the Fight-Book from 1459 AD by Hans Talhoffer



transcription translation commentary by Jeffrey Hull

from Manuscript Thott 290 2° made in Bayern in 1459 AD now at Det Kongelige Bibliotek in Copenhagen Denmark

Fight Earnestly

The *Fechtbuch* (Fight-Book) from 1459 AD by Hans Talhoffer is truly an uncanny work. In this edition of his work, the fight-master opens a window for us to his world. He shares knowledge from his own field of expertise – the martial arts of Renaissance Europe. Yet he also presents works from masters of the same and other fields – *Zwaintzig Ussrichtung* (Twenty Directives) by fight-master Johann Liechtenauer; *Bellifortis* (Battle Force) by military engineer Conrad Kyeser; and *Hie Lert* (Here Teaches) by astrologer-physiologist Jud Ebreesch. By text and by pictures, numerous diverse and lively scenes are shown that are sometimes quite bizarre – vigorous fighting lessons, for judicial dueling and for battle; war-machines, strange inventions and secret formulas; and treatises upon cosmology and physiology.

In this rich personal edition of his work, Talhoffer deals with a wide variety of things, from the lofty to the earthy. He has something to offer everyone – whether fighter, artist, botanist, philologist, herbalist, chemist, metalsmith, carpenter, jurist, kinesiologist, astronomer, culinarian, theologian, costumer, physician or otherwise.

Although fighting-arts are the focus of Talhoffer's book, it is really something of a kaleidoscopic view of the interests and pursuits of the Renaissance German warrior, inclusive of manifold things meaningful to his life. However atavistic or unreal his world may be deemed now, it did truly exist and held wonder and honour worthy of our admiration.

The diversity of this book stands witness to Hans Talhoffer as one of the dynamic personalities of his generation – one whom we must deem was a true Renaissance Man.

All imagery herein is from the 1459-Thott edition, courtesy of the original 15th Century manuscript held by sterwardship of Det Kongelige Bibliotek in Copenhagen Denmark. I made this PDF to present that work here for the free learning of all sincerely interested persons. It may be viewed via personal computer, saved onto CDR and/or printed into hard-copy, allowing complete archiving of the document in whatever quality format one may choose – with the understanding that it is meant for noncommercial and nonprofit educational usage. The imagery herein is colour-corrected; and where needed in four folios, the action of the artwork is conceptually restored. The original uncorrected DKB facsimile still exists online. DKB is found in the Web at this URL: http://www.kb.dk

So first is the facsimile of the original book itself, which lets you see the words and pictures for yourself. Next are my transcription of its German and my translation of that into English – the transcription gives you direct comprehensible reference to the original German wording, while the translation gives you the first and only rendering of that wording into English. Lastly is my interpretive commentary, which helps you better understand many aspects of the words and pictures.

So now let us begin. ~

Jeffrey Hull Kansas Ascension Day – May 2007

Imaging – Scale about 1 to 1.7 of Facsimile to Original – Colour-Corrected – Conceptually Restored

Design, Colour-Correction and Typeset by Ragnarok Works – Fonting in Times New Roman

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Warning: The combative moves of the fight-book are hazardous, maiming and/or deadly. Any martial arts practice thereof must be done wisely and carefully. Such is always at one's own risk. Also know that the various chemical & herbal mixtures, as well as the war-machinery, are all dangerous. Be warned!

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The good man must speak up for the truth – even when it seems obvious and happens often... ~ Hans Talhoffer ~

Context

The Fight-Master

Here is a short biography of Fight-Master Hans Talhoffer, as can best be gathered from reputable sources: He was born circa 1420 somewhere in Alemannia, perhaps to a family of humble origins, as his surname means something like "Dale-Farmer". However, since there are numerous place-names of "Thal" and "Tal" throughout Germany, Austria and Switzerland, then relation to one of those specific places is quite possible. Talhoffer was a German Catholic, and must have gotten training in the ways of the Christian European knight. In 1435, it seems that as a teenager he made affidavit leading to legal decision by Kaiser Sigismund to imprison a Nürnberger noble. With the advent of his 1443-Gothaer edition, Talhoffer demonstrated his range of martial knowledge which made clear his superior ability as a progressing fighter and eventual fight-master (Maister). Circa 1443-1455, Talhoffer probably journeyed and made his way as a kind of fight-master-errant, going throughout Swabia, Franconia, Bavaria and Switzerland. During that time, it seems he was personal trainer to Leutold von Königsegg and master-of-arms to his royal army. All the while, he made fight-book editions for himself and for patrons like Von Königsegg and Brüder vom Stain. The Staatsarchiv Zürich of 1454 records that Talhoffer was chartered to teach fencing near its town-hall; consequently, he was obliged to become the staff-bearing umpire at duels between citizenry combatants, including one which ended up in a brawl involving him. It is unknown whether he had any wife and children – although courting beautiful women (Schön frawen hofiren) was something he encouraged a man to do in his 1450-Ambraser edition. By the time of finishing his 1459-Thott edition, it seems Talhoffer had the means to run his own permanent training-hall with its required helpers and consistent patronage. Eventually, he would make his final 1467-Gothaer edition for patron Eberhardt im Barte von Württemberg. He is mentioned by the Chronik of the Brotherhood of Virgin Mary & Saint Mark as still alive in 1482. He must have died by circa 1490, likely from old age.

Talhoffer authored this *Fechtbuch* (1459-Thott) and five other editions between 1443 and 1467; while ten copies, circa 1500-1850, appeared after his passing; which thus totals sixteen versions – see Chart 1. This 1459-Thott edition was not meant to be a step-by-step manual for the beginning fencer, but rather a handbook summarising the master's advanced fight-lore for the senior fighter, sergeant or marshal – or perhaps even as his own private edition (more of that later). His fight-books present mostly single-combat stiuations, really for duel-fighting or self-defence, rather than being drill-books for mass-armies or sporting manuals for civilian fencers. However, his techniques and tactics would behoove a man on the battlefield. Indeed, Talhoffer knew what he was doing regarding the martial arts – because what he taught was what worked. The idea that the broad scope of knowledge covered by 1459-Thott proves Talhoffer progressed his learning beyond his own vocation is demonstrably correct. Arguably he shared sentiment with Kyeser's *Epichedeon* that the liberal arts were gifts from God.

Talhoffer's teachings for the longsword (*langes schwert / schwert*) and other combatives are in the tradition of Johann Liechtenauer (1350-1420), the German High Master of fighting arts – proof of which is clearly found in folios 2r-5v. That specific tradition of *Kunst des Fechtens* (art of fighting / martial arts) was probably into its third generation by 1459. Talhoffer never says who was his own personal master, the one who taught him fighting.

Some modifying of the "strict" Liechtenauer tradition by Hans Talhoffer tends to mark him as a misfit or lone-wolf compared to other masters. A survey of Talhoffer's method does reveal differences compared to his peers. Yet it is doubtless from the combined witness of 1443-Gothaer, 1450-Ambraser and 1459-Thott, that Talhoffer understood the longsword bloszfechten (unarmoured fighting), roszfechten (horse-fighting), kampffechten (duel-fighting) and thus harnischfechten & kurzes schwert (armoured fighting & half-sword) of Johann Liechtenauer, especially as he presents his version of the merkverse (mark-verses) for those first three arts in his 1443-Gothaer. Thus Talhoffer's own master, whoever that was, must have been in the tradition of Liechtenauer. Perhaps Talhoffer got further influence from Sigmund Ringeck (unarmoured longsword & half-sword); which in turn may have been the same that influenced both him and Peter von Danzig (unarmoured longsword, horse and/or duel-fighting). Likewise Talhoffer must also have been unavoidably familiar with the ringen (wrestling) of Liechtenauer; and it is certain from text lessons in 1443-Gothaer that he knew the ringen of Ott the Jew prior to similar teaching by Von Danzig, although each may have gained such coeval. Plus some scholars assert that Talhoffer was influenced by Hanko Döbringer (longsword) and Andre Lignitzer (half-sword, sword & buckler). All in all, it leads back to Liechtenauer.

However, the one thing that I think most distinguishes the martial method of Talhoffer is that he may have been striving to evolve and teach unarmoured fighting and armoured fighting as a combative continuum, perhaps even as a combative synthesis. This has become apparent to me in thoroughly surveying the chronology and morphology of his works over the span of his lifetime. His 1459-Thott edition seems to be somewhere well-into that proposed evolution.

Talhoffer's Teutonic environment – Swabia, Bavaria, Franconia – was one of high mountains, green forests and fresh waters. Those lands were all part of the so-called Holy Roman Empire (really the Royal German Alliance), which often were involved in warring with their fellow states and neighbors circa 1200-1500. Indeed, the year after 1443-Gothaer was done, the Pope-to-be Pius II was disturbed to observe just how armed and dangerous Germans tended to be at that time, whether noble or burgher. It seems that Germany was something of a giant armed camp, where a man trained to fight and stay alive by winning, whether that happened within dueling-barriers, burgh-street or battlefield. War was usually fought to keep land, wealth and power – or to take land, wealth and power. The German armies familiar to Talhoffer were often a mix of feudal, mercenary and freeman. Such armies could arise as imperial, kingly or princely forces; civic or league militias; holy or secular orders; episcopal retinues; or even bandit gangs. Moreover, there was the daily individual arming done by hunters, farmers, craftsmen, merchants and others. In that varied chaotic context, the fight that Talhoffer taught was for war and duel and not for sport.

Hans Talhoffer was certainly master to students who were military nobility, yet some probably were civilian burghers and craftsmen as well. However, this did not change the martiality of his teaching, as arguably it did to that of later masters like Joachim Meyer, Paulus Mair and Hans Sutor (ranging circa 1550-1630). Indeed, even as legal servitude waned in Germany during the 15th Century, military service by its knighthood lasted during that time, and perhaps even waxed due to economic flux. Talhoffer may have trained members of some knightly orders, since 1443-Gothaer indicates that he was friendly with the Brothers of Saint George (an order founded by Swabian houses during the Appenzell War, 1403-11) and the Brothers of Our Lady (of which little is presently known). Edition 1459-Thott may indicate the same regarding the Brotherhood of Virgin Mary & Saint Mark (it was probably a fencing guild) (101v); and also does show a war-wagon flying the flag of Saint George (15v).

However, it needs to be said that Talhoffer taught his lessons to those who truly deserve to be called German chivalry. By "chivalry" I mean simply and clearly the European warriors who were horse-riders, who could and did fight each other both upon horse and upon foot, during the Medieval and Renaissance. Thus that is what you shall find in his book – the words of a German fight-master teaching German knights fighting lore, thus how the may win when dueling mortally with other knights. It is the original chivalry – the one having prowess (*kraft*) for its primary quality.

Talhoffer's wanderlust gives one the impression of a man living his life as a knight-errant, akin to a fine artist going abroad (like Dürer), traveling to earn and learn. This is interesting as during his time the reward to knights for service in Germany, as opposed to coeval England and France, tended to be based less upon money and more upon land, although that and much else were soon to change during the 16th Century.

It is commonly yet unprovenly touted that Paulus Kal, another German fight-master, may have shared rivalry with, or even grudge against, Hans Talhoffer, for whatever reason. Indeed, it is true that Talhoffer's name is glaringly absent from the list of masters in the *Lichtenawer geselschafft* at the beginning of Kal's fight-book of 1462 – which seems odd since Kal must have known Talhoffer, especially considering that noticeable parts of that Kal (1462) seem so similar to parts of Talhoffer's editions 1443-Gothaer, 1450-Ambraser and/or 1459-Thott. Yet currently we have no positive evidence either way for sake of logical argument beyond any of the aforesaid. Perhaps it is best just to acknowledge that each master deserves esteem and consideration for his own valid legacy.

Maybe the nature of Talhoffer's life at given times over its course may be gleaned from the perceptible mood of his fight-books. That of his 1443-Gothaer is carefree, with scenes of chivalric courtly life, hunting, feasting, riding, praying and stargazing all interspersed with the fight-lore. That of 1459-Thott is faustian, with quite a dynamic reach, having a balance of the serious and mirthful, his fight-lore presented with a variety of other arts and sciences of the day. Lastly, that of 1467-Gothaer is sober, with its sole devotion to fight-lore, presented spartanly for Graf Eberhardt, with the grim stark portrait of Talhoffer at the end.

Having well-read and thoroughly researched all the known major editions of Talhoffer's fight-books, I am able to say something about his persona as witnessed by those works: It seems that Hans Talhoffer was spiritual, secretive, and right-minded, yet funny and vigorous; he was handsome and athletic, self-assured yet modest; he was thoughtful, clever and manly; and he enjoyed the company of learned men and beautiful women. All in all, he seems like he was good fellow. ~

The Fight-Book

This 1459-Thott edition is composed of 150 paper folios (thus 300 pages) in janiform binding, of dimension 30 x 21 cm (11.8 x 8.3 in) and was made in Bayern in 1459 AD. The German dialect of this manuscript may be called *Schwaebisch* (Swabian), classifiable in the *Alemannisch* subdivision of *Oberdeutsch*; its vocabulary rarely shows transalpine influence of French and Latin. The front-cover has a binding of embossed dark brown leather, with studded bronze corners, bereft of one bronze diamond from its center. Other ravages of time seem to be yellowing, stains, foxing, scuffs, rips, smudges and burns. Scribbled in dark red ink at top of the front-cover is but the single word *Thalhoffer*. Inside the cover reveals the tome's construction and is marked with cataloguing notation, the royal librarian's seal and the title in black ink **Talhoffer**. Starting one's reading from this cover is the correct aspect for folios 01r-139v (most of the work). The back-cover has binding of embossed dark brown leather, with studded bronze corners and its bronze diamond remains in center. Starting one's reading from this cover is the correct aspect for folios 150v-140r (thus ennumerated in reverse), which may have been interbound later. In this 1459-Thott edition, about 60% of the work deals with personal combat by words and/or pictures. This 1459-Thott edition by Talhoffer should not be confused with his interesting 1450-Ambraser edition (aka 1459-Ambraser – see Chart 1).

Talhoffer authored this work, yet it seems he entrusted literally 99% of its actual writing to the free-flowing handwriting of the scribe Michel Rotwyler (as stated in 103v), who it seems was Talhoffer's one and only trusted scribe for this work. The exceptions to this are two negligable inserted contents-pages, not afoliated with the rest (probably scribbled by Thott himself – more later); and here and there some small glossing or amendments by an unknown hand (perhaps Talhoffer); and yet significantly folios 1v, 10r-10v & 101v which have a noticeably different style of handwriting than the rest of the document, quite methodical and neat (probably aided by ruleredge). Perhaps these were written by Talhoffer himself as per his elaborate signature (10v).

The original manuscript was scribed in red and black inks – thus rubrum and iron-gall. For simplicity-sake everything is black in my rendering. The water-colour artwork is quite nice, with strong outlining and pigment-fills, some freehanded colouring, plus decent perspective, counterpoise and foreshortening. There is some bleeding of the inks and pigments through the paper, which may muddle things a bit. Spatial relations, proportions and scale may be somewhat off – moreso when dealing with buildings, barriers, scenery and horses than with fighting men and their weaponry. Notice that the viewpoint for fights within barriers is that of the someone overlooking from high. Overall, the pictures are vigorous and even quirky. It is possible that the graphic artist was Clauss Pflieger.

Instead of smugly dismissing the portrayals of the various figures as an admirable yet somewhat technically failing foray into the new realism, we should rather understand the portrayals via their emphasised features, which indicate certain qualities of a fighter that were valued by Talhoffer and conveyed by the artist. Thus the men tend to evince a mix of dignity, mirth and focus; they are fit and athletic; and they are unified in their praxis even as each retains his distinct identity; likewise the horses tend to evince a mix of alertness and calm; they have strong well-curved necks; and sturdy haunches. Thus what counts is not the aesthetics of presentism that modern art historians or art critics value – rather, it is the values of the historical patron and artist via the aesthetics of the artwork that count.

Notice in my transcription that any stricken-through words are just that. Assumed scribal errors are indicated by (!); and baffling or garbled text by (?). I have preserved the original line-spacing and breaks inasmuch as reasonable. Just precisely when various numerous words ought to be capitalised or umlauted ($Im \text{ or } Jm...\ddot{u} \text{ or } uo$) is arguable – and really unimportant.

Notice in my translation that my interpolations, which I did only as needed, are in *italics*. Words in "quotation marks" indicate odd yet literally-translated idioms. When two competing or differing meanings for a given word are each plausible, they are presented slashed, thus abc / xyz. Doubtful translation is designated by (?). Occasional use of **bold** script is my choice for readability.

Seldomly the translation displays things which may read as contradictory – for example, the use of *urtail / urtaillt* (verdict) in folios 8v-9r-9v. Such is the unavoidable result of staying true to the text and restraining interpolation – plus admitting and realising that neither I nor anyone else has an answer for each and every discrepancy.

I needed to be more contextual than literal in my translation at times, yet I still maintained most idioms throughout. Where text existed I made more literal rendering, and where none existed I made it more interpretive. Those who may disagree with some of my choices of wording in translation may simply refer to the relevant wording in

transcription and then realise I made said choices philologically. Always I kept in mind the translating-method of Alfred the Great – sometimes word for word and sometimes sense for sense.

I encourage comparing the folios of this 1459-Thott edition with the varying editions of Talhoffer's fight-book – 1443-Gothaer, 1450-Ambraser (miscalled 1459-Ambraser), 1467-Gothaer – all three of which Gustav Hergsell rendered for our greater understanding and the last of which Mark Rector rendered into his helpful *Medieval Combat* – thus peruse Chart 2 at the very end of my work here, which addresses all personal combat struggles portrayed by this 1459 edition vis-à-vis that 1467 edition. I think that 1459-Thott is the key to reckoning and even understanding the rest of the Talhoffer editions. I also like to characterise this edition as the key to understanding the man Talhoffer, inasmuch as that is possible for us to do.

Talhoffer himself probably owned 1459-Thott as a personal / private edition of his fight-book, for these reasons:

- ~ It is clearly indicated in folio 103v: Item Das buoch ist Maister Hannsen Talhoferß.
- ~ There is no dedicatory to any lord.
- ~ There is no explicitly designated portrait of him to act in a promotional manner (although he indeed may be portrayed within).
- ~ His coat-of-arms is elaborately depicted and with the correct crest.
- ~ It is the only one of the six originals thought to be made specifically in Bayern.
- ~ There is very sparse or nonexistent caption-text for the combat-portrayals (*he* already *knew* what to call everything), despite the artwork being of superior quality and despite the extensive text for the non-combat subjects; especially compared to the more extensive vocabulary for sake of Eberhardt in 1467.
- ~ About 40% of the lore of this edition are subjects tangential to the other 60% which is his fight-lore; thus he included much stuff pertaining to his personal leisure and hobbies, besides that pertaining to his life's vocation.
- ~ It textually covers the basic techniques via the "Twenty Directives" of Liechtenauer (dealt with later), yet visually covers more esoteric techniques.
- ~ Talhoffer would find need for such, much as a modern professor would find need to own an edition of the textbook he wrote; copies of textbooks by two earlier respected professors; a copy of the textbook by his esteemed forerunner; as well as a personal memory-album of friends and colleagues.

One may notice how Fiore Dei Liberi (1410) remarked in one of the editions of his own fight-book that he had known, during his own career, only a single student of his to have owned a fencing manual. If such was typical throughout Europe into Talhoffer's time, then we have some sense of how precious and rare these works truly were to past fencers. Despite popular notions regarding men of the past, it is doubtless that Talhoffer and other of his peers were literate – otherwise why would he bother to have any text put into his books?

This work dates to 1459 AD with certainty based upon the following: Folio 6v near the front, folio 149r near the back, and others throughout, have the watermark of ox-head, staff & bloom in a specific form which indicates the paper was made circa 1435-57. The style of the dress, armour, weapons and grooming indicate this date. The language of this work indicates this date. And lastly and plainly, folios 103v and 150v each state the year of the book's making as 1459 AD. So that settles that.

Special Notice: In this Facsimile, all the folios have been colour-corrected, and where needed (68r, 68v, 118r, 118v) the action of the artwork has been conceptually restored. The first achievement is thanks to Ragnarok Works. The other achievement is much thanks to the graphic artist Tracey Zoeller. He utilised his experience and talents with guidance from the balance of the action portrayed in each scene and comparisons to similar artwork from other editions by Talhoffer. TZ did so with advisement from me that in turn I based upon the action portrayed, those other editions, any relevant caption, and basic kinetic sense. If anybody has quarrel with it, then blame JH not TZ. ~

Chapters of Talhoffer 1459-Thott Edition

Here is my orientation of chapters based upon the book's contents, and not upon any traditional precedent:

- 1. Mark-Verses; Twenty Directives; Judicial Dueling; Teaching (01r-10v)
- 2. Battle Force (11r-48v)
- 3. Wrestling and Dagger-Fighting (49r-71r)
- 4. Fighting with Pollaxes, Spears, Halberds & Swords (71v-79v)
- 5. Judicial Duel of Man versus Woman (80r-84r)
- 6. Armoured Duel-Fighting with Longsword & Spear and Unarmoured Harness-Fighting (84v-94r)
- 7. Horse-Fighting, Unarmoured, with Swords, Crossbows & Spears (94v-97r)
- 8. Judicial Dueling with Pavises, Maces or Swords; and Talhoffer's Heraldry, Motto & Authorship Statement (97v-103v)
- 9. Pavises, Weaponry & Clothing for Judicial Dueling (104r-110r)
- 10. More Dueling with Pavises (110v-117r)
- 11. Swords, Messers & Bucklers (117v-123v)
- 12. Horse-Fighting, Armoured & Unarmoured, with Various Weaponry (124r-130v)
- 13. Pollaxe Dueling, Unarmoured & Armoured (131r-137v)
- 14. Proving One's Strength (138r-139v)
- 15. Here Teaches (150v-140r)

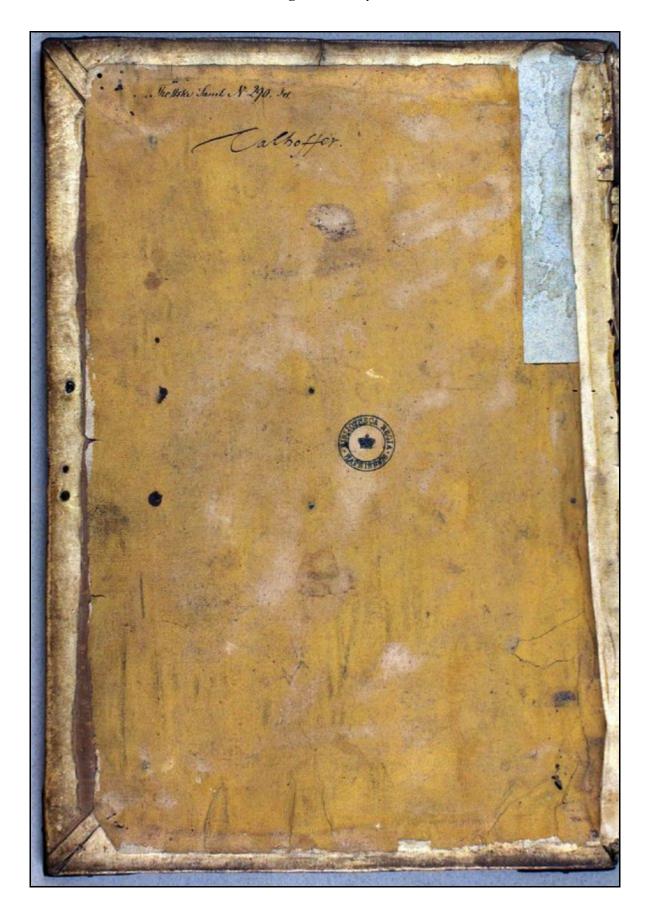
Notice: The Fifteenth Chapter actually starts from the back cover, and thus has its folios listed in reverse order, as one would turn the book over and around to read it, due to the janiform binding.

The so-called contents pages are two later inserts, not folios, that impose the full title of *Maister Hanns Talhofers alte teutsche Armatur und Ringkunst*, listing fifteen so-called chapters. However, these two posteval inserts are incongruently scripted and of differing paper-stock, providing descriptions of each chapter that are muddled and unreliable. It is most doubtful that these pages were authored by anyone who partook of the original project. Whoever it was seems to have existed at a much later date and to have been of different nationality than German – since it uses two terms that do not appear anywhere in the body of the text (*Armatur & Ringkunst*), and the title designates the stuff of the book as *alte teutsche* (old German). So maybe Otto Thott (1703-85), the Danish count who cared for and owned this book until his passing bequeathed it to the Royal Library of Denmark, wrote and placed the two pages merely for quick casual reference. After all, his library ultimately held 200000 works, and so one hardly expects an exhaustive abstract of any given manuscript. So I respectfully suggest instead that any chapters are better designated like this, and indeed shall be utilised as such in my commentary.

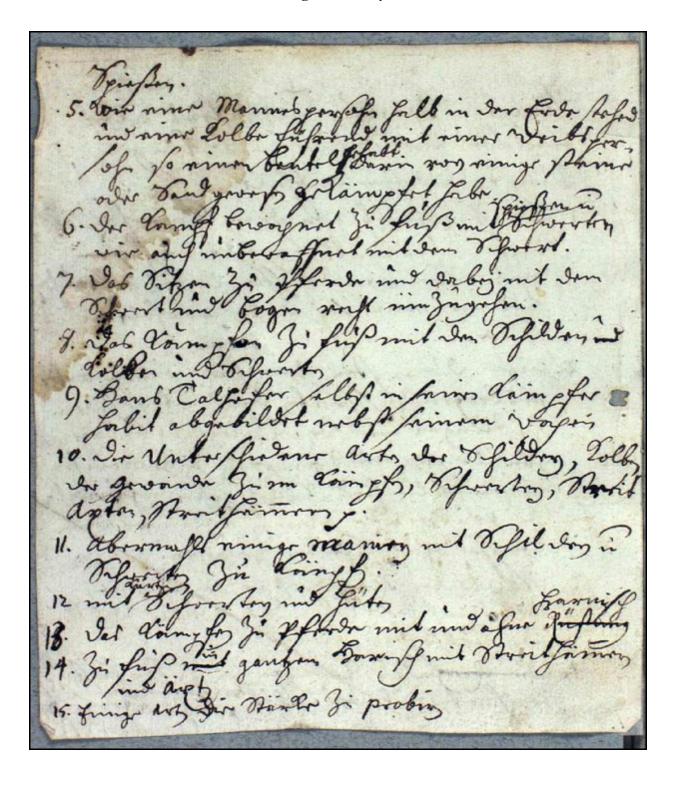
Viewing Hints: This PDF facsimile presents the pages their original viewing aspect as bound centuries ago. Thus some pages are oriented portrait-wise, but many are oriented landscape-wise. To deal with the virtual pages, simply use the commands <rotate clockwise> & <rotate counterclockwise> in the menu of V-5.0+ of Adobe AcrobatTM. Of course if you print it, then you simply rotate the paper pages. Also notice that due to the janiform-binding, presentation of Chapter 15 foliation is in reverse order of numbering (150v-140r), to correctly relate the actual order of the text, and then finally the back cover. Lastly notice that every recto-folio has its number marked in its upper-right corner – except of course those of the last part, their numbers are in the lower-left corner, upside-down. ~

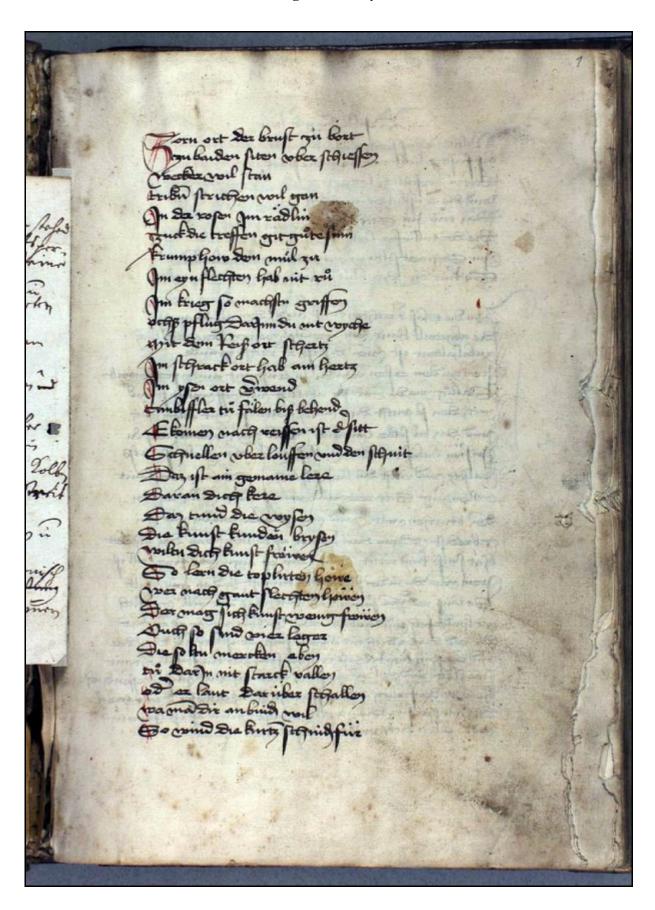
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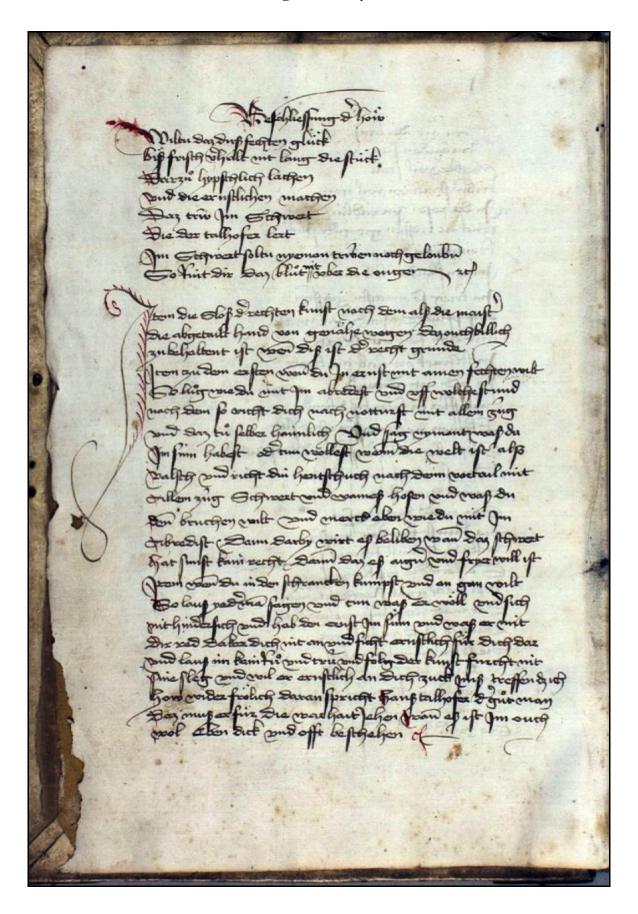


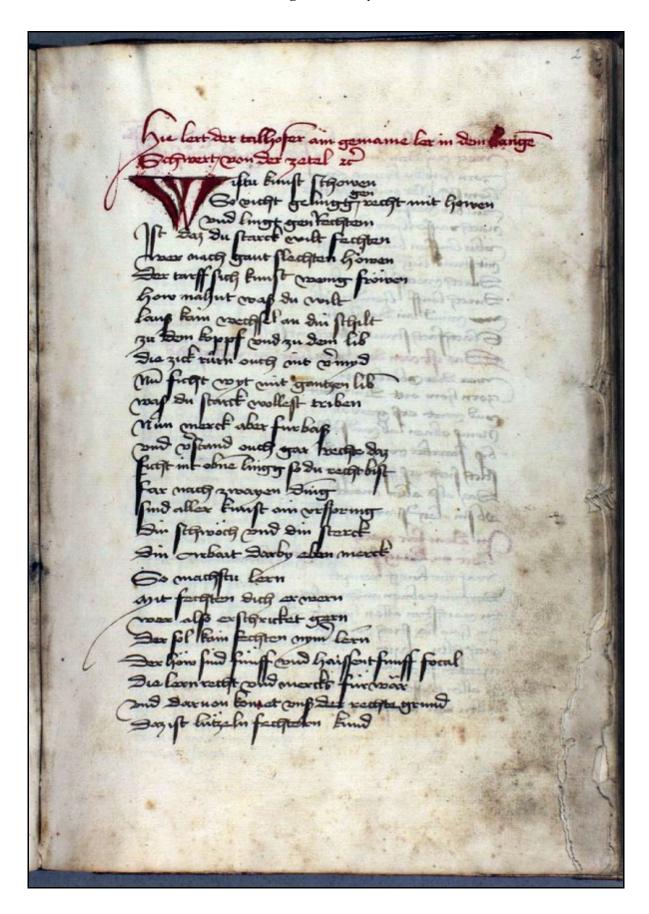


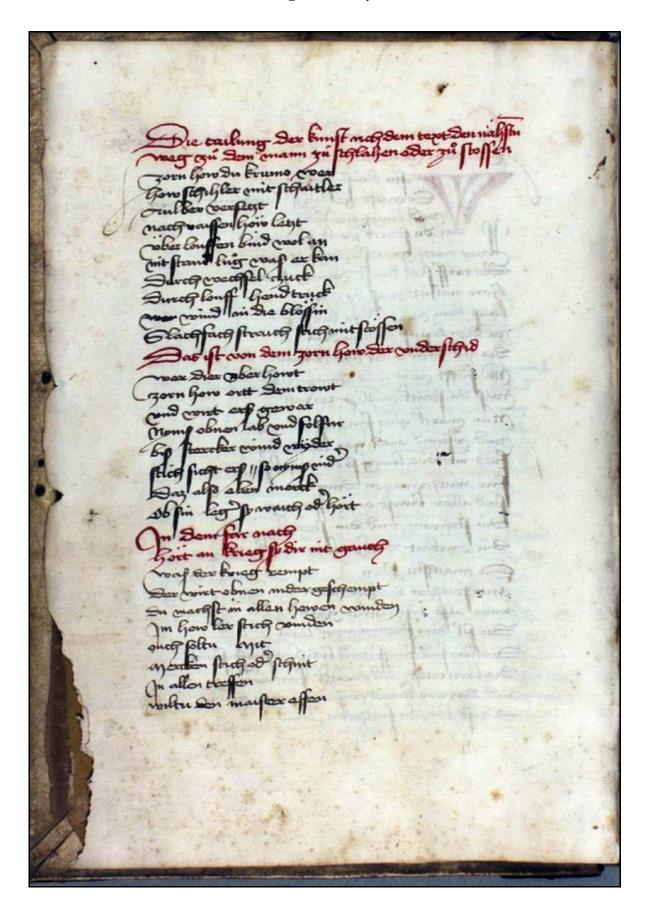
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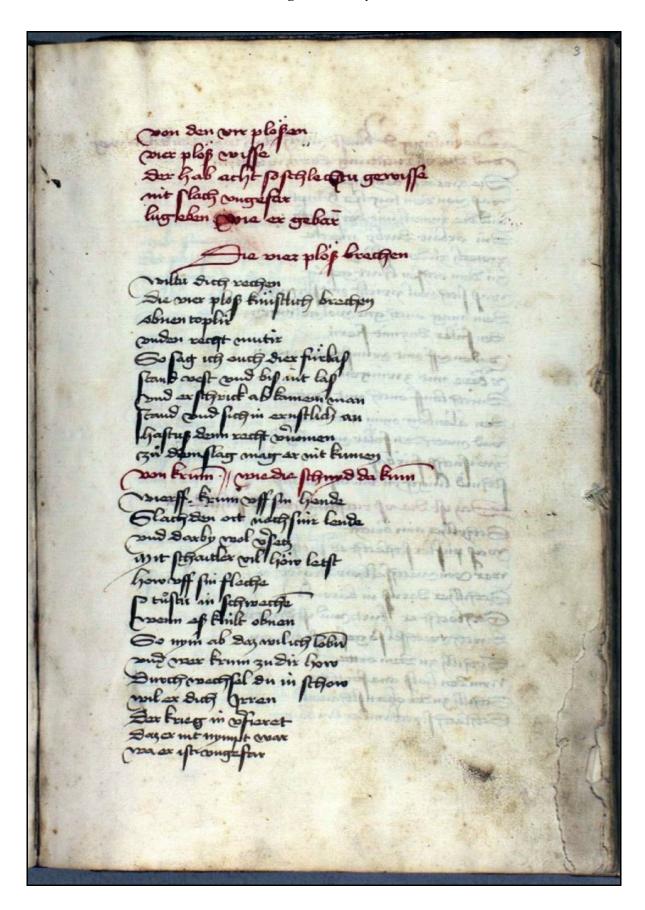


