

# Working animals – a historical approach

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## Abstract

Working animals are often conceptualised as a phenomenon of the pre-industrial age. Historians regularly assume, that working animals became obsolete in the process of industrialisation. But a closer look at the development of the urban transport systems and the mechanisation of agricultural production in the 19th and 20th centuries illustrates, that working animals played a crucial role up to the middle of the 20th century. In other words, they were agents of modernisation and not, as often perceived, phenomena of a pre-industrial era. This article first gives an overview of the relevance and the variety of working animals and then focusses on the close interactions of men, women and children with their working companions. Although humans decided when the animals had to work, the work itself was always done in cooperation between human beings and animals. Work not only produced products, it also created ties. Work, therefore, was and remains profoundly ambivalent for men and animals: it can be a means of alienation, but it can also be an opportunity for emancipation.

## Kurzfassung

Arbeitstiere werden oft als Phänomen einer vorindustriellen Zeit wahrgenommen. Die Geschichtsschreibung geht in der Regel davon aus, dass sie im Zuge der Industrialisierung obsolet geworden seien. Doch ein genauer Blick auf die Entwicklung der städtischen Verkehrssysteme und die Mechanisierung der landwirtschaftlichen Produktion zeigt, dass Arbeitstiere bis zur Mitte des 20. Jahrhunderts eine wichtige Rolle spielten. Mit anderen Worten: Arbeitende Tiere waren Akteure der Modernisierung und nicht Phänomene einer vorindustriellen Zeit. Dieser Artikel gibt zunächst einen Überblick über die Vielfalt und Bedeutung der Arbeitstiere. Danach wird die enge Interaktion von Männern, Frauen und Kindern mit ihren tierlichen Arbeitskollegen thematisiert. Obwohl Menschen entschieden, wann Tiere zu arbeiten hatten, wurden die Arbeiten selbst immer in Kooperation zwischen Menschen und Tieren durchgeführt. Arbeit produzierte nicht nur Produkte, sondern auch Bindungen. Arbeit ist also zutiefst ambivalent: Sie kann ein Mittel zur Entfremdung sein, aber auch eine Chance zur Ermächtigung.

## Résumé

Les animaux de trait sont souvent considérés comme un phénomène de l'ère préindustrielle. Les historiens supposent habituellement que les animaux de trait sont devenus obsolètes au cours du processus d'industrialisation. Mais un examen plus attentif du développement des systèmes de transport urbain et de la mécanisation de la production agricole aux XIXe et XXe siècles montre que les animaux de trait ont joué un rôle crucial jusqu'au milieu du XXe siècle. C'est à dire, ils étaient des agents de la modernisation et non, comme on le croit souvent, des reliques d'une époque préindustrielle.

Cet article donne d'abord un aperçu de l'importance et de la variété des animaux de travail, pour se concentrer ensuite sur les interactions étroites des hommes, des femmes et des enfants avec leurs compagnons de travail. Certes, l'homme décidait du moment où les animaux devaient travailler, mais le travail lui-même était toujours effectué en coopération entre les êtres humains et les animaux. Donc, le travail ne générait pas seulement des produits, mais aussi des liens. C'est pourquoi le travail était et reste profondément ambivalent pour les hommes et les animaux : il peut être aliénant, mais il peut aussi fournir des occasions d'émancipation.

## Resumen

Los animales de trabajo suelen considerarse un fenómeno de la era preindustrial. Los historiadores suelen suponer que los animales de trabajo quedaron obsoletos en el proceso de industrialización. Sin embargo, un análisis más detallado del desarrollo de los sistemas de transporte urbano y de la mecanización de la producción agrícola en los siglos XIX y XX demuestra que los animales de trabajo desempeñaron un papel crucial hasta mediados del siglo XX. En otras palabras, fueron agentes de la modernización y no, como se suele percibir, fenómenos de una época preindustrial.

Este artículo ofrece en primer lugar una visión general de la relevancia y la variedad entre los animales de trabajo. Más adelante se centra en las estrechas interacciones de hombres, mujeres y niños con sus compañeros de trabajo. Aunque los humanos decidían cuándo tenían que trabajar los animales, el trabajo en sí siempre se realizaba en cooperación entre los seres humanos y los animales. En otras palabras: El trabajo no sólo producía productos, también creaba vínculos. El trabajo, por tanto, era y sigue siendo profundamente ambivalente para los hombres y los animales: puede ser un medio de alienación, pero también una oportunidad de emancipación.



