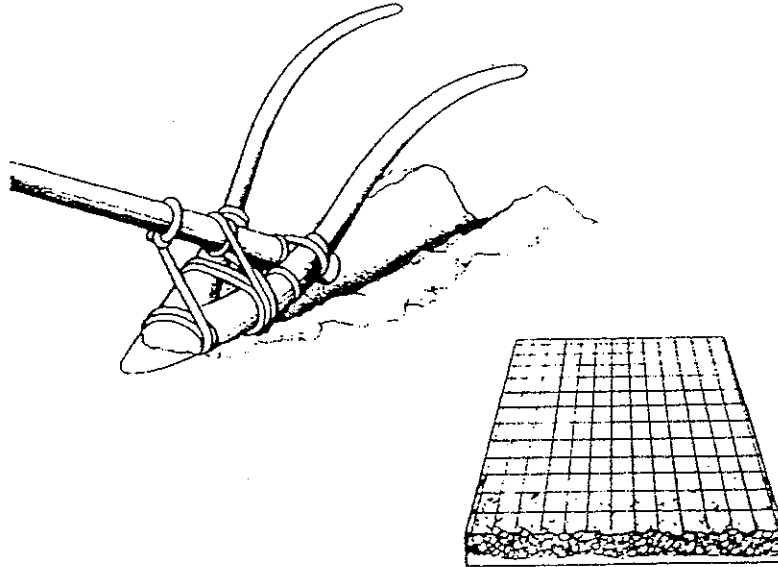


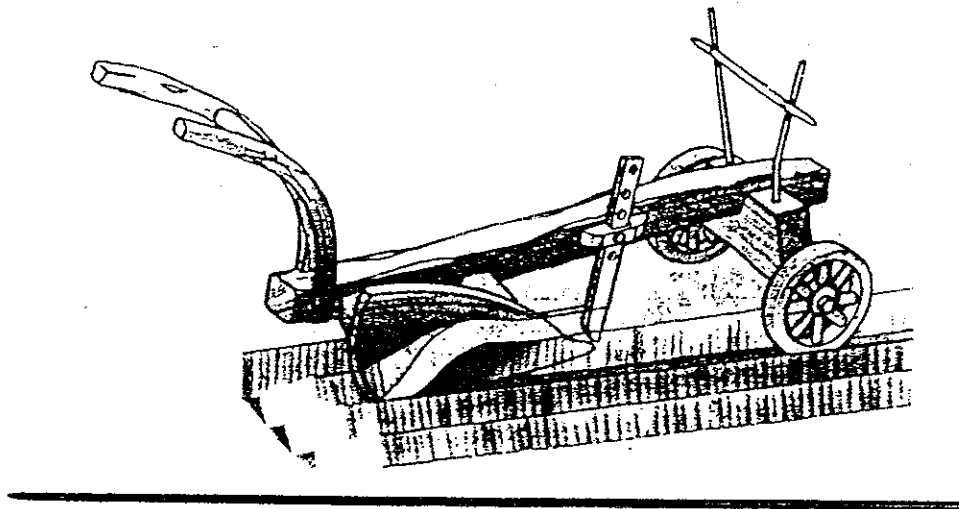
MEDIEVAL PLOUGHS

MEDITERRANEAN DRY FARMING: THE ARATRUM

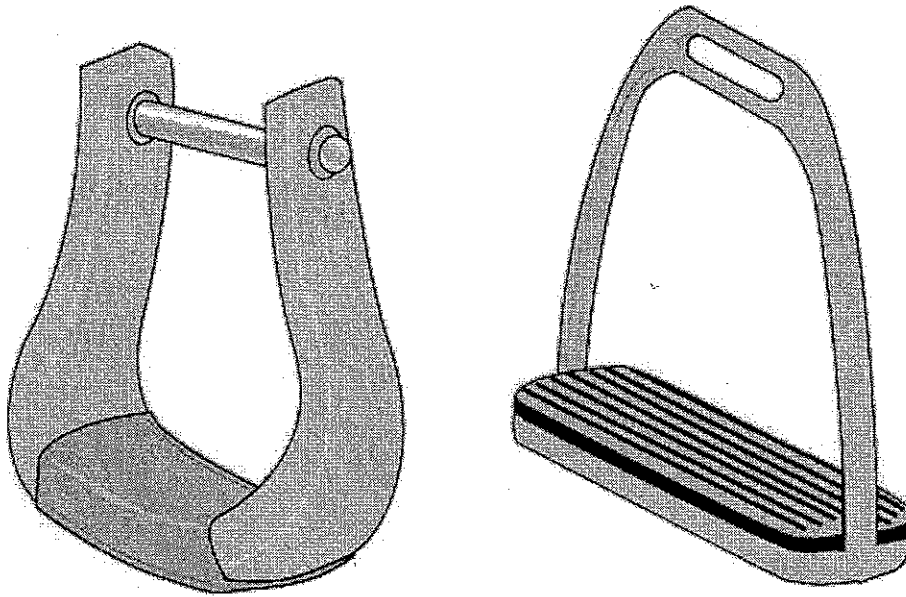


NORTHERN WET FARMING: CARUCCA OR SLAVIC PLOUGH

with coulter and moldboard