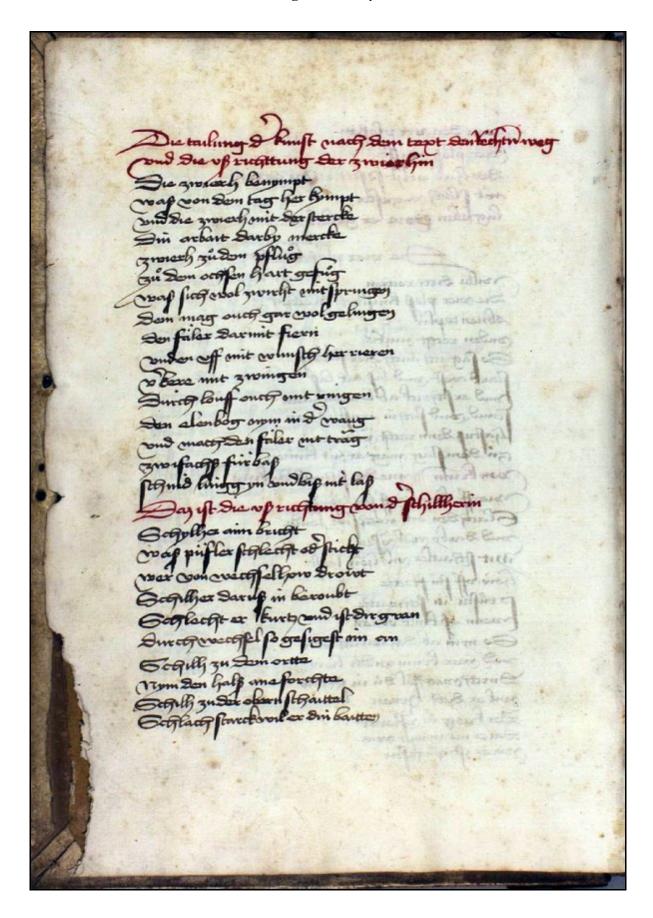


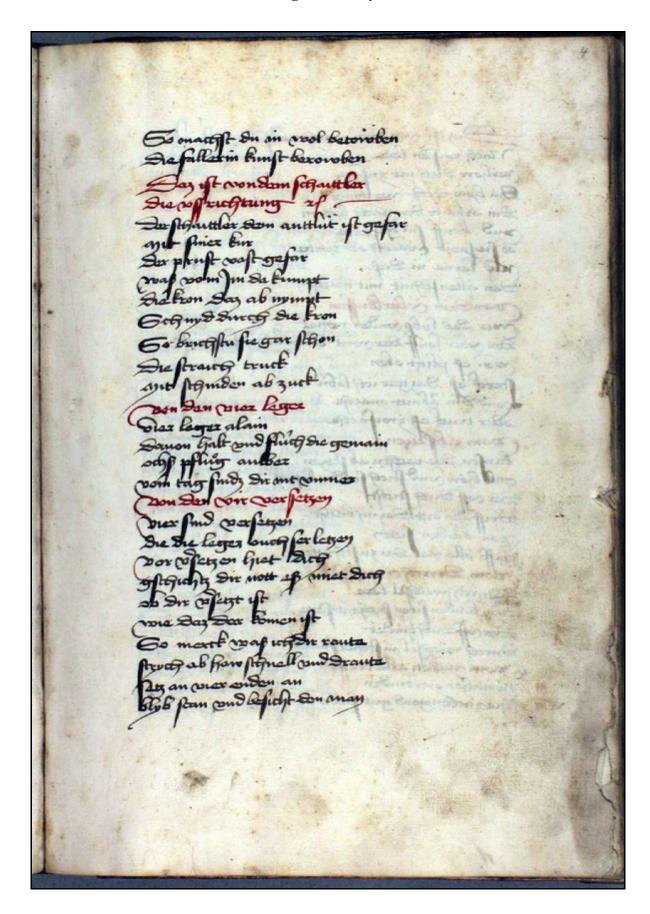


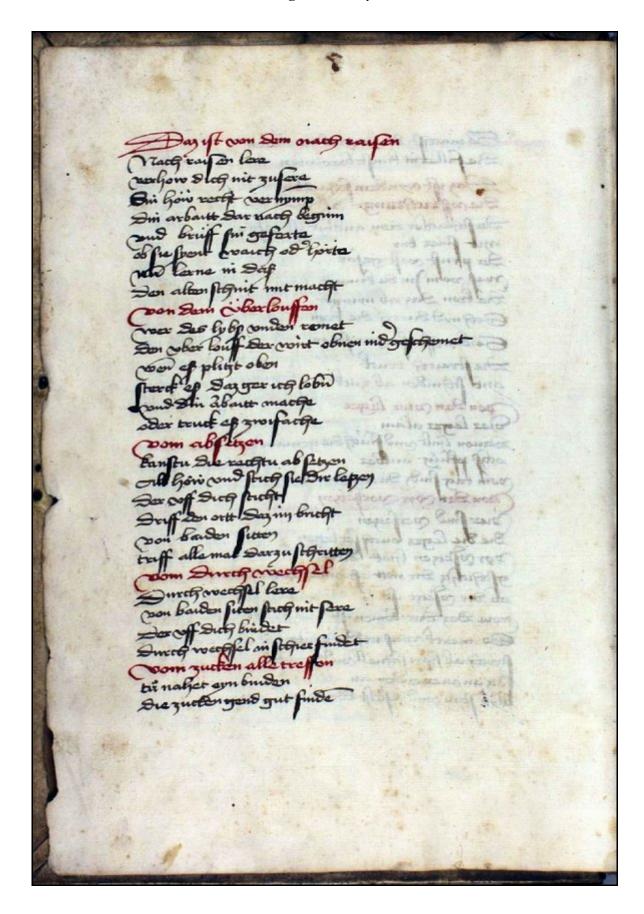


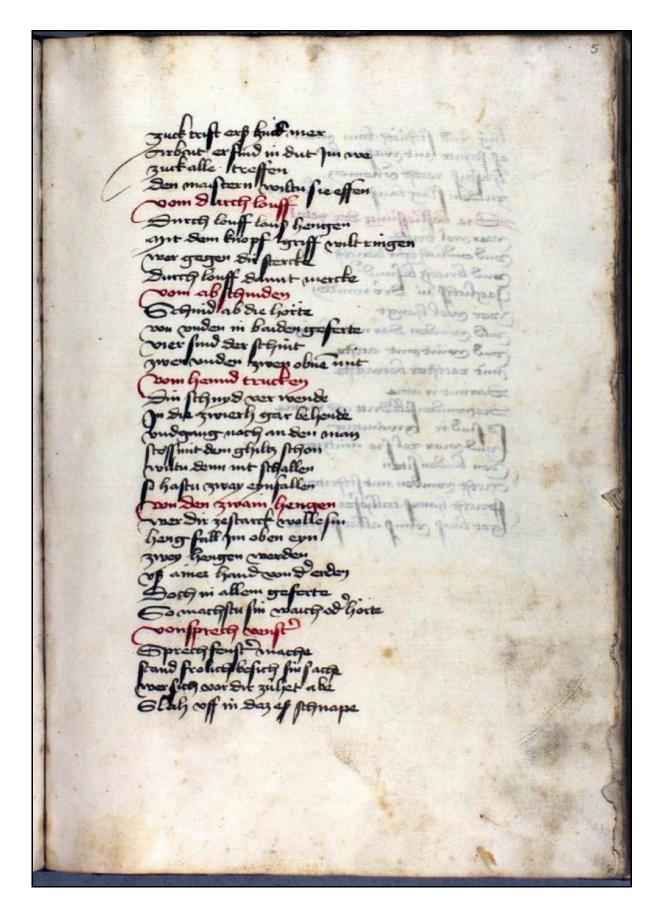


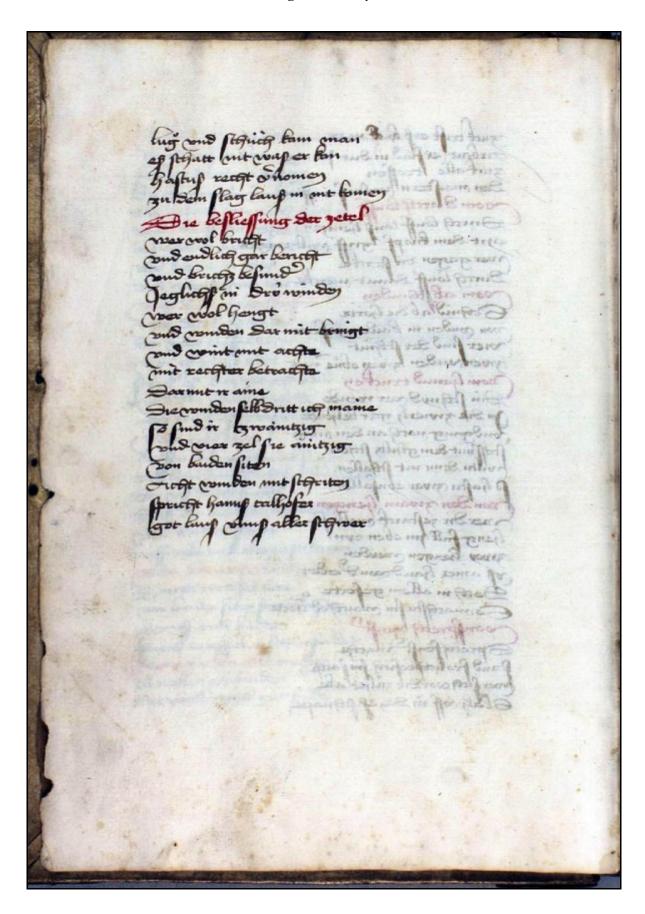


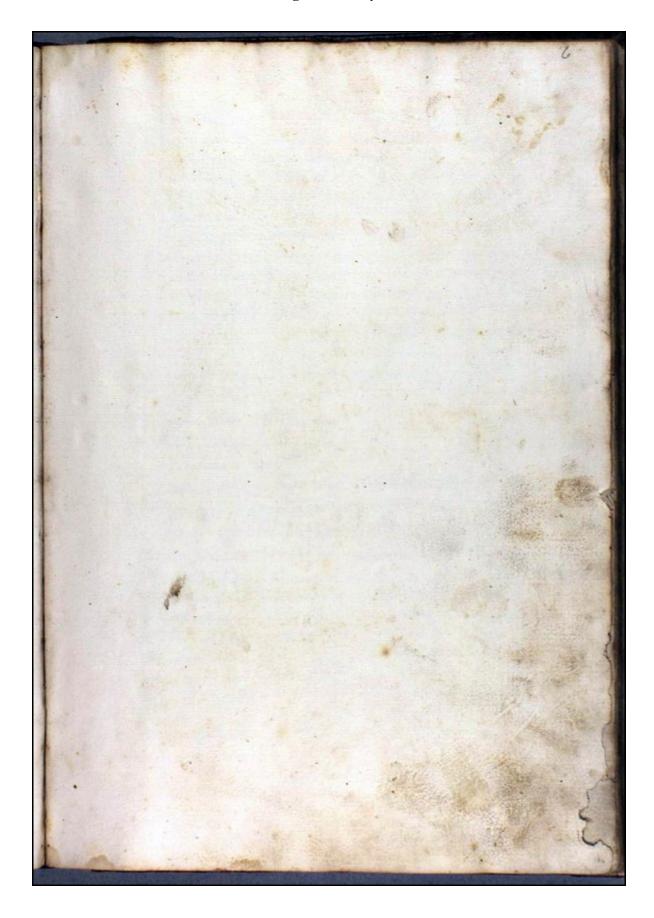


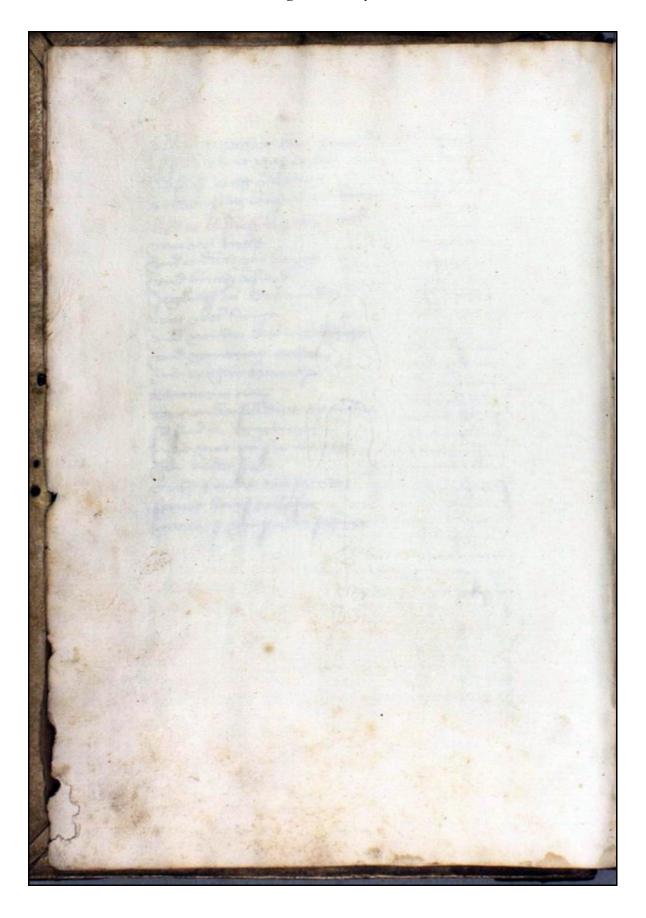


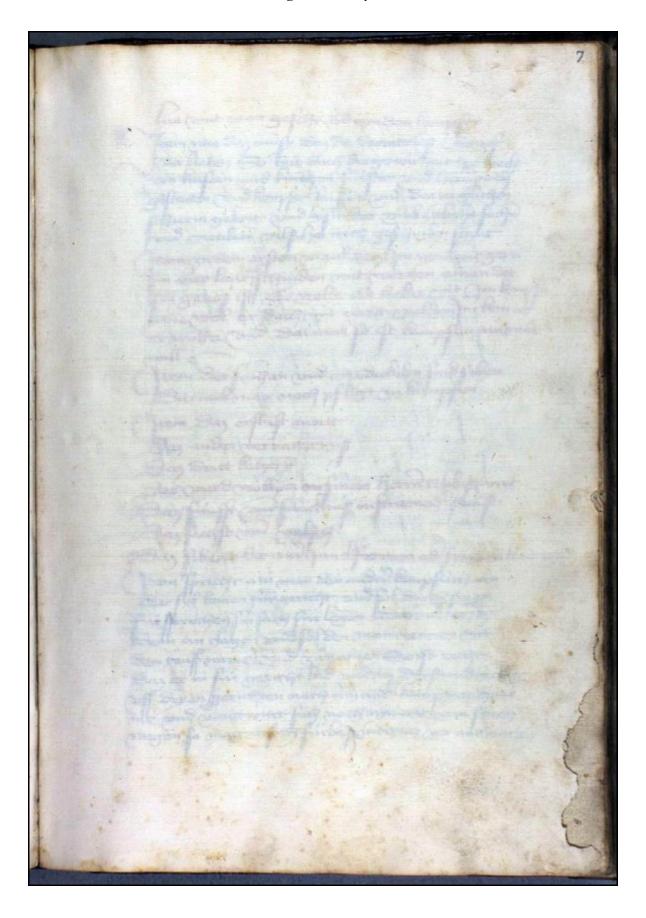


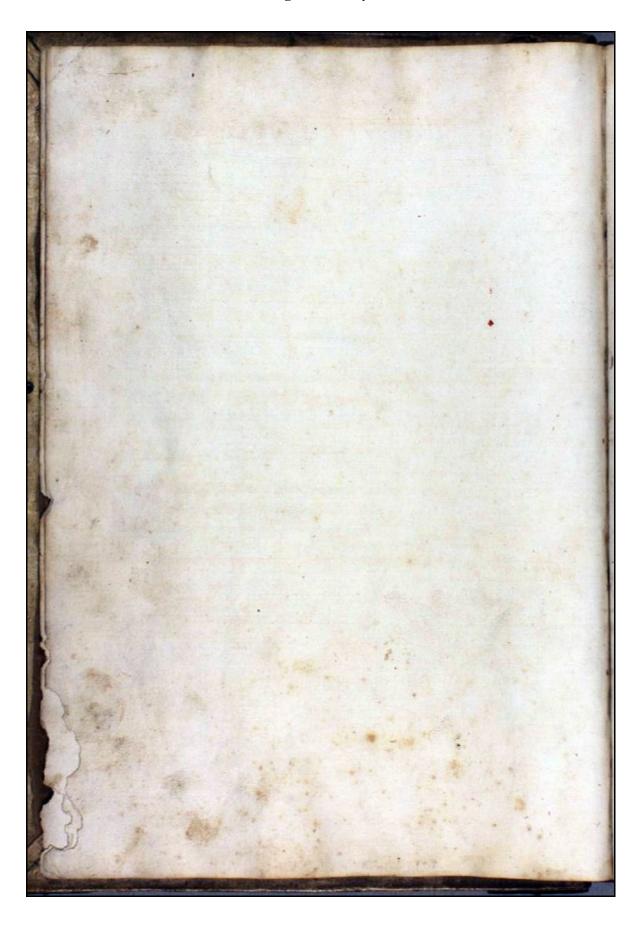


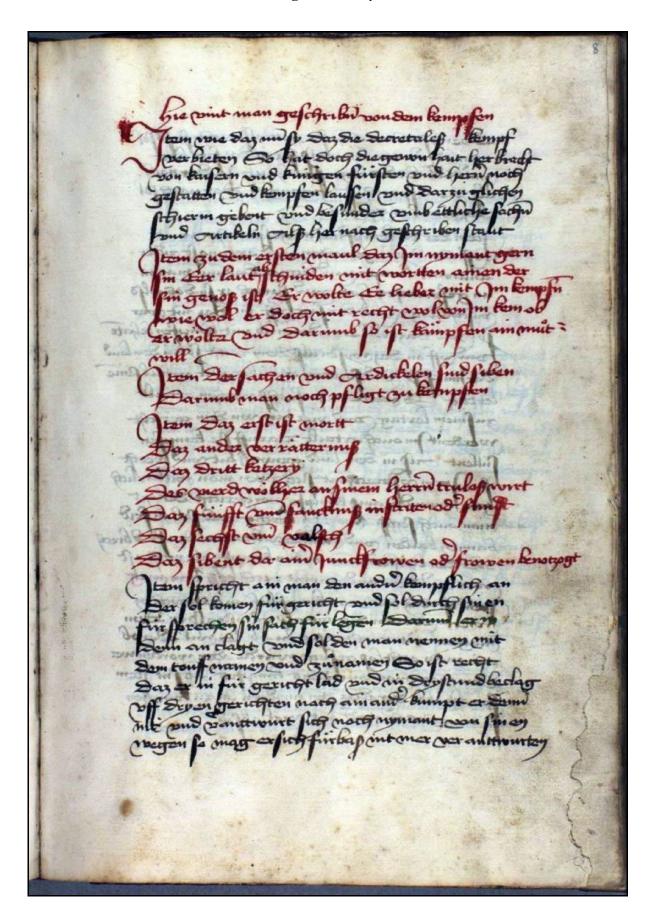


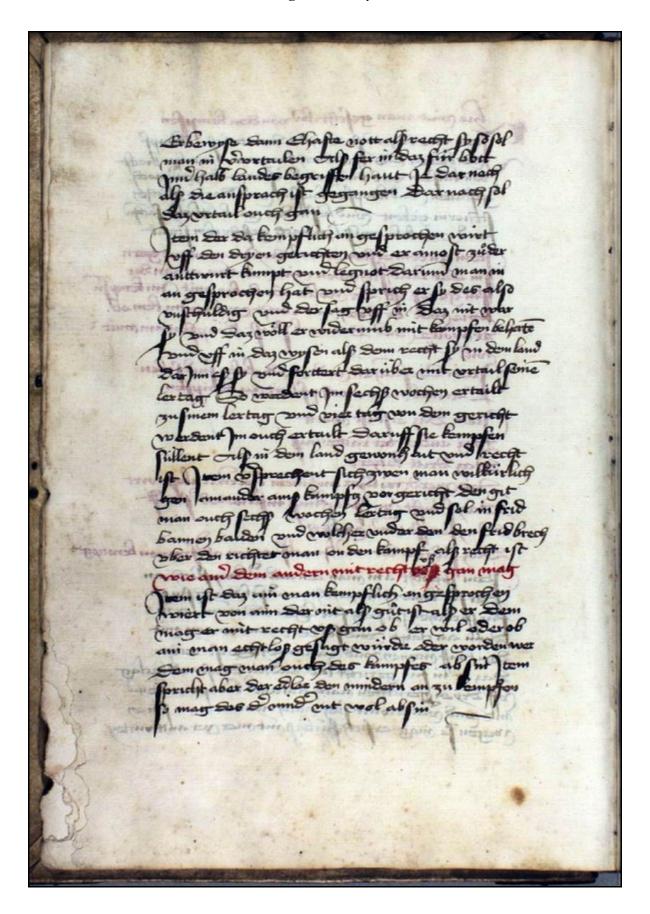


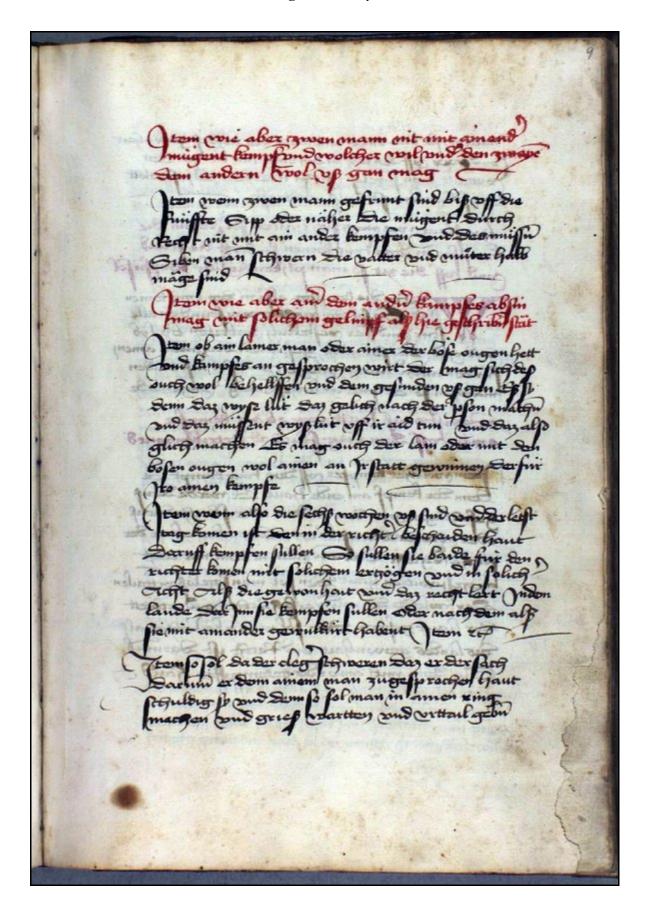


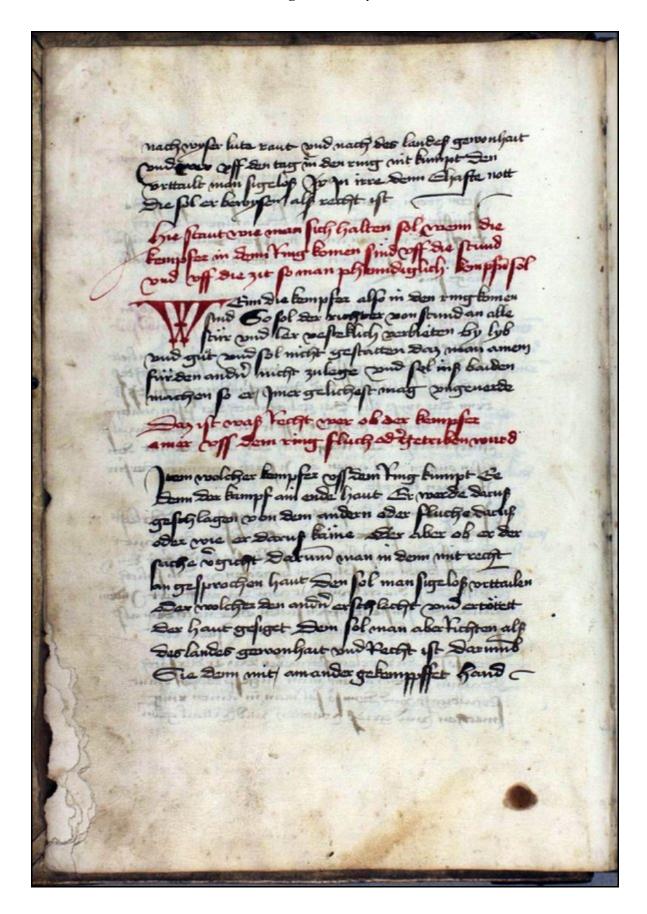


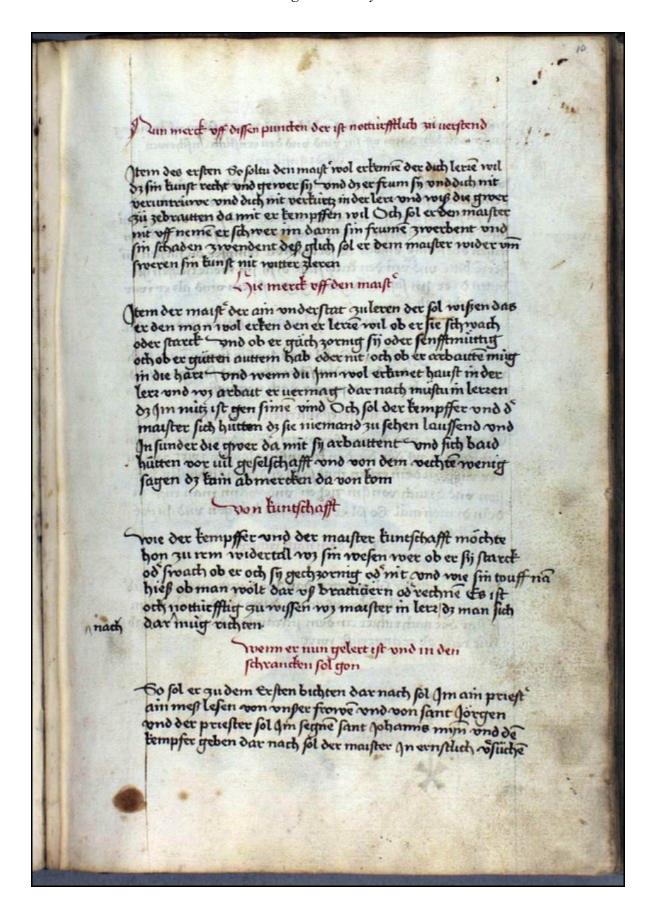


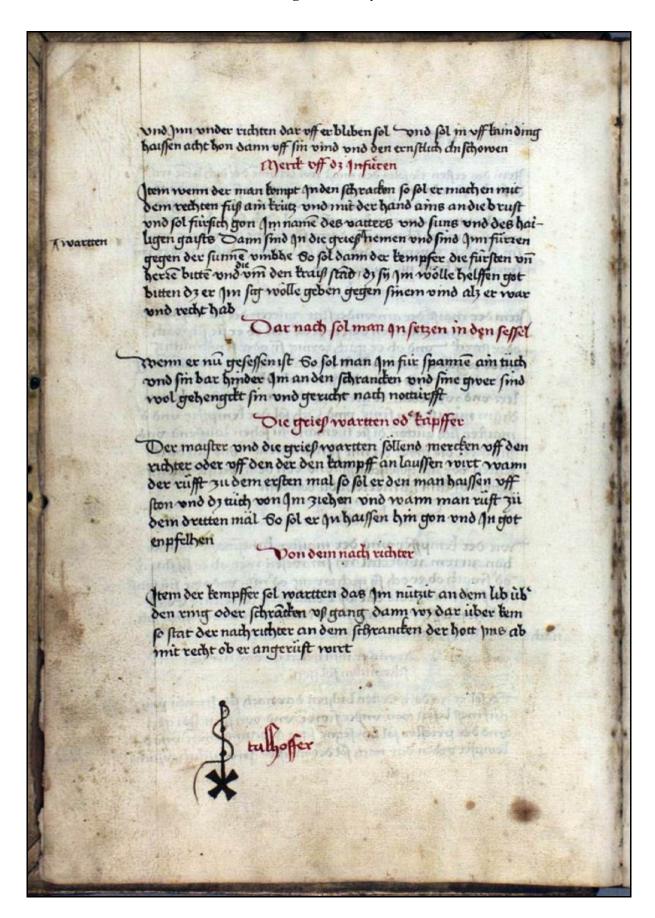




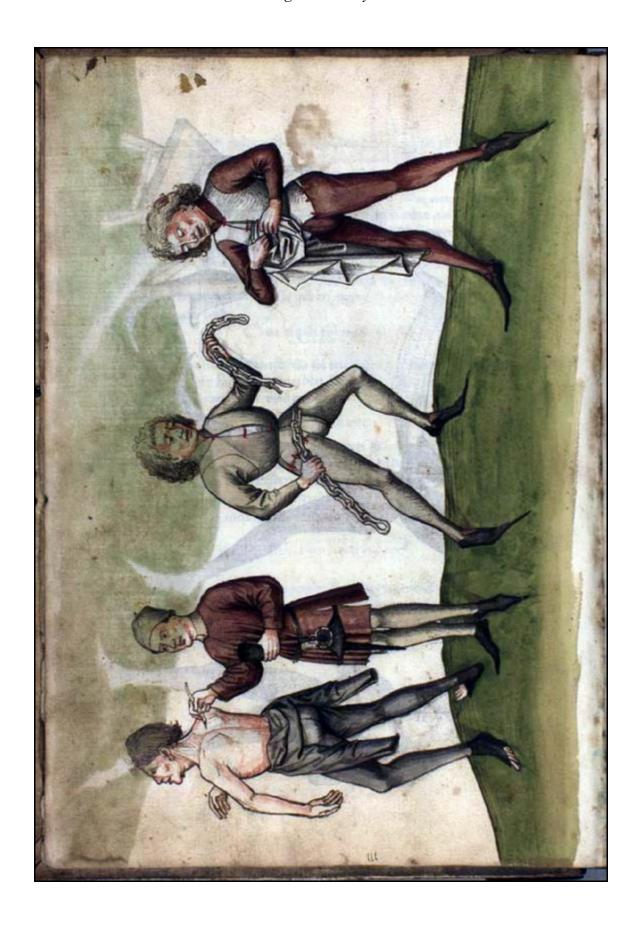






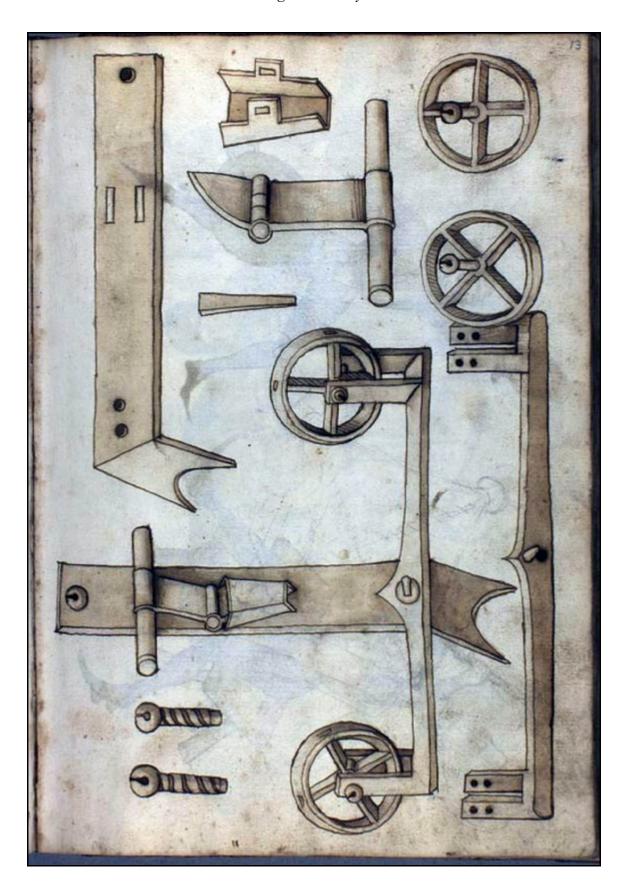






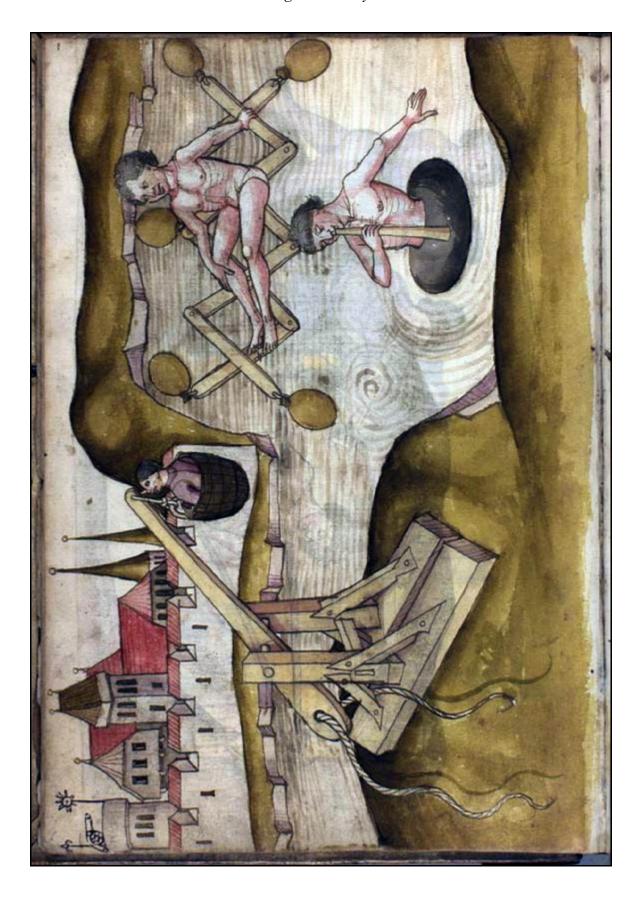


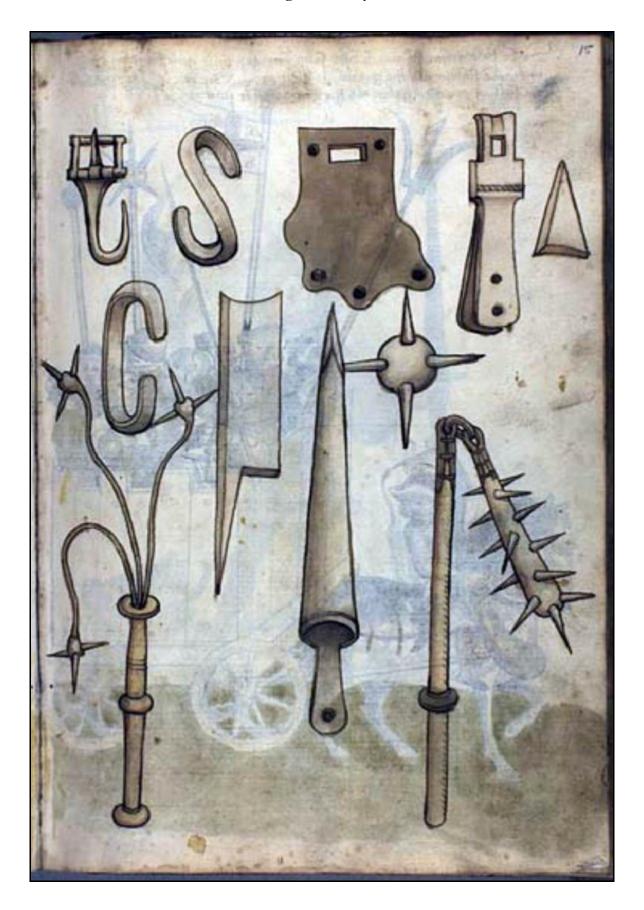






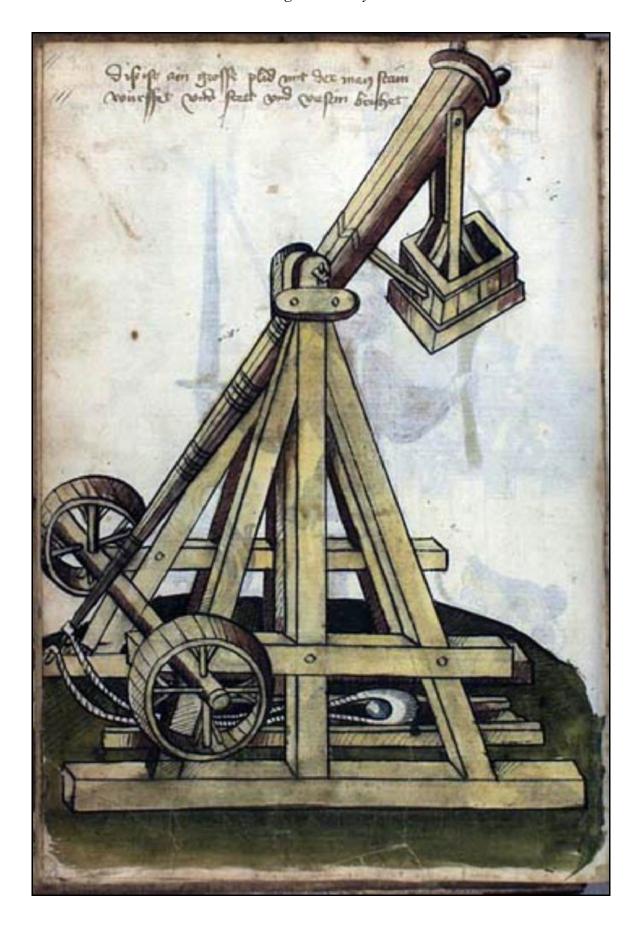


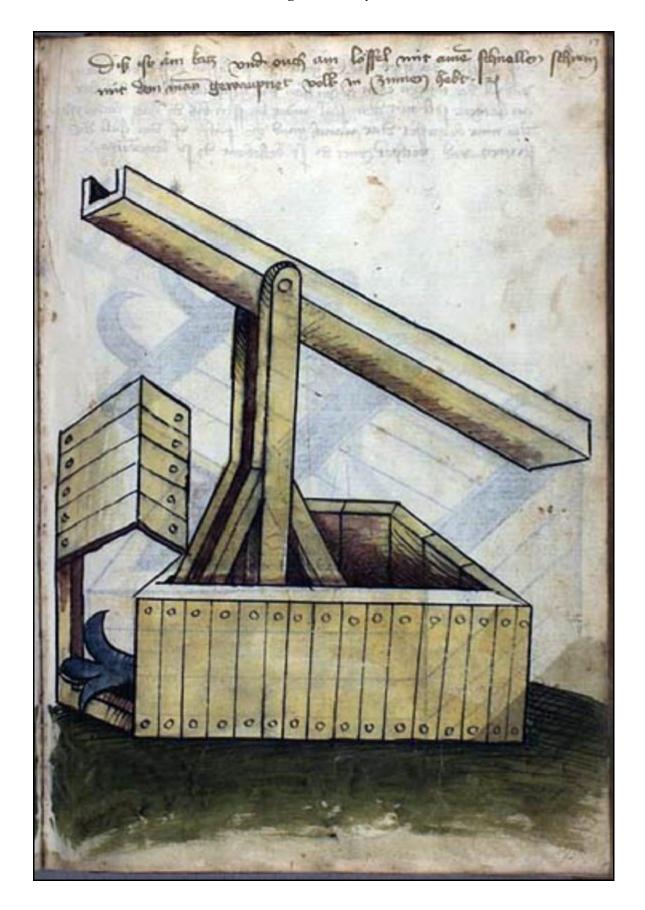




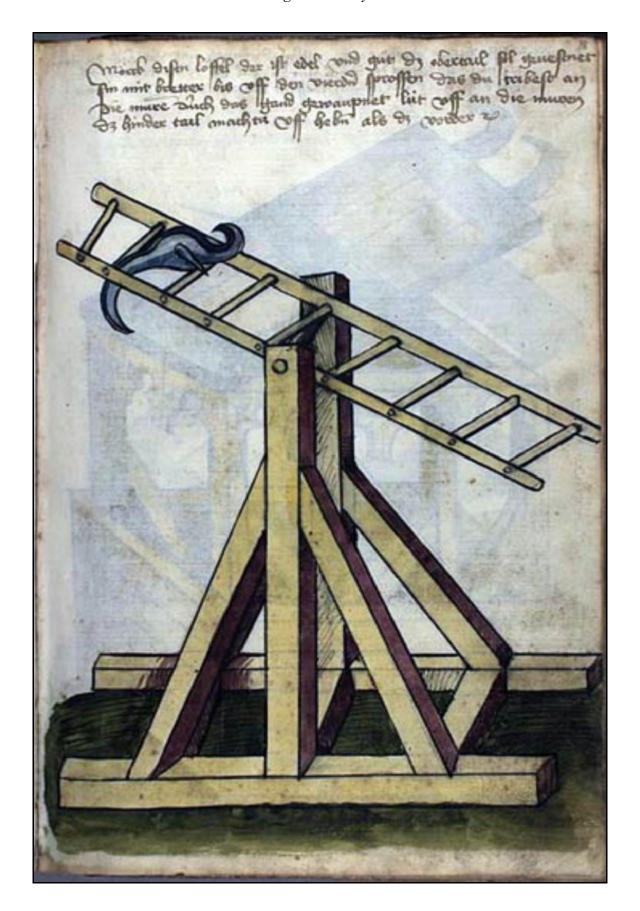


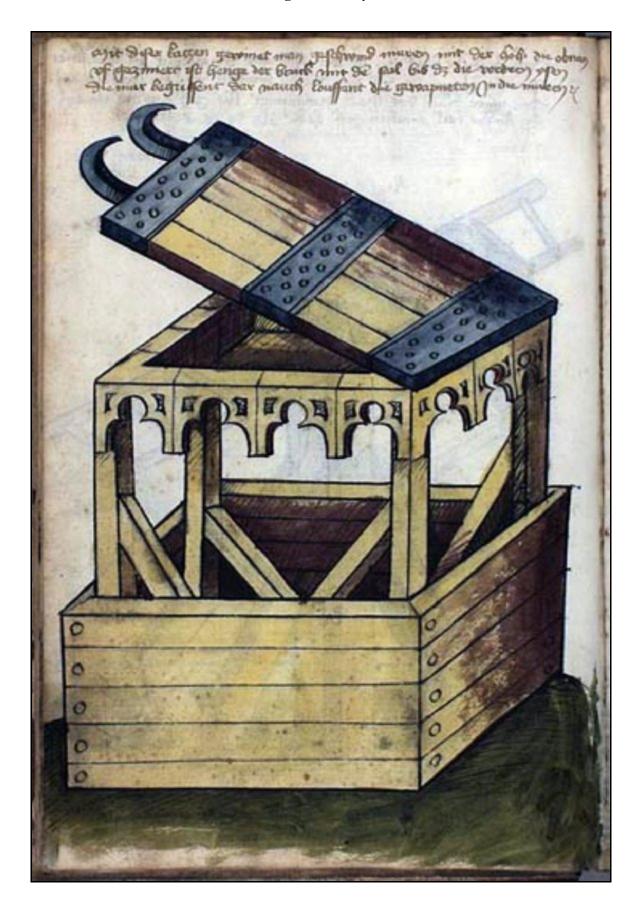


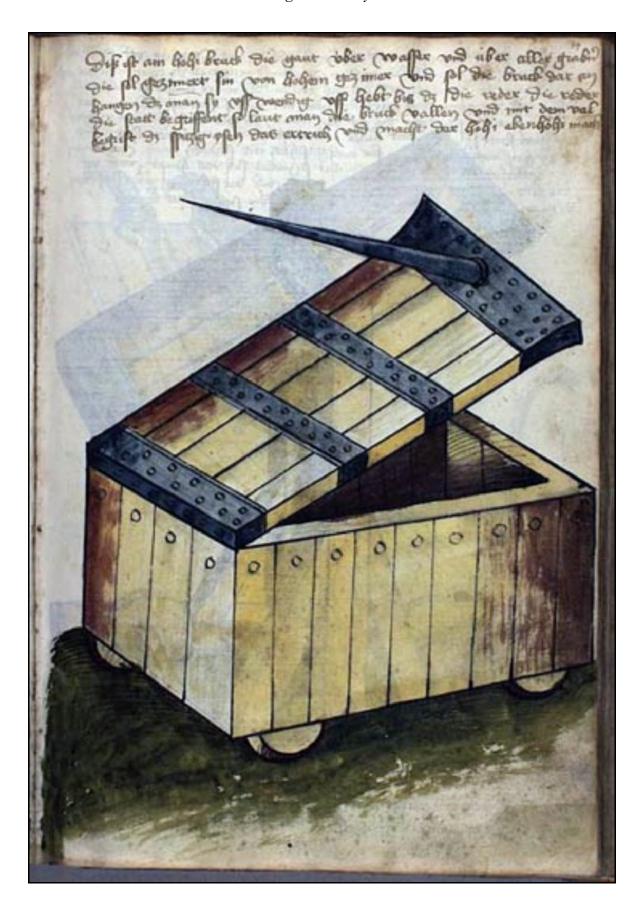












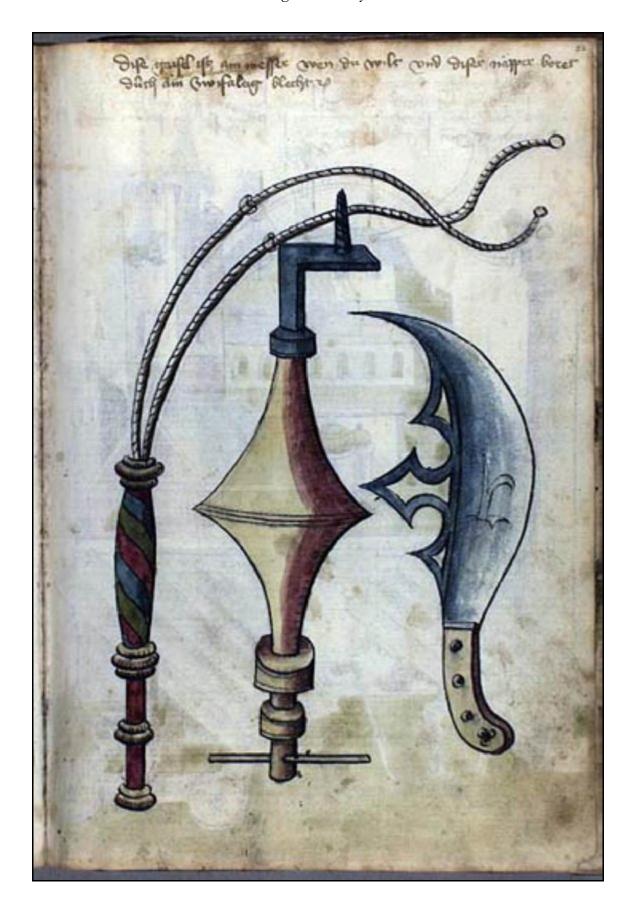










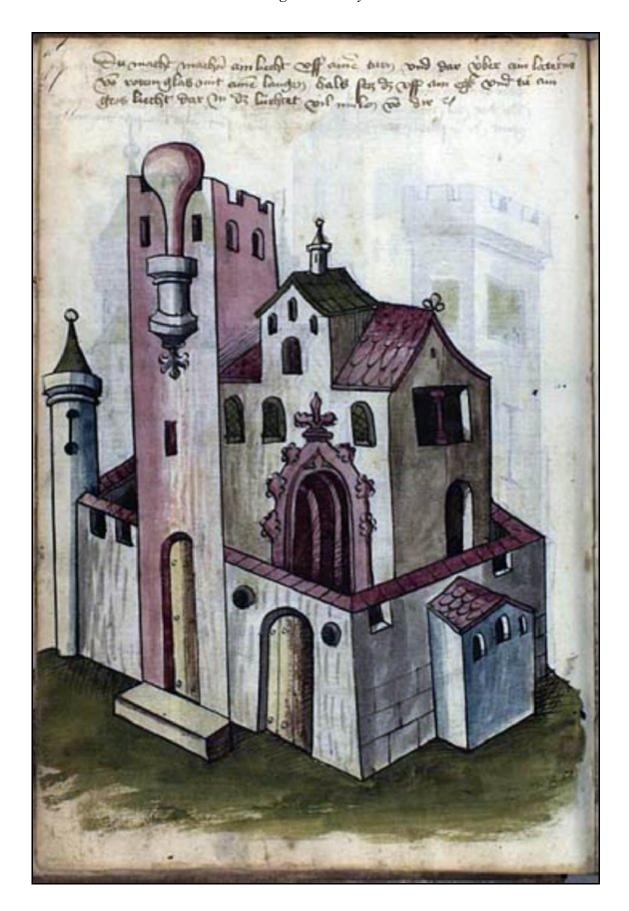




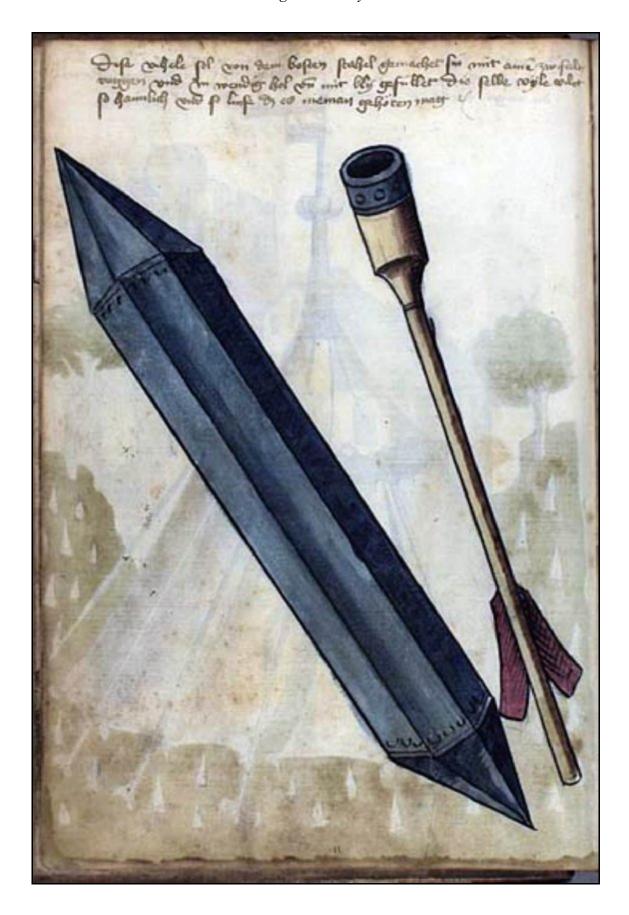








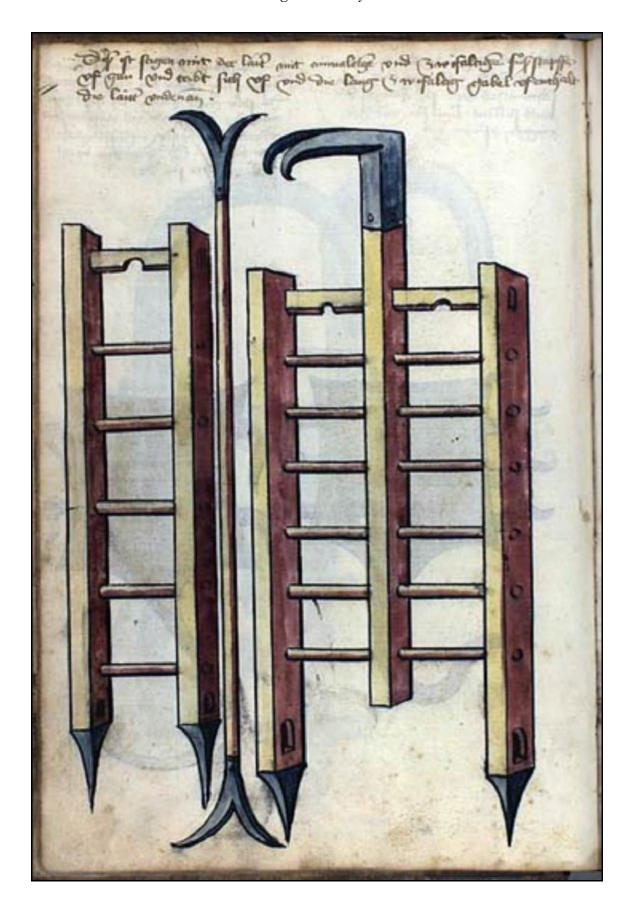












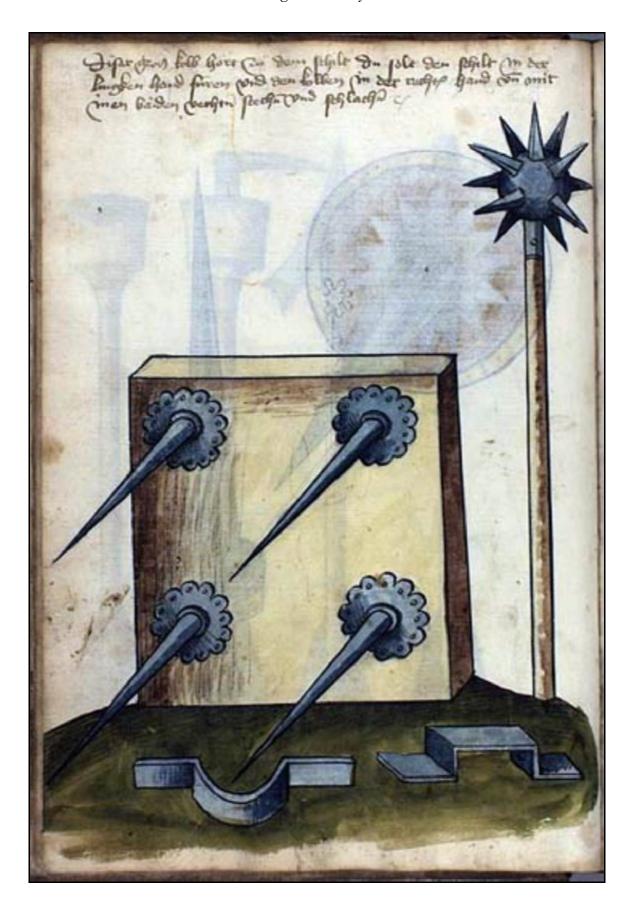


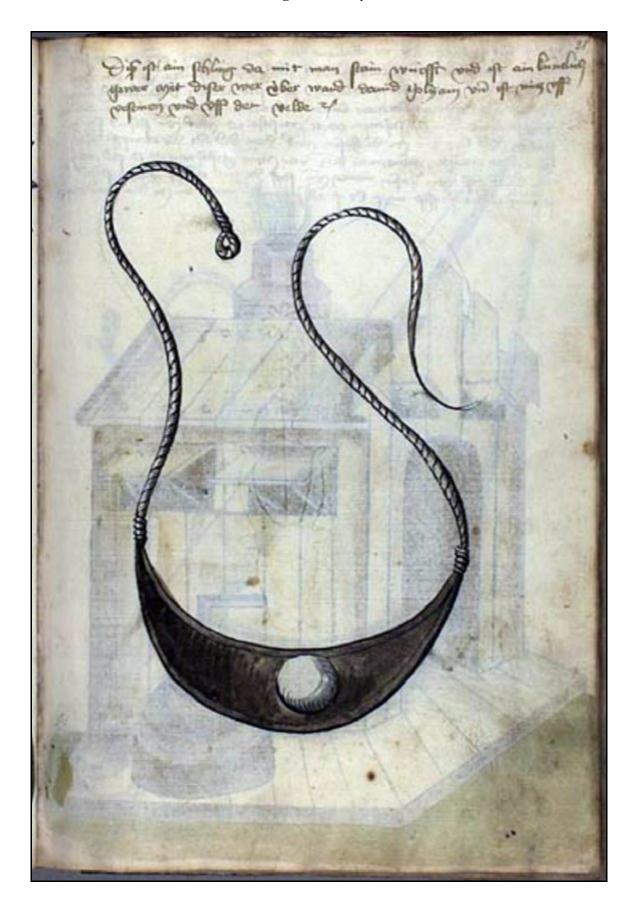


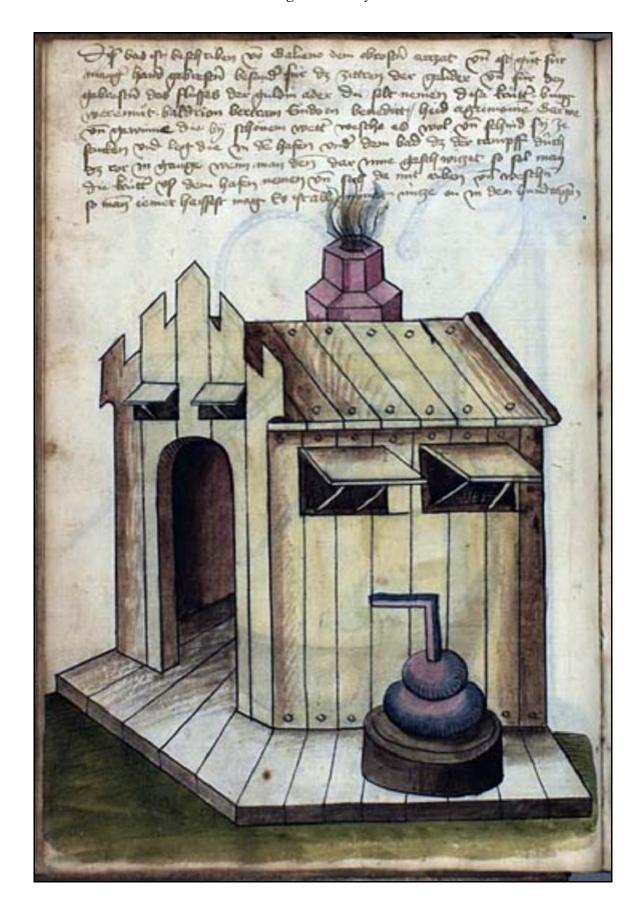








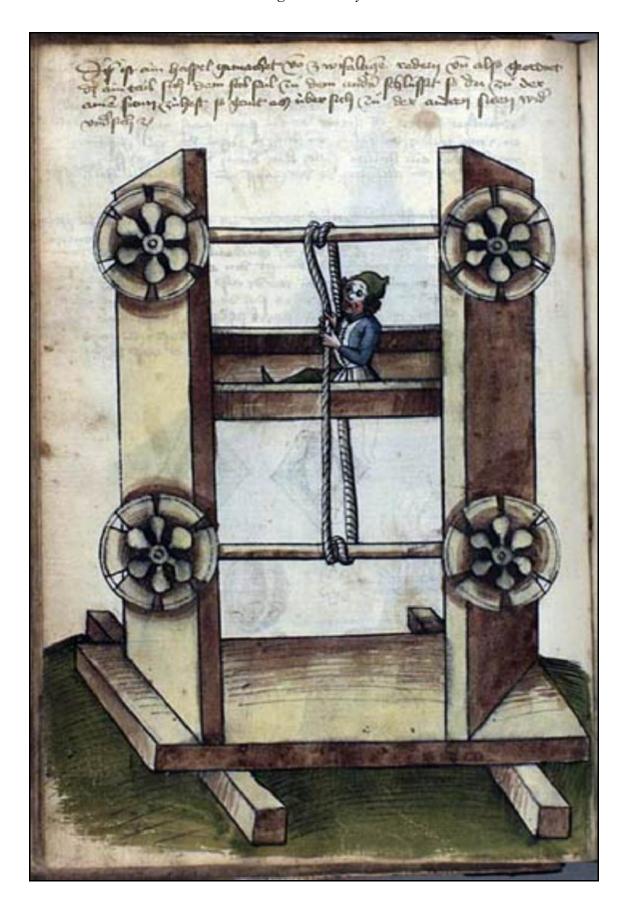






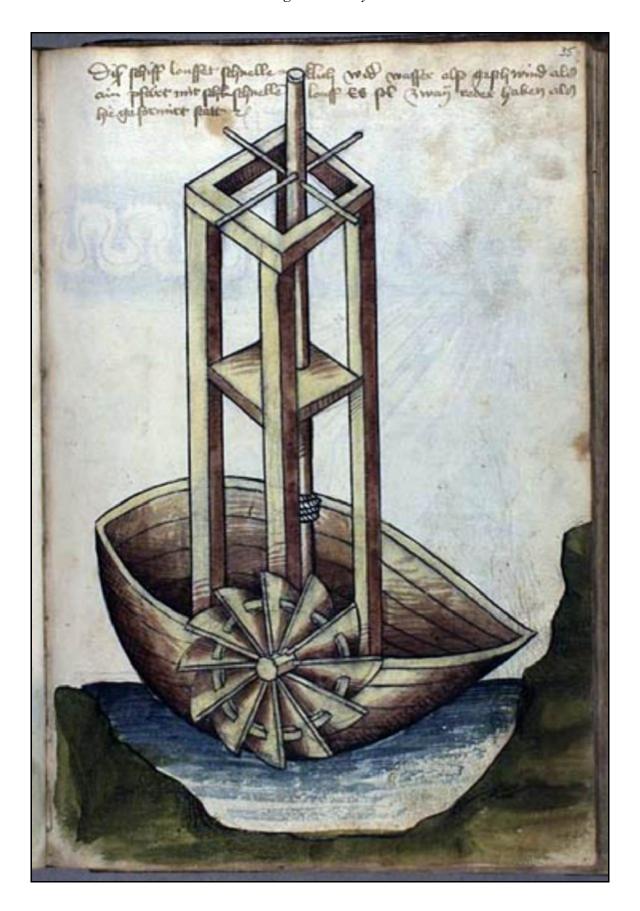






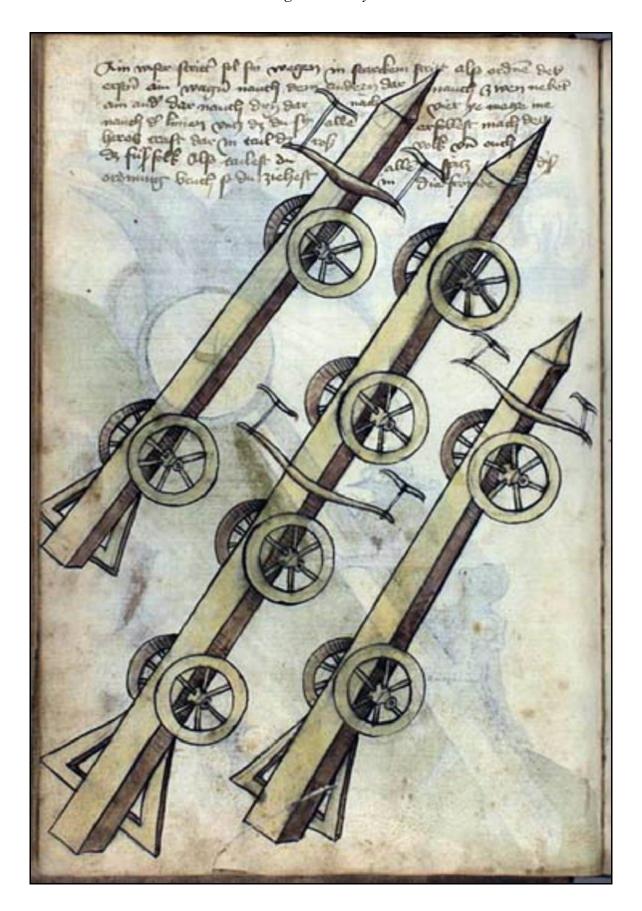




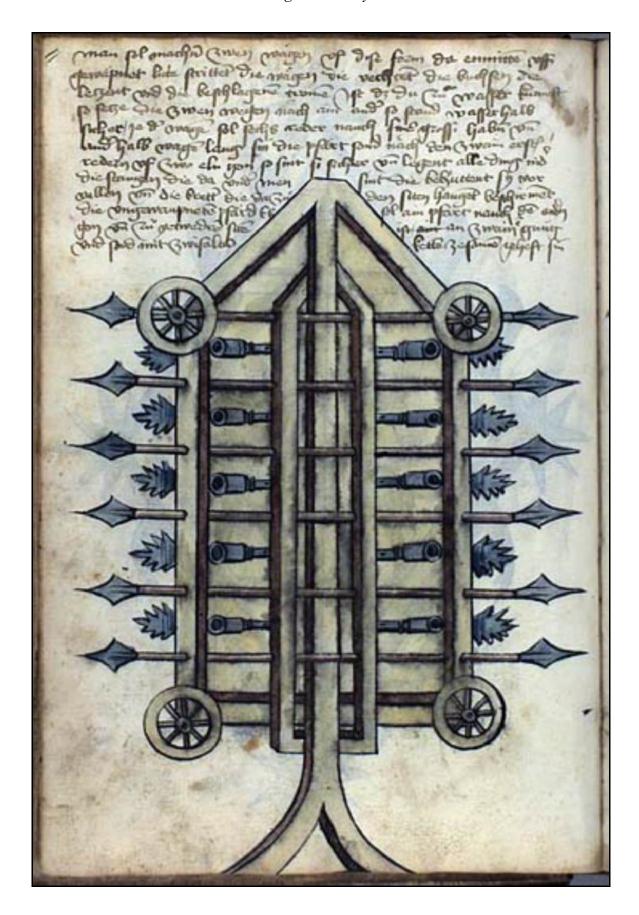






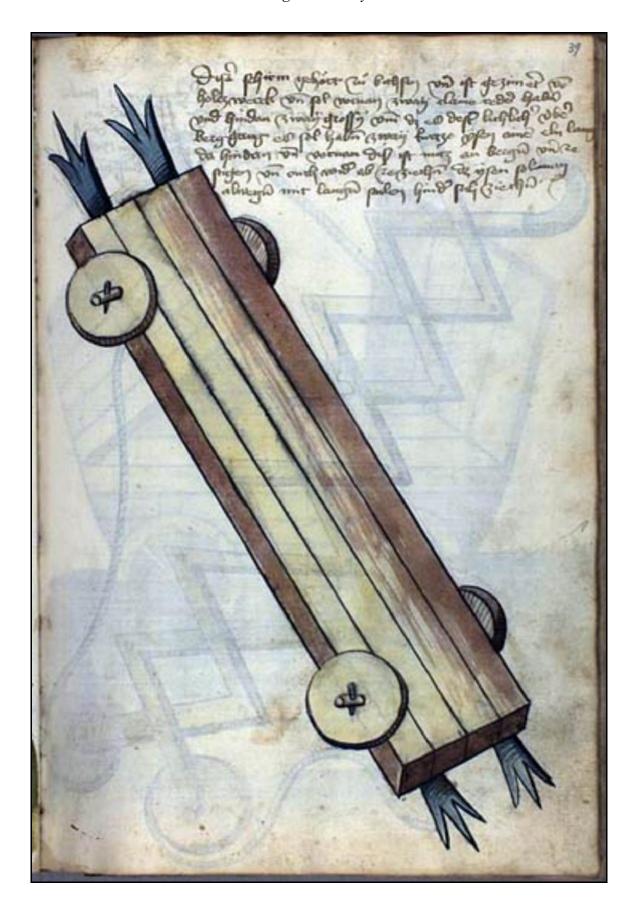




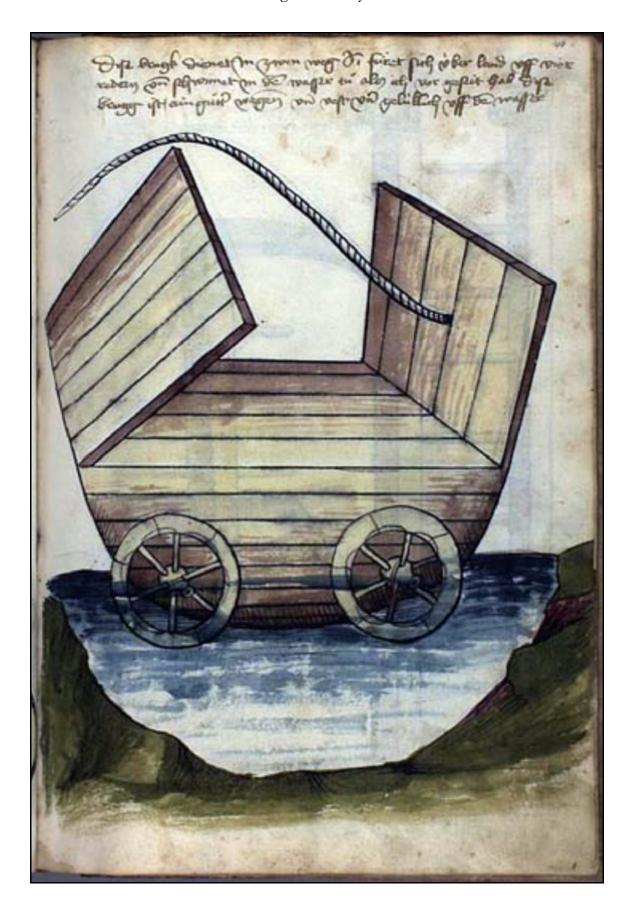


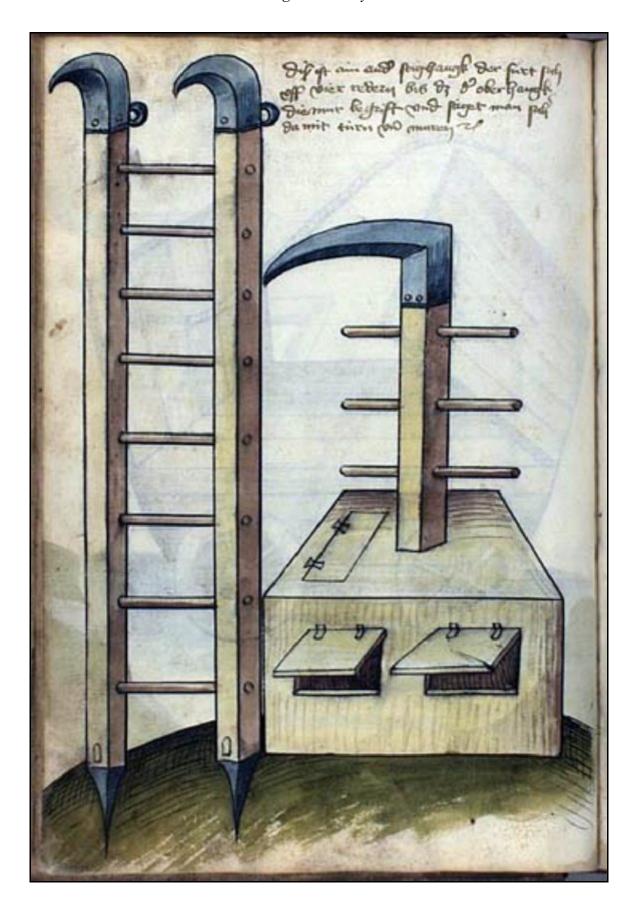






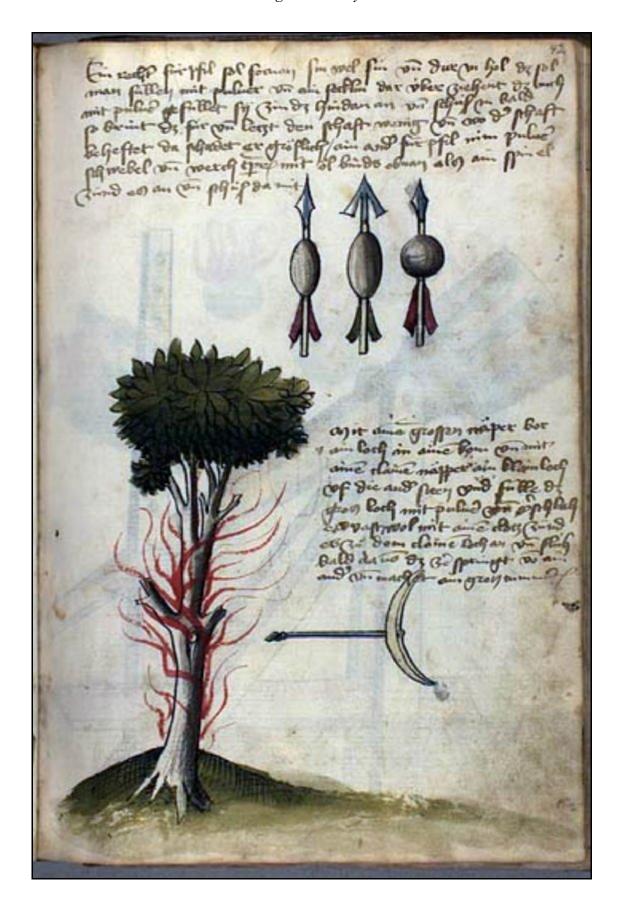


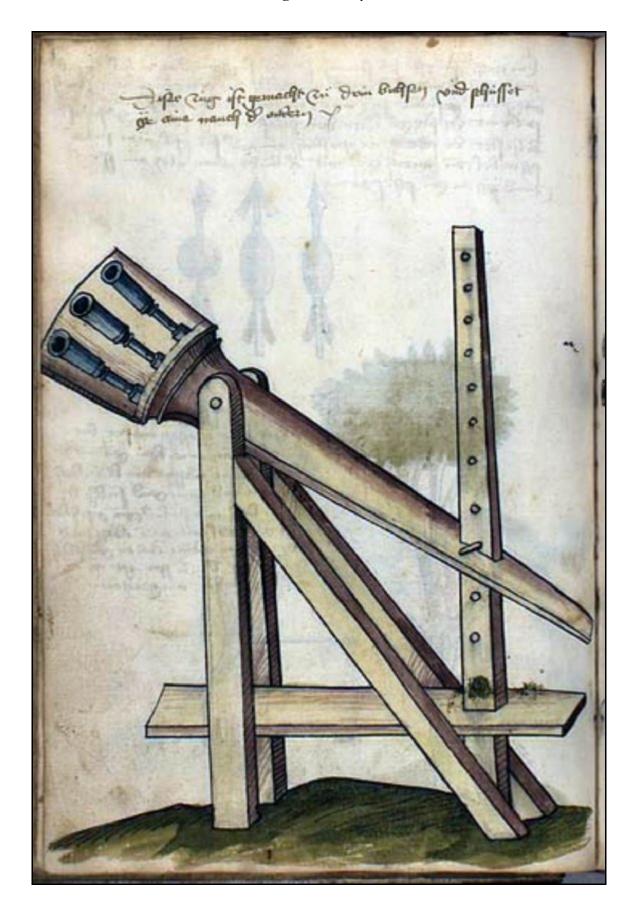


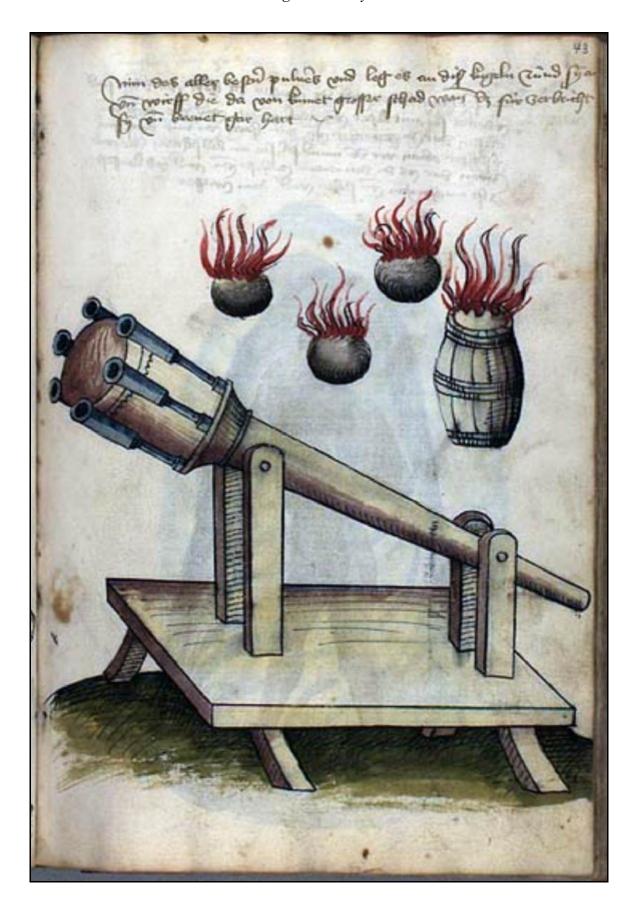












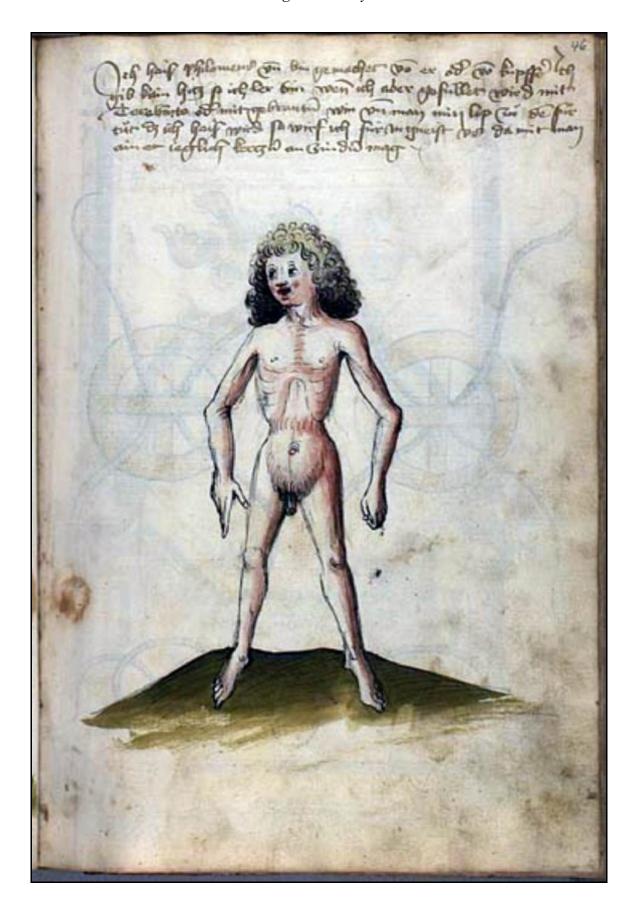


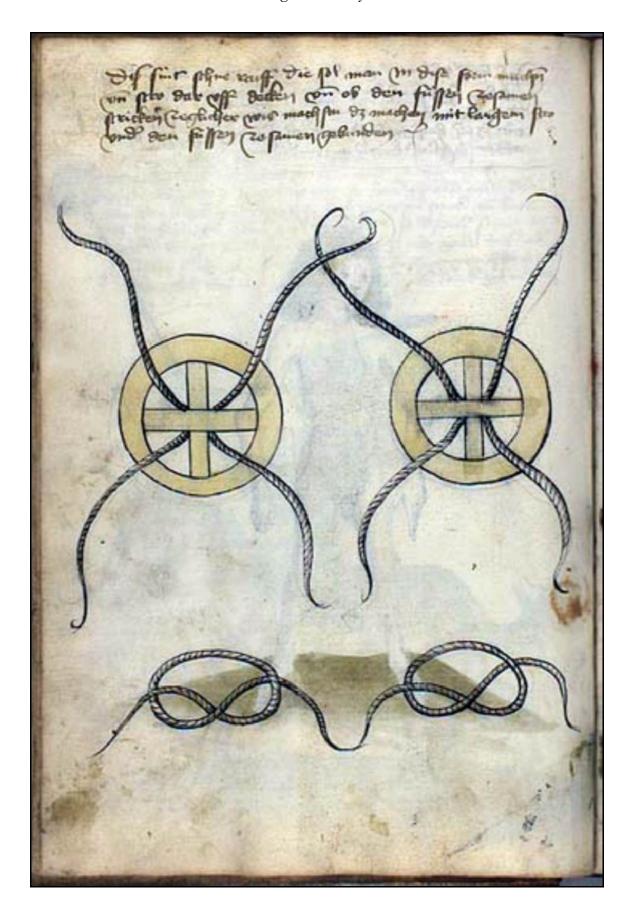


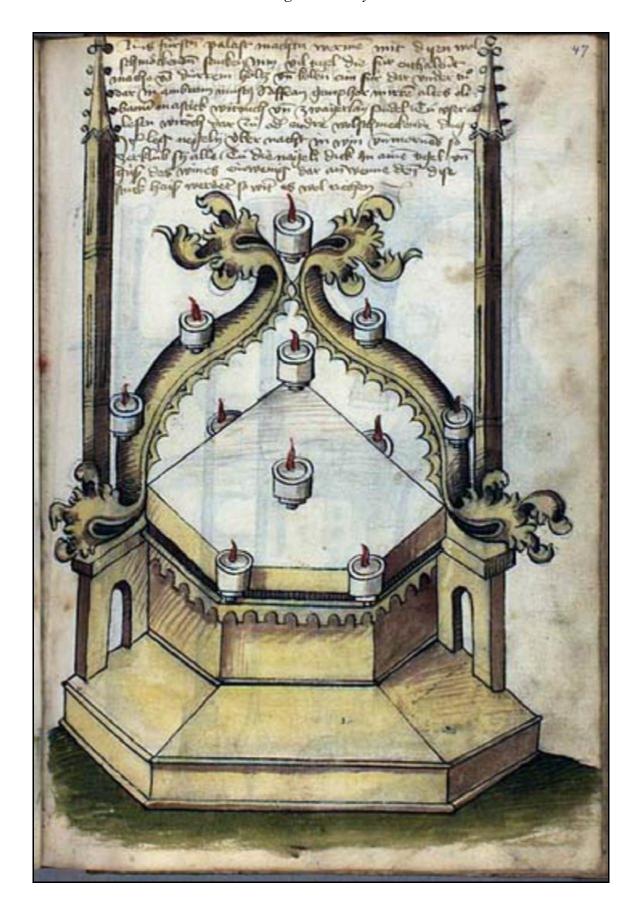


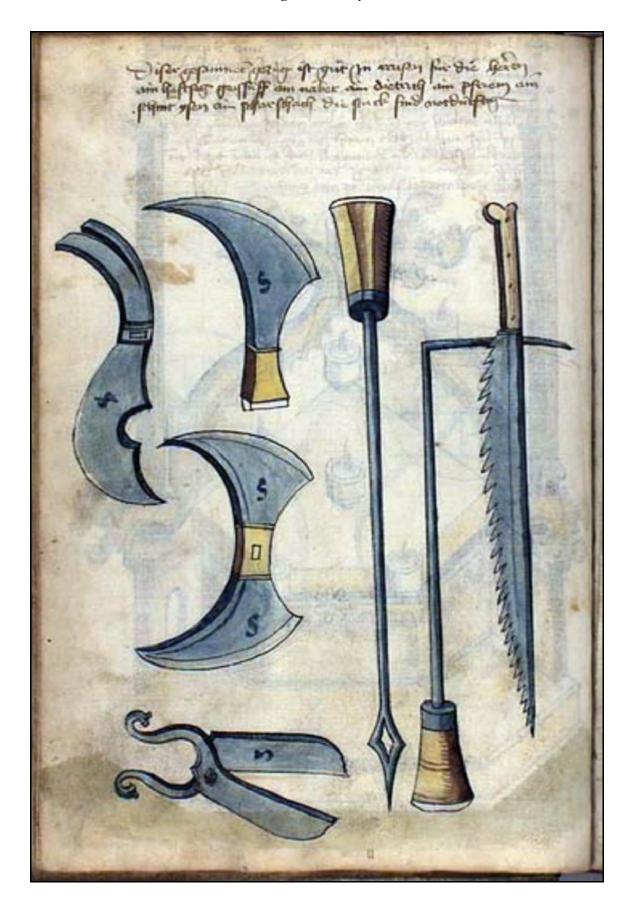


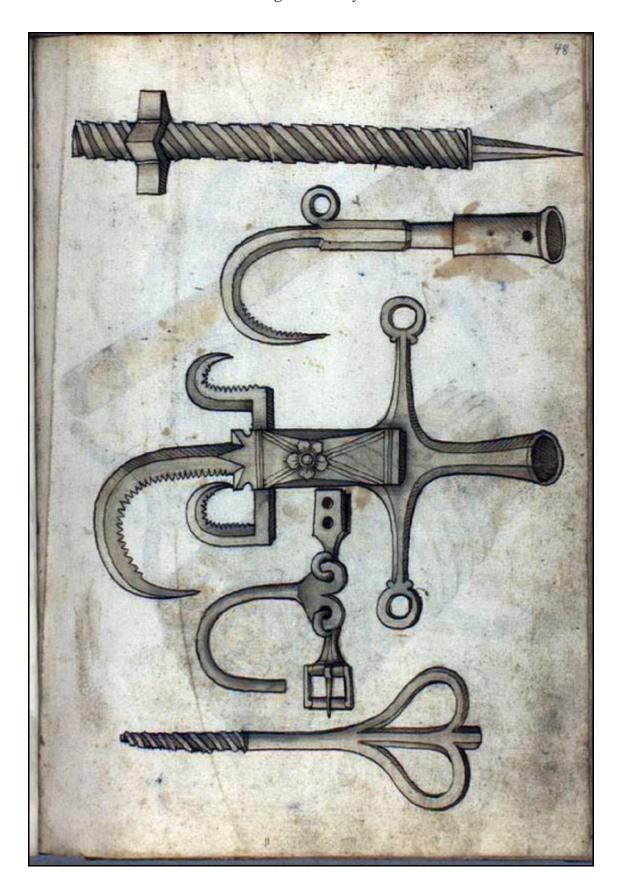




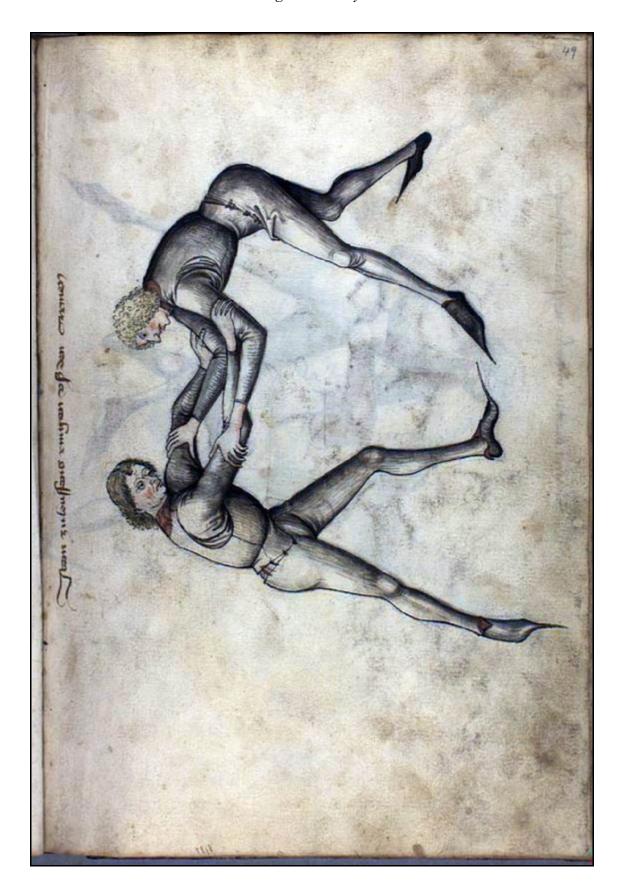




























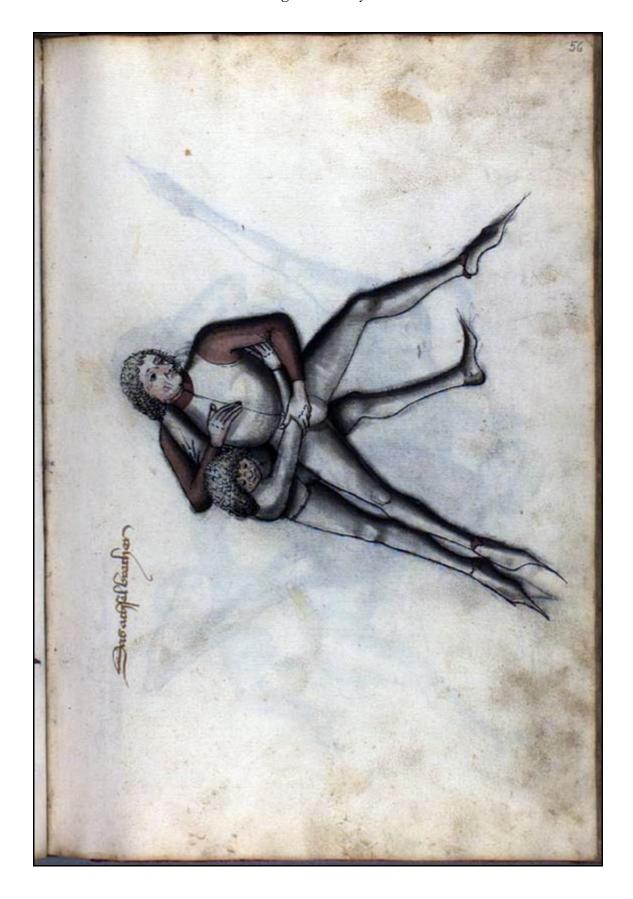










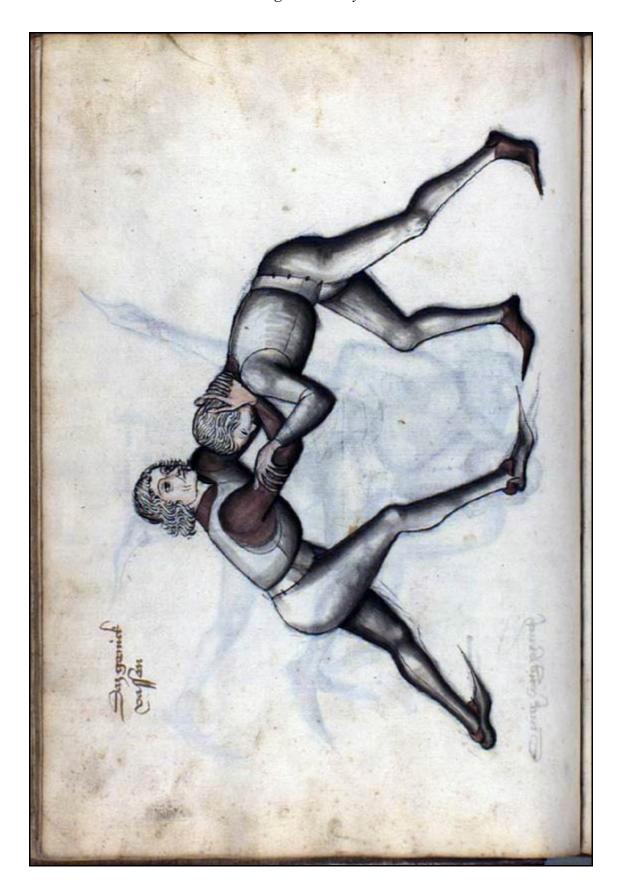


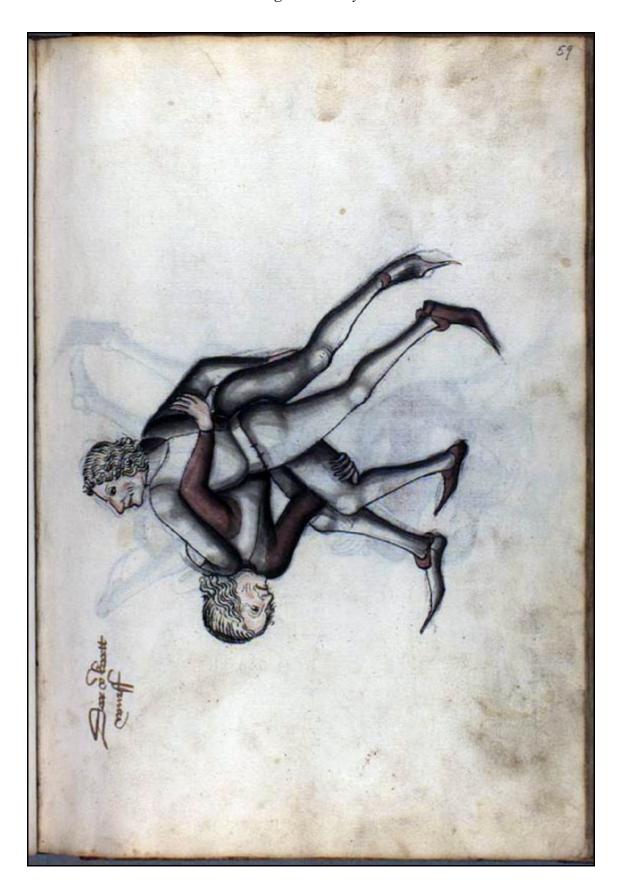










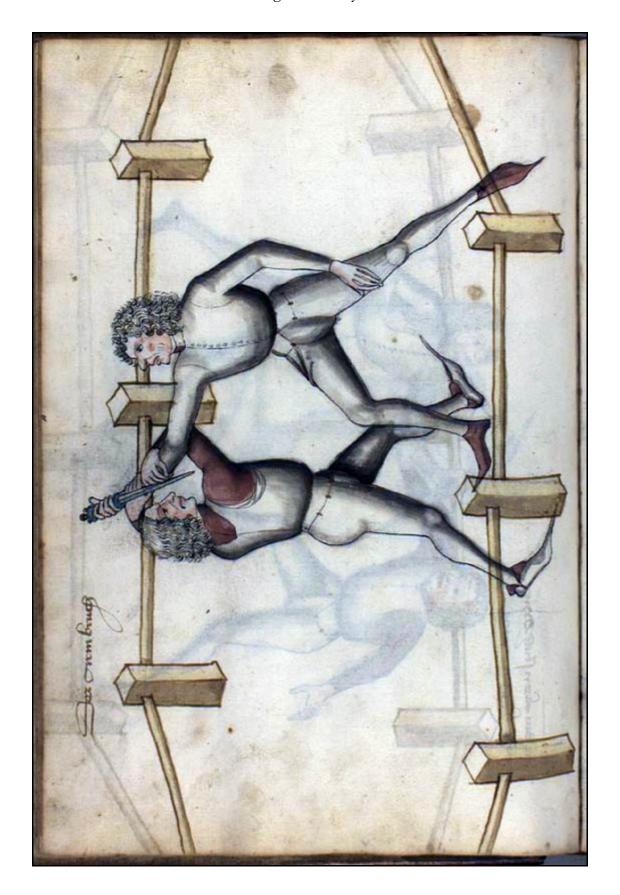


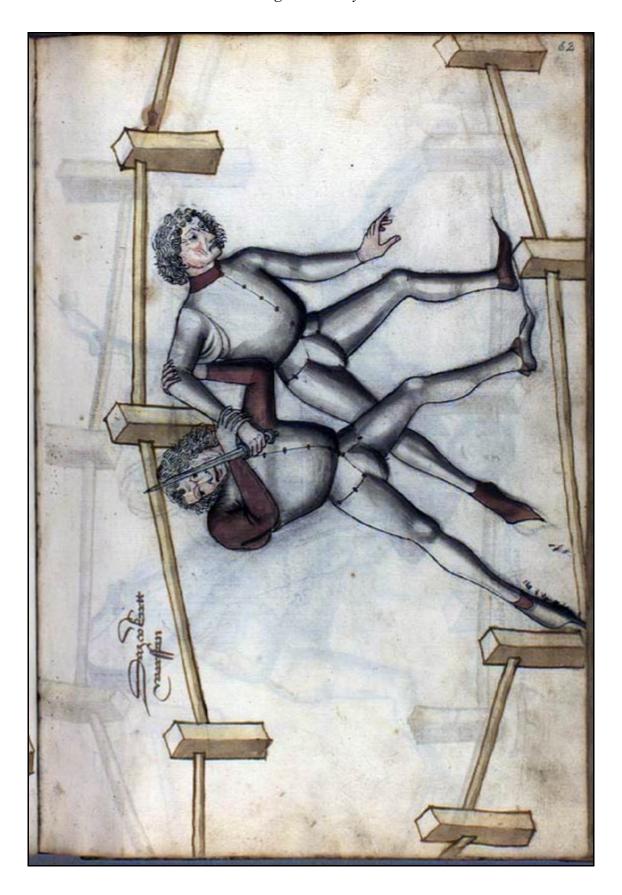




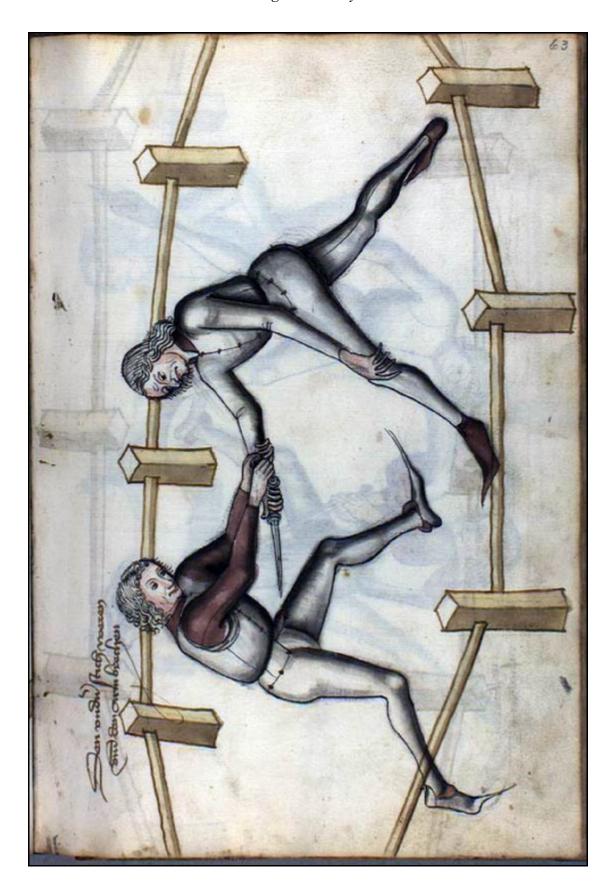






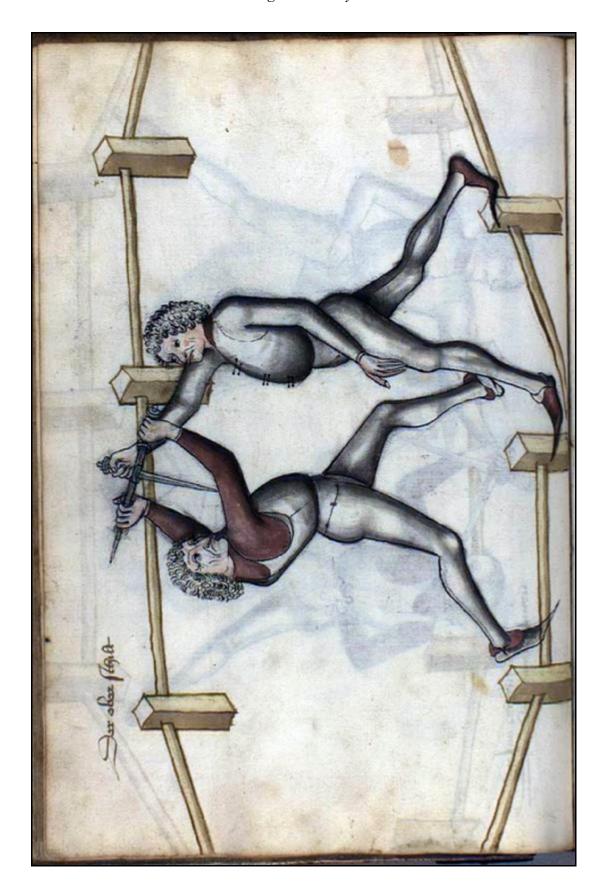




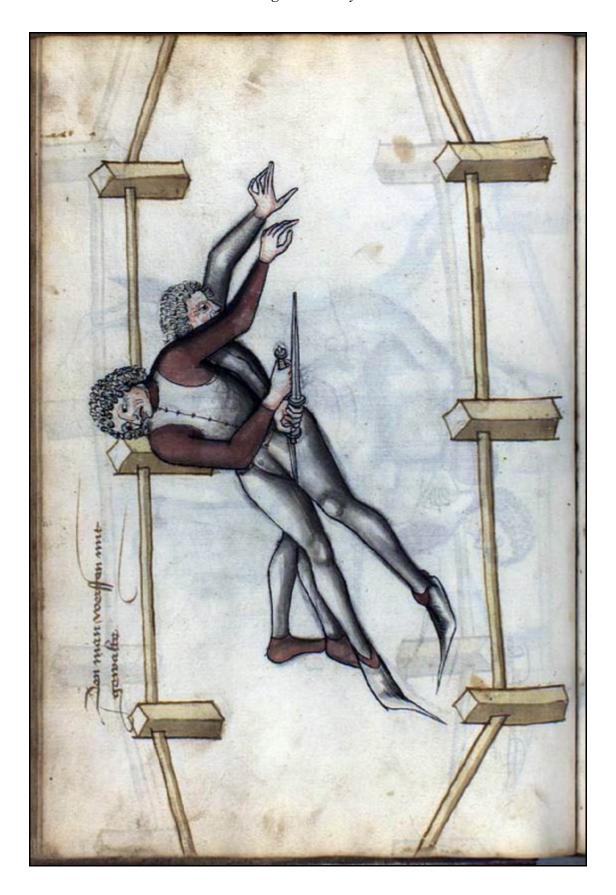


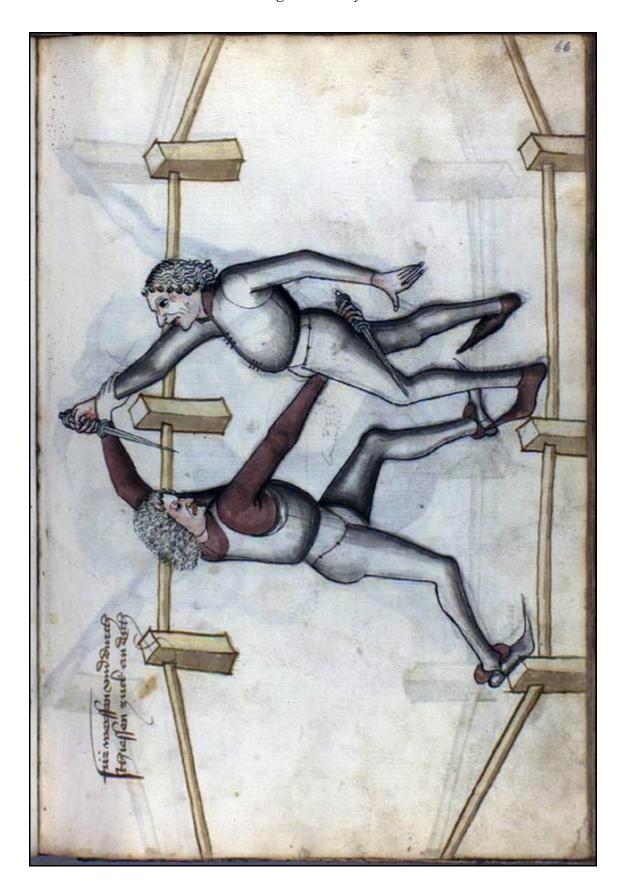








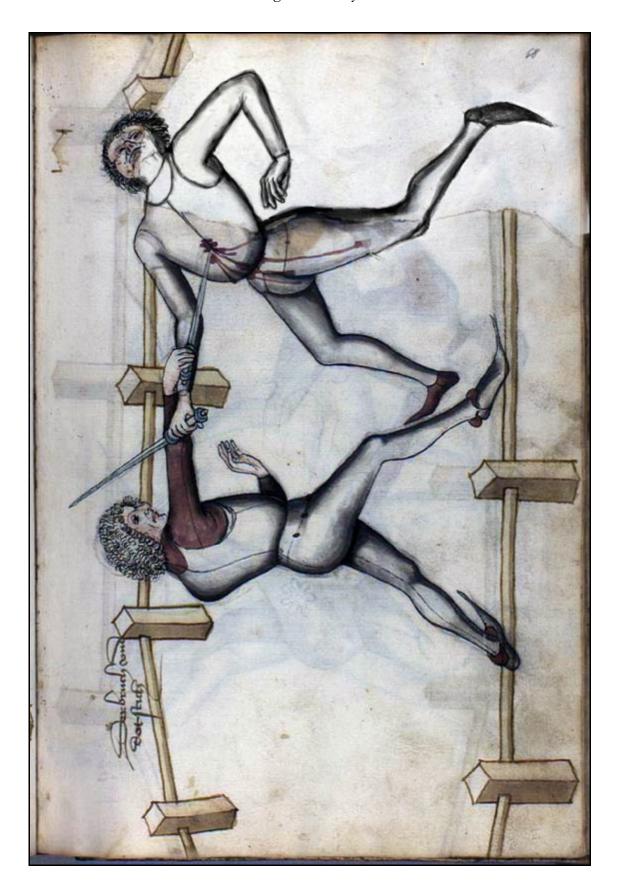




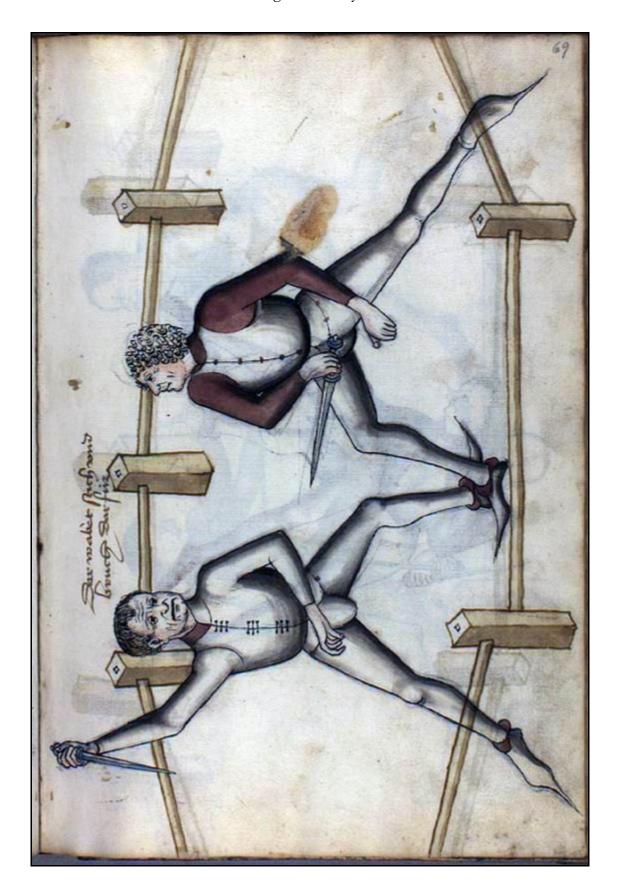


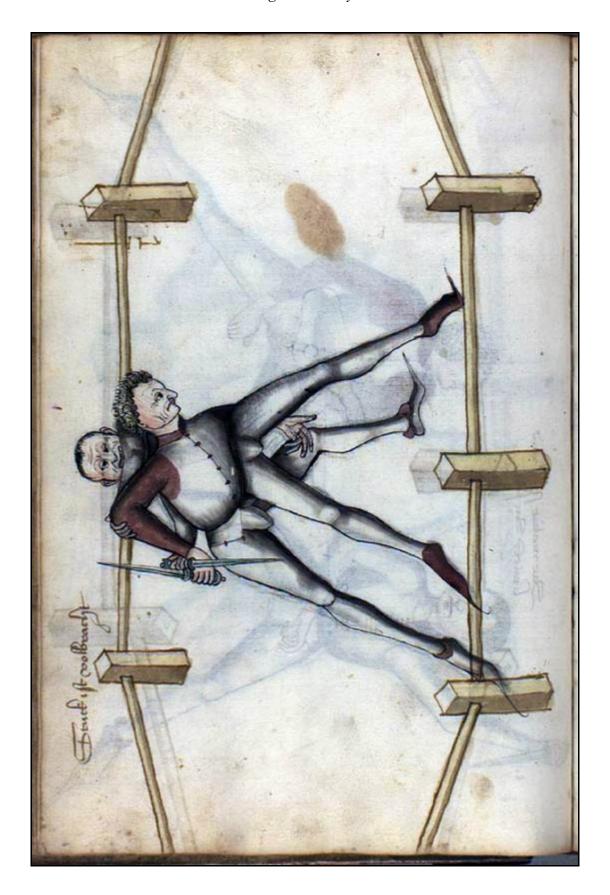






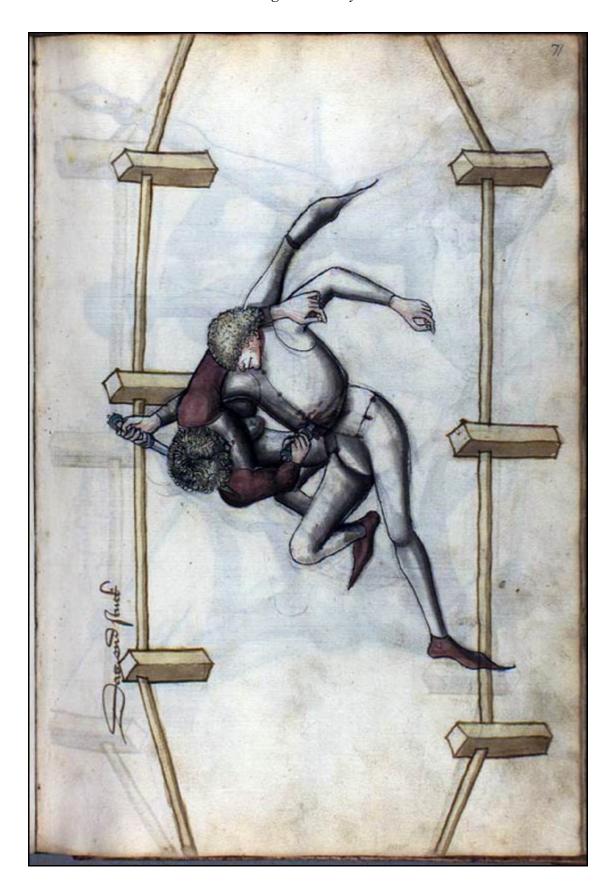


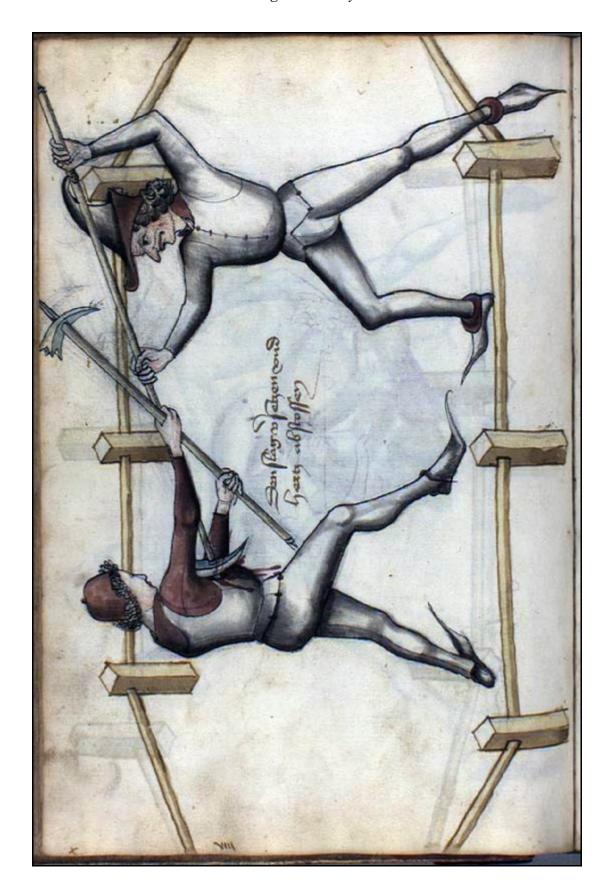




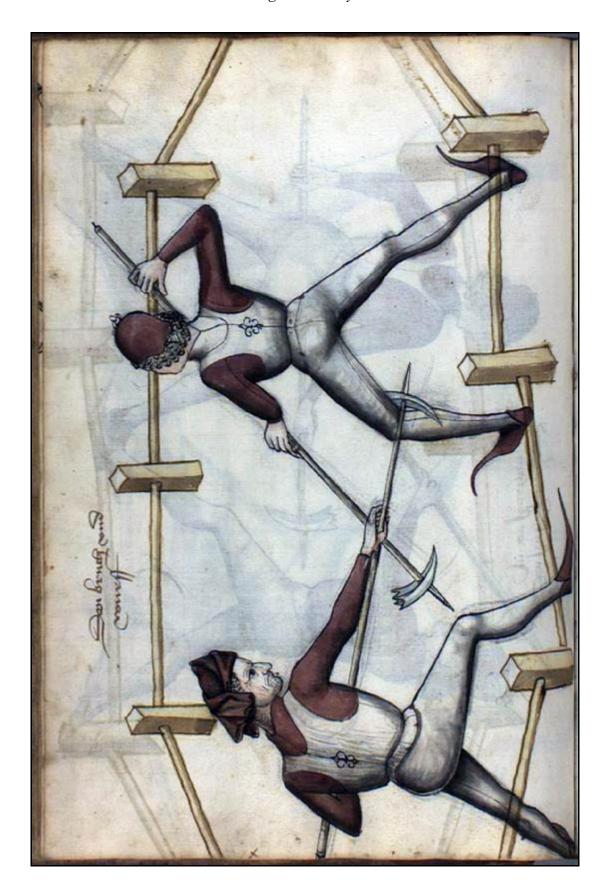


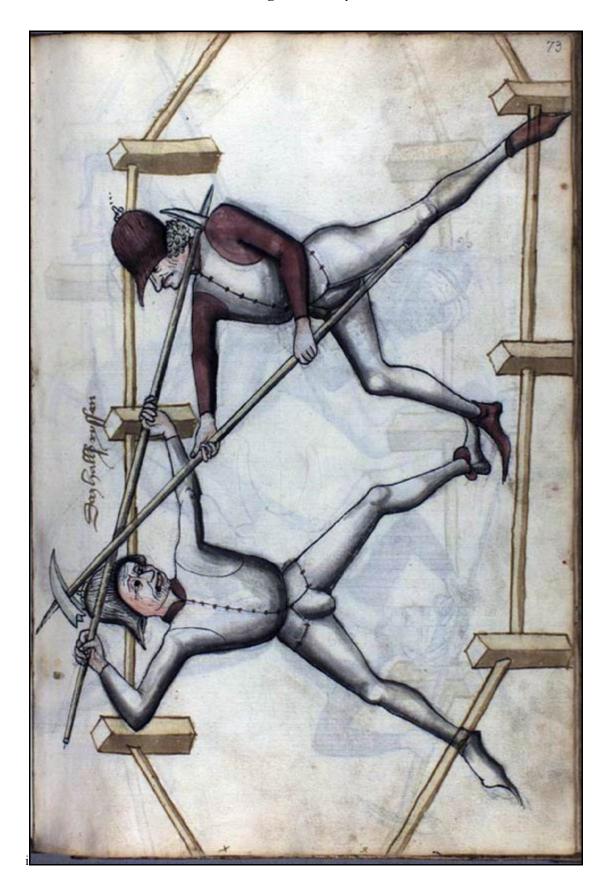




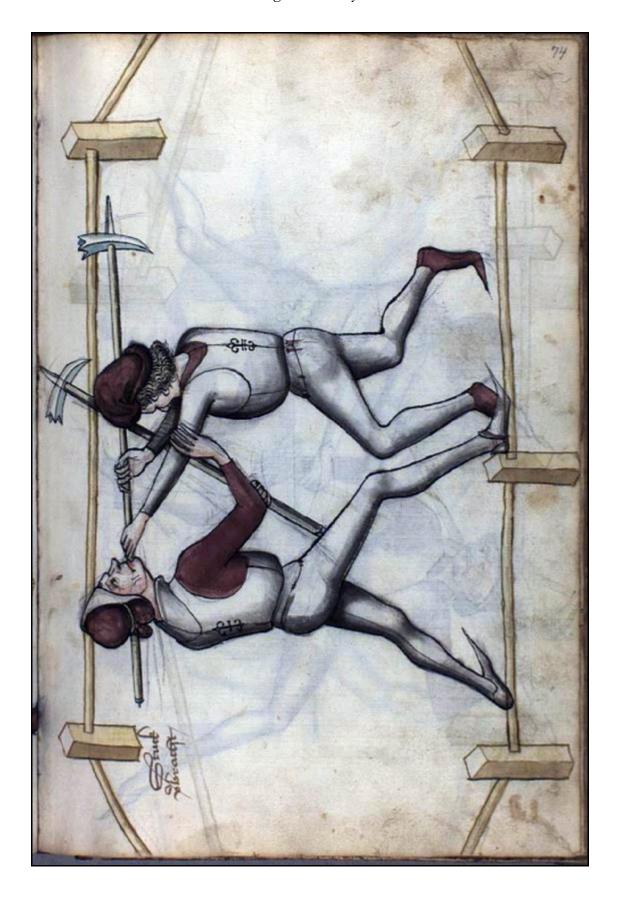


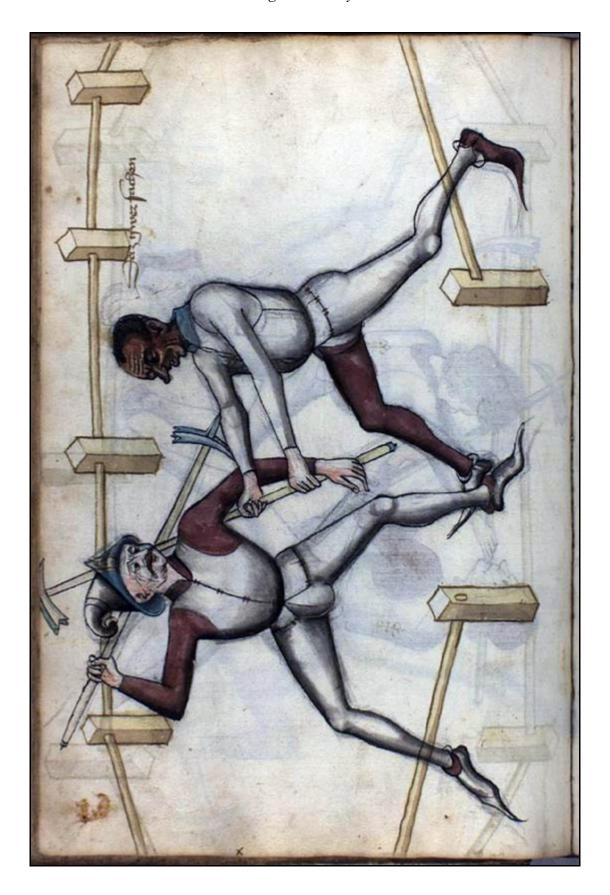






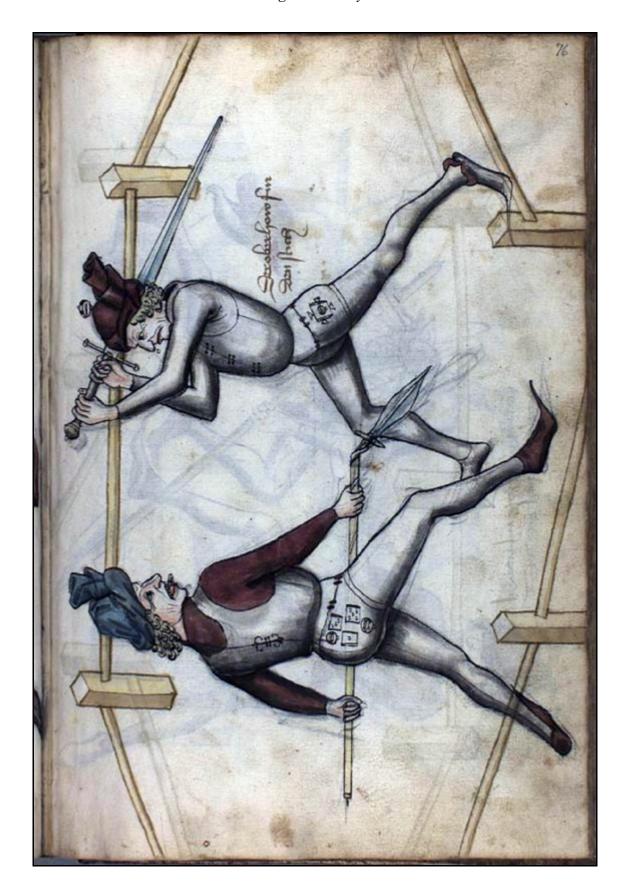








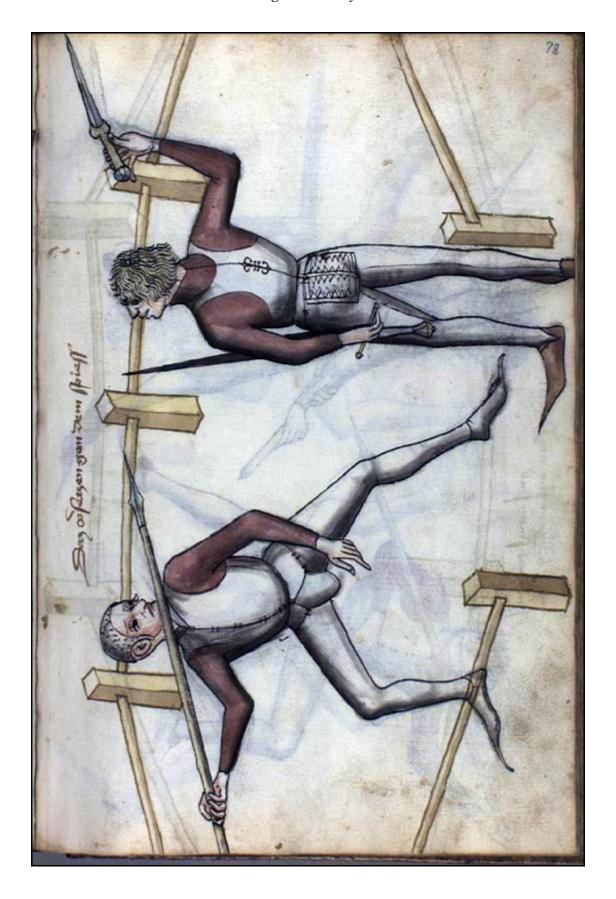


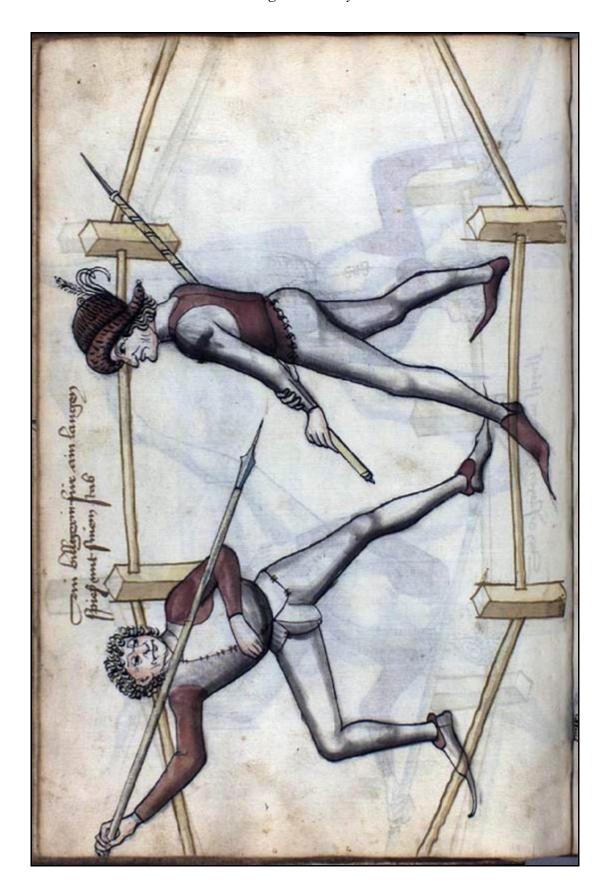








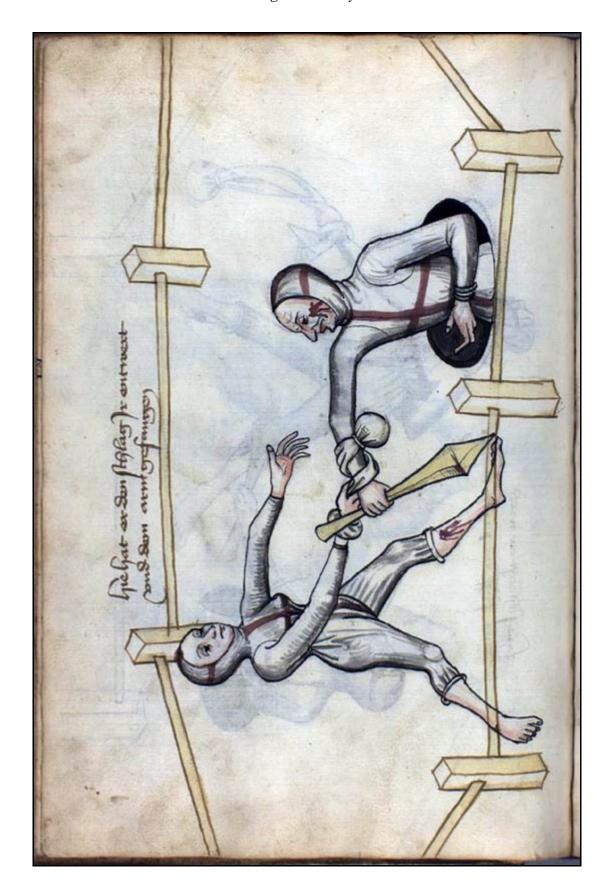




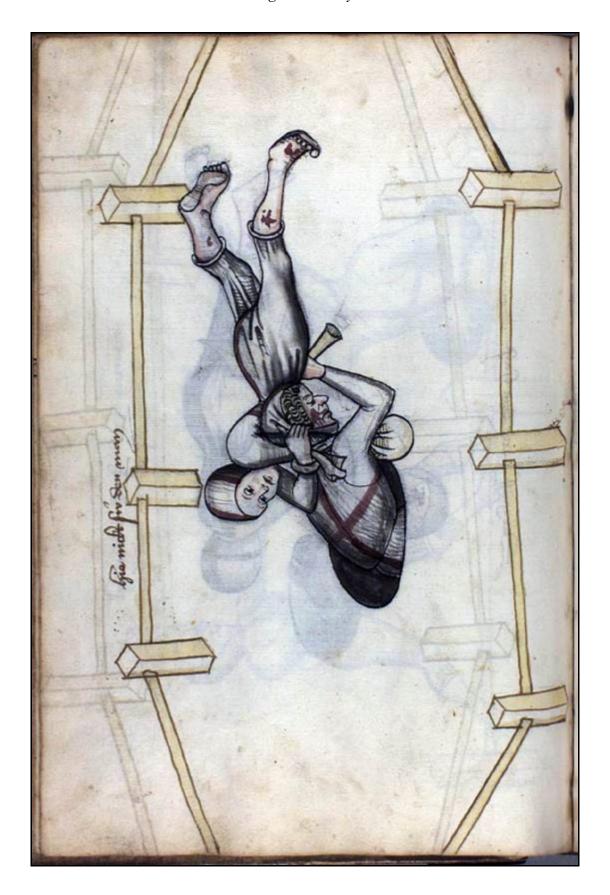








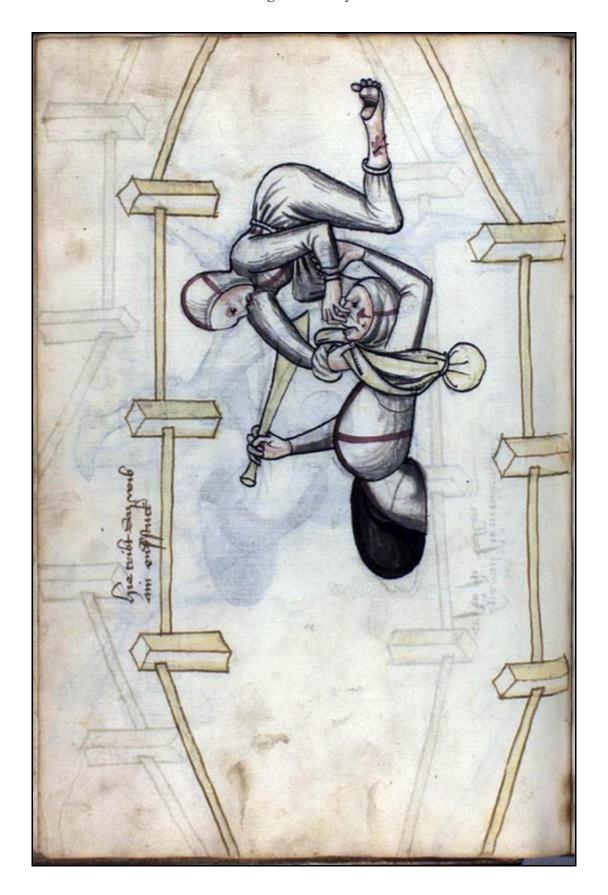


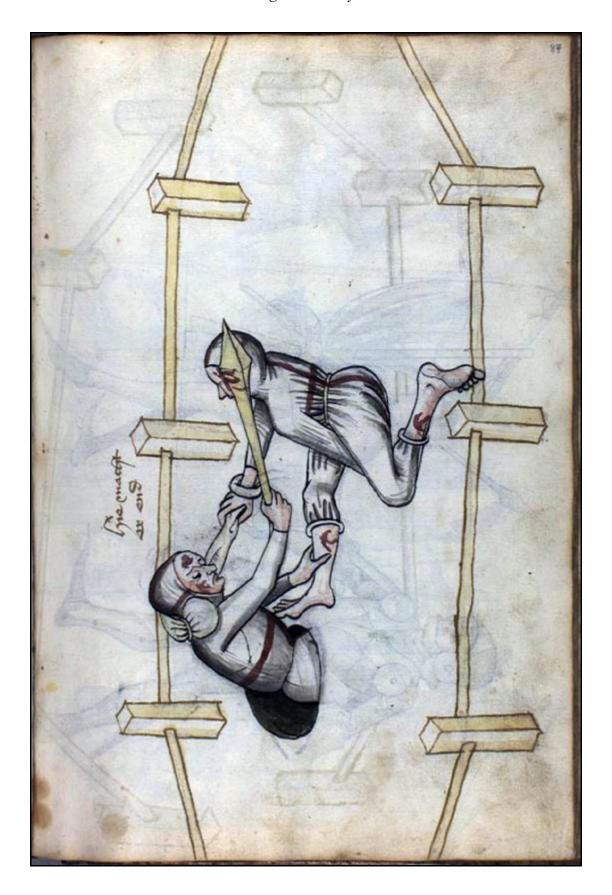


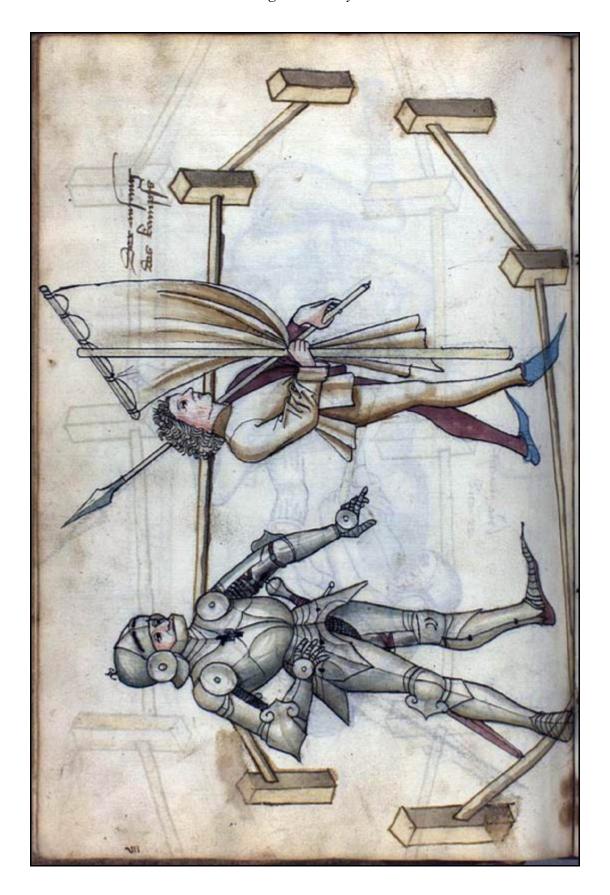
















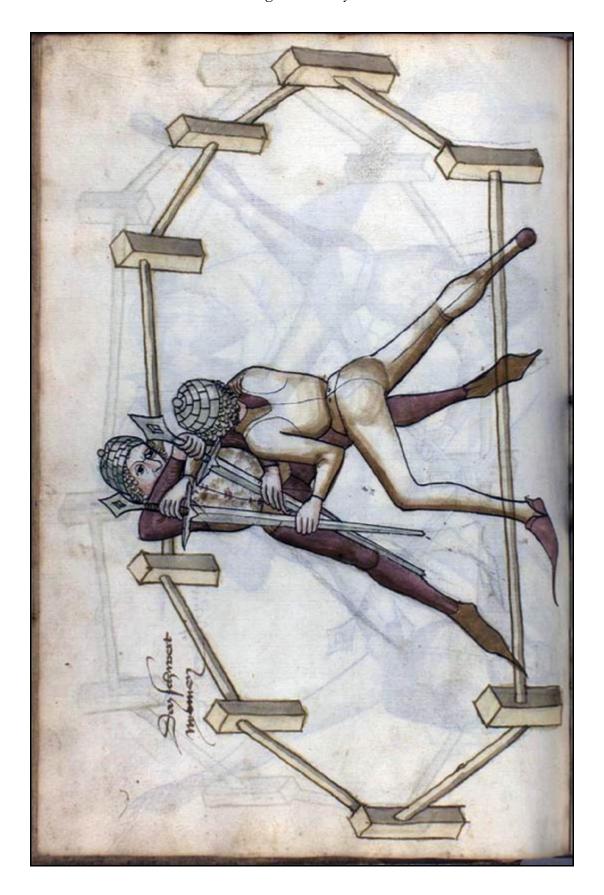


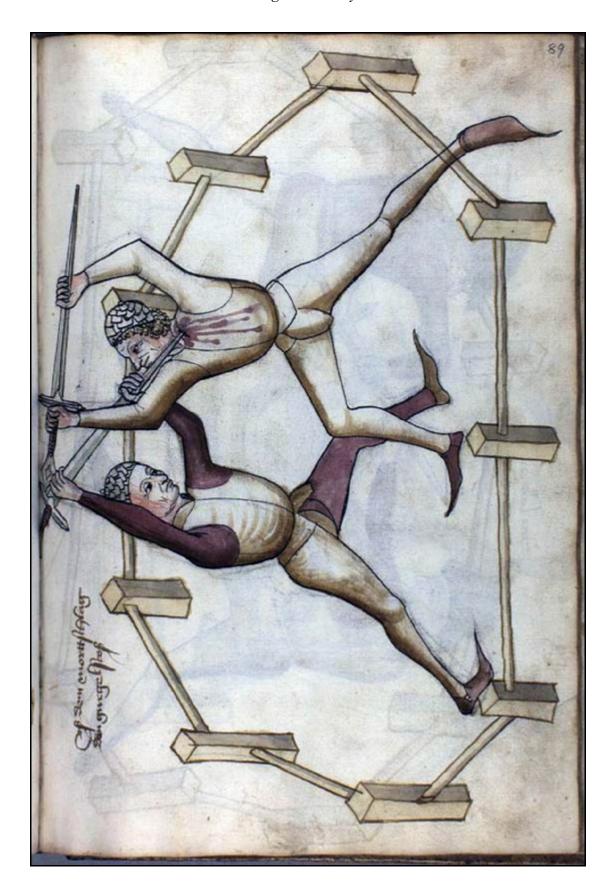








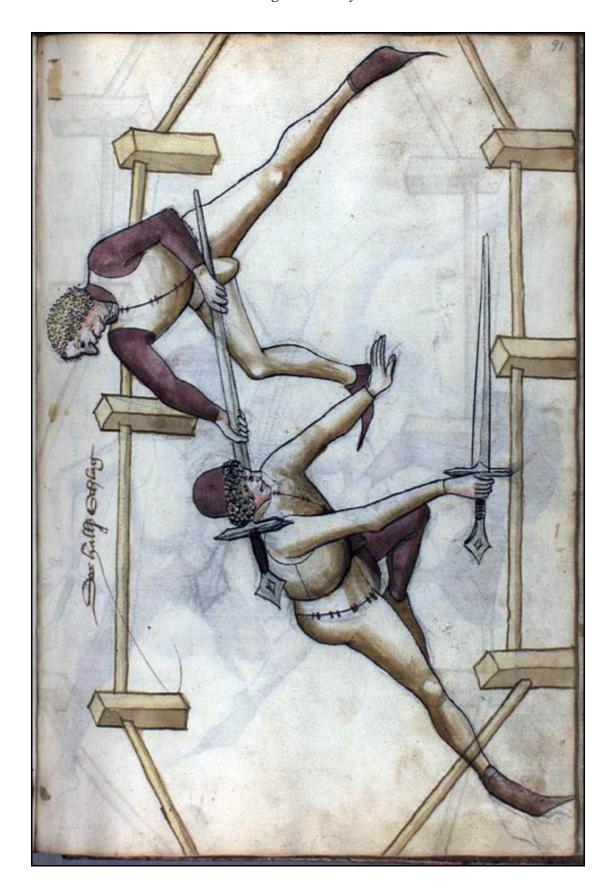










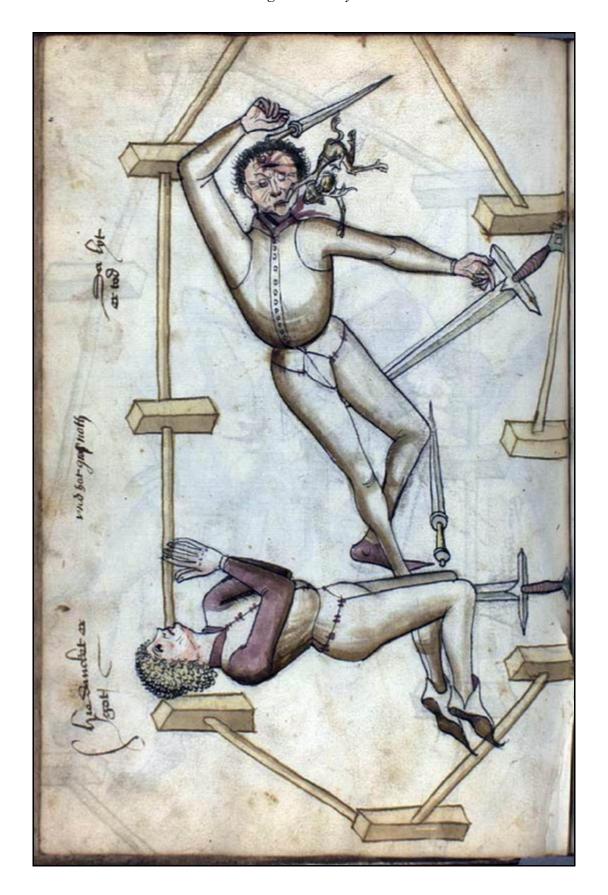
















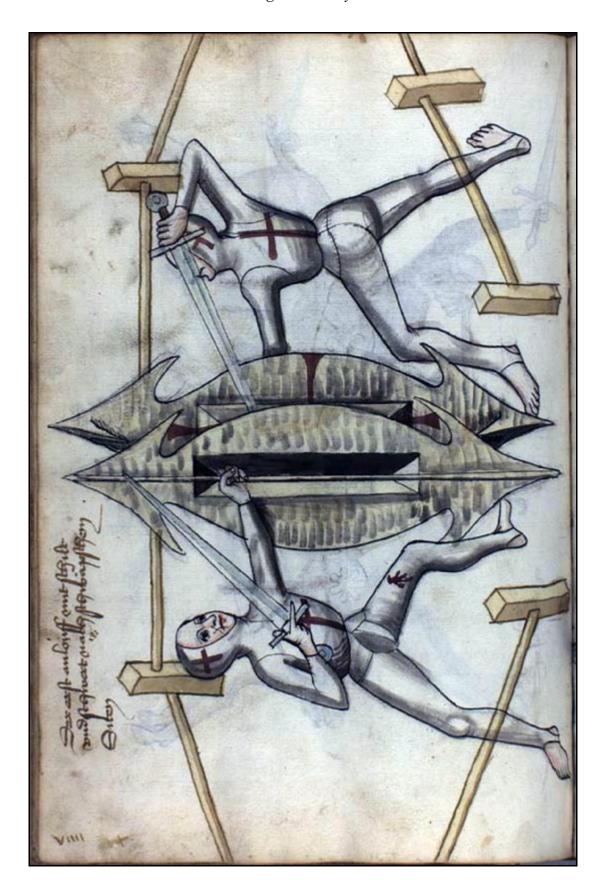


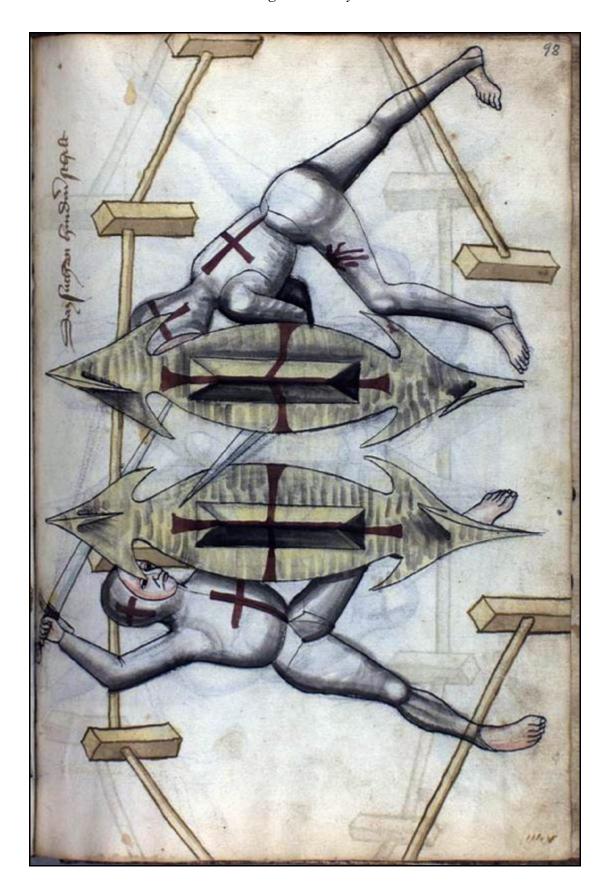




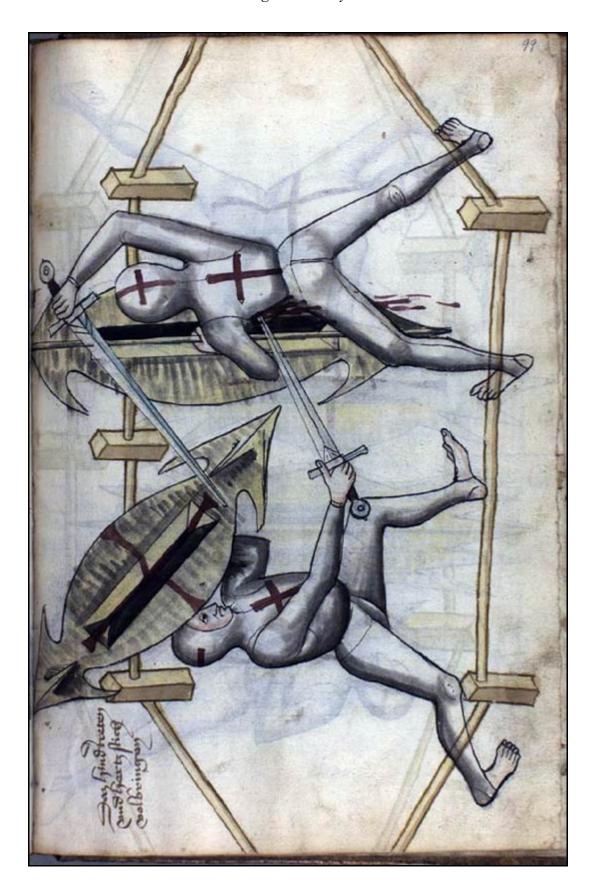


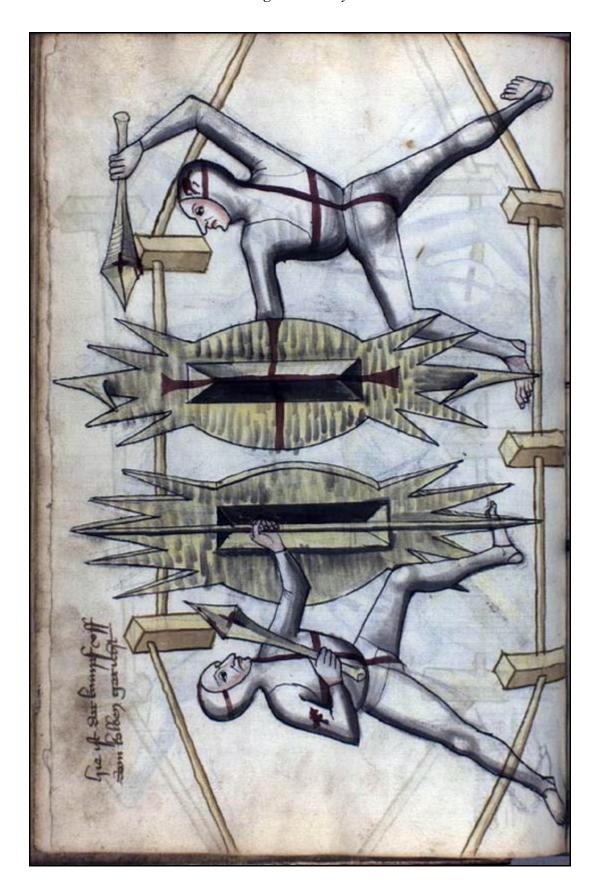






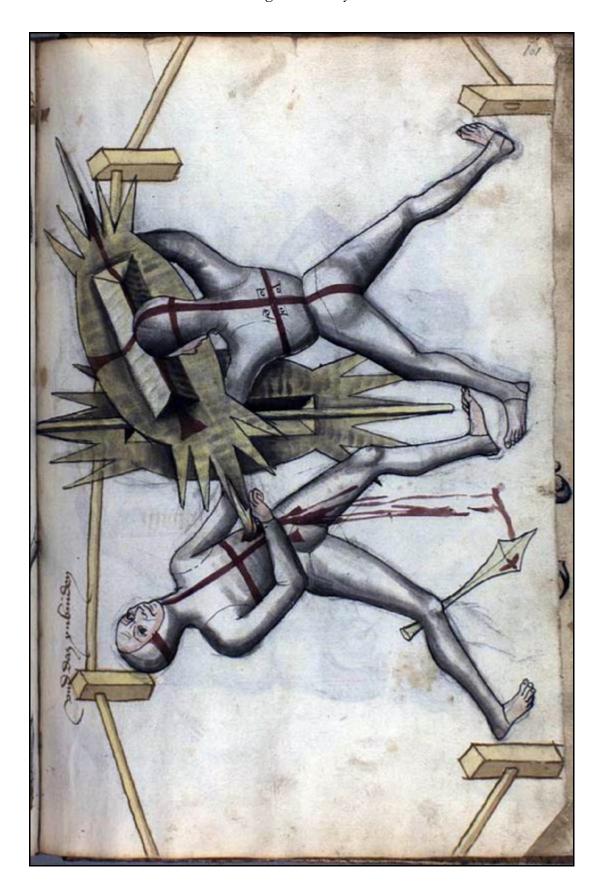


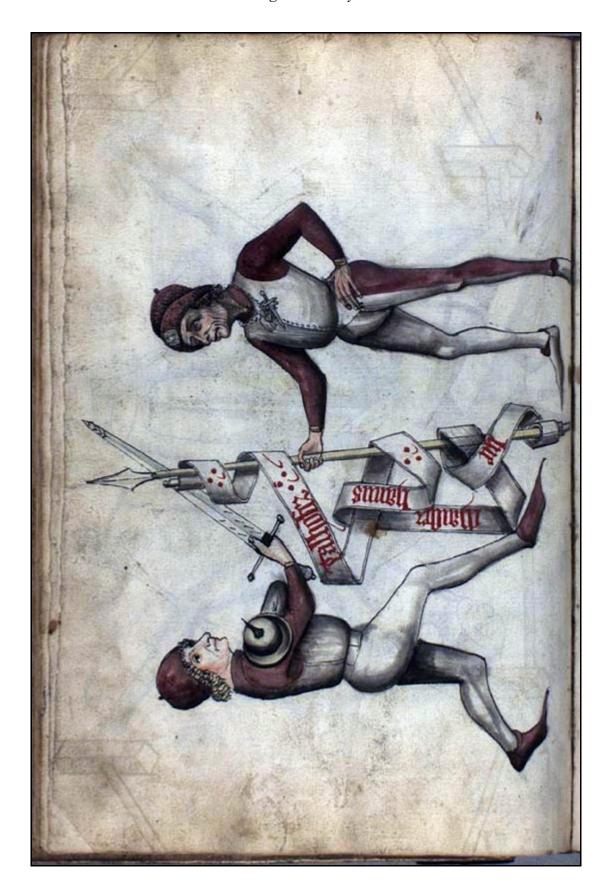






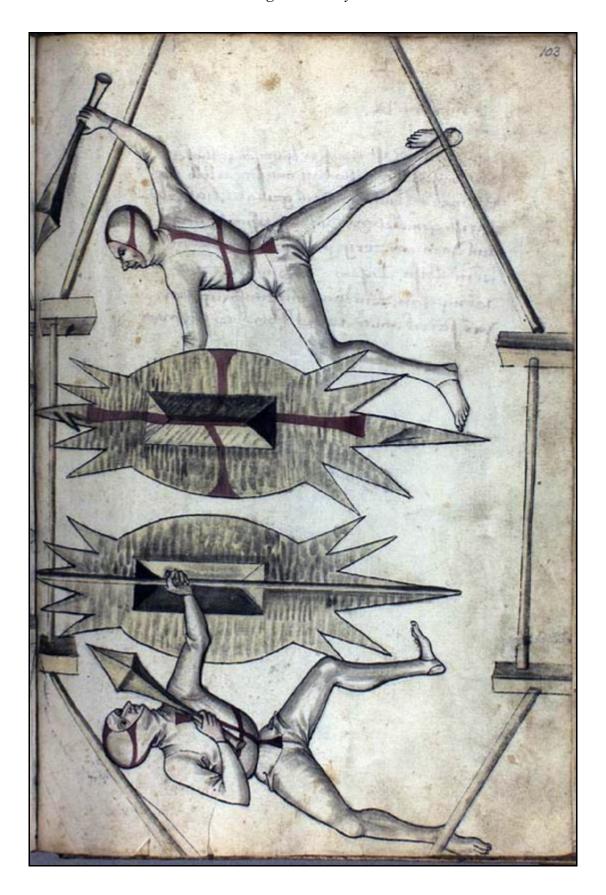


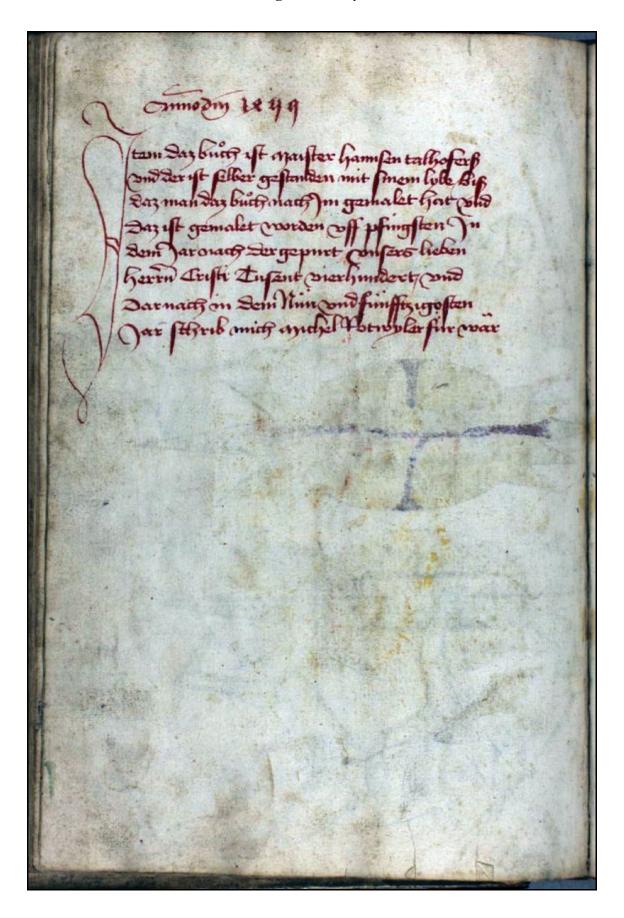




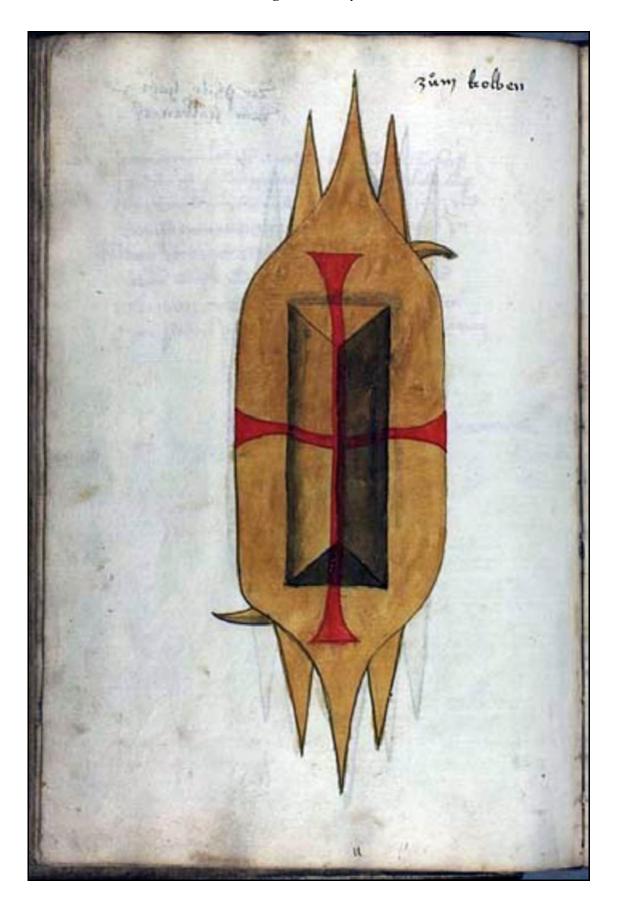


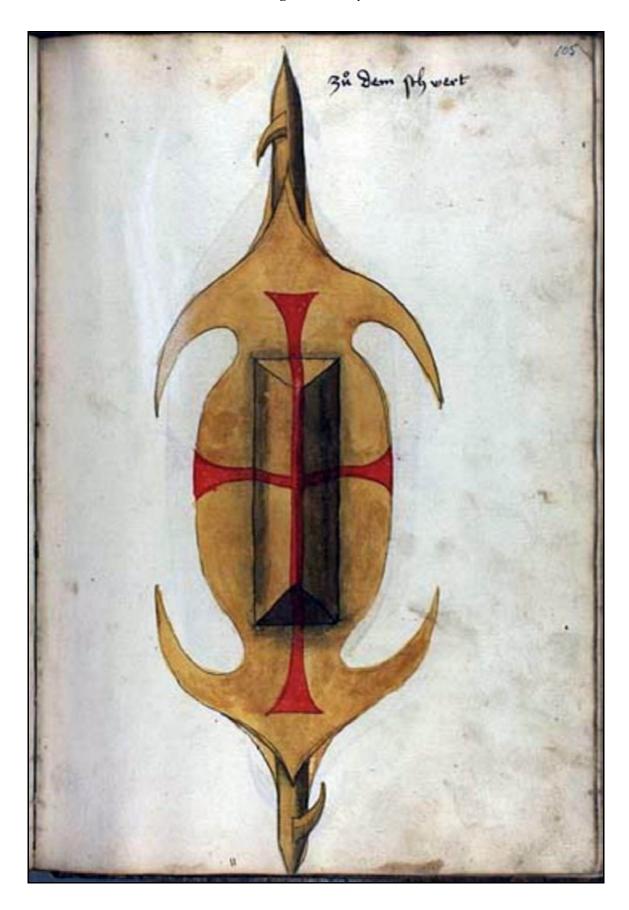


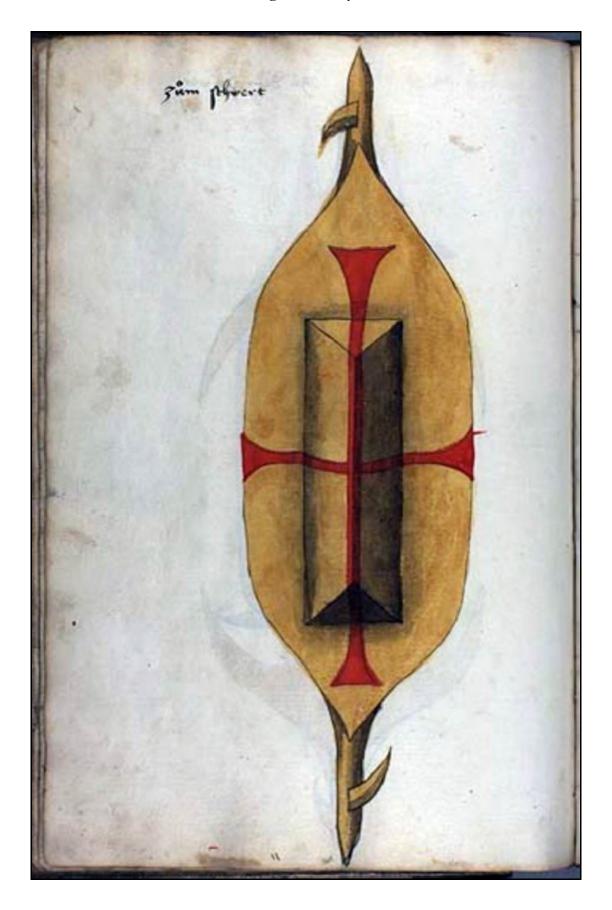


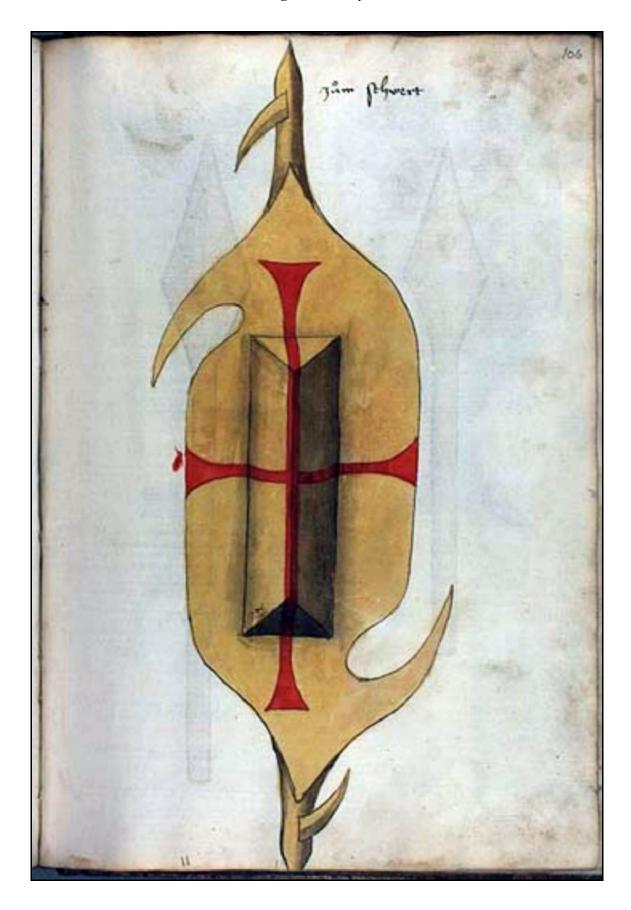


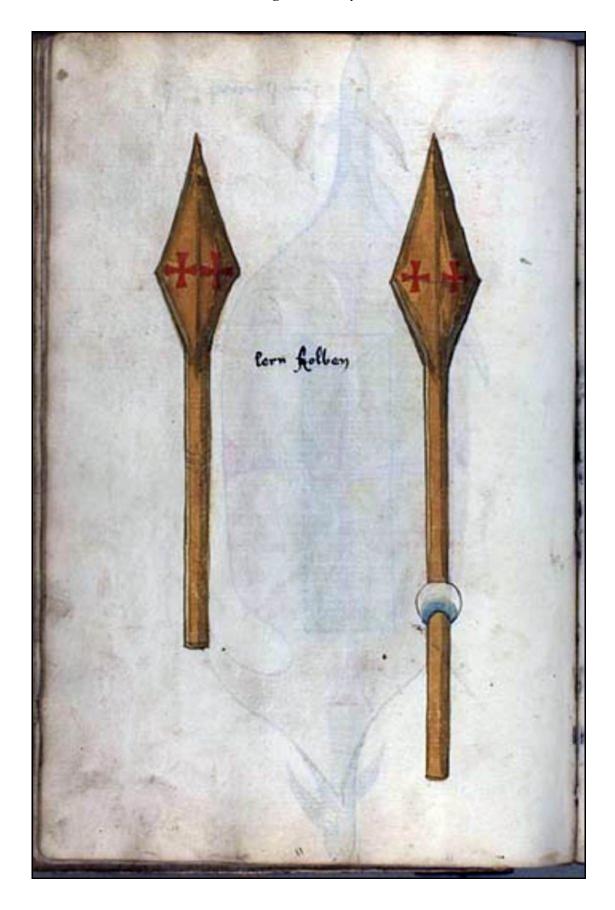


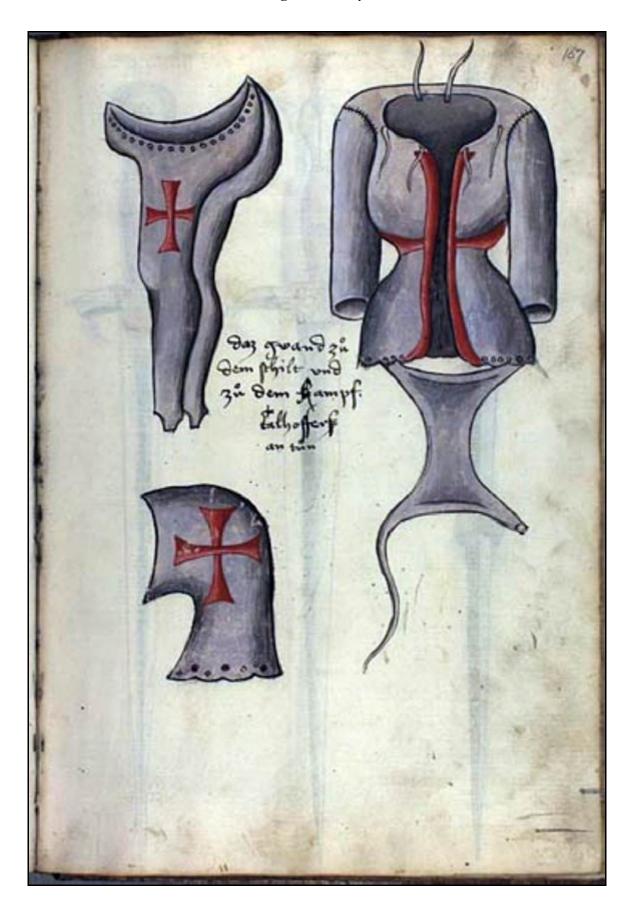


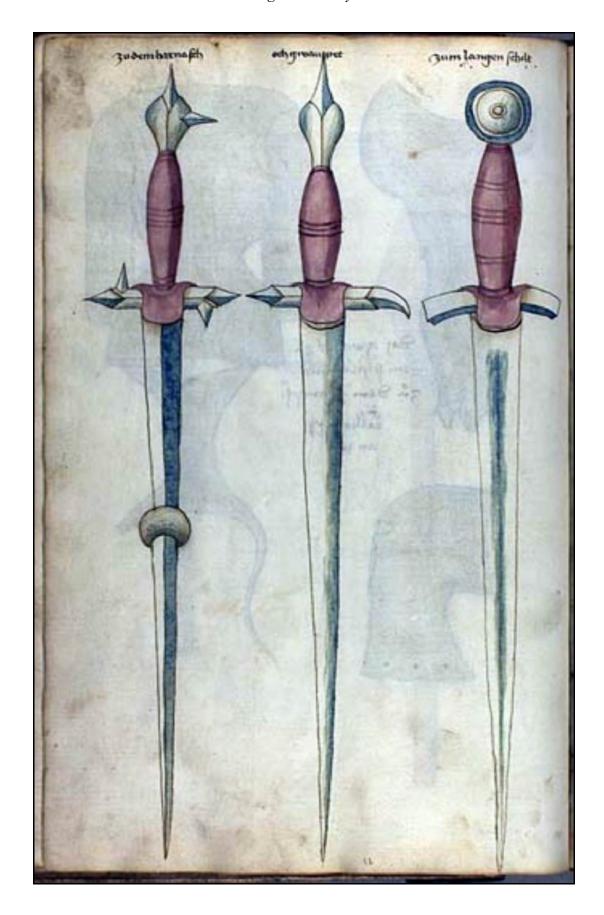


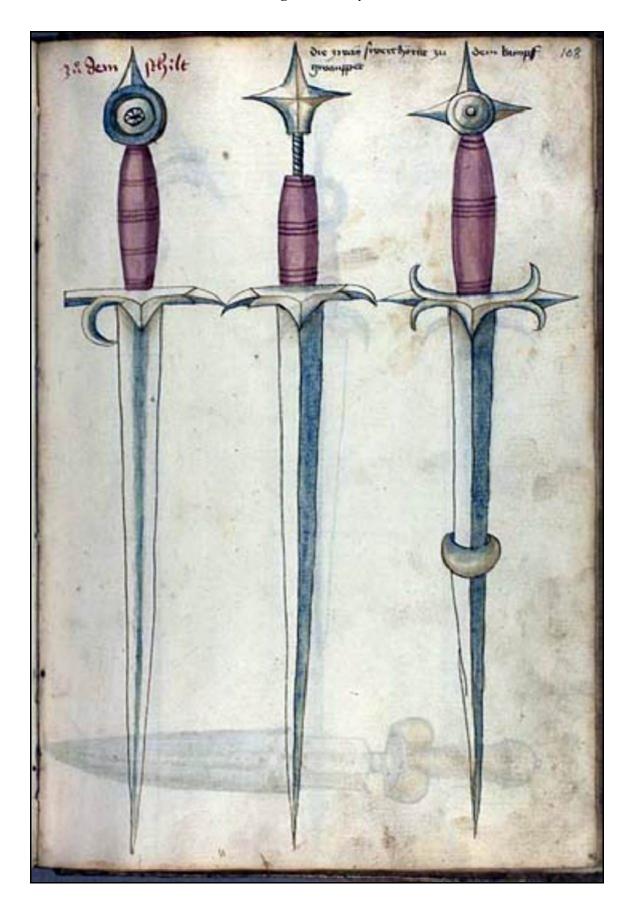


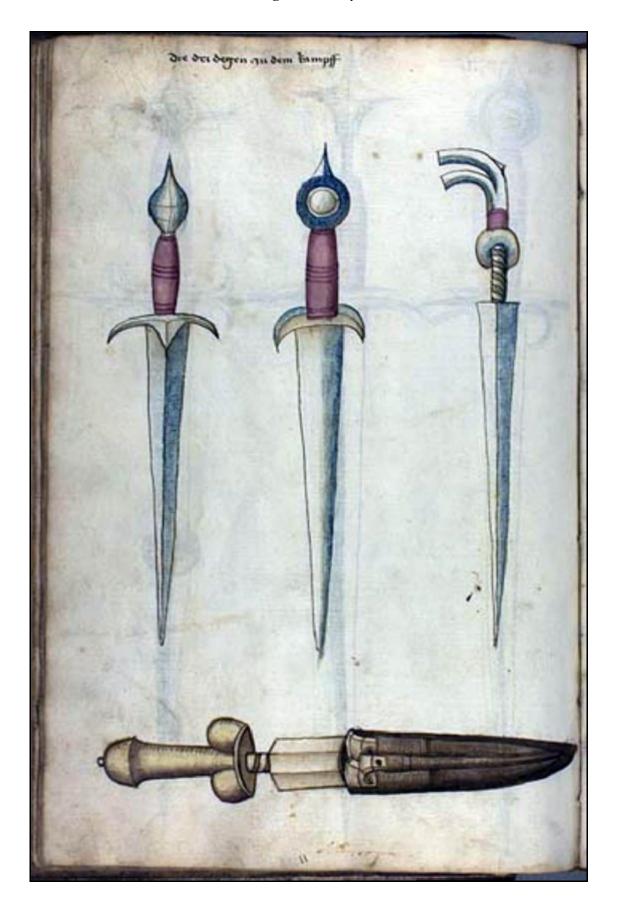


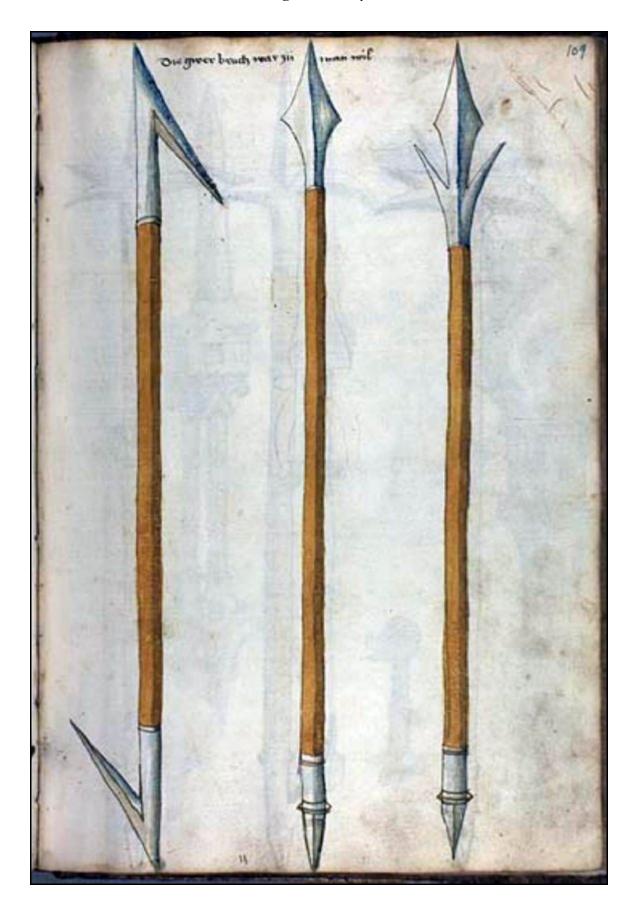


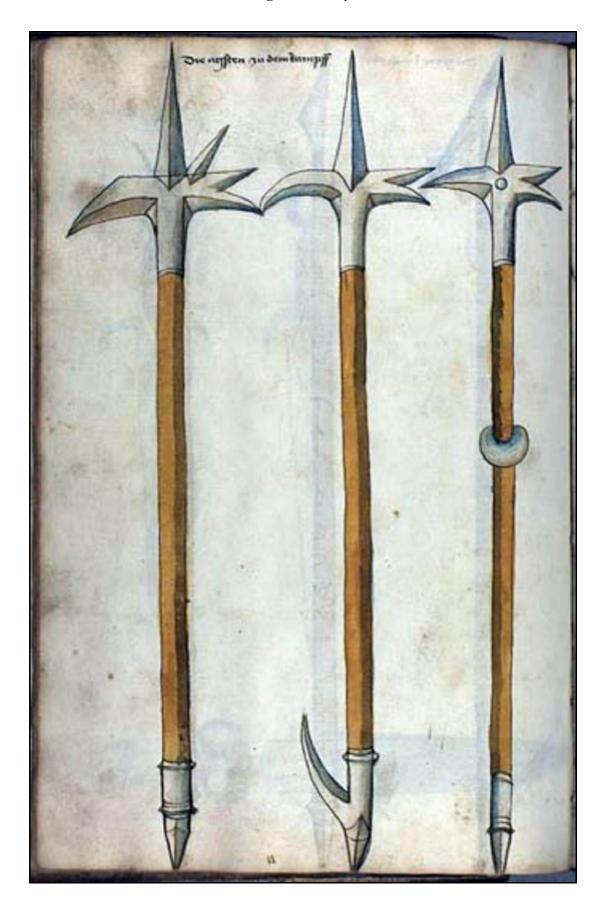


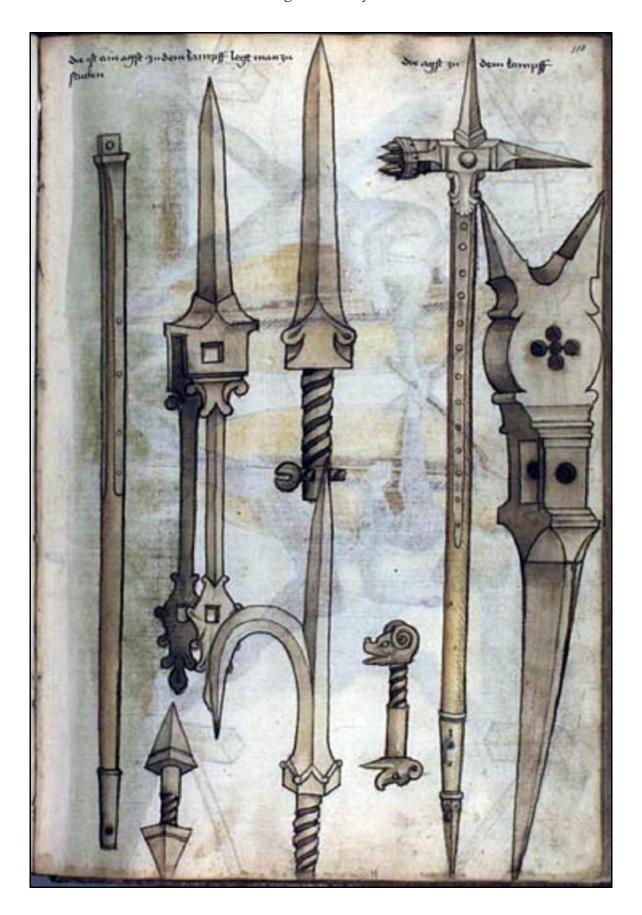




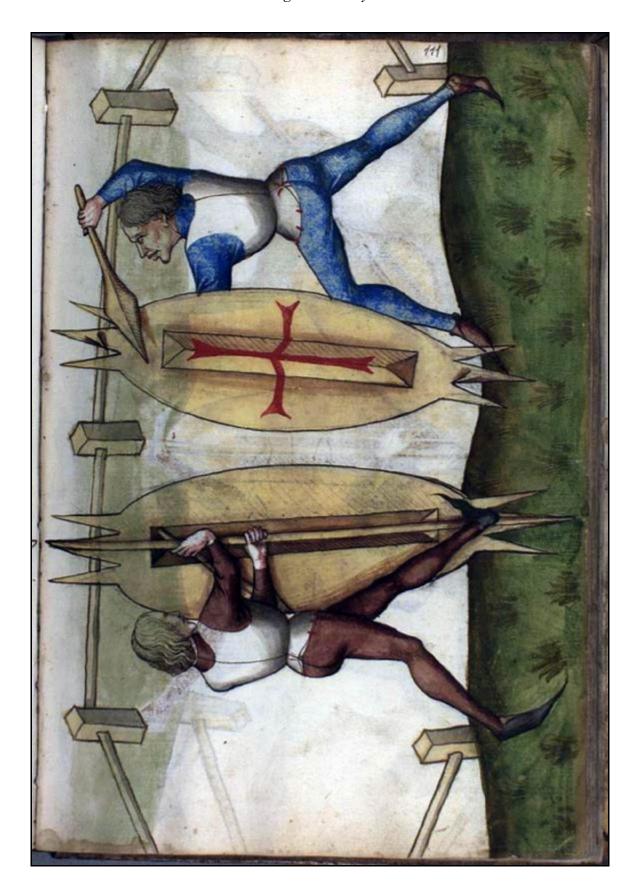








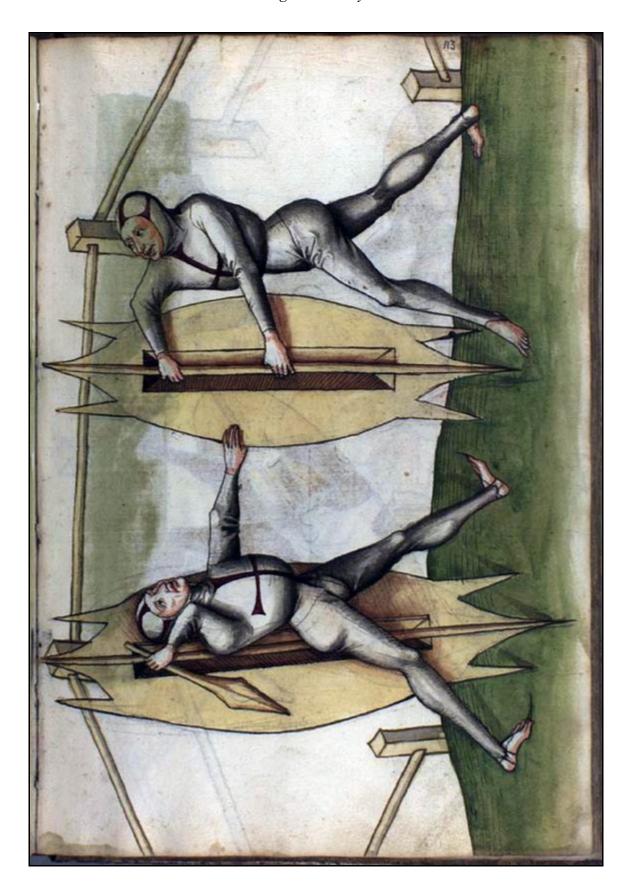












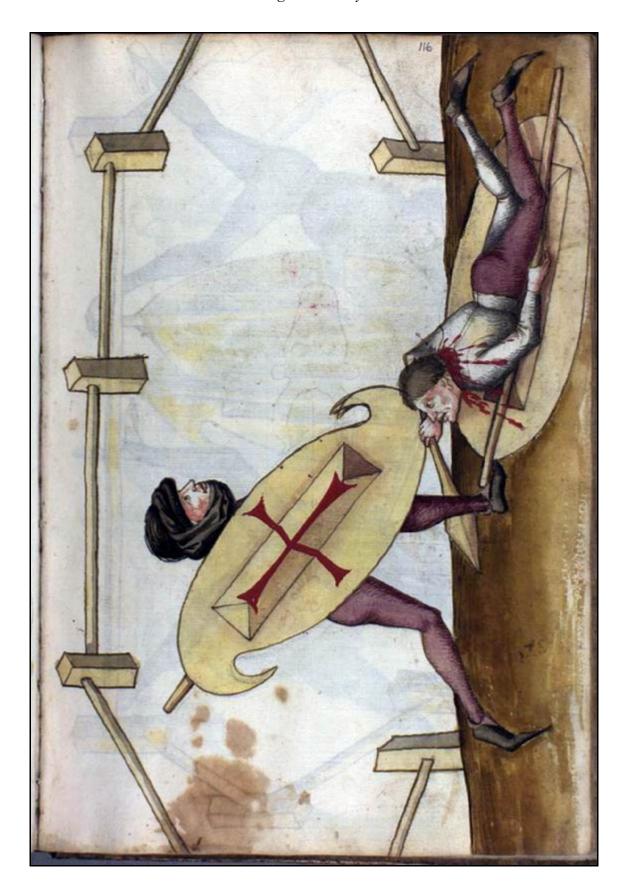


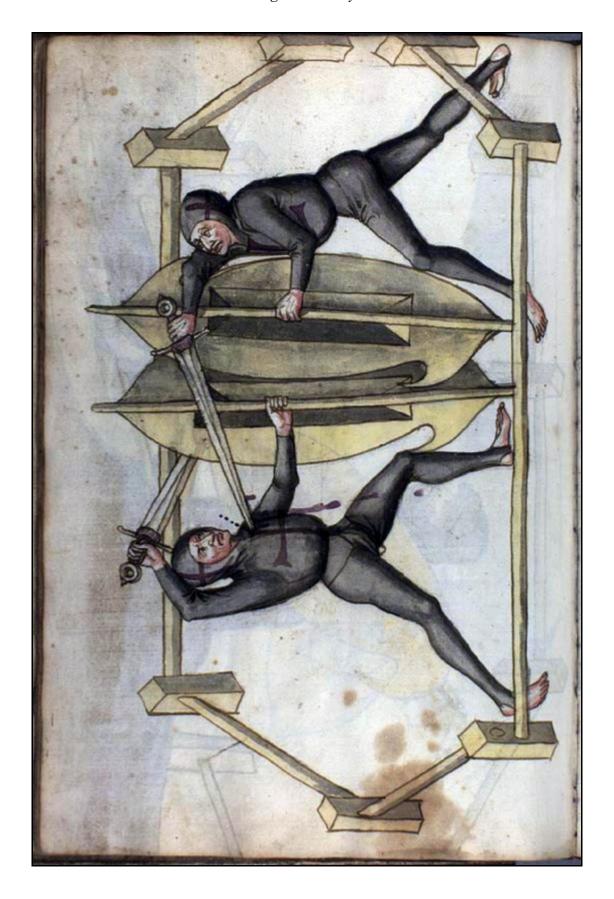


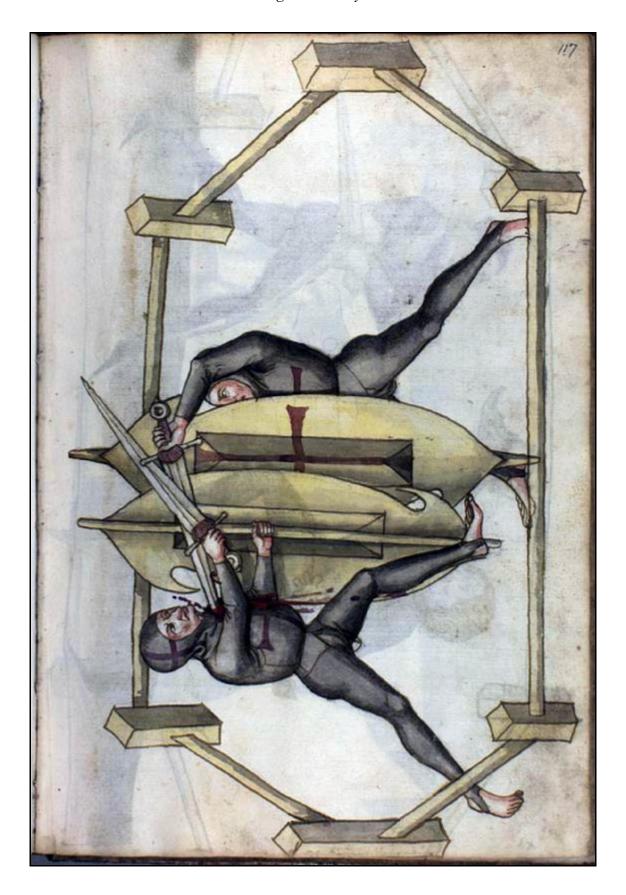






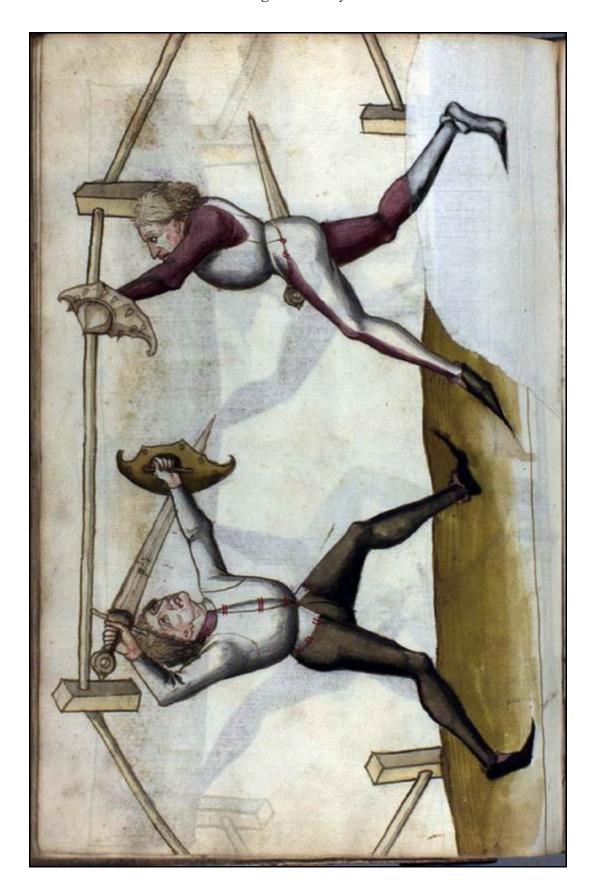






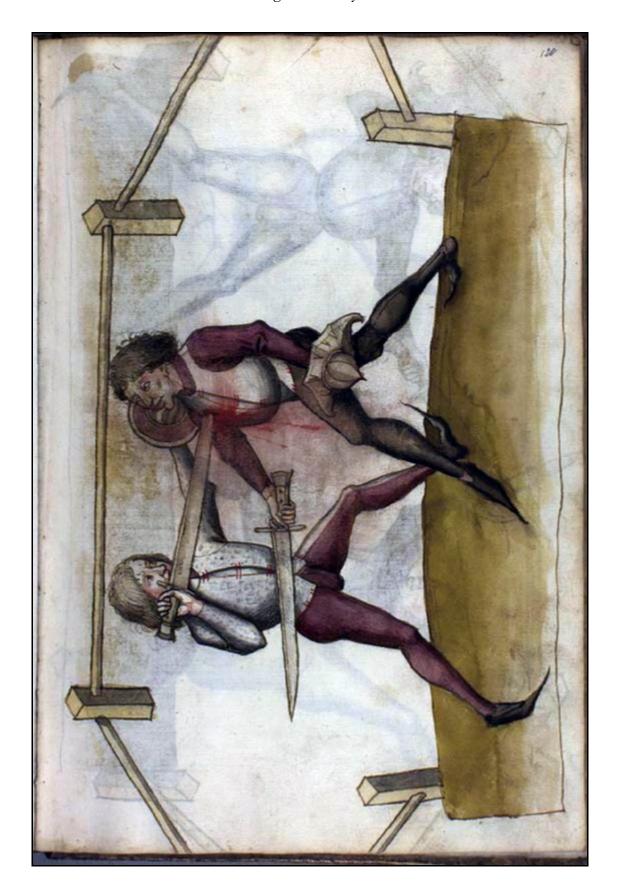


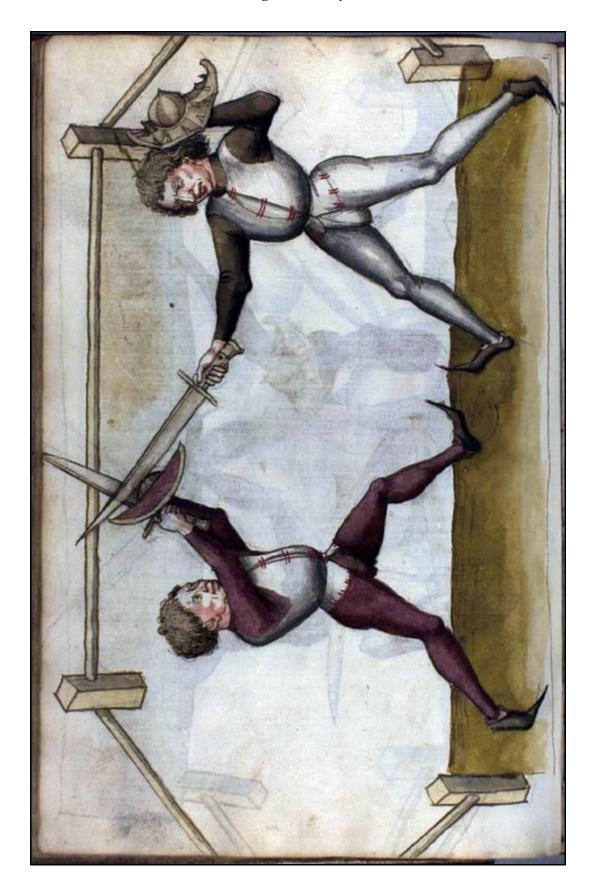


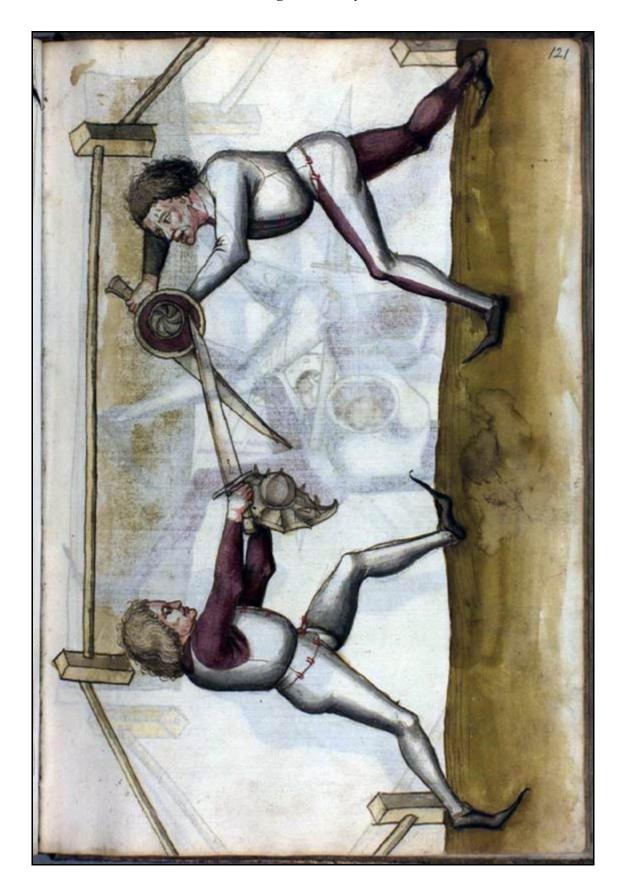






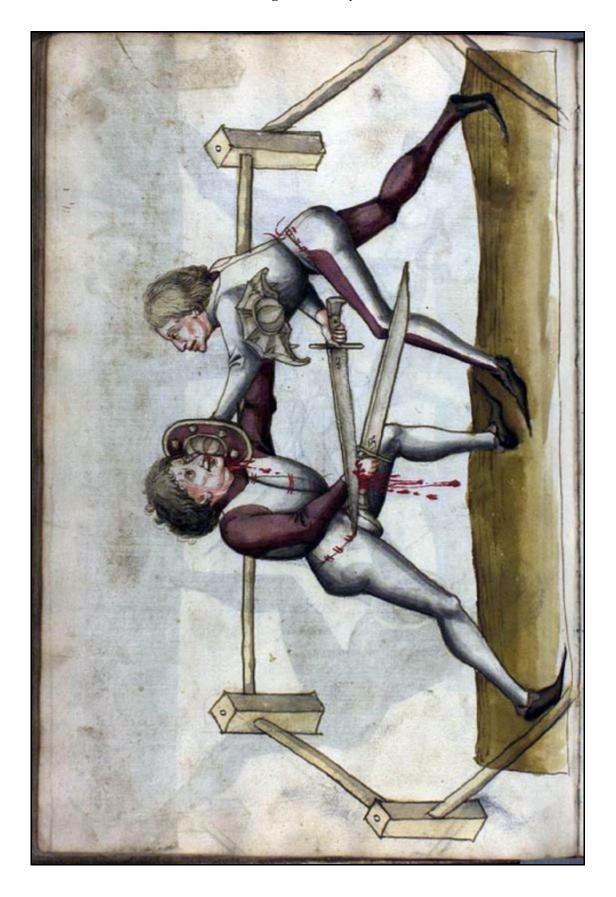












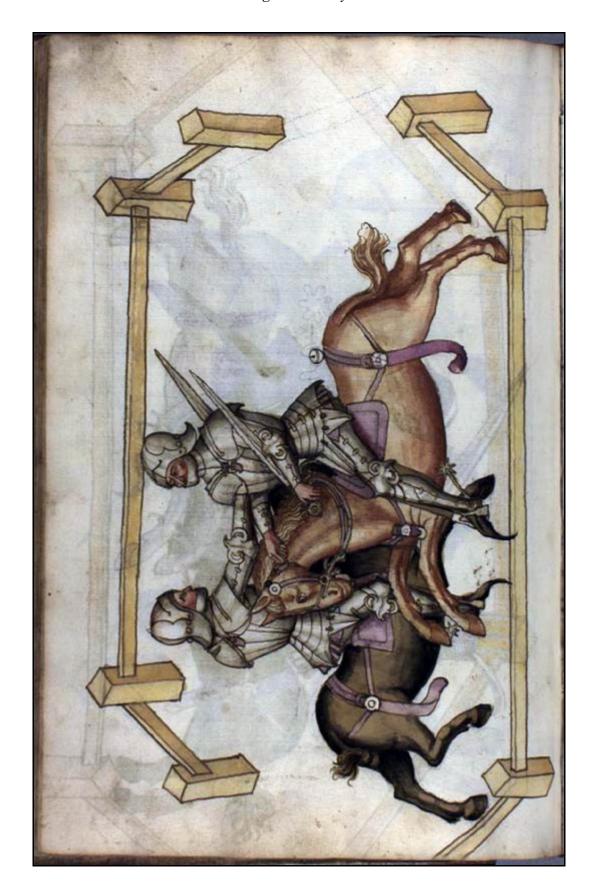
















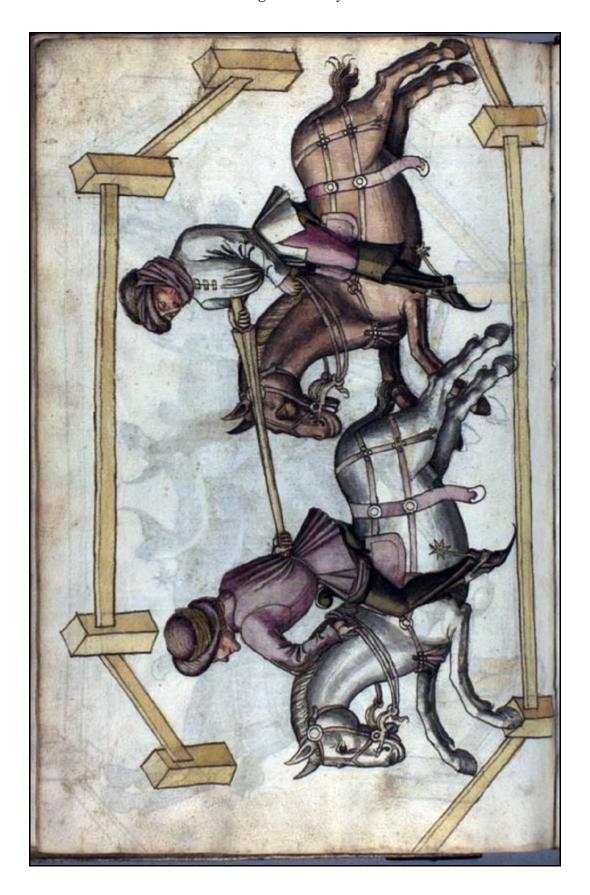














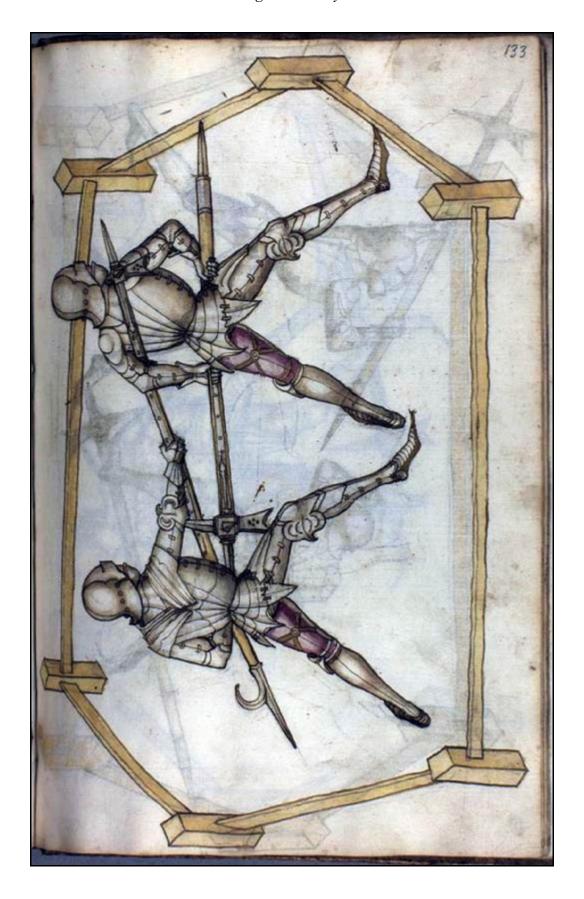


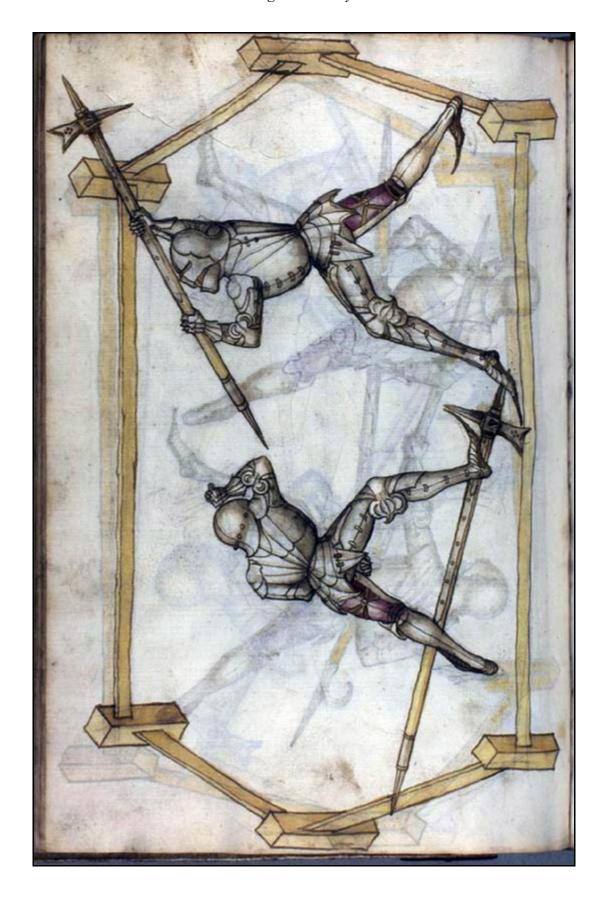


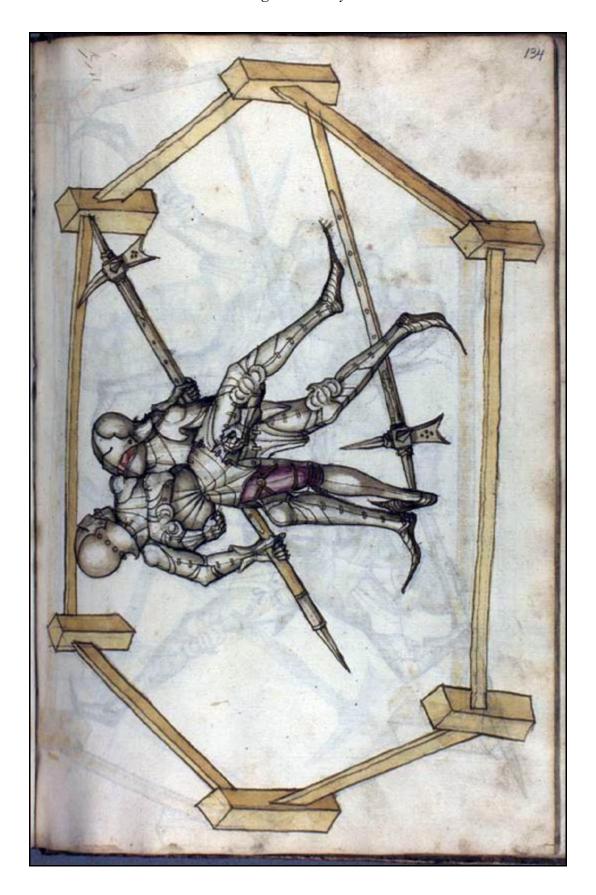




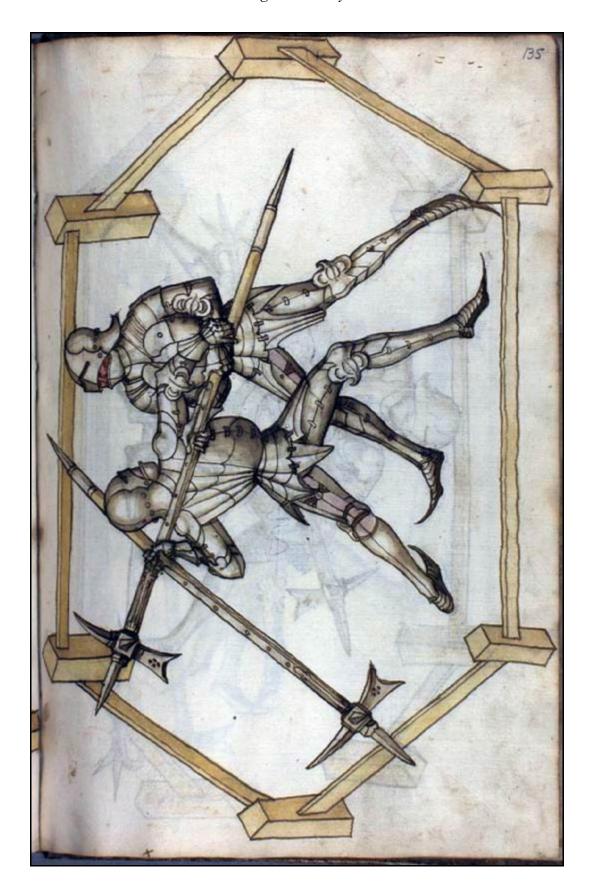


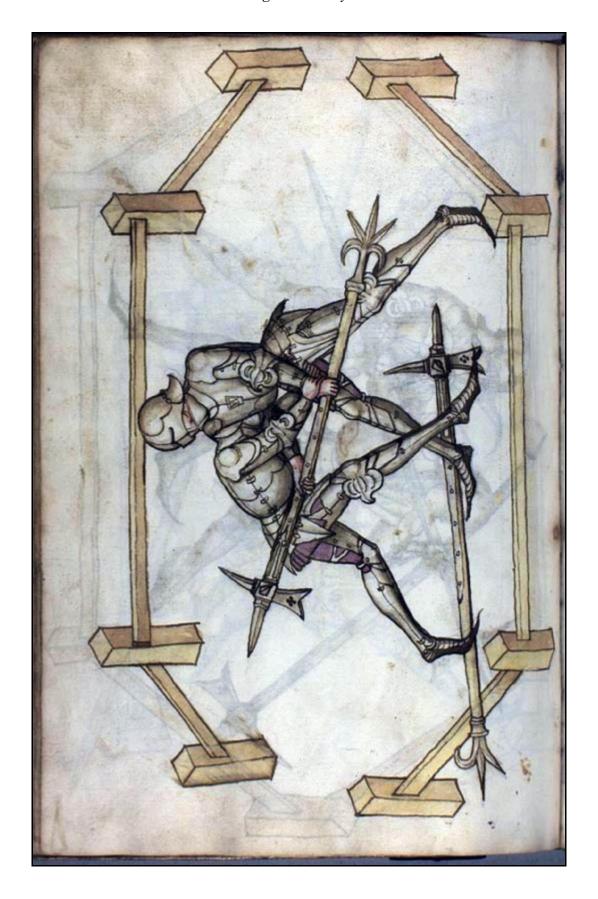


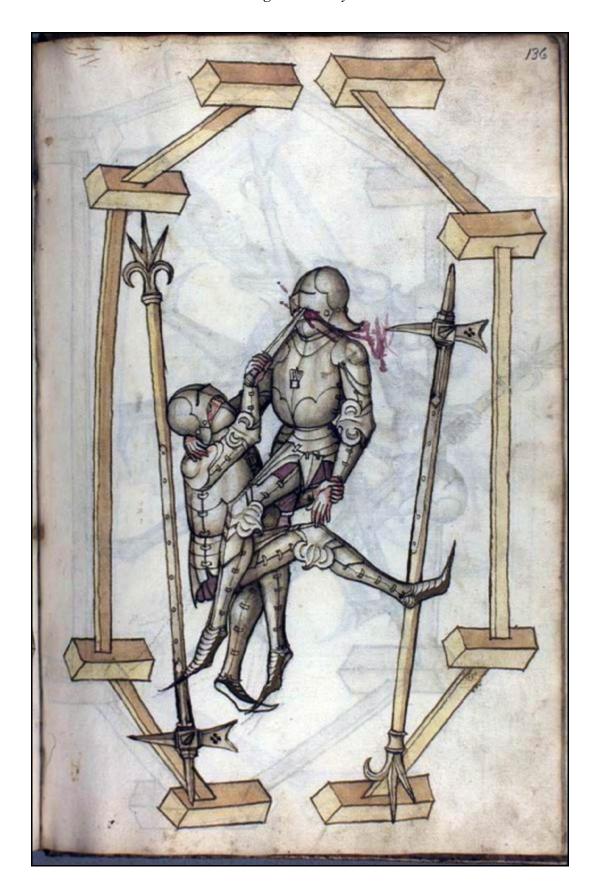


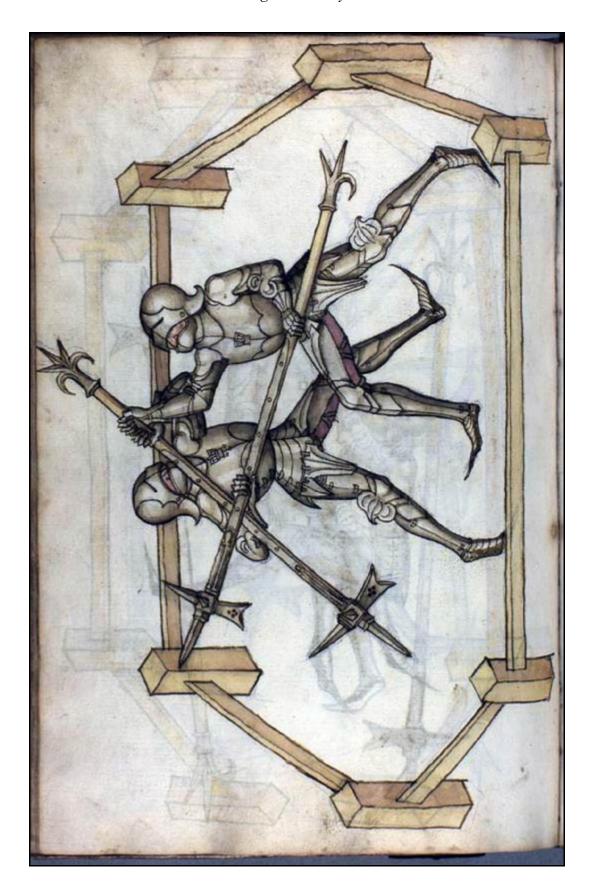


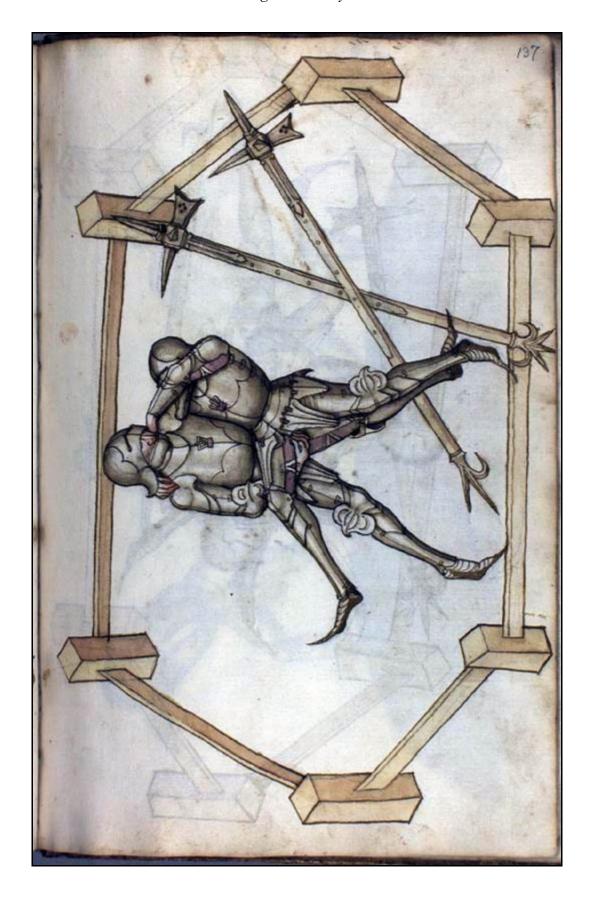


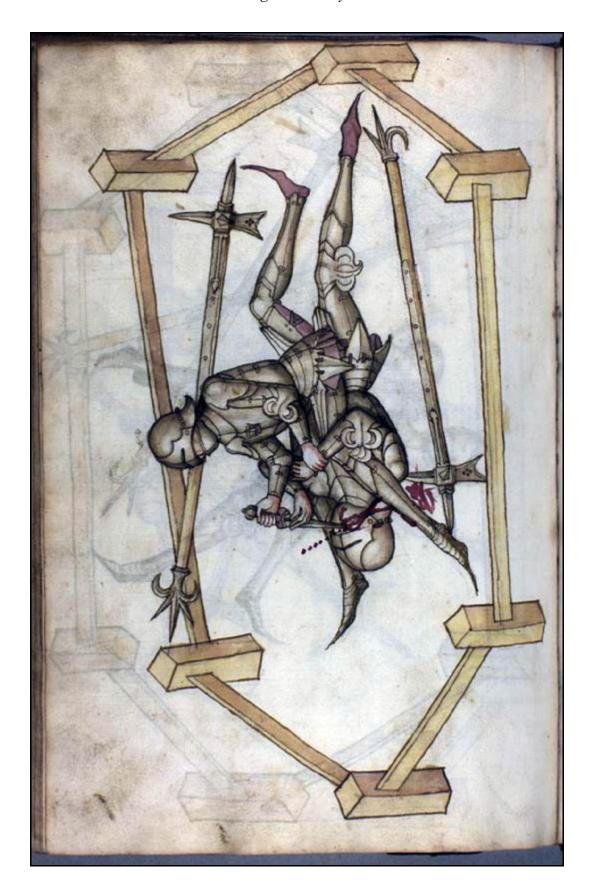








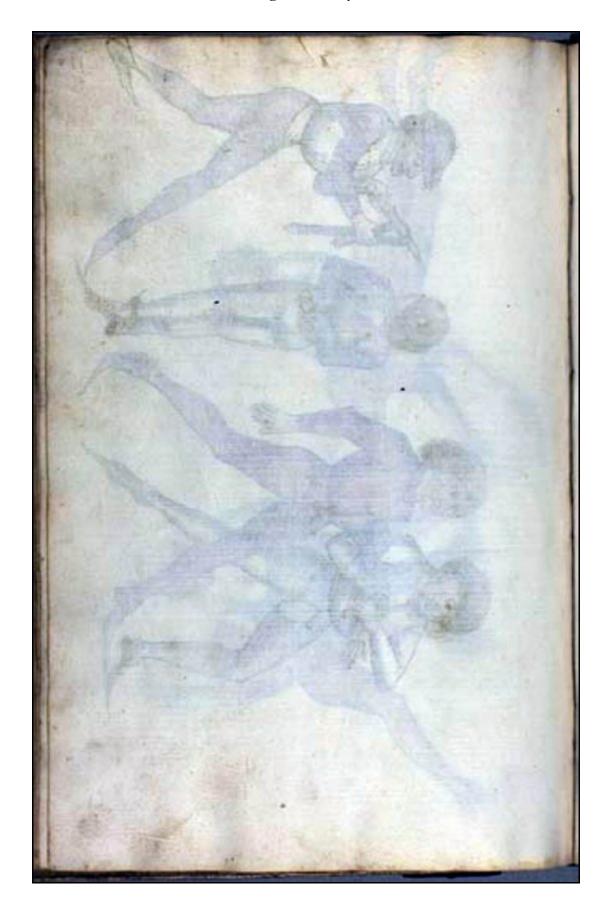


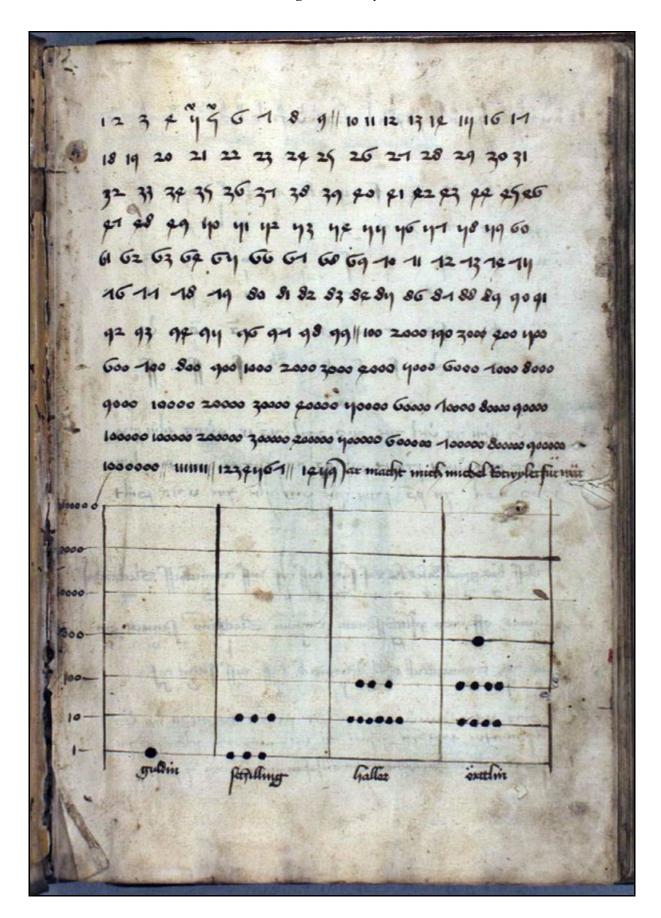








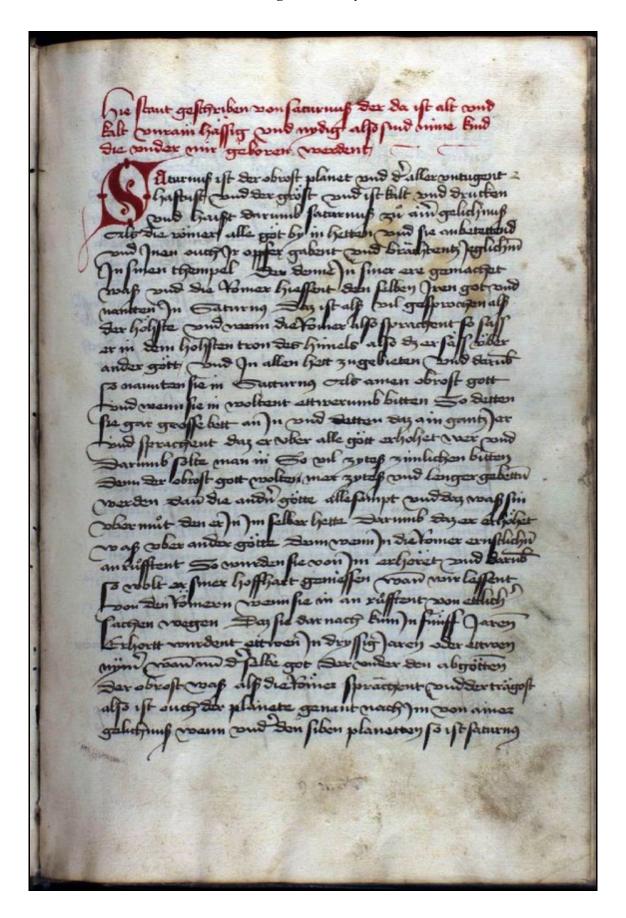


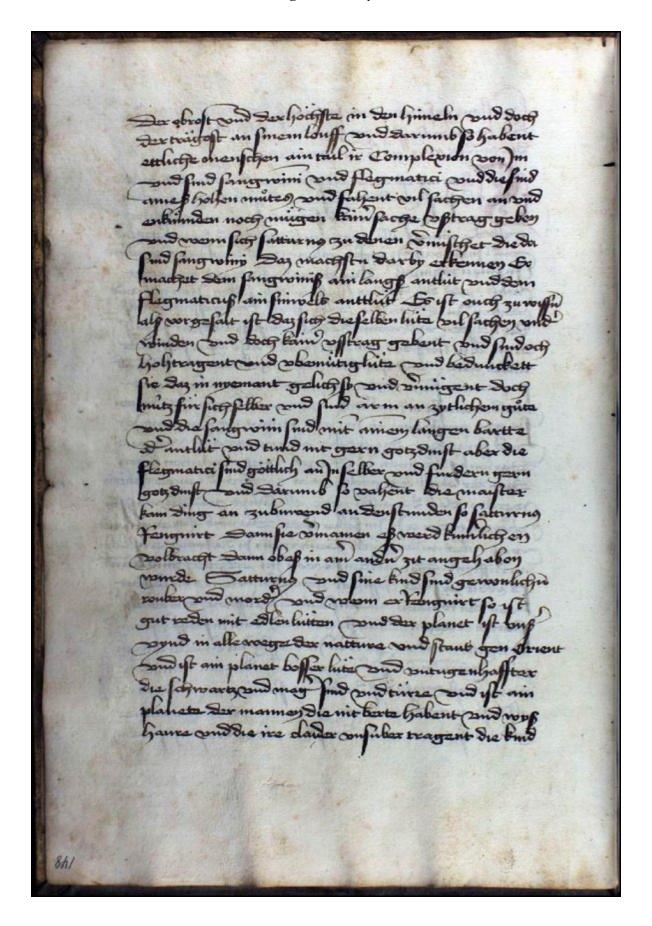


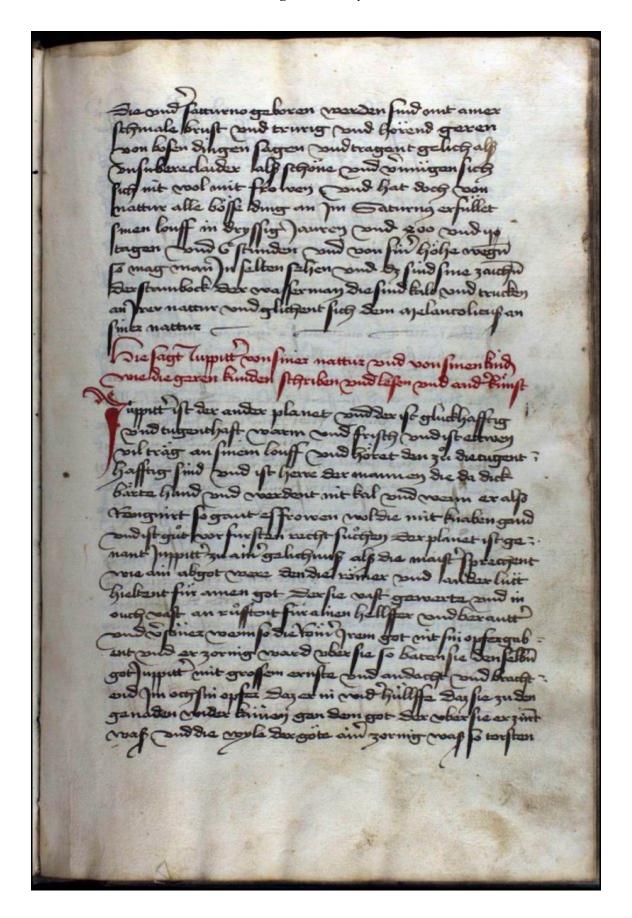


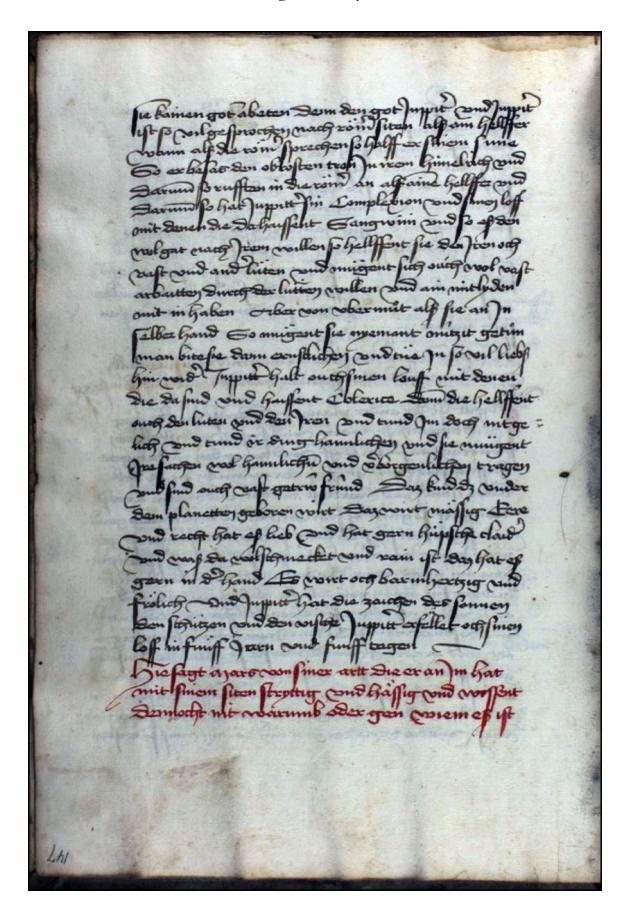


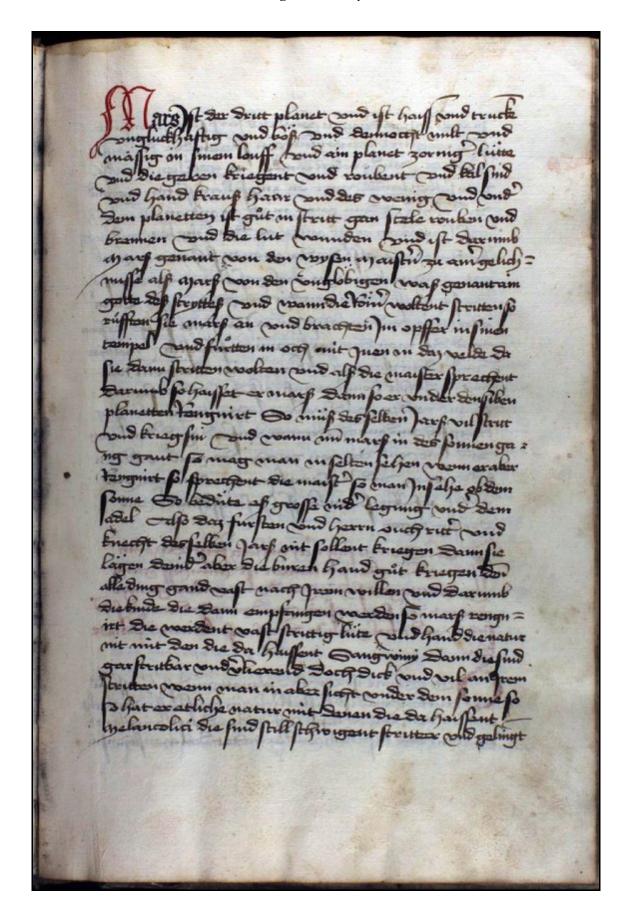


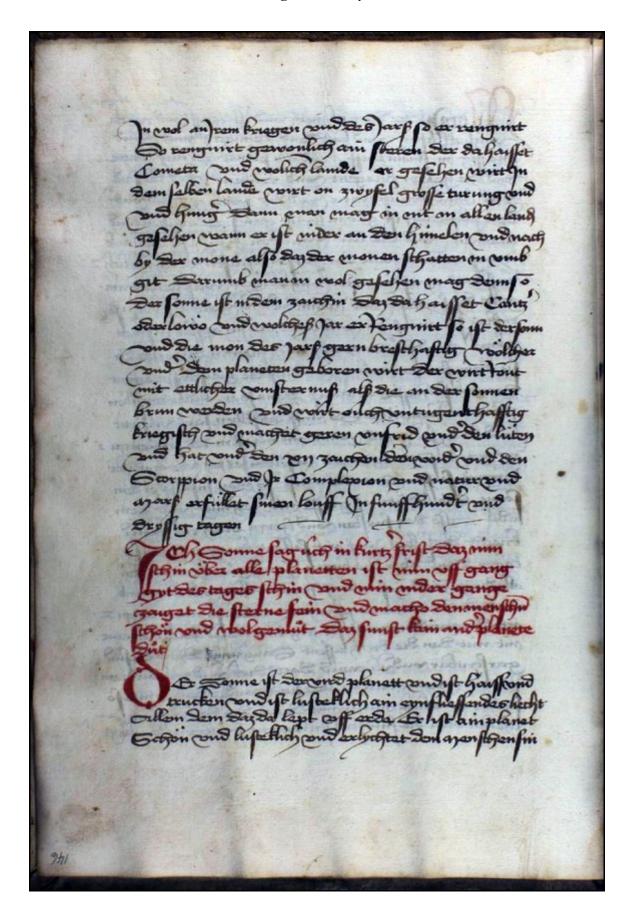


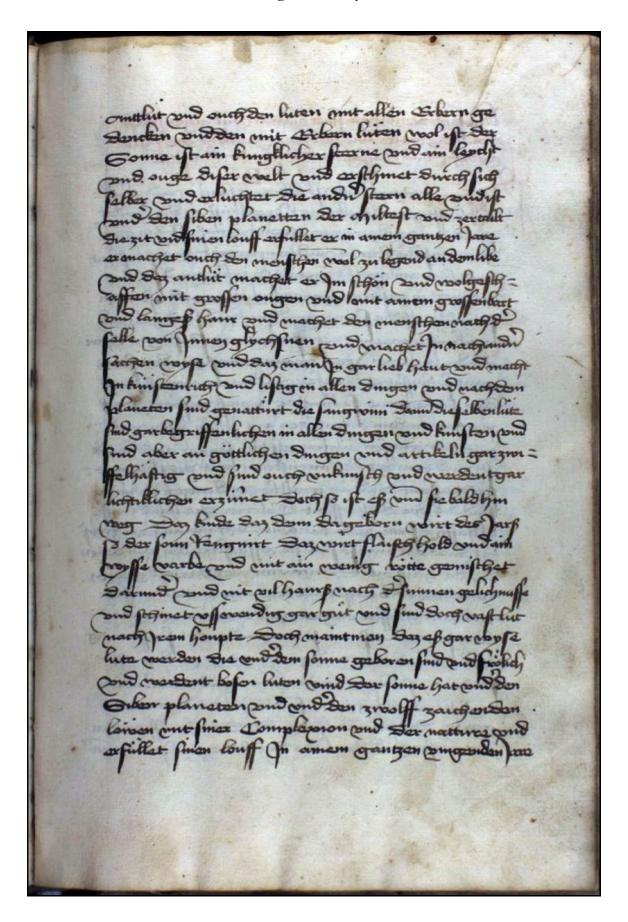


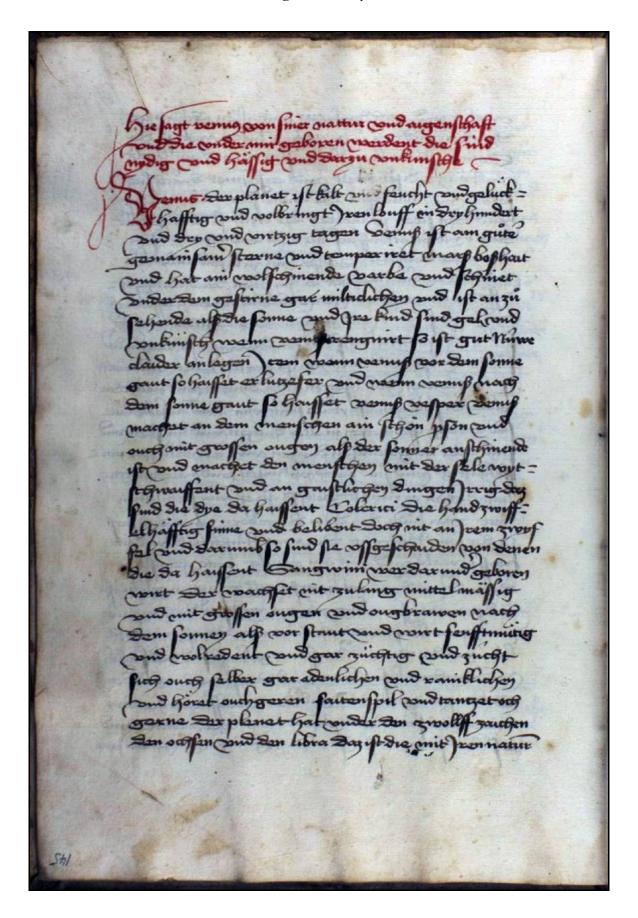


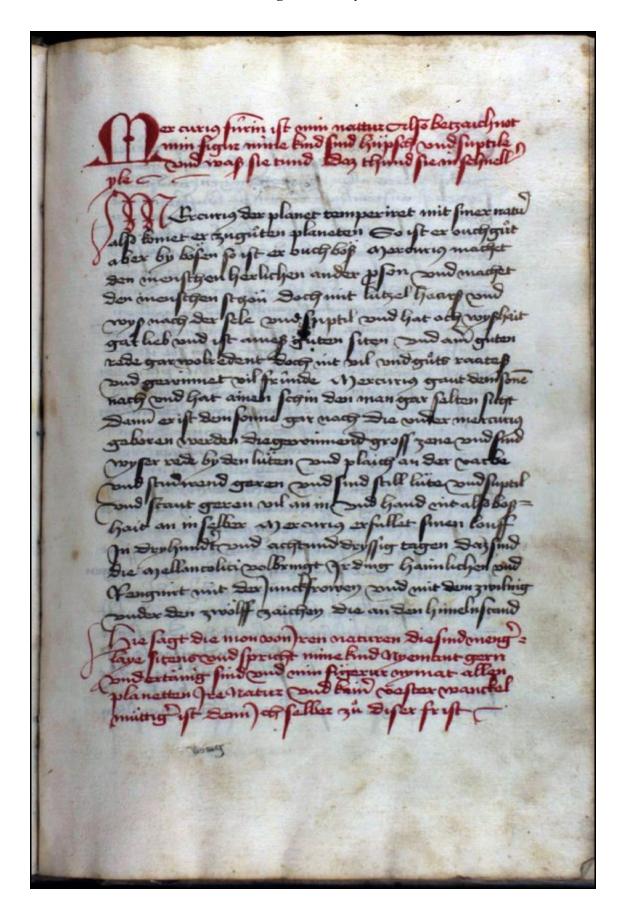


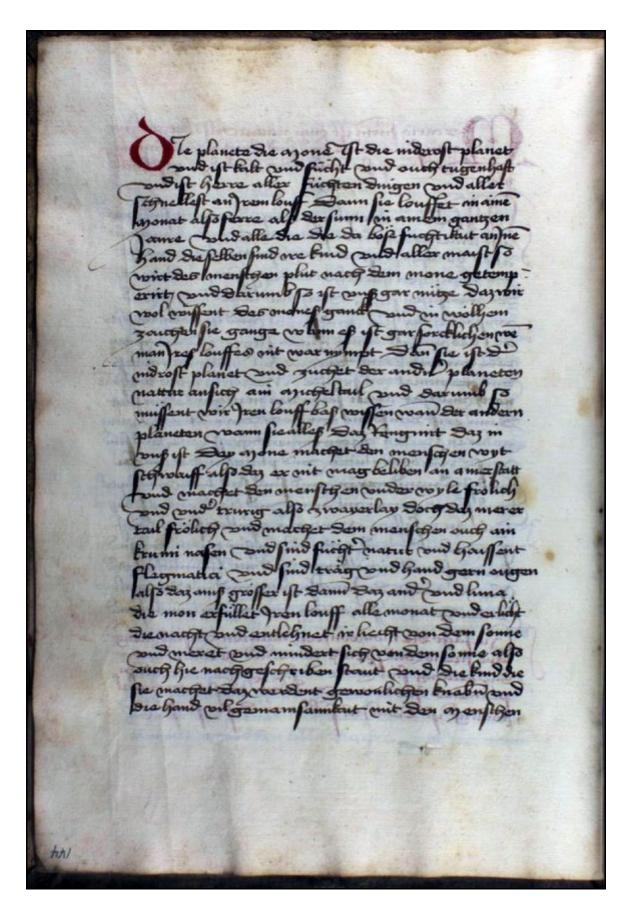


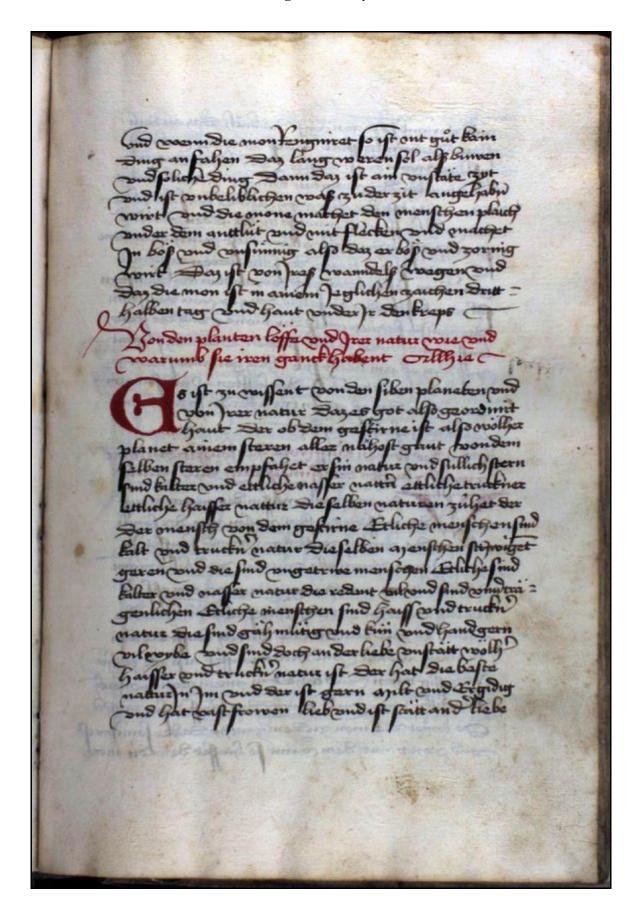


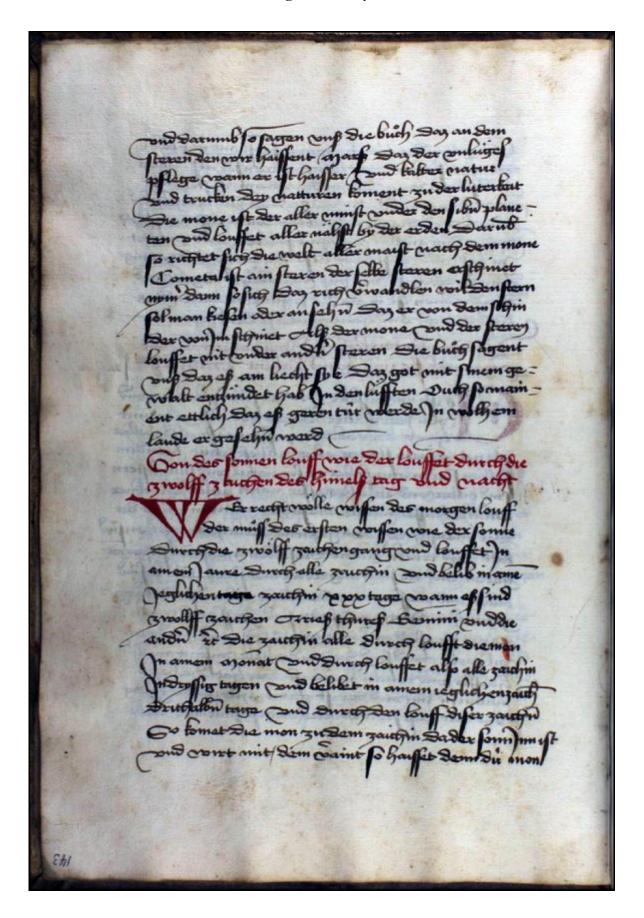


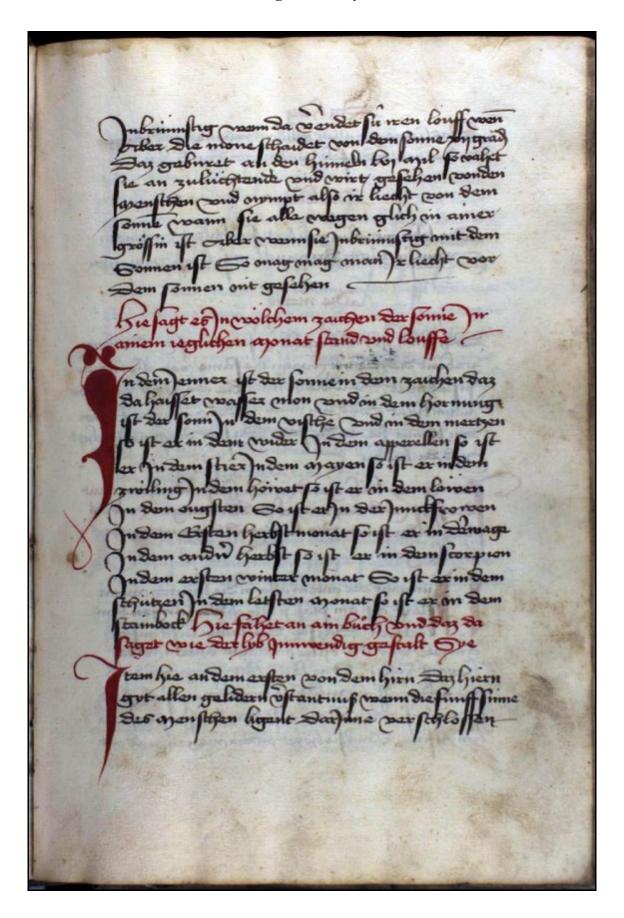


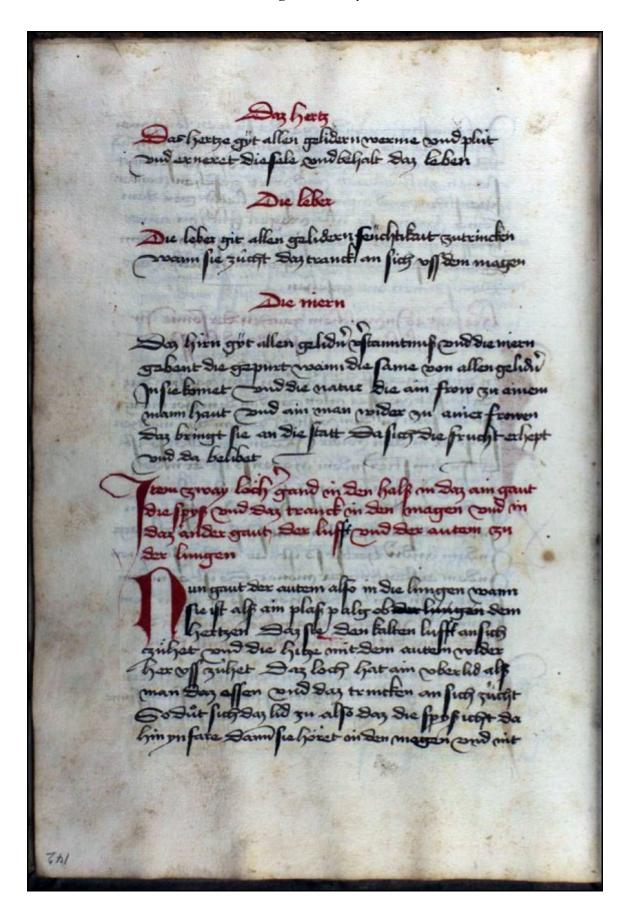


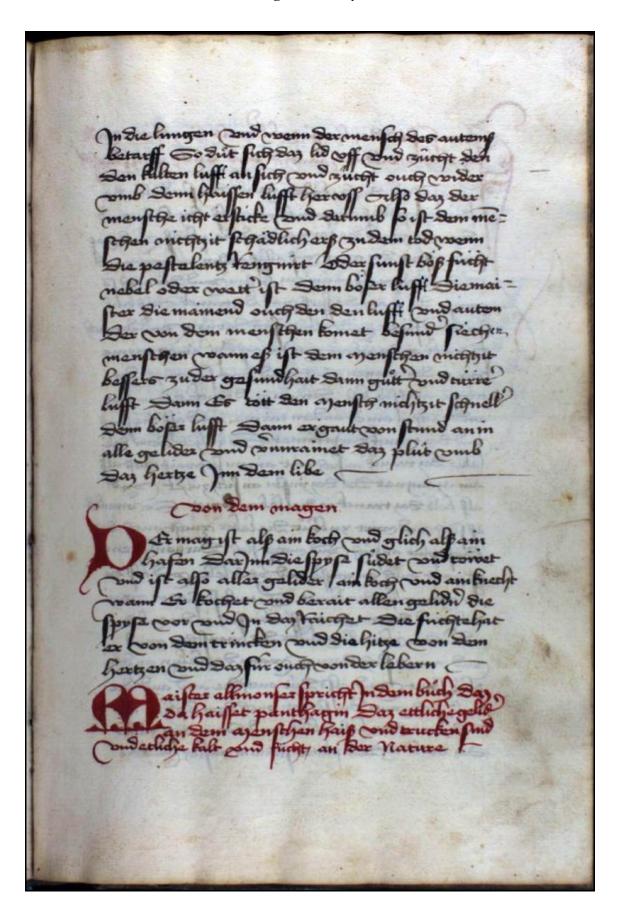


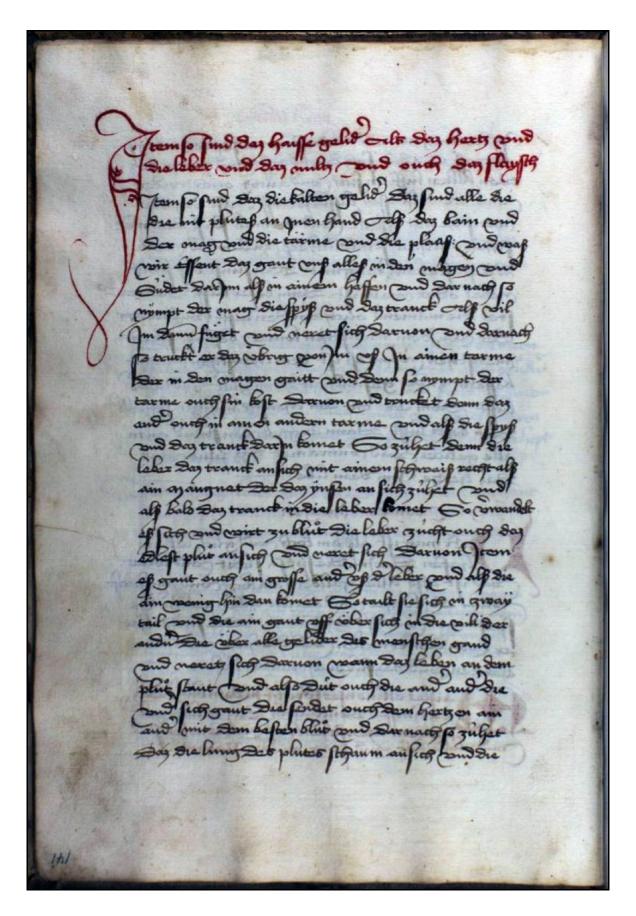


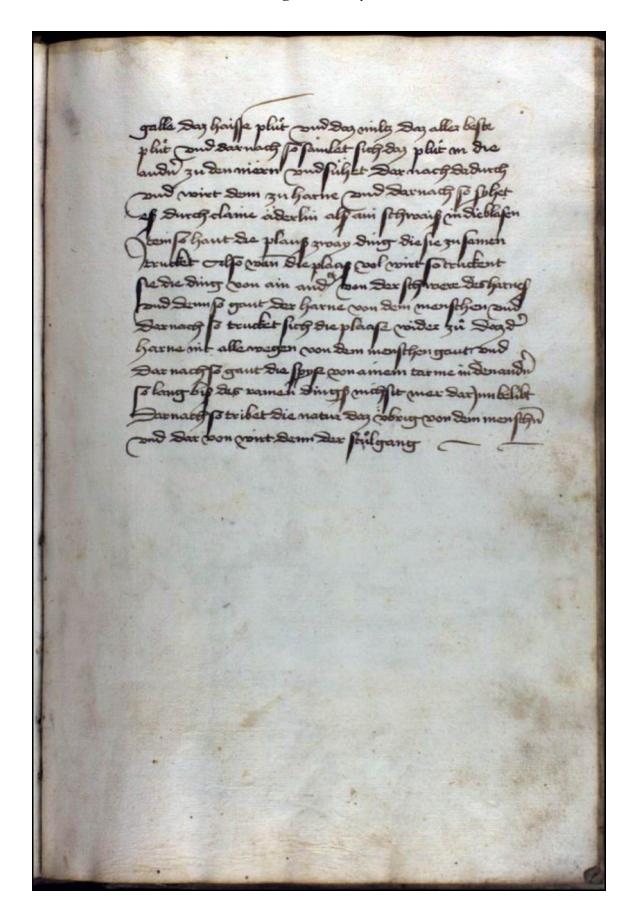


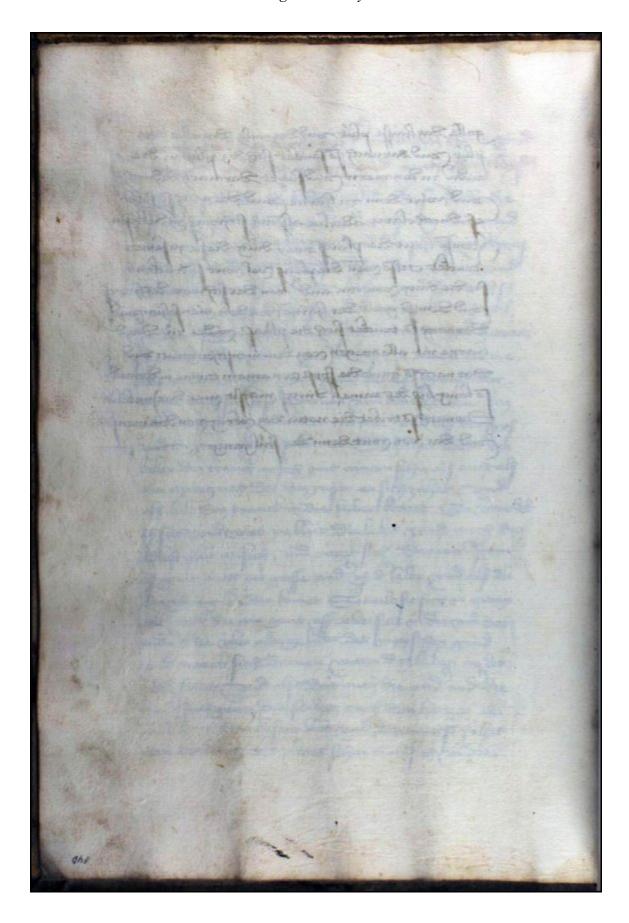














Transcription & Translation

1. Mark-Verses; Twenty Directives; Judicial Dueling; Teaching (01r-10v)

(1r) Zorn ort der brust zu bort

Zu baiden siten uber schiessen

Wecker wil stan

Tribern strichen wil gan

Jn der rosen im rädlin

Zuck die treffen git guote sinn

Krump how dem mül zu

Jm eyn flechten hab nit ruo

Jm krieg so machstu griffen

Ochß pflug Darinn du nit wyche

Mit dem Reiß ort schertz

Jm schrack (!) ort hab ain hertz

Jm ysen ort verwend

Am biffler tue fälen biß behend

Ekomen nach reissen ist der sitt

Schnellen uber louffen und den schnit

Daz ist ain gemaine lere

Daran dich kere

Daz tund die wysen

Die kunst kunden brysen

Wiltu dich kunst fräwen

So lern die toplirten höwe

Wer nach gaut slechten höwen

Der mag sich kunst wenig fröwen

Ouch so sind vier leger

Die soltu mercken eben

Tuo DarIn nit (!) starck vallen

Oder er laut darüber schallen

Wa man dir anbind wil

So wind die kurtz schnid für

(1v) Beschliessung der höw

Wiltu daz dirß fechten glück

Bïß frisch verhalt nit lang die stück

Darzuo hypschlich lachen

Und die ernstlichen machen

Daz trow Jm Schwert

Die der talhofer lert

Jm Schwert soltu nyemen trowen noch gelouben So Rint dir daz bluot nit uber die ougen etc ~

Jtem die Sloß der rechten kunst nach dem alß die maister Die abgetailt hand von genähe wegen Daz ouch billich zu behaltent ist wen diß ist der recht grunde Jtem zu dem ersten wenn du Jn ernst mit ainem fechten wilt So luog wie du mit jm abredst und uff wolche stund nach dem so richt dich nach notturft mit allem zuog und daz tuo selber haimlich Und sag nymant waß du Jm sinn habest oder tun wollest wenn die welt ist also Valsch und richt diu hentschuch nach deim vortail mit Allem zuog Schwert und wameß hosen und waß du Den bruchen wilt und merck aber wie du mit Jm Abredist Dann darby wirt eß beliben wan daz schwert

(1r) Wrathful point pierces the breast

Lunging from above to both sides

Waker will stand

Driving and striking will go

Thither wheeling within roses

Tugging meetings makes good sense

Crumple-hew to the jaws

Within weaving have no rest

Within struggling you thus may grapple

Ox and plough – therein you weaken not

Taunt with the ripping-point

In the crosswise-thrust be hearty

Apply iron-point to foe

Be nimble to fell a buffalo

Erstcoming and pursuing beknown

Speeding, overloping, and the slashes;

That is basic lore

To which you turn

It makes wisdom

That art and knowledge praise.

Would that your art gladdens you –

Then learn the duplicated hews

Whoever chases simple / bad hewing –

His art gets to gladden him seldomly.

Also there are four stances

That you shall mark exactly -

And do fall therein with strength

Lest foe booms loudly.

When someone would bind you –

Then wind the short edge for that.

(1v) Conclusion of hewing:

Would that your fighting be lucky –

Then be lively, withhold not long the play.

The dandy laugh at that

While the earnest make -

They trust in the sword.

As the Talhoffer does teach:

In the sword you shall have trust and belief, So that blood runs not over the eyes, etc

Thus here is the key to Rightful Art, according to all the masters, the sundry hands of converging ways; which is also consigned to memory; and which is the right grounding:

Thus firstly, when you will fight in earnest with someone, then look out for how you and he agree what hour thereafter; thus by all means you act according to pressing need; and keep that to yourself and tell nobody what you have in mind or would do, since the World is so false. And by all means, the gauntlets serve to your vantage; sword and wambeson and leggings and whatever you will *that is* customary; yet mark how you

Hat sunst kain recht Dann daz es aigner und fryer will ist Jtem wen du in den schrancken kumpst und an gan wilt So lauß yederman sagen und tun waß er wöll und sich Nit hindersich und hab den ernst jm sinn und waß er mit Dir red da ker dich nit an und ficht ernstlich für Dich daz Und lauß im kain Ruo und trou und folg der kunst furcht nit Sine sleg und wil er ernstlich an Dich zuck jnnß treffen dz uh (!) How wider fröhlich

daran spricht Hanβ talhofer der guot man Daz muß er für Die warhait Jehen Wann eß ist Jm ouch Wol Eben dick und offt beschehen etc ~ ~

(2r) Hie lert der talhofer ain gemaine ler in dem langen

Schwert von der zetel etc

Wiltu kunst schowen

So vicht ge lingg gen recht mit howen

und lingt gen Rechten

Jst daz du starck wilt fechten

Wer nach gaut slechten höwen

Der tarff sich kunst wenig fröwen

how nahnt waß du wilt

lauß kain wechsel an din schilt

zu dem koppf und zu dem lib

Die zick ruorn ouch nit vermyd

Nun ficht wyt mit gantzen liben

waß du starck wollest triben

Nun merck aber furbaß

und verstand ouch gar rechte daz

ficht nit obnen lingg so recht bist

far nach zwayen Dingen

sind aller kunst ain ursprung

Din schwöch und din sterck

Din Arbait darby eben merck

So machstu lern

Mit fechten dich erwern

wer also erschricket gern

Der sol kain fechten nymer lernen

Der höw sind fünff und haissent funff focal

Die lern recht und mercks fürwaer

und darnan komet unß der rechte grund

Daz ist lützeln fechtern kund

(2v) Die tailung der kunst nach dem text den nähsten (!) weg zü dem mann zü schlahen oder zuo stossen

Zorn how du krumo zwerh how schihler mit schaitler Aulber versetzt

nachraissen höw setzt überlouffen bind wol an

nit stand luog waß er kan

Durch wechsel zuck

and he agree upon that – and so then abide by it. Even if the sword has no other right, then it has that which is one's own and free will. Thus when you come within the barriers and will begin / attack, then let any *foe* say and do what he will; and cower not within yourself; and have the earnest in mind; and whatever he says unto you, do not react to it; and fight earnestly for yourself thusly; and let him *have* no rest and *become* no threat; and follow the art, thus fear not his strikes; and would he draw you into meetings *of the blades*, then counterstrike merrily.

