

# Mid-13<sup>th</sup> Century Military Horse Equipment

## Methodology and Construction of Mid-13<sup>th</sup> Century Western European Military Conjectural Horse Equipment



Early form of pig sticking! From the Maciejowski Bible miniature illuminations.

by

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## OVERVIEW

This paper is intended to give readers an insight to the design and construction of conjectural military horse equipage of mid 13<sup>th</sup> Century Europe. Anything else is out of scope for the purpose of this document. It also not intended to give exact construction specifications; rather it will give a general overview. Specifically this review is of equipment common between the 1240 \* 1255 timeframe of North Western Europe. Because no period saddle or bridle from this period exists, we must rely on contemporary illustrations from artwork, sculptures or relief carvings, and period writings. There is surviving hardware (buckles, stirrups, bits) as well as earlier or later examples of saddles (notably Henry V/s war saddle located in Westminster Abbey), bridles and illustrations. Because there are no period primary examples, we can only use the information at hand to conjecture the construction and use of the equipment. Theories will change as more information is uncovered, clarified, or added to. It is very much a process that is built upon, like the foundation of a house. Readers are invited to examine this and other documentation to form their own opinions.

The main sources of documentation used for construction of this equipment are illuminations. Some statuary and relief carvings exist, but much of it is too crude or weathered to shed much additional light as to the construction and use of the equipment. The illuminations are from religious Psalters, the most famous being the Maciejowski or Saint Louis bible. This bible is an illuminated version of the Old Testament. It was probably commissioned by King Louis of France around 1240 and done by a number of Parisian artists. As with most illustrations of the period, they used contemporary surroundings to portray historical events. The details in the illuminations are meticulous. The complicated strapping mechanism of typical 13<sup>th</sup> century sword scabbards is clearly shown. Surviving examples of the strapping for the period match the illuminations.

As with any illumination or carving, there is some artist interpretation and precision may be compromised (figure 1). One example is that the illuminations show some Knights with fingered maille gauntlets. Although they may have existed in this time period, this is still strongly debated. These are examples of the danger of depending on one or few resources when reconstructing any historical equipment. Research should be concentrated on more documentable, common items, rather than the rare or questionable ones.

Additional Psalters from around the same time and from 50 years on either side are numerous and were referenced in construction of the items detailed in this paper. The only 13<sup>th</sup> Century text that appears to describe horse equipment is the Norwegian text called the *King's Mirror*.<sup>1</sup> This text describes all kinds of issues, including a paragraph on horse equipment of a military nature.

The primary sources used for the construction of this equipment was the Maciejowski Bible, a few contemporary Psalters, the King/s Mirror text, and Henry V/s war saddle (figure 66). Unless otherwise noted, all illustrations are from the Maciejowski bible.

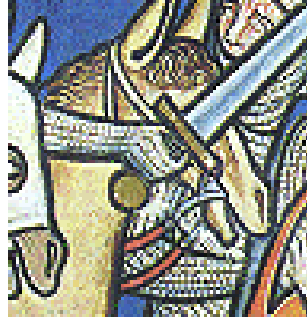


Figure 1 \* Likely artistic mistake. Reins are both on the same side of the horse/s neck.  
Maciejowski bible



Figure 66 \* Henry V/s War Saddle, Westminster Abbey, England circa 1422

### **Changing nature of Warfare**

The nature of the mounted warrior changed from the 11<sup>th</sup> to the 13<sup>th</sup> Century. 11<sup>th</sup> Century Norman cavalry is illustrated and text refers to them riding up to a line of opponents and throwing their spears and javelins. References to couched lances, as well as overhand and underhand stabbing, is also seen but less frequent. As they progressed into the 13<sup>th</sup> century, the spear was primarily couched under the arm and was used to strike the opponent.

Horse equipment changed design to accommodate this tactic. In the 13<sup>th</sup> Century horseman rode in single line ranks called conrois. Conrois were composed of 25 to 50 riders and grouped into larger formations. The horseman rode knee to knee with only a few inches between each mounted knight. The conrois trotted towards an enemy formation with lances raised. At the last instant they broke into a canter, maintaining their formation and lowering their lances. This rank was the „shock rank- and they rode through the enemy rank and then pulled secondary weapons. Often there was a second rank either mounted or on foot composed of knights, squires and seargents. The second rank followed with swords to finish off the enemy in the resulting chaos<sup>2</sup>.

Most Maciejowski illuminations that involve melee mounted combat show the knights engaged with swords, their lances used as offensive thrusting weapons (figure 2), as well as frightening two handed weapons. They are sometimes shown without shields. Illuminations of knights engaged in combat from at least the 11<sup>th</sup> Century and into the 13<sup>th</sup> Century show riders with their legs swung forward and locked straight (figure 3). This helped the Knight brace himself in the saddle when engaging his opponent. Rowenna of South Downs, who has worked professionally in mounted security and enforcement, describes this is practice used by modern security riders to prevent an aggressor from pulling the rider from their saddle.<sup>3</sup>



Figure 2 \* Unusual 13<sup>th</sup> Century illustration of knight using a lance in an overhand stabbing fashion \* notice the lack of a shield.  
Maciejowski Bible



Figure 3 \* Sir Richard of Raefen, legs forward, long and straight, as in the military combat style of the time.  
(Photo Provided by Lady Cera, 2005)

## SADDLE RECONSTRUCTION

### History and evolution

The evolution of the saddle gained momentum after the introduction of the stirrup in the 800/s to Western Europe. Before, saddles were likely not used or were simple constructions of leather and wool. There is a lack of solid evidence that European saddles with wooden trees existed before the introduction of the stirrup. Some evidence suggests Roman trees made of wood, but this theory is in controversy<sup>4</sup>. A 5<sup>th</sup> Century relief is interpreted to indicate a solid tree by some, but regardless, the trees were probably not like modern saddle trees used today.

Saddles become more common in artwork in the 11<sup>th</sup> century. The most notable example being the Bayeux tapestry. The saddle at this point has a very high cantle and pommel (William the Conqueror most likely suffered fatal internal injuries from being off-balanced and slamming into the high pommel of his saddle<sup>5</sup>). They most likely were very simply constructed; much like the tree of a McClellan saddle (figure 4). As time goes on, illustrations show that both the Pommel and Cantle increase in length, parallel to the front and back of the rider, but curving inward to wrap around the seat of the rider and curving outward in front to help keep the rider seated and guide his legs into the proper position (figure 5). The pommel and cantle remain quite high to protect the rider as well as to keep him in the saddle (figure 6). Examination of Henry V/s war saddle indicates

stirrup leather attachment points well forward, which would cause the legs of the rider to assume a very forward position (figure 7). This leg position is seen repeatedly in period illustrations, as well as mentioned in the *King/s Mirror*.

