



Historical European Martial Arts in the spectrum of martial arts.

part 3: Im Schwert, Im Messer. A comparison between the arming sword, the Messer and the falchion: A scoping review of literature.

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Abstract.

Introduction: During the Middle Ages, 3 specific one-handed bladed weapons. Nowadays they would be called the arming sword, the messer and the falchion. These 3 weapons are very much alike and very slightly in form. They and are used today in Historical European Martial Arts. **Aim:** To investigate the use of the arming sword, messer and falchion in historical and modern context. **Methods:** Scoping narrative review of medieval and the first period of the early modern age (renaissance) treatises in the “German” style of fencing, mainly Liechtenauer Tradition combining and reviewing different one-handed bladed weapon (arming sword, messer and falchion) sources. **Results:** Several manuscripts mention the use of one-handed blade weapons (sources). Most of them refer to it with the word “Messer” (sources) but sometimes the word “s(ch)wert” is used, although “s(ch)wert” is mainly used for two-handed weapons. All 3 weapons can be used in combination with a buckler (sources). **Conclusion:** Several manuscripts mention the use of the one-handed sword and one-handed messer. The falchion is mainly depict in earlier sources and illuminated manuscripts where on other hand the use of the messer is more elaborate explained in later medieval and early modern period sources. All parts of the weapons are described in technical terms and use, although the advantaged and disadvantages of curvatures are explained in none of the sources. All 3 weapons can be used in single use or in combination with a buckler.

Keywords: Historical European Martial Arts, Historical Fencing, Arming sword, Messer, Falchion,

Introduction

In Western/ Central Europe during the Middle Ages and early modern period there were, amongst others, 3 specific one-handed bladed weapons that were used. Today they the first one would be called an arming sword, knightly sword or just “a sword”, the second the Messer or langes messer and the third one a falchion. In medieval and early modern sources, these weapons and “tools for fencing” would simply be called a Messer or Schwertt, a knife or sword. It was used in a variety of settings, from self-defense to sport or from recreation to warfare. A typology for arming sword blades was made by Oakeshot in 1991 and for Messers and falchions by Elmslie in 2015 (Grotkamp-Schepers et al., 2015). In present days, fencing with this type of weapons is done by many Historical European Martial Arts

(Hema) and Historical Fencing (HF) schools all over the world. Hema is a cluster of historical martial arts that originated in Europe. In modern days just as in the past it can be practiced on a recreational or competitive manner. (Gevaert, 2016; Weinman, 2006; Crowther, 2007; Green, 2001; Wauters, 2023a; Wauters, 2023b; Wauters, 2023c). They can be seen as the counterpart of many eastern martial arts such as the Japanese budo. Most popular weapon is the longsword, but interests in other weapons such as one-handed weapons such as the arming sword, Messer and falchion, saber a rapier are rising (Brooks, 2023; Wauters & van Tiggelen, 2016; Wauters, 2023a, 2023b). In an object-oriented sense, these 3 have some specific characteristics which make them different but also much alike. The question remains to what extent this very modern archaeological distinction would conform to distinctions made by the people originally using these objects and how these 3 weapons might be related to one another in a fencing-technical way.

Purpose

Research in the field of Hema still very limited but rising and necessary in historical and (sports)technical context. The purpose of this paper is to grant insight in the technical use of “medieval” (period 11th century-15th century) and first period of the “early modern era” (16th century) bladed, single-handed swords (arming sword, messer, or falchion).

Materials and methods

To make an attempt at answering this central question, we aimed to see both what fight books have to say about the distinction, as well as using an embodied approach to find out if there are functional differences. For the analysis of the data different databases were used for the collections of information about the manuscripts

- www.Wiktenauer.com
- www.Manuscriptminiatures.com
- <https://pubmed.ncbi.nlm.nih.gov/>
- www.researchgate.com

Furthermore, a review was made of available literature by analyzing different republished medieval manuscripts and/or research papers by prominent researchers, Wiktenauer database, pubmed data base, research gate databases or the snowball effect to other articles or journals.

For the analyzation and interpretation, sources between the 11th century and 16th century were used (inclusion criteria), and manuscripts that would be called from “the German tradition/Liechtenauer Tradition.

Unclear images and iconographs of illuminated and illustrated manuscripts were excluded, as well as literature prior to the 11th century or after the year 1599.