### Introduction

Working animals are often conceptualised as a phenomenon of the pre-industrial age. Historians regularly assume, that working animals became obsolete in the process of industrialisation. But a closer look at the development of the urban transport systems and the mechanisation of agricultural production in the 19th and 20th centuries illustrates, that even in the Western world working animals played a crucial role up to the middle of the 20th century. In other words, they were agents of modernisation and not, as often perceived, phenomena of a pre-industrial era.<sup>1</sup>

This article first gives an overview of the relevance and the variety of working animals and then focuses on the close interactions of men, women and children with their working companions. Although humans decided when the animals had to work, the work itself was always done in cooperation between human beings and animals. Work not only produced products, but it also created ties. Work, therefore, was and remains profoundly ambivalent for men and animals: it can be a means of alienation, but it can also be an opportunity for emancipation.<sup>2</sup>

### Horses, donkeys and mules

In the 19th century, most of the newly emerging urban transport systems were depending on horsepower. Cities often had a far higher horse density than rural areas. Since the cities could not produce the feed for the horses, their high demand for horses simultaneously shaped their rural surroundings. Not only the fodder for the horses was produced in the countryside, but also the horses themselves were reproduced here.<sup>3</sup>

1 Auderset/Schiedt 2021, 27-42.  
 2 Porcher/Estebanez 2019, 11-34.  
 3 Moser/Schiedt 2021.



Figure 1 – Even in North America mowing machines often were powered by oxen up to the First World War

In agricultural production, working horses remained indispensable up to the middle of the 20th century. Because the cultivation of plants depends on the weather, the topography and the soil structure, it took more than half a century to turn the strong, but clumsy and far too heavy steam-power machines of the 19th century into light, versatile, motor-driven machines, which were able to compete with animal power. In North America steam ploughs were successfully implemented for breaking