*\$ train yourself in the art of sitting on horseback in the firmest and most handsome manner. Train yourself to press the foot firmly into the stirrup; keep your leg stiff and the heel a little lower than the toes, except when you have to guard against thrusts from the front; and practice sitting firmly with the thighs pressed close. (King/s Mirror<sup>1</sup>)*

Evidence from artwork and the description in the *King/s Mirror* suggests that saddles were sometimes equipped with two girths and/or multiple surcingles (figure 8).

*\$ he must also make sure that the saddle is strong, made with high bows, and provided with strong girths<sup>14</sup> and other saddle-gear, including a durable surcingle across the middle and a breast strap in front-<sup>1</sup>*

Saddles are also shown with painted or carved, simple or complex geometric designs (figure 9).



Figure 4 \* Conjectural Norman saddle circa 1066 by Jesse Bailey.

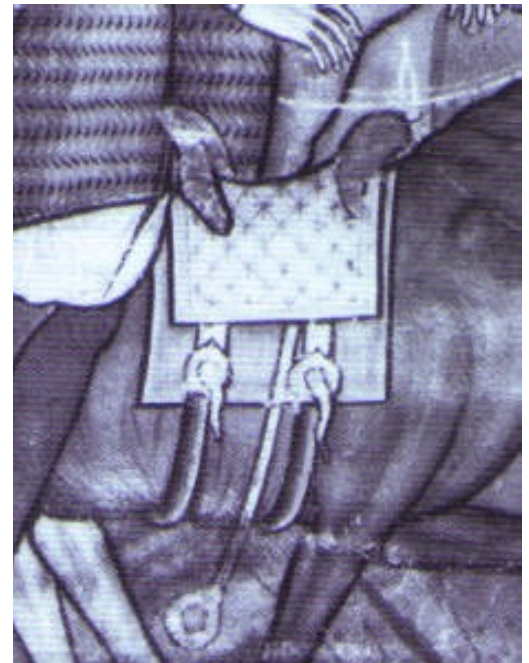


Figure 5 \* Saddle from the Winchester Bible, circa 1150. Note the pommel and cantle are taking on a more rounded appearance.



Figure 6 \* Basic Maciejowski saddle circa 1240. Saddle has become rounded on pommel and cantle to help seat and protect the rider.

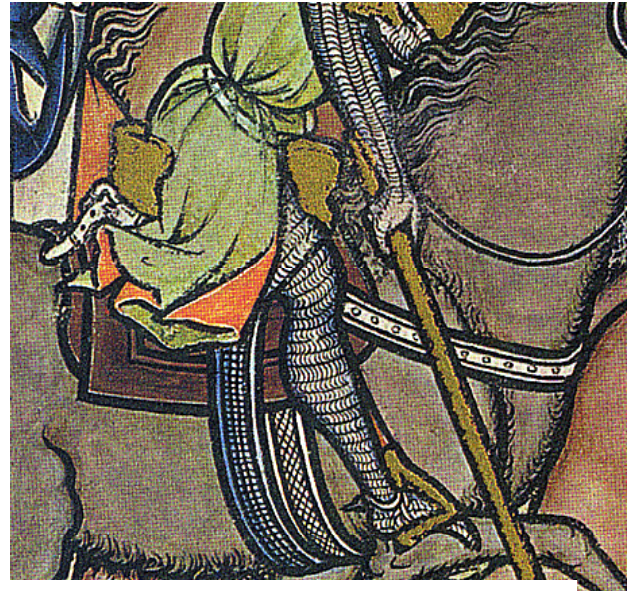


Figure 7 \* Notice position of rider/s legs and seat

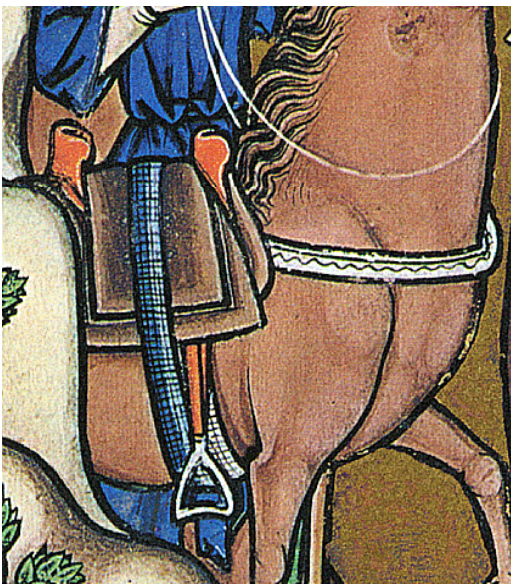


Figure 8 \* Basic Maciejowski saddle. Girth and surcingle.



Figure 9 \* Three saddles (white cantle on left, red saddle in center, white cantle of a third on the right) showing, showing paintings or carvings.

## Conjectural Saddle

The tree and basic saddle was designed and implemented by Jesse Bailey of Novae Militiae, an early 13<sup>th</sup> Century Knight/s Templar group. Subsequent construction and accessories were done by the author. Any sewing in construction of the saddle and accessories was done by hand with 6 ply linen cord. The cord was treated with a mixture of brewers/ pitch, beeswax, and neat/s\*foot oil<sup>16</sup>. This protects the linen, makes stitching easier, and, most importantly, helps cement the stitching in place. This reduces the likelihood of the equipment coming apart if a stitch breaks. This practice is indicated in at least the 15<sup>th</sup> century and continued into the 19th century as military saddlery was required to be sewn with linen thread and a mixture of rosin, tar, and beeswax applied to the linen thread<sup>6</sup>. The use of pitch or rosin was mainly a protective measure. As the thread is drawn through the holes in the leather applied by the awl, it creates friction, which heats the rosin or pitch. Once sewn in place, the rosin mixture will cool and harden, locking the thread in place. The stitch spacing is 8 stitches per inch<sup>7</sup>.

The leather was dyed black with a rust dye<sup>17</sup>. Recipes for the dye and cord treatment are documented in later centuries, although some scripts may indicate their use to the period. Edges have been burnished using gum tragacanth<sup>8</sup>. The saddle tree is beech wood covered in rawhide<sup>9</sup>. The pommel and cantle are covered in thin leather (although illustrations commonly show them as being painted and with designs on them (Figure 9)). Over the entire tree is a heavy leather skirt (figures 10 & 11). The stirrup leathers are connected to the tree via lateral slats on each tree bar forward of the girth (figure 12).



Figure 10 \* Author/s 13<sup>th</sup> century conjectural saddle.



Figure 11 \* Author/s conjectural saddle showing surcingles and girth.



Figure 12 \* Placement of girth strap (left) and stirrup leathers (right). Note rawhide covered bar of saddletree at right top.