THE STIRRUP (for Horses)



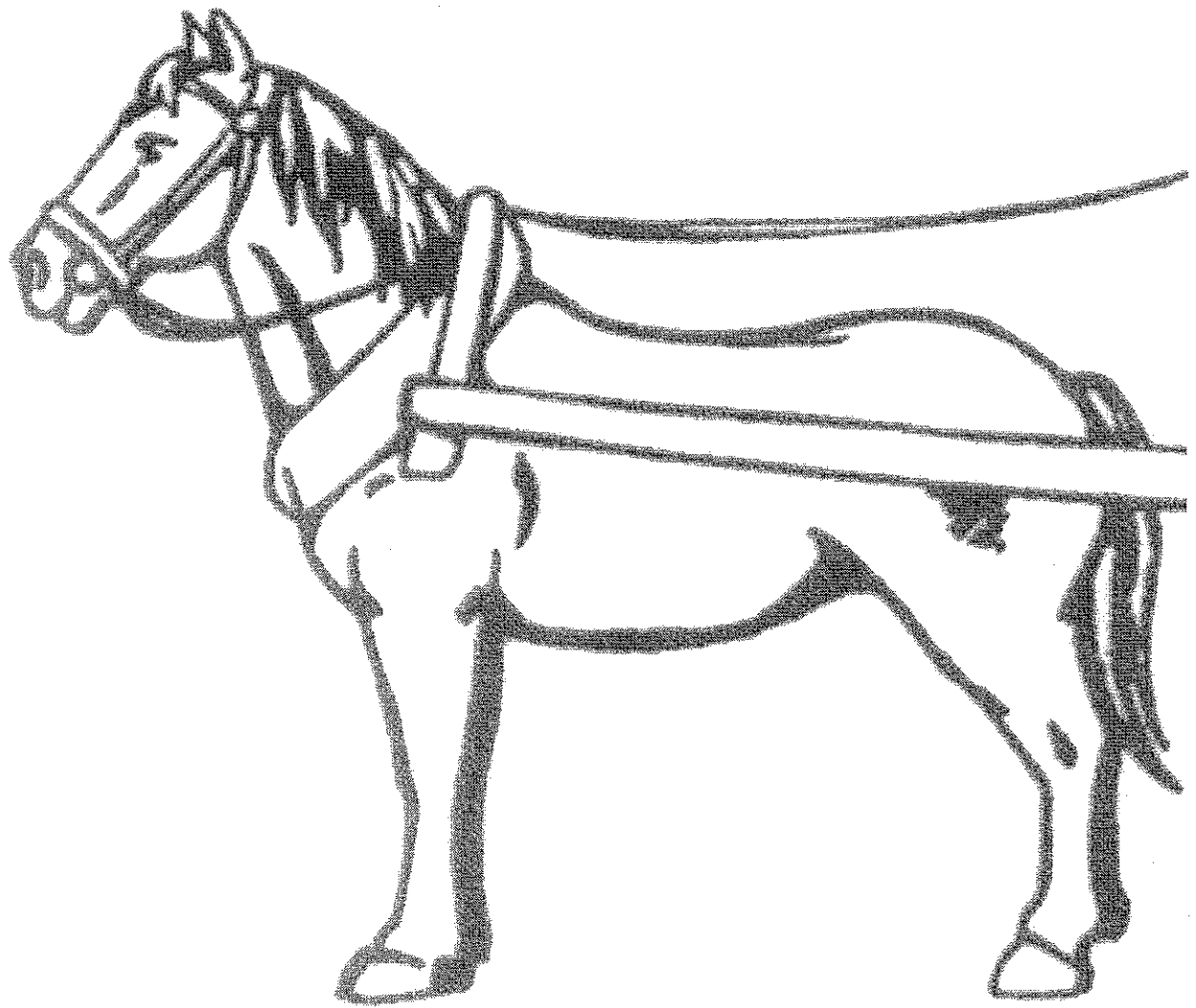
Academy Artworks

THE HORSE COLLAR



1412 AD

Troitzsch & Weber. Die Technik, 1987



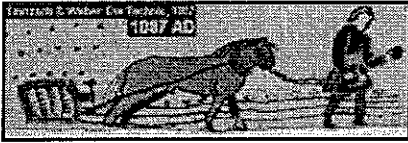
← History of Collar Harnessing in Source Pictures