Embodied knowledge refers to the idea that some types of knowledge cannot be adequately transferred through writing (though not for lack of trying on the part of fight book authors). Some skills, such as fencing, are learned by doing them. In researching fight books, this notion has mostly led to the insight that fight books and actual fencing are two separate things; the book is simply an attempt, however inadequate, to capture fencing in writing. (Talaga, 2022) This means that, for instance, by using the practice of a martial as a source, it is possible to trace back a poorly documented lineage. (van Dijk & ter Mors, 2021) In short, by doing a martial art based on certain sources, it is possible to gain or corroborate knowledge not explicitly written down in those sources.

Results

A total of 26 manuscripts or parts of manuscripts that deal with the use of the Messer, the arming sword or the falchion were included. The results of the analysis of technical manuscripts and fight books are mentioned in table 1. The comparison between the 3 different types of weapons is illustrated in table 2. The results of the interpretation and analyzation of illuminated manuscripts are described in table 3 in the appendix.

Table 1: Manuscripts and treatises

Treatise	Reference to the weapon	T	I	Folio	Assumed weapon	C/U/D
Cod.44.a.8 (general teaching)	“Messer”	X		3r,10r,53r	One handed weapon	U
Cod.44.a.8 (Lignitzer teachings)	Swert	X		80r-80v	One handed weapon	U
Cod. I.6.4.°3 (general teachings)	“Messer”	X		1r,	One handed weapon	U
Cod.I.6.4.°3 (Lignitzer teachings)	Swert	X		84r-	One handed weapon	U
Cod. CGM 582 (Leckuchner)	Messer	X	X	The entire manuscript	Messer	C
Cod Pal Germ. 430 (Leckuchner)	Messer	X	X	The entire manuscript	Messer	C
Ms.26-232 (Durer) Messer teachings	Messer	X	X	74r-91v;96r-100v	Messer	C
Ms.26-232 (Durer)	Swert	X		87r	One handed weapon	U
Ms. 26-232 (Durer) Two-handed sword teachings	Swert	X		60r-66r;	Two handed sword	C
Paurenfeyndts (1515; 1538)	“Schwert”	X	X		Two handed sword	C
Paurenfeyndts (1515; 1538)	“Schwert”	X	X	20r; 55v	One handed sword	C
Paurenfeyndts (1515; 1538)	“Messer”	X	X	50-64 18r-23r 54-57	Messer	C
Ms. KK 5012 (P.Falkner)	“Messer”	X	X	18v-43v	Messer	C
Ms. KK 5012	“Schwert”	X	X	1r-18r	Two handed sword	C
Ms.Chart.A.558 (Talhofter)	No mention of the Messer					
Ms.XIX.17-3 (Talhofter)	No mention of the Messer					
Ms.Thott.290.2 (Talhofter)	“Im Messer	X	X	79r&v	Arming sword	D
Ms.Thott.290.2 (Talhofter)	No text		X	116v-123v	Arming sword and Messer in equal setting	D
Cod.icon. 394a (Talhofter)	“Swert” “Messer”	X	X	113r-122r	Aonarming sword and Messer in equal setting	D
Ms.78.A.15 (Talhofter)	“Messer”	X	X	54r&v	Messer with buckler	C
Ms. M.I.29 (Speyer)	Schwert	X		5r-7r	Two handed sword	C
Ms. M.I.29 (Speyer)	Messer	X		5r-7r	One handed sword, either arming sword, Messer of Falchion	U
Fecht1 (FKN. Ms. I.33)	Gladius	X	X		Arming sword	C
Ms. CI 23843	-		X		Arming sword	C
Ms. B. 26	-		X		Arming sword	C

Libr.Pict.a.83	-			Arming sword or long grip sword	D
Cod. Guelf. 78.2.Aug.2°	-		X	Arming sword	
CGM 1507 (P. Kal)	-		X	Long gripped sword in single hand use with a buckler	D
Ms KK 5126 (P.Kal)	-		X	Long gripped sword in single hand use with a buckler	D
Ms 1825 (P.Kal)	-		X	Long gripped sword in single hand use with a buckler	D
T= TEXT; I= ILLUSTRATION; C= CLEAR REFERENCE; U= UNCLEAR REFERENCE; D=DUBIOUS.					