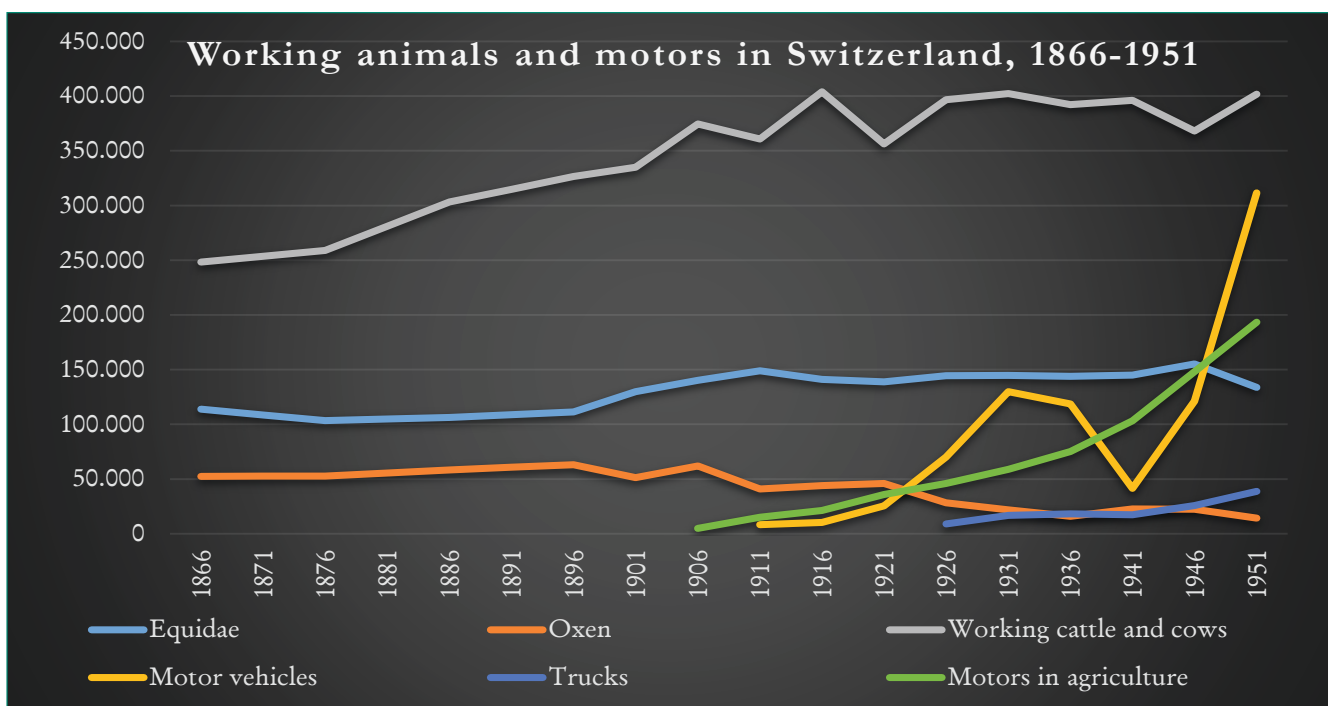


Table 1 – Working animals and motors in Switzerland, 1866-1951

up the prairies. But in cultivating the soil tractors only became an alternative to animal power during and after World War I. In Switzerland it was only after World War II when the number of tractors outnumbered the animal-driven machines.

Donkeys and mules were efficient, frugal and cheap working animals for many who couldn't afford horses. They served as riding, pack and draft animals. As so-called pack mules, they were able to carry heavier loads in relation to their weight than horses, cattle or camels. Donkeys were important and numerous around the Mediterranean, in northern Africa, in the Middle East, across Central Asia to China and in southern European countries such as Greece, Spain and Italy. In Europe, their distribution decreased from south to north. Deviating from this, in the first decades of the 19th century Ireland developed into a country whose density of donkeys per capita was roughly between that of Greece and Spain.



**Figure 2** – Mules were indispensable for carrying loads in mountain areas

## Oxen, cows and bulls

Animals were seldom categorised and counted as working animals in the official statistics. That is one of the main reasons why they have been overlooked as relevant actors for such a long time. While the number of horses, mules and oxen is relatively well documented in the official statistics, the number of working dogs, cows and bulls were seldom levied by the authorities. Their numerical relevance must, therefore, be reconstructed from other sources. The number of working cows, for example, can be calculated from scientific investigations that were undertaken into the working capacities of cows in the 1930s and 1940s when agronomists conducted scientific studies of the draft performance of cattle. These investigations enable us to reconstruct the number of cattle used for working purposes in the interwar period. In Switzerland, the statistically skilled agronomist Hans Wenger measured and analysed the work performed by cows on 375 carefully selected farms.<sup>4</sup> While the observed units mainly fell into the categories of small and medium farms, they nonetheless kept almost three-quarters of all cattle. In two-thirds of the surveyed farms, cows were kept by their owners as the main draft labour. They performed circa 90 percent of the drafting and hemming work. On half of the farms surveyed, cows were used to perform almost all draft work; on the other half, oxen and horses were deployed for particularly heavy draft work or work that had to be performed in very hot or cold conditions, such as, for example, hauling wood in the winter. But not only in Switzerland, in many other European regions too, cows were used in great numbers as draft animals on small and medium-sized farms.<sup>5</sup> To balance their milk

<sup>4</sup> Wenger 1939.

<sup>5</sup> Trossbach 2016, 215-244.



**Figure 3** – In many European regions, cows were the most numerous draft animals up to the middle of the 20th century





**Figure 4** – Breeding bulls were used, often in cooperation with horses, oxen or cows, as draft animals too

and draft performance, they normally were harnessed for a few hours per day only. And before and after giving birth to a calf they usually were spared from draft work altogether.

A today almost forgotten phenomenon is, that breeding bulls too were used as draft animals. Bulls were difficult to keep, their strength often made them dangerous for those who kept and fed them. But work was considered as easing their character. And there is clear evidence from written sources, that working bulls could be kept longer for breeding purposes than those who lived idle on farms.

## Dogs

Dogs were not only used for protecting goods and herding cattle and sheep, they also played a crucial role in transporting goods to the markets or around the farms. But the dogs used for pulling were, similar to cows and breeding bulls, hardly ever recorded statistically. Numerous sources indicate, however, that working dogs were common and the number of dogs used for pulling increased in the second half of the 19th century. With the increasing production and consumption of milk, dogs became particularly relevant for delivering the milk from farms to the creameries and, within the towns, for distributing the milk to the consumers' homes. In addition to the farming population and the milkmen, smaller merchants, butchers, bakers, gardeners, and grocers too took advantage of the muscular strength, mental abilities, and docility of dogs.