Thereupon speaks Hans Talhoffer:

The good man must speak up for the truth – even when it seems obvious and happens often, etc

(2r) Here teaches the Talhoffer one common Lore for the Longsword from the *Liechtenauer* Summary, etc:

Would you show your art -

Then fight well going from right to left with hewing,

And likewise from left going to right -

That is *how* you will strongly fight.

Whoever goes after bad / simple hewing,

His art gets to gladden him little;

Hew what you will as you near, Let no changing at your shield / ward.

To the head and to the body –

Indeed, shun not the nearest opening.

Fight with the whole body –

Thereby you will strongly drive.

Now mark yet further,

And indeed understand this right-well –

Fight not firstly as a lefty when you are a righty.

Before and after, these two things

Are a wellspring for all art.

With your weak and your strong

Your work thereby marks indeed -

Thus may you learn

When fighting to ward yourself.

Whosoever frightens readily,

He shall never learn fighting.

The hews are five and called five vocally (?),

And are learned from the right and forward.

Thereupon we come to the right grounding

That is *the* rollicking fighter's art!

(2v) The Dealing of the Art *into Directives* according to the *Rightful Way* for the Man to strike or thrust with his Longsword in Unarmoured Fighting:

Wrath-hew, crumpler, thwarter;

Squint-hew, with skuller

Forset fool;

Pursuing, hew-set;

Overloping, bind on well;

Stand not *still*, look what foe could *do*;

Change through, tug;

Durch louff hend truck wer wind in die blössin

Slachfach straich stich mit stössen

Das ist von dem zorn how der underschid wer dier Oberhowt zorn how ortt dem trowt und wirt erß gewar Nymß obnen ab vnd folfar biß stercker wind wÿder stich sicht erß // so nymß nider Daz also eben merck

Jn dem far nach
hört an krieg sy dir nit gauch
waß der krieg rempt
Der wirt obnen nider geschempt
Du machst in allen hewen winden
Jm how ler stich vinden
ouch soltu Mit
Mercken stich oder schnit
Jn allen treffen

Ob sin leger sy waich oder hört

(3r) von den vir plößen vier plöß wisse Der hab acht so schlechtu gewisse nit slach ungefar lug eben Wie er gebaer

wiltu den maister effen

Die vier plöß brechen
Wiltu dich rechen
Die vier ploß künstlich brechen
obnen toplir
unden recht mutir
So sag ich ouch dier fürbaß
stand vest und biß nit laß
und erschrick ab kainen man
stand und sich in ernstlich an
hastuß denn recht vernomen
zuo dem slag mag er nit kumen

von krumm // wiedre schnyd da kumm Werff. krum uff sin hende Slach den ort nach sinr lende und darby wol versetz Mit schaitler vil höw letst how uff sin fleche so tuostu in schwechen wenn eß knuolt obnen So nym ab Daz wil ich loben und wer krum zu dir how Durch wechsel du in schow

Run through, press hands; Wind into the openings; Strike, catch, strike – thrust with jolting.

This is what distinguishes the *Directive about* Wrath-Hew:

Someone over-hews you,
So wrath-hew and swivel your point;
If he wards that,
Then take off high and fulfill,
Be stronger by counter-winding;
Thrust, yet he sights it,
So take it down —
Thus mark indeed
Whether his ward be soft or hard

The Directive about Instantly, Before, After:

Hearken – so your struggle be not gauche. He whose struggle rudders,
From above he becomes shamed below;
In all hewing you may then wind –
Thus in the hew learn to find the thrust;
Likewise should you mark
When to thrust or slash;
Thus in all meetings
You will mock the masters.

(3r) The Directive about the Four Openings:

Wit the four openings – Foe has eight, thus you surely hit. Strike not by chance, Look even how he behaves / initiates.

The Directive about Breaching the Four Openings:

Would you reckon how to breach The four openings artfully – Then up high, duplicate, And down low, rightly mutate. So I say to you further: Stand fast and be not lax, And frighten at no man, Stand and look at him earnestly; Then you have sensed rightly – Foe gets not to strike you.

The Directive about Crumpler:

Counter-slash goes there,
Throw crumpler upon foe's hands,
Counter-strike his loin with the point
And thereby *you* forset well.
With skuller *you* undo many hews –
Thus hew upon his flats,
So do you weaken him.
When it clashes high,
Then take off – that will I laud.
And whoever crumple-hews to you –

wil er dich Jrren Der krieg in verfieret Daz er nit nympt war wa er ist ungefar

(3v) Die tailung der kunst nach dem text den Rechten weg

und die uß richtung der zwierhin

Die zwierh benympt

waß von dem tag her kympt und die zwierh mit der stercke

Din arbait darby mercke

Zwierh zuo dem pfluog

Zuo dem ochsen hart gefuog

Waß sich wol zwircht mit springen

Dem (!) mag ouch gar wol gelingen

Den fäler darmit fiern

unden uff mit wunsch her rieren

verkere mit zwingen

Durch louff ouch mit ringen

Den elenbog nym in der waug

und mach den fäler nit traeg

zwifachß fürbaß

schnid lingg yn und biß nit laß

Daz ist die uß richtung von der schillherin

Schylher ain bricht

waß püfler schlecht oder sticht

wer von wechselhow drowt

Schilher daruß in beroubt

Schlecht er kurtz und ist dir gran

Durchwechsel so gesigest im an

Schilh zu dem ortte

Nym den halß ane forchte

Schilh zu der obern schaittel

Schlach starck wil er din baitten (!)

(4r) So machst du in wol betöwben

Die faller in kunst berowben

Daz ist von dem schaittler

Die ussrichtung etc ~

Der schaittler dem anttlüt ist gefar

Mit siner kur

Der prust vast gefar

waß vom Im da kumpt

Die kron daz ab nympt

Schnyd durch die kron

So brichstu sie gar schon

Die straich truck

Mit schniden ab zuck

Von den vier leger

Vier leger alain

Danan halt und fluoch die gemain

Show him what-for by changing through.

Would he mislead you -

Then lure him into struggle,

Such that he senses not

How dangerously he is caught.

(3v) The Dealing of the Art according to the Text of the Rightful Way.

And so now the Directive for the Thwarter:

The thwarter takes away

What comes from roof;

And so thwart with the strong,

Mark your work thereby;

Thwart to the plough,

Rebound hard to the ox.

When you thwart well by springing,

Then you may indeed well-succeed.

Control with the failure,

Move up from beneath as you wish;

Invert with force,

Run through, wrestle too,

Take foe's elbow and the balance,

Thus make the failure, not sloth.

Twofold further -

Slash him left, and be not lax.

This is the Directive for the Squinter:

Squinter counters

What some buffalo strikes or thrusts.

Whoever turns from reverse-hew,

Squinter bereaves him thereof.

If foe strikes short and grieves you yet,

Then change through to vanquish him.

Squint to *his* point,

Take the throat without fear.

Squint to *his* upper skull.

Strike strongly – he will aid you.

(4r) So may you stun him well -

Those failures bereave him of art.

This is the Directive for the Skuller, etc:

The skuller is dangerous to the face,

And by its turning,

Really dangerous to the breast.

Whatever comes from foe:

The crown – take off from that,

So slash through that crown.

Thus you counter, be quite ready,

Press the strike

And withdraw by slashing.

About the *Directive for the* Four Wards:

Four wards alone -

Hold onto those, and curse the vulgar.

ochß pfluog aulber vom tag sindz dir nit Unmer

Von den Vir Versetzen vier sind versetzen die die leger ouch ser letzen Vor versetzen hiet dich gschichtz dir nott eß miet dich ob dir versetzt ist (!) Wie Daz Dar komen ist So merck waß ich dir raute strych ab haw schnell und draute setz an vier enden an blyb stan und besicht den man

(4v) Daz ist von dem nach raisen Nach raisen lere verhow Dich mit zusere Sin höw recht vernymmp Din arbaitt dar nach beginn und brüff sin geferte ob sie syent waich oder hörte und lerne in Daß Den alten schnit mit macht

von dem Überlouffen wer des lybß unden remet Den uber louff der wirt obnen nider geschemet wenn eß plitzt oben sterck eß daz ger ich lobn und din arbaitt mache oder truck eß zwifache

Vom absetzen kanstu die rechtn absetzen All höw und stich sie dir letzen Der uff dich sticht Driff den ort daz im bricht von baiden sitten triff allemal darzu schritten

Vom Durch wechsel Durchwechsel lere von baiden siten stich nit (!) sere Der uff dich bindet Durch wechsel in schier findet

vom zucken alle treffen tuo naher eyn binden Die zucken gend gut finden (5r) Zuck trift erß tzuck mer Arbait er find in dut im we zuck alle treffen den maistern wiltu sie effen Ox, plough, fool, from-roof – There are no others for you.

About the *Directive for the* Four Forsettings:

Four are the forsettings
That indeed undo the wards.
Guard yourself against forsetting –
Fortune demands you need this.
If you are forset
As it is getting there,
Then mark what I advise:
Swat, hew quickly, get away;
Set upon four endings / openings,
Remain standing and counteract the foe.

(4v) This *Directive* is about Pursuing:

Learn pursuing – Foe thrashes at you rashly, So rightly sense his hewing, Thereupon your work begins; And so test his threats, Whether those be soft or hard. And so learn instancy, And the old-slash with might.

This Directive is about Overloping:

Whoever rudders beneath the body
Overlope him high —
From above he becomes shamed below;
When it blitzes high,
So strong that, I truly laud;
And so do your work,
Or press it twofold.

This Directive is about Offsetting:

If you can offset rightly,

Then you may undo all hews and thrusts.

Foe thrusts at you –

Intercept the point, that counters him;

From both sides

Always meet by stepping forth.

This Directive is about Changing-Through:

Learn changing-through —
From both sides thrust with certainty.
Whoever binds upon you,
Change through to find *where* to shear him.

This Directive is about Tugging All Meetings:

Too near at binding – Find how the tugging goes well; (5r) Tug, foe meets, so tug more *And* work – he finds it does him woe. Tug all meetings – The masters, you will mock them.

Vom durch louff
Durch louff lauß hengen
Mit dem knopf griff wilt ringen
Wer gegen dir stercke
Durch louff damit mercke

vom abschniden Schnid ab die hörte von unden in baiden geferte vier sind der schnit zwen unden zwen obnen mit

vom hennd trucken Din schnyd ver wende jn die zwierh gar behende und gang nach an den man stoss mit dem ghiltz schon wiltu denn nit schallen so hastu zway eynfallen

Von den Zwain hengen Wer dir zestarck welle sin heng fall im oben eyn zwey hengen werden uß ainer hand von der erden Doch in allem geferte So machstu sin waich oder hörte

Von sprech venster Sprechfenster mache stand frolich besich für sache wer sich var dir zühet abe Slah uff in Daz eß schnape (5v) luog und schüch kain man eß schatt mit waß er kan hastuß recht vernomen Zu dem slag lauß in nit komen

Die besliessung der Zetel Wer wol bricht und endlich gar bericht und brichz besunder Jeglichß in Drue winden (?) wer wol hengt und winden dar mit bringt und wint mit achte mit rechter betrachte Darmit ir aine Die winden selbdritt ich maine So sind ir zwaintzig und vier zel sie aintzig Von baiden siten Acht winden mit schriten spricht hannß talhofer got lauß unnß aller schwer

This Directive is about Running-Through:

Run through, let the sword hang, Grip *it* by the pommel – you will wrestle. Whoever goes against you strongly, Mark that you run through.

This Directive is about Stop-Cutting:

Cut *foe* to stop, with hardness; From under you endanger both sides; Four are the slashes – Twain under and twain over.

This Directive is about Hands-Pressing:

Deploy your slashes And thwarter to foe quite nimbly; And go after, at the man, Jolt with the cross already, Then you will not *be* stunned – So have you twice-assaulted.

This Directive is about Twain Hangings:

Whoever flows too strongly at you – Hang and beset him high. Two hangings happen Out of either hand and from the Earth. Yet in all threatening You may thus be soft or hard.

This Directive is about Speaking Window:

Make speaking window –
Stand freely, survey foe's tactics,