The weapons

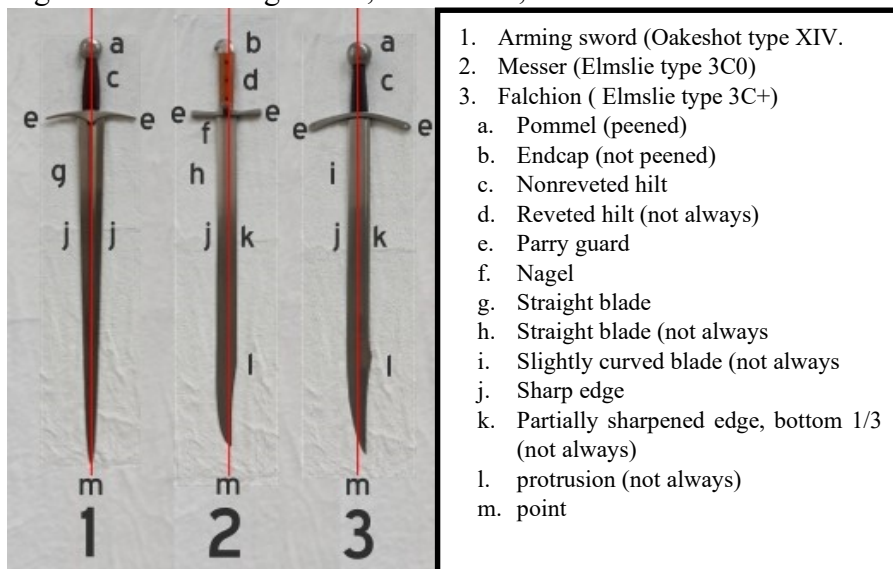
These 3 weapons have many things in common with each other, but there are also some differences. These similarities and differences are shown in figure 1 and table 3. The differences are not fixed though. There can be crossovers between the different types of weapons.

The **arming sword** (Fig. 1.1) is generally a one-handed sword, with a straight double-edged blade, a point, some type of parrying guard, a hilt, and some type of pommel. Regarding the form, length, width, et cet. there can be many variations, as well as in the form of the pommel, but the main feature is the specific formation of the hilt, the full presence of both sharp and straight edges and the peened pommel.

Secondly, there is the **Messer** (Fig1.2), also a one-handed (with exception of Kriegs Messers) bladed and edged weapon, with usually one sharp edge and, if present, only the upper part (usually 1/3th) of the second/short edge. The edge can have one or more protrusions but not always. Simple straight edges do occur. Guards in the plain of the edge can be present, although some specimens have quite short guards. Further there is the lateral guard or the Nagel, that is usually, but not always peened through the thang or the shoulder of the blade. For right or left handed fencers the Nagel is placed on respectively the right or left side. The guard also can have a knuckle bow, although this feature is not present in every type. Many types have riveted handles. The handles on this type of weapon, unlike those of the arming sword or falchion, can be elongated in order to facilitate hooking techniques. Blades can be straight, curved forwards or backward to a certain degree. The pommel is less present and less likely to be peened.

Finally, there is the **Falchion**. This type of weapon seems to have features of both the Messer and the Arming sword. It is a one-handed bladed and edged weapon, although two handed versions do exist. It usually has one sharp edge and, if present, only the upper part of the second/short edge (usually 1/3th). The edge can have one or more protrusions but not always. Simple straight edges do occur. Parrying guards are usually present and longer than on the Messer. Usually, especially early versions do not have any type of lateral guard or Nagel, although later versions tended to develop more complex hilts. The guard also can have a knuckle bow, although this feature is not present in every type. The handle is rarely riveted. Blades can be straight, curved forwards or backward to a certain degree. The pommel is equal present to the arming sword and quite often likely to be peened. There are other types of falchions such as the umbrella or Morgen/Maciejowski Bible Falchion (Ms M. 638, f 14v) with slightly other aspects. This type of falchion is disregarded in our analysis due to a completely other physical form and appearance.

Figure 1: The arming sword, the messer, and the falchion



The differences between these weapons have to be taken not too strongly since weapons from the early (medieval period) as well as later (early modern period) could have features of any of these types making hybrid weapons.

Figure 2: Elmslie typology of one handed single edged medieval and early modern bladed weapons, messers and falchions (Grotkamp-Schepers et al., 2015)

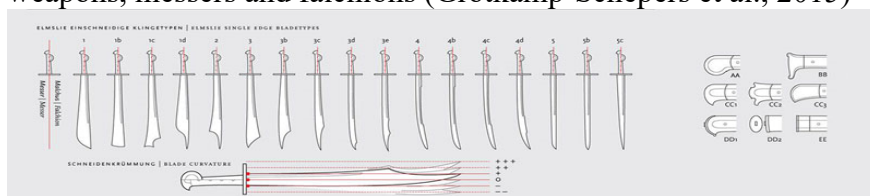


Table 2: comparison between the arming sword, the Messer and the falchion.