The sources documenting this use of dogs almost always refer to local conditions. Towards the end of the 19th century, there were about 300 working dogs in the small town of Bern. In addition, practically all farms in the surrounding areas used their dogs for pulling pur-

poses as well. One of the best experts on the question of working dogs was the famous geologist Albert Heim (1849-1937), who made a name for himself as a cynologist too.<sup>6</sup> Heim reminds us, that in the second half of the 19th century the dog carriage was as common as the ox, the horse or the donkey carriage.<sup>7</sup>

Another genre of sources documenting the work performed by dogs in cooperation with men are the sources created by the engagement of animal protection societies for a regulation or a total prohibition of the use of dogs as draft animals. The fight against the use of dogs for draft purposes was, however, not only motivated by animal protection motives. Equally important were the attempts to discredit and to displace the mobile, often sub-proletarian traders by the newly emerging class of stationary traders in towns and cities. Those people who used dogs as working animals argued, that they were capable to identify the needs of their working companions. Ernst Hess, a veterinarian at the University of Bern, furthermore pointed out that those who worked with animals and devoted a large part of their lives to feeding and caring for them, hardly ever were members of the emerging animal welfare associations. To their representatives, who usually came from a middle-class urban background and kept cats and pet birds in their homes, Hess pointed out, that working people were often depending in their surviving struggle on the cooperation of the "proletariat of working animals".

6 Schiedt 2022b.

7 Id. 2022a, 14pp.



Fig. 28. Milchwagen für Hundebespannung.

**Figure 5** – Dogs were indispensable for the distribution of milk in many European cities

In the long perspective, the attempts to prohibit the use of working dogs were successful – but not universally and only step by step in Western Europe. While in England a ban was implemented as early as 1854, in France this was only the case in 1925. In Belgium and the Netherlands, the prohibitionists were successful in certain areas in the 1950s and by the middle of the 1970s the use of dogs as draft animals was forbidden in both countries.<sup>8</sup> In Switzerland, where a strong tradition of keeping working dogs existed since the 19th century, they were, however, never fully banned.

But the attempts to ban working dogs contributed to the reduction of their numbers towards the end of the 19th century even in regions, where they were not banned. Some working dog owners replaced them with donkeys. Their number, therefore, rose towards the end of the 19th century for a short period – a phenomenon that even statisticians noticed when they argued, that the increase in donkeys in some areas had to be attributed to

8 Schmitz 2013, 289-299.

the efforts of charitable and animal welfare associations to prohibit or limit the number of dogs pulling milk trucks or vegetable carts.<sup>9</sup>

## Interaction of working animals and men

Animals, like men, are not simply born to work. They have to learn it before they can perform it. The teaching techniques varied across cultures and times as much as the pulling harnesses for horses, cows and dogs. Foals, for example, usually were free to roam beside their working mothers in their first year. Then they were tied to a pulling adult to get adjusted to the working rhythm. Only if the horses were three or four years old, they were expected to work along with older companions.<sup>10</sup>

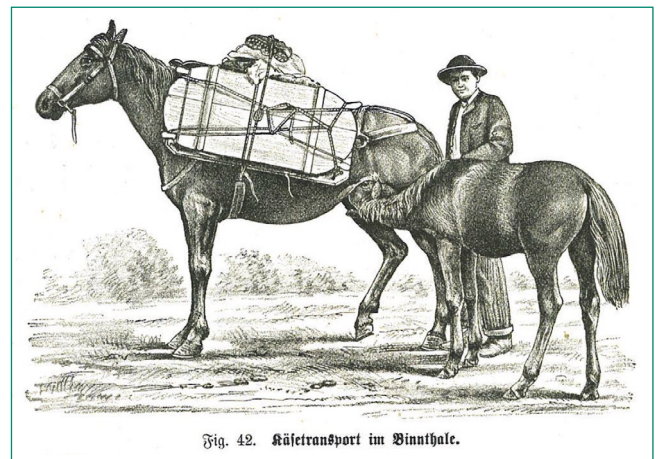


Fig. 42. Käsetransport im Binnthale.