### **Girths in the 13<sup>th</sup> Century**

Very little information can be determined about the actual construction of the girth from surviving saddles and artwork. Henry V's war saddle offers some clues, as well as illuminations from the Maciejowski Bible and other contemporary text. The Maciejowski illuminations show the girth and surcingle as a light colored band with a series of hatch marks. The light color and webbed look of the hatch marks suggests that the girth was made from linen or wool, woven specifically for that purpose (girth webbing) (figure 13). The artist/s attention to the pattern of the maille on the riders suggests they might also be correct in their detailing on the girth. The Winchester Bible shows a girth attached with buckles (figure 5). Many illuminations from the 13<sup>th</sup> Century show multiple girths and/or surcingles (figures 13 & 14).

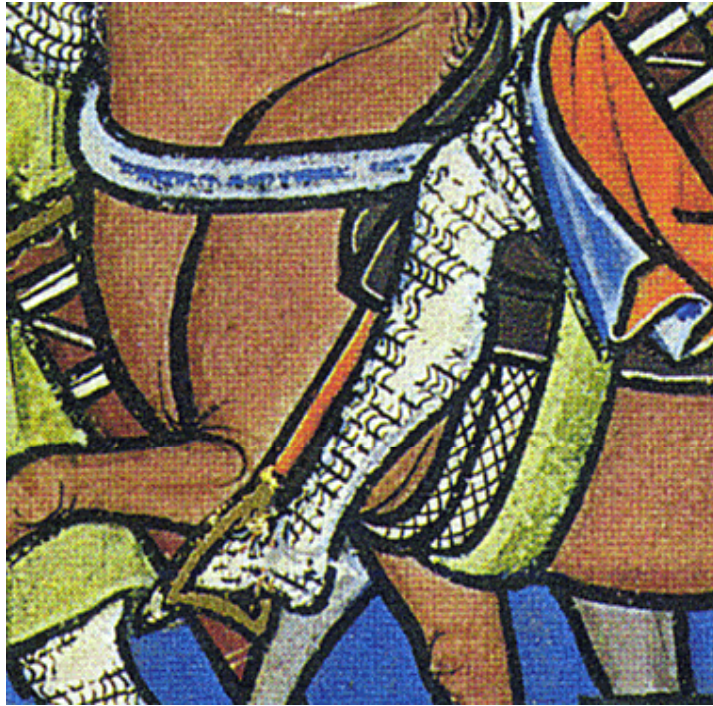


Figure 13 \* Three sets of girth/surcingle illustrated here.



Figure 14 \* Girths and/or surcingles with D buckles from circa 1260 Trinity Apocalypse

## Conjectural Girth

The girth is attached to straps, which are attached to the tree with cut nails and doe skin lacing, via holes cut into the tree bars. This saddle has only one girth (figure 15). The girth is constructed of a hand woven linen webbing, with leather attachment points at either end. These attachment points have cast bronze buckles like those commonly found in the mid 13<sup>th</sup> Century. Leather keepers<sup>10</sup> run at multiple points along the girth (figure 16).



Figure 15 \* Conjectural rig has two surcingles and one girth (middle item)



Figure 16 \* Conjectural girth

## Surcingles

In addition to the girths, there are one or more surcingles which are not attached to the saddle, but act more like a big belt. Surcingles wrap around the saddle and horse to provide additional security (figure 17). The importance of the girth(s) and surcingle(s) is paramount to the mounted knight. Even in the 20<sup>th</sup> century surcingles were used by Cavalry troops<sup>15</sup>. The use of multiple girths/surcingles was necessary for resisting shock impact transferred to the saddle through the rider when engaging an opponent, as well as the maneuvering in the saddle that the knight needed to do while fighting. The use of multiple girths and surcingles reduced the burden on any one piece of equipment, and lessened the chance of failure for any one piece.



Figure 17 \* Notice surcingle holding breast strap in place. Clear shot of how breast strap was situated on the saddle.

### Conjectural Surcingles

The surcingles are constructed much like the girth, from hand woven linen webbing with a single bronze cast buckle similar to those found in the 13<sup>th</sup> Century. This saddle has two surcingles. One surcingle is looped under the skirt then goes over the top of the saddle via two parallel slits on either side of the skirt. The second surcingle wraps entirely over the saddle. It also functions to hold the breast strap in place (Figure 18).



Figure 18 \* Surcingle on the left loops over the saddle holding breast strap in place. Surcingle on the right goes under the skirt and over the top of the saddle via slits in the skirt. Girth is in the middle.

## Stirrups

Thirteenth Century stirrups are often shown with the base of the stirrup in a raised arc (based on contemporary examples and example in the authors/ collection). This was likely done to add strength to the stirrup base. The Maciejowski bible shows the sides of the stirrup attaching to the base in sharp points (Figure 19). Others show a more rounded appearance (figure 67). Stirrups of this time period were commonly attached to stirrups leathers using one of two methods. The first is much like modern stirrup and leathers where the stirrup had a hole in the top for the leathers to be threaded through. The second method is where stirrups were attached to the leathers via a stirrup mount which was a piece of metal that was inset into the stirrup and riveted to the leather (Figures 20 & 69). The later configuration would suggest that the stirrup was non adjustable or had some complex adjustment mechanism (Figures 21 & 22).

