# Distribution of horses in the early modern period in Shinshu

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#### Summary

The detail map for horse heads distribution during the early modern period was made fron the statistical records in vols. 1, 2, and 3 of 'Monograph of Nagano villages (1876)' that Nagano prefecture made on the request of Maiji government in 1875. The hearing investigation into horse feeding, foods and the gravestone before World War II was carried out in the city of Ina and the village of Minamiminowa between 2009 and 2013. The density of the horse population per village in the southern part of the prefecture was higher than that in the northern part, and, in particular, the villages fed many horses that were concentrated in the Ina valley. 'Cyu uma' transit system by horse on the 'Ina kaido' in Ina valley had developed as one of the by-pass roots for free-carrier businesses, going against the wishes of the official institution in 'Naka sendo', which acted under the centralized administrative framework of the Edo era. The development of the carrier businesses and the biological advantages for the operations of transportation, forestry and agriculture under the rough mountainous landscape led to the development of a unique culture in the Ina valley. The people fed many horses, recognized them as members of the family, ate their meat and intestines, and built many tombs to appreciate their spirit as the Deity of Mercy to clean the every accidents and diseases as well as a mountain of weeds, grasses and wild plants in bush around village.

Key words: Horse, Ina valley, Modern period, Transportation, Gravestone

Not many records on horse feeding in Nagano prefecture exist for the period immediately after the tumulus period of Japanese history. In particular, the development of pastures for horse feeding had increased in the manorial system of the Middle Ages. After the sixteenth century, the horse became an important animal for transportation infrastructure as well as farming operations and the production of manure, because the river-based transportation system could not evolve any further because of the rapid stream in Shinshu, which is the old name of the Nagano prefecture. Horses used for transportation had been named 'Chyu-ma' and assumed a primary role in transportation. After the Meiji era (1868), the shogunate system of the Edo era crumbled and the economic environment was also changed drastically by the industrial revolution.

There are no precise official statistics for the Edo era, and therefore, we cannot ascertain the differences in the number of horse heads among villages. However, the Meiji government tried to understand and use information on local productivity in order to rapidly construct the modern state. Nagano prefecture officials also investigated the local population, products, and culture for certain requirements and provided the most accurate statistical data of the early modern era in their 1876 publication, 'Monograph of Nagano villages, 1–3'.

In this report, we made the detail map for horse heads distribution during the early modern period and discussed the reason why the culture of horse feeding and food was developed in the Ina valley, which is located between Suwa lake and the Shizuoka and Aichi prefectures, and why many villages have developed beside the Tenryu river.

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#### Methods of investigation

The horse head numbers were counted in each village, and are recorded in vols. 1, 2, and 3 of 'Monograph of Nagano villages (1876)' that Nagano prefecture made on the request of Maiji government in 1875. The head numbers per village have been drawn on the outline map of Nagano prefecture in Fig. 1. The population in each village in Nagano was between 1000 and 1500 before the consolidation of smaller municipalities.

The hearing investigation into horses and semi-grasslands before World War II was carried out in the city of Ina and the village of Minamiminowa between 2009 and 2013.

#### Results and discussions

The number of villages was 698 in the records, and there were many horse heads in the Ina valley as compared to in the other regions (Fig. 1). The density of the horse population in the southern part of the prefecture was higher than that in the northern part, and, in particular, the villages fed many horses that were concentrated in the Ina valley. There is no report for the detail map of horse fed in in the early modern period in Shinshu prefecture. The geographical map presented in this report has significance for understanding the developments of agriculture and free-carrier businesses at mountainous area in central Japan.

The main road during the pre-modern times was 'Naka sendo', which was improved for better transportation between Edo (Tokyo) and Kyoto, by the Edo government after 1635. This route did not pass through the Ina valley. The government controlled all of the traffic and the transport of goods, and the officers regulated the number of horses and governed the postal station and transfer of baggage in 'Naka sendo'. The rules imposed severe restrictions on the free circulation of goods and products and required specific transit times.

'Cyu uma' transit system on the 'Ina kaido' in Ina valley had developed as one of the by-pass roots for free-carrier businesses, going against the wishes of the official institution in 'Naka sendo', which acted under the centralized administrative framework of the Edo era. The system of negotiating transactions

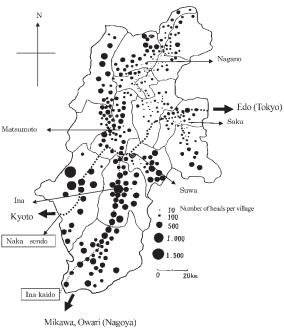


Fig. 1 Distribution of horses in Shinshu prefecture in 1875.

for transportation and direct shipment had also developed and produced reasonable transportation costs. In Takato, near Suwa, the direct shipment system of 'Toushi' had developed, and one person commonly required three mare horses for effective transportation (Board of publication for Kami Ina Shi, 1980).