**Figure 6** – Learning by doing: animals had to learn to work just as well as men. Foals were free to roam beside their working mothers in the first year

9 Moser 2021, 139-154.

10 This part of the paper is based on: Moser/Wigger 2022.



**Figure 7** – Oxen and men could not work continuously, they had to rest, eat and drink periodically





**Figure 8** – Children and animals often worked together

Recreation is another field where close interactions between men and animals can be observed. Both, men and animals get tired when they are working. Unlike motor-driven machines they are not able to work continually, without resting. As living resources, they have to eat and drink regularly. When men and animals were working together, they often rested, ate and drank together.

While the need for recreation, drinking and eating created bonds between men and their working animals, the inability to work continuously was crucial for the replacement of most, but not all, working animals by motor-driven machines once the latter became nearly as versatile as the working animals themselves.

Children, like men and women, were an integral part of the peasant economy up to the middle of the 20th century. While the burden of work was too heavy for young children, film sources now available from all over Europe indicate, that working with animals was an empowering experience for many of them too. An important aspect that becomes clear from the film sources is the close interaction of men, women and children with their working companions. Although men decided unilaterally when the animals had to work, the work itself was always done in cooperation between human beings and animals.

## Bibliography

- Auderset/Schiedt 2021** J. Auderset/H.-U. Schiedt, Arbeitstiere. Aspekte animalischer Traktion in der Moderne. *Traverse. Zeitschrift für Geschichte* 2, 2021, 27-42.
- Moser 2021** P. Moser, Grenzen der Komplexitätsreduktion. Überlegungen zu den Versuchen, multifunktionale Tiere in monofunktionale Projektionsflächen zu transformieren. *Traverse. Zeitschrift für Geschichte* 3, 2021, 139-154.
- Moser/Schiedt 2021** P. Moser/H.-U. Schiedt, Arbeitstiere im langen 19. Jahrhundert. Empirische Evidenzen und soziale Kontexte, in: *Jahrbuch SGWSG (2021)* (im Druck).
- Moser/Wigger 2022** P. Moser/A. Wigger, Working animals. Hidden modernisers made visible. *Video Essays in Rural History*, No. 1, Bern 2022. URL: <https://ruralfilms.eu/video-essays/working-animals> [26-04-22].
- Porcher/Estebanez 2019** J. Porcher/J. Estebanez, Animal labor. At the forefront of innovative research, in: J. Porcher/J. Estebanez (eds.), *Animal labor. A new perspective on Human-Animal relations* (Bielefeld 2019), 11-34.
- Schiedt 2022a** H.-U. Schiedt, Arbeitende Hunde - die Arbeit der Hunde. Hunde. *Zeitschrift der Schweizerischen Kynologischen Gesellschaft* SKG 3, 2022, 14pp.
- Schiedt 2022b** H.-U. Schiedt, Heim, Albert (1849-1937)--DB1522, Portal ARH People and institutions, March 2022 version. URL: [https://www.histoiredurale.ch/pers/personnes/Heim,\\_Albert\\_\(1849\\_1937\)\\_DB1522.html](https://www.histoiredurale.ch/pers/personnes/Heim,_Albert_(1849_1937)_DB1522.html) [11-04-22].
- Schmitz 2013** S. Schmitz, The prohibition of dogcarts in Belgium. A hidden agricultural policy?, in: P. Moser/T. Varley, *Integration through subordination. The politics of Agricultural Modernisation in Europe* (Turnhout 2013), 289-299.

**Trossbach 2016** W. Trossbach, Kuhanspannung in Mitteleuropa: Ein vergessenes Element der Agrarrevolution?, in: Jahrbuch für Wirtschaftsgeschichte/Economic History Yearbook 57/1, 2016, 215–244.

**Wenger 1939** H. Wenger, Untersuchungen über die Arbeitsleistung von Schweizer Rindern (Bern 1939).

## List of Figures

**Title** (Although humans decided when the animals had to work, the work itself was always done in cooperation between human beings and animals – work, therefore, not only produced products, but also created ties) – Paul Senn (1901-1953), Bernische Stiftung für Fotografie, Film und Video, Kunstmuseum Bern, Depositum Gottfried Keller-Stiftung. © Gottfried Keller-Stiftung, Bern.

**Table 1** – Archiv für Agrargeschichte, Bern.

**Figure 1-2, 4-8** – Archiv für Agrargeschichte, Bern.

**Figure 3** – Bibliothèque cantonale et universitaire Fribourg.



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