

What the Works of Fiore dei Liberi Tell Us About Mnemonics in Popular Culture

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Aside from adding this note, I have made two changes to the version which was accepted for publication: correcting a typo in the acknowledgements, and the unnecessary capitalization of the word Gold in the body text.

What the Works of Fiore dei Liberi Tell Us About Mnemonics in Popular Culture¹

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In the first decade of the fifteenth century, an old soldier took time from his teaching to write books on the art of combat. In doing this he was a pioneer. Until the very end of the fourteenth century, instruction in individual fighting skills had been purely oral, and fencing manuals remained unusual in Italy until the late sixteenth century. Aside from Fiore's work, only two manuscripts on fencing are known from an Italian source before 1500.² When these manuals do appear, they give us a precious insight into how a familiar part of medieval education—the arts of memory—were applied to the less familiar subject of medieval physical education.

Let me begin with some definitions: by *mnemonics*, I mean techniques for organizing or presenting information to make it easier to remember. Both the speaker or writer, and the listener or reader, can use mnemonic techniques on a text. By *popular culture*, I mean the culture mainly conducted in vernacular languages by laymen in contrast to learned or clerical (Latin) culture.

Four manuscripts, recording Fiore's work, are extant, each preserving a different version of his teachings. These are usually given a name derived from the current or last known owner, namely the Pisani-Dossi, Getty, Morgan, and Bibliothèque Nationale du France (hereafter abbreviated to PD, Getty, Morgan, and BNF).³

1 Because most people working on the manuals are not tenured academics, most scholarly communication takes place in person or online. I therefore would like to thank some of those who have been especially influential on my understanding, either directly or through intermediaries: Bob Charrette, Bob Charron, Matt Easton, Mark Shier, Sean Hayes, Dan Hill, Tom Leoni, Greg Mele, and Guy Windsor who taught me Fiore's art; and Doctors Timmothy Haskett and Erik Kwakkel who taught me to read like a medieval person.

2 These are the illustrated manual of Filippo Vadi (fl. 1475), Rome, Biblioteca Nazionale Centrale di Roma, codex 1324 which is reproduced in Luca Porzio and Gregory Mele (eds.), *Arte Gladiatoria Dimicandi: 15th Century Swordsmanship of Master Filippo Vadi*, (Chivalry Bookshelf: Union City, CA., 2002), and a short list of fencing guards between a collection of psalms for St Hilary and Latin sayings on law within a larger fifteenth-century miscellany: Toronto, Fischer Rare Book Library, MSS 01020 (f. 105).

3 The Pisani-Dossi manuscript, which remains in private hands, was published in facsimile: Fiore de Liberi, *Flos Duellatorum, il fior di battaglia di maestro Fiore dei Liberi da Premariacco*, trans. and ed. Francesco

Because I am talking about two kinds of *esoterica*—medieval memory and renaissance martial arts—I will give a fairly extensive background. I will begin with brief introductions to Fiore and to medieval memory training, then discuss some of the limitations of current scholarship. Then I will discuss four types of mnemonic technique found in Fiore: physical format, textual structure, schematic diagrams, and verse. These four aspects of book design were traditional in medieval culture but applying them to a fencing manual was new.

Fiore Furlan dei Liberi (fl. 1399-1410) from Cividale d'Austria is the best known, and best documented, Italian fencing master of the fifteenth century. Many learned writers have summarized his life.⁴ Here I would like to make two points, one about Fiore and courts and another about Fiore's education. Fiore was on the margin of court culture; his family is completely unknown.⁵ The family name seems to refer the *liber / ministralis* distinction in the imperial nobility, where the *liberi* considered themselves to be descendants of free men and the *ministrales* descendants of servants.⁶ Although, in his manuscripts, he gives his full name and his father's name, the only records of his life which have been uncovered are from Udine which date from the 1380s.⁷ Some of his students were famous men and he says that Nicolo III d'Este (1383-1441) Marquis of Ferrara, an ambitious young second-rank prince, asked him for two manuscripts.⁸ Marco Folin describes the Italian courts of Fiore's day as intimate and informal

Novati (Francesco Novati: Bergamo, 1902). The remaining three manuscripts are Los Angeles, Getty Art Museum MS Getty-Ludwig XV.13, New York, Pierpoint Morgan Library, MS M. 383, and Paris, Bibliothèque Nationale du France, MS Latin 11269.