Whoever moves at you, tug off / withdraw –
Then strike upon him, that snaps it;
(5v) No man lies to and scares you,
It shadows whatever he can do,
You have rightly sensed –
It lets foe not get to strike.

The Conclusion of the *Liechtenauer* Summary:

Whoever counters well And finally indeed readies And counters especially Any by three windings / three wonders. Whoever hangs well He brings winding therewith, And thus winds with eight. Meditate upon the Rightful Wav – Whereby any of the windings Are the same, I mean. Thusly so are any of the Twenty Directives – And four-times for each opening makes eighty moves. Thus from both sides high and low, Eight windings with stepping. So speaks Hans Talhoffer: God spare us all hardship!

- (6r) Blank
- (6v) Blank
- (7r) Blank
- (7v) Blank
- (8r) Hie vint man geschriben von dem kempfen Jtem wie daz nu sy daz die decretaleß kempf verbieten So hat doch die gewonhait herbracht von kaisern und künigen fürsten und hern noch gestatten und kempfen laussen und Darzu glichen schierm gebent und besunder und umb ettliche sachn und Artikeln Alß her nach geschriben staut

Jtem zu dem ersten maul daz jm nymant gern sin Eer laut abschniden mit wortten ainem der sin genoß ist Er wolte Er hebet mit Jm kempfen wie wol er doch mit recht wol von Im kem ob er wölte und Darumb so ist kämpfen ain muot.. will ~

Jtem der Sachen und Ardickelen sind siben
Darumb man noch pfligt zu kempfen
Jtem Daz erst ist mortt
Daz ander verräterniß
Das dritt ketzerÿ
Daz vierd wölher an sinem herrn trulos wirt
Daz fünfft um sanckniß in striten oder sunßt
Daz sechst um valsch
Daz sibent da. ainer junckfrowen oder frowen benotzogt

Item spricht ain man den andern kempflich an Der sol komen für gericht und sol durch sinen fürsprechen sin sach für legen Darumb er in dem an clagt und sol den man nennen mit dem touff namen und zünamen So ist recht Daz er in für gericht lad und in der stund beclag uff dryen gerichten nach ain ander kumpt er denn nit und uanttwurt sich nach nymant von sinen wegen so mag er sich fürbaß nit mer veranttwurten.

(8v) Er bewyse dann Ehafte nott alß recht sy so sol man in verurtailen alß ser in daz sin bott Und (?) halb landes begriffen haut je dar nach alß die ansprach ist gegangen Darnach sol daz urtail ouch gan ~

Jtem der da kempflich angesprochen wirt uff den dryen gerichten und er ainost zuo der antwort kumpt und legnet Darum man in an gesprochen hat und sprich er sy des also unschuldig und der sag uff in daz nit war sy und daz wöll er widerumb mit kempfen beherte und uff in daz wysen alß denn recht sy in dem land

- (6r) Blank
- (6v) Blank but for watermark of ox-head, staff & bloom
- (7r) Blank
- (7v) Blank
- (8r) Here finds one written of judicial combat Thus what now be decreed as forbidden of all combatants. So by and by, it has become the custom of kaisers and kings, princes and lords, to whom one likens himself and emulates, that one is obliged to fight, especially regarding several causes and articles which are written down hereafter.

Yet firstly this – Nobody is happy when one of his comrades cuts him up with loud words. He who would have at dueling with such a comrade, indeed he is within his rights and may well-fight him if he would. Thus dueling is wantonness.

Now those aforesaid causes and articles are seven, wherefor a man has duty to fight: Thus the first is murder. The second is treason. The third is heresy. The fourth is becoming an urger of disloyalty to one's lord. The fifth is betrayal in strife or otherwise. The sixth is falsehood. The seventh is using either a maiden or lady.

That is why one man challenges another to duel. Such a man shall come before court and shall lay down his case through his own advocacy. Therefor he who accuses shall name the man by baptized name and surname. At the appointed hour it is right that he who calls for the tribunal also complains to three tribunes after the accused comes — unless either one comes not and answers for himself. Yet nobody of one's ilk may do so, for truly one may answer better for himself.

(8v) Then the accuser proves his need be just and right. So shall the man under accusation, as much as his accuser, comprehend and likewise this helps the land. Only after all the testimony is done shall verdict be rendered. Thus he who was challenged, he comes singularly before the three tribunes to respond and gainsay. Therefor the man who was challenged, he speaks thus that he be blameless and he repeats that the accusations be not true and thereover he would honour with struggle upon that knowledge, as then be right for and required by the land wherein this be and so thereupon is dealt his training-time. So he is dealt six

DarInn eß sy und forttert dar über mit urtail (!) seinen lertag. So werdent Im sechß wochen ertailt zu sinem lertag und vier tag von dem gericht werdent Im ouch ertailt Daruff sie kempfen süllent alß in dem land gewonhait und recht ist Jtem versprechent sich zwen man wilkürlich gen einander ainß kampfig vor gericht den git man auch sechß wochen lertag und sol in frid bannen baiden und wolcher under den den frid brech uber den richter man on den kampf alß recht ist

Wie ainerdem andern mit recht uß gan mag Jtem ist daz ain man kempflich angesprochen wiert von aim der nit alß guot ist alß er Dem mag er mit recht uß gan ob er wil oder ob ain man echt loß gesagt würde oder worden wer Dem mag man ouch des kampfes absin Item spricht aber der edler den mindern an zu kempfen so mag das den minden nit wol absin ~

(9r) Jtem wie aber zwen mann nit mit ainender mügent kempfen und wolcher wil under den den zweyen dem andern wol uß gan mag \sim Item wenn zwen mann gesinnt sind biß uff die fünffte Sipp oder näher Die mügent durch Recht nit mit ein ander kempfen und des müssn Siben manner schwern Die vatter und muotter halb maege sind $\sim \sim \sim$

Jtem wie aber ainer dem andern kampfes absin mag mit solichem gelimpf alß hie geschribn stät Jtem ob ain lamer man oder einer der böse ougen hett und kampfes an gesprochen wirt der mag sich deß auch wol behellffen und dem gesunden uß gan Eß sy Denn Daz wyse lüt daz gelich nach der person machen und daz müssent wyß lüt uff ir aid tun und daz also glich machen Es mag auch der lam oder mit den bosen ougen wol ainen an Ir statt gewinnen Der für jre ainen kempfe ~ ~

Item wenn also die sechß wochen uß sind und der letst tag komen ist den in der richter beschaiden haut Daruff kempfen sullen So sullen sie beide für den richter komen mit solichem ertzögen und in solichen Acht Alß die gewonheit und daz recht lert jn dem lande dar Inn sie kempfen sullen oder nach dem alß sie mit ainander gewillkürt habent Jtem etc ~ Jtem so soll da der cleger schweren Daz er der sach Darum er dem ainen man zugesprochen haut schuldig sy und denn so sol man in ainen ring machen und grieß wartten und urttail geben (9v) nach wyser lute raut und nach des landeß gewonhait und wo uff den tag in den ring mit kumpt den urttailt man sigeloß Jr In irre denn Ehafte nott Die sol er bewysen alß recht ist ~ ~

weeks and four days from this tribunal for his trainingtime. Thereupon is also dealt that the men shall struggle as is customary and right in the land. Thus the two men pledge willingly to go before court and struggle against each other – each also with about six weeks of trainingtime in peace, during which either or both are banished if someone breaks peace – thus not until when it is agreed upon as right by the judge how one may lawfully meet the other.

Thus is one man challenged to fight by another man. The man said to be not as good by the other – he may with right meet that other, if he will. Or if a man would be said or become spurious, then he may instead disregard the duel. Thus indeed the noble challenge the craven to dueling – so may the craven not well disregard that.

(9r) Thus why indeed two men may not combat one another; though whichever among them, of the two, may well want to meet the other:

Thus these two men are intent *to duel* – except they who are within five places of kinship, they may not rectify with one another by dueling; which seven men must swear, who may be of either the paternal or maternal half *of either man's family*.

Thus how one or the other may disregard the duel, if he has such a handicap as written and stated here:

Thus if a lame man, or one who has bad eyes, becomes challenged to duel. Yet if he may well-manage somehow to meet the sound one, it be then the wise decree to make this person on par with the other; and that wise decree must be done upon their oath; such that just as well the lamed or poorly sighted man thus may well win instead of the other one in any duel of theirs.

When thus the six weeks are past and the last day is come, then the judge has summoned them, whereupon shall be combat. So shall they both come before the judge with such training and in such respect as the customs and law teach in the land wherein the duel shall be; or accordingly as they have *otherwise* willingly agreed and so forth. Thus so there, the complainant shall swear that he therefor has cause *for fighting the other*; and that he has deemed the other man guilty. And then shall *the judge* assign a ring and "grit-wardens" and verdict; (9v) and counsel wise decrees according to the customs of the land; whereupon the day in the ring arrives *for* the verdict. One erring man vanquished as honour demands; which he shall take as proof and as rightful / lawful.

Hie staut wie man sich halten sol wenn die kempfer in dem Ring komen sind uff die stund und uff die zit so man pheindiglich (?) kempfen sol

WEnn die kempfer also in den ring komen sind So sol der richter von stund an alle stür und ler vesteklich verbieten by lyb und guot und sol nicht gestatten daz man ainem für den andern nicht zulege und sol inß beiden machen so er jmer gelichest mag ungenerde

Das ist waß Recht wer ob der kempfer ainer uss dem ring fluch oder getriben wurd Item wolcher kempfer uss dem Ring kumpt Ee Denn der kampf ain ende haut Er werde daruß geschlagen von dem andern oder fluche daruß oder wie er daruß käme oder aber ob er der sache vergicht Darumb man in denn mit recht an gesprochen haut Den sol man sigeloß urttailen oder wolcher den andern erschlecht und ertötett der haut gesiget

Denn sol man aber Richten alß des landes gewonhait und Recht ist Darumb Sie dem mit / ainander gekemppffet hand ~

(10r) Nun merck uff dissen punten der ist notturfftlich zü uerstend

Item des ersten So soltu den maister wol erkennen der dich lerren wil dz sin kunst recht und gewer sy und dz er frum sy und dich nit veruntrüwe und dich nit verkürtz in der lerr und wiß die gwer zü zerbraitten da mit er kempffen wil Och sol er den maister nit uff nemen er schwer im dann sin frumen zwerbent und sin schaden zwendent deß glich sol er dem maister wider umb sweren sin kunst nit witter zleren

Hie merck uff den maister

Jtem der maister der ain understat zu leren der sol wißen daß er den man wol erken den er lerren wil ob er sie schwach oder starck Und ob er gäch zornig sÿ oder senfftmüttig och ob er gütten auttem hab oder nit / och ob er arbaitten müg in die harz Und wenn du Inn wol erkunet haust in der lerz und wz arbait er uermag dar nach müstu in lerren Dz Jm nütz ist gen simen vind Och sol der kempffer und der maister sich hütten dz sie niemand zu sehen laussend und In sunder sie gwer da mit sy arbaittent Und sich baid hütten vor uil geselschafft und von dem vechten wenig sagen dz kain abmercken da von kom

Von kuntschafft

wie der kempffer und der maister kuntschafft möchte hon zu rem widertal wz sin wesen wer ob er sÿ strarck

Here is stated how one shall hold oneself when the combatants are come into the ring upon the appointed hour, at which time one thus shall duel the other adversarily:

When the combatants are thus come into the ring, then the judge of that hour shall stare at all *there*; and advise that hiding is forbidden, by health and wealth; and that he shall not allow one or the other to be aided by someone else; thus shall each both do *combat exclusively*; so may *the judge* intimidate any rabble.

