Book 2 contains the accompanying text for this image and is titled 'of the memory of the glasses, that is of the wounds and parries' (*Della memoria iochale: cioe delli feriri, & parati*).[93] At first glance, the wording seems difficult to translate, as it connects *memoria* with an adjective referring to glasses – *iochale* or *occhiale*. The aforementioned Scholastic theory of mental images – the *phantasmate* – offers a way to make sense of this, however, as it accounts for images being stored in the memory and aiding future discernment by the outer senses. In the particular case of *Opera nova*, the image is then quite literally presented as 'aiding the eyes like glasses'. The *segno* of the cuts is preceded by Figure 1, showing two fencers touching blades in a diagrammatic circle on the ground, which the prospective teacher was to use in order to make his students step, turn and otherwise

[92] *ilquale segno io tel disegnaro in questo libro accioche tu non tel dismenteghi, ma guarda ben che tal segno sia proprio come el alfabetho, tu sai ben che quando vno va alla 'schola de legiere le di bisogno che lui imperari prima el ditto alfabetho, perche di quellone esce tutte le littere, e cusi io del ditto segno di quello ne esce tutte le botte*, Ibid. p. 2r.

[93] Marozzo, *Opera Nova*, p. 48r.

place their feet.[94] The practical application of this *segno* is explained in Chapter 5 of Book 1 already, where it is described as a literal ground-plan upon which students could practice their footwork.[95]

While the remainder of the woodcuts in Books 1 – 4 are not designated as *segni*, their morphology is very similar to that of Figures 1 and 2. When considering the composition of Figures 3 and 4, for example, what stands out is their 'neutral' character. Their focus is exclusively on the initiating combatant and a detailed representation of his stance. The man stands before an otherwise empty background, with the first example including only a line to signify the horizon. Others, such as the plate adorning the third assault cycle, also include a roster on the ground, making it easier to identify the positioning of the feet. All in all, then, the images cannot be said to be truly naturalistic and merely a stand-in for a real-life demonstration. These woodcuts instead form a unified and unadorned version of a guard in a neutral plane, detaching it from the messy context that surrounded ordinary perception.

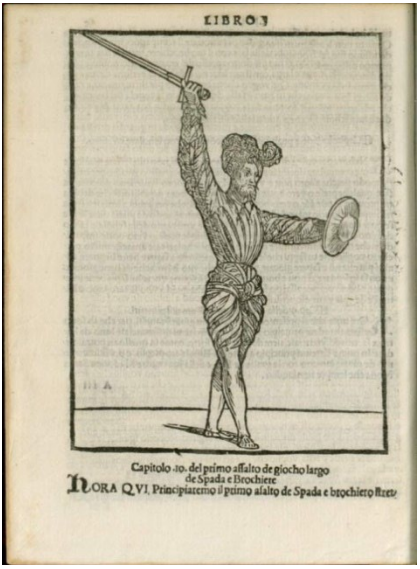

Fig. 3 (Marozzo, 3v[96]): on the first and second; and Fig. 4 (p. 8v): on the third assault sequence with sword and buckler

[94] *Questo è il segno dove tu farai passeggiare li detti tuoi scholari di passo in passo, così innanzi come indrieto, con le armi in mano, attorno attorno, mettendo li piedi in su questi fili, che attraversano li segni tondi*. Ibid., p. 47r.

[95] *E de pure assai altre sorte de armi che tu fai fa che te sempre li insegni il passegiare de guardia in guardia cosi inanze come indrietto e de lado e per trauerso e in ogni maniera che sia possibile e insignarli de acompagnare la man con il piede, el piede con la mao, altramente tu non fatissi cosa bona, si che per tanto se tu te adesmenticasse lordine del detto passegiare io tel dissegnaro in questo, come tu potrai vedere chiaramente, ma taricordo bene che insegnando il passegiare sopra di tal segno*. Ibid., p. 2v.

[96] The same image recurs on p. 6v for announcing the start of the second cycle of assault plays.