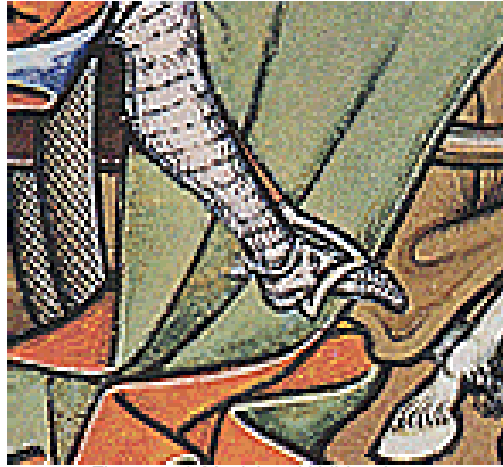


Figure 19\* Maciejowski bible stirrup

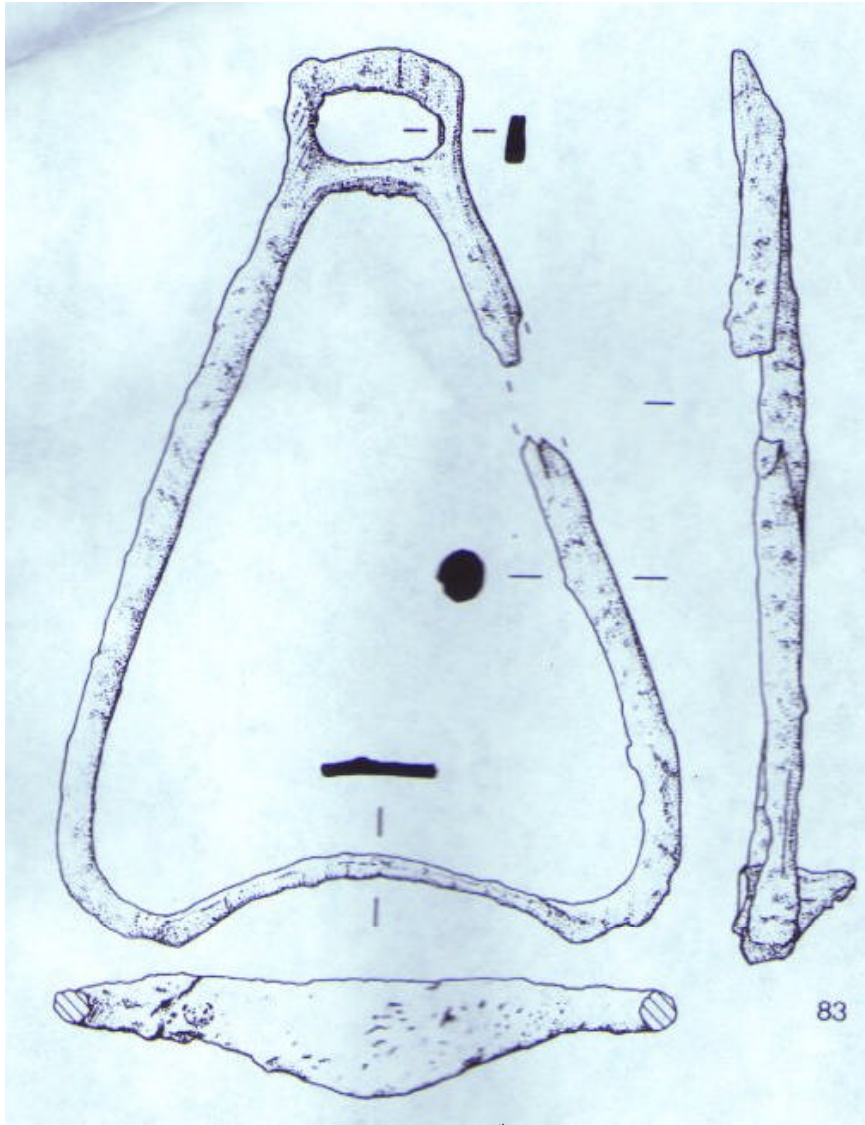


Figure 67 \* Sketch of Early 13<sup>th</sup> Century Stirrup





Figure 22 \* Stirrup leather would have come in from the top and riveted to mount piece.

### Conjectural Stirrups

The stirrups for this saddle were commissioned by the author and custom forged by Patrick Thaden, of Thaden/s armory. They are based on the Maciejowski illuminations, as well as surviving examples (Figure 23). The stirrups attach with stirrup straps, like modern stirrups (Figure 24). Other contemporary stirrups show a less pointed base than those in the Maciejowski Bible as in the additional set constructed by Patrick Thaden (Figure 25).



Figure 23 \* Maciejowski style stirrup, see figure 19



Figure 24 - Another view, stirrup attaches to leathers like a modern stirrup



Figure 25 - Earlier stirrups have very rounded corners and raised arch.

### **Saddle Blanket**

Very little can be determined about the saddle blanket/pad from the Maciejowski illuminations (Figure 26). However, the *King's Mirror* text may describe the saddle blanket being made of ,blackened- linen.

*He should also should have a good shabrack made like a gambison of soft and thoroughly blackened linen cloth<sup>1</sup>*

A description of the ,blackened linen- is not given; however, it is thought to indicate a process in which the linen cloth is allowed to decompose slightly in a solution so it becomes softer. Illuminations suggest the saddle blankets were decorated as well (Figure 27).

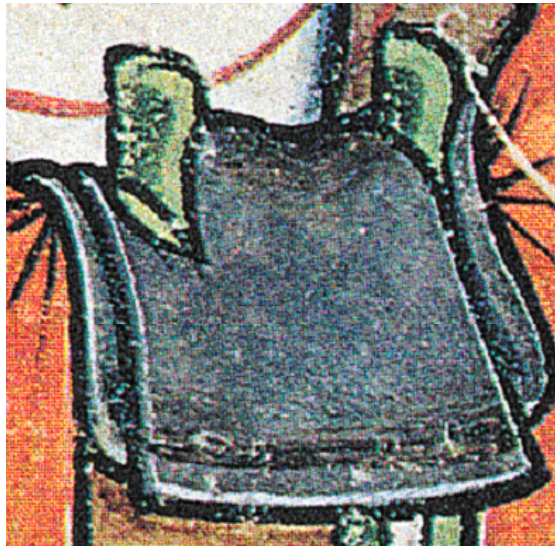


Figure 26 \* Likely saddle blanket shown under the saddle covering. Note reins closed together at horse/s neck.



Figure 27 \* Great plate, notice elaborate saddle blanket or covering, pendant hangers. Also notice saddles on draft animals.

### Conjectural Saddle Blanket

This saddle blanket is a linen shell enclosing multiple layers of wool padding. Quilting points keep the wool in place (Figure 28). Edges were hand sewn via a running and whip stitch.



Figure 28 \* A simple saddle blanket, linen outer shell with wool interior.

### **Breast Strap**

The breast strap is a mechanism that keeps the saddle from sliding backward on the horse. It is most often seen in contemporary artwork as going behind the cantle (Figure 29). Examples can also be found in some 11<sup>th</sup> & 12<sup>th</sup> century illuminations. It helps to keep the saddle from sliding backward, but this configuration is also the strongest in absorbing impact when a straight legged rider was hit or hit their opponent during battle. This configuration is much stronger and more reliable than mounting the breast strap to rings on the front of the saddle, like contemporary saddles.

Most illuminations of breast straps from this period are devoid of pendant hangers on the tack when in a military situation (there are a few exceptions (Figures 30 & 31)). The breast straps are frequently shown with pendant hangers when the rider is in non-military attire.



Figure 29 \* Note breast strap clearly wrapping around saddle cantle. Also note multiple girths and/or over girth.



Figure 30 \* Breast strap with pendants, Trinity Apocalypse circa 1260



Figure 31 \* Pendants on breast strap \* unusual here because this is a military situation (of course the riders of the horses in the white Caparison are kings in this context)

### Conjectural Breast Strap

This breast strap is leather, although it is plausible that linen or some other material was used. The breast strap wraps around the front of the horse and then behind the saddle/s cantle (figure 32). The breast strap is equipped with a heavy cast gold-gilt, bronze buckle and gold-gilt, bronze buckle plate as seen in contemporary art. Buckle plates were a very common way to attach the buckle to a leather strap, as opposed to simply wrapping the leather around the buckle and stitching the leather in place. A „parade- breast strap was also constructed with mounts and swinging pendants, including pendant hangers. Mounts and pendants reflect elements of the author/s arms (figures 33 & 34).