That which is lawful if one of the combatants flees out, or becomes driven out, of the ring:

Thus whichever *combatant* comes out of the ring, before then the duel has its *deadly* ending, because he becomes knocked out of *the ring* by the other or he flees thereout, or however else he comes thereout; or he admits that the other man's position regarding the cause for challenge is right – then shall that man be adjudged vanquished, or otherwise slain and killed; *for another* man has conquered him.

Then a man shall rectify indeed as is lawful and customary in the land. And thereby they have battled one another.

(10r) Now mark this bond that *you* need to understand:

Thus firstly you should know well the master who will teach you; that his art be right and protective; and that he be pious / sober; and that he not embezzle you; and that he not shorten / beguile the lore; and that he wits to broaden the arsenal wherewith he will battle. However – should that master not accept *that*, swearing upon his profits ingratiatingly and his prejudices devotedly and thus shall his ilk become masters because of him – then swear neither to further nor to teach his *so-called* art.

Here heed the master:

Thus the master, who has a student to teach, he shall wit that he recognise well the man whom he will teach; whether he be weak or strong and if he be coxcombraging or gentle-minded; whether he has good breathing / endurance or not; and whether he may work heartily. So when you the master have well-recognised him as into the lore and what work he is able to do, thereafter you must teach the student such that it avails him against his foes. Yet the combatant and the master shall guard that they let no man see them nor also the arsenal with which they work. And they both shall guard their doings from much of society; and say little of the fighting, so that no notice is made thereof.

About patronage:

How the combatant and the master want to relate: Remit the fee and reciprocate. What be his nature? If he be

oder swach ob er och sy gechzornig oder nit und wie sin touff nan hieß ob man wölt dar uß brattiüern (?) oder vechnen Es ist och nottürfftig Zu wissen wz maister in lerr / dz man sich dar nach müg richten

wenn er nun gelert ist und in den schrancken sol gon

So sol er zu dem Ersten bichten (!) dar nach sol Jm ain priester ain meß lesen von unßer frowen und von sant Jörgen und der priester sol Jm segnen sant Johanne mynen und den kempfer geben dar nach sol der maister jn ernstlich versüchen (10v) Und inn under richten dar uff er bliben sol Und sol in uff kain ding haissen acht hon dann uff sin vind und den ernstlich an schowen

Merck uff dz Infueren

Jtem wenn der man kompt In den schrancken so sol er machen mit dem rechten füß ain krütz und mit der hand ainß an an die brust und sol für sich gon Im namen des vatterß und sunß und deß hai-ligen gaistß Dann sind in die grieß wartten nemen und sind jnn fürren gegen der sunnen umbhe So sol dann der kempfer die fürsten und herren bitten und die umb den kraiß stand / dz sÿ Im wölle helffen got bitten Dz er Im sig wölle geben gegen sinem vind und alz er war und recht hab

Dar nach sol man jn setzen in den sessel Wenn er nun gesessen ist So soll man Im fürspannen ain tüch und sin bar hinder Jm an den schrancken und sine gwer sind wol gehenckt sin und gericht nach nottürfft

Die grieß wartten oder täpffer

Der maister und die grieß wartten söllend mercken uff den richter oder uff den der den kampff an lauffen wirt wann der rüfft Zu dem ersten mal so sol er den man haisen uff ston und dz tüch von Jm Ziehen und wann man rüfft Zü dem dritten mäl So sol er jn haissen hin gon und Jn got enpfelhen

Von dem nach richter

Jtem der kempffer sol wartten daß Im nützit an dem lib über den ring oder schrancken uß gang dann wz dar über kem so stat der nach richter an dem schrancken der hott imß ab mit recht ob er angerüft wirt

X Talhoffer

strong or weak, if yet he be coxcomb-raging or not; and how his top heats up if someone would quarrel or fight. It is also needful to wit by the master who teaches him: That the man strives to set himself aright.

When now *the combatant* is taught and shall go within the barriers:

So firstly, when he shall fight, accordingly shall he hear a priest say mass, in honour of Our Lady *Mary* and of Saint George *patron of knights*, and the priest shall bless him in the name of Saint John of the gospel, with which the combatant agrees. Thereafter the master shall try earnestly (10v) to advise *the combatant one last time*; whereupon *the combatant* shall stay; and shall fathom nothing, yet focus upon his foe and earnestly look at him.

Mark the presentation when one thus comes within the barriers:

So shall he make one cross with the right foot and one *cross* with the right hand at his breast and shall *sign* in the name of the Father and Son and the Holy Ghost. The grit-wardens *bearing staves or spears* take the men in and present them and they turn round in the Sun. So then shall *each* combatant bid *well* the *witnessing* princes and lords; and they stand around the circle, as each bids God would help him and would give him victory over his foe, as He has truth and right.

Thereafter shall one sit down in the chair:

When he is now seated, so shall someone overspan him with a tent, and his bier *is* behind him at the barriers, and his arsenal is well-arrayed and is lawful and ready for *his* needs / as required by court.

The grit-wardens or armigers:

The master and grit-wardens should heed the judge, or whomever else then *as agreed previously*. Dueling is started at the first call – so shall he *the judge* call the *combatants* to stand up and draw up from the tents; and when he has called for the third time, calling them *by name*, then he goes thence and commends them unto God.

Of the aftermath states the judge:

Thus the combatant shall ward his body as avails him, within the ring or barriers; and then go out when he overcomes. So states the judge the aftermath at the barriers – that *the combatant* has proven *himself* ever-so right, if he becomes called *the winner*.

X Talhoffer

2. Battle Force (11r-48v)

(11r) der schribt an ain knü faden – der schribt uf dem mund und wirt schwartz	(11r) He "inscribes" a message within a knotted twine — he records the words of the mouth upon paper and those shall become black later. Talhoffer (?) stands in the middle of the scene while speaking from an inscribed scroll, between two cryptographers, perhaps Rotwyler (?) and Pflieger (?), while the one to the left knots a message in cordage as the one to the right puts unseen words on a scroll with invisible ink.
(11v) No text	(11v) Talhoffer (?) stands in the middle of the scene and breaks apart an iron chain with his bare hands, while a man to the left with quill & inkpot inscribes or draws something unseen on the back of a half-barefoot running courier, while another man to the right seemingly starts knotting or rending a yard of heavy cloth.
(12r) No text	(12r) Two possibilities: 1 st : Huntsman slays aurochs with broadhead-bolt from crossbow and with hounds. 2 nd : Herdsman defends cattle against wolves with broadhead-bolt from crossbow.
(12v) No text	(12v) Quick-shooting targets with the crossbow, firepots or grenades, air-matress, peacock.
(13r) No text	(13r) Hardware – wheels, hinge, hasps & clasps, perhaps lock-works – the stuff of various mechanical devices.
(13v) No text	(13v) Medicine or poison mixing?
(14r) No text	(14r) Shooting a life-line to swimmer with blunt-bolt from crossbow and poisoned dagger-attack?
(14v) No text	(14v) A man in the load-basket of a perrière spies the carriaged culverin (?) upon the battlements of a burghtower, as river-borne men float by means of cantilevering bladder-raft and air-ring, utilised perhaps to cross over river to burgh.
(15r) No text	(15r) Various belt-buckles and/or belt-graffles to aid crossbow-spanning. Pole-cleaver head, pike-head, lash-flail & pole-flail – weaponry especially for troopers in war-wagons.
(15v) Dyser strittwagen sol nauch diser form mit geschmid geuestnet sin und mit ainem schirm alß hie gezaichnet stätt und die dar uff strittent die süllent waffen haben alß hie gemalet staett.	(15v) This war-wagon which flies the flag of Saint George should be wrought in this form and fortified with thick planking and hub-threshers as designed here; and therefrom troopers strike; they shall have weaponry as depicted here of spear, halberd, morning-star, pike, corseque.

- (16r) Diß ist ain mentschlich bild gemachet von geschmid in wendig hol und sol gefült werden mit ambra und mit nägelin bluost dz sol man setzen in die örter der palaste war es sin anlüt kert da git es güten rouch ze allin zeitten ~
- (16v) Diß ist ain grosse plid mit der mag stain würffet und stett und vestin brichet
- (17r) Diß ist ain katz und ouch ain löffel mit ainem schnellen schirm mit dem man gewapnet volk in zinnen hebt . \sim
- (17v) Diß haisset der groß rüd Es gaut zü schlossen uff dem redern und sol der muren eben hölin han die gefierten bruck die dar an hanget solt mit dem sail nider lauffen biß dz daß vorder ÿsen die mur begriffet dar nauch gänd die füchß uß der hüle die stritten und vechtet umz dz sÿ behebent dz sÿ begereten ~
- (18r) Mörck disen löffel der ist edel güt dz obertail sol geuestnet sin mit bretter bis uff den vierden sprossen das du tribest an Die muren Düch daß gand gewaupnet lüt uff an die muren dz hinder tail machstu uff heben als dz vorder ~
- (18v) Mit diser katzen gewinet man geschwind muren mit der höhi die obnan uf gezimert ist henge der bauß mit dem sail biß dz die vorderen ysen die mur begriffent dar nach louffent die gewapneten An die muren ~
- (19r) Diß ist ein hohi bruck die gaut über wasser und über aller graben die sol gezimert sin von hohem gezimer und sol die bruck dar an hangen dz man sy uss wendig uff hebt biß dz die reder die reder (!) die statt begriffent so laut man die bruck vallen und mit dem val begrift dz spitzig ysen das ertrich und macht der höhi ebenhöhi mach (!)
- (19v) Diß haisset ain gnaper und ist ain hüpscher züg / Eß gaut uff sechß redern und staut uff zwain sülen an dem zü gan so naiget eß dz houpt zü der erde und richt den schwanz uff biß daß eß zü der mure kompt so richt eß dz houpt uff die mur und rürt die erden mit dem schwanz und die dar under sint die schedigaren die uf den muren dz ober tail von dem gnapper sol gevestnet sin mit kuder mit mist und mit grünen hüten daß men haiß wasser für noch geschütz nit schaden müge wen man den hinder sich züchet so züchet sich daß houpt

- (16r) This is a manlike effigy; made of fine metalwork and hollow inside; and shall become filled with amber and with flower-mincings; which one shall set in palatial chambers wherever it turns its face, there goes good smoke all the time. An elaborate & symbolic censer. (Two triangular patches are at bottom of page)
- (16v) This is a great trebuchet wherewith one may throw stones and break cities and forts.
- (17r) A "cat" / catafalque and also a "ladle" with a speeding shelter, wherewith one heaves armed folk onto battlements. This lacks the wheels, but this is the top part of a catafalque or belfrey (wheeled siege-tower) the cloven lance thrusts out to smite defenders at ground level, while the invaders teeter-totter over the wall.
- (17v) This is called a "big dog". It goes to castles upon its wheels and with walls shall deal. It has the square bridge affixed with ropes, which lowers once the forward irons grapple the wall. Thereafter go the "foxes" out of the hull, who strike and fight and they clear away whatever they desire.
- (18r) Mark this ladle it is way-good. The upper part shall be wrought of planks whereupon are the faring-rungs that convey you to the walls; whereby armed folk go up onto the walls; the hinter-part heaves you forth as the forward iron *grapples that wall*. Again, part of a belfrey.
- (18v) With this cat, one quickly wins walls with the holds upon the tops of buildings. The bridge hangs down therefrom by ropes once the forward irons grapple at the wall. Thereafter lope the armed folk upon the wall. *Again, part of belfrey*.
- (19r) This is a holding-bridge that goes over water and over all trenches / moats; it shall be built of a high room topped by a bridge hanging therefrom, so that one be lifted up outside when the wheels are set to let it grapple. And so one lets fall the bridge and by that fall the pointed iron grapples the Earth and makes a mighty even hold.
- (19v) This is called a "nodder" and it is a nice rig. It goes upon six wheels and props upon two. Should *it* rotate forth upon *two wheels*, then it tilts the "head" to the Earth and raises up the "tail" until it comes to the wall; such that it raises up the head at / upon the wall and touches the Earth with the tail; and *so then* thereunder are ravages *wrought* upon the wall. The upper part of the nodder should be festooned with oakum, muck and green protection; so that what men call "water-fire", or even guns, may not hurt men when

wider uff die erde und der schwanz über sich umz dz dar an die sicher statt komest \sim

- (20r) Dise gegenwürtige höhe beschirmet daß volk in wendig hindenan und vornan und ouch obnan ~
- (20v) Daß ist ainß münches kappe die im hindenan uf dem waggen lit die fürt man uf den drin redern ainß vornan under der spitz und zwain nauch gende obnan sol sy verschoppet sin mit küder und verdecket mit hüten und andren dingen die dar zü gehörend / eß sol mit starckem holtzwerck zesamen gefügt sin versorget mit ÿsen daß eß notdürftig ist (!) daß im schwer stain oder starck geschoss nyt schade wan du an muren kumst so richt im den spitz uf mit der aine schiben dem (!) klimet hinach alle die dar inn sind ~
- (21r) Diß ist ain brot daß man haisset biß coit und ist zwürend gebachen brot. Es ist nütz uff festinen und in gezelten eß belibt gar langzitt güt one schimel ~
- (21v) Diß hulzin laiter inwendig gemachet mit schiben sol sich zü der mur fügen mit ainem angeschlagnen sail / Dar nach sich an bindet Die stufe von der lait wen du die ablegen wilt so ledige dz lin obeteil von der laitern mit dem vesten sail so ist sÿ ledig ~
- (22r) Dise gaisel ist ain messer wen du wilt und diser näpper boret duorch ain zwifaltig blecht ~
- (22v) Du solt mercken ain zü gän mit graben Du solt graben krumbß umm wider und für dar über ainen schirm setzen der sich für mit langen stangen die graben behüttent dz volk vor werffen und gand sicher zuo und wene sÿ wellent abtretten so söllent sÿ den schirm nauch inen ziechen so gand sÿ sicher \sim
- (23r) Diß ist ain tötlich wer kleine stoß kerrlin gefüllet mit stainen vorannan mit scharpffen ÿsen die berg abgelouffen den selben mügent gewapnet lüte nauch lauffen wen die wegen wüstent mit den scharpfen ysen wz vor in ist

- one tugs that back; *one* thus tugs the head again onto the Earth and the tail upward; around that thereupon it comes to certain stance.
- (20r) The present hold shelters folk inside *from attacks* ahead and behind and also above. *Screen to protect pioneers?*
- (20v) This is a "monks-hood", which leads from the front upon a wagon; which one directs upon three wheels, one in front under the peak and two after at the mouth; it shall be sealed with oakum and bedecked with protection and other things that are fitting. It should be configured together with strong woodwork, braced with iron such that it is not makeshift, thus hard stones or high-powered shot damage it not. When you come to a wall then raise up the peak climbing with that one wheel, then all come out who are within. Mobile battlefield-tunnel, apparently with a pop-top, for conveying troopers.
- (21r) This is a bread that one calls biscuits and is a twice-baked bread. And theses nuts, whether upon the battlements or camping, stay good a long time without getting moldy. Zwieback croissants and hazelnuts minimal rations for siege.
- (21v) This wooden escalade-ladder, made with discs inside, so you shall join to the battlements with attached ropes controlling & lowering it from the belfrey. Thereafter bind it; thereupon tether the steps of the ladder when you will deposit troopers thus vexingly; that aligns the upper part of the ladder with the fastening-rope thus it is vexing.
- (22r) This whip is a knife when you want it to be. This "knapper" bores through double-plating. *This is a curve-bladed knife for some purpose.*
- (22v) You shall mark that one goes forth with this while digging while you dig bent over, the shelter is set above you with long spars; the digging is protected, the missiles are repulsed and the folk go forth certainly and the work be flowing; so should the shelter be dragged after you from within. So you certainly be going. Mobile shelters both man-borne and wheeled sows to cover pioneers with picks & shovels during siege.
- (23r) This is one deadly weapon: *The trooper* has run out from the mountain-burgh pushing a small stone-filled cart prowed with sharpened irons. The same one may attack that armed lot *in the trench that* is when *he* wreaks havoc, with sharpened irons *and falling rocks –* they get what-for.

(23v) Sihe den zü gang zü den vestinen mit körben die stotzen dar umb söllend in die spüz der körb gang.

(24r) wa in velsen und in hülinen volk versumet si die du sust nit über winden mügent da soltu bett oderr küssi mit fedran nemen Tü dar zuo irem und pisch und zünd eß an so der rouch da von gaut So er stecket die in den hülinen sint also kumpst du inen zü

(24v) du macht machen ain liecht uff ainen turn und dar über ain laternen von rotem glaß mit ainem langen halß setz dz uff ain egk und tü ain groß liecht dar in dz lüchtet vil milen von dir \sim

(25r) Ufgerichte gezelt im macht du vestnen in disen weg mit höltzern obnan mit geschmit gespitzet und in die erde gesetzt mit der klüghait über wonden die türgen den küng von ungarn.

(25v) Dise vihele sol von dem besten stahel gemachet sin mit ainer zwifalt ruggen und in wendig hol und mit blÿ gefüllet die selbe vÿle vilet so haimlich und so linse dz eß nieman gehören mag ~

(26r) Ingenium pulchrum quo protantum equestres vide quod considera quantum quis quo quando finire quando placeat retrahe fintulo puo

(26v) No text

(27r) Diß ist ain züg mit dem du schwimen machst bünd eß für den buch deß schwantzeß houpt sol hangen die baine süllent lini sin und die ringgen ysinÿn ~

Du gaust oder schwimest mit disem züg über ain yeglich wasser Du solt war nemen dz hopt vor- nan die hend und den ruggen sint verdeckt und diser züg gemachet von bükinem leder und die kand süllent sidin sin ~

(27v) Diß ist stigen mit der laiter mit ainmaligem und zwifaltigem fuoßstapffn uf gan und tribt sich uf und die lang zwifaltig gabel ufenthalt die laitter undenan. ~

(28r) Diß stiglaiteren sind von sailen gemacht die soltu mit diser langen gabel anschlachen

(23v) See – they are going toward the fortress. With the "basket" they should lurch around. Within the shelter of the basket they go.

(24r) What stops the buzzing of folk in confined shelter – whom you otherwise may not overcome? There you should take beds or cushions *filled* with feathers; do thereto with pitch / piss (?) and kindle it; so the smoke goes therefrom. So that sticks it to those in the confines – thus you get to them.

(24v) You may make a light upon a tower and *set* thereover a lantern of red glass with a long neck. Set that upon an edge and put a great light therein. That illumines for many miles around you.

(25r) Setting up a pavillion, *this one flying an Árpád / Hapsburg flag*, you make it protected in this way – with either wooden or else wrought-*iron* spikes set *round* in the Earth. With this cunning the King *Wenzel /* the King *Sigismund* of Hungary quelled the Turks.

(25v) This file is made of best steel, with twofold ridging, hollow inside, filled with lead. This same file does file so secretly and so quietly that no man may hear. The arrow is given no remarks, although it could carry an egg-shaped ordnance.

(26r) Beautiful instinct whereby horsemen outstretch – see why *and* consider likewise who *and* whereby. When *it* may finish *is* when *it* withdraws and finally gets *it*. (?) *Text that tells nothing about the thing portrayed – which is a swimming-girdle.*

(26v) Seems like a pulley that mounts into or grapples either belfrey or battlement.

(27r) This is a rig wherewith you swim; make it so the "belly" binds around; and the "tail" should hang up to the head; the legs should be in line and the rings *should* be of iron. A swimming-girdle.

You go or swim with this rig over / through any water. You shall notice that the head be in front; the hands and the back are covered. This rig is made of buck-leather and the "bridle" whould be silken. *A swimming-girdle*.

(27v) Escalade-ladders, with single-file and double-file foot-rungs. Up *it* goes and *you* drive yourself up. And the long twofold forks hang up the ladder from underneath.

(28r) These escalade ladders are made of ropes; you should slap them up *against battlements* with the the long forks.

- (28v) Du vergüldest ain krantz mit wissen rosen in disen weg nim goldpluomen und zerstoß die und nim zerschlagen aÿer klaer und gebrenten win und mische die zerstossen bluomen da mit und beseh bestrich die rosen so werdent sy goldvar ~
- (29r) Diser schlang ist funden wider grossen gebresten wonn er klinet uff zinnen und uf türn wenn man in uß wendig streket so gaut er mit den schiben uff dar nauch sol man in und keren biß die hoken die vestnung begriffent und die spazigen ysen undenen in die erde gänd ~
- (29v) No text
- (30r) Diser tegen sol ain bomöl haben vier hende lang oder mer viht mit dem tegen in der rechten hand mit der sinwelen schilt in der lingk hand.
- (30v) Diser gros kolb hört zü dem schilt du solt den schilt in der lingken hand füren und den kolben in der rechten hand und mit inen baiden vehten stechen und schlachen \sim
- (31r) Diß ist ain schling da mit man stain würfft und ist ain künelich gewer mit diser wer über wand dauid golÿam und ist nüz uff vestinen und uff dem velde ~
- (31v) Diß bad ist beschriben won Saheno dem obrosten auzat und ist güt für mange hand gebresten besunder für dz zittren der gelider und für den gebresten deß flusseß der guldin ader du solt nemen dise krütt bugg werwmüt. baldrion bertram Eindorn benedict // heid agrimonie Saerwe und gewinne die bÿ schönem wetter wesche eß wol und schnid sÿ ze stucken und legt die in den hafen under dem bad dz der tampff duorch dz tor in gaunge wenn man denn dar inne geschwizet so sol man die krütt uß dem hafe nemen und sich da mit riben und weschen so mann iemer haissen mag Es ist all monat nütze ou in den hundtagen
- (32r) Diß ist ain ander schling und ist nütz zeweld uff vestinen und uf bergen \sim
- (32v) Diß ist ain küchi mit ainem kemi da der rouch in allen winden schnellerlig en weg flühet nim claur von eyern und tü eß von den tottern und güß dz claur durch ain trachter in ein blater dar nauch klopff die tüttern wol duorch ain andern über sind dz clar in der beschlosse blatter dar nauch güß die tuttern dar in und süd eß biß eß

- (28v) You gild a wreath of white roses in this way: take golden blooms and mash them and take beaten egg-whites and brandy-wine and mix the mashed blooms therewith and then paint the roses so that they become gold-coloured.
- (29r) This "snake" tracts and retracts again, when it climbs up battlements and up towers, for when one storms those from outside; so it goes up and thereafter one shall turn those *discs with ropes from belfrey* until the hooks grapple the fortress and the pointed irons pierce into the earth.
- (29v) Four specialised tactical arrows, for cutting ropes, maining enemy horses, or making mayhem with malicious incendiary or "water-fire".
- (30r) This dagger should have a blade four-hands long or more. Fight with the dagger in the right hand and the swiveling buckler in the left hand.
- (30v) This great mace belongs with the shield: You should advance the shield in the left hand *and* the mace in the right hand; and with both those fighting, stabbing and striking. *Perhaps these are in style of the Turks or Mongols*.
- (31r) This is a *pole*-sling for throwing stones and is a cunning armament; with this weapon David overwhelmed Goliath; it is useful at forts or afield.
- (31v) This bath portrayed is a sauna which is near a hole-in-the-ice; the oven is outside. And this bath is good for treating many hand-maladies, especially jittery limbs / joints and for the flow of "golden arteries". While resting therein, you shall take these herbs mugwort, wormwood, valerian, bertram, einkorn, bennet, heather, agrimony, sorrel chop them to pieces and extract them well with sweet water; pack them in the pot / basket underneath the bath wherefrom steaming water arises through the grating. When one then swishes or sweats in the bath, so shall one take the herbs out of the pot / basket and rub and wash oneself therewith so may one invigorate. It is beneficial every month, especially for those dog-days.
- (32r) This is another sling and *it* is useful to wield at forts or *upon* mountains.
- (32v) This is a kitchen with a chimney, where the smoke vents quickly away to all the winds, *via the chute turned by the weather-vane*. Take *some* egg-whites that you separated from the yolks; and pour those whites through a funnel into a *hollowed-out* rutabaga; thereafter beat the yolks well together. Unify the whites in that relocking

hert werde dz ist denn ain groß eÿ dar abvil essen mügent ~

(33r) wiltu verborgen tragen brieff kerlin gold silber oder edel gestain nim leyn und mach ain holding dar uß und leg eß dar in dar nauch nim kalch und saltz und tepers dz mit aÿerclar uberzüch eß da mit wenn daß erdrucknet so wirt eß herter dar ain stain ouch machtu ain brot en zwai tailen und hülen und dar in legid und wider tzesemen machstu oder ain hülzin holtz klotz boren und ain zapffen dar in drengen und absegen dz der zapff und der klotz ain holtzens sie

Ain krutt haisset lolin ettlich nenient eß ninilol dz wachset gern an den stetten da mann kol brenett gebrent hautt wer der wurzel sündet südet in win biß der win dz vierdtail in gesüdet und denn dz mit anderm win müschet dz bringt den aller sterckisten schlauff den man yenen gemachen mag und wer dz also ain mauß moss bereit in ain gantz süder winß tüt und eß sich da mit verainet und vermist so wirt eß alß ain über treffenlichen starck schloff getranck wer des trincket der kumet von schlauffen wege von aller kraft und wer. und man mächt damit nider legen ain groß volk und wiß dz diß ain haimlich sach ist

- (33v) Diß ist ain haspel gemachet von zwifaltigen redern und also geordnet dz ain tail sich dem sich sail zu dem andern schlüsset so du zü der ainen siten zügest so gaut eß über sich zü der andern siten wider under sich ~
- (34r) Diß ist ain louffende brugge die sich für schübet mit den ysern sailen und mit dem mitel sail gaut sÿ wider hinder sich und ist ain klügen züg und sail die sail undenan und innan also angefund
- (34v) Diser büchsen schirm machet sich von holtz werck und gaut uff und nider wan schüsset den stain her uß so eß uf gaut und wenn eß nider gaut so mag den dehain geschoss schaden der hinder dem schirm ist \sim
- (35r) Diß schiff loufet schnelle-klich wider wasser also geschwind alß ain pfärt mit sehl schnellem louff Eß sol zway reder haben alß hie geformirt statt ~
- (35v) Merck wo die sunn dem gold oder liechten glantze harnasch nach gaut so sol der schilt vor gaen Also über windet ain manlicher vechter sinen veÿent mit der sunnen hilff der sunnen glantz in dem gold oder in dem liechten schöne | harnasch sendet gemist dar uß in der veÿent ougen ~

rutabaga; thereafter beat the yolks therein; and boil it until it becomes hard. Then that is a great "egg", of which many may eat.

(33r) You will carry this secret formula: kernels of gold, silver or precious stone; take linen and make a husk thereof and lay the kernels therein; thereafter, take lime and salt and mix egg-whites and then overcoat the husk; when that solidifies to become harder than stone, then make a bread of two parts and hollow out and lay this stone therein and reassemble it, or make instead a little shell of a block of wood, bore a plug therein, saw it out of the block of wood, hollow it out, stuff the stuffing therein and plug the shell.

An herb called darnel; some name it ninilol; it grows readily in the spots where man has burnt charcoal / coal; brew the root in wine until the wine has brewed down into a quarter-mass; and then that mixed with more wine, that brings the strongest sleep for any man who may make that. Whoever thus does ready *such* a cider into a fully brewed wine and imbibes or consumes it, thus becomes drunken with a most exquisitely and strikingly strong sleep. Whoever drinks that, he falls asleep because all of its efficacy and potency. And therewith someone makes a great many folk lay down. And wit you that this is a secret matter.

- (33v) This is a windlass made of twofold pairs of wheels which thus work methodically, such that the parts lock together with ropes and posts / spindles, so you draw yourself *through space* and so this *elevator* goes upward and downward and wherever again.
- (34r) This is a footbridge *viewed from overhead* that slides forth by its iron *side*-ropes and *pulled* by the middle rope it goes back again; this is a clever rig; the ropes shunt beneath and within, thus *it* arrives.
- (34v) This *wheeled* gun-shelter is made of woodwork and goes up and down, for when the stones shoot thereout. Thus it goes out, and when *the screen* goes down, then may the shafts and shot wreak havoc, which are behind the screen.
- (35r) This ship runs quickly through / against water thus briskly as a horse at speedy pace. It should have two paddle-wheels as *sort of* portrayed here.
- (35v) Mark where the Sun gleams upon the gold or polishment of the harness *and* goes thereafter. So shall a manly fighter advance the shield and overcome his foe with the Sun's help. The Sun glints in the gilding, or shines in the mirroring, of the pretty plate-armour, *which* thus sends rays thereout *and* into the foe's eyes.

Left-man wards in SS-2 and right-man wards in SS-4.

(36r) Diß gewaepnet houpt schnidet mit den oren zü yettwedren siten eß gaut uff zwain redern und mit der zungen und dem horn sticht eß und töttet und ist vechther in stritte Eß sol in wendig hültzin sin und uswendig starck mit ysen beschlagen dz eß niemal mit hamern noch mit axen Zerhowen müge der künig porrt fürte disen schirm und leite vil siner veÿent damit nider ~

(36v) Ain wiser stritten sol sin wegen in starcken stritt also ordne deß ersten ain wagen nauch dem anderen dar nauch zwen nebet ain ander dar nauch dreÿ dar nauch vier ye merye me naüch der linien untz dz du sÿ alle erfollest mach des hereß craft dar in tail dz roß volk und ouch dz füsfolk also tailest du alle spitz dise ordnung bruch so du ziehest in die frömde

(37r) Diser sporn zwingt sechs pfert und sind die formen daran halb ysin und halb stechlin eß ist zebruchen in der frömde und nemet man-ch ain sicherhait wen eß zwinget den man vest ze finde \sim

(37v) man sol machen zwen wägen uf dise form da inmitten uff gewäpnet lute strittet die wägen die vechtet die buchsen die letzent und die beschlagenen tromen Ist dz du zü wasser kumest so setze die zwen wegen nauch ain ander so stand wasser halb sicher / jeder wagen sol sechß reder nauch siner grossi haben und under halb wagen lang sin die pfärt sond nauch den zwain ersten redern uf zwo eln gon so sint si sicher und legent alle ding nid die stangen die da under inen sint die behüttent sy vor vallen und die brett die dazü den siten hanget beschirmeten die ungewaupneten pfärd Es sol ain pfart nauch dem andern gon und zü yetwedrer siten ist ain an zwainen gnüg und sind mit zwifaltigen ketten zesamen geheft sin

(38r) Diser züg haisset ain krebs und ist geschmidet von ysen und gaut hinder sich und für sich ai (?) an fürt eß uf vier schnellen redern Es schnidet vornan und hindan Eß sind zwifalt sicheln von langen ysen zü yetwedrer siten an den achsen der schiben sin Es haut vier ougen wenn man die anzündet so schüsset eß stain da vor geschrottene stahelstuck alß eu ain hagel da mit man die veÿent niderleit den züg mag man machen groß oder clain alß mann deme will.

(38v) Diser strittkarr der schrott ge wäpnet lüt schenkel unge- waupnet volk wellet / eß mit rüren Eß haut hindenan braite und vornan schmale ysen scharpff gefilet alß ain sichel und man fürt eß uff zwain redern ~

(36r) This weaponised ravens-head shears with ears to either side; it goes upon two wheels; and with the beak and tongue it spears and kills; and is warlord of strife. Inside it should be wooden and outside strongly sheathed with iron, such that it may never be hewn asunder, with hammers nor yet axes. The King bores out fords in these battle-lines and therewith smites low many of his foes.

(36v) A wise man should strike because he *may* strongly strike. Order firstly one *battering*-wagon, after that another, that makes two, yet another thereafter is three, thereafter four, however more and so forth. Next, put them in lines such that you be all the result (?) of the might of lordly forces (?); deal these among the horesemen and among the footmen, thus you deal all your *tactical* spearhead this array. Breaching thusly, you move into the foreign *territory*.

(37r) This "spur" is driven by six horses and is formed half of iron and half of sticks; it is broken apart in the foreign territory and takes many a certainty / much aplomb when it forces the man to hold fast. *Framing around harnessed horses*.

(37v) One shall make two wagons of this form as viewed from below, from there, within the wagons, folk combat those outside, they fight with the guns and the lances; the lorication is all-around them. If you come to water, then set the two wagons one after the other such that only half the train be in the water while fording. Either wagon should have six wheels supporting its bulk; and driving these are the horses equaling half the wagon's length, while also the first pair of wheels equal two ells length; and so they be secure. And so are laid out all the things beneath, the poles which are thereunder and inboard, protected from whatever happens; and likewise upon the boarding of the sides hangs shelter for the unarmoured horses. It should go with one horse after the other; and to either side is one pair enough; and those are linked with twofold chains. An early light tank.

(38r) This rig is called a "crayfish" and is wrought from iron and goes hin and yon. It conducts itself upon four speeding wheels. It shears front and behind. There are twofold sickles of long iron to either side at the axles of the wheels. It has four eyes. If one kindles *its munitions* then it shoots stones before it, steel buckshot as a hail, wherewith one smites low the foes. One may make this rig either big or small, as one will deem.

(38v) This war-cart shreds the ankles of an armed host and mangles unarmoured folk by its movements. It has beams in back and in front slender sharp iron routers, like unto sickles; and one directs it upon two wheels.

- (39r) Diser schirm gehört zü büchsen und ist gezimert von holtzwerck und sol vornan zwaÿ claine reder haben und hinden zwaÿ grossÿ und dz eß dester hohlicher über berg gang eß sol haben zwaÿ kurze ÿsen ainer eln lang da hindan und vornan diß ist maz an bergen und ze stigen und ouch under ab ze ziechen dz ÿsen so lang alwegen mit langen sailen hinder sich ziechen ~
- (39v) Diß ist ain grine lange nater vornan mit starcken haugken die sol man legen zü aine wand an muren Es muget bruchen die lüte Sturmen und atter die in den muren muget in (!) inhin zichen waz sy begüssent wenn d si die sail kressterlich ziechent ~
- (40r) Dise brugk dienet in zwen weg Si füret sich über land uff vier redern und schwimet in dem wasser tü alß ich vor geseit hab dise brugg ist ain gütt wagen und vest und gelücklich uff dem wasser
- (40v) Diß ist ain ander stighaugk der fürt sich uff vier redern biß dz der oberhaugk die mur begrift und stiget man sicher da mit türn und muren ~
- (41r) Also fürt wasser von ainer sitten obnan ab und zü der andern sitten wider uff Eimitten inne / sol sin ain stube die dz wasser usenthaltett ~
- (41v) Wilde pfärd sol man laden mit dürrem holtz dar in schwebel und bech und hartz si der sattel sol geschmieren sin mit aÿer claur zünd dz an trib die pfärt under die vÿent so bissent und schlachent und brennent die vyent
- (42r) Ein recht fürpfil sol soainen sin wel sin und dur in hol dz sol man füllen mit pulver und ain secklin dar über ziehent dz ouch mit pulver gefüllet sÿ zindz hindan an und schüß in bald so brint dz für und letzt den schaft wenig und wo der schaft beheftet da schadet er gröslich / ain ander für pfil nim pulver schwebel und werch tpulen (?) mit öl binde obnan alß ain spinel zünd eß an und schüß da mit

Mit ainem grossen näper bor ain loch in aine bom und mit ainem clainen näpper ain klain loch uf die ander siten und fülle dz groß loch mit pulver und verschlah eß vast wol mit ainem clotz zünd eß zü dem clainen loch an und flüch bald da von dz Bom springt von ain ander und machet ain groß tumult \sim

- (39r) This shelter goes with guns; and is built of woodwork; and should have two small wheels in front and two big wheels in back, so the better it goes over mountains; it should have two short irons one ell long, fore and aft; this is snazzy on mountains and up steps / terracing; and also to haul off / dig out, whereunder the irons thus lengthen all the way with lengthy ropes running behind.
- (39v) This is a long "sand-adder". One shall put it to a battlement with the strong hooks / claws at the front. Masonry it may break *and then* the folk storm. And the adder, which *be* at the masonry, may tract and retract. Something be pouring over, when the ropes draw criss-crossingly *over the* discs.
- (40r) This bridge serves in two ways: It conducts itself over land upon four wheels and swims in the water as well. I, *Kyeser / Talhoffer*, have seen this before. This bridge is a good wagon and is sound and lucky upon the water.
- (40v) This is another "scaling-hooker" that conducts itself upon four wheels, such that the upper hooks grapple the battlement and one climbs towers and walls assuredly therewith.
- (41r) Thus conveys water from a lofty cistern and up again to a tank. In the middle of *the piping* should be a chamber that lets and holds the water. *Thus a large-scale yet simple syphoning system*.
- (41v) Wild horses should one laden with dry wood, wherein be brimstone and downy fluff and resin; the saddle shall be coated with egg-whites; kindle that, drive forth the horses among the foe; thus bite and strike and burn the foe.
- (42r) A real "fire-bolt" should be as such and well-be: Therein *the shaft* it is hollow and one fills it with gunpowder; and the podkin that surrounds it is also filled with gunpowder. Kindle it behind and shoot it timely, as the fire burns that and at last the shaft a little; and where the shaft pierces, there someone suffers badly. Another fire-bolt take gunpowder, brimstone and oakum; soak those with oil; bind it around as a spool; then kindle it and shoot therewith.

With a big auger bore a hole in a tree; and with a little auger *bore* a small hole upon the other side; and fill that big hole with gunpowder and seal it well-tight with a clod; kindle it at the small hole and flee directly therefrom. The tree bursts asunder and makes a great uproar.

(42v) Diser züg ist gemacht zü düm (?) buchsen und schüsset ÿe aine nauch der andern \sim

(43r) nim deß aller besten pulverß und leg eß an diß kugeln zünd sÿ an und wirff sie da von kumet grosser schad wann dz für zerbricht sÿ und brenet gar hart ~

(43v) Diser züg höret under dz wasser dz houpt und den lip sond verdecket sin mit leder und wol verneit und die ougen von glesern dar in gemachet und mit hartz und mit bech wol versichert obnan vor dem mund sol sin ain badschwann dar under zwen dar uß du den autem vahest und wider uß laussest also machtu gan und sehen under dem wasser ~

(44r) Zeglicher wiß ist diser züg uß genomen dz dz hopt verdecket ist mit ainem schweren helm und ouch die ougen dar under vermachet alß vor. Ist dz daß wasser starck rinnet so soltu dich beschweren mit gewicht oder ain sail binden an aine bom oder an ainen stok daß du dar an heruß mugest komen ~

(44v) Loliol ist genant libol samen in win gesotten und der win in andern gemischet wem du den ze trincken gist der entschlaffet und entwachet in achtagen nit nim us den ougen grautt der kreps die fige mische eß wa mit du wilt ds machet gröslich schlaffen nim baldrion leg den übernacht in win wem du den zetrinken gist der entschlauffet bis man in wecket nim den somen von muratiten wem du dz in trank gibest der begriffet den andern bi den har Remedia für die vogeschribne stuck ist starcker essich in die naslöcher gegossen welher überland ritten wil oder zü ainem wachter genomen wird und in der schlauff beschwärt der neme körner von strepico und lüwe eß in den mund so hört der schloff uff

(45r) No text

(45v) nim kupffer schlag und mach dar uß ain kugel un wendig hol darnauch nim ungelöschten kalch ain tail galbani ain halbtail müsch dz galbanin mit dem kalch dar nauch nim schnegken gallen in glichem gewicht und leg dz galbanin dar in dar nauch nim Cautari deß alß du wilt schnid in die höpter und die flügel ab und stoß die mit glichem gewicht kecksilberß tü eß in ain kolben vergrab eß in ainem mist vierzig tag und ender dz in dem mist ye an dem .v. tag so wirt eß alß gold den nim die kugel und bestrich si mit dem ersten stuck und lauß eß

(42v) This rig is made of dumb (?) guns and shoots the one after the other. Thus a manifold-mortar that elevates and repeats / revolves.

(43r) Another mainfold-mortar: Take the best of all gunpowder and pack it into these grenades / bombs (fire-pots / fire-kegs); kindle them and launch them; from them comes great harm, when the fire blasts them apart and burns fiercely.

(43v) This rig relates to underwater: The head, including the lips, is covered with leather and well-riveted; and the inset goggles are made of glass and well-sealed / secured, with resin and with pitch; above and before the mouth should be a "diving-swan", thereunder two, so thereout and thereby you draw in breath and let it out again. Thus you may go and see under the water. Wetsuit & air-bag for a "frogman".

(44r) Materially similar is this rig – except that the head is covered with a hard helm, though the goggles thereunder are made as before. Be it that the water runs strongly, then you should burden yourself with weights, or bind a tether to a tree or to a stump, so that *you* may submerge and emerge *again too*. Wetsuit, mask, snorkel and helmet for underwater deep-diving.

(44v) Loliol is also named libol, ninilol or darnel; take its seeds brewed in wine and then mixed into other wine; and whomever you get to drink that, he "dies" / sleeps and awakens in eight-days-nights. Take out the eye-grit of crayfish and a fig and mix that with whatever you will that makes deep sleep. Take valerian, steep it overnight in wine – whomever you get to drink that, he sleeps until someone wakes him. Take the seeds of "wall-titan" / houseleek (?) and to whomever you give this in a drink, it "grabs him by the hair". Remedy for the aforedescribed trick – strong vinegar poured into the nostrils. Whether one will ride overland or do guardduty and so sleep burdens, then to counteract that he takes grains of strepico and chews it in the mouth and so he shakes off the sleep.

(45r) A skin-diver breathes while underwater by means of a snorkel and syphon-flask rig.

(45v) Take "copper-slag" / chalcocite and make thereof a nimbly hollowed ball. Thereafter, take one part quick-lime and one-half part galbanum and mix the galbanum with the lime. Thereafter, take snail-gall (?), of similar weight and put that into the galbanum and lime. Thereafter, take chanterelle, as you will snip off the "heads" and the "wings" into the mix and stuff that along with similar weight of quicksilver into an earthenware flask and bury it in muck for forty days and inter that undisturbed in the muck until the fortieth day. Thus it

trucknen und wenn eß trucken wirt so bestrich si mit dem anderen ding zünd si / an so erlöschet si nit wilt du si ab- löschen so nim ain stuck von ainen küsling waich daß in essich drü tag und versenck und versenck (!) die kugel mit Im

(46r) Ich haiß philomenus und bin gemachet von er oder von kupffer Ich gib kain hitz so ich ler bin wenn ich aber gefüllet wird mit Terebürte oder mit gebrantem win und man min lip zü dem fuor tüt dz ich haiß wird so wirf ich für in gneist und da mit man ainer ieglich kerzen an zünden mag ~

(46v) Dis sint schne raiff die sol man in dise form machen und stro dar uff decken und ob den füssen zesamen stricken zeglicher wiß machstu dz machen mit langem stro under den füssen zesamen gebunden ~

(47r) Ainß fürsten palast machtu werme mit disen wol schmöckenden stucken nim vil tigel die für enhaltidt mache von dickem holtz und kolen ain für dar under tuo dar in ambram musten Saffran gampher mirren alteß olibanum mastick wirouch und zwaÿerlaÿ sandel Tü userlesen wirouch dar zü oder andre wolschmeckende ding Item leg negelÿ uber nacht in win und morneß so zerklub sÿ alle Tü die nägeli dick in ainen tigel und güß deß wineß einwendig dar an wenne denn dise stuck haiß werdeten so wirt eß wol riechen ~

(47v) Diser gesamneten gezüg ist güt in raisen für die herren ain heftsag geisfüsst ain näber ain dietrich ain pfriem ain schmit ysen ain schar schach die stuck sind notdürftig

(48r) *No text*

(48v) No text

becomes as gold. Then take the ball and coat it with that first part of the mixture and let it dry; and when it becomes dry then coat it with the second part of the mixture and kindle it – for it becomes a torch which extinguishes not. However if you would extinguish it – then take a bit of an "owling", soak that in vinegar for three days, and sink the ball into that liquid.

(46r) I am called Philomenus – and I am made of bronze / brass or of copper. I "give no heat" – thus I am empty. When I become filled with turpentine or with brandywine. And *if* one puts my lips to the fire, then I become hot. Thus I spit fire, pouring it forth and therewith one may kindle each and every candle.

(46v) These are "snow-hoops" / snow-shoes that one should make in this form; and thatch straw on top of these; and if the feet become "knitted together", *thus stiffened from cold*, then you may make these materially similar *yet also* with long straw bundled together under the feet.

(47r) You may warm a princely palace with these savory-scented ingredients: Take many crucibles that hold fire. Make a fire under those with thick wood and charcoal; and into those *crucibles* put amber, musk, saffron, camphor, myrrh, old olive-wood, mastic, holy incense and two kinds of sandal-wood; put choicest holy incense therein or another savory-scented thing *instead*. Thus steep those mincings overnight in wine, and so by morning all be split apart; and then put the mincings generously in each crucible and pour the wine thereupon and when then these ingredients become hot, so it becomes sweet-smelling. *Palatial heated potpourricenser altar*.

(47v) This tool-kit helps lords gain entry: One hafted-saw, one "whip-fist", one knapper, one skeleton-key / lock-pick, one punch, one smiths-iron, one shears and one jimmy. These are needful things.

(48r) Tools for undetermined purpose.

(48v) Bundle of hollow casings wrapped with fusing apparently – perhaps for incendiaries or explosives?

3. Wrestling and Dagger-Fighting (49r-71r)

(49r) Jtem zulouffent ringen uß den Armen	(49r) Thus rushing-wrestling <i>by gripping</i> the outer arms.
(49v) Item daz arm brechen und uber den schenckel werffen	(49v) Thus arm-breaking and throwing over the shank.
(50r) Jtem das burn vassen	(50r) Thus bear-clinching.
(50v) Item daz uß zucken und werffen vor der elenbogen ~	(50v) Thus tugging out of that <i>bear-clinch</i> and throwing <i>foe</i> foreward <i>upon</i> the elbows.
(51r) Jtem Das durch gan	(51r) Thus going through <i>to throw</i> .
(51v) Item der bruch uber daz Durch gan	(51v) Thus the counter for that going-through.
(52r) Item daz vassen im wammeß	(52r) Thus seizing <i>the foe</i> by <i>his</i> wambeson.
(52v) Der bruch über daz vassen jm wammeß	(52v) The counter for that seizing of the wambeson.
(53r) Daz stuck uber den Arm und inn fuoß	(53r) The play over <i>foe</i> 's arm and foot.
(53v) Daz werffen uber die huffte	(53v) Throwing over the hip.
(54r) Der Armbruch	(54r) The arm-break.
(54v) Das hinder tretten	(54v) The hinter-treading.
(55r) Der Armbruch uber die achsel	(55r) The arm-break over the shoulder.
(55v) Duch (!) ain hinder tretten	(55v) Yet another hinter-treading.
(56r) Das achselbrechen	(56r) The shoulder-breaking.
(56v) Das halß-würgen	(56v) The throat-strangling.
(57r) Daz versuchen durch gan oder hinder tretten	(57r) Trying to go through or to hinter-tread.
(57v) Der buobenwurff überβ houpt ~	(57v) The boys-wrestling / knaves-wrestling done by rolling under and throwing foe overhead.
(58r) Stuck und bruch	(58r) Attack and counter. / Play and break.
(58v) Daz genick vassen	(58v) The neck-clinching.
(59r) Der verkerrtt wurff	(59r) The inverted throw.
(59v) Vom man zukomen	(59v) Getting away from foe.
(60r) Daz beslossen vassen	(60r) The locking-clinch.
(60v) Hinder sich der bruch für daz heben	(60v) The counter for <i>foe's</i> heaving <i>of you is found</i> behind oneself <i>by grabbing foe's hair to break his hold.</i>
(61r) Für den obern stich Mit dem linggen Arme	(61r) For foe's over-stab with the dagger when you are unarmed – catch his arm with your left arm

(61v) Der Arm bruch	(61v)And then <i>grabbing it with both hands you twist it to</i> arm-break.
(62r) Daz verkertt werffen	(62r) Inverted throwing <i>versus over-stab</i> .
(62v) Den man zu werffen mit dem tegen	(62v) Throwing the foe <i>who over-stabs</i> with his dagger.
(63r) Den undern stich weren und den Arm brechen	(63r) Ward the under-stab and then arm-break.
(63v) Den man für zu werffen	(63v) Throwing the foe who over-stabs.
(64r) Den tegen ainem Nymen mit sim tegen	(64r) Taking, with one's own dagger, the dagger of someone <i>who over-stabs</i> .
(64v) Der ober Schilt	(64v) The over-shield <i>countering the over-stab</i> .
(65r) Der wurff uber die hufft	(65r) The throw over the hip <i>countering the over-stab</i> .
(65v) Den man werffen mit gewalte	(65v) Throwing, with dominance, the foe who over-stabs.
(66r) Für werffen und durch schiessen zuck an dich	(66r) Throw <i>foe</i> down <i>as you</i> lunge <i>your dagger</i> through and pull <i>it</i> toward yourself <i>to counter his over-stab</i> .
(66v) Daz Fahen	(66v) The catching, thus the scissors – for countering over-stab
(67r) Der bruch Darüber	(67r)And the counter thereover to that catch.
(67v) Der wurff ubern Ruggen	(67v) The throw over the back to counter the counter to the over-stab.
(68r) Der bruch und dot stich	(68r) The over-counter and death-stab. (unfortunately this folio has a missing washed-out patch – so its action is conceptually restored here)
(68v) Der under bruch und hertz stich	(68v) The under-counter and heart-stab. (unfortunately this folio has a missing washed-out patch – so its action is conceptually restored here)
(69r) Der wabent stich und bruch dar für	(69r) The weaving-stab <i>from above</i> and the counter for that <i>from below</i> .
(69v) Stuck ist volbracht	(69v) The play is achieved <i>that counters over-stab</i> .
(70r) Der under schilt	(70r) The under-shield <i>that counters under-stab</i> .
(70v) Der mortt stich	(70v) The morte-stab / murder-stab achieved by catching, locking and striking.
(71r) Das end stuck	(71r) The ending play – throw and stab the over-stabbing foe in his belly.

4. Fighting with Pollaxes, Spears, Halberds & Swords (71v-79v)

(71v) Den slag versetzen und hertz abstossen	(71v) Forsetting the <i>pollaxe</i> strike and stop-thrusting <i>with pollaxe to the</i> heart.
(72r) Den stich versetzen und Jn er stechen	(72r) Forsetting foe's thrust and thrusting to the foe.
(72v) Den bruch und wurff	(72v) The break and throw.
(73r) Daz hallß ryssen	(73r) The neck-wrenching.
(73v) Der nott stand fur den slag	(73v) The needed stance countering the strike.
(74r) Stuck verbracht	(74r) The play achieved.
(74v) Daz gwer fachen	(74v) Catching the armament.
(75r) Mit dem schwert für den Slag mit dem spiesß	(75r) With the sword one counters the strike with the spear by trapping and hewing. Swordsman warded in either Roof or SS-1.
(75v) Der gewäbet Stich	(75v) The woven thrust done by half-swording. Swordsman warded either in Ox or SS-1.
(76r) Der oberhow für den stich	(76r) The over-hew countering the thrust by spear. Apparently Swordsman warded in reverse-ward, and when Spearman thrust low then Swordsman underhewed and broke spear-shaft as he trod back, and now wrath-hews as he treads forth.
(76v) Daz end stuck mit dem schwert für die hellen barten	(76v) The ending play with the longsword countering the halberd by avoiding its over-hew while treading and crumple-hewing – thus gruesomely beheading the foe. Swordsman warded in any one of variety of wards.
(77r) Daz blenden ab dem houpt Darby der wurff in Leib	(77r) Unarmed man confronts spear-armed man, thus the unarmed one blinds the other by throwing his hat at the head and thereby he throws his dagger into the body.
(77v) Daz endstuck mit dem messer für die hellen bartten	(77v) The ending play with the bastard-sword countering the halberd by avoiding foe's strike and striking single-handedly. Swordsman warded in Roof.
(78r) Daz versetzen gen dem spiess	(78r) The forsetting of the ready-to-hurl spear. Swordsman cradles sword, ready to shed the spear like in harness-fighting, with his dagger ready to hurl.
(78v) Ain billgerin für ain langen spieß mit sinem stab	(78v) The short-pike counters a long-spear with its shaft like one would do with a staff.
(79r) Der nott stand jm messer	(79r) The needed stance with the <i>bastard-sword</i> , as one draws from sheath
(79v) Daz stuck da die Hand Verlohren.	(79v)And the play whereby the hand <i>of foe</i> is lost, <i>by</i> treading or switching while under-hewing, thus driving into Ox.

5. Judicial Duel of Man versus Woman (80r-84r)

(80r) Hie schlecht er nach dem fuosß und sÿ trifft dz hoübt.	(80r) Here, in judicial duel of man and woman, he strikes at her foot and she hits his head.
(80v) Hie hat er den schlag Ir entwert und dem arm gefangen	(80v) Here he has negated her strike and caught <i>it</i> around his arm.
(81r) Der griff nach dem halß	(81r) The grip at the throat.
(81v) Hie nickt sie den man	(81v) Here she nods / neutralises the man / husband.
(82r) Daz halß brechen	(82r) The neck-breaking.
(82v) Hie macht er ain end stuck	(82v) Here he makes an ending play.
(83r) Hie wil sie in töben und er sie sÿ vellen	(83r) Here she would hammer him / deafen him, and <i>here</i> he be felling her.
(83v) Hie tribt daz wib ain endsstuck	(83v) Here the woman / wife drives an ending play.
(84r) Hie macht er (!) end	(84r) Here they make an end of each other.

6. Armoured Duel-Fighting with Longsword & Spear and Unarmoured Harness-Fighting (84v-94r)

(84v) Der anfang des kampfs	(84v) The commencement of the armoured duel with one knight entering and his armiger heralding.
(85r) Hie sitzend sy bed	(85r) Here both <i>knights</i> be sitting with guarding speararmed armigers and cross-bedecked biers – one draped with the flag of Saint Maurice, the other with the flag of Saint George.
(85v) Der stand für den schutz	(85v) The stance countering the hurl of foe's spear with one's longsword & spear Leftman cradles his longsword to allow spear-hurling – Rightman wards in SS-3 while holding his longsword & spear tandemly.
(86r) Hie ist der schutz versetzt	(86r) Here the first hurl is forset Leftman still cradles sword as he hurls spear – Rightman forsets that spear with sword & spear in tandem by treading & driving into high version of SS-3.
(86v) Der ander schutz versetzt	(86v)And here the second hurl is forset. Rightman hurls his spear after shifting sword to his other hand – Leftman forsets that spear with his cradled sword & spaudler by swatting high to shed it midair.
(87r) Daz anlouffen nach dem schutz	(87r) The rushing with longswords after the spear-hurls. Rightman warded in M-1 only to tread and morte-strike from on high – Leftman wards in SS-2 but must drive into SS-1 very quickly to forset that.
(87v) Der morttschlag ist versetzt	(87v) The morte-strike / murder-strike is forset. Rightman warded in M-1 and did the morte-strike – Leftman warded in SS-1, SS-2 or SS-3, then forset and wrench-punched to undo his foe and perhaps throw him over his leg.
(88r) Daz brendschürn	(88r) The fire-poker / branding-iron, thus the half-sword. Leftman wards in SS-2 and Rightman wards in SS-2 – they go to binding.
(88v) Daz Schwert nymen	(88v) The sword-taking from binding at fire-pokers. Thus both swordsmen warded in SS-2. So Leftman drove his sword high into SS-1, then Rightman let go the blade with the front hand and wended his longsword through & back as he trod; which caused Leftman to seize that blade with his front hand while in turn Rightman seized both blades below to shear those together; which thus loosens Leftman's seizure so that Rightman may take his longsword.

(89r) Uß dem morttschlag den gurgelstoß	(89r) Out of the morte-strike into the jugular-stab. Leftman warded in M-1 and Rightman warded in any of SS-1, SS-2, SS-3 or INV wards – Leftman fakes like he would morte-strike, yet shifts grip of right hand to handle as he steps – Rightman either treads forth or stays put to ward high in a reversed SS-1 – Leftman then lunges with a downward stab to Rightman's throat.
(89v) Das leinen	(89v) The leaning. Two possibilities: 1 st : Leftman warded in SS-2 and Rightman warded in SS-2 – at a stalemate with fire-pokers, Leftman forsets with point as he treads forth while he shifts grip of his right hand to blade and thus leans into pommel-punch. 2 nd : Leftman warded in M-3 and Rightman warded in SS-2 – Rightman lunges forth to stab – Leftman avoids that as he steps & lunges and leans into pommel-punch.
(90r) Der Ruggen wurff	(90r) The back-throw. Leftman warded in SS-2 and Rightman warded in SS-2 – each has seized the other's blade with his left hand – so Rightman forsakes both weapons, then grapples & throws to finish his foe.
(90v) Die versatzung zer ryssen und daz antlut stossen	(90v) The forsetting, ripping and face-punching. Leftman warded in M-1 as Rightman warded in SS-2 – Rightman gets really close and lunges to stab – so Leftman treads back to drive into M-3 as he wrenches down with cross to forset foe's point by ripping the grip of foe's left hand, then instantly lunges & punches with pommel to foe's face.
(91r) Der hallß Schlag	(91r) The neck-strike. Rightman warded in M-1 – Leftman warded in SS-1 or SS-2 – Rightman trod forth with morte-strike, yet missed and thus drove into M-2 – Leftman interlopes and stabs while Rightman treads back and drives into M-1 again – then instantly Rightman morte-strikes the neck of his foe as he treads back or switches, wrenching him down with cross aided by the momentum.
(91v) Ain ennd Stuck	(91v) An ending play. Leftman warded in M-2 and Rightman warded in SS-1 – Rightman stabbed down and missed – Leftman trod back thus drove into M-1 as he avoided, then instantly treads around behind Rightman to shove his foe across chest with his sword to throw him – thus Rightman quickly counters by dropping his weight with a step forth as he passes his hip beneath Leftman and swings himself at the waist while shoving with his own sword, to throw his foe – thus grounded, Leftman seizes blade unavailingly as Rightman stabs him with sword.
(92r) Stuck und bruch	(92r) Attack and counter. Leftman warded in SS-2 and Rightman warded in SS-2 – each man seizes the other's blade – Rightman turns and slips through – so Leftman simply tugs with his arms as he kicks his foe in the back to break this tangle.

(92v) Daz nider werffen uß den brend schürn	(92v) Locking then throwing down out of fire-poker Leftman warded in SS-2 & Rightman warded in SS-2. So Rightman trod just behind Leftman's front leg as he let go his blade with the front hand to grab Leftman's front hand; while with the front arm he clamped & pressed Leftman's blade to his side; while he wended his longsword down between Leftman's front arm & blade – and thus Rightman has locked Leftman's limb & weapon and will now throw him even as Leftman unavailingly tries to flee
(93r) Und Daz Selbig end Am letsten	(93r) Which at last is ended by dagger-stab.
(93v) Hie dancket er got und hat groß noth Da lyt er tod	(93v) And here the winner thanks God; as he had great need; and there lies the loser dead
(94r) Daz tragent In die fryheyten hin weg jnß grab Daz got alle gelöbig selen hab Amen	(94r)Whom they carry away to the freedom of the grave that God has for all worthy souls. Amen.

7. Horse-Fighting, Unarmoured, with Swords, Crossbows & Spears (94v-97r)

(94v) Daz an Ryten zu den vynden	(94v) Advancing to the foe afield with one's sword and dagger.
(95r) Daz versetzen Im schärmitzlen	(95r) For forsetting during skirmishing <i>upon horse</i> .
(95v) Daz schiessen an der flucht	(95v) Shooting <i>the crossbow</i> while fleeing <i>upon horse</i> – <i>the old "parting-shot"</i> .
(96r) Daz Armbrost und swert bruchen nach dem schutz	(96r) The crossbow and sword: Countering protectively. / Countering after the shot.
(96v) Daz glev bruchen halb und gantz	(96v) The lance counters half and whole.
(97r) Der stich uß der versatzunge	(97r) The thrust <i>done</i> out of the forsetting.

8. Judicial Dueling with Pavises, Maces or Swords; and Talhoffer's Heraldry, Motto & Authorship Statement (97v-103v)

(97v) Der erst anlouff mit schilt und schwert nach schwäpschen Siten	(97v) The first rush <i>of judicial duel</i> with pavise and sword according to the Swabian tradition.
(98r) Daz suchen hinder schilt	(98r) Seeking there, behind / from behind the pavise.
(98v) Der drit und gurgel stich	(98v) The kick and jugular-thrust.
(99r) Daz hinder treten und hertz stich volbringen	(99r) The hinter-treading and heart-thrust achieved.
(99v) Hie ist der kampf uff dem kolben gericht	(99v) Here is the <i>judicial</i> duel determined by the mace and pavise according to Franconian tradition.
(100r) Der anlauß	(100r) The onslaught. / The provocation.
(100v) Daz Zwierhen Jm Schilt	(100v) With 101r caption: The hampering of foe's pavise by ladening it with one's own mace
(101r) Und daz ynbinden	(101r) With 100v caption:And the thwarting inside foe's pavise.
(101v) Hie Maister Hanns Talhofer	(101v) Here Master Hans Talhoffer Heralds / Armigers bear the weaponry of Talhoffer, one with banner-wrapped spear and the other with sword & buckler, with his personal heraldry shown in the next leaf:
(102r) bedenck dich Recht	(102t) Talhoffer's coat-of-arms: black shield charged with two steel longswords crossed within gold crown, surmounted by steel jousting-helm crested with the baton of a teacher, surrounded by gold & black mantling and flanked by longsword-bearing haloed & winged lion and banner-bearing haloed eagle offering motto: Bethink Thee Right
(102v) No text	(102v) Combatants ready to duel according to Swabian tradtion, with pavises and swords.
(103r) No text	(103r) Combatants ready to duel according to Franconian tradition, with pavises and maces.
(103v) Anno domini 1459 Item Daz buoch ist Maister Hannsen Talhoferß und der ist selber gestanden mit sinem lybe biß Daz man daz buoch nach Im gemalet hat und Daz ist gemalet worden uff pfingsten In Dem Jar nach der gepurt Unsers lieben Herrn Christi Tusent vierhundert und darnach in dem Nün und fünfftzugosten Jar schrib mich Michel Rotwyler für waer	(103v) In the year of our Lord 1459: Thus this Book is that of Master Hans Talhoffer; and he is self-avowed with his life that someone (Clauss Pflieger) has illustrated this Book according to him; and that it became illustrated during Whitsuntide in that year after the birth of our beloved Lord Christ which is the one-thousand-four-hundred-fifty-ninth year thereafter. Truly, Michel Rotwyler scribed "me" the Book.

9. Pavises, Weaponry & Clothing for Judicial Dueling (104r-110r)

(104r) Der schilt hert zuo Dem Kolben ~	(104r) This <i>spiky</i> pavise <i>is</i> "hard" versus the mace
(104v) Zuom kolben	(104v) As is this spiky pavise versus the mace.
(105r) Zuo dem schwert	(105r) <i>This hooked & barbed pavise is hard</i> versus the sword
(105v) Zuom schwert	(105v) As is this smooth pavise versus the sword
(106r) Zuom schwert	(106r) As is this hooked pavise versus the sword.
(106v) lern Kolben	(106v) Learn to wield maces.
(107r) daz gwand Zuo dem schilt und Zuo dem Kampf. Talhofferß an tuon	(107r) The garments for the pavise <i>duel</i> and for <i>other</i> dueling <i>that</i> Talhoffer <i>advises</i> to put on. These grey body-suits consist of leggings, wambeson (red-cross bedecked), crotch-halter and hood.
(107v) Zu dem harnasch – och gewappet – Zum langen schilt	(107v) Varieties of specialised dueling longswords / bastard-swords: For the harnessYet also for any armoured duelingAnd versus pavises.
(108r) Zuo dem schilt – die zwän swerthörne zu gewappet – dem kampf	(108r) Some more varieties of specialised dueling longswords / bastard-swords: Versus pavisesTwain "sword-horns" for armoured fightingFor the duel.
(108v) die dri degen zu dem kampffdegen	(108v) The three daggers for dueling – dagger in sheath replete with throwing-blades and a spike.
(109r) Die gwer bruch war zü man wil	(109r) These weapons break armament & armour, truly as one wills: <i>A double-gaff, a spear and a corseque</i> .
(109v) Die agsten zu dem kampff	(109v) These pollaxes / luzern-hammers / ravens-beaks <i>are</i> for dueling.
(110r) dis ist ain agst zu dem kampff legt man zu stichen – die agst zu dem kampff	(110r) This is a modularly and optionally assembled pollaxe for the duel, with which one lays low his foe by stabbing thus it serves also like spear and/or gaffThis axe is assembled and ready for dueling.

10. More Dueling with Pavises (110v-117r)

(110v) No text	(110v) Here men duel with maces and pavises – Rightman stands in place as he spins his pavise and strikes badly with his mace – Leftman simply treads and strikes strongly with his mace, so he wins.
(111r) No text	(111r) Rightman stands in a sort of bow-ward – Leftman double-grips his pavise to drive it up then down in a pouncing-strike between Rightman's pavise and mace.
(111v) No text	(111v) Leftman stands ready to strike, but does not – Rightman tosses his mace aside and double-grips his pavise to swing it to batter Leftman.
(112r) No text	(112r) Leftman lifts his pavise above and behind his head and would thrust – Rightman counters by forsetting or binding and then would heart-thrust.
(112v) No text	(112v) Leftman hooks Rightman's pavise with his pavise, drags that down, then flips his pavise up and around as he treads and thrusts.
(113r) No text	(113r) Rightman tosses his mace aside to double-grip his pavise and swing — So Leftman forsakes his pavise to grip Rightman's pavise in one hand and strike with his mace in the other hand.
(113v) No text	(113v) Leftman stands in low frontal inverted ward – Rightman stands in high dorsal inverted ward – Such inverted wards afford strong strikes with either point of the pavise.
(114r) No text	(114r) Rightman swings his mace and misses – Leftman either avoids or forsets with his pavise – Rightman tries to recover behind his pavise – Leftman flips his pavise down to hook Rightman's leg to throw him down.
(114v) No text	(114v) Leftman gets in behind Rightman and drops / stabs his pavise on / into Rightman's foot and then reaches toward his throat to wrestle.
(115r) No text	(115r) Leftman tosses his mace aside and double-grips his pavise, then wheels his pavise through the air to hook Rightman's pavise and/or mace, thus dragging him out of his ward, then hooks Rightman by the neck to slay him.
(115v) No text	(115v) Rightman hooks and drags down Leftman's pavise with his pavise, then thrusts it up to smite him in the breast.
(116r) No text	(116r) Leftman thrusts his pavise to kill Rightman, who is fallen to the ground.

(116v) No text	(116v) Rightman pounce-strikes with his sword from behind the cover of both pavises to strike Leftman, who fails to forset.
(117r) No text	(117r) Leftman stands ready to forset a strike to his left side with his pavise – yet hidden by his pavise, Rightman had exchanged pavise and sword among his hands, then pounce-strikes with his sword between Leftman's pavise and sword into the breast.

11. Swords, Messers & Bucklers (117v-123v)

(117v) No text	(117v) Men wield swords and bucklers within barriers – Leftman wards in frontal dextro latere – Rightman wards in sub brach – they may strike each other.
(118r) No text	(118t) Leftman wards in vidilpoge – Rightman stood in capiti or dextro latere, then treads and over-hews with his sword – Leftman must forset, wind & lock, then counterstrike with hew to head or stab to belly. (unfortunately this folio has a missing washed-out patch – so its action is conceptually restored here)
(118v) No text	(118v) Leftman wards in downward vidilpoge – Rightman stands in dextro latere and starts to swing sword, either to under-hew or middle-hew – Leftman must do something. (unfortunately this folio has a missing washed-out patch – so its action is conceptually restored here)
(119r) Der recht not stand gen zwainen	(119r) The right and needed stance against two foes. Leftman would over-hew with sword from capiti – Rightman over-stabs with dagger from high-short – So instantly Middleman leaps from pectori to kick down Leftman's buckler as he pounce-strikes with his sword, while he swings his tandemly held dagger & buckler behind him to under-stab Rightman.
(119v) No text	(119v) Here men now fight with messers and bucklers – Leftman treads from capiti and over-hews – Rightman forsets with buckler from vidilpoge, winds that around Leftman's messer-arm to lock, and hews Leftman's head with messer as that man treads back struggling.
(120r) No text	(120r) The fighters are at close range – Rightman stood in pectori or frontal dextro latere as Leftman stood in sub brach – Rightman lunges low with his messer by twisting – Leftman avoids by treading back as he tugs his messer up to pectori and drives his buckler forward – Thus Rightman gets his breast stabbed and his head punched by the resulting kinetics.
(120v) No text	(120v) Rightman over-hews from capiti – Leftman forsets from langort with messer & buckler in twain, and may wind & counterstrike.
(121r) No text	(121r) The fighters are at close range – Rightman stood in sub brach – Leftman stands in pectori and thrusts high over Rightman's ward by twisting – Rightman treads back while he winds messer & buckler in twain up high to forset.

(121v) No text	(121v) Leftman over-hews from capiti with his messer – Rightman forsets from vidilpoge or pectori with buckler and winds it around Leftman's arm to lock, as he twists and thrusts his messer through Leftman's belly or crotch as that man treads back struggling.
(122r) No text	(122x) Three possibilities: 1 st : The men are at close range – Leftman stood in downward vidilpoge – Rightman stood in frontal dextro latere – Leftman winds & lunges to hew with messer in twain with buckler over Rightman's ward – Rightman treads back and forsets with blade-flat of his messer and may now punch Leftman's arm or face with his buckler. 2 nd : Leftman stood in humero sinistro – Rightman stood in frontal dextro latere – Leftman treads forth to hew with messer in twain with buckler over Rightman's ward – Rightman treads back and forsets with blade-flat of his messer and may now punch Leftman's arm or face with his buckler. 3 rd : The men are at close range – Leftman stood in halpschilt or pectori – Rightman stood in frontal dextro latere – Leftman lunges to thrust with messer in twain with buckler down over Rightman's ward – Rightman treads back and forsets with blade-flat or blunt of his messer to blade-flat of Leftman's messer and may now punch Leftman's arm or face with his buckler.
(122v) No text	(122v) Perhaps this counters 121v: Leftman failed to lock Rightman – So Rightman tugs and treads back as he slashes Leftman's weapon-hand with his messer and punches Leftman's face with his buckler.
(123r) No text	(123r) Leftman over-hews from capiti with his messer at Rightman's head — So Rightman treads back from sub brach while he under-hews, thus cutting off Leftman's hand
(123v) No text	(123v)So Leftman falls on his face to ground, totally finished, as Rightman treads forth and hews him to the head.

12. Horse-Fighting, Armoured & Unarmoured, with Various Weaponry (124r-130v)

(124r) No text	(124r) These armoured knights wield swords and charge on horses at each other within barriers – Rightman wrath-hews – Leftman under-thrusts.
(124v) No text	(124v) These unarmoured riders charge with swords – Rightman over-hews – Leftman forsets with blade-flat by ebbing his hand / torquing his wrist
(125r) No text	(125r)So Rightman winds his sword to strike Leftman's leg.
(125v) No text	(125v) Rightman shifted his sword to be cradled by his left-arm, so that he may wind his right-arm around the sword-arm of Leftman to lock it and take his sword.
(126r) No text	(126r) Leftman winds his arm from behind around Rightman's sword and locks to take it.
(126v) No text	(126v) Leftman winds his right arm around Rightman's right arm to lock and thus throw him out of saddle.
(127r) No text	(127r) Leftman tosses down or loses his sword – Rightman keeps his sword – Leftman and Rightman clinch and wrestle from their saddles – Either man may win, yet Rightman seems at the vantage.
(127v) No text	(127v) Leftman wrenches Rightman by the right arm and pulls him out of the saddle.
(128r) No text	(128r) Leftman had Rightman in hold over the right arm and across the breast — So Rightman breaks it by winding his right arm around / across the back of Leftman's neck and twisting to level him.
(128v) No text	(128v) Leftman drags Rightman by arm-lock and throws him out of saddle.
(129r) No text	(129r) Leftman charges with his lance – Rightman neutralises by forsetting and thrusting with his sword.
(129v) No text	(129v) Rightman charges with his lance – Unarmed Leftman draws off / avoids – Rightman smites him in the back nonetheless, as Leftman desperately grabs at the lance.
(130r) No text	(130r) Leftman tugs his lance into a hanging-ward, countering to intercept attacks – Rightman aims to shoot low at Leftman's unarmoured horse with his crossbow.
(130v) No text	(130v) Knights upon horses charge each other, jousting at tourney – Rightman's lance strikes Leftman's targe obliquely and shatters – Leftman's lance strikes Rightman's cuirass squarely – Rightman is thrown out of his saddle, utterly undone.

13. Pollaxe Dueling, Unarmoured & Armoured (131r-137v)

(131r) No text	(131r) Men wielding pollaxes within barriers – Leftman strikes from underneath – Rightman strikes from overhead.
(131v) No text	(131v) Leftman awaits strikes from above – Rightman strikes mightily from roof-ward
(132r) No text	(132r)And so Leftman forsets and thrusts to Rightman's flank. (Although armoured, these men portray the achievement of the prior struggle.)
(132v) No text	(132v) Leftman either faked or failed to strike with the axe of his weapon and then strikes / hooks Rightman's leg with the gaff of his weapon.
(133r) No text	(133r) Rightman tried to lock the shaft of Leftman's pollaxe between his arm and body – Leftman treads around lively and levers his shaft and hooks Rightman's neck with the beak of his weapon.
(133v) No text	(133v) Rightman would morte-strike with his pollaxe – So Leftman forsakes his pollaxe and rushes at Rightman to grapple and throw
(134r) No text	(134r)And thus Leftman treads roundabout, grapples Rightman and achieves his throw.
(134v) No text	(134v) Leftman's left arm was perhaps wounded – So Rightman rushes forth to thrust from beneath with his pollaxe – Yet Leftman counters by thrusting from above with his pollaxe – Thus both fighters wound each other badly, perhaps mortally.
(135r) No text	(135r) The fighters were binding with their pollaxes: Leftman had his high dorsal and Rightman had his low frontal – Leftman lets go with his right hand as he holds fast with his left hand as he ducks under both weaponshafts while he treads forth – Leftman wraps his right arm around the arms of Rightman and locks the weaponshafts – And so now Leftman may twist and step to take Rightman's pollaxe.
(135v) No text	(135v) Rightman struck from above – Leftman forset – The pollaxes were then at binding – Leftman drops his pollaxe and treads inside, reaches around Rightman's right arm and weapon to double-grip Rightman's left arm and hinter-tread to throw him face-first to the ground.
(136r) No text	(136r) Leftman threw Rightman, locked his arm & leg, and now stabs him in the face with his dagger – hence he does a successful "holding".

(136v) No text	(136v) Leftman and Rightman have each grabbed the other man's weapon while gripping his own weapon – Rightman has the vantage of his own momentum and Leftman's unbalance.
(137r) No text	(137r) Pollaxes forsaken, these men are wrestling – Yet there are two possibilities: 1 st : Leftman wraps his left arm around the back and wraps his right arm under the leg of Rightman and thus lifts and throws him 2 nd : Rightman had Leftman in arm-lock ready to throw over his hip – So Leftman sought to break that and does the two holds already described as he gains better balance and thus counter-throws him
(137v) No text	(137v)So Leftman achieved his throw howsoever, and now makes a holding of the stunned Rightman by sitting upon him, trapping his foe's arm with one hand while with other hand he draws his ballock-dagger and stabs his foe to death.

14. Proving One's Strength (138r-139v)

(138r) No text	(138r) Here Talhoffer (?) plays around with Rotwyler (?) and Pflieger (?), testing his strength in a ludic way against that of the other men.
(138v) No text	(138v) Leftpair are perpendicular as one tries to get both arms ungripped by the single arm of the other – Rightpair has one sitting on top of another who is bellydown, with legs locked by arms and so the lower guy must buck the upper guy from his back somehow.
(139r) No text	(139r) First and Second struggle to find who can pull whom over his leg – Third is bound in ropes to test his escape-artistry – Fourth must cut though the leather belt with a simple knife in a single surge if he can.
(139v) <i>Blank</i>	(139v) Blank
(Finish of first-face of janiform binding – Start of second-face of janiform binding)	(Finish of first-face of janiform binding – Start of second-face of janiform binding)

15. Here Teaches (150v-140r)

(150v)

vv

1 2 3 4 5 5 6 7 8 9 // 10 11 12 13 14 15 16 17

18 19 20 21 22 23 24 25 26 27 28 29 30 31

32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

47 48 49 50 51 52 53 54 55 56 57 58 59 60

61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91

92 93 94 95 96 97 98 99 // 100 2000 190 3000 400 500

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1000000 // 11111111 // 1234567 // 1459 Jar macht mich michel

 $1000000 \, / / \, 1111111 \, / / \, 1234567 \, / / \, 1459 \, Jar macht miche Rotwyler für wär$

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	guldin	schilling	thallar	äxttlin

(150r) *Hebrew Aleph-beth:*

t sch r k tz f p e s n m l ch i t h s uo h d g b a א ב ג ד ה ו ז ח טי כך ל ם מנן ס ע פ ף צץ ק ר ש ת א ב ג ד ה ו ז ח טי כך ל ם מנן ס

n n p r s t v tz tz - - - - - - צ ץ ו ט ז ר פֿ נ ן

ch ch sch נ ס ת ס פ ש פ פ ה ת ס מ s s t h f ff ss

cha ssd nssiuu chiu ssal chia reh rbil ruf utz tssnid giliuu niim nbles ses sstag ndang tzid luf lib dnuseg chua gam lauu ereh rbil chiu nuf nreg chua tiie ela chia truh nchiilg

lamet offemem pschlossemem oruminun slechtinun samech ein ע ס ו נו פ מ ל

pe ve orumtzadick slechtitzadick kuff ress schin taf

murd tg rg ttsch tr th tns nm gm gt guu ruu ssuu ssad rknuj rgej grej duj bukaj suj raj // mia ria tsch/ssia nia chia

Item die alle wegen nyenen denn amlesten annwortten ~ CHMNTZ

(149v) Blank

(150v) Numerals:

VV 1 2 3 4 5 5 6 7 8 9 // 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 // 100 2000 190 3000 400 500 600 700 800 900 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 20000 30000 40000 50000 60000 70000 80000 9000 100000 200000 300000 40000 500000 600000 700000 100000 100000 200000 300000 400000 500000 600000 7000000 800000 900000

 $1000000\,//\,1111111\,//\,1234567\,//\,In$ the year 1459, Michel Rotwyler made me – yes indeed.