It has been explored how Marozzo understood the *ingegno* – or 'discerning ability' – as something that could be trained, and how he recognised that images of things seen would be processed by the internal senses and stored in the memory. The *segno* in turn seems to cover the way in which the *Opera nova* provided the reader with shortcuts towards developing these mental images. Such an idea was far from radical in Marozzo's day, as it also featured prominently in art theory. Authors such as Giorgio Vasari (1511-1574) thereby drew from the concept of *disegno*, the mental image proceeding from the intellect that gave the artist a standard on which to base the likeness of his work.[97] Vasari's *disegno* can be seen as taking the Aristotelian Scholastic notion of the *phantasmata* stored in the memory, and adapting it for practical use by artists. Art theorists argued that these mental images did not just travel from the external senses towards the internal ones, but could also be projected back into objects such as paintings and sculptures, much like Scholastic philosophers argued that the basic utterance of words constituted the projection of mental images back into the world.[98]

The educational program set out by Federico Zuccari (1540-1609) for the Roman *Accademia di San Luca* in the 1590s gives a particularly systematic explanation of how this process could be guided.[99] Zuccari emphasized the Aristotelian idea that the mind depended on the senses for creating mental images (*disegno interno speculativo*). These could subsequently be used as models (*disegno interno pratico*) that guided the accurate depiction of the outside world by the artist.[100] Producing a representation therefore depended on either a visibly available model or on an image of that model stored in the memory, the latter being seen as more difficult. Zuccari processed this theory into a concrete teaching curriculum. Students would start by observing and drawing an object from life, after which they would move to drawing things from memory alone. The last and most difficult step for artists was to mix concepts and images stored in their mind, creating a representation formed in their imagination (*fantasia*) that was not based on a real-world counterpart.[101] Curiously, and although he is not nearly as systematic in his description of the process leading up to it, Marozzo actually uses a very similar kind of reasoning when he describes how to best make use of his book. Once a reader had studied Marozzo's book and practiced with a sword in the hand, he could then proceed to creative reasoning from his own mind (*tornare a fantasia*).[102] Marozzo even gives an example of this process at the beginning of Book 4 – on polearms – describing a range of techniques with the

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[97] Summers, *The Judgment of Sense*, p. 210.

[98] Leblanc, 'Federico Zuccari among the Scholastics'.

[99] Jonker, 'Producing Knowledge in Early Modern Rome', p. 3.

[100] Ibid., p. 5.

[101] Ibid., p. 7.

[102] [...] *io te aviso che in questo alcune fiate tu lo debbi leggere e da poi in pratica esercitare con la spada in mano, acciocchè con poca fatica el te possa questo tornare a fantasia.* Marozzo, *Opera Nova,* p. 1v.

spear and shield (*partesane & rontella*) as a new kind of combat that he devised from his own *fantasia*.[103]

Marozzo's description of his *segno* of the cuts as a kind of alphabet likewise has a counterpart in Zuccari's work. The latter discusses the so-called *Alfabeto di Disegno* ('alphabet of design'), which comprised simple sketches of individual body parts.[104] This formed the first step of Zuccari's teaching program, so that students could quickly develop a mental repertoire of body parts which they could reproduce at their own discretion and in new configurations. Reasoning from this, it might be that the drills listed by Marozzo as departing from these guards were drawn up with the same goal in mind. This would mean that Marozzo did not envision his drills to have been replicated *as is* during actual fights. Much like the alphabet helps the novice reader, Marozzo's plays could help a relatively inexperienced fighter to observe what would happen if weapons clashed in specific instances. After first obtaining these experiences as part of the prescribed sequences, the fighter could then deploy his knowledge in new configurations, turning to his *fantasia*. Such role might also explain why the frontispiece of the *Opera nova* (Figure 5) displays a kneeling fencing master writing down strange symbols from a book onto a circle on the ground. That is to say, Marozzo's alphabet of *segni* was clearly envisioned as being able to move from a book to practice.

It should be noted that where representations of armed fighting generally seem to follow the pattern outlined above, the images of unarmed fighting techniques display much more fluid combat situations. Unarmed techniques are not only separated from the other disciplines by the lengthy treatise on duelling that forms the start of Book 5. The example below (Figure 6) also shows how they follow a different format altogether.

[103] *Qui mi son disposto di componere in questo un combatter novo, attrovato di fantasia bona, di partesana e rotella insieme*. Ibid., p. 81r.

[104] Jonker, 'The Academization of Art', pp. 306-307.