Figure 32 \* Breast strap conjectural recreation, note buckle orientation is different from illuminations



Figure 33 \* Breast strap with pendants



Figure 34 \* Close up view of conjectural breast strap showing pendants and mounts

### **Cloth Saddle Covering**

Cloth saddle covers are seen frequently in period artwork. At least some appear to be made of cloth because they look like to be quilted (figures 35 & 36). An example is also seen in the Winchester Bible (figure 5).



Figure 35 \* From Saint Aedward manuscript circa 1245



Figure 36 \* From Saint Aedward manuscript circa 1245

### Conjectural Saddle Covering

This saddle covering was hand sewn in linen and wool (Figure 37). The wool felting is encased in a linen shell. Linen dags line three of the edges. The saddle covering was constructed because the author/s period-based wedge riveted maille does enormous abrasive damage to saddle leather. The saddle cover would have been an inexpensive mechanism to protect the saddle.



Figure 37 \* Conjectural linen and wool saddle covering created by the author. (Photo provided by Lady Cera)

# BRIDLE

## Bridle Overview

A number of bridles types can be found in the Maciejowski Bible, with two styles seen primarily. Most Maciejowski bridles vary in the brow band and where it terminates. The bridles in the Maciejowski Bible usually have brow, head or poll and cheek bands (which attach to the bit), as well as a throat latch. A nose band is not present on any of these bridles. Terminal decorations, bridle decorations, junction fixtures, and buckles can also be seen (figure 38). The two main types of bridles in the Maciejowski Bible either terminate where the brow band meets the cheek band (figure 39), or the brow band has a juncture piece of hardware at the cheek band and continues on to attach to the throat latch (figure 40). It may have been looped and sewn on at the throat latch, or it may have attached to hardware (figure 41).

This later configuration/s purpose was puzzling but Nancy Smith of Holly Springs Stables<sup>11</sup> suggested a simple explanation. She thought that it was to hold the throat latch in place and that the throat latch would be tightly secured. This helped prevent the bridle from being pulled off either by the horse or by a person (figures 40 & 41). There are several unusual designs as well (figure 42). Some of these may be by an artist that doesn't understand how a bridle is constructed. The bridles of later illuminations, like the Manesse Codex, are unique because they appear to be more like the modern western slip on bridles that go over one ear (figure 43).



Figure 38 \* Notice possible buckles on the cheek pieces at the bit and terminal endings at brow band.



Figure 39 \* Two bridles with elaborate terminal endings at brow band/cheek band juncture.



Figure 40 \* Brow band terminating at throat latch. Likely some kind of loop juncture at the point of the brow band/cheek band juncture.



Figure 41 \* Brow band/cheek juncture likely shows some kind of cast metal piece that was riveted on. Unusual terminal at throat latch

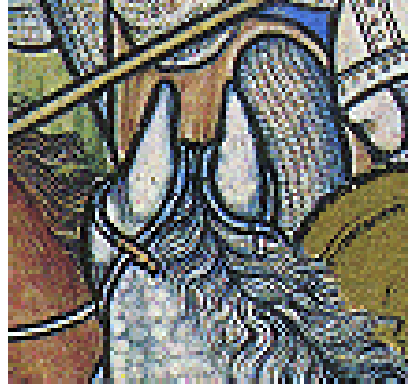


Figure 42 \* Extremely rare illumination of horse/s head from the back. Notice the odd configuration of this bridle.



Figure 43 \* Manesse Codex Bridle circa 1300. Note loop around ear and lack of throat latch.

### **Conjectural Bridle**

This bridle was constructed with the brow band terminating at the cheek piece (figure 44). It was an experiment to understand why the bridle may have been constructed in this manner. A buckle was placed on the throat latch and a pair of buckles were fixed to the cheek pieces to attach to the purchase of the bit. This makes the bit position adjustable in the horse/s mouth. The brow band has a bronze juncture loop at the cheek band. The leather reins were sewn onto the shank rein loops directly and the reins were sewn together, with the curious ring attached in the middle.



Figure 44 \* Conjectural bridle reconstruction. Brow band juncture at cheek band and terminates at throat latch. Buckles at throat latch and on cheek pieces.

### The Curious ring

In the Maciejowski illuminations and other artwork, there appears to be a ring at the end of the reins (figure 45). Several theories as to its use were examined. Although it initially appeared to be a simple junction point where the reins were sewn or attached, this was quickly discarded upon further examination of illuminations. Another theory was that this was some kind of loop to slip over the hand to control the horse while keeping the hands free. This was also discarded. In some illustrations there is evidence of a slide mechanism (tab/keeper) shown between the ring and where the reins terminated at the bit (figures 46 & 47). The ring may have been an easy way for a knight with maille mitten gauntlets to hold the ring in one hand and slide the tab down the reins to shorten them. It would also keep the tab on the reins by blocking the end, enabling the reins to be shortened and then dropped at the horse/s neck to free up the hands (figure 48).

The Winchester Bible, produced around 1150 has a clear example of the ring itself being used as slide type keeper in ,The Death of Absalom- (figure 49). While the Winchester Bible/s rein ring has a clear purpose (the reins were probably tied in a knot to kept it on), the illustrations in the Maciejowski bible are not as clear. It appears that the rein is inside the ring (figure 50). Perhaps the tab was developed first and the ring was added to keep the tab on, or perhaps the reins were simply pulled through the ring. This is also a likely scenario, although the author has had

difficulty doing this with mail mittens. It would be even more of a challenge if the rider was using a two handed weapon (Figure 51). It may also have just become a decoration over time. While it is likely that the ring was part of a mechanism to keep the reins closed together when shortened at the horse/s neck, it is unclear how this was done at the time of the Maciejowski Bible and there is contradictory evidence (figure 52). There are a number of illuminations that show Knights using two handed weapons with the reins dropped at the horse/s neck, a way to recollect the reins quickly would be an important feature.