Comparison	Arming sword	Messer	Falchion
Arming sword		As: Lacks Nagel A.S: Lacks curves (although Messers can be straight) A.S.: less likely to have complex hilts and knuckle bows	A.S: Lacks curves (although Falchions can be straight) A.S.: less likely to have complex hilts and knuckle bows
Messer	M: Back edge only partly (1/3) sharp. M: More often rivetted heft.		M: Lacks peened pommel M: usually rivetted hilt.
Falchion	F: Back edge only partly (1/3) sharp.	F: Lacks Nagel F: usually arming sword like hilt.	

Discussion

This is in our knowledge one of the first studies that compares the form to function. That means a comparison can be made between the objects and the actual between use of the arming sword, Messer and Falchion in regarding to different technical sources, treatises and manuscripts in the Middle Ages and early modern period. Comparisons can be made in terms of the sources or fight books, form of the weapon and eventually it can be used in martial arts and combat.

Fight Books

This/these type(s) of weapon(s) is/are used in many systems of Historical European Martial Arts although it is also not always specifically mentioned which type of weapon is referred to. In the “**Lichtenauer** treatises” (a.o. **Ms 3227a, Cod.44.a.8, Cod.I.6.4.°3**) are known for its fencing techniques with different weapons, either unarmed, dagger, one-handed sword, longsword and spear. The treatises refer in the general teachings to a one-handed weapon by using the word “Messer” and do not specifically mention the one-handed “arming sword” or “falchion”. Usually the reference of “Swert” or “Schwert” refers to what would be called a longsword in present days. Cod. 3227a combines the teachings of the longsword, the arming sword with buckler, the (single) Messer, dagger and spear. The parts of the arming sword and the messer were not completed though. In the Messer section (84r&v) it is stated that the principles of the “Swert” are also applicable to the “Messer” (*Wer du mit dem langen messser wil fechten learn wen aus dem langen Messer is dat swert genomen und funden, der sal von ersten merken und Wissen das daz fundament un dy principa, dy do gehoren scum swerte, dy gehoren auch czum Messer*) (Chidester & Hagedorn, 2021).

Lignitzer teachings (1452-1480 CE) appears in different manuscripts (a.o Ms.Dresd.C.487, Cod.44.a.8 , Cod.I.6.4.°3, Ms.KK5126, and others). with teachings (a.o.) about the use of the sword with buckler. There are 5 plays in Ms KK 5126, 6 plays in Cod.44.a.8 and ms Dresd.C.487, and 3 plays in Cod I.6.4.3. It seems the records of his teachings are made after his death. In every of the plays the terminology of the longsword teachings are used (Oberhau, Unterhau, Streichen, Winden, Twerhau) and some of the principles Duplieren, Absetzen, Nachreisen, Durchwechsel,...). He uses the word “Swert”(Sword eng.). Since it is mentioned this section is about the use of the buckler, it is probable that it is about a one-handed sword. On the other hand, the **Paulus Kal manuscripts** CGM 1507folio 52V-56R (“CGM 1507”, 2023), Ms.1825, folio 15R-17R, (“Ms 1825”, 2023), and codex Libr.Pict.A.83,folio 33R-36R, attributed to Durer (“Berlin Picture Book Libr.Pict.A.83”, 2023) have sections about the use of the sword with buckler that seem to use a double-edged straight sword with a rather long grip. This gives indistinctness, since in the general teachings in Cod.44.a.8 and Cod.I.6.4°3 the word Schwert is used for two handed weapons and Messer for one-handed weapons. The same modus operandi is used in Ms.M.I. 29 (Chidester & Hagedorn, 2021; “Codex Speyer”, 2023; Hagedorn, 2008; Hagedorn, 2017; “Ms Dresd.c.487”, 2023; “Ms KK5126”, 2023).