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100000				
1000				
100			•••	••••
10		•••	•••••	••••
				l .
1	•	•••		

(150r) Hebrew Aleph-beth:

t schrk tz fpesnmlchiths uohdgba אבגדה וזחטיכך לם מנן סעפף ציץ קרשת

n n p r s t v tz tz
- - - - - - - - - - - צ ץ ו ט ז ר פ נ ן

My willing service unto *the* beloved Lord – I let ye wit that indeed. Well and healthy may *the* body feel – *yet* clemency resides in God. Just like lancing, I also gladly keep all oaths, ye beloved lords.

Alef beth gimel daleth he waw zayin heth teth yod kaf kaf A B G D H UO/V S H T I CH CH

lamed mem mem nun nun samekh ayin L M M N N S E

pe ve sadhe sadhe qof resh shin taw P F TZ TZ K R SCH T

That what was. Dare *the* day: make Man saintly (?). Take counsel: behold well God.

I one eat (?) eggs (?) bucket (?) // year law Jacob Jew yearling (?) hunter young-lord

Thus they who always naysay shall then at last answer $for\ that$ – Chemnitz

(149v) Blank

(149r)

אי איטם הנש טלהופר קלש פףליגר מיכיל רוטווילר rotwyler michel pflieger clauß talhofer hanß Item (!) Hie lert der Jud Ebreesch

(148v) Hie stant geschriben von saturnuß der da ist alt und kalt unrain hässig und nydig also sind mine kind die under mir geboren werdent \sim \sim

SAturnuß ist der obrost planet und der aller untugent haftnst und der gröst und ist kalt und drucken und haißt darumb saturnuß zuo ein gelichnuß als die römer alle göt by in hetten und sie anbetettend und inen ouch ir oppfer gabent und brächtentz jeglichem in sinen thempel Der deme in siner ere gemachet waß und die Romer hiessent den selben iren got und nannten in Saturnus Daz ist alß vil gespochen alß der höhste und wenn die Romer also sprachent so sass er in dem hohsten tron des himels also dz er sass über ander gött und in allen hett zugebieten und darumb so nanten sie in Saturnus Als ainen obrost gott und wenn sie in woltent ettwerumb bitten So detten sie gar grosse bett an in und detten daz ein gantz jar und sprachent daz er uber alle gött erhoher wer und Darumb solte man in So vil zyteß zimlichen bitten Denn der obrost gott wolten mer zyteß und langer gebettn werden dan die andern götte allesampt und daz waß sin ubermuot den er in im selber hette Darumb daz er erhöher waß uber ander götte denn wenn in die Romer ernstlichn anruofftent So wurden sie von im erhöret und darumb so wolt er smer hoffhart geniessen wann wir lassent von den Römern wenn sie in an ruofftent von ettlichen sachen wegen Daz sie dar nach kum in fünff Jaren Erhortt wurdent ettwen in dryssig jaren oder ettwen nynd wann nun derselbe got der under den abgötten der obrost waß alß die Römer sprächent und der trägost also ist auch der plänete genant nach im von einer gelichnuß wenn under den siben planetten so ist saturnus (148r) Der obrost und der höchste in den himeln und doch der trägost an sinem louff und darumb so habent ettliche menschen ain tail ir Complexion von im und sind sangwini und flegmatici und die sind ameß hohen muotes und sahent vil sachen an und erkünden noch mügen kainen sache ußtrag geben und wenn sich satturnus zu denen vermischet die da sind sangwinÿ daz machstu darby erkennen So machet dem sangwiniß ain langß antlüt und dem flegmaticuß ain sinvels anttlüt Es ist ouch zu wissn alß vorgesait ist daz sich dieselben lüte vil sachen under widen und doch kainen usstrag gebent und sind och hohtragent und ubermütig lüte und bedunckett sie daz in nyemant gelich sy und vermügent doch nuotz für sich selber und sind arm an zytlichem guote und die sangwini sind mit ainem langen bartte (149r) Cryptographic entitling of Here Teaches: אי איטם הנש טלהופר קלש פףליגר מיכיל רוטווילר Michel Rotwyler, Clauss Pflieger and Hans Talhoffer: Thus I, the Jew Ebreesch, here teach cosmology and physiology.

(Also – watermark of ox-head, staff & bloom)

(148v) Here is written a lesson about Saturn – he indeed is old and cold, unclean / impure, hateful / ugly and jealous: Thus are my children who were born under me.

Saturn is the outermost / first planet and of all he is most miserable, unvirtuous, violent and the largest; and he is cold and oppressing. And thus Saturn is called such, for of all the gods the Romans had likened him with such; and they adored and also gave their offerings unto him, which they brought into his temples, which they deemed built in his honour; and the Romans called the very same their god; and named him Saturn, which is as much as saying "the Highest", whenever the Romans thus spoke. Thus he sat in the highest throne of the Sky, such that he sat above other gods and he had commanded all and thus they named him, Saturn, as the one utmost god. And when they the Romans, would beseech him for something-or-other, then they did quite great adoration of him and did that an entire year and said that he was exalted over all gods - and thus one should be eech him thus quite a lot of the time, for the utmost god wanted beseeching more of the time and longer than the other And that was his wantonness / gods altogether. arrogance that he had in himself. Thus then he was exalted over other gods. So when the Romans earnestly invoked him, then they were indulged by him, so that he would "savour" his haughtiness - which is why we Germans / we Hebrews shunned the Romans. When they invoked him for various matters, then accordingly they became indulged thereafter in about five years, sometimes in thirty years, or sometimes granted there and then. This same god, who among the idols was the utmost and, as the Romans said, the laziest too. Thus also is the planet named after him, from their likeness. Of the Seven Planets, thus Saturn is (148r) the utmost and the highest in the Sky – yet the laziest on his course. Likewise various men have part of their temperament from him. Such men are sanguine and phlegmatic; and they are amusing / amiable, haughty, scrutinising of many matter and inquiring, yet may give no decision to a matter. When Saturn "mixes" with someone, then they exist sanguinely, which you may thus recognise: for such gives the sanguinary a long / an outgoing face and the phlegmatic a sensible / a sober face. It is also to wit, as was aforesaid, that this same folk reach for many matter and yet make no decisions; and are indeed an overbearing and wanton / arrogant folk and be oder antlüt und tund nit gern gotzdinst aber die flegmatici sind göttlich an in selber und furdern gern gotzdinst und darumb so vahent die maister kain ding an zubuwend an den stunden so satturnus Rengnirt Dann sie vermamen eß werd kumlichen Volbracht Dann ob eß in ainem andern zit angehaben wurde Satturnus

und sine kind sind gewonlichen rouber und morder und wenn we Rengnirt so ist vynd in allewege der natture und staub gen Drient und ist ain planet bosser lüte und untugenhaffter die schwartz und mager sind und türe und ist ain planete der mannen die nit berte habent und wyß haure und die ire claider unsuber tragent die kind (147v) Die under satturno geboren werden sind mit ainer schmale brust und trurig und hörend geren von bosen dingen sagen und tragen gelich alß unsubererlaider alß schöne und vermügen sich sich nit wol mit frowen und hat doch von nattur alle bösse ding an im Saturnus erfüllet sinen louff in dryssig Jaren und 400 und 50 tagen und 6 stunden und von siner höhe wegen so mag man In selten sehen und dz sind sine zaichen der stainbock der wasserman die sind kalt und trucken an irer nattur und glichent sich dem melancholicuß an siner nattur ~~

Hie Sagt Juppitter von siner nattur und von sinen kind wie die geren kinder schriben und lesen und ander künst

Jüppitter ist der ander planet und der ist glückhafftig und tugenthaft warm und frisch und ist ettwev vil träg an sinem louff und höret den zuo die tugent- hafftig sind und ist herre der mannen die da dick bärte hand und werdent nit kal und wenn er also Rengniert so gaut es frowen wol sie mit knaben gand und ist guot vor fursten recht suochen Der planet ist ge- nant Juppitter zu ain gelichnuß alß die maister sprechent wie ain abgot were den die römer und ander lüt hieltent für ainen got Der sie vast gewerte und in ouch vast an ruofftent für ainen hellffer und berantten und versönez wenn so die Römer Irem got nit sin opfer gab- ent und er zornig ward uber sie so baten sie den selben got Juppitter mit grossem ernste und andacht und bracht- end im ochsin opfer Daz er in werden (?) hüllffe Daz sie zu den genaden wider kämen gan dem got der uber sie erzürnt waß und die wyle der göte ainer zornig waß so torften (147r) sie kainen got anbeten Denn den got Juppiter und Juppiter ist so vil gesprochen nach römer siten alß ain hellffer wann alß die römer sprechen so halff er sinem sune So er besas den obrostten tron In irem himelrich und Darum so rufften in die römer an alß ainen hellffer und Darumb oppressing *such* that no one else *gets to* be *their* equal; and *are* capable yet useful only to themselves; and are poor at timing *things* well. The sanguinary are long-bearded or long-faced and do godly service not gladly. But the phlegmatics are godly within themselves and furthermore, gladly do godly service – and thus the masters get nothing *from them* to disrupt their lessons. Thus Saturn ruled, as they *the Romans* determined – *so* then it became miserably achieved, than if instead *they* had taken to any other *god* than Saturn.

His children are generally / are vulgar robbers and murderers; and when one woefully rules, then in all ways his nature is fiendish and "dusts against the lathe" (?). Saturn is a planet and a wicked and unvirtuous lot, who are gloomy and meagre and gaunt. Saturn is a planet of / for men who have not beards and white hair and who wear unclean clothes. The children (147v) who are born under Saturn are narrow-breasted and sad; and galdly hearing bad things, they say and convey such unclean serenades as if such were pretty. And they avail themselves not well with women; and such a man by nature indeed has all bad things within him. Saturn fulfills his course / orbit in thirty years and 400 and 5 days and 6 hours; and because of his height, one may thus see him seldomly; and his Zodiac signs are Capricorn and Aquarius, who are cold and oppressing by their nature; and Saturn is like unto the melancholic by his nature.

Here Jupiter tells of his nature and of his children – how these desirable children write and read and *do* other arts.

Jupiter is the second planet and he is lucky and virtuous, warm and lively, is quite somewhat lazy on his course and hearkens to those who are virtuous and is lord of those men, who have thick beards and thus are not shorn. When he *Jupiter* thus rules, so it goes well for women who bear boy-children; and it is good for princes who seek the right. The planet is named Jupiter due to its likeness to that god. The masters speak as if he were an idol whom the Romans and other folk held for a god, whom they ardently valued and whom they also ardently invoked for a helper, for both attack and atonement. So when the Romans gave their god no offerings, then he became wrathful at them, so then they beseeched the same god Jupiter with great earnestness and devotion and brought him oxen-offerings, so that he became helpful again, so that they returned to the graces of the god who angered at them for whatever. In the era of the gods any gods became wrathful at whatever. So then they the Romans got (147r) to adore no god but Jupiter. And so Jupiter is so often declared in Roman texts as a "Helper", for when the Romans spoke, he thus helped his sons. So he sat upon the lofty throne in their Sky-

so hat Juppitter sin Complexion und sinen loff mit denen die da haissent Sangwini und so eß den wol gat nach irem willen so hellffent sie den iren och vast und ander lüten und mügent sich auch wol vast arbaitten durch der lütten willen und ain mitlyden mit in haben Aber von ubermuot alß sie an In Selber hand So mügent sie nyemant nützit getuon man bite sie dann ernstlichen und tüe in so vil liebß hin wider Juppitter halt auch sinen louff mit denen Die da sind und haissent Colerice Dann die hellffent ouch den luten und den Iren und tund Jm doch nit ge: lich und tund ir ding haimlichen und sie mügent Jre sachen wol haimlichen und verborgenlichen tragen und sind ouch vast getrwen fruond Daz kind dz under dem planetten geboren wirt Daz wirt mässig Eere und recht hat eß lieb und hat gern hüpsche claider und waß da wolschmeckt und rain ist daz hat eß gern in der hant Es wirt och barmhertzig und frölich Und Juppitter hat die zaichen deß sonnen den schützen und den vische Juppitter erfüellet och sinen loff in fünff Jaren und funff tagen ~

Hie sagt Mars von siner artt die er an Im hat mit sinem siten stryttig und hässig und wyssent Dermocht nit warumb oder gen wiem eß ist

(146v) Mars Ist Der dritt planet und ist haiss und trucke ungluckhaftig und böß und dennocht milt und mässig in sinem louff und ain planet zornig lütte und die geken kriegent und roübent und kal sind und hand krauß haar und des wenig und under dem planeten ist guot in stritt gan stele rouben und brennen und die lut wunden und ist darumb Marß genant von den wysen Maister zu ainem gelich- nusse alß Marß von den unglöbigen waß genant ain gotte deß strytteß und wann die Römer woltent streitten so ruofften sie marß an und brachten Im opffer in sinen tempel und fuortten in och mit Jnen in daz velde Da sie dann stritten wolten und alß die maister sprechent Darumb so haisset er marß Dann so er under den siben planetten Rengnirt So müß desselben Jarß vil strit und krieg sin und wann nun marß in des sonnen ga- ng gaut so mag man in selten sehen wenn er aber Rengniret so sprechent die maister so man in sehe ob dem sonne So bedüte eß grosse niderlegung under dem adel Also daz fursten und herrn ouch ritter und knecht desselben jarß nit sollent kriegen Dann sie lägen denider aber die buren hand guot kriegen denn alle ding gand vast nach jrem willen und Darumb die kinde die Dann empfangen werden so marß rengn- irt Die werdent vast strittig lüte und hand die natur nit mit Den die da haissent Sangwiny Dann die sind gar stritbar und verherend Doch dick und vil an jrem stritten wenn man in aber sicht under dem sonne so so hat er etliche natur mit denen die da haissent

Realm and thus the Romans invoked him as a helper. And thus Jupiter has his temperament and his course. along with those who are called sanguinary. So thus it goes well for them, according to their will, thus to be helpful to the erring, ardently indeed and to other folk. And they may also work quite ardently through the will of the folk; and have mercy for another, yet by the same token have wantonness / arrogance - so they may have provided nobody any boon. Yet if someone beseeches them, earnestly and personally (?), then much love that someone gets in return. Jupiter likewise holds his course with those who are, and are called, choleric; who then also are helpful to the folk and to the erring, yet treat them not as equals; and do their thing privately; and they may carry out / support their concerns privately and secretly; and are also fast true friends. The child who is born under the planet Jupiter becomes moderate, honourable and right; it has love; and it is fond of pretty clothes and what is flavourful; and what is clean / pure is its fondness and is what it yields - it indeed becomes kind-hearted and merry. So thus Jupiter has the Zodiac signs of the Sun, Sagitarius and Pisces. Jupiter indeed fulfills his course in five years and five days.

Here tells Mars of his ilk – those he has in his camp – which is warlike and hateful / ugly; and yet witting not why or against whom it is so.

(146v) Mars is the third planet; and it is hot and dry / wily, unlucky and bad; and nonetheless mild and moderate in his course; and is a planet of / for wrathful folk, who are known for warring and robbery and are clean-shaven and have curly hair; and are few. And he under this planet is good at strife, going for pillaging and burning and wounding folk. And thus Mars is named "Foe / Fiend" by the wise masters, for just such a likeness; and thus Mars was named by the unbelieving, thus the pagans, as a god of war. And when the Romans wanted warfare, then they invoked Mars and brought offerings into his temples and indeed fed (?) him with themselves upon the fields where they wanted battle. And so as the masters told, thus he was called Mars and so then among the Seven Planets, he rules over strife. Thus those same years must be *filled with* battle and war, whenever Mars "goes into" the Sun. Thus may one have seldom seen him, when he indeed rules, as the masters told, one only sees him away from the Sun. So it forebodes great abdication / usurping among the nobility, thus princes and lords. Also knights and troopers that same year should not war, for then they capitulate – whereas the castles / garrisons have good warring, as then all things go mostly according to their will. Thus the children who are then conceived, when Mars rules, they become ardently quarrelsome folk and have the nature which is called sanguinary, thus they are Melancolici die sind still schwigent stritter und gelingt (146r) In wol an Irem kriegen und Des Jarß so er rengnirt

So rengnirt gewonlich ain steren der da haisset Cometa und wolichen lande er gesehen wirt in dem selben lande wirt on zwyfel grosse turung und und hunger Dann man mag in nit in allen land gesehen wann er ist nider an den himelen und nach by der mone also daz der monen schatten in umb git Darumb man in wol gesehen mag denn

so der sonne ist in dem zaichin Daz da haisset Cantzer oder löwo und wolcheß jar er Rengnirt so ist der sonn und die mon des jarß gern bresthaftig Wölcher under Dem planeten geboren wirt der wirt Rout (?) mit ettlicher vinsternuß alß die an der sonnen brun werden und wirt ouch untugenthafftig kriegisch und machet geren unfrid under den lüten und hat under den xii zaichen den wider und den Scorppion und Jr Complexion und natur und Marß erfüllet sinen louff Jn funffhundert und Dryssig tagen

JCh Sonne sag euch in kurtzer frist Daz min schin über alle planetten ist min uff gang gyt des tages schin und min nider gange zaiget die sterne fain und mache den menschen schön und wolgemuot Daz sunst kain ander planete duot

DEr Sonne ist der vird planett und ist haiss und trucken und ist lusteklich ain eynfliessendes liecht Allen dem daz da lept uff erde Er ist ain planet Schön und lesteklich und erlychtet den Menschen sin

(145v) anttlüt und ouch den luten mit allen Erbern ge dencken und den mit Erbern lüten wol ist der Sonne ist ain kungklicher sterne und ain leycht und ouge Diser welt und er schinet durch sich selber und erluschtet die andern stern alle und ist under den siben planetten der Mihest und zertailt die zit und sinen louff erfullet er in ainem ganzen Jare er machet ouch den menschen wol zu legend an dem libe und daz antlüt machet er Jm schön und wolgesch- affen mit grossen ougen und mit ainem grossen bart und langes haur und machet den menschen nach der selle von Jnnen glych sinen und machet In nach andrer sachen wyse und daz man jn gar lieb haut und macht Jn künstenrich und listig in allen dingen und nachdem planeten sind genattürt die sangwini dann die selben lüte sind gar begriffenlichen in allen dingen und kunsten und sind aber an göttlichen dingen und artikeln gar zwi- ffelhäftig und sind auch unkunsch und werdent indeed warlike / valiant and ravaging / persistent, assuredly quite fervent in their militancy. But when one sickens under the Sun, then he has something to his nature which is called melancholic – and so then they are calm silent champions and succeed (146r) well at their warring and thus that year he rules.

So a "star" rules commonly in conjunction with Mars, who is called Comet. Whichever land were he Comet is seen, then in the same land there doubtlessly becomes great scarcity and hunger. One may not see him in all the lands when he is low in the Sky and after or by the Moon, such that the Moon's shadow engulfs / surrounds him. Thus someone somewhere may well have seen Comet then

So when the Sun is in one of the Zodiac signs called Cancer or Leo during a year when Mars rules, then the Sun and the Moon that year tend to be "ailing". Whoever is born under this planet, he becomes ruddy, somewhat darkening as if he were browned by the Sun and he also becomes unvirtuous and warlike and he gladly makes discord among the folk. Mars has these signs from among the Twelve Signs / Zodiac: Aries and Scorpio – as well as their temperament and nature. Mars fulfills his course in five-hundred-and-thirty-days.

I, the Sun, tell ye in good time
That over all Planets I do shine.
My rising gives the Day its shine,
And my setting reveals the Stars so fine;
I make Mankind fair and well-pleased –
Which no other Planet has achieved.

The Sun is the fourth planet and is hot and dry and is merry – a flowing light to all who live upon the Earth. He is a "planet" *who is* beautiful and lusty, and his face illumines Mankind.

(145v) And also the Sun remembers the folk with all their progeny, so then it goes well for the progeny of the folk. The Sun is a kingly star and a light and eye to this World; and he shines by means of himself and outshines all the other Stars. Among the Seven Planets, he is the mightiest and he keeps the time and he fulfills his course in a whole year. He also makes men well, all throughout the body; and he makes his face handsome and wellshapen, with big eyes and with full beard and long hair. He makes the man's soul within himself like unto his soul. The Sun makes one wise in other matters, such that one has indeed love; and the Sun makes one artistically rich and crafty at all things. Thus the folk ruled by the Sun are by nature / naturally the sanguinary. So then these same folk are really shrewd in all things and arts but are really doubtful of godly things and articles and are also unchaste and become really "farm-hatchetgar lichtillichen erzürnet Doch so ist eß und sie bald hin weg Daz kinde daz denn da geborn wirt des Jarß so der sonn Rengnirt Daz wirt flaischhold und ain wysse varbe und mit ain wenig rötte gemischet darumb und mit vil haurß nach der sunnen gelichnusse und schinet usswendig gar guot und sind doch vast lut nach jrem houpte Doch maint man daz eß gar wyse lute werden die under dem sonne geboren sind und fröhlich und werdent bosen luten vind

Der sonne hat under den Siben planeten und under den zwolff zaichen den löwen mit siner Complexion und der nattures und erfüllet sinen louff Jn einem gantzen umgenden Jare

(145r) Hie sagt venus von siner nattur und aigenschaft und die under mir geboren werdent die sind nydig und hässig und darzu unkuische \sim

Venus, der planet ist kalt und feucht und gelück- hafftig und volbringt Iren louff in dryhundert und dry und virtzig tagen Venuß ist ain guoter gemainsamer sterne und temperiret marß boßhait und hat ain wolschinende varbe und schinet under dem gestirne gar mitliclichen und ist anzuo sehende alß die sonne und jre kind sind geh und unküisch wenn venus rengiret so ist gut Nuowe claider anlegen Item wenn venuß vor dem sonne gaut so haisset er lutzefer und wenn venuß nach dem sonne gaut so haisset venuß vesper venuß machet an dem menschen ain schön person und ouch mit grossen ougen alß der sonner anschinende ist und machet den menschen mit der sele wyt- schwaiffent und an gaistlichen dingen Irrig daz sind die dye da haissent Colerici Die hand zwyffelhäfftig sinne und belibent Doch nit an Item zwyf fel und darumb so sind sie ussgeschiden von denen die da haissent Sangwini wer darunder geboren wirt Der wachset nit zu lang mittelmässig und mit grossen ougen und ougbrawen nach dem sonnen alß vor stant und wirt senfftmütig und wolredent und gar züchtig und zuocht sich ouch selber gar adenlichen und rainklichen und höret ouch geren saitenspil und tantzet och gerne Der planet hat under den zwollff zaichen den ochsen und den libra Daz ist die mit Iren naturen

(144v) Mercurius fuorin ist min nattur Also Betzaichnot min figur mine kind sind hüpsch und suptile und waß sie tund Daz thund sie in schneller yle \sim \sim

MErcurius der planet temperiret mit siner natur also komet er zuguoten planeten So ist er ouch guot aber by bösen so ist er auch böß Mercurius machet den menschen herlichen an der person und machet den menschen schön Doch mit lutzel haarß und wyß nach der sele und suptil und hat och wyshait gat lieb und ist aineß guten siten und ander guten rede gar wolredent doch nit vil und guotes raateß und gewinnet vil fründe

angry" – indeed so it is and *then* they shortly away. The child who is then born in the year when the Sun rules, this child becomes "flesh-hale" and white-coloured, with a bit of red mixed here and there and has much hair after the Sun's likeness; and indeed shines outwardly *with* goodness. *Such children* are indeed strong-minded folk, which means that folk born under the Sun become very wise; and *they* merrily become the foes of wicked folk.

The Sun has *the sign of* Leo, from among the Seven Planets and the Zodiac, *in accordance with* his temperament and nature; and *he* fulfills his course in one whole circling year.

(145r) Here tells Venus of his nature and quality: They who are born under me, they are jealous and hasty and likewise unchaste.

Venus, the planet, is cold and wet and lucky and fulfills her course in three-hundred-forty-three days. Venus is a good combined "star" that tempers the wickedness of Mars; and has a well-shining colour and shines among the Stars, indeed with luminosity and is as gazed-upon as the Sun. Her children are jaunty and unchaste. When Venus rules, then *it* is good *for* putting on new clothes. Thus when Venus goes before the Sun, then he Venus is called Lucifer; and when Venus goes after the Sun, then Venus is called Vespera. Venus makes the man a beautiful person, one with big eyes, as shining as the Sun and makes the man with his soul "wide-sweeping" and yet erring at spiritual things. So thus they are called choleric. They have doubtful senses and are unreliable indeed, thus doubt-worthy. So thus are they distinct from those who are called sanguinary. He who is born thereunder, grows not too tall, about middling and with big eyes and eyebrows like unto the Sun, as aforesaid; and becomes gentle and well-spoken and really coy and cultured; and really wealthy (?) and cleanly. Such a man also gladly hears the lyre and also gladly dances. The planet Venus has from among the Zodiac the signs of Taurus and Libra, which befits her nature.

(144v) Mercury – fiery is my nature – thus so my figure manifests. My children are charming / handsome and subtle; and whatever they do, they do with great speed.

Mercury the planet tempers his nature – thus *when* he comes to good planets, then he also is good; but *when* he *is* by bad planets, then he also is bad. Mercury makes the man a lordly person and makes the man beautiful indeed, with curly (?) hair; and wise of soul and subtle; and moreover has wisdom and conjugal love; and is a fashionable (?) *one*; and *he is* good at talking *with* others, really well-spoken, yet not *too* much, and *it is*

Mercurius gaut dem sonne nach und hat ainem schin den man gar selten sicht Dann er ist dem sonne gar nach die under mercurius geboren werden die gewinnend gross zene und sind wyser rede by den lüten und plaich an der varbe und studirend geren und sind still lüte und suptil und stant geren vil an in und hand nit alß boß- hait an in selber Mercurius erfullet sinen louff jn dryundert und achtunddryssig tagen Daz sind Die Mellancolici volbringt jr ding haimlichen und Rengnirt mit der Junckfrowen und mit dem zwilnig under den zwölff Zaichen die an den himeln stand

Hie sagt die mon von Iren naturen Die sind menge- laye sitenes und spricht mine kind Nyemant gern und ertänig sind und min figerur nymat allen planetten Jre Natur und kain vester wanckel müttige ist Denn ich selber zuo diser frist ~

(144r) DJe planete die Mone Jst die niderost planet und ist kalt und fücht und auch tugendhaft und ist herre aller füchten dingen und aller schnellest an Irem louff Dann sie louffet in ainem Monat also ferre alß der sunn in ainem gantzen jaure und alle die da böse fuchtikeit an inne hand die selben sind ire kind und aller maist so wirt des menschen plut nach dem mone getemp- erirt und darumb so ist unß gar nütze Daz wir wol wissent des moneß ganck und in wölhem zaichen sie gange wann (!) eß ist gar forcklichen wenn man Ires louffes nit war nympt Dann sie ist der nidrost planet und zuchet der andern planeten nattur an sich ain Michel tail und darumb so müssent wir iren louff baß wissen wann der andern planeten wann sie alleß Daz Rengnirt Daz in unß ist Dey Mone machet den menschen wyt schwaiff also daz er nit mag beliben an ainer statt und machet den menschen under wyle frölich und under trurig also zwayerlay Doch daz merer tail frölich und machet dem menschen ouch ain krumi nasen und sind füchter natur und haissent Flegmatici und sind träg und hand gern ougen also daz ainß grösser ist dann daz ander und luna die mon erfüllet iren louff alle monat und erlücht die nacht und entlihnet ire liecht von Dem sonne und meret und mindert sich von dem sonne also auch hie nach geschriben staut und Die kind die sie machet daz werdent gewonlichen knaben und die hand vil gemainsamkait mit Den Menschen (143v) Und wenn die mon Rengniret So ist nit guot kain ding anfahen Daz lang weren sol alß bimen und soliche ding Dann daz ist ain unstäte Zyt und ist unbeliblichen waß zu der zit angehaben wirt und die mone machet den menschen plaich under dem antlüt und mit flecken und machet in böß und unsinnig also daz er böß und zornig wirt Daz ist good counsel; and he wins many friends. Mercury goes after the Sun and has his shine which one quite seldomly sees, for he is quite near the Sun. They who are born under Mercury, they gain big teeth (?); and are witty-speaking to the folk; and pale of colour; and they gladly study; and are themselves quiet folk and subtle; and gladly wait their turn / tend to tarry a lot / gladly vouch for someone; and have not wickedness within themselves. Mercury fulfills his course in three-hundred-thirty-eight days. Those born under Mercury are the melancholy; they do their thing secretly / stealthily. Mercury rules with Virgo and with Gemini among the Zodiac, who stand in the Sky.

Here tells the Moon of her nature:
We are many sided –
And my children gladly speak to no man,
And are resounding;
And my figure takes the natures of all planets;
And none is more utterly fickle –
Even as I myself feed those.

(144r) The planet *called* the Moon is the lowest planet *in* the Sky; and is cold and wet and also virtuous; and is lord / lady of all watery things; and goes with all speed on her course. So thus she courses in one month, while the Sun fares for a whole year. And all they who are badly cold-blooded, these same are her children – thus most of all, the blood of these men becomes tempered like unto / by the Moon. Thus so is her course really useful to us, such that we wit well the Moon's going and in whichever signs she goes; so then it is quite frightful (?) when someone observes not her course. So then she is the lowest planet and draws a great deal of the other planetary natures into herself. So thus we must and had better wit her course when in conjunction with other planets, *since* when they rule together, then that is within us. The Moon makes the man "wide-sweeping", such that he may not stay put in one place and thus makes the man happy while yet sad - thus dual-minded, although for the most part happy. And so the Moon also makes the man aquiline-nosed. Such men are of watery nature and are called phlegmatic; and are lazy and tend to have eyes such that one eye is larger than the other. Luna the Moon – fulfills her course, all of a month and lights the night; and "borrows" her light from the Sun; and waxes and wanes because of the Sun - thus also written and stated hereafter. So the children whom she "makes", they become ordinary boys / vulgar knaves and they have much commonality with the men (143v) and yet when the Moon rules, then it is not good – nothing starts that shall last long - confusion (?) and such things. Then that is an unsteady time and is unpopular, which becomes harmful (?) to those living at that time; and the Moon makes the man blanch-faced and blemished, and von Ireß wanndelß wegen und Daß die mon ist in ainem Jeglichen zaichen dritt- halben tag und haut under Ir den kreps \sim

Von den planten löffe und jrer natur wie und warumb sie iren ganck habent Allhie \sim

ES ist zu wissent von den siben planeten und von Irer natur Daz es got also geordinit haut Der ob dem gestirne ist also wölher planet ainem steren aller nähost gaut von dem selben steren empfahet er sin natur und sullich stern sind kalter und ettliche nasser nattur ettliche truckner ettliche haisser nattur Die selben naturen zühet der Der mensch von dem gestirne Etliche menschen sind kalt und truckner natur Die selben Menschen schwigent garen und die sind ungetrwe menschen Etliche sind kalter und nasser natur die redent vil und sind underträgenlichen Etliche menschen sind haiss und truckner natur die sind gähmütig und kün und hand gern vil wybe und sind doch an der liebe unstätt wölher haisser und truckner natur ist Der hat die beste nattur In Im und der ist gern Milt und Ergidig und het vast frowen lieb und ist stätt an der liebe

(143r) und darumb So sagen unß die buoch Daz an dem steren den wir haissent Marß Daz der unlüges pflege wann er ist haisser und kalter natur und trucken Dey natturen koment zu der luterkait Die mone ist der aller minst under den sibn plane- ten und louffet aller nähst by der erden Darumb so richtet sich die welt aller maist nach dem mone Cometa ist ain steren der selbe steren erschinet nymer dann so sich daz rich verwandeln wil den stern sol man kiesen oder ansehn Daz er von dem schin der von Im schinet Alß der mone und der steren louffet nit under andern steren Die buoch sagent unß Daz eß am liecht sye Daz got mit sinem ge- walt entzündet hab Jn den lüfften Duch so main- ent ettlich daz eß geren tuor werde Jn wolhem lande er gesehn werd ~

Son des sonnen louff wie der louffet durch die zwolff zaichen des himelß tag und nacht

WEr recht wölle wissen des morgen louff der muoss Des ersten wissen wie der sonne Durch die zwölff zaichen gang und louffet In ainem jaure Durch alle zaichin und belib in ainem Jeglichen tage zaichin xxx tage wann eß sind zwollff zaichen Arieß thureß Gemini und die andern etc Die zaichin alle durch loufft die mon Jn ainem Monat und durch louffet also alle zaichin Jn dryssif tagen und belibet in ainem ieglichen zaichen Drithalben tage und durch den louff diser zaichen So

makes him malignant and insane, such that he becomes wicked and wrathful – and that behaviour is because of lunacy and *that is because* the Moon is in one of any *Zodiac* signs *for* two-and-half (?) days and has Cancer under her.

Of the planetary courses and their nature – how and why they have their motion and all that.

It is to wit of the Seven Planets and of their natures that God has thus ordained it – He is above the Stars. Thus whichever planet goes nearest of all to a constellation thus Zodiac sign, from the same constellation said planet gets his nature. So some constellations are colder; some of wetter nature; some dryer; some of hotter nature. These same natures move he, the man, because of the relevant constellation. So some men are colder and dryer of nature. These same men silently seethe and are untrue men. Some men are colder and wetter of nature. They talk a lot and are beyond lazy. Some men are hotter and dryer of nature. They are jaunty and bold; and tend to have many women, yet are unsteady at love. Whoever is hotter and dryer of nature, he had the best nature within him and he tends to be mild and productive; and to have lasting love of a lady; and is steady at love.

(143r) And thus so the books tell us regarding the "star" that we call Mars, that undeniably comes into play, whenever he is hotter and colder of nature and dry three (?) natures coming to the light. The Moon is the least among all the Seven Planets and courses the nearest of all by the Earth. Thus so the world acts in harmony most of all with the Moon. So Comet is a "star" - this same star appears out-of-nowhere – thus the Sky-Realm will change. Man shall behold and watch the star Comet, because of the shine that he shines from him, like unto the Moon, and because this star courses not harmoniously among the other stars. The books tell us that it be the brightest that God, by His power, has kindled in the air. Yet indeed, mind you something that it tends to become costly / famished in whichever land he is seen.

Regarding the Sun's course: How he courses through the Zodiac of the Sky, day and night.

He who would rightly wit the "morning-course", he must firstly wit how the Sun goes through the Zodiac; and *that he* courses in one year through all signs; and stays in any one sign *for* 30 days. The Twelve Signs are Aries, Taurus, Gemini and the others, etc. The Moon courses through all the signs in one month and thus courses through all signs in thirty days and remains in any one sign *about* two-and-half days. And so through the courses of these signs comes the Moon to the *given*

komet die mon zu dem zaichin Dader sonn Inn ist und wirt mit / dem veraint so haisset denn die (?) mon (142v) Inbrünnstig wenn da verendet sie iren louff wenn Aber die mone schaidet von dem sonne x5 gräd Daz geburet an den himeln hy Mil (!) so vahet sie an zulüchtende und wirt gesehen von den Menschen und nympt also ir liecht von dem sonnen wann sie alle wegen glich in ainer grössin ist Aber wenn sie Inbrünstig mit dem Sonnen ist So mag mag (!) man Ir liecht vor Dem sonnen nit gesehen ~

Hie Sagt es In wölchem zaichen Der Sonne In ainem ieglichen Monat stand und louffe \sim

In dem Jenner ist der sonne in dem zaichen daz Da haisset wasser man

und in dem hornung ist der sonn In dem vische und in dem mertzen so ist er in dem wider in dem apperellen so ist er in dem stier

In dem Mayen so ist er in dem zwiling

(!) Nothing listed here for Brachet / June and Cancer (!)

In dem höwet so ist er in dem löwen

jn dem ougsten So ist er in der Junckfrowen

in dem Ersten herbst monat so ist er in der wage

in dem andern herbst so ist er in dem scorpion

jn dem ersten winter monat So ist er in dem schützen In dem letsten Monat so ist er in dem stainbock

III dem letsten wonat so ist ei iii dem stambock

Hie fähet an ain buoch und daz da saget wie der lyb innwendig gestalt Sye

Item hie an dem ersten von dem hirn Daz hiern gyt allen gelidern verstantnuß wenn die funff sinne des Menschen ligent Darinne verschlossen \sim

(142r) Das Hertz

Das hertze gÿt allen gelidern werme und plüt und erneret die sele und behalt daz leben

Die leber

Die leber git allen gelidern feüchtikait zutrincken Wann sie zuocht Daz tranck an sich uss dem magen

Die niern

Daz hirn gyt allen geliden verstanntnuß und die niern gebent die gepurt wann die same von allen gelidern jn sie komet Und die natur die ain frow zu ainem mann haut und ain man wider ainer frowen daz bringt sie an die statt Da sich die frucht erhept und da belibet ~

Item zway löcher gand in den halß in daz ain gaut die spyß und daz tranck in den magen und in daz ander gaut der lufft und der autem Zu der lungen

Nun gaut der autem also in die lungen wann sie ist alß ain plaß palg ob (!) der lungen dem hertzen Daz sie den

sign wherein is the Sun; and comes to conjunction with him. So then the Moon is called (142v) ardent / lustful when she "dies" *upon* her course, when yet the Moon parts ways from the Sun by 15 degrees *of the ecliptical arc*, that begets (?) the Sky, *when* she kindles the Sky alight and is seen by Mankind. And thus she takes her light from the Sun, whenever she, like him, is in her greatness / magnitude, when indeed she is ardent / lustful with the Sun. *However*, one may not have seen her light in presence of the Sun.

Here is told in which sign the Sun stays and courses during any one month.

In the *month of* January is the Sun in the sign that is called Aquarius.

And in "Horning" / February, the Sun is in Pisces.

And in March, thus is he in Aries.

In April, thus is he in Taurus.

In May, thus is he in Gemini.

In "Fallow" / June he is in Cancer.

In "Haying" / July, he is thus in Leo.

In August, he is thus in Virgo.

In "First Harvest" / September, thus is he in Libra.

In "Second Harvest" / October, thus is he in Scorpio.

In "First Winter" / November, he is thus in Sagittarius.

In "Last Winter" / December, he is thus in Capricorn.

Here starts what a book says is how the Body be systemised inside.

Thus here firstly, about the Brain.

The brain works all *bodily* organs and understanding. Thus the Five Senses of Man reside locked therein.

(142r) The Heart.

The heart works the warmth and the blood of all organs; and keeps the Soul; and holds *one* 's Life.

The Liver.

The liver works to drink *for* the hydration of all organs. Thus it draws *any* drink out of the stomach.

The Bollix.

The brain works all organs and understanding and the bollix bring about Birth. Thus the seed *of man* comes from all organs into *the bollix*. So the nature a lady has for a man and a man in turn for a lady – that brings them to the state whereby their Fruit arises and enlivens.

Thus two holes work in the Throat / Pharynx: Into the *Esophagus* goes the food and the drink, into the Stomach; and into the *Trachea* goes air and breath, into the Lungs.

Now goes the breath thusly into the lungs. So they are like unto bellows above the heart – such that they draw

kalten lufft an sich zühet und die hitze mit dem autem wider heruss zuohet Daz loch hat ain uberlid alß man daz essen und daz trincken an sich zücht So duot sich daz lid zu also daz die spyß icht da hin yn fare Dann sie höret in den magen und nit

(141v) In die lungen und wenn der mensch des autemß betarff So duot sich daz lid uff und zuocht den den kalten lufft an sich und zücht ouch wider umb denn haissen lufft heruss Also daz der mensche nicht ersticke und darumb so ist dem men- schen nichtzit schädlicherß Zu dem tod wenn sie pestelentz Rengnirt Oder sunst böß fücht nebel oder wetter ist dem böser lufft Die mai- ster die mainend ouch den den lufft und autem Der von dem menschen komet besunder siechen menschen wann eß ist dem Menschen nichtzit bessers zu der gesundhait dann guotten und türren lufft Dann Es tött den mensch nichtzit schneller Denn böser lufft Dann ergaut von stund an in alle gelider und verunrainet daz plout unm Daz hertze Jnn dem libe ~ ~

von dem magen

DEr mag ist alß ain koch und glich alß ain hafen DarInn die spyse suodet und töwet und ist also aller gelider ain koch und ain knecht wann Er kochet und berait allen gelidern die spyse vor und jn das Raichet Die füchte hat er von dem trincken und die hitze von dem hertzen und daz fuor ouch von der lebern ~

Maister allmonser spricht Jn dem buoch Daz da haisset panthagin Daz ettliche gelider an dem Menschen haiß und trucken sind und etliche kalt und fücht an der Nature

(141r) Item So sind Daz haisse gelider Als daz hertz und die leber und daz miltz Und ouch daz flaysch

Item so sind daz die kalten gelider Daz sind alle die die nit pluteß an jnen hand Alß daz bain und der magen und die tärme und die plaaß:

und waß wir Essent daz gaut unß alleß in den magen und Südet darjnn alß in ainem haffen und dar nach so nympt der mag die spyß und daz tranck Alß vil Jm dannen füget und neret sich Darvon und darnach so trucket er daz übrig von Im uß Jn ainen tarme der in den magen gaitt und denn so nympt der tarme ouch sin kost Darvon und trucket dem daz ander ouch in ainem andern tarme und alß die spyß und daz tranck darin komet So zuohet denn die leber daz tranck an sich mit ainem schwaiß recht alß ain Mangnet der daz ynsen an sich zuohet und alß bald daz tranck in die leber komet So verwandelt eß sich und wirt zu bluot Die leber zücht ouch daz edlest pluot an sich und neret sich Darvon Jtem eß gaut ouch ain grosse arder uß der leber und und alß die ain wenig hin dan komet So tailt sie sich in zway tail und die ain

in cold air and push out again the breath *along* with heat. That first hole has a flap *(epiglottis)*, *so* as one draws in food and drink, so that flap shuts, so thus the nourishment passes, it descends. Then that *nourishment* hurries into the stomach and not into the lungs.

(141v) When the man needs breath, then that flap opens and then he draws in the cold air and accordingly pushes out the hot air – so that the man smothers not, and thus so is the man not at all poisoned to death when Pestilence rules, or else when bad dank miasma or weather worsens the air. The masters, they reckon also that the air and breath which comes particularly from a man sickens other men, when it is from the man who is not at all in his better health and kills other men just as quickly as bad air, especially compared to good and dry air. Then that inhaled sickness issues forth from the trunk into all organs and infects / pollutes the blood and the heart inside the body.

About the Stomach.

The stomach is like unto a cooking-pot – therein the food simmers and melts; and thus *it* is a cook and a servant to all the organs; it cooks and prepares the food for all organs. Before and in the mouth / jaws, they *the cook and servant* have moisture from drinks and heat from the heart and *nourishment* as well from the liver.

Master Allmonser tells in the book which is called *Pantegni* – that some organs of the man are hot and dry *of nature* and some organs *are* cold and wet of nature.

(141r) Thus so there are the hot organs – such as the heart and the liver and the spleen and also the flesh. Thus so there are the cold organs – which are all those which have not blood inside them – such as the bones and the stomach and the bowels and the bladder.

And whatever we eat, that goes, regarding all of us, into the stomach and simmers therein as in a pot; and so thereafter the stomach takes the food and the drink, as much then as it contains, and therefrom it feeds; and so thereafter it presses from it the remaining stuff out into the small intestine, which connects with / goes into the stomach; and so then the small intestine takes also its diet therefrom and then presses that remainder into the large intestine; and as the food and the drink comes therein, so then the liver draws the drink into it, by osmosis, just as a magnet draws the iron to it; and as soon as the drink comes into the liver, so it transforms / changes and becomes new blood; the liver draws also the vital blood to itself and feeds therefrom. Thus there goes also a great artery out of the liver and just yonder

gaut uff über sich in die vili der andern Die über alle gelider Des menschen gand und neret sich Darvon

wann Daz leben an dem pluot staut und also duot ouch die ander ander die (!) und sich gaut Die sendet ouch dem hertzen ain ander mit dem besten bluot und dar nach so zühet Daz die lung Des plutes schaum an sich und die

(140v) galle daz haisse pluot und daz miltz Daz aller beste pluot und dar nach so sainket sich daz pluot in die audern zu den niern und sühet Darnach dadurch und wirt denn zu harne und darnach so syhet eß (!) durch claine äderlin alß ain schwaiß in die blasen Jtem so haut die plauß zway ding die sie zusamen trucket Also wann die plaaß vol wird so truckent sie die ding von ain ander von der schwere des harneß und denn so gaut der harne von dem menschen und Darnach so trucket sich die plaase wider zuo Daz der harne nit allewegen von dem menschen gaut und Dar nach so gaut die spyse von ainem tarme in den andern so lang biß des rainen dingß nichsit mer darinn belibt Darnach so tribet die natur daz übrig von dem menschen und dar von wirt denn der stuolgang ~ ~

(140r) Blank

as it comes past *the liver*; so it deals itself into two parts *(hepatic artery and portal vein?)* – thus the one goes up over into the vili; *while* the other, it goes to all the organs of the man and nourishes such thereby.

When the life is stowed in the blood, thus so likewise does the other and itself go; which also is sent to the heart, one another as the best blood; and thus *the heart* draws in the "blood-froth" / oxygenated blood *from* the lungs.

(140v) And so the gall / bile is the hot blood and the milt has the best of all blood; and thereupon the blood sinks into the artery to the kidneys and seeks thereafter and therethrough; and then turns into urine; and so thereafter those strain / siphon blood through little veinlettes, as uric exudation into the bladder. Thus so, the bladder has two sides which it squeezes together – thus when the bladder becomes full, then it squeezes the sides together, for the weight of the urine and so then goes the urine from the man; and so thereafter the bladder closes up again, so that the urine goes not always from the man. So thereafter goes the food from the small intestine into the large intestine, until the pure things remain not any more therein. So thereupon Nature drives the remainder from the man, which then becomes waste.

(140r) Blank – The End.

Commentary

1. Mark-Verses; Twenty Directives; Judicial Dueling; Teaching (01r-10v)

Beginning with Chapter 1, this fight-book is written in first-person singular narrative – thus when Talhoffer speaks of "I" either explicitly or implicitly, he means himself, especially in all the fight-lore and generally elsewhere too. He speaks to the reader by second-person singular, thus "you", indeed in a friendly style. He speaks usually of your foe and sometimes of any fencer generally, by third-person singular, hence "foe, he, him, man, one, oneself". Rarely there is second-person plural, thus "ye". Folios 6r-7v are quite blank – one is tempted to guess at what lore may have been meant for these four pages – if indeed any ever was.

Even when scribed into a book as here, such lore was generally learnt by word-of-mouth during the Medieval and Renaissance, as witnessed by the rhymed poetic verse and imperatives like "Hearken" (*hört an*) in 2v, and perhaps also 2r stating that the typical *fünf Hauen* are "called five vocally" (*haissent funff focal*) – and perhaps that means one shouts them out as one does them, not unlike the Japanese *kiai*.

In folio 1r there is a fight-lore poem that lays out the basics of longsword *bloszfechten* (unarmoured fighting), that seems roughly based upon the general style of Liechtenauer verses. This poem consists of 30 mark-verses, of which 10 lines and 8 key-terms match lines in the later similar poem by Mertin Siber, found in 3r the fight-book by Hans von Speyer (1491).

In folio 1v are more mark-verses in which Talhoffer counsels physical and mental readiness for judicial combat when one must kill or be killed – thus the nature of what we may call the "fight in earnest":

| wenn du Jn ernst mit ainem fechten wilt | when you will fight in earnest with someone |
|---|---|
| ficht ernstlich für Dich daz | fight earnestly for yourself thusly |

In Chapter 1 apparently quotes Talhoffer directly. On 1v he clearly says one's fighting is for guarding one's health and life:

| Jm Schwert soltu nyemen trowen noch geloube | In the sword you shall have trust and belief, |
|--|---|
| So Rint dir daz bluot nit uber die ougen etc ~ | So that blood runs not over the eyes, etc |

This is something distinctly adverse the later conceits of both gentlemanly sport-fencing and the contrivance of masochistic mensur-fencing. Also, this advice to trust in the sword is in agreement with similar from Dei Liberi.

Now notice how *Havamal*-like or *Koan*-like is this second quote, again in 1v:

| Daz muß er für Die warhait Jehen Wann eß ist Jm ouch | The good man must speak up for the truth – even when |
|--|--|
| Wol Eben dick und offt beschehen etc ∼ ∼ | it seems obvious and happens often, etc |

Each of those quotes is agonisingly abridged by "etc" – at least to us latter-day readers, who would like to know the full phrases which Talhoffer must of course fully known.

Moving forward. On folios 2r-5v are mark-verses – instructional poetic rubrics – for the unarmoured longsword teachings of Talhoffer based upon Johann Liechtenauer. Although not naming that earlier master, the language of Chapter 1 makes this readily apparent. These folios are equivalent to other earlier versions of Liechtenauer, such as the text on folios 3v-6r and 9v-12v of the fight-book by Peter von Danzig (1452). However, Talhoffer's version is not quite as neatly or congruently done as other versions – for about half of his phrases are standard, yet the other half of his phrases have changed order, or are condensed, added, subtracted, expanded, replaced or otherwise altered somehow – yet always to relate the same basic ideas of Liechtenauer's teaching as his fellow masters did.

Talhoffer presents only the text (*text*) and conclusion (*beschliessung*) of the summary (*zetel*) of Liechtenauer's common lore (*gemaine ler*) for longsword (*langes schwert*) as taught by Liechtenauer. Thus it is bereft of the usual glossing (*gloβ*), plays / matches (*stücken*) or exegesis (*auslegen*) found in other versions – again as found on folios 13r-38v of Von Danzig (1452), or 12v-48v of the fight-book by Sigmund Ringeck (1440s), or as explained in great detail throughout the fight-book by Hanko Döbringer (1389).

A critique of Talhoffer's general lesson-plan is that it lacks complete step-by-step instructions for the untrained. That is fair enough, as long as we keep in mind the operative word "untrained". Likewise, the teaching-value of Talhoffer's work is sometimes underrated by ignorant modern pundits, or even rarely, by learned modern scholars. Often he presents the final endgame; seldom the prior sequence of moves; yet at times attack then counter-attack. However, the scholarly fencer who has enough needed training and athleticism may reckon how to make the generative interpretation. Thus despite the spartan captions and checkmate depictions, one may make sense of the more obscure portrayals, if one can tell when and where movements such as various warding, avoiding, flowing, misdirecting, misleading, treading and so forth must set up and/or finish the depicted resultant strikes, displacements and grapples. Like that of some other fight-masters, Talhoffer's lore has the most to offer the fighter who already understands elementary *Kunst des Fechtens*. Someone with such understanding then finds much richness in the master's teachings when put into praxis. And so I made plausible interpretive descriptions for the moves which lack captions, based upon comparison to similar techniques in other fight-books and upon my own martial praxis.

Talhoffer gives us the following four proofs of blade-to-blade flat-use in *versetzen* (forsetting, displacing, setting aside, parrying):

~ Folio 3r states explicitly and doubtlessly regarding longsword fencing:

| Mit schaitler vil höw letst | With skuller <i>you</i> undo many hews – |
|-----------------------------|--|
| how uff sin fleche | Thus hew upon his flats, |
| so tuostu in schwechen | So do you weaken him. |

- ~ Folio 4r states clearly to swat / swipe (strych ab) a movement certainly done with the flat of one's blade.
- ~ Folio 122r depicts one man forsetting with the blade-flat of his messer against the blade-edge of another man's messer. Such is quite clearly portrayed, with proper artistic perspective.
- ~ Folio 124v depicts one man forsetting by "ebbing his hand" (torquing his wrist) so the blade-flat of his sword drives against the blade-flat of the other man's sword, while they struggle from horseback. Plate 252 of Talhoffer's 1467-Gothaer depicts that identically and states: So hatt der versetzt mit epicher hand und wüst für.

Such proofs from Talhoffer; and lack of contrary proof anywhere in his manual for edge-to-edge anything; and similar proof from other masters like Liechtenauer, Von Danzig and Ringeck; and the lack of contrary proof in other coeval sword-manuals; and the results of earnest valid praxis by modern-day martial artists – all serve to negate the notion of edge-to-edge preferentiality and/or exclusivity, by stating and showing, definitively and historically, that flat-use was ideal and common to Medieval and Renaissance European swordsmanship. Hopefully now the interstitial notions to the contrary, fabricated by Victorian sport-fencing and degenerate mensur-fencing, may finally be entombed and become nothing more than an unmourned mortmain.

One clue in this Talhoffer edition bespeaks a closer connection to certain texts than others – the use in 2v of the apparently archaic *höw setzt* as an alternative word for *ab setzt*. Von Danzig (1452) does likewise with *haw seczt* (3v&12v) as does Ringeck (1440s) with *haw setzet* (17v) – whereas neither Lew (1452) nor Von Speyer (1491) have any equivalent. Nor curiously is such found in that early survey by Döbringer (1389). So we see how sundry later masters defined or taught the lore of Liechtenauer with some diversity.

Talhoffer makes a dealing (tailung) of the fight-lore text into the Twenty Directives (Zwaintzig Ussrichtung) of Liechtenauer, which show the Rightful Way (Rechten weg) or Rightful Art (rechten kunst) of doing things in unarmoured longsword-fighting; and which are basically the same thing as the Summary (zetel). These directives, defined nicely yet cryptically in verse, are the basic yet complete set of the best tactical techniques which Liechtenauer, and accordingly Talhoffer, would have required the longswordsman to learn, the core of unarmoured longswordsmanship. Other masters likewise outlined similar Liechtenauer directives – for example, Ringeck offered rechten haüptstucke...sibenzechen (Seventeen Rightful Main Plays), and Von Danzig similar rechten hauptt stuck (Rightful Main Plays). Thus I offer the following interpretation of Talhoffer's Twenty Directives based upon comparison to such similar summaries and relevant commentary by Ringeck and Von Danzig; based upon the writings and praxis of skilled learned martial artists in this field; and based upon my own experience in martial arts:

Twenty Directives of Liechtenauer for Unarmoured Fighting with Longsword via Talhoffer

Talhoffer offers the fighter the Twenty Directives (*Zwaintzig Ussrichtung*) of Liechtenauer, a core of fencing moves and concepts, much as offered by other masters in the tradition of *Kunst des Fechtens*. These directives are the basic yet complete set of the best tactical techniques that Talhoffer would have required the longswordsman to learn. Of his editions, only 1443-Gothaer and 1459-Thott feature these. Many of the terms for the directives, when translated rather literally, are quite self-explanatory. However, it is helpful to have a prose rendering, so here I offer this interpretive glossary.

- 1^{st} Wrath-Hew (*zornhow*): A diagonal long-edge over-hew with arms apart and perhaps also a high-thrust with arms apart the most basic powerful strike.
- 2nd Instantly, Before & After (*in dem, far & nach*): Striking instantly during, or before, or after foe attacks, without being stricken oneself. Thus getting there or initiating just as, first or next.
- 3^{rd} Four Openings (*vier plöß*): Wherever the foe is bare to attack, generally corresponding to the body quartered by a cross (+), which are simply the bodily targets for striking.
- 4th Breaching the Four Openings (*vier plöβ brechen*) or Duplicating & Mutating (*toplir & mutir*): When at binding of swords with the foe, you sense whether he binds hard or soft. If the bind relays hard, then you duplicate your strike to the other high opening thus another *oberhow*. If the bind relays soft, then you mutate your strike into a thrust at its respective low opening thus into *sturzhow*. Thus from binding you may breach any given one of foe's four openings as the given situation demands. (See 20th)
- 5th Crumpler (krumm): A diagonal long-edge over-hew with arms crossed.
- 6th Thwarter (zwierhin): A high middlehew with either edge and with crossguard aloft.
- 7th Squinter (*schillherin*): A high short-edge over-hew with arms apart, either diagonal or vertical.
- 8th Skuller (*schaittler*): A vertical long-edge over-hew, usually to the skull of the foe.
- 9th Four Wards (*vier leger*):
- \sim Ox $(och\beta)$ is a ward whereby you stand left-leg forward and hold the sword with hilt high and back, beside the head, such that the point is aimed at foe's face or chest with the long-edge horizontally upward like a bovine horn.
- ~ Roof (tag) is a ward whereby you stand left-leg forward and hold the sword overhead or overshoulder, the blade angled upward and back hence your sword is above you like the roof of a house.
- \sim Plough (pfluog) is a ward whereby you stand left-leg forward and hold the sword with hilt at waist-height and pommel at hip, blade angled forward and point aimed upwards at foe's face or chest the fighter and his sword looking like the tillman at the plowshare.
- \sim Fool (*aulber*) is a ward whereby you stand right-leg forward and hold the sword forth, angled downward with short-edge up and point centered thus your lowered blade misleading foe into thinking you are a fool and thus making him the fool.

10th Four Forsettings (*vier versetzen*):

First, the meaning of "forsetting" – Setting the foe's ward or strike out of the way before his sword strikes you, by driving your sword to meet & divert his sword and meaning to strike him at the same time or forthwith, done kinetically not statically, and done while treading, shifting or torquing. Also called displacing or parrying. So before foe attacks, you forset his given ward with a given strike. All these may be driven from the same roof-ward:

- ~ Thus you forset ox with crumpler.
- ~ You forset roof with thwarter.
- ~ You forset plough with squinter.
- ~ And you forset fool with skuller.
- 11th Pursuing (*nachreisen*): The foe attacks so the fighter counter-attacks into it or avoids then attacks thus you strike instantly or strike after. Also called nextraiding, traveling after, reacting, counteracting.

- 12th Overloping (*überlouffen*): Overreaching a low-strike with a high-strike, helped by avoiding.
- 13th Offsetting (*absetzen*) or Hew-Setting (*höw setzt*): Turning away or deflecting foe's blade by forward spiral motion of you blade as you drive a thrust to strike him at the same time really a kind of winding. (See 14th)
- 14th Changing-Through (*durch wechsel*): Shifting, side-stepping and/or changing your angle of attack, usually to thrust, and often done from binding and/or to avoid further meeting of blades. Thus you adapt instantly to the situation by making your ward or strike evolve suddenly into a strike to an available opening. (See 13th, 15th & 20th)
- 15th Tugging All Meetings (*zucken alle treffen*): Yanking, pulling or withdrawing your sword disengaging quickly from crossing, engaging or binding of the swords, or even failed attack, so you may drive another attack.
- 16th Running-Through (*durch louff*): Advancing beneath the foe's attack in order to slash or wrestle him you reach with one arm as the other arm keeps your sword.
- 17th Stop-Cutting (*abschniden*): Slashing over or under foe's arms as he would drive to strike you, or even thrusting into him as he drives to strike. (See 18th)
- 18th Hands-Pressing (*hennd trucken*): A special kind of rotational stop-cutting, whereby you drive your long-edge to the underside of foe's upraised forearms or hands, then revolve around those with the same long-edge to drive it upon the topside of his lowering arms as finally you shove him away from you with the blade. (See 17th)
- 19th Twain Hangings (*zwain hengen*): Forsetting or offsetting the foe's blade by driving your hilt high or low to let your point or pommel hang towards the ground, thus in ox or plough, whence you may thrust. If high, your blade is under foe's blade; if low, then your blade is over foe's blade.
- 20th Speaking Window (*sprech venster*) or Winding (*winden*): To wind, twist or turn your binding sword quickly from where the blades touch via the fulcrum of your elbows or wrists, to bring your sword around to strike from another angle, often pivoting it either at or around foe's ward or sword. It is letting your blade relay whether the foe binds hard or soft. (See 4th & 14th)

The beauty of these Liechtenauer directives, that Talhoffer and many other masters furthered, is how well they interrelate. For example, if we just consider the *vier versetzen* – these offer the fencer the ability to counter the *vier leger*; from one ward thereof (*vom tag*); with *krumphaw*, *zwerchhaw*, *schielhaw* or *schaytelhaw*; in the timing before the foe attacks (*vor*). So within that single combative set, we find six directives; and a technique and a tactic that are each part of two other directives. Such relationships may be found among any variety of other directives.

Again, many of the terms for the Twenty Directives, when translated rather literally, are quite self-explanatory. Aspects of these directives are shown by many of the depicted struggles throughout folios 49r-137v. Those pictures and captions tend to speak for themselves – yet when needed, I interpolated interpretive text, by drawing from my own martial arts praxis and by letting the Talhoffer's 1467-Gothaer captions inform my interpretations of identical portrayals (again – refer to Chart 2).

Talhoffer tells us in folio 5v to meditate (*betrachte*) upon the Rightful Way to do fencing, hence upon the Twenty Directives. Notice that Ringeck (1440s) and Von Danzig (1452) each use the same term in their conclusions – *betrachten* and *betracht* respectively. It is possible that some spiritual overtone was implied by all three of these masters, as readily corroborated with the German text of *Der Bibel* as per 1-Moses 24:21, Josua 1:8, Hiob 33:10 and so forth. Fittingly this folio concludes with quote of the master offering Christian blessing:

got lauß unnß aller schwer

God spare us all hardship!

This brings us to the first of Talhoffer's themes in this work – that of spirituality. It is doubtless that Catholic Christianity was a big deal to Talhoffer. Multiple references and reminders of such are throughout the text referring to God, our Lady (Saint Mary), Christ, the Lord, Saint George, Saint John, the Trinity; blessing & mass by a priest; the sign-of-cross, blasphemy, heresy, Whitsuntide; cross-bedecked biers, pavises, arming-clothes; two gospel-beasts; and the ultramand that God ordained the planets. All these speak to Talhoffer's concern for his spirituality.

Dueling (*kempfen / kampf*) or more broadly judicial combat, as in folios 8r-10v, is a major part of Talhoffer's teaching. This was trial by combat, wager of battle, duel of chivalry, campfight between two men, where one accused the other of grievous crime and ensuing duel was regulated and watched by legal authority. Such combat could have been partaken by either the knightly or the common; either armoured or unarmoured, and ahorse or afoot or both. This was a time before the prevalence of modern states claiming exclusive right to do violence; when men wanted to personally uphold the law instead of relegating that only to the state; when men and their leaders were willing to fight each other man-to-man. The European judicial duel as known to Talhoffer must have gone back at least to the 12th Century, as discerned from accounts of brutal, legally-sanctioned combats as that of Herman the Iron versus Guy of Steenvoorde (1127). Legal codification of judicial duel existed in Germany from at least the 14th Century, when Kaiser Charles IV issued ordinances for proper conduct of *kampffgericht* (1356). Incidentally, trial by combat was not the same as trial by ordeal, as some would characterise it – for it was a fight and not a torture.

Talhoffer is greatly concerned with telling the fighter the proper ethical reasons for such and conduct thereof. He gives description of causes for why one may lawfully challenge another man to fight a duel (as I explored in-depth in *Talhoffer and Causes for Fighting*); of rationale for humane excussion or prevention of a duel; and of proper behavior and attitude of fighters, armigers, judge and so forth. This is appropriately breached by brief advice to fencer and master regarding an ethical and honest relationship and the importance of training in secrecy. And then Talhoffer's explication of judicial dueling is resumed and finished. Notice how well the judicial dueling description in 10v correlates with later depiction thereof in folios 84v-94r.

Found in folio 8r, in context of the prospect of dueling one's own transgressive comrade, is one of the most honest asides in all martial arts literature, where Talhoffer says flatly and grimly that dueling is wantonness (*muot..will*).

Now to destroy three popular mistaken notions regarding judicial combat – some annoying memes that, unsurprisingly, have appeared most speciously throughout the Web:

- ~ Firstly, Talhoffer never states, nor indicates anywhere in his 1459-Thott, that dueling was against the law either in either Franconia or Swabia. Indeed, he relates to us that court-approved dueling was lawful while also he does imply existence of unlawful private dueling. This is quite clear to anyone who actually reads the text of his work. His encouragement of lawful sanction and procedure at dueling probably resulted from his own experience as court-required witness and umpire to dueling of appellant and defendant within the barriers. He states not otherwise in any known document for any other year. Moreover, he states not that forgery/counterfeiting was a crime that warranted cause to duel.
- ~ Secondly, it is senseless to assert, as some have, that great unequalities of armament existed at judicial duels. At least Talhoffer does not show this most all his struggles showing equitable weaponry and armour, notwithstanding the exception of the wittingly ludic man-versus-woman duel. As his text and pictures tell us, the judge and tribunes assigned appellant and defendant any disparity of armament or differing juxtapostion in order to hinder the one reckoned stronger in attempt to bring equity to the one reckoned weaker. Moreover, combatants were given equal and fair time to train. As it was impossible to make each combatant the same or equal, it seems clear nonetheless that German authorities sought to arrange circumstances and materials so that duelists each had a fighting-chance.
- ~ Thirdly, to say, as some have, that not all judical duels were necessarily serious enough to be fought to the death, is to say something out of context. Indeed, some wagers of battle ended in death, while some did not. Yet if someone quit from or recanted during a judicial duel, then he had not only disgrace but also often the gallows to enjoy thereafter. Only the gravest causes for fighting led to the conducting of trial by combat so it seems that each combant had nothing to gain by letting the other keep his life. Medieval and Renaissance judicial dueling was the trial of a man's life regarding a meaningful matter, rather than a trifling show of bravado over some meaningless matter. Such is clearly evinced by the causes for fighting that Talhoffer tells us, as stated hereafter.

So worth repeating and explaining are those seven main causes for one man to challenge another man to fight a duel:

- ~ Murder: This was arguably more narrowly defined in Renaissance Germany than today, when/where it was considered more justified for a man to kill in some cases than today. It suffices to assume that what modern society considers "first degree murder" equaled "murder" back then the planned willful unwarranted malicious killing of another human.
- ~ Treason: Probably trying secretly to overthrow or kill one's national leader, whether duke, prince, king or kaiser, or working against the common weal of one's homeland.
- ~ Heresy: This likely was more broadly defined in Renaissance Germany than today. It would have meant specifically dissent from, practice counter to, or denial of the doctrines of the Catholic Church, yet also any outright blasphemy against God, the Saints or Mary.
- ~ Becoming an urger of disloyalty to one's lord: Not much different from treason, except that it seems to mean openly inciting rebellion and that it may apply more specifically to one's personal overlord.
- ~ Betrayal in strife or otherwise: Again, similar to treason, but indicating any divulgence of knowledge or revealing of secrets, whether witting or unwitting, active or passive, business or martial. Once more, whether at war or peace, such was not tolerated.
- ~ Falsehood: Lying, cheating, oath-breaking, fraud basically any dishonesty.
- ~ Using either a maiden or lady: Certainly any violation of woman such as rape and perhaps unsanctified intimate relations, or even unwarranted breaking of betrothal. Such wrongs were regarded by Renaissance Germany not only as morally loathsome yet practically unwise, since such outrage would assure swift and vengeful retaliation by the offended female's kinfolk. Ideally, one would like to think this article applied to all women, high or low.

Whether these causes were by order of German princes or kings, or at behest of Teutonic common law and tradition, or by consensus of fight-masters, is not told us by Talhoffer, although surely those whom he instructed clearly knew. It may have been according to all such authority. In any case, there is no mention of compurgation of crimes, thus making the ethos of Talhoffer's causes much tougher than the lax standards sometimes found among some German lords and even bishops, who were known to forbid only conspiring disloyalty of their militias and mercenaries.

It seems obvious that the inverse of those crimes equals seven virtues that make for Talhoffer's "Chivalric Code":

Guardianship ~ Citizenship ~ Holyness ~ Loyalty ~ Trustworthiness ~ Truthfulness ~ Honour

It is worth remarking that in terms of both specific points and attitude, the very brief advice about conduct of oneself as a judicial combatant in the 15th Century French treatise *Le Jeu de la Hache* (stanzas 1-3) is in absolute agreement with the more extensive dueling advice found in 1459-Thott (folios 8r-10v). Certain aspects of judicial dueling as described by Talhoffer are described by other French sources – violation of woman as cause for duel, a body of judges, girding of full armour, tense pre-bellicose juxtaposition of combatants in chairs within the barriers, and use of swords. One of those corroborative French examples is the account of judicial duel between Le Gris and De Carogne in 1386 from *Chroniques* (1400) by Jean Froissart.

Similarities abound when one compares 14th-15th Century English, Scottish, French and German rules for chivalric judicial dueling. This is made clear by perusal of a variety of 14th-15th Century sources – *Ordinance of Richard II by Lord Gloucester; Act of Robert III; Maner of Battale; Order of Combats; Edict of Phillip the Fair; Fechtbuch* by Hans Talhoffer (1459-Thott); and even *Canterbury Tales* by Geoffrey Chaucer. Their concordance gives ample proof that chivalric judicial dueling was treated much the same over most all of Medieval & Renaissance Europe.

The focus of many modern scholars on tourney (whether *mêlée* or joust) and its artificialised combat, combined with fixation upon an idealised chivalry, has distracted from and even distorted study of earnest fighting – which designates a range of deadly struggles, including self-defence, judicial duel and warfare. In his editions Talhoffer deals exclusively with earnest fighting, a paradigm basically identical to every other valid historical fight-master or fight-book – Ringeck, Von Danzig, Kal, Von Speyer, Hans Czynner (1538), MS KK5013 (1425-30), *Gladiatoria* (1435-40), *Goliath* (1510-20) and so forth. Döbringer clearly distinguished the sparring (*schimpfe*) of school and

tourney from the earnestness (*ernste*) of duel and battle as early as 1389, a distinction which probably existed for a full century before him, and which certainly existed afterward as late as *Gladiatoria*.

Talhoffer hardly ever mentions tourney. In 1450-Ambraser is textual reference to [lanzen]stechen and turnyrn, which Talhoffer distinguishes from the fechten and ernst[kampf] that he taught Von Königsegg; and visual reference for heraldic purpose whereby Von Königsegg serves as his own anthropic blazon, bearing checkered-shield while wearing either grande-bascinet for club-rebatre mélée (plate 41) or stechhelm for jousting (plate 42) – although like any sensible knight, Von Königsegg wears utilitarian field-schaller in the portrayals of ernst[kampf]. In 1459-Thott we find single reference to tourney in one picture of joust (folio 130v). Notice in 1459-Thott that the man to the left of 86v has a finial atop his schaller which is unadorned by any plume. Notice the utter lack around the barriers in both 1459-Thott & 1443-Gothaer (plates 54-73) of any big bustling crowd; of spectating ladies in finery; or of any gaily-decorated celebratory surroundings. Only the fighters themselves, and the legally needed wardens, witnesses and judge, are the only persons whom one finds in Talhoffer's stark and spartan kampffechten scenes.

Incidentally, the word / practice zweikampf appeared in Germany only after the middle 17th Century, concurrent with rapier and its attendant differences of meaning, conduction and values – and thus it neither appears in the early fight-books nor equates in said ways with the kempfen or ernst[kampf] or fechten described by Talhoffer and other early fight-masters. Also, one may notice that sometimes in England "tourney" meant "venue" – the barriers or field – for the singular event of a judical duel. Whatever minor resultant confusion may (or may not) have caused occasional convolution in English of "tourney" and "wager of battle", it seems in German that the terms turnier and kempfen are clearly distinct – at least according to Talhoffer, Von Danzig, Ringeck and other fight-masters.

It is of interest that tourney-advocate extraordinaire René d'Anjou stated in his coeval Traictie de la forme et devis d'ung tournoy (1460) that tourneyers may neither point-thrust nor hilt-strike nor strike below the belt (que nul ne frappe autre d'estoc ne de revers, ne depuis la sainture en bas), nor attack a man if his helm falls off (et d'autre part se par cas d'aventure le heaulme cheoit de la teste à aucun, autre ne luy touchera jusques à tant qu'il luy aura esté remis et lacé) - none of which restrained the judicial combat portrayed by Talhoffer in 1459-Thott. Even the "deeds of arms", as described by Froissart in his Chroniques, were generally a regulated combat, basically "tough-guy contests", that were meant to test combatants rather than bring death to one or the other - although sources like Gregory's Chronicle (years 1461-69) sometimes suggest otherwise, as even Froissart implies, that such could escalate into mortal grudge-matches. So perhaps the deeds of arms could be more akin to the wager of battle. In any case, knight and tourney champion Ludwig von Eyb der Jünger zum Hartenstein distinguised dueling and tourney, as he put his copy of Talhoffer & Kal kampf into its own Fechtbuch (circa 1500), and put the turnier as he knew it into its own Turnierbuch (circa 1519) (refer to comments for Chapter 2). The fighting within barriers taught by Dei Liberi to students whom he names in one of his editions must surely have served them for real combat rather than just mere sport. Even the seemingly sanguine sword techniques for tourney of Dom Duarte need to be understood instead in context of club-rebatre *mêlée*, although their principles of rider & steed force-transference were certainly valid for battle. The turney portrayed in 44v of Parzival from Cod. Pal. germ. 339 (1443-46) gives us some idea of the outfitting and conduct of such equestrian tourneys – with their blunt & bloated arms & armour.

The historical evolution of dueling and tourney differ. The tourneys witnessed by William the Marshal in the 12th Century and by Ulrich von Liechtenstein in the 13th Century were basically small contained battles, fought by various social classes of knights, with battlefield weaponry & armour, with intent to capture, ransom, profit and – supposedly – service unto ladies. The tourneys witnessed by Peter Suchenwirt and by *Das Kloster der Minne* in the 14th Century were controlled combats with blunt weaponry yet battlefield armour, allotted the functions of military training for the knighthood and of punishing bad aristocrats via bully-beatings enmasse. The tourneys witnessed by D'Anjou, De La Sale and Von Eyb in the 15th & 16th Centuries were sporting combats, fought by an elite nobility, with blunt weaponry and bloated armour, with intent to socialise, show off and prize – although ideally such had been meant as training for duel and war as Talhoffer asserts in 1450-Ambraser. Eventually this trend devolved tourneys into ridiculous, elitist, dandyfied play-combats as witnessed by *Fuß Turnier und Ritterstreit Artikul* in the 17th Century. Even the deeds of arms witnessed by Olivier de la Marche in the 15th Century, such as the combats with estocs betwixt De Baltasin and De Ternant (1446) or that betwixt De Lalaing and D'Avanchies (1450), were events limited, outfitted, supported and refereed for the health and safety of the combatants.

Such great change never happened to judicial dueling. As winessed and taught by Talhoffer in the 15th Century, duel-fighting remained that same old, dark, wanton thing that it always had been, since the days when men struggled

in *einvigi* and *holmganga* during the *Völkerwanderung*: Fighting likely to kill someone, fought potentially by anyone versus anyone, over some grave matter, with battlefield weaponry and armour, with intent to prove one man right and another wrong.

The brief aside about teaching in folio 10r, speaking to the patronage of master and student, is remarkable for its equity, stating basically that each man should look for something in the other that serves his own purpose even as he must make honest effort – the one by teaching and the other by learning. Talhoffer also emphasised devotion to Saint Mary & Saint George in 10r, something which Kal did as well in his fight-book.

All told, Talhoffer states clearly indeed in folio 9v what were the possible satisfactory endings for judicial combat:

Das ist waß Recht wer ob der kempfer ainer uss dem ring fluch oder getriben wurd Item wolcher kempfer uss dem Ring kumpt Ee Denn der kampf ain ende haut Er werde daruß geschlagen von dem andern oder fluche daruß oder wie er daruß käme oder aber ob er der sache vergicht Darumb man in denn mit recht an gesprochen haut Den sol man sigeloß urttailen oder wolcher den andern erschlecht und ertötett der haut gesiget

That which is lawful if one of the combatants flees out, or becomes driven out, of the ring:

Thus whichever *combatant* comes out of the ring, before then the duel has its *deadly* ending, because he becomes knocked out of *the ring* by the other or he flees thereout, or however else he comes thereout; or he admits that the other man's position regarding the cause for challenge is right – then shall that man be adjudged vanquished, or otherwise slain and killed; *for another* man has conquered him.

All of that is very much reinforced by the descriptions and advice for the day of the duel, and emphasis of its serious conclusion, in folios 10r-10v. Plus all of that description and more happens to be reinforced by the dynamically detailed portrayal of dueling with steel maces where Gerhard von Estavayer slew Otto von Grandson (which actually happened August 1397): Just outside the barriers stand the judge, tribunal and armed crowd; within the wooden barriers a stone ring is laid into the ground, inside which the dueling must be done; and at the ring stand both the grit-wardens with their staves & messers, ready to beat back any interloping rabble.

Now for three needed asides aimed at modern academia and certain notions regarding the corpus of fight-books:

Modern academia may argue forever just what sort of trooper – infantry or cavalry – was dominator of the Medieval & Renaissance European battlefield. (Of course, that is without even considering archery.) Although infantry-fighting with hand-to-hand armaments make up the majority of his fight-lore portrayals, Talhoffer clearly valued fighting prowess both afoot and ahorse, with mostly hand-to-hand weaponry (but some missile ones too). Indeed, the array of weaponry, in its diversity of delivery, along with *Bellifortis* siegecraft, plus the advice in 10r that a worthy master wits to broaden the arsenal wherewith he will battle (wiß die gwer zü zerbraitten da mit er kempffen wil) – all bespeak the desire for a well-rounded fighter, ready for diverse combative situations.

Some modern academics and medievalists mistakenly dismiss the martial arts in the fight-books by Talhoffer and other masters as irrelevant to the man who was likely to engage in mass-warfare. Doubtlessly, drills and formation-practice were the stuff of how large groups of troopers readied for waging war. Yet a man always needed the ability to protect his own self, in myriad combative situations, whether enmasse or one-to-one. Thus personal skill mattered to him as much as collective skill – he had no choice. A man had to be able to fight for himself, and lacking such ability made him a liability both personally & collectively. That alone made those martial arts relevant.

Modern academic literary study of chivalry instructs the student in *belle lettres* like Von Dem Türlin's *Diu Krône* yet not in *guerre lettres* like Talhoffer's *Fechtbuch*. Thus the prose & poetry of the romance are analysed while those of the fight-book remain undelved. Even if this disregard of *guerre lettres* is rationalised by otherwise learned professors solely upon grounds of aesthetics, then the student is cheated not only of the literary arts of the *guerre lettres*, yet likewise of their graphic arts, and likewise of their martial arts. One of the most honest things that anyone may say of chivalry, whether mythic or historic, is that it was both complex and contradictory – things amply portrayed by both *belle lettres* and *guerre lettres*. If the literary student understands that, then he/she may find both *belle lettres* and *guerre lettres* to be equally inspiring, and may rightly regard both as worthwhile.