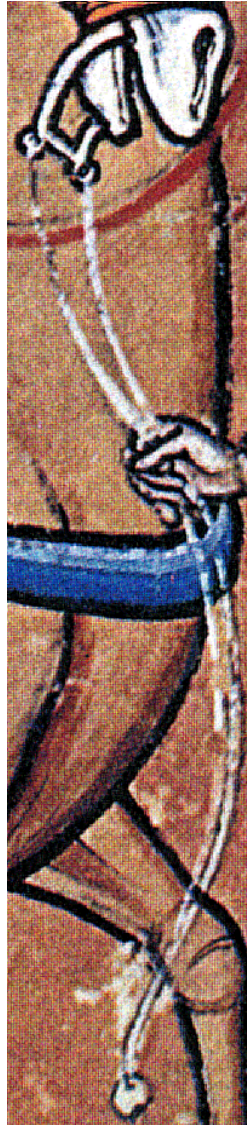


Figure 45 \* Picture of the ring showing reins passing through the center . The bit illustrated here is more indicative of bits from around 1220.



Figure 46 \* Although hard to make out in these illuminations, the rings appear to be ahead of a tab to keep reins closed.



Figure 47 \* Could these illustrate the ,tab- or keeper on the reins?



Figure 48 \* This may be the tab in use

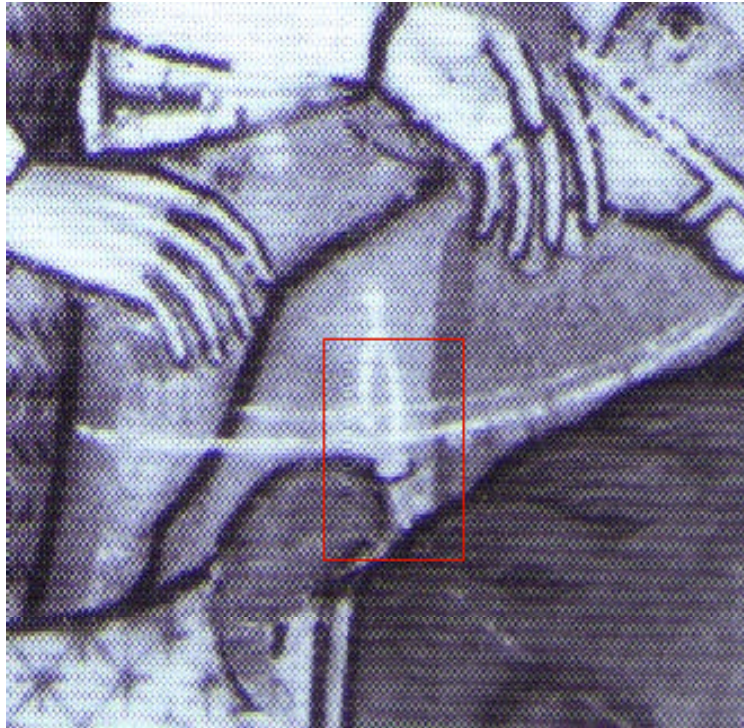


Figure 49 \* Very clear use of the ring as a keeper from the Winchester Bible, circa 1150



Figure 50 \* Reins going through the ring



Figure 51 \* Reins at rest



Figure 52 \* Notice reins pulled up through the ring.

### Conjectural Ring reconstruction

A slider tab was used and the ring was attached at the end of the reins to help pull the tab down (pull the ring with one hand while sliding the tab with the other) and keep the tab on the reins by acting as a block. The ring is a simple period bronze ring. The tab is leather, although it is just as likely that it could have been made of bronze. Once shortened, the reins stay on the horses neck better and can be retrieved easily (figure 53 & 54).



Figure 53 \* Tab pulled along reins to rest on horses neck.



Figure 54 \* Close up of tab mechanism pulled up towards the ring

## Bit

There are a great number of bits illustrated in the Maciejowski Bible. All of them take on a very similar appearance. They have a triangular area at the point where the bit mouth piece, shank, and purchase all meet (figure 55). This is sometimes a simple triangle of metal, sometimes it is decorated (figure 56). The examples seen from this period are often a broken curb bit<sup>12</sup> (figure 68). The port is usually connected like a broken snaffle, but it is extremely high. The shanks of the bit usually extend straight down or 90 degrees from the purchase (figure 57). There appears to be a solid bar between the shanks. Rings for the attachment of the reins are at the bottom of the shanks. Given the configuration of the shanks of the bit and the high port of surviving examples, it is likely that the bit was designed for light pressure from the reins. The shanks of earlier bits are much more forward and parallel to the horse/s, head which indicates more leverage would be applied from the reins (figure 58). Attachment points of the bit to the bridle are usually a small ring at the end of the purchase<sup>12</sup>.



Figure 55 \* Very common bit style in the Maciejowski bible



Figure 56 \* Highly decorative bit. Simple juncture points at brow band/cheek band juncture. Simple terminal point at throat latch. Notice reins looped through bit shank terminals.



Figure 68 \* 13<sup>th</sup> Century Bit, high broken port. Shank is deformed.



Figure 57 \* Shanks are 90 degrees to purchase.



Figure 58 \* Bits like this are seen on statuary circa 1220

### Conjectural Bits

The author commissioned two bits from Patrick Thaden of Thaden/s armory who hand forged them from iron. Authenticity was superseded by the need for a modern style mild port because of the nature of the horse it was used on. One bit was made in the style of the more decorative bits (figure 59), and one was made with a more common triangular bar bit (figure 60).



Figure 59 \* Conjectural recreation of the decorative style of Maciejowski bit



Figure 60 \* Recreation of the more common form of the Maciejowski bit

## HALTER DESIGN

Although not commonly seen in 13<sup>th</sup> Century artwork, there are examples of a period halter in the Maciejowski bible (figure 61). The context of the halter/s use in this illumination is that they have taken the tethered horses to flee quickly. The halter is extremely simple, being a noseband and head band. An iron or bronze ring hangs from the nose band to attach the lead. The halter has not yet been constructed for this rig.



Figure 61 \* Riders employing halters as simple bridles. Notice no bits on front most horses as well as riders riding bareback.

## CAPARISON

### Caparison Overview

There are many examples in the Maciejowski Bible of caparisons. However, only the central figures in the miniatures appear to have them. Caparisons of the 13<sup>th</sup> Century vary in decoration; some have crude emblazoning, while others have none. This is also seen in contemporary and earlier Psalters. The caparisons, as with the surcoats at this time, seem to serve a purpose other than showing the bearer/s heraldic arms (Figure 62). They probably served a combination of functions; protection for the mount and decoration, or indication as to the rider/s status. Another explanation is that and the caparisons were adopted from the Arabs during the crusades. The Manesse codex, written 50 years later, shows caparisons richly displaying the heraldic arms of the rider, as do many Psalters of the time. All caparisons in the Maciejowski Bible have full coverings which enclose the head and ears. Some contemporary illuminations show some contrasting lining or reinforcement around the eyes, nose and ears (figure 63). The caparison appears in several illustrations to lace at the neck (figure 64). The *Kings Mirror* gives some tantalizing clues as to the caparison/s function.