4 These begin with Luigi Zanutto, *Fiore di Premariacco ed i ludi e le feste marziali e civili in Friuli nel medio- evo* (Del Bianco: Udine, 1907).

5 For recent overviews of the evidence for Fiore's family and career, see Ken Mondschein, *The Knightly Art of Battle* (Los Angeles: J. Paul Getty Museum, 2011), 10-15 and Fiore dei Liberi, *Fior di Battaglia*, 2nd ed., trans. Tom Leoni (Wheaton IL., Freelance Academy Press, 2012), xii-xviii.

6 I am not sure who first connected the Liberi to this split in the imperial nobility. For an overview of the difficulty understanding the origin of these two classes, see John B. Freed, "The Origins of the European Nobility: Problems of the Ministeriales," *Viator* 7, no. 7 (1976): 211-41.

7 See Mondschein, *The Knightly Art of Battle*, 14.

- 8 The prologue to the Getty (f 3v) states that Nicolo instructed him to write a book, and the Italian prologue to the PD (f 2v) implies that Nicolo asked for one.

groups: “When Nicolò III came to power, the court was composed of about fifteen local gentlemen, no more than twenty notaries and chancellors, [...] and several dozen servants who daily took care of the lord and his house.”⁹ Since no records of Fiore's employment at the d'Este court survive, it is likely that his position remained insecure.

Fiore had a basic education. In the prologue to the Getty manuscript he tells us that he could “read and write and draw” and that if he had studied “jurisprudence, canon law, or medicine” for as long as he had studied fencing he would surely be a doctor in all three subjects.¹⁰ The Latin prologue to the Pisani-Dossi manuscript is clear, but not overly sophisticated, often using Italian loan-words such as *dagardus* “dagger”, *guer* “war” and *barones* “barons” in place of Latin equivalents. His verse is awkward, so much so that Sydney Anglo called his verses “barely recognizable as such.”¹¹ The only classical or biblical quotation in his work is a single line from Justinian's *Institutes*, although he states that he owns other books on fencing and his writings show knowledge of the bestiaries and Aristotle's *Physics*.¹² All of this evidence suggests a man on the edge of book culture who was somewhat defensive about his education. It is very likely that he had met some learned humanists and was concerned to show that he, too, had valuable learning.

Our culture considers memory a lowly, mindless ability. The advertising for the *Rosetta*

9 Marco Folin, “Courts and Courtly Arts in Renaissance Italy,” in *Courts and Courtly Arts in Renaissance Italy: Arts, Culture and Politics, 1395-1530*, ed. Marco Folin (New York: ACC Distribution, 2011), 11.

10 *s'io avesse studiado XL in lege, in decretale, e in medesina* (Getty f 1v).

11 Sydney Anglo, *The Martial Arts of Renaissance Europe* (New Haven CT.: Yale University Press, 2000), 121.

Leoni prefers to say that Fiore's poetry “is so inconsistent and heterogeneous in rhyming and syllabic number to be practically free-verse.” *Fior di Battaglia*, xxxiii.

12 Fiore quotes the second sentence of the prologue of the *Institutes: imperatoriam maiestatem non solum armis decoratam, sed etiam legibus oportet esse armatam*, PD, f 2r: (It is proper that the Imperial Majesty not only be adorned with arms but also armed with laws...). The significance of this quote awaits explanation, although Justinian's compilation of Roman law was commonly read at universities. For Fiore's use of the bestiaries, see below. His whole conception of motion is Aristotelian, and he frequently uses such Aristotelian commonplaces as that the mark of the expert is the ability to teach.

Stone language program promises to save buyers from “mindless memorization.”¹³ Medieval people disagreed. To them, memory was the power to both store and manipulate knowledge. Ways to learn things quickly, learn to manipulate them, and help the audience learn and manipulate them were a conscious part of education. For example, Thomas Aquinas seems to have composed many of his books in his head—including those texts with thousands of quotations—and dictated a first draft in one continuous flow.¹⁴ Peter of Ravenna, a law professor in the late-fifteenth century, stated that he had mastered 30,000 short passages so well that he could bring up all those on a given topic, such as appeals, instantly.¹⁵ These writers impressed their contemporaries not for having a peculiar ability, but for mastering a common skill.