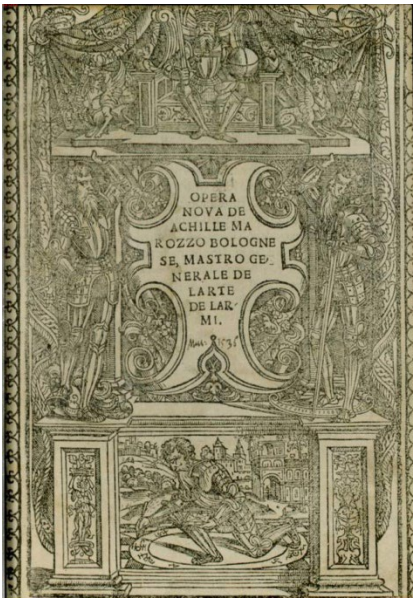

Fig. 5 Frontispiece of the Opera nova; and Fig. 6 (147r[105]): Depiction accompanying the technical description of an arm-break

Rather than a long list of assaults and their various counters, wrestling plays are listed one by one. Each play is accompanied by a woodcut showing the technique somewhere midway, when the assailants have clasped one another. The text explicitly refers to the image in its description of the technique, and even seems to leave out information made redundant in case the reader studies or tries to replicate the image. In this particular example, the text mentions how, upon having grabbed the right wrist and elbow of a dagger-wielding attacker, one hand should twist inward and one outward (*torcendo una in fuori & l'altra in dentro*). It is not specified which hand should do what, yet the attempted replication of the depicted situation would show that twisting the left hand inward would do nothing to break the opponent's arm, leaving the other option the most suitable by default. One can wonder why Marozzo represented wrestling through a series of individual plays rather than like the sequences of attacks and parries he describes for armed combat. Nevertheless, the direct interaction between text and image in Marozzo's section on unarmed combat once more underscores the important role he accorded to illustrations.

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[105] *gli è di bisogno che voi vi diffendiate pigliando con la vostra man manca il braccio destro dello nimico vostro, appresso il pugno & con la man dritta pigliarete il ditto braccio & il gombito al predetto alla roversa, come voi vedete, con ambedue le mani, torcendo una in fuori & l'altra in dentro: quando voi farete questo, fatevi innanzi col piè sinistro & torcendo forte romperete il braccio dritto al nimico*. Marozzo, *Opera Nova*, pp. 147v-148r.

VI. CONCLUSION

Marozzo was clearly influenced by the rich Aristotelian tradition of thinking about the mind and the senses. Passed down and adapted through Scholasticism in the Middle Ages, this tradition continued to be relevant throughout the fifteenth and sixteenth centuries. Similar to the images in the *Opera nova*, moreover, references to Aristotle appear to have been far more than a decorative afterthought that gave the book more intellectual credentials. That is to say, Marozzo's use of Aristotle does not enhance the status of his work through namedropping because he does not mention his name even once. His only explicit reference to Aristotle (*Il Philosofo*) would probably have been understood by educated contemporaries, but the remainder of his intellectual indebtedness shines through the use of concepts steeped in the Scholastic philosophy of cognition.

This article has sought to outline these connections, which have previously gone unnoticed. While doing this, it has also attempted to show how the epistemology of the *Opera nova* goes far beyond the simplistic pattern-copying that previous scholarship has often made it out to be. While pattern-copying seems to have been a cornerstone of Marozzo's epistemology, a complex philosophy hides behind it. As such, the 'exemplars' of the *Opera nova* should not be seen as imperfect attempts to exhaustively describe practices, nor should they be considered definitive ideal types. What seems to have been important instead is how they were derivative, drawn from the rich experiences of men like Marozzo in judging movements and combat situations. In turn, the precepts seem not to have been intended as a purely intellectual exercise. Rather, they were to be a source of new mental images that fed the mind of the aspiring fencer, helping him to discern the proper way forward in practice. Whereas Marozzo's ideal seems to have envisioned fighters operating on the basis of creative reasoning, improvising their actions with their minds, their ability to do so would have depended on images ingrained in the memory through reading and practice. The inclusion of woodcuts greatly facilitated this process. Contrary to fleeting demonstrations, the woodcuts could provide the reader's mind with a stable source of images that could be studied and memorized.

Finally, these insights form an interesting bridge between the two main currents in scholarship on early modern cultures of knowledge. One strand has long focused on the special practical knowledge artisans possessed and started to put into writing in the fifteenth century, while other historians have focused on artists' appropriation of learned discourses to structure their knowledge.[106] Recent scholarship aims to bridge the gap between these traditions, focusing on the interaction between learned and artisanal traditions of knowing. The *Opera nova* analysed in this chapter seems to be a prime but so far wholly overlooked example of such interactions.

[106] Dupré and Göttler, 'Introduction', p. 5.

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