*The horse should have a strong bridle, one that can be gripped firmly and used to rein him in or throw him when necessary. Over the bridle and about the entire head of the horse and around the neck back to the saddle, there should be a harness made like a gambison of firm linen cloth, so that no man shall be able to take away the bridle or the horse by stealth..*

The text implies that the linen caparison was used to prevent a horse/s bridle from being grabbed. Contemporary illuminations show infantry troops with odd hook and half moon shaped cutting weapons. It is possible that these weapons could have been used to either grab the horse/s bridle or cut it, thus reducing the effectiveness of the Knight. The throat latch configuration may also have been an effort to protect the bridle (see earlier discussion). It is hard to find direct evidence, but the description in *King's Mirror* suggest more study is needed.



Figure 62 \* Notice lacing at neck and contrasting color of lining. Surcoat, shield, and caparison are different colors/designs. The caparison is clearly over the bridle.



Figure 63 \* Caparison from the Trinity Apocalypse



Figure 64 \* Another caparison, note the bridle below the horse/s eye.

### Conjectural Caparison

The caparison created by the author is made of two layers of contrasting linen. There are two pieces: the front piece reaches to the middle of the saddle, and the back piece (which ties to the front piece) reaches from the middle of the

saddle down past the hock of the horse (figure 65). The back piece has buckles that attach around the girth or surcingle to help hold it in place. The front piece fully encloses the head and ears. Leather reinforcements have been stitched around the nose band, eyes, and around the sides under the chin of the horse. The caparison buckles underneath the chin with 3 period appropriate bronze cast buckles, and laces at the neck to just above the shoulders (figure 66). All visible stitching is hand sewn with linen thread.



Figure 65 \* Full linen caparison.



Figure 66 - Detail of head portion of caparison.

## ISSUES/PROBLEMS

Since the creation of the rig a number of problems and issues have been uncovered as research continues. Just a few of the issues noted:

- Use of rawhide on the saddle is undocumented. Some documentation is suggestive of rawhide being used on shields in earlier period, but no evidence exists for saddle trees, at the time, being covered in rawhide.
- The use of ,Kit- and Rust Dye can be documented back to the 15<sup>th</sup> Century in some form. While this does not prove its use in the 13<sup>th</sup> Century, it does establish early usage.
- Use of keepers on the bridle, girth and surcingles is not documented, nor illustrated. Most pictures show the strap ends hanging loose.
- Iron ,D- style buckles would have probably been more historically common for the girth and surcingle than the bronze buckles used.
- The configuration of the ring on the reins is on shaky ground and the evidence is inconclusive.
- Creation of the stirrups using stirrup mounts may have been more accurate.
- Black cloth dyes were complicated and very expensive. Especially trying to dye a linen fiber. Black was a more historically uncommon color; although there is evidence of its use in period even for horse trappings<sup>13</sup>.
- Jesse/s group is an early 13<sup>th</sup> Century group and the saddle tree reflects that. Note the cantle is sloped more than the illustrations suggest.

## FOOTNOTES

1 ,*King/s Mirror*- is a 13<sup>th</sup> Century Norwegian text given in a question and answer format between a king and his son.

Reference to mounted related items:

*Father:...*Now if your comrades are planning to go from the king/s apartments to some drinking bout or other merry-making, and you, too, have the king/s permission to seek diversion, you should prefer the forms of amusement which I shall point out to you. If you are sojourning where horses may be ridden and you have your own horse, train yourself in the art of sitting on horseback in the firmest and most handsome manner. Train yourself to press the foot firmly into the stirrup; keep your leg stiff and the heel a little lower than the toes, except when you have to guard against thrusts from the front; and practice sitting firmly with the thighs pressed close. Cover your breast and limbs carefully with a curved shield. Train your left hand to grasp firmly the bridle and the grip of the shield, and your right hand to direct the spear-thrust so that all your bodily strength will support it. Train your good steer to veer about when in full gallop; keep him clean and in good condition; keep him shod firmly and well, and provide him with a strong and handsome harness.

*Son:* Since we now have before us a discussion which teaches chiefly how a man must prepare himself to meet his enemies in attack and defense, it seems to me that it would be well to say something about how one has to fight on land, on horse or on foot, and in attacking and defending castles. Therefore, if you fell disposed to say anything about such matters, I shall be glad to listen.

*Father:* The man who is to fight on horseback needs to make sure, as we have already stated, that he is thoroughly trained in all the arts of mounted warfare. For his horse he will need to provide this equipment: he must keep him carefully and firmly shod; he must also make sure that the saddle is strong, made with high bows, and provided with strong girths and other saddle-gear, including a durable surcingle across the middle and a breast strap in front. The horse should be protected in such a way both in front of the saddle and behind it that he will not be exposed to weapons, spear thrust or stroke, or any other form of attack. He should also should have a good shabrack made like a gambison of soft and thoroughly blackened linen cloth, for this is good protection against all kinds of weapons. It may be decorated as one likes, and over the shabrack there should be a good harness of mail. With this equipment every part of the horse should be covered, head, lions, breast, belly, and the entire beast, so that no man, even if on foot, shall be able to reach him with deadly weapons. The horse should have a strong bridle, one that can be gripped firmly and used to rein him in or throw him when necessary. Over the bridle and about the entire head of the horse and around the neck back to the saddle, there should be a harness made like a gambison of firm linen cloth, so that no man shall be able to take away the bridle or the horse by stealth.

*The rider himself should be equipped in this wise:* he should wear good soft breeches made of soft and thoroughly blackened linen cloth, which should reach up to the belt; outside of these, good mail hose which should come up high enough to be girded on with a double strap; over these he must have good trousers made of linen cloth of the sort that I have already described; finally, over these he should have good kneepieces made of thick iron and rivets and hard as steel. Above and next to the body he should wear a soft gambison, which need not come lower than to the middle of the thigh. Over this he must have strong breastplate made of good iron covering the body from the nipples to the trousers belt; outside this, a well-made hauberk and over the hauberk a firm gambison made in the manner which I have already described but without sleeves. He must have a dirk and two swords, one girded on and another hanging from the pommel of the saddle. On his head he must have a dependable helmet made of good steel and provided with a visor. He must also have a strong, thick shield fastened to a durable shoulder belt

and, in addition, a good sharp spear with a firm shaft and pointed with fine steel. Now it seems needless to speak further about the equipment of men who fight on horseback; there are, however, other weapons which a mounted warrior may use, if he wishes; among these are the horn bow and the weaker crossbow, which a man can easily draw even when on horseback, and certain other weapons, too, if he should want them.