Johannes **Leckuchner** teaches in his manuscripts CGM 582 (1482 CE), Cod.Pal.Germ.430(1478 CE) about the use of the single Messer. It is more clear about which type of weapon is used. He repeatedly mentions the use of the ‘Messer’ and the iconography in the manuscripts clearly shows a one-handed weapon, with what seems to be a blade with an edge only on one side, a knife-like riveted hilt, clear presence and mentioning of the lateral guard or Nagel. His teaching on the other hand are like the

longsword teachings in Ms.3227a, Cod.44.a.8 and Cod.I.6.4.°3. Some parts are almost exact copies, with minor adaptations (changing the word “Schwert” or “Swert” to “Messer”). Some other technical aspects are either more examples of the same concept, or sometimes entirely new techniques but still based on the same fundamental principles. So it seems to be the technical aspects of the longsword are largely copied for the one-handed sword. After his death (1482 CE) some of his teachings are incorporated in other manuscripts such as in Ms.M.I.29 (1491 CE) and Ms.26-232 (1512 CE) Ms.E.1939.65.354 (1533 CE) (Forgeng, 2015).

Ms.26-232 aka Durers Fechtbuch (1512 CE) seems to be more versatile in his teachings. Although he might not have been a fencer (debatable), the illustrations by his hand are very elaborate. There are chapters that deal with Ringen techniques, longsword, dagger parts, Messer, multiple opponents, mixed weapons as well as general teachings. In the messer section, the knife-like hilt and lateral guard or Nagel can clearly be observed. The teachings are highly comparable with those of Leckuchner (CGM 582, Cod. Pal. Germ. 430), Codex Wallerstein (Cod.6.4°2) and Liechtenauer (Ms.3227a, Cod.44.a.8, Cod.I.6.4.°3). The extra remarque is that this manuscript shows an image of a Messer and buckler combined use (Folio 85R, Fig 3) whereas most other manuscripts dealing with the buckler (Ms.Cl.23842, Ms.B.26, Fecht 1) are in conjunction with an arming sword. This is consistent with the teachings of Talhoffer that suggest that the buckler can be used with either one of these weapons. All the one-handed bladed weapons in Ms.26-232 seems to be Messers rather than falchions. The Messer section mainly use the word “Messer” to describe the weapon although the word “swert” is used. It is not clear though whether a one handed or two handed weapon is meant or intended (Hagedorn, 2021; "Ms 26-232", 2023) .

Codex **Wallerstein** (Cod.I.6.4°2, ca. 1420s/1470s CE.) is a manuscript from the hands of unknown authors and compiled by P.H. Mair in 1556. It consists of Longsword, Messer, dagger and unarmed wrestling techniques. In the Messer section a one-handed weapon with a riveted hilt, endcap, and curved blade is illustrated. Some of them seems to have straight blades while other are more curved. All of them seem to have a clipped back point and protrusion on the end of the blade. It is not possible to say whether the back edge would have been sharp. Most of them seem to have a lateral guard or Nagel, but some illustrations are unclear on that part. The manuscript seems to refer to the “Messer” in text (Welle, 2014).

Then there are the works of Peter **Falkner** (+1460-1506 CE). In codex MS KK 5012 (1495 CE.) different weapons are combined (longsword, Messer, spear, a.o.). The teachings seem very comparable to the teachings of Liechtenauer, Leckuchner and Durer. In the Messer section suggest a knife-like hilt construction, end cap and a knuckle bow. The word “Messer” is used in the Messer section to refer to the one-handed weapon that is used Ms.Cl.23842 might also be one of his works although his is not certain. In this work both the Messer (single) and the arming sword with buckler are illustrated but it lacks any explanations ("Peter Falkner", 2023; "Ms KK 5012", 2023; "Cluney Fechtbuch Cl 23842" , 2023).

Hans Talhoffer also seems to combine the single Messer, single arming sword, the arming sword with buckler and the Messer with buckler in his teachings. In his 1467 version (Cod.icon. 394a) he teaches the use of the single Messer, the arming sword with the buckler a. Mostly, he refers to both weapons as being the “Messer but once the word “Swert” is used as a reference to the arming sword (plate 237). It is unclear whether it is a scribal error or an intended reference. Ms. Thott.290.2° shows iconographies and images of the Arming

sword and the Messer both in conjunction with a buckler, yet there is no adjoined text. Besides the single use and the conjunction with the buckler, Talhoffer also seems to combine it with the great dueling shield and mounted combat. In the section of the dueling shield it is unclear to determine whether it is a one-handed sword or rather a long sword since the length of the grip seems to vary. It is not clear whether this was done on purpose or not. The weapon that is referred to in text is always the “schwert” or “swert” in this case, whether it has a long grip and blade (longsword) or short grip and blade (arming sword). There are no messers depicted in this setting. ("Ms Thott.290.2°", 2023; "Cod.Icon.394a", 2023; "Talhoffer", 2023; Rector, 2014)