The man-to-man combat of 15th Century Germany that Talhoffer knew and taught was slowly on its way to anachronism when still found upon the battlefield of his day. That kind of fighting started becoming rare during the Medieval and would continue to do so during the Renaissance, while the whole time the standard of mass-formations and siege-craft existed and evolved, only furthered by the rise of firearms, the soldier eventually replacing the knight altogether – thus as Sydney Anglo definitively stated, the last warriors of Europe whom one could truly call fighting knights would stop existing by the early 17th Century. Thus Talhoffer was one of the last masters of that final European blooming of the tradition of duel-fighting with battlefield weaponry whose Teutonic forefathers had fought countless times during the previous two millenia. ~

2. Battle Force (11r-48v)

It seems that one or more of the 30 or so versions (circa 1400-1450) of the earlier book called *Bellifortis* by Conrad Kyeser aus Eichtstätt (1366-1405) was the textual and graphical source for much of the military and civilian technology portrayed in Chapter 2 aka *Battle Force* of 1459-Thott, as it was for the last part of 1443-Gothaer (not included by Hergsell in his 1889 rendering). Thus a lot of the technology may be attributed to the state-of-the-art for 1395-1405 rather than 1443 or 1459. Kyeser was a soldier, military engineer, astrologer-physician and magician. It should be noticed that Kyeser's birthplace and/or residence Eichstätt is at the crossroads of Bavaria, Franconia, and Swabia – the very stomping-grounds of Talhoffer. Such a juxtaposition must have made it natural for Talhoffer to have access to and to want to study the highly interesting work of Kyeser. It may be unlikely ever to prove the specific version of *Bellifortis* from which transfer was made for the *Battle Force* in 1459-Thott. However, one may find much shared with other bigger versions of that work, such as Göttinger MS Philos.63, from circa 1400, which Götz Quarg has rendered into the only reasonably available facsimile of *Bellifortis* – see Chart 3 for comparison.

Even as the fight-books of Talhoffer influenced other masters, he and those others were influenced by the war-books of Kyeser. During the 15th Century, Talhoffer was probably the most codicologically copied fight-master, while Kyeser was probably the most codicologically copied war-engineer. Thus the existence of at least a few books mixing their respective lore seems quite natural – such as those two Talhoffer editions; the *Fechtbuch und Kriegsbuch* (circa 1500; MS B 26) by Von Eyb; and a late copy of *Bellifortis* (*Kriegsbuch*) (circa 1470-1530; Codex 5278) by unknown editor.

Although none of these portrayals are what one could call detailed technical drafting, they are interesting concept drawings that nonetheless can be made manifest. Thus modern replications of some of the *Bellifortis* devices and machinery, such as trebuchet and diving-gear, by living-history craftsmen, engineers and professors with reasonable extrapolation using materials available to 15th Century Europe, have proven rather successful.

In presenting the vignettes, formulas, war machinery and so forth, Talhoffer and his likely book-project helpers and friends, Rotwyler and Pflieger, all had an obvious enthusiasm for and contemporary understanding of the subjects that they portrayed. Yet to be quite honest, some of the writing is fractured, ungrammatical and emphatic if not redundant, almost as often as it is admirably muscular and dynamic. Some text and/or pictures seem nonsequitor if not nonsensical. Some things portrayed are straightforward and readily comprehensible; while others seem to be bizarre jokes or cryptic fantasy. It is possible that some portrayals are even alchemical allegories. That said, I admit my existence nearly six centuries later keeps me from ideal comprehension of everything presented, so I certainly do not berate this outstanding work.

There is no doubt that Medieval and Renaissance Europe had a working understanding of herbal medicine which mixed fancy and utility, as seen in 1459-Thott and numerous other works. The herbal and chemical formulas provided do seem more practical (like healing or killing) than alchemical (like transmuting lead into gold). The creative and apparently efficacious use of plants and minerals for a variety of purpose shows that Talhoffer had a useful grasp of applied herbology and chemistry. In his day such materials were put to purposes antiseptic, medicinal, cathartic and military, to name but a few.

Thus we come by proxy to a second theme of Talhoffer in this work – that of secrecy. This is witnessed by the advice to do martial training out of sight or sound of other men; by the cryptography methods of knouting and the *aleph-beth* used as a code; the silent metal-file; and confidential chemical and herbal formulas for incendiary, depressants, stimulants and so forth. Most significant is the secrecy of one's art as it is taught and learnt, advice that puts Talhoffer in favourable agreement with earlier masters like Liechtenauer and Dei Liberi. The inking of 11r is definitely implied as being invisible-inking, which the receiver could activate upon arrival with a formula known only to himself and the sender. As far as the scibbling on the man's back in 11v, it may be simply body-inking or tatooing, but may be actually invisible-inking – a message put upon the back of this courier, the contents of which he could not reveal verbally under torture.

Whether we think all the arcane stuff in Chapter 2 (and in turn Chapter 15) is relevant or not to the stuff of fight-lore is irrelevant to how Talhoffer felt about such things. He put all the variety of material into this book and so by his choice of inclusion, it deserves its part of the analysis. Indeed, other fight-masters included their own similar motley mix of weirdness, as witnessed by non-fencing parts of the Döbringer manuscript (Cod.HS.3227a), which offers not

just fencing lore but ample other material regarding ferrous alloys; incendiary; magical formulas; recipes for cuisine; paint-formulas; and its own obligatory astrology and alchemy.

Whether any figure portrayed in this edition is meant to be a portrait of Talhoffer is anyone's guess, and many have guessed indeed. Unlike the 1467-Gothaer, this 1459-Thott says nowhere explicitly that any figure portrayed *is* Talhoffer. However, we can make guesses, some better than others, as to which figure(s) may be the man himself. My best guess is that the blond man portrayed in the center of each of folios 11r, 11v and 138r is Talhoffer, since each of those figures shares great likeness with one another; each conveys authority, control and power; and each is arguably closer in likeness than any other figure in 1459-Thott to the later designated and mature likeness in plate 270 of 1467-Gothaer.

So in 11v we see a fit figure, perhaps Talhoffer himself, breaking apart an iron chain! Even if it be ludic myth (?), the fight-master must be metaphorically saying "I am strong as iron", something which serves to further reinforce the manifold demonstrations of athleticism attendant to proper execution of most every portrayed fighting technique in his book. In any event, it is most likely that Talhoffer and his comrades had trained themselves to be strong, quick and nimble, allowing them to carry out their combative moves.

The crossbow (*armbrost*) features in folios 12r-12v, 14r, 95v-96r and 130r for hunting, targeting and fighting – more or less all the same weapon portrayed. For spanning the string across the stock, these crossbows do have stirrups, but the wielders seem to have no graffles – although 15r shows some similar to *Bellifortis* (1400-Göttinger); and like other period sources and utility concur, there is not any windlass, lever or cranequin – too unwieldy for equestrian usage. Thus the hobelar-crossbowman spanned his weapon either by step & graffle/pull or by prop & pull.

Consequently, those portrayed are the lighter weapon of the horseman and hunter, not as powerful as the heavy arbalests of footmen behind pavises and battlements. The crossbowman portrayed in 12r either defends cattle versus wolves, or more likely I think, harvests an aurochs along with hunting-hounds (we do not know his target for sure). Indeed, the crossbow was a favourite weapon of hunters in Talhoffer's Alpine Europe. Of course the crossbow was also a favourite weapon for warfare, the preferred personal missile-driver of 13th -15th Century Continental Europe (as opposed to the England and its longbow).

The crossbows portrayed throughout 1459-Thott probably had bows-proper made either of goat-horn composite or yew-wood (not of steel like the more powerful arbalest); stocks of some suitable hardwood; and iron actions. Such had a draw-weight up to 150 pounds, and so were equal to longbows in that respect; had comparable accuracy and maximum effective range (up to 300 yards); had the same efficacy versus leather, maille and plate; yet had only one-third the rate-of-shot (7 per minute tops). Crossbowmen, both afoot and ahorse, were an effective presence on the battlefield at least since Phillip Augustus and Richard Lionheart mutually deployed them in conflict. Hobelar-crossbowmen were often sent scouting and skirmishing, as Jan Zizka did during the Hussite Wars (1420-36); and such troopers who could dismount to fight as infantry were put afield by the Swiss in the Burgundian Wars (1474-77). The Teutonic Order successfully utilised horses and crossbows in warfare during the 13th-15th Centuries. Of course, when in need to defend a castle from siege, crossbowmen proved useful snipers.

The war-wagon in 15v is not unlike one of the the war-machines deployed enmasse by the Hussites during the so-called Hussite Wars (circa 1420-36). These armoured and armed wagons deployed in horse-drawn bulwark-trains, collectively making for a mobile fortification, constituted the *wagenburg* (wagon-burgh), and were utilised tactically against German and Hungarian forces to defend and raid with troopers bearing swords, messers, pole-flails, crossbows and harquebus. Eventually the Germans made their own, as in 1431 Bishop of Eichstätt Albrecht deployed a wagon-burgh fleet of 32 iron-clad & iron-chained war-wagons stocked with pole-arms, guns and crossbows to support his army of 150 infantry and 150 cavalry versus the Hussite forces at the Bohemian frontier. Wagon-burghs were later deployed by the Teutonic Order packed with crossbowmen and gunners (1433), and by the Swiss at Battle of Pillereuth (1450). It is plausible that other war-machines in 1459-Thott (especially the machines of 36r, 36v, 37v) indicate counter-measures to the wagon-burgh.

One is reminded that siege was the main kind of Medieval warfare, a view now generally accepted despite past focus of military historiography upon battles. Through the Medieval and into the Renaissance, Europeans proved themselves quite adroit at siegecraft. The presence of both mechanical and explosive artillery portrayed in *Battle Force* does quite literally mark the transition from the one to the other during the 15th Century, as both trebuchet and

mortar-guns are presented therein – an overlap of artillery that continued for some time as evinced by the *Kriegsbuch* by Philipp Mönch (1496). Examples of each sort of artillery existed coeval to Talhoffer's time, and were certainly used as often as armies could obtain such. Of course German castles and burghs could resist even if breached – the castles manned by feudal duty-bound garrisons, and the burghs by mercenary or burgher garrisons, even as such were in turn stormed by feudal or mercenary armies. One is well reminded that the fortification of the German burgh / town (*burg*) and castle (*schlosz, feste*) – whether such were collective, personal or mutual, or were kingly, princely, episcopal or civil – all owe their legacy to a mix of ancient forebears: the Teutonic *sten* / *stein*; the Celtic *dun*; the Roman *burgus*, *castrum* and *castellum*. The burghs and castles portrayed in 1459-Thott (14v, 21v, 22v-24v) have the typical Alpine aesthetics, like existent examples still at Burghausen (Altötting), Heidenreichstein and Marienberg-Würzburg (pre-Adolphus).

Talhoffer mentions guns (*geschütz*) in 19v; shows mobile "gun-shelters" in 34v for transporting gunners and bowmen in 34v & 39r; and shows guns (*büchsen*) installed, along with lances (*letzent*), bristling from the hull of the interesting "light tank" of 37v. All such guns are presumably similar to light mobile artillery like hackbuts or harquebus, that would have fired round stones or lead-shot. Yet neither uninstalled harquebus nor infantry harquebusers are portrayed anywhere in this version of *Battle Force*. This is hardly surprising, as such weaponry were still in the smallest minority of the battlefield arsenal at that time and virtually nonexistent in the civilian arsenal. Also the harquebus of that time offered bad accuracy, poor rate-of-fire and unreliability. Besides, harquebusers who killed from afar with such demonic firearms were generally regarded as hate-worthy lowlife. Combine all those reasons and you got troopers who were often unwilling to carry harquebus in 1459. However, during the long slow transition to the later 17th & 18th Century dominance of gunpowder weaponry, there were *feuerbücher* (fire-books) during the time of the *fechtbücher* – like *Bellifortis* (1400-Göttinger) with its own *feuerbuch*; *Freiburger Handschrift* aka MS 362 (1432); and *Druck* by Heinrich Stainer (1529). All these make it clear that gunnery craft was evolving during that time in its comprehension of proper chemical proportions for detailed formulas of various gunpowders (mostly permutations of of saltpetre, sulfur & charcoal), comprehension of gas-pressure of combustion, correct bullet-materials, efficacy versus various armour, etcetera.

The mention of amber in 16r as part of an incense mixture is not far-fetched – after all the usual German word is *bernstein* or "burning-stone", which naturally gives forth a strong pine-tree scent. It is possible that the bizarre picture is not just a depiction of a complex censer, yet also some sort of allegory. If such is meant, whether moral, philosophical or alchemical, then Talhoffer told us not. It is anyone's guess – here is mine: If man can control yet not stifle the lion within himself, then he may rule as king over his ability to make both war and peace.

The reference in 16r & 47r to the palatial censer and heated potpourri is not really all that extravagant. Indeed, such fortifications had gleaming white-washed exteriors (14v, 21v, 22v-24v) and colourfully painted plaster interiors featuring bright tapestries, ornamented ceilings, clad- or tiled-rooves, reed & herb-covered floors, ornate woodwork and glass-inset windows. More to their function, the castles portrayed in 1459-Thott are evidently evolved, as many were, as they are simultaneously depicted with archaic square-towers and newer round-towers. There are loopholes or slits for bows and crossbows. One even sports a massive "porch-light" (24v).

The trebuchet of 16v is so massive that it requires manned treadmills to pull down the throwing-arm and raise its swiveling ballast-bucket. Such craft were usually built on-site at a siege. Its Swabian name plid is the same as MHD bleide and may be akin to ME blite / blight, or perhaps to ME playte via OF pleit via L plictum (folder, pleater). Such a massive form of this sort of war-machine existed at least since the War-Wolf of Edward Longshanks. These siegecraft worked by the physics of sling, lever and hinged counterweight to hurl a heavy missile with high consistency and minimal recoil. Modern tests show the rate-of-shot was about once per minute; with accuracy in a shot-pattern within 1 square yard per 5 yards distance; and speed of 125 miles-per-hour for a 350 pound stone. Depending upon the size of ballast (from 3 to 30 tons), length of lever (from 50 to 75 feet) and size of load (from 100 to 700 pounds), such a weapon could severely damage if not smash through stone-walls up to 400 yards away, not to mention that it could squash or inflame men, beasts, machines and buildings within and without. The missiles were usually stone balls, flaming kegs of "water-fire" (dealt with later), metal shot, rotten cattle-carcass or even worse, depending upon the target. Of course, the besieged also could use trebuchet, mounted atop towers, to rain down destruction upon their besiegers. The origin of the heavy trebuchet is arguable – Byzantine, Frankish, German, Norman, Persian or even Chinese, depending whom you ask. However, it may be considered the one form of pre-cannon heavy artillery perfected by Medieval Europe; and indeed was more powerful than any Classical artillery, whether ballista or catapult. Numerous other manuscripts from the 13th-15th Centuries portray their own

varied designs of trebuchet. Incidentally, the smaller related craft called *perrière* in 14v probably illustrates something ludic – perhaps military observation or punishment. The first of two trebuchets in *Bellifortis* (1400-Göttinger) has an arm indicated as totaling 54 feet from bucket to sling.

Each folio of 17r, 18r, 18v shows a different top for a catafalque, also called a belfrey or seige-tower. Such wheeled multileveled machines were built of wood on-site to the height of the besieged wall or building, anywhere from 30 to 100 feet height. These held and conveyed by ladders and bridges any mix of knights, troopers and weaponry supported by bowmen or gunners, while the lower structures often brandished anti-fortification armament like rams or bores. The catafalque-hulls repelled stones and missiles thrown from battlements and were often covered in wet hides, mud or vegetation, so as to absorb fire, shot, boiling water or caustics, as indicated by 20v.

The various depictions of belfrey-tops, rigs or vehicles – which aided and sheltered troopers and pioneers (miners & sappers; akin to the word "pawn") while they beleagured, moved, scaled or waded – are often zoomorphically named. In both 17r & 18v is the "cat" (*katz*) or catafalque; in 17v the "big dog" (*groß rüd*) or assault-vehicle transports "foxes" (*füchß*), probably shock-troopers; and in 29r is the "snake" (*schlang*) and in 39v is the "adder" (*nater | atter*), the one an esclade-ladder and the other a battlement-breaker.

What this *Battle Force* calls "water-fire" (*wasser für*) in 19v may be what Kyeser called *aqua ardens* (burning water) or *ignis grecus* (Greek-fire) in *Bellifortis* (1400-Göttinger). Also notice the crossbow fire-bolts of 42r, similar to the dondaines typical of other coeval manuscript-depictions. Whether or not this incendiary missile was all that common in Europe of that time is arguable, although *Bellifortis* (1400-Göttinger) shows them; 15th Century German arsenal-lists attest to their presence on the battlefield; and an imperial ordinance of 1427 required supply of 600 such fire-arrows at the city of Nürnberg. Coeval Swiss illustrations show grenadiers throwing fire-pots on the battlefield, as per 12v & 43r. All such served to bring terror and destruction to men and their siegecraft, palisades, rooves and wagons. The tree (*bom*) turned into a bomb in 42r was perhaps meant as a pun in archaic German for bomb (*bombe*).

An army or garrison needs food to fight well – thus the relevance of the otherwise innocous inclusion of zwieback and hazelnuts in 21r. The high-carbohydrate zwieback were basically equivalent to later hard-tack and could be prepared and stored in advance of battle; similar biscuit-rations are attested by early 15th Century provision-ledgers. The high-fat hazelnuts were something that could be foraged from forestland by a marching or besieging army.

Folios 22r and 47v seem related, each portraying tools for breaking into buildings that were secured with the more common door-locks of their day. Incidentally, the tools of the latter folio seem not at all to be for travel, as some have suggested rather puzzlingly. Notice the sow-covered pioneer in 22v turns away from the left-tower towards the wall, as the base of that tower sports a jutting rampart, making it more difficult to sap than the flat wall. Overlooking this, the smoke of a distant chimney shapes itself into a crane spearing a snake. As a killer of snakes and herald of Spring in Germany, the crane was a Medieval symbol for Christ vanquishing Satan by the Resurrection. Notice the basket-coverd pioneers in 23v.

The gleeful mention in 25r of the royal Hungarian spike-ploy versus the Turks bespeaks how most Europeans would have felt not just circa 1405 to 1459, yet well before and after, regarding any clever method to counter the looming Ottoman threat, as their Islamic hordes had just seized Byzantium six years prior and were beleaguring the Balkans.

The Late Medieval Latin text in 26r seems to have nothing to do with the thing portrayed – a swimming-girdle. If one looks at the equivalent picture in *Bellifortis* (1400-Göttinger), the Latin text there is quite different, being straightforward in its description. If meaningful and not gibberish, then perhaps it is metaphorical analogy – referring obliquely to the instinct for breathing as the same that guides the lance of the horseman as he outstetches it to strike. Folio 27r features two other swimming-girdles.

The golden wreath of 28v seems ludicrous nonsequitor. However, it should be realised that prolific synthetic polymers were not to be had back then, so a mix of egg-whites and brandy-wine was a helpful recipe for an organic adhesive / fixative. It may be bit of a Catholic joke, as this *krantz mit...rosen* would thus be a *rosenkrantz* – thus some oblique visual pun on the German word used both to mean "wreath of roses" and "rosary". The idea that it was a charm against vampires is conjectural – fascinating but not even remotely supported by the context. So the wreath may ultimately be taken at face-value – merely a pretty thing.

The slings of 31r and 32r are easily overlooked – but such were the common stuff of each side during any siege. The knaves of each party would mutually harrass, from lawns and walls, filling the many hours of boredom with rock-showers for their enemies.

Notice in 31v the emphasis placed upon the efficacy of bath, sauna & herbal infusion for treating limbs / joints (gelider) and hands (hand) – of concern now as then to the seriously athletic fighter. The pot / basket (hafen) for the bath was most likely a sort of giant metal or ceramic "tea-ball", steeping the herbs in the water for the bathers to soak and/or steam. Such a vapor-bath in a sauna acts as a tonic by inhalation (internally) and steam convection (externally), followed by an invigorating dip into cold water. I can personally attest to the stimulant efficacy, in safe dosage, of one of the herbs named – werwmüt aka wormwood aka artemisia absinthium.

That sauna-bath of 31v, along with mention of mastic in 47r (it was chewed as a sort of gum for dental hygiene), and certain other passages in Chapter 15, all support the realisation that Europeans of that time were actually concerned about hygiene and enjoyed cleanliness, of both body and clothing. Previously, Europeans from Charlemagne to the Teutonic Order had practiced bodily hygiene, so it seems Talhoffer and company likewise enjoyed the same.

In folio 32v is portrayed a woman peacefully cooking the dish of rutabaga-egg, the only female portrayed in the book other than the fearsome "dueling wife" (80r-84r). Instead of taking any of this as proof of negative sexism, it behooves us to realise simply that Talhoffer's world was that of the "manly man". Indeed, respect and fondness for women are apparent enough in such passages as are found in 8r and 142r, and the respect expressed for the divine feminine of Saint Mary in 10r.

More of the ludicrous rutabaga-egg in 32v: Perhaps this was a ruse to get past severe animal-protein prohibitions during frequent Catholic fasting: hide your eggs in a rutabaga, cook it, eat it, no holy-roller knows any better for it. Certainly an athletic fencer may have wanted to bend the religious rules a bit for sake of his understandable nutritional needs.

Folio 35v deserves some special mention. Although not grouped with the other fighting-struggles, its caption having to do rather with blindingly shiny harness and the special curved dueling shield (called here simply *schilt* but also known as *tartsche* – targe), this folio does portray a serious armoured fight with longswords or bastard-swords, freshly drawn from discarded scabbards & belting, and the fencing techniques implied. Each man half-swords his weapon, in correct Liechtenauer *kurzes schwert* (shortened-sword) wards, with his targe slung around onto his back, awaiting the best chance to strike his foe in the blinding sphere of the armoured duel beneath the Sun. Notice that one wears a schaller while the other wears a war-hat. Interestingly, *Bellifortis* (1400-Göttinger) shows similar fight, but with daggers & shields, plus it mentions magnetic weaponry (!).

In folio 36v are some interesting wheeled battering rams, apparently driven by horses or men at the yokes, which if not used to crush and scatter enemy afield, could either span moats or bore gates and fortifications with great force – although the lack of sows makes this seem more dangerous than desirable.

The "crayfish" of folio 38r implies the conception of a "battle-robot" – although construction of such in 1459 is highly doubtful. It may be meant instead as a somewhat fanciful armoured vehicle driven by man- or beast-power.

Water is even more important to an army than food, its quantity and quality always a concern to any expedition or garrison. Having a local well or river was always desirable – but the ability to control a remote source of water was also desirable, as witnessed by the syphoning system of 41r.

The manifold-mortars of folios 42v-43r have gunmetal the colour of polished blue-grey, thus indicating not brazen but rather ferrous alloy. These guns are trestled but lack carriage, so maybe they were for parapets, although they could mount in wagons or belfreys just as easily, or perhaps even were carried onto the field by teams of toiling pioneers.

None of the big siege-cannon of prior, contemporary and future European use are depicted here. Likewise there are no depictions of anything akin to either earlier offensive artillery like Hussite howitzers (1420-36) or later Swiss and Burgundian field-culverins (Battles of Grandson & Morat, 1476) – unless you count the negligably itty-bitty

culverin portrayed in 14v. Rather, there is an interest in this book just for harquebus and mortars, apparently for mounting in/on light-tanks, parapets, belfreys and "crayfish". It is curious that no actual cannon are featured here among the variety of seigecraft, although such were arguably the dominant form of heavy artillery and siegecraft by 1459. For that matter, the castle was beginning to yield eminence to the bastion-fort; while the chivalry & peasantry army was giving way to the soldiery & mercenary army. Perhaps the focus here on the lighter gunpowder artillery reflected Talhoffer's forecast of what sorts would be prevalent in the future, or were simply his preference.

The riders in 44v & 45v use single-reins – probably a wise idea to keep things simple for men who are horse-riding while drugged by the stimulant *strepico* or while handling "Greek-fire" torches.

The fuel-formula for the tenaciously burning torch in 45v is really an aromatic form of the Medieval "Greek-fire", which the Byzantines first used at the Battle of Bosporous (circa 668-673) to punish Islamic hordes. Greek-fire seems indicated by the similarity here to other reputed formulas for the stuff, like that from the 16th Century given by Biringuccio in his *Pirotechnia*. Sundry formulas seem always to share four main active ingredients – oil and/or resin; lime; brimstone; and muck. Such also seems indicated by instruction to snuff its flame with vinegar – which, along with other liquids like stale urine, were commonly known and easily attainable acidic counter-measures to such mucky incendiary. Notable also is the presence of grenades in 12v and hollow sticks in 48v, both of which are recommended media for Greek-fire in *Pirotechnia* (although the grenades are indicated as containers for gunpowder as per 43r).

The idea that 44r shows diving-gear for deep-water cargo-salvage is supported by a similar rig in folio 74r of the so-called *Anonymous of the Hussite Wars* (circa 1470-80). However, the physics demand some sort of forced-air apparatus to make such plausible, so we can only guess at that.

Let us consider Philomenus of 46r, which "spits fire" – similarly seen in 95b of Göttinger MS Philos.63. Despite the implication that it is filled merely with some liquor, if we correlate it with the water-fire of 19v & 45v and with the syphon of 41r, then perhaps we have the fuel and mechanism which make it possible that Philomenus was an anthropomorphic flame-thrower. However, Philomenus has similarity to the archetypal anthropomorphised mandrake root portrayed in a variety of herbal / botanical tomes for centuries, from MS Ashmole 1431 (1070-1100) to MS Sloane 4016 (circa 1440). Why this automaton has the same name as one of the Greek demigod-sons of the goddess Demeter is anybody's guess. ~

3. Wrestling and Dagger-Fighting (49r-71r)

Talhoffer's fight-lore gives convincing proof that Medieval & Renaissance European personal combat and its combatants were advanced and skilled. This is something that sadly certain notable modern military historians and medievalists continue to deny and by which they undeservedly profit. Talhoffer shows us, without doubt, that the fighting provess of the European warrior through his martial arts was as great as any other in the World.

Wrestling was the grounding for the weaponry of Medieval and Renaissance German martial arts and was indeed the first combat training that any youth would have learned. *Ringen* is to *Kunst des Fechtens* as *Jujitsu* is to *Bujitsu*.

When we compare the struggles portrayed in Chapters 3-14, one finds much correlation between 1459-Thott and 1467-Gothaer, although some changes over time are apparent. Aside from differing caption-verbosity and artistic style, the two editions illustrate basically the same techniques, but describe them with significantly different keywords. These differences in wording over that eight years time, assuming they accurately bespeak Talhoffer's vocabulary choices, cannot help but show an evolution of teaching by the master as to how he would describe the very same or virtually same moves to his students – whether by expansion and/or alternative wording – presumably by phrasing things more to his liking and to the better understanding of his fencers. Sometimes 1459-thott may have captions that are more direct than those of 1467-Gothaer, although the latter gives more detail. Talhoffer's wrestling (49r-60v) exhibits this point. His 24 struggles from 1459 have 24 analogues among the 62 struggles from 1467, illustrating identical techniques. However, 12 of those 24 struggles from 1459 use key-words that are noticeably different compared to their 24 analogues from 1467. This is distinct from simple differences of verbosity. Perhaps such a paradigm on the part of a Renaissance master demonstrates the folly of modern notions regarding some need or precedent for standardised terminology.

Wrestling (49r-63v) would have been any German man's first martial art, learnt from boyhood, the possiblity of its mastery open to anyone. As his 1443-Gothaer makes clear, Talhoffer's wrestling is based upon lessons of Ott the Jew – although like Liechtenauer's lessons, Talhoffer modifies Ott's lessons somewhat. German *ringen* (wrestling) as part of *Kunst des Fechtens* was a grappling system similar in its execution, techniques and mindset to traditional Japanese *jujitsu*. *Ringen* favours staying on one's feet and in balance (*waug*), with some groundwork, using any vicious chance one may have to get rid of the foe, which involved mostly grappling, locking, breaking, throwing and strangling but could have included punching and kicking. *Ringen* compares favourably with the combatives taught to any modern military, and indeed, is finding its way into some nowadays.

There are some unarmed strikes amid the wrestling and dueling of Kunst des Fechtens in the 14th to 16th Century fechtbücher. Indeed, the single ubiquitous term for a variety of strikes was stöss. This was and is a highly dynamic, quite contextual and often-mistranslated word; which was used in both unarmoured & armoured, unarmed & armed combatives; and which could mean "punch, kick, shove, pummel" - thus any sort of "jolt" - and only rarely "thrust / stab [with blade-point]", Talhoffer notably using it that way seldomly. So there were a variety of weaponless strikes - jabs to body as per Wittenwiller; kicks to groin, belly and knees, as per Ringeck, Talhoffer and Von Danzig; headbutts as per Ringeck; punches to face as per Von Danzig; and various "murder-jolts" (mort stöss) done to heart, groin, skull, throat/clavicles & belly as per Ringeck. Yet none of them used unarmed striking as the primary and fundamental system for their martial arts - instead they used wrestling. They did not advocate a full system of fistfighting focused only on techniques like jabs, upper-cuts, hooks, crosses, knife-hands, hammer-fists and their tactics - although such may be interpolated at times with validity. By contrast, there were full systems of wrestling during that time by ringenmeister like Jud Ott (early 15th Century), Hans Wurm (circa 1507), and Fabian von Auerswald (1539). And even manuals continuing into the late 17th Century like that of Nicolaes Petter (1674) were still basically grappling arrays. At times one is tempted to make reasonable interpolation of any number of those strikes in a given fight-book interpretation – even if such are not explicitly stated, one should be applauded for filling the blanks of Talhoffer with punches or kicks when such work. Yet the primary and fundamental unarmed system for the German knight – the one whereupon his entire Kunst des Fechtens was grounded, both unarmoured & armoured, unarmed & armed – was ringen (wrestling). So it seems that they were grapplers and not boxers. We may conjecture seven interrelated reasons for why the fight-books teach wrestling and not fist-fighting. Legal banning: differing tradition; wrestling superior; priority of training; risk of needless injury; cultural desiderata; and common knowledge. Here it is enough simply to mention those (which I explored in-depth in Getting Punchy - Fist-Fighting, Wrestling and Fight-Books) – and to keep in mind that the master martial artists of Germany wittingly put wrestling into their fight-books as the primary unarmed method that they advocated and taught, for good reasons.

The wrestling of 49r-60v happens within featureless space, while the daggering of 61r-71r happens within dueling-barriers. The fighters wield daggers, which could be termed as either rondel or ballock, having enough handle for either bare or armoured hand to grip, and with single-edged blades about 1 foot length. In this chapter is the helpful visual aid of "Red Sleeves" who tends to win the struggles.

It seems obvious that Talhoffer's wrestling contains moves in his own version of Liechtenauer's *harnischfechten / kampffechten* akin to what Ringeck and Von Danzig respectively termed and advocated as *verborgnen ringen* (secret wrestling) or *verpotten ringen* (forbidden wrestling) – down and dirty moves meant to cripple and maim, a mix of grappling and striking.

Talhoffer regards there to be a close relationship between wrestling and dagger-fighting, presenting both crafts together here. This 1459-Thott even has a segue of six moves (61r-63v) for unarmed versus dagger-armed, that are identical in 1467-Gothaer – except that those are dagger-armed versus dagger-armed. Meyer must have regarded likewise, as he presents the same relationship by proxy in his work. The unarmed versus dagger-armed self-defense crisis is dealt with in 1443-Gothaer (plates 82-125); and was of interest to the Swiss hunter and fighter Hugues Wittenwiller in his *Fechtbuch* (late 15th Century – stanzas 92-99). Understand that Talhoffer's dagger-fighting directly behooves combat in full armour, as presented by both MS KK5013 and *Gladiatoria*. Also, notice the interrelations of the moves – for example, how what is done in 61r basically is utilised later in 70v.

There are two ways of gripping the dagger shown. The one we may call "short" – hand grips hilt with thumb at pommel. The other we may call "long" – hand grips hilt with thumb at cross. These descriptives indicate relatively the extent of reach forward with the point with each respective grip – about a hand-length of difference. Notice that sometimes the blade is grabbed by the off-hand for blocks and locks.

Talhoffer's fighting with the dagger (*degen*) may be summarised as stabbing, avoiding, forsetting and wrestling. That is not to say that he forbade fighters to slash or even to hew with the dagger, when chance allowed or favoured such strikes. However, there were certain reasons for why his method was composed mostly of those techniques – the design of the weapon favoured such, which were in turn the consequence of the need to wield a small side-arm fit for combat versus Alpine foes both unarmoured (leathern / woolen doublet) and armoured (plate harness).

Although Talhoffer neither names nor categorically lays out dagger-wards, one may reckon four basic dagger-wards, from which all his techniques for that weapon start, as discerned in both 1459-Thott and 1467-Gothaer:

- ~ High-short ward held high at right side, with left leg forward.
- ~ Low-short ward held low at left side, with right leg forward.
- ~ High-long ward held high at right side, with left leg forward.
- ~ Low-long ward held low at right side, with left leg forward.

The wards are described for a right-hander – simply reverse everything for a left-hander. These wards work well with a variety of daggers – the preferable rondel & ballock designs shown in Talhoffer, or even holbein & quillon designs. Note that you may drive into these wards handily and speedily as you flow from drawing a dagger sheathed at the right side or the back. All these wards require that you keep the point aimed at the foe, yet allow you to keep your off-hand back or forward as you may choose.

The dagger-fighting portrayed in 1459-Thott, and for that matter in 1450-Ambraser & 1467-Gothaer, differs from 1443-Gothaer. Consider the four stances of 1443-Gothaer (plates 82 & 91); then the four stances of 1450-Ambraser (plates 43-44); and then the four stances described above shared by both 1459-Thott & 1467-Gothaer. Also, the 1443-Gothaer shows fighters usually holding their off-hands back or tucked, while 1450-Ambraser less so, then both 1459-Thott and 1467-Gothaer show the fighters mostly with their off-hands forward or active. Thus we find proof of a fight-master evolving or progressing his craft over time. Refer to comments for Chapters 1 & 6 for more regarding the nature of Talhoffer's lessons.

In the dagger-fighting of this private 1459-Thott edition, the two techniques on 68r and 68v are unique from any in the larger patronage 1467-Gothaer edition (again, see Chart 2 for comparison). Unfortunately, folios 68r and 68v have some missing visual information due to washed-out patches (action conceptually restored in this PDF of course by TZ). Thus perhaps these moves were considered more secret than most. In any event, both those folios portray slightly differing applications of the same move, what is really a dagger-version of *absetzen* (offsetting) – basically deflecting foe's stab while counter-stabbing in one move. The dynamics of the "intercepting fist" in *Jeet Kune Do* are similar to the dynamics of *absetzen* in *Kunst des Fechtens*. Interestingly, plate 186 of 1467-Gothaer could lead to the ending in folio 68r of 1459-Thott – but instead leads to an alternative trap & throw ending. The conceptual restoration of 68r shows the off-hand of the loser forward and active (to no avail, of course), in keeping with the standard of the other dagger-portrayals.

Similarity to other dagger treatises are easily spied. For but one example, notice that the rightman of 69r wards and counters in the way that Meyer-1570 termed *Underhut* and *mit zwerch Dolchen*. Numerous other analogies may be found throughout the fight-book corpus of *Kunst des Fechtens*.

There is a single technique involving clothing-grabbing (52r), which is promptly countered (52v). Such was rare in *ringen*, at least according to Talhoffer, most techniques done instead by grappling and clenching body-parts in order to gain holds and leverage.

Many of the men wear arming-clothes in the portrayals. Such were the underwear, more or less, for armour; and are commonly seen in many fight-books as training-garb. These outfits were probably linen or leather (as attested by the middle 14th Century *Erstes Buch Landrecht*), or maybe hemp; obviously tailored-fit yet gussetted (see 62r) and perhaps selectively padded (since the doublet is termed *wammeβ* or "wambeson" in 52r-52v); designed and sewn to allow great movement, with reinforce-stitching; and including the ever-helpful codpiece.

Notice the wash-out of previously drawn legs, arms, heads or weapon-points in 53v, 57r, 75v, 86v & 92r; such corrections are found often enough among the portrayals here and in other manuals.

One last thing to consider, somewhat nonsequitor yet important, is the kind of footwork indicated by the text. It tells us of *treten* (treading), *schreiten* (stepping), and *springen* (springing). The first is a long traverse, often done as one strikes; the second is a short stride, often done before or during a variety of techniques; and the third is basically leaping while one does whatever. These differences are crucial to understanding the range and realities not only of *ringen* but of all the arts of fighting – *harnischfechten* (harness / armoured fighting), *bloszfechten* (unarmoured fighting) and the rest. ~

4. Fighting with Pollaxes, Spears, Halberds & Swords (71v-79v)

The pollaxe (*agst*), in all its variants (*bec-de-corbin*, luzern-hammer) was a common enough knightly weapon, an effective armour-breaker, a favourite weapon of many for battlefield or duel. Refer to comments for Chapter 13 for more about pollaxes.

The centuries-old ubiquity of the spear (*spiesß* / *spiess*) hardly needs elaborating. Notice that often the same sort of basic spear is wielded by the footman and horseman in the Talhoffer portrayals. Notice the rare wielding of two weapons at once in folio 78r, sword and dagger, to deal with a hurl-ready spear – although the dagger itself may be hurled while the sword is held in reserve to forset, should that fail. The sort of halberd (*hellen barten*) featured here was of course a favourite of the Swiss.

The German sword, in all its variety during Talhoffer's time, was made with great craftsmanship of high quality steel; was resilient, hard and strong; and was the equal or better of any other sword in the history of the World. The various swords portrayed in Chapters 4 & 6 and elsewhere – whether longswords, bastard-swords or shortswords – are classifiable in the Oakeshott Sword Typology as versions of XV, XVa, XVI, XVIa, XVIII, XVIIIa and XVIIIb. The longsword was the premier and fundamental weapon of Renaissance German martial arts. It is generally wielded with both hands, though sometimes with one hand; it is double-edged, broad and straight, generally tapering, usually diamond and/or partly fullered cross-sectioned; about 34 to 42 inches blade-length and 42 to 54 inches overall-length; 3 to 4 pounds of weight and well-balanced. The steel hilting was diverse, including lobed and spiky straight crosses; faceted scent-stopper, smooth pear, tetrahedron, wheel and even pointy diamond pommels. The grip around the tang was hardwood, wrapped in leather or wire. The steel blade was likely differentially sharpened.

The German tradition itself for the longsword or war-sword is supported by artifacts documented in *Records of the Medieval Sword* by Ewart Oakeshott. This was necessitated by the environment, armour and physique of combatants in warfare like the Northern Crusades (1147-1410) and the Danish-German Wars (1219-1370). Such was witnessed by French chronicles that stated it was *Almaine* in origin. In a comment from his *Fechtbuch* of 1389, Döbringer said this one art of swordsmanship may have been founded many hundreds of years before his time (*das nuer eyne kunst ist des swertes / und dy mag vor manche hundert jaren sein funden*).

Notably unlike 1467-Gothaer, the longswords portrayed in 1459-Thott are all battlefield or dueling designs, with no *federfechten* designs having narrow blades and crenolated-crux (*fehlschärfe*) to be found.

According to Talhoffer, Liechtenauer and the rest of *Kunst des Fechtens*, there are three basic ways of striking with the longsword:

- ~ Hew (how): Cleaving by a sundering edge-strike of the blade.
- ~ Slash (*schnit*): Cutting by a drawing, pushing or raking edge-strike of the blade.
- ~ Thrust or Stab (*stich*): Piercing by a penetrating point-strike of the blade.

A famous artifactal longsword of warfaring design that matches many portrayed in the Talhoffer editions is the "Order of the Dragon Longsword", residing now in Mansion House, York. That gorgeous German-Hungarian weapon was a gift from Kaiser Sigismund to King Henry V, when he visited in 1416 during mediation attempting to bring end to the Hundred Years War between England and France. Although fancy and ceremonial, it has the design of a battle-worthy OT-XV or XVIII sword.

Notice in 77v how the swordsman grips the hilt with index-finger over cross. Notice the pun on *hand is lost* in 79r-79v, where the swordsman quick-draws to cut off the hand of the wielder of a hand-shaped pick-hammer. Modern test-cutting with accurate replica swords upon carcass of deer and so forth confirm that one may cut clean through flesh & bone in this way.

Notice the variety of differing and distinct characters portrayed as the fight-corp in the struggles shown throughout 1459-Thott, which strongly implies a variety of personalities learning from Talhoffer at his training-hall.

Naturally, most all the many fencers portrayed here are German Europeans, yet a couple are Africans or Moors. Indeed, *Bellifortis* (MS Philos.63, circa 1400) features the Queen of Sheba as a "mooress" and later artworks by Dürer called *The Negro* (1508) and *The Negress Katherina* (1521), attest that diverse persons occasionally travelled far and wide during that time.

Notice the stitching on the wams and leggings of some fencers in folios 72v-78r. This could be mere decoration; badges or awards; or perhaps even luck charms.

In this chapter, each bastard-sword is termed "messer" (77v & 79r) despite being unfalchionlike, a curious quirk that is duplicated by 1443-Gothaer in its *roszfechten*; by Von Danzig in his *roszfechten*; and by 1467-Gothaer with bastard-swords / shortswords. Wittenwiller termed all shorter bladed-weapons as messers, whether such were single-edged or double-edged. So perhaps all that serves to explain Talhoffer's broader use of the term.

In this chapter, the men wear a variety of flamboyant hats – "Big Hat" tends to win the struggles.

The deadly nature of Talhoffer's fight-lore is underscored by portrayal of spilt blood and cut limbs. Such truly shows the meaning of the fight in earnest. In such fight there were no prizes to win – no golden wand, no ruby or diamond, no horse or ransom, no damsel-kiss or lady-dance – and indeed no assés en avoient fait, no à plaisance. One must understand that ernst was thus en oultrance. The winner got his life and the loser got either shame or his grave. ~

5. Judicial Duel of Man versus Woman (80r-84r)

It is possible this is a wedded couple, as 81v calls him *man* which could mean either "man" or "husband", and 83v calls her *wib* which could mean either "woman" or "wife". Notice their ritualised cross-bedecked body-suits, probably of linen or leather, looking somewhat like arming-clothes. The mismatching of weaponry and juxtaposition was likely some court-appointed attempt to find some way to give each combatant a fighting-chance, to balance differences of bodily strength. However, some sort of cynical, ludic intent cannot be easily discounted. ~

6. Armoured Duel-Fighting with Longsword & Spear and Unarmoured Harness-Fighting (84v-94r)

There is a blended transition in folio 87r from armoured dueling with longswords to fighting unarmoured with such yet in the way needed for *harnischfechten* (harness-fighting / armoured fighting), whereby Talhoffer implies the armoured-unarmoured relationship despite their distinct differences (as I explored in-depth in *Talhoffer Longsword: Armoured and Unarmoured*). Notice also that various struggles portrayed as *harnischfechten* in 1443-Gothaer (plates 59-68) and 1450-Ambraser (plates 21-37) or seemingly as *bloszfechten* (unarmoured fighting) in 1467-Gothaer (plates 1-67 & 74-78) could appear as either of those in 1459-Thott. Other masters like Dei Liberi similarly present a technical relationship of armoured and unarmoured fencing with the longsword. Talhoffer presents a mix of armoured and unarmoured for other weapons too, like pollaxe, both afoot and ahorse. The best way to think of this is that most anything that works in *harnischfechten* tends to work in *bloszfechten* – but not necessarily the other way around. It is demonstrable to say that Talhoffer taught *kampffechten* (duel-fighting) concording with principles of Liechtenauer's *kampffechten* (as I translated in *Knightly Dueling* – *the Fighting of German Chivalry*). So although Talhoffer lists textually the basic moves for unarmoured fighting with longsword in his Chapter 1, he portrays visually the moves utilised especially for armoured fighting with longsword in his Chapter 6.

The portrayal of the dueling of two armoured knights, fighting with spears and longswords, with attendant armigers & ready biers, and the final bloody victory, is a scene repeated explicitly in 1450-Ambraser and implicitly in 1467-Gothaer. It is thought that this scene is a retelling of an actual duel that Von Königsegg fought and won according to the training that Talhoffer had him undergo. It is safe to say that because of this, Von Königsegg probably respected Talhoffer as any modern captain would respect his worthy sergeant. Notice the biers draped with flags of St Maurice and St George – hardly by chance, as these were traditionally revered warrior-saints in Christian Europe.

The savagery of the pictured fights in 1459-Thott was simply the truth of that time as witnessed and taught by Talhoffer. Such portrayals, and indeed most any corroborating coeval writings that describe judicial duel or warfare, bespeak all-out fighting was the thing. Only within the intentionally unrealistic conditions of tourney, or even within the hazardous game of deeds of arms, was combat done otherwise. Much too often in modern times so-called experts, including some respected academics, misinterpret or imagine neutral portrayals of savage struggle as automatic polemics against unchivalric behavior. That notion is not based upon the reality of what the historical sources have to say and show of contemporary judicial dueling and warfare. Indeed, multiple passages, in an array of chivalric literary works, have one knight praising another knight as worthy because he was a great fighter – not because he owned lots of land, or had troves of gold and silver, or danced finely, or was handsome, or popular, or descended from noble lineage – but because he could fight well. Thus a Medieval or Renaissance warrior was thought good because he fought his foe as hard as he could in every availing way.

Talhoffer calls "half-swording" either *brendschürn* (fire-poker / branding-iron) in 88r or *gewappet* (armoured) in 107v-108r, and portrays it in folios 87r-92v. In 1467-Gothaer he calls it *kurtz Schwert* (shortened-sword). It was meant mostly for armoured longsword fencing, to best seek the gaps of plate-harness, but could certainly be used when unarmoured. Fighters do such in the portrayals both gauntleted and bare-handed – although he advises in folio 1v that *your gauntlets serve to your vantage*. In 75v he calls a way to stab by half-swording a *gewäbet Stich* (woven thrust) – kinetically similar to *wabent stich* (weaving-stab) with dagger in 69r. His 1450-Ambraser makes is clear that Talhoffer knew the wards and moves of Liechtenauer's *kurzes schwert*.

The earliest sources I know which somehow portray half-swording are *Flos Duellatorum* (1410) from Italy; and the *Rosengarten zu Worms* (Cod. Pal. germ. 359) (1418-20) and MS KK5013 (1425-30) from Germany. However, later sources like Ringeck (1440s) and Von Danzig (1452) do attribute their half-swording way back to Liechtenauer (circa 1380). Thus it is a safe guess that half-swording started by 1350. This especially makes sense as there was the rise of composite harnesses in the 14th Century that evolved into the bloom of full-plate harnesses in the 15th Century. Half-swording (by thrusts, punches, mortes & wrenches) was really the most wieldy way of dealing with such armours.

Some of the finest contemporary pictures of harness-fighting in full suits of Gothic plate-armour, are in folios 84v-87r of Chapter 6. These portrayals are quite accurate, splendid and edifying. There are further portrayals of partial or full harness in folios 132r-137v (all afoot); in 45v, 124r, 125v, 126r, 128r (all ahorse); and in 15v, 23r, 20v, 21v, 35v, 36r (in war-wagon, with "ravens-head", and variously afoot). In 126v, 127r, 127v, 128v, 129r, 130r are partly or half-armoured horsemen, some armour apparently fabric-covered. And in 130v, we are treated to full tourney regalia of *stechzeug* including frog-mouth helms and targes. The mix of full, half and non-armoured horsemen

portraying a series of techniques once again speaks to the implication that Talhoffer seems to frequetly make, that many techniques are multi-armamentary, for fighting of both *harnisch* and *blosz* in nature – or in any case, one should be ready to fight adaptively among such variety.

The armour portrayed here is certainly of the general design and serviceable style of the time of 1459, with perhaps a few old-fashioned aspects, but definitely contemporary. A variety of middle and upper class men owned and wore such – knights, burghers, sergeantry and bodyguards, besides the high nobility. Some of the more distinguishing features to consider are the schaller, bevor, spaudlers, cuirass, fauld, couters, tassets, culet, poleyns and sabatons. Such harness are comparable to those that saw action everywhere in Europe, from Hungary to England, from Belgrade (1456) to Bosworth Field (1485). Such harness are similar to existent famous steely suits, like the roughly coeval and nicely decorated Gothic field-harness given to Siegmund von Tirol upon his wedding to Katharina von Sachsen by Augsburg's master-armourer Lorenz Helmschmid (circa 1485), residing now at Kunsthistorisches Museum Wien. Such German plate-armour was and is among the best of armour in the history of the World.

There seems to be portrayed two basic styles of harness, quite similar in design and function yet somewhat differing, typified by the first set of folios 84v-87r and the second set of folios 132r-137v. Notice the multiple rondelles and even some archaic squarish bevor in the first set. Notice the fluting of various plating in the second set. Notice the different designs of spaudler, tassets and culet in each set. Notice that maille covers the gaps between the plating of the first set, whereas lilac arming-clothes, perhaps leathern, show through in the second set.

The armoured fights on foot do show men with raised visors, yet do not show any man going without his helm. Such is frankly the folly of cinematic and theatrical performance, interested in clarity of dialogue and facial expression, rather than authenticity. The fighting man of the past, who valued his handsome head and face, tried to keep his helm squarely in place. Visors are shown raised in Chapter 6, yet lowered in Chapter 13. Reasons for this risk of the face may have been identity-confirmation, better vision, ventilation, and/or spoken damnation – yet regarding the last, notably Talhoffer tells the knight not to react to such himself (1v).

Talhoffer presents Liechtenauer's basic *harnischfechten* wards in 1450-Ambraser (plates 2-12), which make their appearances again in 1459-Thott, even if not in exact same series or manner. However, notice that Talhoffer shows a series of various *bloszfechten* wards (plates 2,3,4) in his 1443-Gothaer (at age 23 years). He repeats some of them identically, and some in changed manner, and some not at all, in his later editions 1450-Ambraser (30 years), 1459-Thott (39 years) and 1467-Gothaer (47 years). That may suggest he forsook certain methods and techniques when younger in favour of others when older, for whatever reasons. Perhaps this is proof of a fight-master evolving or progressing his craft as he furthered his learning over time. Refer to comments for Chapters 1 & 3 for more regarding the nature of Talhoffer's lessons.

It should not go unsaid that the plate-armour harness depicted here was custom-fitted and had even mass-distribution. It allowed the man wearing it to run, jump, roll, cartwheel, vault, and fall down then stand up again. It was not an overly-heavy, clumsy hindrance; it did protect quite well from cleaving strikes; and it was made of steel.

The dramatic movements portrayed in folios 86r-86v seem almost to illustrate the genetive idea of the mark-verse and commentary of 61v of the Von Danzig (1452). Notice the extremely rare reverse-grip of sword-handle in 89r.

The extra blade-point in 90r is probably just an unremoved mistake; although imaginative persons may insist it is a dagger in the off-hand of the thrown man – which, in any case, availed him not. It is possible yet unprovable that such mistakes in a given fight-book may be on purpose, for whatever reason, perhaps to confuse the unknowing. One may very rarely conjecture such errors were wittingly done in text and pictures not only in the work of Talhoffer, but also in that of Kal and possibly Von Danzig, for examples. If so, such would certainly be in line with Talhoffer's theme of secrecy. Notice the minor demon in 93v that reaches into the mouth of the dead loser for his soul after a presumably deserved death – a picture which makes the caption and portrayed prayer for his soul of 94r rather sardonic. Refer to comments for Chapter 5 for material regarding arming-clothes; and comments for Chapter 12 for exceptions of raised visors on horsemen, and for further comments about horsemanship.

The Longsword Wards of Talhoffer

I have reckoned three things regarding the longsword plays portrayed in Talhoffer's 1459-Thott edition:

- ~ Most of those play are meant actually for harness-fighting. ~
- ~ Thus the majority of those plays are done by half-swording. ~
- ~ Thus all the plays start from either four unarmoured wards (Ox, Roof, Plough, Fool) or eight armoured wards. ~ By the way: That same mix of armoured and unarmoured longsword plays is found in Talhoffer's 1467-Gothaer edition again, as found in my *Talhoffer Longsword: Armoured and Unarmoured*.

So the first four of those eight armoured wards are the same as Liechtenauer's four wards for *kurzes schwert* (shortened-sword) in his *kampffechten* (duel-fighting), as described in 1452 by Von Danzig. Those wards are clearly portrayed in Talhoffer's 1450-Ambraser (plates 3, 4, 23) and Paulus Kal (1462) (folios 21v-22r). (Although they do not explicitly designate them as wards from Liechtenauer, that is what those are.) So to quote my translation of Von Danzig's descriptions (62r, 63v, 66v, 67v) as in my *Knightly Dueling – the Fighting of German Chivalry*:

~ Shortened-Sword One (SS-1)

Mark this is the first ward for duel. So place yourself thusly – stand forth with the left foot, and with the right hand hold your sword by the handle, and with the left hand grip in the middle of the blade, and hold it near your right side over the head, and let the point hang toward the face of foe.

~ Shortened-Sword Two (SS-2)

This is the second ward for duel. So place yourself thusly – stand with the left foot forth, and with the right hand hold your sword by the handle, and with the left hand grip in the middle of the blade, and hold it near your right side, underneath with the pommel toward your right knee, so that the point aims upward toward the face of foe, or toward his breast.

~ Shortened-Sword Three (SS-3)

Mark this is the third ward for duel. So place yourself thusly – stand with the left foot forth and with the right hand hold your sword by the handle, and with the left hand grip in the middle of the blade and lay it across and over your left knee – thus into the third ward. Thereout you counter foe and his plays by forsetting.

~ Shortened-Sword Four (SS-4)

Mark how to place yourself into the fourth ward for duel. Thus with the right hand hold your sword by the handle, and with the left hand grip the middle of the blade, and hold it under your right axilla, and set the cross in front of and tightly to the breast, and hold the point toward the man.

So then the last four wards are based upon three morte-strike wards discernable in 1450-Ambraser (plates 4, 11) and admittedly later in 1467-Gothaer (plate 52); and one more ward unique to Talhoffer, the *verkert* (inverted), as may be seen in both the 1450-Ambraser (plate 8) and 1467-Gothaer (plate 61). I will do my best to describe those wards:

~ Morte One (M-1)

Stand forth with the left foot and hold the sword angled overhead / overshoulder, with the right-hand at its balance-fulcrum and the left-hand near its point, such that the point is forward and aimed down at foe, while the pommel is backward and up. From this you make smiting-strikes with the cross and/or pommel, or forset strikes.

~ Morte Two (M-2)

Stand forth with the right foot and hold the sword angled underneath, with the right-hand at its balance-fulcrum and the left-hand near its point, such that the point is backward and up, under the arm, while the pommel is forward and down. This is the end of a strike from M-1, affords transition & deception, plus serves to guard the forward foot.

~ Morte Three (M-3)

Stand forth with the right foot and hold the sword with blade angled so point is backward and down, and hilting forward and up, with pommel aimed upward at foe. From this you pommel-punch, hilt-wrench and/or forset.

~ Inverted (INV)

Stand forth with the left foot and hold your sword with the right hand at the handle & with the left hand grip at balance-fulcrum of blade, the blade waist-height at the left side with pommel forward. Thus the body is twisted. \sim

7. Horse-Fighting, Unarmoured, with Swords, Crossbows & Spears (94v-97r)

The men and horses portrayed in this chapter go about unarmoured, perhaps what you could call hobelars. The horse-fighting in both Chapters 7 & 12, both explicit and implied, agree with the basic tactics of many horse-fighting sources: charging; utilising a simple set of strikes; striking as you stand in stirrups and in time with your horse's moves to lend force; being ready to change course as needed; clearing one's own horse while attacking; swerving after attacks; wrestling when needed; and keeping balance primary to staying mounted. To do such the horses needed to be highly trained in military dressage of lead-changing, turning, halting, collecting, charging and fleeing. Such things are found in Liechtenauer's *Roszfechten* ("horse-fighting" – circa 1385-90), Dei Liberi's *Flos Duellatorum* (1410), and Dom Duarte's *Livro de Ensinanca de Bem Cavalgar* (1438). It is interesting that the turning and collecting favoured in Alpenland horsemanship was specifically noticed by Liudprand of Cremona as favoured Bavarian tactics for mounted duels as early as the middle 9th Century. Some of the more defensive aspects of various maneuvers are similar to those of Wittenwiller. It is demonstrable that Talhoffer taught *roszfechten* concording with Liechtenauer's *roszfechten* (as I translated in *Knightly Dueling – the Fighting of German Chivalry*).

These horses all seem to be male, since stallions tended to be stronger and more aggressive than mares, thus they would have been the choice for battle. These horses have tails bobbed & tied, and hooves iron-shod. Some of the men wear high legging-boots and spurs. The saddlery has high bows, either high or low cantles, girth straps, shoulder- & hind-straps, and stirrups – a very utilitarian design. The bridlery includes halters (some feather-crested), with large curved versions of curb-bits, fitted with double reins – thus indicating very seasoned riders needing much control of their well-trained horses. They seem to be afield or at least not within barriers. One may notice how similarly Dürer portrays the harness of the fighting horses in his artworks, as in *Saint George on Horseback* (1505-08) and several others. These knights seem to ride their steeds in the style which Dom Duarte termed *bravante*, thus his 1st, as well as his related 2nd and 3rd styles – which if multiple, would agree with his advocacy of riding adaptability – while no *gineta* and no barebacking (his 4th & 5th) are indicated. Although Swabia and the lower Rheinland famously provided massive destriers and fast coursers, the horses in Chapter 7 seem more like rounseys or even ponys, although they are presumably meant to be coursers. What breed(s) of horse is/are meant portrayed is anyone's guess – perhaps Holsteiner, Friesian, or Almaine (known as late as 1609). Arguably, "breed" did not matter so much as "type" to folks back then – thus something untraceable if not irrelevant.

An interesting word appears in folio 96v – glev (lance / spear). By 1459 it was a centuries-old archaic German term for "lance" or "spear" (not to be confused with the other meaning of "sword"); which had come from Old French glaive and was akin to Polish glewja. In another related sense in other contexts, the German glev also meant the same as another kind of English "lance" – the basic tactical unit of feudal armies throughout Medieval Europe, consisting of three to five cavalry and equivalent supporting infantry. More to the meaning in 1459-Thott, the Ordonnances des Rois de France of 1306, regarding judicial combat, use the term glaive for "lance" or "spear". Understand the lance-fighting in context of 1459-Thott was unlike tourney-jousting. It was a hunt, not a collision – so arguably it had more in common with how later Cheyenne warriors fought than how coeval tourney-jousters did. Also notice that the sort of lance here was indeed a kind of spear, with a long sharp point, not a coronal point.

We must consider that some of the plays seem to imply untold cues from rider to horse in order to complete some of these movements. Even when portrayal of the action of both rider and horse seems rather full, anyone who has ridden a horse would probably agree that there is often more happening here than we are told. Surely the knowledgeable knight of the past could do those things – proper cueing with the arms via hands & reins or even palms & elbows; with the legs & feet via spurs & stirrups, and via thighs, knees & calves; with shifting of bodyweight; and of course with the voice. Plus, his well-trained steed may have needed no cues to make certain moves.

Crossbowmen, both afoot and ahorse, were an effective presence on the battlefield at least since Phillip Augustus and Richard Lionheart mutually deployed them in conflict. Hobelar-crossbowmen were often sent scouting and skirmishing, as Jan Zizka did during the Hussite Wars (1420-36); and such troopers who could dismount to fight as infantry were put afield by the Swiss in the Burgundian Wars (1474-77). The Teutonic Order successfully utilised horses and crossbows in warfare during the 13th-15th Centuries.

Notice that none of the fighters bears a shield to protect himself in these equestrian combat maneuvers, although *tartschen* are seen in MS KK5013, *Gladiatoria*, Kal, etc. Also, they tend to have their sword-sheathes rigged at the left. Refer to comments for Chapter 12 for details about similar but slightly different horse-harness. Refer to comments for Chapter 2 for general material about crossbows – types, spanning, performance etc. ~

8. Judicial Dueling with Pavises, Maces or Swords; and Talhoffer's Heraldry, Motto & Authorship Statement (97v-103v)

The highly-mobile, pointed, hooked, barbed and spindled dueling-pavises (*schilt / langen schilt*) for combatants within the barriers portrayed in 97v-110r are similar materially, shape-wise and mass-wise to the battle-pavises (not mantlets) of arbalesters, harquebusers and bastard-sword knights. These are all generally light and curvy, built of wooden frame & slats, spanned by rawhide coated in glue, meant to be easily handled – though the dueling kind could be spun & swung.

The maces used with these dueling-pavises are cruelly faceted wooden clubs. This material was chosen probably for its cheapness and for closer balance of weight in the pairing. Although implied somewhat unclearly in this edition, both 1467-Gothaer and *Gladiatoria* make it clear that the dueling-pavise was paired with mace in Franconia and with sword in Swabia. Dueling-pavises of equally bizarre design are depicted in MS KK5013, *Gladiatoria* and *Codex Wallerstein* (1450s).

It is possible that the dueling-pavise is realted to the battle-pavise, aka *bömischen schild* (Bohemian pavise) – which apparently everybody from the notorious Vlad Dracula (as per *Chronica Hungarorum*) to the ever-victorious Kaiser Maximilian (as per *Weiβkunig*) liked to brandish with bastard-swords, and moreover, in full harness. However tempting be the leap from that design to the design in 1459-Thott, the more likely direct ancestors of dueling-pavises & maces are indicated in France as early as 1100 AD, where *scutis et baculis* – thus kite-shields & staves – were weaponry that could be assigned to those of non-noble class for dueling. It is hardly outrageous to imagine that said pairing eventually evolved into the dueling-pavise & mace approved later for non-nobility in 15th Century Germany.

Talhoffer's authorship statement breaches this area of the book. Amid the mix of subjects of this entire work, we find the name of Hans Talhoffer reappearing throughout, notably in signature, along with his coat-of-arms and whatnot, along with what is likely direct quoting of him, which all pretty much proves that he studied and knew the whole variety of topics presented. Talhoffer must of course be directly responsible for authoring the 60% of the 1459-Thott which deals directly with personal combat; and we can assume he was quite familiar with the multitude of siegecraft shown and described, for if he was master-of-arms to a royal army, then such was likely. And there is no reason to doubt that he understood something of herbal lore, practical chemistry, basic physiology, athletic kinisiology and battlefield engineering – he certainly knew a lot about martial arts. We of course must consider the help of Rotwyler and Pflieger by their scribing and illustrating; and acknowledge Kyeser as author of *Battle Force* in Chapter 2, and the forthcoming Ebreesch as author of *Here Teaches* in Chapter 15. Yet all in all, most of this book was the direct work of Hans Talhoffer. The rest he must have approved and presumably edited, was familiar with and presented thusly along with the whole lot. So Talhoffer is the primary author, inasmuch as he is the book's primary contributor of content and its chief editor.

Notice that the captions for 100v and 101r seem mixed up. Thus if you switch them, then they make sense for the given illustrations – and that is what I did in my translation.

Folio 101v shows heralds or armigers of Talhoffer, while 102r shows Talhoffer's coat-of-arms. The two weapons-bearers of 101v are probably brothers of the Brotherhood of Virgin Mary & Saint Mark, as the one at right wears the winged-lion-badge of Saint Mark. This would indicate approval of Talhoffer by that brotherhood, probably as an esteemed teacher. Incidentally, it seems that a few diverse martial orders counted Talhoffer as a comrade during his lifetime, but he never seemed to be a member of any. Speculation that he is depicted as the one at right in folio 101v ignores the lack of any verb-of-being in the banner-text of folio 101v (something of a problem); and ignores the mismatch of visage to the later trusted portrait in plate 270 of 1467-Gothaer (quite a big problem).

In 102r of 1459-Thott, one may plainly see the swords crossed within the crown, which makes it quite clear that Talhoffer was master of arms to royalty. Some have wrongly suggested that this was a visual declaration that he was "king of fight-masters", something he never textually declared in any known coeval source. Notice the gospel-beasts of eagle (Saint John) and winged lion (Saint Mark), supporting with longsword and motto:

bedenck dich Recht Bethink Thee Right

The coat-of-arms in 1443-Gothaer (plate 13) would look the same if not for the overpainted imposition of a big anchor; while a stark version in 1450-Ambraser (plate 114) looks quite the same as the coat-of-arms in 1459-Thott. That raises two notions regarding the heraldry of Talhoffer. Firstly, the strange "anchor issue". This incongruity, actually downright fakery, in the coat-of-arms in 1443-Gothaer, seems easy to explain and may relate to the aforesaid possible Talhoffer-Kal rivalry. One may note such anchor-imagery in the coat-of-arms for Kal in the circa 1460-70 edition of his *Fechtbuch* (MS 1825). I conjecture that the 1443-Gothaer was altered later by some supporter of Kal to counterfeit one of Talhoffer's editions into one or Kal's editions – quite likely without the knowledge or approval of either of those masters. Secondly, the annoying "bourgeoise issue". The suggestion some make, that the coat-of-arms in 1459-Thott is a sort of bourgeoise seal-of-approval, is banal and disingenuous. Much too often such conjecturing seems the preferred course for modern lineage-fixated and tourney-fixated discussion of heraldry. The two most sensible things we may say about Talhoffer's heraldry are that it is meaningful and it is something he honestly earned – which is more than what most any modern so-called nobility may say of their own blazoned nonsense.

Talhoffer's motto brings us to a third theme in this work – that of right. This is not the mundane directional meaning (right & left) of technical passages. Rather, this is the multilayered philosophical meaning of the word which is linked to his theme of spirituality. Throughout the work, *recht* arises again and again and depending on the context, Talhoffer may mean the "rightful" way or art for fighting to stay alive; or when it is "right" to challenge another man to fight; or what is "rightful" ethically or morally; or what is "lawful" according to society; or what is "just" in treating others fairly; or what is a man's "right" to do, have or be; or sometimes a blend of a number of these meanings. Howsoever, Talhoffer's concern for what is right is clearly something he seriously fathomed and believed.

One last thing to consider is this question: What would Talhoffer say were the qualities of a good swordsman? This question of swordsmanly qualities is one that many modern fencing experts seem certain of the answer. But in 1459-Thott we find no mention at all of certain qualities often found in *romanze* yet seldom in *fechtbuch* – like courtesy, something frequently considered paramount in modern *salles* and foisted upon an unquestioning public by some *maestros*. Yet other qualities, like honour, are indeed found in the text of this fight-book and others; while arguably further qualities, like athleticism, are conveyed by the pictures; while moreover various relevant moral imperatives are certainly designated – like the causes for fighting a duel. Yet since Talhoffer does not state any swordsmanly qualities explicitly, then we must guess wisely. And indeed, we can makes some decent guesses, notwithstanding the ambiguity of the term "good swordsman". If "good swordsman" relates to mastership, then surely Talhoffer admired the one quality that all fighting men of his day, the knights, the chivalry, could agree was primary in a swordsman – prowess (which itself is a mix of qualities: boldness, might, skill, cunning, speed). If however "good swordsman" relates to morality, then surely Talhoffer admired qualities which embody the three themes of his fight-book – spirituality, secrecy and right. Yet why assume either-or? Perhaps Talhoffer thought a variety of qualities were needed to make a good swordsman, indeed, what we may call the Renaissance man. ~

9. Pavises, Weaponry & Clothing for Judicial Dueling (104r-110r)

In folios 104r-106v the mace-suited pavises have spiky tongue-rims while the sword-suited pavises have smooth or swirled claw-rims. In 107v-108r notice the specialised dueling longswords with spiky hilting (as per 1443-Gothaer, Dei Liberi & Codex Wallerstein) and one even where its pommel is screw-held (as per MS KK5013 & Gladiatoria) instead of peen-held. The specialised kampfschwert (as we may term it) as portrayed by Talhoffer in 1459-Thott has its later equivalent in the specialised la spada da combatete in arme as portrayed in 27v of Arte Gladiatoria by Filippo Vadi (1482-87). These longswords may even have been modular like the pollaxe in folio 110r.

Folio 108v shows special daggers for dueling. Two are spiky quillon-daggers, and one is a split-tail-dagger, the tail serving as anti-plate pry-bar; two disassemble; and interestingly none are rondel-hilted. There is another for everyday fighting, an archaic ballock-dagger, similar to those seen elsewhere in the work, with screw-held hilting, with sheath integrating two extra throwing-blades and a spike featuring either a finger-loop or poison-duct. If you look closely, you can see the faded / washed-out word *degen* at very bottom of page, as caption for that fourth dagger.

The modular pollaxe for dueling of 110r has the standard luzern head, as well as options for spear and/or gaff, any whereof assembles together with various spikes, all interlocking together with langets and threaded beast-head rivets to secure to the shaft. Such a bizarre pollaxe seems just the thing for the fighting featured in Chapter 13 – thus refer to comments there for more about dueling pollaxes.

One may notice the bizarre array of specialised dueling weaponry in 1443-Gothaer (plate 54) which closely matches that found in Chapter 9 of 1459-Thott.

The specialised body-suits of 107r, made of either linen or leather, cross-bedecked and worn barefoot, indicate religious ritual was part of the dueling.

For whatever reason, beginning with this chapter there exists noticeably higher colour-saturation of the pictures from this point forward in the book. ~

10. More Dueling with Pavises (110v-117r)

Notice in folio 113v the similarity to plate 61-right of the 1467-Gothaer – the *staut verkert* or "inverted stance" of each man. In the 1459-Thott it is for pavise and in the 1467-Gothaer for half-swording. Many moves do apply ubiquitously – often what can go for longsword can go for pollaxe, staff or pavise; or often what can go for wrestling can go for dagger; and often what can go for sword can go for messer.

Why folios 110v-139v, with exception of 119r, are completely bereft of text, is anyone's guess. ~

11. Swords, Messers & Bucklers (117v-123v)

Understanding of Talhoffer's teachings for blade & buckler fencing in folios 117v-123v is helped by familiarity with his 1467-Gothaer, but also with the sword & buckler plays of Liechtenauer via both Ringeck and Andreas Lignitzer (early 15th Century) and ultimately the sword & buckler system of the oldest known existent European fight-book, *Walpurgis* (aka *Tower Fechtbuch*, MS I.33, *Liutger Fechtbuch*) (circa 1280-1320). In regards to that, the obvious or plausible wards in Talhoffer's captionless portrayals are well-described (if not perfectly described) in terms of the Latin-German *custodiae* names that Liutger used – thus what is found in my interpretive translation.

Talhoffer and *Walpurgis* have somewhat differing styles for use of sword & buckler. Talhoffer mostly advocates moving the weaponry apart (as does Kal, 1462); while *Walpurgis* (and thus Jörg Wilhalm, 1523-56) mostly advocates moving them in twain – although 120v & 121r show that Talhoffer sometimes advocated twaining of the weaponry when needed (not unlike Ringeck and Lignitzer). Yet I.33 *custodiae* are apparent in Talhoffer's blade & buckler fencing, and indeed, his "system" for that may actually be a modified & simplified version of Liutger's system. The discernment of I.33 *custodiae* by Sydney Anglo; their interpretive development by Dieter Bachmann and David Rawlings; and the AGISE method of fight-book research by Bart Walczak; were all helpful to a *Walpurgis*-based nomenclature & descriptions for Talhoffer's wards:

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\sim 1^{st} = sub \ brach \ (beneath \ arm) - used 4 times
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- $\sim 2^{\text{nd}} = humero \ dextrali \ (\text{right shoulder}) \text{not used since its duties handled by } capiti$
- $\sim 3^{\rm rd} = humero \, sinistro \, (left shoulder) possibly used 1 time$
- $\sim 4^{th} = capiti$ (capital) used 6 times
- $\sim 5^{\text{th}} = dextro\ latere\ (right\ lateral)$ two versions used, standard and frontal variant used 5 times
- $\sim 6^{th} = pectori$ (breast) used 5, possibly 6 times
- $\sim 7^{\text{th}} = langort \text{ (longpoint)} \text{used 1 time}$
- $\sim 8^{\text{th}} = vidilpoge$ (fiddle bow) two versions used, standard and downward variant used 4, possibly 5 times
- $\sim 9^{th} = specificata\ langort\ (special\ longpoint) not\ used\ since\ its\ duties\ handled\ by\ sub\ brach$
- $\sim 10^{\rm th} = hut \, der \, walpurgis \, (Walpurgis \, ward) not \, used \, since \, its \, duties \, handled \, by \, capiti \, or \, humero \, dextrali$
- ~ 11th = halpschilt (half shield) possibly used 1 time (Note: This seems as much *custodia* as *obsessio*)

Talhoffer presents mutually applicable moves for buckler paired with differing blades – sword or messer. Wittenwiller agrees with Talhoffer regarding the principle of sword and messer sharing much the same technique-options. The swords in Chapter 11 could perhaps be considered shortswords; while the messers are more or less nice farming-hackers or hunting-falchions. Notice that in Chapter 6 an armiger (85r) has a messer. The messer was evidently a respected weapon in German fencing, yet an armament that even a poor man could own. It is interesting that Talhoffer presents both sword and messer as a partner for the buckler in 1459-Thott, since later in 1467-Gothaer he portrays the messer as a singular weapon and only the sword paired with the buckler there – which may indicate possible influence from the *messerfechten* of Johannes Lecküchner (1462) some time between those two editions.

Notice the forms of buckler illustrated – some are simple wheels, while others are more organic, like scalloped seashells. Regarding that form of buckler, it is interesting to notice descriptions of similar shields as early as the 12th Century in the Irish saga *Tain Bo Cualnge* (via *Lebor Laighnech*), which gives us tantalising phrases like *Cromsciath comfaebur chondualach fair* (He carried a curved shield with sharp crinkled rim).

Sword & buckler was certainly popular in England, and popular enough in Spain, the Netherlands and Germany. There are Swiss manuscript illustrations portraying the Burgundians bringing sword & buckler to battle, along with the rest of their arsenal. It should be understood that blade & buckler is as much a pairing of weapon & shield as it is a pairing of two weapons.

The messers in this chapter have riveted grips and catch-hooks. Notice also the variety of smithing marks at their cruxes. Why these should have them and not the swords may seem strange – although chevrons mark the cruxes of swords in 97r, 98v & 102r.

Unfortunately folios 118r and 118v have some missing visual information due to washed-out patches (action conceptually restored in this PDF of course by TZ). The conceptual restoration of 118r, showing the right-man striking from above, is quite consistent in its technique and style with other sword & buckler struggles portrayed by Talhoffer, notably in 1467-Gothaer, as one may ascertain from perusal of Chart 2 for that specific folio. ~

12. Horse-Fighting, Armoured & Unarmoured, with Various Weaponry (124r-130v)

The men and horses portrayed here go about armoured. The maneuvers here, both explicit and implied, agree with the basic tactics of many *roszfechten* (horse-fighting) sources: charging; utilising a simple set of strikes; striking as you stand in stirrups and in time with your horse's moves to lend force; being ready to change course as needed; clearing one's own horse while attacking; swerving after attacks; wrestling when needed; and keeping balance primary to staying mounted. To do such the horses needed to be highly trained in military dressage of lead-changing, turning, halting, collecting, charging and fleeing. Most notably Talhoffer's horse-fighting concords with that of Liechtenauer, and indeed, *Roszfechten* is really a mounted version of *Kampffechten*. Talhoffer's portrayals of horse-fighting in edition 1459-Thott demonstrate dynamic, circular "hunting" (*jagen*) as its nature, as often Liechtenauer via Von Danzig (1452) characterised it (again, refer to my *Knightly Dueling – the Fighting of German Chivalry*). This is clearly the case as well with mounted combat portrayals by Kal (1462) and *Goliath*.

Although some of these horse-knights in this chapter are going about with raised visors, they all have their helms squarely on their heads. Refer to comments for Chapter 6 regarding visors and helms of footmen.

Talhoffer shows the equestrian down-side of trying to draw off or avoid the lance-charging foe in 129v, as foe may get you anyway and so we have a small difference of advice between this folio and stanza 65 of Wittenwiller. Also notice the "mutual kill" of 134v, which shows why sometimes indeed two biers were needed after some duels were done.

The horse-harness in Chapter 12 is really quite the same as that of Chapter 7 – except that the curb-bits are fitted with single rein, as tends to behoove cross-country riding (although they are portrayed within barriers); and some of the straps sport jingle-bells. The horses in Chapter 12 seem more like rounseys or even ponys, although they are presumably meant to be coursers.

These knights seem to ride their steeds in the style which Dom Duarte termed *bravante*, thus his 1st, as well as his related 2nd and 3rd styles – which if multiple, would agree with his advocacy of riding adaptability – while no *gineta* and no barebacking (his 4th & 5th) are indicated. Notice that none of the fighters bears a shield to protect himself in these equestrian combat maneuvers, with the singular exception of both the jousters in 130v (see below). Also, they tend to have their sword-sheathes rigged at the left.

We must consider that some of the plays seem to imply untold cues from rider to horse in order to complete some of these movements. Even when portrayal of the action of both rider and horse seems rather full, anyone who has ridden a horse would probably agree that there is often more happening here than we are told. Surely the knowledgeable knight of the past could do those things – proper cueing with the arms via hands & reins or even palms & elbows; with the legs & feet via spurs & stirrups, and via thighs, knees & calves; with shifting of bodyweight; and of course with the voice. Plus, his well-trained steed may have needed no cues to make certain moves.

Also, the horse-fighting portrayed in this 1459-Thott and other editions by Talhoffer (especially 1450-Ambraser) deserves some remarking vis-à-vis coeval portrayal of tourney-jousting: We can see a marked difference in the nature of tourney-jousting as per the *Turnierbuch* (1477-89) by Marx Walther, and that of horse-fighting as per the *Fechtbücher* (1450, 1459, 1467) by Hans Talhoffer. Walther portrays a series of linearly colliding jousters in *stechzeug* with trumpet-lances, who pile up as each pair succeeds the next, which is clownish in comparison to what Talhoffer portrays – dynamically circling riders in field-harness with sharp lances hunting each other. The jousting (*tjostieren*) of the 14th to 16th Centuries was unquestionably dangerous combat sport – yet it simply was not the same as the coeval horse-fighting, which was deadly mortal combat.

In folio 130v we are treated to a scene of heavily plate-armoured knights jousting in full tourney regalia of *stechzeug* including frog-mouth helms and targes, riding in prow-saddles on chanfroned horses, charging each other with coronal-lances. Notice how hazardous it is, since there is no central tilt-rail dividing the jousters, which by this time was common to tourneys – yet none is portrayed in 1459-Thott, nor for that matter in any Talhoffer edition when dealing with any other *roszfechten* in earnest.