2 \* ,La Règle du Temple- or ,Rules of the Temple-  
<http://www.deremilitari.org/RESOURCES/ARTICLES/bennett1.htm>

3 \* Paige Dorsey, AKA Rowenna has worked professionally as mounted security and was trained in tactics. Mounted security personnel and police are trained to lock their legs in a forward position when engaging any possible opponent. This is to prevent the rider from being pulled from their saddle.

4 \* Hyland (1993).

5 - ,*Gesta Regum Anglorum*- by William of Malmesbury

6 \* 1862 US Army Ordnance Manual. Description of formula for ,Kit- to be applied to the linen cord.

7 \* Remaining fragment of 17<sup>th</sup> Century harness piece in author/s collection shows stitching at about 10 stitches per inch. Again, whether this is valid for 13<sup>th</sup> Century gear is not proven nor implied.

8 \* Gum tragacanth and references to its use exist in Arabic sources of the time.

9 \* While rawhide was used in the 13<sup>th</sup> Century, and documentation suggests that some shields were covered in rawhide for strength, no firm evidence points to early wooden saddle trees being covered in rawhide. Henry V/s war saddle shows many iron reinforcements on it. This was the same for American military saddlery prior to the civil war which was not rawhide covered. Use of iron in the construction of the tree was used instead for strength. Unfortunately iron rusts easily when exposed to sweat (as in horse sweat) and the elements. The rawhide covered McClellan was a revolution in American military saddlery and allowed the rawhide to take the place of many iron components.

10 \* Use of keepers is not show in any illuminations from the time period. This does not discount their usage, there are just no surviving examples. The loops help to keep the extra length of leather out of the way and reduces wear on the straps. It also provides a more finished look to the tack.

11 \* Several other illuminations from this time and within 20 to 50 years of this time show some bridles with several throat latches. Given the account in the *King/s Mirror* text referring to an issue of somebody gaining control of the bridle, perhaps this was a real concern and Ms. Smith/s theory is the most likely as to this bridle/s strange configuration.

12 \* Clark, J. (Ed.) (2004).

13 \* Lydie LaBarthe/s article called ,Black in Period- or ,The use of black as a dye, ink and paint between 1150-1250- mentions the following account:

*In the household accounts of a noble woman from the early 13th century, a servant was sent to purchase 10 ells of black fabric. An ell is roughly 45 inches long, so just under a meter. ,Ten ells of black serge for only 17s were bought for Richard De Montforte before his departure for Bigorre- this quantity was sufficient for a robe and also trappings for his horse.- Another notable piece of information from this same source says ,The articles (of the Guild of Cappers, March 1270) warned against the common fraud of dyeing an old cap black, and reselling it, as new. This particular sharp practise was soon detected as the colour ran in the rain.-*

14 \* Notice ,Girths- as in the plural.

15 \* 1904 Cavalry Saddle was issued with a surcingle. See [www.militaryhorse.org](http://www.militaryhorse.org).

16 \* Inferences to ,Code- or ,Kit- exist back to the 15<sup>th</sup> Century. c1440 *Wycliffe Ex. ii 3*

17 \* Coperas water (Iron Black), Rust Dye are the basis for some black Medieval Inks. References are made back to the 15<sup>th</sup> Century.

## FIGURES

Figures 1, 2, 6, 7, 8, 9, 13, 17, 19, 26, 27, 29, 31, 38, 39, 40, 41, 42, 45, 46, 47, 48, 50, 51, 52, 55, 56, 57, 58, 61, 62, 64: ,Maciejowski Bible-, or ,Old Testament Miniatures-. Morgan Pierpoint collection. Circa 1240

Figures 3, 37: Lady Cera graciously provided these photos.

Figures 10, 11, 12, 15, 16, 18, 21, 22, 24, 25, 28, 32, 34, 44, 53, 54, 59, 60, 65, 66: From author/s personal photos.

Figures 4: Jesse Bailey/s MSN group share page.

Figures 5, 49: ,Winchester Bible- Morgan Pierpoint Collection. Circa 1150

Figures 14, 20, 30, 63: ,Trinity Apocalypse- illuminations. Circa 1260

Figures 23, 33: Unknown source

Figures 35, 36: ,La estoire de seint Aedward le Rei-, Matthew Paris, 13<sup>th</sup> Century source. Circa 1245

Figure 43: ,Manesse Codex-, circa 1300 Manuscript.

Figure 66: Westminster Abbey

Figure 67: Sketch of Early 13<sup>th</sup> Century Stirrup

Figure 68: 13<sup>th</sup> Century Horse Bit, Incomplete and damaged

Figure 69: Sketch of Stirrup Mount in use

## BIBLIOGRAPHY

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Hyland, Ann. (1993). *Training the Roman Cavalry*.

Larson, Lawrence M. (translator) (1971). *The King's Mirror (Speculum Regale \* Konungs Skuggsjá)*. Irvington Publishers, New York, NY.

Smith, Nancy. Owner of Holly Springs Stables, Mentone, AL. Once a professional breeder and exhibitor of gaited horses, now retired, she runs a rental stable of approximately 70 head in Mentone.

Winchester Bible \* Morgan Pierpoint Museum, New York, c1150, England, Winchester,

Maciejowski Bible \* Morgan Pierpoint Museum, New York, c1240, Paris, France,

Manesse Codex - Heidelberg, University of Heidelberg Library, 1305-1340, Zurich, Switzerland.

## RESOURCES & LINKS

Below are the resources used in creation of this conjectural rig. They are by no means the only resources, just the ones used.

Buckles

<http://www.whiterosecastings.co.uk/>  
<http://www.kingskeep.com/>

Linen Webbing

<http://wildeweavery.com/>

Linen Thread

<http://www.blueheronmercantile.com/>

Stirrups/Bits

<http://www.thadenarmory.com/>

Linen Material

<http://www.fabrics-store.com/first.php>

Online Research Links

Maciejowski Bible

[http://www.medievaltymes.com/courtyard/maciejowski\\_bible.htm](http://www.medievaltymes.com/courtyard/maciejowski_bible.htm)

Novae Militiae

<http://www.novae-militiae.com/>

King/s Mirror

<http://www.deremilitari.org/RESOURCES/SOURCES/kingsmirror.htm>

Manesse Codex

[http://www.tempora-nostra.de/index\\_f\\_neu.shtml?manesse0-9](http://www.tempora-nostra.de/index_f_neu.shtml?manesse0-9)

Knight/s Templar

[http://www.ordotempli.org/knights\\_templar\\_armour\\_research.htm](http://www.ordotempli.org/knights_templar_armour_research.htm)

Footwear of the Middle Ages

<http://www.personal.utulsa.edu/~marc-carlson/shoe/RESEARCH/GLOSSARY/bdefc.htm>

Living History Creed

<http://members.aol.com/smckay1234/LivingHistory/manifesto.htm>

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