From childhood on, medieval education focused on structuring and breaking down knowledge. The goal was first to learn individual parts in a particular order, then to learn to bring them to mind in any necessary order. For the psalms, a common first text for children to master, the first step was to memorize them in order, perhaps one based on the religious calendar rather than their position in the Psalter.¹⁶ Next, one would learn to call them to mind by their number or first words and move through the psalms in any order. Then, one would learn to call them to mind by chapter and verse and move through the verses in any order. The ideal was to hear any line from the psalms, know immediately which verse of which psalm it came from, and be able to move forward or backward or to related psalms as needed.

Current scholarship on memory in Latin culture has a paradox. On one hand scholars have

13 *Rosetta Stone* advertisements with similar phrasing have been used everywhere from radio spots to posters for years, but for one example see “Rosetta Stone Offers Fastest Way to Learn a Language” <http://www.prnewswire.com/news-releases/rosetta-stone-offers-fastest-way-to-learn-a-language-58574162.html>, accessed 22 August 2013.

14 Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture* (Cambridge: Cambridge University Press, 2008), 4-8.

15 *Ibid.*, 143.

16 *Ibid.*, 100-104.

emphasized that medieval people saw memory as a physical process. The standard metaphors for memory were writing, an organized container like a chest or purse with compartments, and digestion.¹⁷ These were not dead metaphors, but were taken seriously as ways to understand a complex process. Mary Carruthers likes a comment in a monastic rule that just as the food that monks eat produces various sounds when they get up at night to perform their offices, their holy thoughts produce good words. Thus prayer is spiritual flatulence.¹⁸ Yet scholarship on memory is almost entirely focused on texts and book learning. A great deal has been written on how medieval people remembered scripture, academic knowledge, and music. While it is natural to follow the source and focus on the areas of life which produced the most evidence for us to read, this limits study to a small part of society. While most students of medieval memory today have much book learning, and much respect for book learning, it is important to remember that there are other sorts of education. Carruthers, a leading scholar in medieval mnemonics, is very much a book and intellectual historian.¹⁹ In short, Fiore lets us see how the very physical process of medieval memory was applied to learning physical skills. His manuscripts are explicitly concerned with memory. The Latin prologue to the Pisani-Dossi manuscript, for example, employs the metaphor of the memory as a treasure chest when it urges the generous-minded reader to “love it and store it away as a sort of treasury.”²⁰ Most of Fiore's techniques are what Mary Carruthers calls “elementary memory designs.”²¹ But I hope that I can convince you that *elementary* does not mean simple or ineffective.

Many medieval books were designed to aid memorization. Since it was believed that

17 Ibid., 37-55.

18 Ibid., 208.

19 See also the now dated but important work of Frances Yates, *The Art of Memory* (Pimlico: London, 1966), and Paolo Rossi, *Logic and the Art of Memory: The Quest for a Universal Language*, trans. Stephen Clucas (Continuum International: London, 2006).

20 PD f 2v. See also Carruthers, 37-55.

21 Ibid., 99.

distinctive images produced the strongest memories, a distinctive and clearly organized page was more effective than a simple block of text. Fiore had plenty of resources and he supervised the production of at least five texts.²² A few of the pictures in the Getty are coloured, but not all, and this suggests that he or his patron ran out of money. He employed the traditional tools of book design: clear script, red and blue initials, gold and silver leaf. These were not just ornamental, but designed to help the reader memorize the appearance of the page. Coloured initials, for example, often indicated points of *divisio* between verses and these visual cues were common in other texts.²³

[Fig 1: A typical page of a Fiore manuscript with remedy master, scholars, and counter master: Getty f 10v (image courtesy of J. Paul Getty Museum, Los Angeles) / or: PD f 11v (*Flos Duellatorum*, ed. Francesco Novati, 1902)]

A typical page in each manuscript is divided into a standard number of spaces, each of which contains a picture of a fencer who speaks to the reader through accompanying text and is marked as a master or scholar with a golden crown or garter. Most pages of the Getty are divided in quarters. If necessary, the speaker has a partner who receives the technique (*zuggadore*, *compagno*- think *uke* in aikido terms). The partner is distinguished from the master by the

²² While it is impossible to know whether the Morgan, Getty, or PD manuscripts are original compositions or early copies of now lost originals, each is different enough to suggest they are the work of Fiore or an editor working with him. They are certainly not copies of each-other. BNF appears to have been made after his death, although it is unclear if it is a copy of a lost text or a new composition: Ken Mondschein, "Notes on Bibliothèque Nationale MS Lat. 11269, *Florius de Arte Luctandi*," *Arms & Armour*, 8 no. 2 (2011), 117–22. Two works by Fiore are recorded in the 1467 catalogue of the d'Este library, G. Bertoni (ed.), *La Biblioteca Estense e la coltura Ferrarese ai tempi del duca Ercole I, (1471-1505)* (E. Loescher: Torino, 1903), 219, 221. Francesco Novati provides excerpts from other catalogues: *Flos Duellatorum*, 29, 30, 94-96.