Refer to comments for Chapters 3, 6 and 7 for material relevant to wrestling, armour and mounted combat. So as not to completely repeat myself, please refer to comments for Chapter 7 for more about horses and horsemanship, and specifically for details about similar but slightly different horse-harness. ~

13. Pollaxe Dueling, Unarmoured & Armoured (131r-137v)

Among the pollaxes of 131r-137v are weapons which could be more accurately called luzern-hammers, ravens-beaks, pollaxe-gaffer-partizans, even tridents. Whatever one calls them, these armaments are as cruel and unusual as anything to be found in the arsenal of Chinese Kung Fu.

Although of independent spheres, the pollaxemanship of the German 1459-Thott and the French *Le Jeu de la Hache* (15th Century) are quite similar technically. That treatise asserts that a plurality of other weapons, including the longsword / greatsword (*grande espee*), proceed and depend (*procedent et despendent plusieurs glaiues*) upon the usage-model of the pollaxe; and that the pollaxe preserved both noble and non-noble persons (*pour la preseruation du corps humain noble ou non noble*) in judicial dueling. Talhoffer may find the first assertion stating the case in reverse, yet his portrayals do support the close similarity of method for both pollaxe and longsword; while regarding the second assertion, Talhoffer indicates nothing contradictory. And as far as technical comparison of *LJdlH* pollaxe to Talhoffer pollaxe, Anglo has established that a variety of stanzas in *LJdlH* practically serve as captions describing a variety of the portrayed moves in 1443-Gothaer and 1467-Gothaer.

Although a number of other weapons could and did figure into knightly judicial combat – like the mace, the pole-flail, the halberd and, of course, the notorious pollaxe – Von Danzig (for example) is emphatic that the three main and basic weapons of the German duel were considered the lance / spear, the longsword, and the dagger. In many ways pollaxe techniques are similar to what one may see in shortened-sword (*kurzes schwert*). However, as witnessed by thorough coverage from *Le Jeu de la Hache* (15th Century), Dei Liberi (1410) and Talhoffer (1450, 1459 & 1467), the pollaxe must have been a popular alternative choice for dueling.

Here the pollaxing men who are armoured tend to keep their visors lowered, probably a wise idea. Refer to comments for Chapters 6 & 12 for visor variance. Refer to comments about the modular pollaxe for dueling in Chapter 9.

Armoured fighting like this calls for seeking the gaps of the harness mainly by thrusting – and Talhoffer's portrayals are quite in line with what Liechtenauer via Von Danzig stated, *Leder und hantschuech unden den augen die plössen recht suoech* (Leather and gauntlets – face-to-face – rightly seek the gaps). The *coup-de-grace* with dagger of folios 136r & 137v is the kind of *unterhalten* (holding-down) found in other *harnischfechten* sources like MS KK5013, *Gladiatoria*, and Martein Hundtfeltz via Von Danzig (1452).

It should be remarked that the fine, symmetrical, steel harnesses portrayed here in Chapter 13, and earlier in Chapters 6 & 12, probably represent the actual craftwork of one or more of the centers of the great German armourer-guilds of Talhoffer's time – Augsburg, Innsbruck, Landshut, Nürnberg. Such field-harness portrayed here was nimbly articulated, symmetrically designed, and along with its arming-clothes may have wieghed no more than about 55 pounds total.

Similar presentation of armoured pollaxe fighting is in 1443-Gothaer (plates 76-81), in Kal (1462) and obviously *LJdlH*. However, one may notice that the pollaxing in 1467-Gothaer (plates 79-103) is exclusively unarmoured. ~

14. Proving One's Strength (138r-139v)

This chapter sort of reminds one of youthful contests at school and in scouting – where boys partake of friendly armwrestling, leg-wrestling, tug-of-war, stone-throwing and so forth. However, these scenes may portray common oudoor exercises and/or fun tests thereof, as part of a general fitness regimen. Talhoffer must always have been interested in fencing-supportive non-fencing exercises, as we find some exercises in plate 18 of 1443-Gothaer as well, ones which could fit right in with the ones presented here in 1459-Thott. Similar scenes of fencing youth partaking of physical exercise outdoors may be seen in such works as the famous astrological treatise *De Sphaera* (Lat. 209 – alpha X.2.14 – circa 1470), as well as many other Italian and German manuscripts of the 15th Century. ~

15. Here Teaches (150v-140r)

The *Hie Lert* (Here Teaches) seems to be the work of Jud Ebreesch, done at behest of Talhoffer. As far as I know, this is the one and only version of the work, unlike the *Battle Force* found earlier in this book, which is one of some thirty versions of *Bellifortis*. However, it is possible that one of those earlier versions of *Bellifortis* by Conrad Kyeser and/or some version of *De Sphaera* by John of Holywood and/or any number of untold works may have influenced or sourced this *Hie Lert*. In *Here Teaches* is found humanistic knowledge – numerals, *aleph-beth*, cosmology and human physiology. Instead of dismissing such a mix as a mess, it is more correct to think of it as akin to modern multidisciplinary study, indeed, a survey of knowledge from various fields circa 1459. I chose to translate things somewhat more literally in this chapter, so as to avoid overlaying modern scientific knowledge that could distort erstwhile meaning – thus instead trying to let the old text speak for itself – although some interpolation was needed and reasonable. Lastly, keep in mind that the astrology and astronomy were so mixed at that time, that it is arguable where the one began and the other ended – thus it makes more sense to term it as the cosmology.

However, we must be careful to realise that knowledge gained at that time from rediscovered Classical sources regarding physiology, herbology or astronomy, was not always entirely new stuff to Europe. The Renaissance was not a delivery or rescue of Europe from the Medieval by the rediscovered Classical – it was instead the blooming of Europe as it made itself into a World culture. As such, it was indeed fashionable during the Renaissance to find (or occasionally contrive attribution to) Classical sources for knowledge already centuries-known, thus often independently contained in "native" or "vulgar" or "folk" traditions throughout Europe; often earlier called leechdom, wortcunning or starcraft; and earlier practiced and taught, via spoken word, by monks, witches, healers, mages or midwives before the "discovery" of such by mercantile- & royal-funded academics. This cultural refurbishing is what I call the *Plough & Ursa Major Paradigm*. That said, onward.

In 150v there are numbers in blocks, patterns and sequences. Such were often used to predict or signify things in Talhoffer's time. Numerology was hardly seperable from various coeval disciplines and here its casual association with astrology, to which numbers were integral for casting horoscopes, is hardly surprising. All that got wrapped up too with medicine and the temperaments and so forth. It looks as if some now-unreadable phrase once was written at top of this folio, but was since erased.

In 150r Talhoffer utilises the Hebrew *aleph-beth* as a substituion cipher; and considering some of the words, there are possibly elements of the nomenclator as well. In any case, this crytographic use of the *aleph-beth* is transliterative rather than translative – thus a phonetic use, not linguistic. Incidentally, this code is not to be confused, in any way, with the hokum of the so-called "Torah Codes". Talhoffer may have also regarded the *aleph-beth* as a prayer, vis-à-vis *The Bible*'s treatment of Psalm 118 (Catholic), where each letter is expanded from phoneme to verse, hence the letter itself stood for the verse and listing the entire thing in his fight-book may have been as holy to him as engraving the entire spell-laden *futhark* into a sax-blade was to an ancient Teutonic blacksmith. To further explore that idea, also in 150r are ominous if not sardonic German phrases transliterated from Hebrew lettering, thus laid out backwards in a "mirror-code", that seem somewhat like sword-inscriptions. However, since most known sword-inscriptions on contemporary types were in the common Romanic lettering, this remains conjecture. Perhaps these are even meant as inscriptions on dueling targes. Anyway, notice in folio 150r the word *hurt* (similar to *hurtn* in 1443-Gothaer and *hurttn* in Liechtenauer *roszfechten* via Von Danzig) from German *hürten* / *hürzen* akin to English "hurtling" – which in context here means "lancing".

We are told in 149v that Jud Ebreesch here teaches (*hie lert*) Hans Talhoffer, Michel Rotwyler and Clauss Pflieger the humanistic knowledge in 150v-140r – thus he is the teacher portrayed for *Here Teaches*. However strange it may seem for Catholic Germans to be interested in such worldly lore, it is doubtless that indeed they were. It is plausible that in exchange for teaching him some cosmology and physiology, Talhoffer taught Ebreesch some martial arts as the law of that time and place would allow – probably wrestling, maybe dagger and messer fencing.

The designation of Ebreesch as "the Jew" is merely attributive, no different than saying John the Old Saxon or Harald Fair-Hair. At worst, it would be humorous for its redundancy, as *Ebreesch* equates with *Ebreisch* thus *Hebrew*. It should not go unsaid that the presence of Ebreesch's teachings and evident amity with Talhoffer and company actually is supportive of the concept of *Wissenschaft des Judentums*, a concept now fashionably vilified by modern-day intelligentsia. Also, knowledge of what is essentially Classical mytho-astrology by a Jewish scholar is not really all that odd, as shown by the Zodiac mosaic in the 6th Century Hellenic-Hebrew synagogue at Beit Alpha in Israel – such was the perpetual convolution of *Kabala*.

The astrology presented in *Here Teaches* is the typical Medieval European mix of natal and mundane, a sort of natural astrology as defined by English astrologer Roger of Hereford and Saint Thomas Aquinas during the 12th -13th Century: the Cosmos rules the nature of Man and the World, yet all are ultimately ruled by God. This sort of astrology was eventually accepted by the Church during the 14th Century. Even the antithetical judicial astrology – that one can determine the best course of one's affairs by divining how the Cosmos exclusively predetermines events of the World – was rarely, and even then pretextually, prosecuted by the Church. Going further back, all this had its origin in Greece with apparent influence from India and Persia, to be firmly established by Ptolemy in his *Tetrabiblos* and carried forth during the Medieval by the neoplatonic concept of divine causality upon cosmos leading to astrological causality upon man.

In *Here Teaches* the "Seven Planets" are the same as the Romans via the Greeks understood them to be. These are Saturn, Jupiter, Mars, Sun, Venus, Mercury and Moon. The heavenly bodies with the most dramatically changing orbits were "planets" to the Greeks, as per the meaning of the word as "traveller"; and sometimes to them a body was both a "star" and a "planet" (Venus, Mars, Comet). And of course all these bodies were gods as well to the Greeks. However, in order to make it quite clear where Talhoffer stands, the point is clearly made that God has ordained these planets – thus following in the Christian cosmological tradition of the "Prime Mover", as promoted by Albertus Magnus and continuing through Descartes and Newton. The Cosmos is ordered here as a hierarchy, called a "Sky-Realm" (himelrich) (147r), bespeaking that it was considered arranged and governed much like Europe of 1459. An artwork by Dürer called *The Astronomer* (1500) bespeaks the ongoing robust Renaissance interest for cosmology.

In some ways, the cosmological material here is better astronomically that astrologically – for no horoscope-casting advice is given and there is a glaring ommission from the Zodiac list at the end (dealt with later); whereas a number of surprising and correct insights about real cosmology are revealed (also dealt with later).

Often the presentation of the technology in this lore implies that it was also regarded as magic. The ancient belief that magic, mechanics and might were all basically equivalent is easy to understand when one realises that all three of those words share the common root of Aryan magh. Of interest in the astrology of Here Teaches is that it implies the Planets govern certain fields of human arts and sciences, thus ascribing to the ancient belief that technology was born of magic. Consider that in similar fashion, Talhoffer tells in 1443-Gothaer how knights of two allied orders (Saint George and Our Lady) thought the Planets could help one's combat or duel, believing that certain days of the week and hours of the day via the juxtaposition of Sun vis-a-vis Moon, in accordance with the letters of one's name, were more favourable for dueling than others; which he described by six circular diagrams attributively based upon reckonings by Pythagoras, Ptolemy, Plato, Aristotle and Hali; and which some may term kabbalic and/or assert derives from the onomatomancy of magician-physician Johannes Hartlieb (1403-68). Howsoever, Talhoffer ascribes this belief to those knights and does not advocate it himself – and in any case, we may notice the absence of such from this 1459-Thott and other later editions. The change from the vatic onomatomancy of 1443-Gothaer to the relatively more astronomical astrology of 1459-Thott seems a natural educative progression by Talhoffer that had its beginnings in the stargazing portrayed by that earlier edition. It is remarkable that said portrayals of stargazing also include praying beneath the night-sky, evincing Talhoffer's tendency to mix his spirituality with other aspects of his life.

Although *Here Teaches* has many of the usual nonsense-notions of astrology, and utterly wrong observances such as misreckoned orbit-times for some of the Solar System planets, it also has surprising astronomical conjectures and truths. Ebreech's main cosmological revelations are these:

- \sim Implied acceptance, in the parts about Saturn and Mars, of the existence of alien anthropoid-life on other planets of the Solar System (148r & 146v). The wrongness of this is beside the point the fact that it is casually mused is interesting. Although this is not some sort of explicit Drake Equation, it does be speak that humanity gave thought to this in the far past.
- \sim The Sun is a star and it shines by its own power (145v):

| Der Sonne ist ain kungklicher sterne und ain leycht und | The Sun is a kingly star and a light and eye to this |
|---|--|
| ouge Diser welt und er schinet durch sich selber und | World; and he shines by means of himself and outshines |
| erluschtet die andern stern alle | all the other Stars |

This first part of that seems to be an historiographically important scientific insight for 1459. Such would be more than a century before the earliest known assertion to that effect in 1584, when Giordano Bruno published his *De L'Infinito Universo e Mondi*, which was consequently furthered by Kepler and Descartes. However, since also Venus and Comet and so forth are also termed "stars", it may be that "star" is used both by happenstance and in the sense of the original meaning from Greek whereby each "planet" was considered an *aster planetos* (wandering star). The second part admittedly may be a far cry from realisation and understanding of solar nuclear fusion – however, it was a starkly correct and secular observation to make for that time.

~ The Moon reflects the light of the Sun to make it shine (144r & 142v):

Luna die mon erfüllet jren louff alle monat und erlücht die nacht und entlihnet ire liecht von Dem sonne und meret und mindert sich von dem sonne...und nympt also ir liecht von dem sonne...

Luna – the Moon – fulfills her course, all of a month and lights the night; and "borrows" her light from the Sun; and waxes and wanes because of the Sun...And thus she takes her light from the Sun...

~ The Cosmos changes, it transforms – thus the realisation of an evolving Universe (143r):

Cometa ist ain steren der selbe steren erschinet nymer dann so sich daz rich verwandeln wil So Comet is a "star" – this same star appears out-of-nowhere – thus the Sky-Realm will change.

Those things ought to be food for thought regarding Medieval and Renaissance understanding of cosmology.

In this cosmology, the planets are anthropomorphised into their namesake Roman deities, who occasionally speak directly to the reader (notably the Sun). Sometimes puzzlement happens when the god, the namesake planet and/or those born within the respective astrological signs are spoken of simultaneously and thus confusingly. Vivid are the character-descriptions of the planetary deities and the personalities of those humans born under their rule, often utilising reference to the standard Medieval "four-temperaments" – choleric, melancholic, phlegmatic and sanguinary. These were deemed related to manifold things since Medieval times, such as the "four elements" of fire, earth, water and air. All this also is found in the astrological folios (5a-12a) of *Bellifortis* (1400-Göttinger), where Seven Planets are graphically portrayed as anthropomorphic beings.

It was serious business to the Renaissance astrologer and/or physician: the belief that the planets and stars exerted supernatural influence upon events and persons of the Earth. Contrast that with natural influence: like stars indicating seasons and consequent planting and harvesting; sunlight making plants grow; lunar control of sea tides; asteroids smashing things and so forth. Indeed, Hippocrates said that planetary influence was a worthy study for a physician, and so it seems Ebreesch agreed. To that notion, one may notice the star-crossed "natures" of 143v that "move" (zühet) men, quite in the verbal transitive sense akin to how players "move" chessmen. Indeed, the lunar cycle, solar equinoxes and solstices, and constellar shifting all did coincide with, and thus seemed to control, the seasons of the Earth. Thus an astute person of 1459 may well have asked: Why not then Mankind?

Notice the pun on savour (geniessen) in 148v in context of the brood-eating Saturn. Also, let me explain my interpolation in 148v of wir as either we Germans or we Hebrews: If the sentiment of Talhoffer, then it would be a stance going back to Arminius and the Teutonic victory over the Romans. If the sentiment of Ebreesch, then it would be a stance going back to the destruction of the Temple and the Diaspora. Perhaps it is some of each. Yet pursuant to the latter, the context of Saturn vis-à-vis the Germans is possibly a metaphoric cognomen for Sentius Saturninus, the Roman general who failed to catch the German chief Maroboduus during invasion of Bohemia. And ironically, as Peter Wells points out, the manuscript containing Germania by Tacitus and other relevant texts which Bracciolini bragged of "liberating" from the "barbarians" for perusal by Italian humanists sometime after 1425 had been residing (presumably for a long time before then) in one of the many northern abodes of learning – a German monastery. So despite how politically incorrect it may be to mention such in modern academia, both the Germans and the Hebrews had a distinct and strong sense of themselves and their culture for centuries before 1459, heedless of Romanic definition.

A sizeable portion of the text of Chapter 15 is a scribal mess. Understandably, the scribe may have been weary at the time and seems to have regained himself once he started writing about the Sun – so perhaps he had then gotten some rest. Remember, however revered these books are, they may exhibit human traits, because indeed humans wrote them.

Sometimes there is the mythologically strange and ungrammatical gendering of Sun and Moon as in 146r and elsewhere (*der sonn und die mon*), which is either a mistake or is an odd example of pre-Aryan "solarization". However, the scribe varies the genders of certain astrological nouns repeatedly, which I put into the translation to convey that varied personification.

In 146r it states that Comet (*Cometa*) makes *great scarcity and hunger* in whatever land it is seen. However specious the association of comets with famine, we should remind ourselves that 1459 was over a century past the end of what climatologists and geologists now term the Medieval Warm Period, and thus well into the Little Ice Age – indeed reference to cold weather may be gleaned from folios 31v & 46v. The hardships of failed crops and perishing livestock leading to starving populace were lasting threats to Renaissance Europe, so comets as possible predictors of such were heeded seriously and probably did correlate illogically but often-enough with great climatic cold-spikes, natural disasters, agricultural failures, social upheaval and warfare as to suggest some connection or causality. Indeed, the Comet Halley cycled into visible perihelion in June 1456 – which makes it neatly plausible that the stargazing Talhoffer and/or the astronomical Ebreesch witnessed it as the specific *Cometa*.

In 144v it looks as though the word vowg (?) is scribbled at the bottom of the page.

For some odd reason, in 142v the month of June (strangely enough) and the sign of Cancer are missing from the Zodiac list (oops!). This mistake was probably not wittingly done, since prior mention of Cancer is made vis-à-vis Mars and the Moon in 146r and 143v. Thus again we are reminded that these venerable books, like any book, may sometimes contain errors.

Then as now, terrestial precession due to the Earth's axial wobble made the astrology described tropical instead of sideral and thus quite misaligned from true 15th Century constellar positions, and thus *Here Teaches* promoted the same faulty premise of the subject that continues even today.

Notice also the farming / hunting designations for some of the names of the months in folio 142v - a time when humans were very much in tune with the seasons and their meaning for the flora and fauna of their environment.

Various unknown masters (*maister*) and books (*buoch*) are referred to regarding certain aspects of the humanistic lore. The unnamed books mentioned or referenced are obviously astrological and physiological texts of some kind, probably copies of Greek, Indian, Persian or Babylonian originals. In 141v, Ebreesch refers to an apparent master of medicine as *allmonser*, from a book entitled *panthagin*, which is probably *Liber Pantegni*, a Latin medical treatise based upon Arabic-Persian and Latin sources by the 11th Century Benedictine monk, Constantine the African. The *allmonser* of 141v may be an attributive reference either to Caliph al-Mansur, the benefactor of the 8th Century Abbasid revival of Hellenic-Persian astronomical astrology; or a misnomer for the 9th Century Persian astrologer & writer Abu Ma'shar; or perhaps a convolution of both. Lastly, it should be remarked that *Here Teaches* does share some similarity with the anonymous contemporary (circa 1454) English medical & astrological compendium called *Physician's Handbook* (Wellcome MS.8004).

The ascribed interrelation of human physiology and astrology was prolific and was often depicted as the "Zodiac Man" in numerous illustrations for centuries, where each part of the human body was assigned a ruling sign. Thus the seemingly banal concern in *Here Teaches* for planetary and bodily qualities of hot, cold, dry and wet relates to the four elements thus four temperaments – the proper interpretation of which allowed an astrologer-physician to diagnose malady and prescribe of cure according to the accepted blend of occult and science at that time. This synthesis was supported by influential German contemporaries like astrologer-astronomer-mathematician Regiomontanus (1436-76).

Although *gelider* means "organs" in the context of 142v, we may contrast the context of 31v where it means "limbs / joints". A strange grammatical anomaly in 142r is the use of the almost exclusively intransitive *gehen* in a transtitive sense, more like *treiben* – thus "(make something) work or go" instead of "go (under own power)".

The word *niern* in 142r would seem to mean "kidneys" – however, the context makes it quite clear that this is a somewhat crude and archaic word meaning "bollix". Besides, it seems quite incredulous that anyone would confuse the function of these differeing organs. However, the word *niern* then does shift meaning to "kidneys" in 140v, again as per context. The use of the anachronistic (if not crude) term *niern* as opposed to something more contemporary like *hoden* indicates that the unnamed "book" that served as reference for this physiological lesson may have been written in an older form of German – although later printed German versions of astronomical work by Albertus Magnus arguably had a double-meaning for *niern*.

It is tempting to consider the text in 141r about the liver-originating artery "dealt into two parts" as a somewhat confused yet educated attempt to describe the hepatic artery and the portal vein – though I refrained from that. One may notice that the notions here about the heart, liver and circulation seem influenced by the half-correct model proposed by the Greek physician Galen (129-200). It was also tempting to translate *vili* as "villi (in the small intestine)" – yet refrained again. There also seems to be some comprehension of osmosis (with its odd analogy to magnetism), as well as the filtering function of the kidneys.

Thus, that a somewhat correct understanding of bodily systems, of a rudimentary and workable physiology, was known to at least a few thinkers in 15th Century Europe, is quite interesting.

The physiology here may be confused or wrong about certain things, yet the subject is inherently confusing to students of any time or advantage. (For example – pulmonary arteries carry venous blood while pulmonary veins carry arterial blood.) It seems natural that some understanding of how bodies work was gained by 15th Century Europe, considering that not just death but downright slaughter was familiar for centuries to these folk, whether of livestock, prey-beasts or battlefield foes, and so some knowledge of bodily workings and designs is really not surprising

The whole idea of human bodies and personas and of natures, temperaments and celestial bodies as interconnected may have been specious, yet it was actually admirable, in that it reached for a kind of "unified theory" of the Cosmos – an undertaking that continues today. The range of knowledge that Talhoffer presents in this book marks him as a true "Renaissance Man". ~

Charts

Chart 1 – Talhoffer Fechtbuch Bibliography

A confusing array of lists, dedicated solely or incidentally to stating the fight-book bibliography by/after Hans Talhoffer, is found everywhere from reputable tomes to precocious screeds. Having found such an arrangement wearisome and unworkable, I made the following chart, which is the only reasonably accurate and complete thing of its kind, which reckons all the relevant early sources known as of December 2006. Included are all the six original fight-book editions, which were most likely directly authored, edited and/or approved by Talhoffer himself, circa 1443-1467; and the ten later copies produced by various other personages, circa 1500-1850; thus sixteen versions total. Not included are any number of works that may have some analogous techniques yet really are not copies (like Codex Wallerstein – MS I.6.4°.2 Augsburg); nor the numerous works, dealing wholly or partly with Talhoffer, that were created after 1850 (like all the Hergsell books, 1887-89; and Medieval Combat by Rector, 2000); nor very brief partial copies (like Codex Guelf. 78.2 2° Wolfenbüttel). The entries are cross-referenced to each other; to my present work; and to the list by Hils of fight-books in the tradition of Liechtenauer via HK-#. The Talhoffer editions which Hergsell rendered include the prior {cataloguing code used circa 1887-89}. All six of the original Talhoffer editions naturally and verifiably share so much in common, that it is ridiculous, if not pointless, to speak of one or the other as a "copy" of another, as we may of the ten later copies produced after his passing; thus it is better to speak of how the originals are alike and unlike, thus relegating the academic arguments of derivation to those later copies – arguments that are basically meaningless to the martial arts therein anyway. Thusly onward. ~

Originals

- (1) Fechtbuch. Hans Talhoffer. 1443. Swabia or Franconia: MS Chart. A558. Forschungsbibliothek Gotha. {Ch. A. no. 558. Herzoglichen Bibliothek zu Gotha}. Cited heretofore as 1443-Gothaer. 151 folios. HK-20.
- **(2)** *Fechtbuch.* Hans Talhoffer. Circa 1447-50. Swabia: Hs. XIX, 17-3. Gräfliche Bibliothek Schloss Königseggwald. Made for Leutold von Königsegg. 73 folios. HK-26.
- (3) Fechtbuch. Hans Talhoffer. Circa 1450. Swabia: P 5342 B. Kunsthistorisches Museum, Wien. {Cod. Nr. 55 Ambras. Kaiser-Königlichen Ambraser Sammlung}. Made for Leutold von Königsegg. Cited heretofore as 1450-Ambraser. Miscalled by Hergsell, thus commonly miscited as, 1459-Ambraser. Determined by Hils as circa 1450. Sometimes touted as "copy or workshop-draft" of (2). 58 folios. HK-49.
- **(4)** *Fechtbuch.* Hans Talhoffer. Before 1459. Swabia or Franconia: 78 A 15. Kuperstichkabinett-Preuszischer Kulturebesitz, Berlin. Made for Brüdern vom Stain. 77 folios. HK-11.
- **(5)** Fechtbuch. Hans Talhoffer. 1459. Bayern: Thott 290 2°. Det Kongelige Bibliotek Copenhagen. Made for Talhoffer himself. Contains copy of *Bellifortis* by Kyeser & *Hie Lert* by Ebreesch. This is the edition at hand cited heretofore as 1459-Thott. 150 folios. HK-27.
- **(6)** *Fechtbuch.* Hans Talhoffer. 1467. Swabia: Cod. icon 394a. Bayerische Staatsbibliothek München. {Membr. 1. no. 114 Cypr. p. 22 LXXV. Herzoglichen Bibliothek zu Gotha}. Made for Eberhardt im Barte von Württemberg. Cited heretofore as 1467-Gothaer. *Medieval Combat* by Rector is based upon this edition. Sometimes touted as "copy" of (5). 137 folios. HK-35.

Copies

- (7) Fechtbuch und Kriegsbuch. Ludwig von Eyb der Jünger zum Hartenstein. Circa 1500. Franconia. MS B 26. Universitäts-bibliothek Erlangen. Copy (16r-61v) of material by Kal (Cgm 1507) and Talhoffer (6); yet mostly copy (62v-305v) of *Bellifortis* by Kyeser. HK-17.
- **(8)** *Bellifortis (Kriegsbuch).* Anonymous. Circa 1500-1530. Bohemia and Austria. Codex 5278. Österreichische Nationalbibliothek, Wien. Mostly a copy (1r-173v) of work by Kyeser; yet also textless copy (174r-203r) of material generically by Talhoffer (6). No HK-#.
- **(9)** *Das Solothuner Fechtbuch.* Anonymous. Circa 1510-50: Mscr. S 554. Zentralbibliothek Solothurn, Schweiz. Copy of Talhoffer (6) and Kal (Cgm 1507), probably moreso the latter. No HK-#.

- (10) Anonymous. Circa 1525-50: Libr. Pict. A 83. Staatsbibliothek Preussischer Kulturbesitz, Berlin. Copy of variety of material from Talhoffer (1)(3), Kal (Cgm 1507) and Wilhalm (Cgm 3712). This one is such a mix, that perhaps it should not be called a "copy" of any given work. HK-12.
- (11) Anonymous. 1561: Cod.I.6.2.1. Universitätsbibliothek, Augsburg. Copy of Talhoffer (2) mostly, and the rest copy of his (1)(3)(5). Once owned by Paulus Mair. HK-7.
- (12) Anonymous. 16th Century: Cod. Vindobonensis Ser. Nov. 2978. Österreichische Nationalbibliothek, Wien. Copy of Talhoffer (6). HK-52.
- (13) Anonymous. Late 17th Century: Philos. 61. Niedersächische Staats- und Universitätsbibliothek, Göttingen. Copy of Talhoffer material. HK-18.
- (14) Anonymous. Late 17th Century: Cod. Guelf. 125.16 Extrav. Herzog Augustbibliothek Wolfenbüttel. Copy of variety of material from Talhoffer (1)(6)(13) and Walpurgis (I.33). HK-55.
- (15) Anonymous. 1820: Cod. icon 394. Bayerische Staatsbibliothek München. Copy of Talhoffer (6) scribed by Julius Hamberger. HK-36.
- (16) Anonymous. 19th Century: Cod. icon 395. Bayerische Staatsbibliothek München. Copy of Talhoffer (1). HK-37.

Chart 2 – Comparison of 1459-Thott and 1467-Gothaer

Everyone's favorite – the comparitive chart. I have made this chart to show the relationship between Talhoffer's 1459-Thott edition (Thott 290 2°; Bayern; Kongelige Bibliothek, Copenhagen) and his 1467-Gothaer edition (Muenchener Cod. icon. 394a - via Hergsell or Rector). Analysis shows that when compared to the others, these two editions are the two most "complete" of the fight-master's works. Notice that the chart is done in primary reference to what is found in 1459-Thott – thus it lists all personal combat struggles (whether potential or actual) portrayed by 1459-Thott and states only those portrayals in 1467-Gothaer that are similar or identical (and sometimes there is more than one). The chart tries to show every correlation of pictured technique (despite differences in arms & armour, viewing angle and artistic style) - and failing that, states such as unique comparitively. Although the chart does not deal with the many differences and many similarities of wording, perhaps it is plausible to conjecture that Talhoffer had a sparser and unique personal vocabulary in 1459, whereas he made the vocabluary larger and more accessible for sake of Von Eberhardt in 1467. Not every assessment may gain universal approval and a few may be arguable. Some are ubiquitous to various weapons. Notice that sometimes the footwork portraved is a little different between 1459-Thott and 1467-Gothaer – for example, folios 66v-67r compared to plate 174. Also, the use of terms like "similarly" and "identically" may be too ambiguous for some. The term "identically" means that all the basic mechanics of the plays are practically or exactly the same. The term "similarly" means that the basic mechanics are decently close, but with some difference. For example, I cite 68v compared to 177-left: The earlier folio (1459) shows the stabbed foe using long-grip to hold his dagger, whereas the later plate (1467) shows foe using the short-grip for that (the deciding factor); plus the viewpoints in each are from opposite sides (not really the deciding factor); thus I termed the two portrayals as comparing "similarly". Again, for example, the move in 66v of the earlier edition is merely a progressed version, with differing footstep, of the move in 174-right of the later edition. Lastly, although some protrayals may be identical, their differing text indicates quite different originations for their matching fruitions – thus the case with folio 89r and plate 54. This chart can at least provide the reader a guide for comparing the two editions, and if he likes, for his own further analysis. ~

| Is this 1459-Thott | related to any 1467-Gothaer |
|--------------------|-----------------------------|
| fighting folio | fighting plate ? |
| 35v | No – unique |
| 49r | 190-left identically |
| 49v | 204-left identically |
| 50r | 195-left identically |
| 50v | 195-right identically |
| 51r | 196-right identically |
| 51v | 197-right identically |
| 52r | 191-left identically |
| 52v | 191-right identically |
| 53r | 192-left identically |
| 53v | 192-right identically |
| 54r | 193-left identically |
| 54v | 194-left identically |
| 55r | 193-right identically |
| 55v | 194-right identically |
| 56r | 217-right similarly |
| 56v | 197-left identically |
| 57r | 196-left similarly |
| 57v | 207-left identically |
| 58r | 201-right similarly |
| 58v | 205-right similarly |
| 59r | 206-left similarly |
| 59v | 201-left identically |
| 60r | 200-right identically |
| 60v | 200-left identically |
| 61r | 178-left identically |
| 61v | 178-left identically |
| 62r | 183-right identically |

Fight Earnestly

| 62v | 175-left identically |
|------------|----------------------------|
| 63r | 181-right identically |
| 63v | 172-right identically |
| 64r | 170-left identically |
| 64v | 171-left identically |
| 65r | 173-right identically |
| 65v | 175-right identically |
| 66r | 173-left identically |
| 66v | 174-right similarly |
| 67r | 174-left identically |
| 67v | 176-right identically |
| 68r | No – unique |
| 68v | 177-left similarly |
| 69r | 170-right identically |
| 69v | 176-left identically |
| 70r | 171-right identically |
| 70v | 172-left identically |
| 71r | No – unique |
| 71v | No – unique |
| 72r | No – unique |
| 72v | 83 similarly |
| 73r | No – unique |
| 73v | 81 identically |
| 73v
74r | No – unique |
| 74v | No – unique |
| 74v
75r | No – unique |
| 75v | No – unique |
| 75v
76r | No – unique |
| 76v | No – unique |
| 70v
77r | No – unique |
| 77v | No – unique |
| 7/V
78r | No – unique
No – unique |
| 78v | 42 similarly |
| 78v
79r | 223 identically |
| | ý. |
| 79v | 228 identically |
| 80r | No – unique |
| 80v | 243 identically |
| 81r | 244 identically |
| 81v | 245 identically |
| 82r | 246 identically |
| 82v | 247 identically |
| 83r | 248 identically |
| 83v | No – unique |
| 84r | No – unique |
| 84v | 68 identically |
| 85r | 69 identically |
| 85v | 70 identically |
| 86r | 71 identically |
| 86v | No – unique |
| 87r | 73 similarly |
| 87v | 53 identically |
| 88r | 39 identically |
| 88v | 40 identically |

Fight Earnestly

| 89v | 89r | 54 identically |
|--|------|--|
| 90r | | ž – |
| 90v 38 identically 91r 58 identically 91v 160 similarly 92r 59 similarly 92v 60 identically 93r No – unique 93v No – unique 94r No – unique 94r No – unique 95r No – unique 96r No – unique 96v 269 similarly 97r 254 similarly 97r 128 identically 98r 129 identically 98r 129 identically 98v 133 similarly 99r 133 similarly 99r 133 similarly 100r No – unique 100v 107-left & 108-right similarly 101r 109 identically 102v 128 identically 110r No – unique 111r 107 identically 111v No – unique 111r 107 identically 111v No – unique 112r 111 identically 112r 121 similarly 113r No – unique 114r No – unique 115r 168 similarly 115r 168 similarly 116r No – unique 116v 130 identically 117r 143 identically 117r 231-left identically & No – unique 116v 130 identically & No – unique 116v 130 identically & No – unique 117r 143 identically 117r 231-left identically & No – unique 118r 233/236/237-right similarly 119r 240 similarly 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 121r No – unique 121r No – unique | | ž – |
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| 102v | | - · |
| 103r | | |
| 110v | | |
| 111r | | |
| No - unique 112r | | |
| 112r 111 identically 112v 121 similarly 113r No – unique 113v 61-right similarly 114r No – unique 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically 118v 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 121r No – unique 121r No – unique 121v 237 identically No – unique 122v No – unique | | J |
| 112v 121 similarly 113r No – unique 113v 61-right similarly 114r No – unique 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 113r No – unique 113v 61-right similarly 114r No – unique 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically No – unique 122r No – unique No – unique 122v No – unique | | J |
| 113v 61-right similarly 114r No – unique 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically No – unique 122r No – unique No – unique 122v No – unique | | · · |
| 114r No – unique 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 114v No – unique 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 115r 168 similarly 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119v 231-right identically & No – unique 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 115v 120 & 121 similarly 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 116r No – unique 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | 5 |
| 116v 130 identically & 131 similarly 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically No – unique 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | · · · · · · · · · · · · · · · · · · · |
| 117r 143 identically 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | No – unique |
| 117v 231-left identically & No – unique 118r 233/236/237-right similarly & 232/240-right identically 231-right identically 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 118r 233/236/237-right similarly & 232/240-right identically 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 232/240-right identically 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 118v 231-right identically & No – unique 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | 118r | |
| 119r 240 similarly 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 119v 225 similarly & 233 identically 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 120r No – unique 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 120v No – unique 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | j |
| 121r No – unique 121v 237 identically 122r No – unique 122v No – unique | | |
| 121v 237 identically 122r No – unique 122v No – unique | | |
| 122r No – unique
122v No – unique | | No – unique |
| 122v No – unique | | 237 identically |
| 122v No – unique | 122r | No – unique |
| | 122v | |
| J | 123r | 228 similarly |

Fight Earnestly

| 123v | 229 similarly |
|------|---|
| 124r | 251 similarly |
| 124v | 252 identically |
| 125r | 253 identically |
| 125v | 256 identically |
| 126r | 257 identically |
| 126v | 220-right similarly |
| 127r | No – unique |
| 127v | No – unique |
| 128r | 262 identically |
| 128v | 220-right similarly |
| 129r | 265 similarly |
| 129v | No – unique |
| 130r | 269 similarly |
| 130v | No – unique |
| 131r | 01 similarly |
| 131v | 100 identically |
| 132r | 82 & 101 similarly |
| 132v | 47 similarly |
| 133r | No – unique |
| 133v | 63 identically |
| 134r | 64 & 65 identically |
| 134v | No – unique |
| 135r | No – unique |
| 135v | No – unique |
| 136r | No – unique |
| 136v | No – unique |
| 137r | 188-left & right identically; 201-right |
| | similarly; 203-left & right identically |
| 137v | No – unique |

Chart 3 – Comparison of 1459-Thott and Göttinger MS Philos.63

This is a comparison of portrayals in the *Battle Force* of 1459-Thott that are similar or even identical to plates in the only modernly published and reasonably available version of *Bellifortis* (Göttinger MS Philos.63), the facsimile transcribed & translated by Götz Quarg (VDI-Verlag GmbH; Düsseldorf; 1967). The 1459-Thott differs significantly from Göttinger MS Philos.63: the former is in German and the latter is in Latin, hence content of the pictures are compared, not that of text; the latter features more things than the former; the former sometimes has amalgams or permutations of things in the latter; and sometimes one version has more text for a given portrayal than the other. Also, due to its pell-mell layout, the Göttinger MS Philos.63 has nonstandard foliation (#a, b, Aa, Ab, etc) and not standard foliation like 1459-Thott (#r, v). I found that 54 of the 74 pictures in the *Battle Force* of 1459-Thott – thus 73% – compare demonstrably to plates in the *Bellifortis* (1400-Göttinger). Those other 20 may very well have come from another version of *Bellifortis* and/or may be originals. Not every assessment may gain universal approval and a few may be arguable. ~

| | ralated to any plate in Bellifortis |
|--------------------|-------------------------------------|
| Battle Force folio | (Göttinger MS Philos.63)? |
| 11r | No – unique |
| 11v | No – unique |
| 12r | No – unique |
| 12v | 131b similarly |
| 13r | No – unique |
| 13v | No – unique |
| 14r | No – unique |
| 14v | 43b similarly |
| 15r | 77a & 79a & 126b similarly |
| 15v | No – unique |
| 16r | No – unique |
| 16v | 30a & 47b-48a similarly |
| 17r | 46b identically |
| 17v | 36a similarly |
| 18r | 35b similarly |
| 18v | 36a similarly |
| 19r | No – unique |
| 19v | 39b-40a identically |
| 20r | No – unique |
| 20v | 39a similarly |
| 21r | No – unique |
| 21v | No – unique |
| 22r | 129b similarly |
| 22v | 42b-43a similarly |
| 23r | 83b-84a similarly |
| 23v | 50a similarly |
| 24r | 119a similarly |
| 24v | 94b similarly |
| 25r | 85a identically |
| 25v | 75b & 125b similarly |
| 26r | 66a identically |
| 26v | No – unique |
| 27r | 55a identically |
| 27v | 69a similarly |
| 28r | 71a similarly |
| 28v | 133b similarly |
| 29r | 70b identically |
| 29v | 75b-76a similarly |
| 30r | 127a identically |

Fight Earnestly

| 30v | 127a identically |
|-----|---------------------------------|
| 31r | 128b identically |
| 31v | 113b-114a-114b similarly |
| 32r | 128b identically |
| 32v | 132b similarly |
| 33r | No – unique |
| 33v | No – unique |
| 34r | 87b identically |
| 34v | No – unique |
| 35r | 54b similarly |
| 35v | 18b-19a similarly |
| 36r | 27a similarly |
| 36v | No – unique |
| 37r | 15a identically & 21a similarly |
| 37v | 23b-24a identically |
| 38r | 12Ab-13a identically |
| 38v | 26b identically |
| 39r | 110a similarly |
| 39v | 82a identically |
| 40r | 59a identically |
| 40v | 71b similarly |
| 41r | 54a similarly |
| 41v | 105b similarly |
| 42r | 109b & 119b-120a similarly |
| 42v | 109a similarly |
| 43r | 109a-109b similarly |
| 43v | 62a similarly |
| 44r | 62a similarly |
| 44v | 88a similarly |
| 45r | No – unique |
| 45v | 90b-91a similarly |
| 46r | 95b similarly |
| 46v | 62b similarly |
| 47r | 116a identically |
| 47v | 125b similarly |
| 48r | No – unique |
| 48v | No – unique |

Bibliography

Primary Source

Fechtbuch; Hans Talhoffer (auth); Bayern; 1459; Thott 290 2°; Det Kongelige Bibliotek Copenhagen

Secondary Sources

The Age of Chivalry: Arms and Uniforms, Volume 1; Fred Funcken & Liliane Funcken (auth & illus); Prentice Hall; 1983

The AGISE Research Method; Bartomiej Walczak (auth); from Maîtres & Techniques de Combat (Fabrice Cognot – edit); France; 2006

Albrecht Dürers Fechtbuch von Friedrich Dörnhöffer; Michigan State University Libraries; East Lansing; 2001

American Heritage Dictionary of Indo-European Roots; Calvert Watkins (edit); Marion Severynse (edit); Houghton Mifflin; Boston; 1985

Des anciens tournois et faictz d'armes; Antoine de la Sale (auth); circa 1458; from Traicté de la forme et devis comme on faict les tournois. Par Olivier de la Marche, Hardouin de la Jaille, Antoine de la Sale etc.; Bernard Prost (edit); A Barraud; Paris; 1878

Ancient Catapults; Werner Soedel & Vernard Foley (auth); Scientific American; March 1979

Andreas Lignitzer's Dagger Techniques from the Peter von Danzig Manuscript; Bartholomew Walczak (transl); Armaria; 2006 (from 1452)

Angels Around the Crystal: the Prayer Book of King Wladislas and the Treasure Hunts of Henry the Bohemian; Benedek Lang (auth); Aries Vol. 5, no. 1; Koninklijke Brill NV; Leiden; 2005

Anonymous of the Hussite Wars; circa 1470-80; Bayerishe Staatsbibliothek München; Codex Latinus Monacencis 197, part 1.

The Archaeology of Weapons; Ewart Oakeshott (auth & illus); Barnes & Noble; New York; 1994 (2nd edit)

The Armourer and His Craft: from the XIth to the XVIth Century; Charles Ffoulkes; Dover; 1912 (1998 reprint)

L'art du combat à cheval au XIVe et XVe siècles dans le Saint Empire romain germanique, d'après les traités d'escrime; Michäel Huber (auth); unpublished courtesy manuscript; Arts d'Armes; France; 2006

Arte Gladiatoria: 15th Century Swordsmanship of Master Filippo Vadi; Luca Porzio (transl) & Gregory Mele (transl); Chivalry Bookshelf; 2003 (from 1482-87)

Astrology: A History; Peter Whitfield (auth); Harry Abrams Inc; New York; 2001

Astrology: Secrets in the Stars; Tim Evans (prod); film (60 min); A&E Network; 1996

The Atlas of the Crusades; Johathan Riley-Smith (edit); Facts-On-File; London; 1990

Bald's Leechbook: British Museum Royal Manuscript 12.D.xvii: CE Wright (auth); Early English Manuscripts in Facsimile 5; Rosenkilde & Bagger; Copenhagen; 1955 (from circa 890-960)

The Basic Guards of Medieval Longsword; John Clements (auth); ARMA website; 2004

The Battle That Stopped Rome; Peter Wells (auth); WW Norton; New York; 2004

Bellifortis; Conrad Kyeser aus Eichstätt (auth); Ingolstadt; cica 1440; MS 16.0.7. Tiroler Landesmuseum Ferdinandeum Bibliothek, Inssbruck (FB 32.009)

Bellifortis; Conrad Kyeser aus Eichstätt (auth); circa 1400; MS Philos.63. Niedersächsische Staats- und Universitätsbibliothek, Göttingen

Bellifortis; Conrad Kyeser (auth); early 15th Century; Vatican Library, Rome; Pal. lat. 1994

Bellifortis; Conrad Kyeser (auth); circa 1440-50; Österreichische Nationalbibliothek Wien; Cod. Nr. 3068

Bellifortis; Götz Quarg (transcr & transl); facsimile of Göttinger MS Philos.63; VDI-Verlag GmbH; Düsseldorf; 1967 (from 1400)

Bellifortis (Kriegsbuch); Conrad Kyeser (auth) & Hans Talhoffer (auth); circa 1470-1530; Bohemian & Austrian; Österreichische Nationalbibliothek Wien; Cod. Nr. 5278

Bellifortis / Feuerwerkbuch; Konrad Kyeser (auth); circa 1402-25; MS Philos.64; Niedersächsische Staats- und Universitätsbibliothek; Göttingen

Berner Chronik; Diebold Schilling (auth); Stadtbibliothek Bern; 1483

Blossfechten and the Fechtschulen: German Judicial and Sport Dueling from the Dark Ages to the Renaissance; Michael W. Rasmusson (auth); Journal of Western Martial Arts, June 2003

Brief Introduction to Armoured Longsword Combat; Matt Anderson (auth) & Shane Smith (auth); ARMA website; 2004

Das Buch aller verboten Künste des Aberglaubens und der Zauberei; Johannes Hartlieb (auth); Falk Eisermann & Eckhard Graf (edit); Param; Ahlerstedt; 1989 (from 1456)

Caballus et Caballarius in Medieval Warfare; Bernard S. Bachrach (auth); The Study of Chivalry: Resources and Approaches; Howell Chickering & Thomas H. Seiler (edit & edit); Medieval Institute Publications; Kalamazoo; 1988; De Re Militari; 2003

Calendar of Patent Rolls; anonymous; England; 17 October 1271; from unpublished edit by Matt Easton; 2006

Cartulaire de L'Abbaye de St. Serge; Yves Chauvin (edit); Memoire dactylographie soutenu devant la Faculte des lettres de Caen, Vol.1; Caen; 1969

Castle; David Macaulay (auth & illus); Houghton Mifflin; Boston; 1977

Cgm 582 – Johannes Leckuchner; Ochs (transcr) Marcin Surdel (comment) Monika Maziarz (edit); ARMA-Poland; 2005 (from 1462)

Cheyenne Dog Soldiers: A Ledgerbook History of Coups and Combat; Jean Afton, David Fridtjof Halaas, Andrew E. Masich, Richard N. Ellis (all auth); University Press of Colorado; Boulder; 2000

Chivalry and Violence in Medieval Europe; Richard Kaeuper (auth); Oxford University Press; Oxford; 1999

Chivalry in the Renaissance; Sydney Anglo (edit); Boydell Press; Woodbridge; 1990:

- How to Kill a Man at Your Ease: Fencing Books and the Duelling Ethic; Sydney Anglo (auth)
- Tournaments and the German Chivalric Renovatio: Tournament Discipline and the Myth of Origins; William Jackson (auth)

ChristStory Christian Bestiary; Suzetta Tucker (auth); ChristStory Christian Legends & Symbols website; 1998.

Chronica Hungarorum; Thuróczi János (auth); Theobald Feger (edit) & Erhard Ratdolt (print); Augsburg; 1488; Inc. 1143; Bibliotheca Corviniana Digitalis

Chronicles; Jean Froissart (auth); Geoffrey Brereton (transl); Penguin Classics; London; 1978 (from 1400)

The Classic Suit of Armor; Keith Coleman, Alexander Knight, Angela Leo, John Prudente (auth x4); Jeffrey Forgeng (advis); Worcester Polytechnic Institute; 2006

Codex Wallerstein; aka MS I.6.4°.2 Universitaetsbibliothek Augsburg; Grzegorz Zabinski (transcr & transl); Bartlomiej Walczak (transl & interp); Paladin Press; Boulder; 2002 (from 1450s)

The Complete Encyclopedia of Arms & Weapons; Claude Blair (edit) & Leonid Tarassuk (edit); Simon & Schuster; New York; 1982

Conditioning for Armoured Activities; Casper Bradak (auth); ARMA-Ogden Utah website; 2005

Constantine the African and 'Ali Ibn Al-'Abbas Al-Magusi: The Pantegni and Related Texts; from Studies in Ancient Medicine Vol. 10; Charles Burnett & Danielle Jacquart (edit); Brill Academic; 1994

Cosmic Connections; Time-Life Books; Richmond; 1990

Cosmos; Carl Sagan (auth); Random House; New York; 1980

The Crown; translation of *Diu Krône*; Heinrich von dem Türlin (auth); JW Thomas (transl); Universtiy of Nebraska Press; Lincoln & London; 1989 (from circa 1210-40)

Dagger in Codex Wallerstein; Bart Walzcak (auth); ARMA-Poland; Dijon-2003 worksheet

Das Deutsche Turnier im XII und XIII Jahrhundert; Felix Niedner (auth); Weidmannsche; Berlin; 1881

Deutsches RechtsWörterbuch (DRW); Heidelberger Akademie der Wissenschaften website; 2004

Deutsches Wörterbuch; Jacob Grimm (auth) & Wilhelm Grimm (auth); S. Hirzel; Leipzig; 1854-1960

That Diabolic Instrument of War: Reconstructing the Early Firearms of the Middle-Ages; David Lazenby (auth); Middelaldercentret; 1999

Die Dresdner Fussturnier-Ordnung von 1650; Erna von Watzdorf (auth); Zeitschift für Historische Waffen- und Kostumkunde Vol.6 Num.15; Berlin; 1937-39

Duel of the Century: The Judicial Combat of Jarnac and Châtaigneraye - France, 1547; John Clements (auth) & Belinda Hertz (auth); ARMA website; 2004

Dueling As a Screening Device; Douglas Allen & Clyde Reed (auth x2); Simon Fraser University; 2002

Elementary Human Physiology; Terrence Rogers (auth); Wiley & Sons; New York; 1961

Erstes Buch Landrecht; from Cod.Guelf. 3.1 Aug.2; middle 14th Century; Wolfenbüttler Bilderhandschrift

L'escrime équestre de Liechtenauer; Michäel Huber (edit & comment); Arts d'Armes website; France; 2004

European Armour circa 1066 to circa 1700; Claude Blair (auth); Crane, Russak and Co; New York; 1972 (2nd edit)

Experimental Reconstruction of a Medieval Trébuchet; Peter Vemming Hansen (auth); Acta Archaeologica vol. 63, 1992; reprinted by Middelaldercentret; 1999

Fecht und Ringerbuch; anonymous; 1508; Germany; Manuscript E.1939.65.341; Glasgow Museums Scotland

Fechtbuch; anonymous; circa 1445; Codex Vindobonensis B 11093; Österreichischen Nationalbibliothek

Fechtbuch; Paulus Kal (auth); Bayern; 1462; Cgm 1507; Bibliotheca Palatina Mannheim; Bayerische Staats Bibliothek; online facsimile; 2006

Fechtbuch; Paulus Kal (auth); circa 1460-70; MS 1825; Biblioteche Università di Bologna

Fechtbuch; Jörg Wilhalm (auth); circa 1523-56; Cgm 3712; Bayerische Staatsbibliothek München; Armaria facsimile; 2004

Fechtbuch von Albrecht Dürer; Albrecht Dürer (illus); Nürnberg; 1520; Handschrift 26-232; Armaria; 2003

Fechten mit dem Zweihänder; anonymous; Germany; Armaria; 2006 (from 1935)

Das Feuerwerkbuch (anonym, Anfang 15.Jahrhundert); Ferdinand Nibler (transl & edit); based upon Freiburger Handschrift MS 362 (1432) & Druck by Heinrich Stainer (1529); self-published PDF; 2004

Fight-Book Clues to Quality and Build of Knightly Weaponry; Jeffrey Hull (auth); Ragnarok Works; Kansas; 2007

The Fight-Book of Hugues Wittenwiller from Late 15th Century; Jeffrey Hull (transl); ARMA website; 2005

Fighting for Fun? - What Was At Stake in Formal Deeds of Arms of the 14th Century?; Steven Muhlberger (auth); Nippissing University History Department website; 2001

Fighting for Land - Fighting for Power: War Aim Making in Renaissance Europe; Harald Kleinschmidt (auth); The Way of the Knight and the Aesthetics of Women; Rosemarie Deist (edit); Goeppingen; Kuemmerle; 2003; De Re Militari; 2003

Fighting on Horse: Flos Duellatorum; Fiore dei Liberi; Hermes Michelini (transl); Knights of the Wild Rose website (now nonexistent); 2001

Fior Di Battaglia (Morgan Version): Prologue Translation – Work In Progress; Fiore Dei Liberi (auth); Matt Easton (transl); Schola Gladiatoria website; 2004 (from 1410)

Fiore Dei Liberi: 14th Century Master of Defence; John Clements (auth); ARMA Historical Study Guide; ARMA website; 2006

Flos Duellatorum in armis, sine armis, equester, pedester; Fiore Dei Liberi (auth); Francesco Novati (edit); Pissani-Dossi edition; Bergamo; 1902 (from 1410)

From Crecy to Mohacs: Warfare in the Late Middle Ages (1346-1526); XXII Colloquium of the International Commission of Military History; Heeresgeschichtliches Museum Wien; 1997:

- Hungarian Strategy Against the Ottomans (1365-1526); Gyula Razso (auth)

German Bishops and their Military Retinues in the Medieval Empire; Benjamin Arnold (auth); German History Vol.7 Num.2; German History Society; 1989; De Re Militari; 2002

German Medieval Armies: 1300-1500; Christopher Gravett (auth) & Angus McBride (illus); Osprey Publishing; Oxford; 1985

German Tournament Regulations of the 15th Century; Joachim K Rühl (auth); Journal of Sport History Vol.17 No.2; Summer 1990

Die Geschichte des Turniers; Richard Barber & Juliet Barker (auth x2); Patmos Verlagshaus; Düsseldorf; 2001

Getting Punchy - Fist-Fighting, Wrestling and Fight-Books; Jeffrey Hull (auth); Ragnarok Works; Kansas; 2006

Goliath; Anonymous; 1510-20; MS Germ. Quart. 2020 (5879); Biblioteka Jagiellonska Kraków

Gregory's Chronicle: 1403-1419, 1435-1450, 1461-1469; from *The Historical Collections of a Citizen of London in the Fifteenth Century*; 1876; from unpublished edit by Matt Easton; 2006

A Guide to Old English; Bruce Mitchell (auth), Fred Robinson (auth); Basil Blackwell; Oxford; 1986 (4th rev.ed.)

Die Handschriften Paulus Kals; Johann Heim, Carsten Lorbeer, Julia Lorbeer, Andreas Meier, Marita Wiedner (auth x 5); Gesellschaft für Pragmatische Schriftlichkeit; Deutschland; 2006

Hanko Döbringer's Fechtbuch from 1389; Hanko Döbringer (auth); David Lindholm (transl & edit); from facsimile of Cod.HS.3227a; Germanisches Nationalmuseum, Nürnberg; PDF at ARMA website; 2005

Hans Wurm's Ringbuch c.1507 – a Translation and Commentary; Keith Myers (transl); ARMA website; 2002

The Herb Book; John Lust (auth); Bantam Books; New York; 1974

Herbarius Latinus; Jean Bonhomme (publ); 1486; Paris; Cushing & Whitney Medical Library

The High Middle Ages: 1000-1300; Bryce Lyon (edit); Free Press; London; 1964

History of Art; Horst Woldemar Janson (auth); Prentice-Hall & Abrams Inc; New York; 1981 (2nd edit)

The History Of Western Magic: Some Considerations; Dieter Harmening (auth); Folklore Vol. 17; Mare Kõiva & Andres Kuperjanov (edit); Electronic Journal of Folklore; 2001

The Holy Bible; Douay-Rheims Catholic version; Douay Bible House; New York; 1941

Horses and Crossbows: Two Important Warfare Advantages of the Teutonic Order in Prussia; Sven Ekdahl (auth); The Military Orders, Volume 2: Welfare and Warfare; Helen Nicholson (edit); Aldershot; Ashgate; 1998; De Re Militari; 2003

Horses in Shakespeare's England; Anthony Dent (auth); Sydney R Smith; England; 1987

How Art Made the World; Nigel Spivery (present) & Mark Hedgecoe (prod); documentary series (300 min); BBC; 2005

How Were Swords Really Made?; John Clements (auth); ARMA website; 2006

Images des Arts mécaniques et figure de l.ingénieur à la Renaissance autour du Théâtre des instruments mathématiques etmécaniques de Jacques Besson, ingénieur dauphinois du XVIème siècle; Marie Hassani (auth); DESS RIDE / ENSSIB; 2003

Images from 15th Century Fechtbuch, "Gladiatoria"; Anonymous; ARMA website; 2002 (from 1435-40)

Images from 15th [sic] Century Fechtbuch, "Goliath"; Anonymous; ARMA website; 2003 (from 1510-20)

The Importance of Studying Fechtbücher; Bartlomiej Walczak (auth); ARMA website; 2003

The Importance of Studying Historical Treatises; Bartlomiej Walczak (auth); Journal of Western Martial Art, Vol 2002

The International Background of Castle Building in Central Europe; Walter Janssen (auth); Danish Medieval History: New Currents; Niesl Skyum-Nielsen and Niels Lund (edit & edit); 1981; De Re Militari; 2003

1.33 Sword & Buckler; David Rawlings (auth); Boar's Tooth website; 2004 (circa 1280-1320)

Introduction to Joachim Meyer, 1570; Jacob Norwood (auth); Armaria; 2004

The Invention of the Counterweight Trebuchet: A Study in Cultural Diffusion; Paul Chevedden (auth); Dumbarton Oaks Papers Num.54; Alice-Mary Talbot (edit); 2000

Iudicio et Ferro: the Tools of the Wager of Battle; Martin Reznick (auth); AHF website; 2002

Le Jeu de la Hache: A 15th Century Treatise on the Technique of Chivalric Axe Combat; Sydney Anglo (transl & edit); Bibliothèque Nationale de France, Manuscrit français 1996; article originally in Archaeologia Vol. CIX, 1991; unpublished revision 2006

Jihad in the West; Paul Fregosi (auth); Prometheus Books; New York; 1998

Joachim Meyer 1570: Dolchfechten und Ringen; Jacob Norwood (auth); Armaria; 2006

Jud Lew - Meister Mertein Hundβfeld "Kurzes Schwert"; Monika Maziarz (transcr); ARMA-Poland website; 2004 (from 1452)

Judicial Armoured Dagger Combat of Gladiatoria and KK5013; Bartlomiej Walczak (auth); unpublished; Poland; 2006 (from 1435-40 & 1425-30)

Kings and Queens of England and Great Britain; Eric Delderfield (auth&edit) & DV Cook (auth); David & Charles; 1975

Knightly Dueling – the Fighting of German Chivalry; Jeffrey Hull (transcr, transl & comment) & Monika Maziarz (transcr) & Grzegorz Zabinski (transcr); Ragnarok Works; USA & Europe; 2006 (from 15th Century)

KK5013 – Transkription; Carsten Lorbeer (auth) & Marita Wiedner (edit); Gesellschaft für Pragmatische Schriftlichkeit; Deutschland; 2006 (from 1425-30)

Das Kloster der Minne: Edition und Untersuchung; Maria Schierling (transl); Göppinger Arbeiten sur Germanistik, Num.208; Göppingen; 1980 (from middle 14th Century)

A Knyght There Was: the Evolution of the Knight in Literature; Charles Moorman (auth); University of Kentucky Press; Lexington; 1967

Kriegsbuch; Philipp Mönch (auth / illus); Heidelberg; 1496; Cod. Pal. germ. 126; Universitätsbibliothek Heidelberg

Kriegsbuch und Fechtbuch. Ludwig von Eyb der Jünger zum Hartenstein (auth); Franconia; MS B 26. Universitätsbibliothek Erlangen; circa 1500

Kriegstechnische Bilderhandschriften zwischen Magie und Handwerk. Ein Vergleich zwischen Konrad Kyesers 'Bellifortis', dem Cgm 600 und anderen Codices; Rainer Leng (auth); Bildervortrag aus der Vortragsreihe der Forschergruppe; Universität Würzburg; 1995

Künst vnd Zedel ym Messer – Fechthandschrift Cgm582; Johannes Lecküchner (auth); Carsten Lorbeer, Julia Lorbeer, Johann Heim, Robert Brunner, Alexander Kiermayer (all transcr); Ochs & Gesellschaft für Pragmatische Schriftlichkeit; Deutschland; 2006 (from 1462)

Liechtenauer's Sword & Buckler Teachings; Keith Myers (auth); ARMA website; 2002

Liber Chronicarum; Schedel; Wolgemut; Pleyenwurff; Alt; Koberger; Füssel; Nürnberg; 1493; bound uncoluored Latin edition; Wilson Collection; Multnomah County Library

Liber de Arte Gladitoria [sic] Dimicandi: Text and Images from Fillipo Vadi's "Book on the Art of Fighting with Swords" - c. 1482 - 1487; Luca Porzio (transl); ARMA website; 2002

Liber Tertius de ingeneis ac edifitiis non usitatis; Mariano di Jacopo Taccola; Florence; 1433; Cod. palat. 766; Biblioteca Nazionale Centrale

The Life-and-Death Duel Between James le Gris and John de Carogne; Jean Froissart (auth), Thomas Johnes (transl), Steven Muhlberger (edit); Deeds of Arms: Tales from Froissart; Nipissing University website; 2003 (from 1400)

The Literary Tradition of Renaissance Martial Arts; John Clements (auth); unpublished; 2006

Little Ice Age; History Channel; film (120 min); USA; 2006

Liutger – I.33; Dieter Bachmann (auth); Freywild website; 2003 (from 1280-1320)

The Longsword Fight-Lore of Mertin Siber; Mertin Siber (auth); Jeffrey Hull (transcr, transl, edit); 2006 (from 1491); unpublished revision of Mertin Siber's Longsword Fight-Lore of 1491 AD; ARMA website; 2005

MS Ashmole 1431 (Herbal); Pseudo-Apuleius (auth); 1070-1100; Canterbury; Bodleian Library Oxford

MS KK5013; anonymous; Germany; 1425-30; Kunsthistorisches Museum Wien

MS Sloane 4016 (Herbal & Beastiary); anonymous; circa 1440; Lombardy; British Library

Martein Hundsfeld's Dagger from Peter Von Danzig; Bartholomew Walczak (transl); Armaria; 2006 (from 1452)

The Martial Arts of Renaissance Europe; Sydney Anglo (auth); Yale University Press; 2000

Master Ott's Wrestling; Sylwester Tyra (auth), Bart Walczak (transl), Monika Maziarz (transl); ARMA website; 2005 (from early 15th Century)

The Mastercuts – What They Are and What They Aren't; Bartholomew Walczak (auth) & Jacob Norwood (auth) & Stewart Feil (edit & photo); ARMA website; 2004

The Medieval Art of Swordsmanship: A Facsimile & Translation of Europe's Oldest Personal Combat Treatise, Royal Armouries MS I.33; Jeffrey Forgeng (edit); Chivalry Bookshelf; 2003

Medieval Combat; Hans Talhoffer (auth); Mark Rector (transl & interp); Greenhill Books; London; 2000 (from 1467)

Medieval Europe – A Short History; C Warren Hollister; Alfred A Knopf; New York; 1982 (5th edit)

Medieval Cryptography; Sarah Goslee (auth); Astronomicum website; 2006

Medieval Diving Dress; David Lazenby (auth); Middelaldercentret; 1999

The Medieval German Art of the Longsword; Jeffrey Forgeng (auth); Higgins Armory; 2003

Medieval Gunpowder Research Group: Report Number 4, August 2005 - Sulphur; Robert Smith (edit); Middelaldercentret; 2005

Medieval Meat Cutters; James Knowles (prod-direct); ARMA-Ogden website; QuickTime; Utah; 2004

Medieval Siege; Allen Ritsko (dir); NOVA-Secrets of Lost Empires II; film (60 min); PBS-TV; USA; 2000

Medieval Siege Warfare: a Reconnaissance; Bernard Bachrach (auth); The Journal of Military History Vol.58 Num.1 (January 1994); De Re Militari; 2003

Medieval Swordsmanship; John Clements (auth); Paladin Press; Boulder; 1998

Meister Johann Liechtenauers Kunst des Fechtens; Martin Wierschin (auth); CH Beck'sche Verlagsbuchhandlung; München; 1965

Meister Johann Liechtenauers Kunst des langen Schwertes; Hans-Peter Hils (auth); Peter Lang; Frankfurt-am-Main; 1985

Meister Johannes Liechtenauers Kunst des Fechtens; Didier de Grenier (auth); Arts d'Armes website; 2003

Der Meister sol auch kennen schreiben und lesen: Writings about Technology ca. 1400-ca. 1600 A.D. and Their Cultural Implications; Bert S Hall (auth); Early Technologies, Vol. 3: Denise Schmand-Besserat (edit); Los Angeles; Undena Publications; 1979; University of Toronto website; 2006

Mémoires d'Olivier de La Marche; Olivier de la Marche (auth); Henri Beaune (edit) & Jules d'Arbaumont (edit); Librairie Renouard, H. Loones; Société de l'Histoire de France; Paris; 1883-88 (from 1435-92)

Mertein Hündsfelder: Fechtlehre mit dem Kurzen Schwert: Fight-Lesson with the Shortened Sword from Codex Speyer circa 1491 AD; Szabolcs Waldmann (transcr & transl); ARMA website; 2006

Mounted Infantry in Mediæval Warfare; JE Morris (auth); Transactions of the Royal Historical Society; April 1914

The Myth of the Clumsy Knight in Heavy Armour; John Clements (auth); Armaria; 2006

Mythology; Edith Hamilton (auth); Mentor; New York; 1942

The Myths of Medieval Warfare; Sean McGlynn (auth); History Today Vol.44 Num.1 (1994); De Re Militari; 2001

The Nature of Sword Combat in the Medieval and Renaissance Eras; John Clements (auth); Armaria; 2006

Natürlicher Kunst der Astronomei; Johann Künigsperger (aka Regiomontanus) (auth); Christian Egenolph (print); Straßburg; 1528

Neuprußisches Wörterbuch: Prußisch-Deutsch & Deutsch-Prußisch; Mikkels Klussis & Letas Palmaitis (edit x2); Prvssologia Klossiana: Lingva Borvssica Nova IIc; Institut Européen des Minorités Ethniques Dispersées; 2006 (3rd edit)

Newton's Dark Secrets; NOVA; Chris Oxley (direct); documentary (60 min); BBC; 2003

Nicolaes Petter's Clear Instructions to the Excellent Art of Wrestling; Gene Tausk (transl); unpublished; 2006 (from 1674)

Occidential Mythology - Masks of God, Vol 3; Joseph Campbell (auth); Penguin Books; New York; 1976

The Old English Charms and King Alfred's Court; Richard Scott Nokes (auth); Medieval and Early Modern English Studies, Vol 10 No 1; 2002

On a MS Collection of Ordinances of Chivalry of the Fifteenth Century, Belonging to Lord Hastings; Viscount Dillon (auth); Archaeologia 57 (1900)

Ordonnances des Rois de France de la Troisième Race, Vol I; J.E. Laurière (edit); Paris; 1723-1849

Parzival; Wolfram von Eschenbach (auth); Hagenau; 1443-46 (from 1220); Cod. Pal. germ. 339; Universitätsbibliothek Heidelberg

Paulus Hector Mair's Ars Gladiatoris and Modern Military Combatives; David Knight (auth); PaulusHectorMair.com; 2006

Peter von Danzig – Bloßfechten; Peter von Danzig (auth); Grzegorz Zabinski (transcr); ARMA-Poland website; 2001 (from 1452)

Peter von Danzig - Meister Andre Lignitzers Degen; Peter von Danzig (auth); Monika Maziarz (transcr); ARMA-Poland website; 2004 (from 1452)

Peter von Danzig - Meister Andre Lignitzers Kurzes Schwert; Peter von Danzig (auth); Monika Maziarz (transcr); ARMA-Poland website; 2004 (from 1452)

Peter von Danzig – Meister Johannes Liechtenauers Kampffechten; Peter von Danzig (auth); Grzegorz Zabinski (transcr); ARMA-Poland website; 2001 (from 1452)

Peter von Danzig – Meister Johannes Liechtenauers Roßfechten; Peter von Danzig (auth); Monika Maziarz (transcr); ARMA-Poland website; 2004 (from 1452)

Peter von Danzig - Meister Martein Hundtfeltzs "Degen"; Peter von Danzig (auth); Monika Maziarz (transcr); ARMA-Poland website; 2004 (from 1452)

Peter von Danzig – Peter von Danzigs Kampffechten; Peter von Danzig (auth); Grzegorz Zabinski (transcr); ARMA-Poland website; 2001 (from 1452)

Physician's Handbook - Wellcome MS. 8004; Anonymous; Lincolnshire; circa 1454; Wellcome Library London

Practical Chivalry: The Training of Horses for Tournaments and Warfare; Carroll Gillmor (auth); Studies in Medieval and Renaissance History Vol.13 (1992); AMS Press; Brooklyn; De Re Militari (2003 reprint)

Proto-Gladiatoria (MS KK5013); Jeffrey Hull (transcr); Ragnarok Works; Kansas; 2006 (from 1425-30)

Das Puch Exulis: Bellifortis; Conrad Kyeser (auth); 1440-60; Spencer Collection MS 058; New York Public Library

Ramon Lull's Book of Knighthood and Chivalry; Ramon Lull (auth); Brian Price (transl); includes Ordene de Chevalerie (Anonymous); Chivalry Bookshelf; 2001 (from 13th Century)

Records of the Medieval Sword; Ewart Oakeshott (auth & illus); Boydell Press; Woodbridge; 2002 (revised edit)

Reichssatzung deß Heiligen Römanischen Reichs, Band 2; Melchior Goldast (edit); Franckfurt am Mayn; 1613

Rene of Anjou, King Rene's Tournament Book: Traictie de la forme et devis d'ung tournoy; René d'Anjou (auth); T. de Quatrebarbes (transcr); Elizabeth Bennett (transl & edit); Princeton University website; 1998 (from 1460)

Ringer Kunst; Fabian von Auerswald (auth); Raymond J Lord Collection PDF facsimile; 2005 (from 1539)

Rosengarten zu Worms & Lucidarius; Thomas Vogel (auth) & Anonymous (illus); Straßburg; 1418-20; Cod. Pal. germ. 359; Universitätsbibliothek Heidelberg

The Royal Book of Jousting, Horsemanship and Knightly Combat; Dom Duarte (auth); Antonio Franco Preto (transl) & Steven Muhlberger (edit); from Livro Da Ensinança De Bem Cavalgar Toda Sela; Chivalry Bookshelf; Highland Village; 2005 (from 1438)

The Serpent in the Sword: Pattern-Welding in Early Medieval Swords; Lee A Jones (auth); Mediæval Sword Resource Site; 1998

The Service of Ladies; aka Frauendienst; Ulrich von Liechtenstein (auth); JW Thomas (transl); Boydell Press; Woodbridge; 2004 (from 1255)

Several Remarks on the Bloßfechten Section of of Codex Wallerstein; Grzegorz Zabinski (auth); Journal of Western Martial Art, Vol 2001

Siege: Castles at War; Mark Donnelly & Daniel Diehl (auth&auth); Robert Rich & Dick Clark (illus&photo); Taylor Publishing; Dallas; 1998

Sigmund Ringeck's Knightly Art of the Longsword; David Lindholm (transl & interp); Peter Svärd (illus); Johnsson & Strid (contr); Sigmund Ringeck (auth); Johannes Liechtenauer (auth); Paladin Press; Boulder; 2003 (from 1440s)

Sigmund Ringeck's Knightly Arts of Combat; David Lindholm (transl & interp); Peter Svärd (illus); Sigmund Ringeck (auth); Johannes Liechtenauer (auth); Paladin Press; Boulder; 2006 (from 1440s)

A Simplified Method for Teaching Dagger Techniques; Eli Steenput (auth); PDF of HEMAC presentation; 2004

The Sinews of War: Ancient Catapults; Serafina Cuomo (auth); Science Vol.303 Num.5659; 2004

Das Solothurner Fechtbuch: Giving It Voice; David Lindholm (auth); unpublished; Sweden; 2006 (from 1520)

Spectacle, Pageantry and Early Tudor Policy; Sydney Anglo (auth); Clarendon Press; Oxford; 1969

De Sphaera; John of Holywood (auth) & Cristoforo de Predis (illust); Lombardy; 1470 (from 1230); Lat. 209 (alpha X.2.14); Biblioteca Estense Universitaria Modena

The Swiss at War: 1300-1500; Douglas Miller (auth) & Gerry Embleton (illus); Osprey; Oxford; 1979

Sword Motions and Impacts: an Investigation and Analysis; George Turner (auth); ARMA website; 2003

The Tailoring of the Grande Assiette; Tasha Kelly McGann (auth); La Cotte Simple website; 2004

Talhoffer and Causes for Fighting; Jeffrey Hull (auth); ARMA website; 2005

Talhoffers Fechtbuch (Gothaer Codex) aus dem Jahre 1443; Gustav Hergsell (edit); Prague; self-published; 1889

Talhoffers Fechtbuch (Ambraser Codex) aus dem Jahre 1459; Gustav Hergsell (edit); Prague; self-published; 1889 [source actually now considered from 1450]

Talhoffers Fechtbuch (Gothaer Codex) aus dem Jahre 1467; Gustav Hergsell (edit); facsimile of the Cod.icon. 394a, Bayerische Staatsbibliothek München; Prague; self-published; 1887

Talhoffer Longsword: Armoured and Unarmoured; Jeffrey Hull (auth); ARMA website; 2005

Tain Bo Cualnge; Ernst Windisch (transcr & trans); S Hirzel Verlag; Leipzig; 1905

The Teachings of Liechtenauer; John Clements (auth); Armaria; 2004 ~ and unpublished revision thereof; 2006

The Technological Illustrations of the So-Called "Anonymous of the Hussite Wars": Codex Latinus Monacensis 197, Part 1; Bert S Hall (trancr, transl, edit); Reichert; 1979

The Torah Codes: Puzzle and Solution; Maya Bar-Hillel, Dror Bar-Natan & Brendan McKay (auth); Chance Vol. 11 Num. 2; American Statistical Association; 1998

The Tournament in the Romances of Chrétien de Troyes & L'Histoire de Guillaume Le Maréchal; Larry D. Benson (auth); Chivalric Literature: Essays on Relations between Literature & Life in the later Middle Ages; Larry D. Benson & John Leyerle (edit & edit); Studies in Medieval Culture Num.14; Medieval Institute Publications; Kalamazoo; 1980

Towns and Defence in Later Medieval Germany; David Eltis (auth); Nottingham Medieval Studies Vol.33 (1989); De Re Militari; 2004

Transkription der Handschrift Ms. Germ. Quart. 16 der Jagelonischen Bibliothek Krakau; Kristian Babic, Robert Brunner, Marion Freundl, Alexandra Gießl, Barbara Kappelmayr, Julia Lorbeer, Carsten Lorbeer, Andreas Meier, Marita Wiedner (auth x 9); Gesellschaft für Pragmatische Schriftlichkeit; Deutschland; 2006

The Trebuchet: Recent reconstructions and computer simulations reveal the operating principles of the most powerful weapon of its time; Paul Chevedden, Les Eigenbrod, Vernard Foley, Werner Soedel (auth x4); Scientific American, July 1995

Trial by Combat; George Neilson (auth); William Hodge & Company; Glasgow; 1890

Trial by Combat - Thomas, Duke of Gloucester, Constable under Richard II, on the Manner of Conducting Judicial Duels; LD Benson (edit); Harvard College Geoffrey Chaucer Page; 2000 (from circa 1399)

The Triumph of Maximilian I: 137 Woodcuts by Hans Burgkmair and Others; Hans Burgkmair der Älter (illus); Dover; 1964 (from 1507-15)

Turnierbuch; Marx Walther (auth); Augsburg; 1477-89; Cgm 1930; Bayerische Staatsbibliothek München

Das Turnierbuch des Ludwig von Eyb (Cgm 961). Edition und Untersuchung. Mit einem Anhang: Die Turnierchronik des Jörg Rugen; Ludwig von Eyb der Jünger zum Hartenstein (auth); Heide Stamm (edit); Heinz, Hans-Dieter Akademischer Verlag; Stuttgart; 1986 (from 1519)

25 Counters to 1 Cut: Simple Sword and Buckler; Stewart Feil (auth); Armaria; 2003

Über die Fechtkunst und den Ringkampf; Hans Czynner (auth); 1538; MS 963; Universität Bibliothek Graz

Unarmoured Longsword Combat of Master Johannes Liechtenauer in the Manuscript of Hanko Döbringer; Grzegorz Zabinski (auth); ScholarsVoices.com; 2005 ~ Unarmoured Longsword Combat of Master Liechtenauer via Priest Döbringer; Grzegorz Zabinski (auth); unpublished revision; 2006

Using the "F" Word - The Role of Fitness in Historical Fencing; John Clements (auth); ARMA website; 2004

Von Danzig Fechtbuch; Peter von Danzig zu Ingelstat (edit & auth); 1452; Bavaria; 44 A 8 (Cod. 1449); Biblioteca dell'Academica Nazionale dei Lincei e Corsiniana Rzym

War Engines of the Middle Ages; Peter Vemming Hansen (auth); Middelaldercentret; 1998

Weapons and Warfare in Renaissance Europe: Gunpowder, Technology, and Tactics; Bert S Hall (auth); Johns Hopkins University Press; Baltimore; 2001 (2nd edit)

Werke; Peter Suchenwirt (auth); A Primisser (edit); Wien; 1827 (from late 14th Century)

The World of Dürer: 1471-1528; Francis Russell (auth); Time-Life Books; New York; 1975

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