All pictures are stored both in a small ('thumbnail') and in a full size version in order to save downloading times. Click the thumbnail to view the larger version. Some thumbnails are actually clippings from the larger versions.

Collars of the Middle Ages



CMA#1: An MA horse collar, found in the letter P of a manuscript bible in **1084 AD**. It is called the "Bible of Goderan de Lobbes" from Chaleroi, Belgium, preserved at Toumai, Bibliotheque du Seminaire, Ms 1. This drawing is by Catherine Rommelaere in Brancards et Transport (1993). In the same paper she dated the Bayeux tapestry to c. 1077. Other sources used the date of 1087 and L. des Noettes that of 1134. Anyway, either this one or the Bayeux tapestry is the first depiction of an MA collar.



CMA#2: A horse with collar by harrow work in northern France around **1087 AD** from the famous Bayeux tapestry. The collar is depicted in a high position like in some pictures from Roman time. Additionally, the traction point on the collar is higher than modern designs. Close to this horse on the tapestry is a mule with strap harness during ploughing.



CMA#3: An MA horse collar at work on a heavy plough from around **1250 AD**. The collar was quite large or somewhat exaggeratedly depicted by the artist



CMA#4: Several depictions of MA collars from the early 1200s. The collars look small like unpadded wooden or iron rings. The collar in the lower right seems to be positioned somewhat high on the neck like in Roman examples. This wagon lacks the necessary shaft pole.

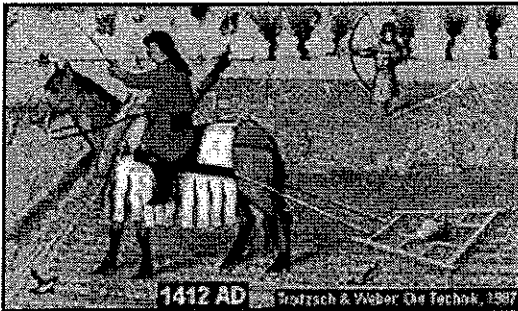


CMA#5: A strange MA collar application from around **1250 AD**. Here a yoke and a collar were combined for an oxen team supporting a plough. Unlike the Roman ox collar, a design to put the traction point as low as possible to improve the plough design, there is no improvement this way. The plough is still attached to a high traction point like in the usual bovine yoke or the "Thorat & Girth" harness (Dorsal Yoke). This way most of the collar padding is just useless and could be substituted by a simple leather strap to fasten the yoke in position. This collar here does not look like a leftover of a horse either - a horse collar exhibits no attachment points on the top like here.



CMA#6: Harness in file and very heavy collar from around 1350. Either the artist exaggerated the collar in size or the thing was really too big. Collars too big and unnecessarily heavy were mentioned as a disadvantage by experts in modern times [1]. The idea behind them, that heavy collars gain more power, probably dates back to medieval times as this picture shows

[1] Hayes, M.H.: *The Points of the Horse*, London 1893 (according to Spruytte 1983), or sources in CMo#2 and CMo#3



CMA#7: 1412 AD. A typical horse collar at work. It is an excerpt from one of the calendar pages (October) of the very famous *Très Riches Heures* of the Duke of Berry. Most art historians agree that these illuminations were done between 1410 and 1413. More impressive than the collar is the detailed art of painting of the late MA / early Renaissance.



CMA#8: A single team hauling a wagon loaded with three persons. A well-drawn picture from around 1450, at the end of the MA. The collar and the other parts of the harness and wagon are pictured in high detail. The driver is riding one of the horses. It looks like an unsuited burden for the relatively small horse.

HTML by Erik Möller
Content by Seneca

McCloskey's Thesis of Peasant Risk Aversion

To Explain the Scattering of Tenancy Strips in the Open Fields

Donald N. McCloskey, 'English Open Fields as Behaviour Towards Risk,' *Research in Economic History*, 1 (1976), 124-70.

Figure 1. Reducing the Probability of Disaster by Reducing Variability at the Cost of a Reduced Average.