²³ Carruthers, 121. See also Fiore's prologue of the Getty where he states that the rubrics, the pictures, and the plays show the art clearly (f 2v).

absence of gold embellishment. This indicates to the reader who, in the play, they are to imitate. This was a very wise feature, since even today, martial arts illustrations often fail to clearly indicate who is doing the technique.

Fiore's project required unusually close contact between the author, the scribes, and the illustrators. Unlike most manuscripts which started with the text (often leaving space for decoration so that missing capitals or blank spaces mark projects which were never finished), most fencing manuals seem to have been illustrated first and then glossed.²⁴ A number of fencing manuscripts have pictures but a blank space for text, whereas to my knowledge the only manual with a complete text, but blank spaces for illustration, is *Le Jeu de la Hache*, a French treatise on fighting with the pollaxe, contemporary with Fiore.²⁵ Fiore's patron and audience would also have influenced the form of each manuscript. Unfortunately, Fiore does not describe the production process. A close study by a specialist in book history might reveal things of interest both to codicologists and to students of medieval martial arts.

Fiore was fortunate in his artistic environment. Working in fifteenth-century Italy, he could find artists who understood that he needed a naturalistic depiction of his figures, not a stylized symbolic representation. The figures are sketched roughly, but it is usually clear where different body parts are, how the fighters have their weight distributed, and so on. There are some obvious errors, such as the man with three hands in the Getty, and some departures from strict

²⁴ On the usual methods of manuscript production, see Jonathan Alexander, *Medieval Illuminators and their Methods of Work* (University of Toronto Press: Toronto, 1992), 41, 53, and Christopher de Hamel, *A History of Illuminated Manuscripts* (Phaidon Press: London, 1994), 92-106. The later parts of Alexander's book have many interesting examples of how illuminators worked on conventional projects.

²⁵ Illustrated manuals, lacking text, include a fifteenth-century copy of Johannes Talhoffer and others (Paris, Musée National du Moyen Age MS. CL23842), a late copy of Paulus Kal (Gotha, Forschungs bibliothek Erfurt- Gotha, MS Chart B 1021) and examples from the anonymous "Gladiatoria" series of *Fechtbücher* (Wolfenbüttel, Herzog-August Bibliothek, Codex Guelf 78.2 august 2^o). The French text (Paris, BNF MS français 1996), is

transcribed and translated in Sydney Anglo, "Le Jeu de la Hache: A Fifteenth-Century Treatise on the Technique of Chivalric Axe Combat," *Archaeologia* 109 (1991), 113–28.

realism, such as a tendency to rotate hands and quillions into the plane of the picture.²⁶

Nevertheless, the pictures are much easier for the uninitiated reader to interpret than their equivalents in the only earlier illustrated fencing manuscript, Leeds Royal Armouries MS. I 33.²⁷ Relying on pictures was an effective choice. Replacing them would have made the text too long to easily memorize, and still would not have been effective at describing some things. Fiore's art involves many grapples, shoves, throws, and disarms which cannot be effectively fully described in words. But the emphasis on illustrations is also a characteristic medieval solution.

Medieval memory theory advised breaking down a long text into short units according to a clear structure. Fiore does this at two levels; first he divides the manuscript into sections by weapon, then divides each weapon into numbered masters and plays. Each manuscript contains a prologue, a series of weapon forms, and a very brief conclusion. Each weapon form begins with one or more guards and continues with a series of techniques or *plays*. Between the forms are short notes on theory and bridging sections—groups of a handful of techniques for an unusual weapon or unmatched weapons, such as fighting with two clubs against a spear-man. The Getty and Pisani-Dossi manuscripts flow from small to large weapons, from unarmoured to armoured combat, and from foot to horseback. The Getty consists of a prologue, unarmed combat, short stick as a bridge, dagger, dagger against sword as a bridge, sword in one hand, a complex bridging section on theory, sword in two hands, another miscellaneous section, sword in armour, axe, spear, lance on horseback, sword against lance on horseback, sword on horseback, sword on horseback, wrestling on horseback, and a final bridging section and conclusion.