Ms.M.I.29 (aka Cod. Speyer, 1494 CE) combines different teachings of Liechtenauer, Leckuchner and Lignitzer. Magister Andre, who might be Andreas Lignitzer (Folio 5r-7r) compares the use of the “Schwert” and the “Messer”. It is assumed the Schwert refers to the longsword since in text there is referred to both hands and arms holding the sword. The word Messer seems to refer to a one-handed bladed weapon, an Arming sword, Messer of Falchion. In this section the different poses, postures and strikes are compared with each other. Basically, it explains the same techniques that can be executed with the (long) sword as well as with the (shorter) Messer but with different names and terminology. Folio 10-44 are about the use of the longsword where folio 46-117 are about the Messer. Other parts of the manuscript are about mounted combat, grappling and others ("Codex Speyer", 2023).

André Paurenfeyndt's *Ergründung Ritterlicher Kunst der Fechterey* (1516 CE) is an often-overlooked fight book that nevertheless would prove to be very influential for later fencing literature. It has a section on Messer fencing, but at the same time shows wooden dussacks on the illustration. In the preface to this chapter, Paurenfeyndt mentions that the techniques for Messer are a solid base for using any other weapon in one hand such as there are the arming sword and the falchion ("Paurenfeyndt", 2023; "Ergründung Ritterlicher Kunst der Fechterey", 2023).

Then there is the famous **Ms. I.33**, (FECHT1, Tower Fechtbuch, Walpurgis Fechtbuch, ao, +-1320 CE). This one clearly depicts the use of the arming sword in conjunction with the buckler. This manuscript, although it has similar technical nomenclature such as Langort and the Stich. Also, the postures seem to be comparable like Custodia 2,3 & 4 that resemble Vom Tag Custodia 1 & 5 that resemble Nebenhut, rare 5th might be the equivalent of Phlug, and Krucke that could be compared somehow to the Oberhangen positions. Some technical aspects also might be present and comparable. Yet it is important to notice that there is no linked to the Liechtenauer System or Liechtenauer itself by any lineage, but they might be related in a technical way. There is much debate going on whether this is actually the case (Forgeng, 2018).

Other sources like **Ms 5126** (P.Kal), **CGM 1507** (P. Kal), **Ms 1825** (P.Kal), **Cod.Guelf.78.2.Aug.2°** (anonymous author(s)), **Liber. Pict. A.83** (Anonymous author(s), possibly A. Durer), **Ms.Cl.23842** (anonymous author(s), possible P. Falkner) and **Ms. B.26** (anonymous author(s)) depict the use the buckler only in conjunction with a sword without lateral guard or Nagel either a short-hilted arming sword or with elongated grip (long sword).

Numerous **illuminated manuscripts** contain iconographies and miniatures of the use of the

Arming sword, Messer, and the falchion. This can be either single use, sword and buckler, in mounted combat or in combination with a larger shield, either round, teardrop shaped, kite shaped, or other. Most icons show a combination of use of different weapons and weapon sets. Often different images in the same manuscript show the same composition and form either with the same or different weapons. These sources lack any technical explanation and have to be interpreted with caution. It is also quite impossible to link them to the Liechtenauer treatises by technical explanation or lineages.

Form and function

From the results, it is clear that in terms of functional form, the arming sword, the messer and the falchion are quite comparable. All 3 weapons are one-handed bladed weapons with some type of counterweight and quillons. They serve a similar function in cutting, slicing and trusting. The investigated manuscripts all highlight the use of any of the parts of the weapon. Parrying guards can be used for controlling the opponent's blade, the point can be used for trusting, the sharp edges for cutting and slicing. The rather short grip and blade favor one-handed use, although some messers can have elongated grips in order to facilitate hooking techniques. The pommel or end cap can serve as a counterweight for the weight of the blade, to fixate the handle components, or prevent the sword from sliding out of the hand. Regarding these similarities their function becomes comparable. The main difference can be the presence of the Nagel that offers protection and blade control in angles outside of the line of the edges, curvatures of the blade that might facilitate cutting properties and whether or not the short edge is sharpened. Regarding curvatures, none of the investigated manuscripts and treatises do not give any resolution about the advantages and limitations of straight blades, forward curved blades, or backwards curved blades. Curved swords, either forward curved or backwards curved have been known to coexist with straight swords for thousands of years even up to the bronze and iron age such as the ancient Egyptian khopesh (Barros, 2018; Wade, 2017), the ancient Greek kopis (Cuskun, 2017; Deutscher et al., 2015) the Iberian falcata (Cuskun, 2017; Deutscher et al., 2015) and many others. The difference in curvature might have mechanical advantages and disadvantages regarding the physics mechanics, center of balance/mass, pressure and resistance upon impact, angulations, and etc. (Cuskun, 2017; Deutscher et al., 2015; Grotkamp-Schepers et al., 2015; Hamill & Knutzen, 2009, Ozkaya & Nordin, 1999)