²⁶ In the third play of the fourth dagger master, an extra hand appears in the bind (Getty f 16v).

²⁷ Leeds, Royal Armouries MS. I 33, has been variously dated anywhere from 1295 to 1320. It is certainly no more recent than the first quarter of the fourteenth century. Rainer Leng (ed.), *Katalogue der Deutschsprachigen Illustrierten Handschriften des Mittelalters: Band 4/2, Lieferung 1/2*, 38. *Fecht- und Ringbücher*, (Kommission für Deutsche Literatur des Mittelalters der Bayerischen Akademie der Wissenschaften, München: Munich, 2008), 124.

The basic unit of structure (*divisio*) is a play which consists of a figure who speaks to the reader in verse and performs a technique over a series of illustrations. Fiore also uses a system of four masters to organize his material. The *posta* or guard, stands alone at the beginning of the play, wears a golden crown. The *remedy* stands in combat with a partner and wears a golden crown. The *counter* stands in combat with a partner and wears a golden crown and a golden garter, and the *counter-remedy* appears in combat and wears a golden garter. Masters are assisted by *scholars* who appear in a variant of their technique. The guards serve as starting points for attack and defence. Each *remedy* defeats an attack and neutralizes the opponent; the *counter* interrupts the remedy and defeats the player who tried it; and the *counter-remedy* disrupts the counter and overthrows the player who tried it.

Fiore's works brim with numbered lists. The list of four masters is one prominent example, but there are also four weapons (dagger, sword, lance, and axe), eight qualities which unarmed combat requires (strength, speed, knowledge of grapples, knowledge of breaks, knowledge of binds, knowledge of where to strike, knowledge of how to put your opponent on the ground, knowledge of dislocations), five things to do against the dagger, three arm locks, and three disarms. The sections on unarmed combat, dagger, sword in two hands, sword in armour, spear, and axe fighting, always begin with lists of between four and twelve guards. The Italian prologue of PD ends with a description of these sections, the number of masters, and plays.

Numbered lists were a very popular mnemonic in medieval literature. Robert of Basevorn, who wrote a handbook for preachers around 1322, suggests picking a group of a certain number of symbols and dividing a sermon into that many parts, each corresponding to one of the symbols.²⁸ This division could be made out of two to twelve parts, but no more. He suggests

28 Robert of Basevorn, *Forma Praedicandi*, trans. Leopold Krull, in *Three Medieval Rhetorical Arts*, ed. James R. Murphy (Berkeley: University of California Press, 1976) ch. XLVIII. See also Carruthers, 131-33.

linking a five-part sermon to the five vowels, a seven-part to the seven mercies of God, a ten-part to the ten commandments, or a twelve-part to the twelve apostles. Any group of a given number of things has a natural link to other groups of that same number of things. This is probably why Fiore gives six guards each for sword in armour, spear, and axe in the Getty. All of these sections deal with armoured combat on foot, so they are linked by the number six even though the list of guards varies and some are familiar from earlier parts of the manuscript. It is important for the structure to follow the same pattern, even if the content does not require it.

A sermon of St. Bernardino of Siena is a good example of a text with numbered lists. For a sermon with the theme “Thou shalt love thy neighbour like thyself”, where the subject is love between husband and wife. First he defines three properties which true love should have: it should be honest, pleasant, and profitable. Then he expounds on the importance of these, and he gives four reasons for each, carefully giving them numbers and reminding his listeners to remember them. The attentive listener could use this numbered structure to remember the gist of the sermon for their own use or to pass the famous man's words on to others, while the speaker could use them when preparing the speech or to remember his place if he was interrupted.²⁹

Fiore recognizes that these lists are a bit arbitrary and that the specific number is not important. The five things to do against the dagger become four, as he combines taking the dagger with striking.³⁰ The requisites of *abrazare* (unarmed combat) separate breaking and dislocating limbs, but they are left together in the five things to do against dagger. This may reflect Fiore's preference for showing four pictures per page in the Getty manuscript, since five masters would overflow onto a second page or crowd a single page. Fiore also comments that

²⁹ G.G. Coulton, *Life in the Middle Ages*, 2nd ed. (Cambridge: Cambridge University Press, 1967), I, 217-23.

³⁰ Five things: “take the dagger and strike, break his arms, bind them, and throw him to the ground” (Getty f 9v) and four masters of disarms, breaks, binds, and throws (Getty f 10r).

“these guards can be of different sorts, some better than others. There are four guards that are the best, both for unarmoured and armoured *abrazare*, although those guards don't remain fixed for long, due to the immediate grapples that follow them.”³¹ This seems to allude to the fact that there is an infinite number of possible guards, and that even the most popular ones can be formed in various ways. Lists of guards vary between manuscripts, and some guards for the sword in two hands are mentioned elsewhere but not included in the list.³² Significantly, the different manuscripts contain different lists of guards for the sword in two hands but each list has twelve in number, a symbolic number which Robert of Basevorn recommended as the largest number of parts into which a sermon should be divided.³³

[Fig 2: A schematic representation of the organization of the 21 plays of the *First Remedy Master of Dagger* in Getty, f 10v-13r (reproduced from Robert Charrette, *Fiore dei Liberi's Armizare*, 237)]

Fiore also numbers his plays. *Abrazare*, and sword against sword on horseback, are the most consistently numbered sections in the Getty, but Fiore clearly expects readers to provide the numbers themselves in other sections. Some of these references are backwards, such as the constant mention of the third play of the first remedy master of dagger, the *ligadura mezzana*, and the first scholar of the fourth remedy master of dagger, the *ligadura soprana*.³⁴ Indeed, Fiore

31 Getty f 4r, trans. by Leoni.

32 The Getty lists *dente di cinghiano lo mezzano* which does not appear in other manuscripts. The PD and BNF list *posta di vera finestra* which may be an alternative name for *posta di donna* or *posta di finestra*. A good example of a missing guard is *posta di finestra sinistra*, which appears in the *segno* of PD (f 17r) and BNF (f 1v) and in the defence against any attack with the sword in two hands (Getty f 31r) but it does not appear in any list of *poste* with the sword in two hands.

33 Basevorn, ch. XLVIII, in Murphy, 204.

34 See examples from the Getty: dagger play (ff 15r, 15v, 16r, and 17r), dagger against sword (f 19r-v), sword in one hand (f 20v), sword in two hands (f 29r-v).

refers to these techniques by name and number interchangeably. Other references are for plays that occur later in the manuscript, as when the first play of the eighth remedy master of dagger says “I can take his hand in the joint with my left hand, and with the right I can injure him, then you will find me as the ninth scholar of the ninth master who strikes the player in the chest.”³⁵

While confusing at first, a reader who had already studied the whole book would know that play.

Significant numbers of plays, and groupings of plays on the page, also help memorization. The physical structure of each page, with different sets of two, four, or six illustrations, naturally divides long lists into small sections which can be memorized as a group, just as recommended in texts on memory. Guy Windsor also noted that the first eight plays of the dagger in the Getty teach the basics of the whole dagger system, with remedies and counters, disarms, locks, throws, and a variant defence.³⁶ In the original manuscript, these plays appear on one leaf.

Fiore's numbering is not perfect in that he occasionally breaks from the pattern, listing other things that a play could do, or by explaining a counter within one play, rather than showing it in a separate illustration, saving space. In these cases numerical reference becomes ambiguous. Such imperfections are common in other numerically structured texts, particularly less polished and learned ones such as the Parson's lecture on penitence in the *Canterbury Tales*.³⁷

Why are the numbers most consistent in the *abrazare* and the sword on horseback? *Abrazare* opens the Getty, and sword on horseback closes its armed combat section. Opening and closing with numbering reminds readers what they are supposed to do throughout the book.

These references are quite sophisticated. The list-mnemonic is a process of one-to-one mapping

³⁵ Getty f 17r (trans. Leoni).

³⁶ I first encountered this interpretation during Windsor's workshop at the Vancouver International Swordplay Symposium, 2011. See also Guy Windsor, *Mastering the Art of Arms Vol. 1: The Medieval Dagger* (Freelance Academy Press: Wheaton, IL, 2012), 49-51.