These results suggest that the Messer is more often depicted as a single weapon and the arming sword is more often used in conjunction with a buckler. This might be due to the fact that the lateral guard or Nagel can interfere with the buckler and the Nagel in itself serves a protective function for the wielders hand. Yet works as those of Talhoffer, Durer and others show that this is not always the case and these weapons can be interchanged with one another.

The question why functionally very similar weapons had such different forms of construction and appearance probably has a lot to do with the production processes involved. In Southern German cities, regulations laid down by guilds or the town council would dictate the production and form of swords and knives, meaning that weapons produced by sword makers and knifemakers may have had similar functions in mind, but differed radically in form (Keller 1981). This topic warrants a lot more research, but currently falls outside of the scope of this paper.

Martial Arts

Fight book authors can't seem to fully agree on whether they are teaching the use of the arming sword, or the messer. Even some logical distinctions like arming sword belonging to the buckler and the single weapon being the messer will not hold up closer scrutiny. This begs the question whether the difference between these two weapons really mattered all that much, or that, in fight books at least, the wording of "Messer" and "sword" was just a matter of convention. To test this latter hypothesis, 10 free fencing bouts with Messers, arming swords and bucklers, were done. The first bout would be with Messer versus Messer. The second involved one fencer taking an arming sword, with the other seeing to what extent this changed their ability to hit without being hit. A further bout involved one fencer having a buckler, in order to test whether the buckler often seen in combination with an arming sword would require a complete change of fencing style. Finally, both fencers had a buckler, but one was using a Messer, and the other an arming sword.

The results were pretty surprising, as the fighting style did not change much over the course of different bouts. The first bout set a baseline, both for the style of movement both fencers would be exhibiting, as well as the number of hits that would take place. This did not change significantly when one fencer switched to an arming sword. Next, one fencer having a buckler while the other didn't of course had its effect on hit ratios, but it wasn't a complete turnaround as expected and the style of movement remained remarkably consistent. Finally, the difference between arming sword and buckler and Messer and buckler were negligible. In the experience of the authors, while fencing the differences between Messer and arming sword are too small to effectively consider them separate weapon types.

Limitations

Of course, as any other research, there are some limitations. Primarily, there is the time aspect. The earliest sources (illuminated manuscripts) that were used date from the 12th century whereas later sources date to the 16th century. So, there is almost 400 years between them. Although the same system (Germanic/Liechtenauer system. That seems to keep following the same rules (1300s -1500s), subtle differences could be present that are lost in time. Although already very elaborate, the databases are limited. On the date of the research, the Manuscript-miniatures database contained miniatures to the 1450s which limited the search results.

Conclusion

Despite the limitations it can be said that the arming sword, messer and falchion are 3 varieties that belong to the same type and family of one-handed swordlike/bladed weapons. They all can be one-handed or two-handed, used singly, in conjunction with a buckler or shield or in mounted combat.

It seems clear that the arming-sword has a constant presence in the teachings, mainly, but not always in conjunction with the buckler. It lacks deep and profound explanation in the treatises.

The messer is far more deeply explained in different teachings. Often, but not always is a little shorter than the arming sword, and can have, but does not always, seem to have a curved blade with a "lateral point". It almost always seems to have a lateral guard (Nagel) and can have a knuckle bow. More often this type of sword is depicted in single-use but it can be used alongside with a buckler.

The Falchion seems to be a hybrid between the Arming sword and the Messer. It seems that the Falchion was more present in the "earlier" sources, manuscripts and icons (11th to 14th

century) whereas the Messer seems to be more popular in the “later” sources (14th to 16th century). To date there are no known sources that explain specifically with this type of weapon. The reason might be that the modern reader and researcher distinguishes this weapon from the previous 2, but that the masters incorporated it in their teachings by just referring to the “Schwert” or “Messer”.