³⁷ Geoffrey Chaucer, “The Parson's Tale,” in *The Riverside Chaucer*, new ed., ed., F. N. Robinson (Oxford: Oxford University Press, 1987), 289.

ideas to numbers and symbols (as when the the four evangelists are partnered with four animals). A sermon, with a few biblical quotes, is constructed and performed as a linear string of parts, followed in a fixed order, but each point in a fight, once reached, offers the performer several options, each of which leads to further choices. Fiore tries to account for this by linking techniques across the plays. If a fencer is practising sword techniques, and his opponent steps in and applies a *ligadura mezzana* to his arm, he must apply a counter to that play from the dagger section. Each of Fiore's manuscripts is a decision-tree not a sequence of lists. In effect, each manuscript is a chose-your-own-adventure book which the reader should know so well that they do not need paragraph numbers. Not coincidentally, this ability to move freely through a text is exactly the goal of medieval memory training. Kinaesthetic memory is different from memory of texts, but mastery of both is requires the ability to do similar things with the material studied. While it is a cliché that medieval readers knew a few texts very well, Fiore had high expectations of his readers even by medieval standards.

Another characteristic medieval mnemonic is the schematic diagram. Images were considered the easiest sensations to memorize, so linking knowledge to a simple diagram made it easier to remember. The medieval T-O maps, which depicted the northern hemisphere as a disc, (the 'O') divided into three continents by the Nile, the Mediterranean, and the Don, (the 'T') are a famous example: medieval readers saw them not as a literal representation of the material world but as a framework around which to organize knowledge about it.³⁸ Fiore created a schematic diagram to represent key points of his art in a similar way. Each of Fiore's manuscripts, except the fragmentary Morgan, have a page known as the *segno* which tries to combine the seven

³⁸ P. D. A. Harvey, *Medieval Maps* (Toronto: University of Toronto Press, 1991), 19. David Woodward, "Medieval *Mappaemundi*" in *The History of Cartography*, vol. 1, eds., J.B. Harvey and David Woodward (Chicago: University of Chicago Press, 1987), 288-92.

attacks, the twelve sword guards, and four qualities which a fighter should have into a single image. Unusually, the *segno* of the Getty has two lines in the author's voice explaining how to interpret the diagram.

[Fig 3: The *segno* from the Pisani-Dossi manuscript, f 17r (reproduced from *Flos Duellatorum*, 1902)]

In this diagram, the seven swords indicate the seven lines of attack. The names of *poste* are written near the closest part of the body. The four virtues, four animals, and four attributes describe themselves (*prudencia* is the lynx with the compass, *audacia* the lion with the heart, *fortitudo* the elephant with the tower, and *celeritas* the tiger with the arrow). The usual list of virtues, very common in sermons, was *prudencia*, *temperantia*, *iustitia*, and *fortitudo*.³⁹ The animals are drawn from a common stock of animal lore best known through bestiaries.⁴⁰ These contained a mix of natural history, etymology, and moralism and were one of the ready-made sets of symbols in every medieval person's memory, and were often used in sermons. All of Fiore's animals are beasts (*bestiae*) from the beginning of those bestiaries which derived from the *Etymologies* of Isadore of Seville (560-636).⁴¹ The relevant properties of each animal are also famous ones which would be familiar to any reader.

Verse is a universal mnemonic. The metre and sound patterns impose a natural order on text rather than an arbitrary one. Fiore uses two types of verse: couplets in the PD and BN, and

39 Kirsten M. Berg, "On the Use of Mnemonic Schemes in Sermon Composition," in Roger Andersson ed., *Constructing the Medieval Sermon* (Turhout: Brepolis, 2007), 231

40 See Florence McCulloch, *Medieval Latin and French Bestiaries* (1960), 34-40, and T.H. White, *The Book of Beasts* (New York: Dover Publications, 1984)

41 McCulloch, 34-38

long rhymes in the Getty and Morgan. It appears that his students had to memorize the couplets since many couplets in Philipo Vadi's manual paraphrase Fiore. This suggests that he quoted from memory rather than copying a manuscript.⁴² The couplets are reasonably good verse, but not very informative. Instead, they serve as a key to material already memorized, just as the numbers (Psalm 30) or first lines (*In te Domine speravi*) can serve as keys to the psalms and the learning associated with them. The long verses are practically prose, but are useful to someone who has not yet learned the plays, or needs to be reminded. It appears that his students had to memorize the couplets since many of the verses in Philippo Vadi's late-fifteenth century manual, paraphrase Fiore. This suggests that he quoted from memory rather than copying from a manuscript. Didactic poems with glosses are also central to the martial tradition associated with the name "Liechtenauer" which appeared in the fourteenth century. Nuremberg Hs. 3227a, a miscellany roughly contemporary with Fiore, contains no less than eighteen martial texts including a commentary on "Liechtenauer's" didactic poems.⁴³ This sudden profusion of texts is reminiscent of the multiplication of commentaries and glosses at the end of the eleventh century, and like those commentaries their contents probably reflect an older tradition of oral teaching.⁴⁴ It is likely that gentlemen learned didactic poems on combat for centuries before Fiore, but they were only written down with a gloss in the fifteenth century

To sum up, we have an elderly gentleman, on the edge of court and book culture who,

42 The verse in Vadi: "Son porta di fero piana terrene/ Che taglie e punte sempre si raffrena" (f 16v), as compared to Fiore's "Tuta porta di fero son la piana terrena/ Che taglie e punte sempre si raffrena" (PD f 18r) and "Son posta di croce cosi chiamata/ De taglie e punte non temo derata" (Vadi f 24r) against "Io son posta forte chiamada la crose/ Colpi di azza ne punte niente mi nose." (PD f 27r).

43 Nuremberg, Germanisches Nationalmuseum, Hs 3227a. The date of this text is still uncertain, but likely produced after 1389. See J. L. Forgeng, "Owning the Art: The German Fechtbuch Tradition," in *The Noble Art of the Sword*, ed., Tobias Capwell (Wallace Collection: London, 2012), 165–75.

44 Beryl Smalley, *The Study of the Bible in the Middle Ages*, 3rd ed. (Oxford: Blackwell, 1983), 45-52, Lesley Smith, *The Glossa Ordinaria: The Making of a Medieval Bible Commentary* (Leiden: Brill, 2009), 37, Carruthers 198.

about the year 1400, started to produce some unusual manuscripts. He was not, apparently, highly educated, but he was very clever man. He used the physical form of the page, textual structures, schematic diagrams, and verse to convey his lessons in a format that would be easy to memorize. I have only scratched the surface here, but would like to make three final points.

First: physical training in late medieval Europe was just as sophisticated and effective as scholarly training. Just as the ideal in studying a text was to be able to summon the appropriate words when needed, so the ideal in learning a martial art was to be able to perform the appropriate motion when needed. Therefore, the methods of book learning could be easily adapted to physical learning. If medieval memory and book learning are a useful model for studying one kind of medieval physical training, they might be useful for studying others such as sports or craft skills. Second: despite this sophistication and effectiveness, Fiore's art only survives by chance. For some reason, he chose to write about his art, and he had the education and the money to produce luxury manuscripts that were likely to survive to the twentieth century. Without the manuscripts, Fiore would be the sort of person who gets two lines in an especially thorough history of renaissance Undine. How many people like him are invisible to us because they did not produce luxury manuscripts?

Third: those of us interested in Fiore's work need help from a variety of specialities. For example, we know very little about the physical training which these manuals complemented. I know of some general comments that a gentleman should practice wrestling, fencing, riding, throwing, leaping, dancing, and lifting, but nothing more specific about physical training before sixteenth century.⁴⁵ That there was other physical training at all is only implicit, because the early

⁴⁵ The *locus classicus* for martial training, in the medieval period was the fourth century *Epitoma rei militaris* (or *de re militari*) of Flavius Vegetius Renatus which contains some instruction for training swordsmen, archers, and cavalry soldiers in book 1. It was extremely popular amongst medieval readers, translated and re-worked by Rbanus Maurus (780-856), in French by Christine de Pizan (1364-c1430) and middle-English verse in the

manuals were intended for grown men who already had very good physical skills. Their audience already knew how to train, and would get lessons in person anyways. We are incredibly lucky that Fiore chose to define most of his jargon.⁴⁶ I think that readers can imagine what a proper book or art historian might be able to discover about these manuscripts. Fiore's works can teach us about many areas of medieval life if we listen with the right ears.

anonymous *Knyghthode and Bataile* (c1459). Lists of knightly feats or advice on exercise are also useful, but these sources lay out a list of types of training, not a method for teaching.

⁴⁶ The few important terms which Fiore does not define, such as the contrast between *giocco largo* and *giocco stretto*, remain the subject of vigorous debate.