It is plausible that the early fencing masters referred to either of the 3 weapons with the word “Messer” or “Swert/Schwert” and that making a very clear distinction between the three weapons is simply a modern invention.

Regarding the curvature of a blade, the investigated treatises do not give any resolution about the advantages and limitations between straight, forward curved or backward curved blades. More research is necessary on this topic.

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Conflict of interests

The author declares no conflict of interest.

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Appendix

Table 3 the depiction of the arming sword, Messer and falchion in illuminated manuscripts

Single arming sword	Single Messer	Single falchion	Combined (different weapons in one miniature)
•	•	<ul style="list-style-type: none"> • R. BM Ms. 217 M, f94r(1275-1325) • BNF L. 15158 f55v,58v (1289) • Morgan M.751 f95r(1300-1310) • MET 68.174, f8r(1300) • BL R. 2 B VII f36v,37, (1310-1320) • BL Add. 49622, f21r,39r,(1310-1325) • Bl Ya.Th. 13. F89,191v(1325-1350) • Ch. Ch. Ms 92 f66r(1326-1327) • BNF L. 4939 f60r(1329-1343) • Morgan M.516, 183r(1390-1399) 	<ul style="list-style-type: none"> • M.730, F39(1246-1250) • BNF Fr. 105; f89v,175v,187f,194,200,202,216,218, 220,222v,223v,225,234(1300-1350) • BNF Fr.152, f359,368(1300-1325) • KA 20 Sp. His., 42r43,,50v, 54v, 54r, (1325-1335) • BNF Fr. 167f61,f6v10v66v,68v,68r,52r,56v,70v, 75,80r,81v,86v, 91r,v,103r,94v, 95v, 98v,188r, 190r, 217r, 2265, 231v, 233v, 235r, 267,r, 272r,277r, 308v.(1345-1355) • ONB Han. Cod. 2915,40r,55r(1390-1400)
Armsword + Buckler	Messer + buckler	Falchion + buckler	Combined (different weapons in one miniature)
<ul style="list-style-type: none"> • B. Ms.229 Art. Rom.f209r(1275-1300) • BL Add. 42130, f49r(1320-1340) 	•	<ul style="list-style-type: none"> • BNF Fr. 2630, f111v(1250) • BL Add. 17341, f71r(1275-1300) • BNF Fr. 95, f32r(1280-1290) • BNF L. 15158 f55v,58v (1289) • BL St. 17, 239r(1300-1325) • BL R. 2 B VII f267 (1310-1320) • BL Add. 49622, f75r,170r((1310-1325) • BL Add. 42130, f49r(1320-1340) • Ch. Ch. Ms 92 f69r(1326-1327) • BL Add. 47682 f39r(1327-1328) • Morgan M.516, 261,293r(1390-1399) 	<ul style="list-style-type: none"> • BNF Fr. 2630, ff198,210(1250) • BNF Fr. 786, f13v, 114v,(1275-1300) • BL R. 2 B VII f36v,37,55v,140v (1310-1320) • BL Add. 42130, f49r, 162v, (1320-1340) • KA 20 Sp. His., 42r43,,50v, 54v, 54r, (1325-1335) • BNF Fr. 167f61r(1345-1355)
Armsword + Shield	Messer + shield	Falchion + shield	Combined (different weapons in one miniature)
•	•	<ul style="list-style-type: none"> • B. Ms.229 Art. Rom.f31r(1275-1300) • BL R. 2 B VII f133v,135r, (1310-1320) • Ch. Ch. Ms 92 f69r(1326-1327) 	<ul style="list-style-type: none"> • BL R. 10 E IV, f304v(1275-1325) • BNF Fr. 786, f13v, 114v,(1275-1300) • BNF Fr. 105; f89v,175v,187f,194,200,202,216,218, 220,222v,223v,225,234(1300-1350) • KA 20 Sp. His., 42r43,,50v, 54v, 54r, (1325-1335) • BNF Fr. 167f61 f10v,61v,65v, 68v, 68r,49v,79r, 80r, 81r, 131v, 233v287(1345-1355). • ONB Han. Cod. 2915,51v,59r(1390-1400)
Legenda: Manuscript name, Folio numbe (year of creation)			