The regal action and the adjudication in 1760 were maintained in full force, in an attempt to control the number of 'Cyu uma' in Ina valley. The numbers per village were recorded as 48, 38, 18, 19, 9, 10, 13, and 12 in, respectively, Ina, Suwa, Azumi, Chikuma, Chiisagata, Takai, Hanishina, and Sarashina (Furushima, 1974). The records in the agreement that was decided by local custom indicated that the horses for transportation were concentrated in the Ina valley. The agreement had enough teeth to maintain the number of heads of 'Cyu uma' until the modern era.



Fig. 2 The tomb in appreciation of the horse's spirit at the Education and Research Center of Alpine Field Science of Shinshu University in the Minamiminowa village.

The system enhanced the purchasing power of brokerage businesses, because the carriers had paid deposits as liability insurance to the owner of goods. Furushima (1974) also pointed out that the rules were activated by the commercial activity among villages in the Ina valley. Miyashita (1988) emphasized that the buying capacity of brokers was increased by the system and affected many goods, including the following list: cereals, sake, sugar, kuzu starch, silk, agar, tobacco, drugs, Japanese sandals, ramie (*Boehmeria nivea var. nipononivea*), hemp (*Cannabis sativa*), perilla oil seed (*Perilla frutescens* var. *frutescens*), paper, Japanese ink, fish, cotton, lead, fish sausage, incense stick, candle, umbrella, paper fan, tea,

aluminium, potassium, sulphate, iron, palm broom, grind rock, and China dishes before 1900.

In the mountainous area, horses provided advantages for forestry and transportation in comparison to cattle. Cattle do not commonly adapt to the rough landscape in Shinshu, but the horse can be operated easily by farmers who have small farmlands and forests. Kakinoki (1988) pointed out that ploughing with horses became popular in Shinshu after 1887. Therefore, the goals of horse feeding before the early modern period were restricted to transportation and forestry. Nakayama Shoukei, at Hase village deep in the upper Ina valley, also pointed out that the semi–grasslands and bush around the villages were important resources for manure for paddy fields and foodstuffs for horses before World War II, and the role of the horse had shifted from transportation and forestry to the management of farmyards.

The development of free-carrier businesses against the official institution in the Edo era and the biological advantages from the operations of transportation, forestry, and agriculture under the rough mountainous landscape led to the development of a unique culture in the Ina valley where the people feed many horses, recognize them as members of the family, eat their meat and intestines, and build a tomb to appreciate their spirit as the Deity of Mercy. For example, there is one horse's tomb established in 1938 at the Education and Research Center of Alpine Field Science (AFC) of Shinshu University, in Minamiminowa village (Fig. 2).

The words carved on the gravestone indicated that early people believed that the horse's head had the great power like the Deity of Mercy. The gravestone located the entrance of the old village before the establishment of the campus of University. People in Shinshu believed that the horse could clean the every accidents and diseases as well as a mountain of weeds, grasses and wild plants in bush around village. We pointed out that the horse was one of important charms against evil before modern times.

From this geographical records and the description on the gravestone located at AFC, we can estimate the close relationships between human and horse in the history of the Ina valley and also recognize that the AFC is a unique institution for education of agriculture in Japan.

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## 信州の近代初期における馬の分布

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### 要 約

明治初年の「長野縣町村誌」(1876)の統計資料から信州の馬の詳細な分布図を作成し、伊那谷で馬の飼養頭数が多い理由と特異な馬文化の発展との関わりを論じた。1875年に698の町村が存在し、村当たりの馬の頭数は伊那谷に集中しており、特に伊那では約1000頭にのぼった。当時の主要な街道は中山道であったが、伊那街道沿いの村落に馬が多く分布した理由は、伊那街道が、徳川幕府による公的な制約が小さく、安く、早く、直接輸送できる物流に便利なバイパスルートであったことによる。また、地形が険しい信州の山岳地帯では河川での運送は困難で、運搬業には馬の方が牛より扱いやすかったという生物学的理由もあると考えられた。馬による運送業は「中馬」と呼ばれて発展し、信州の商品経済の発展に大きく寄与した。信州では馬は主に林業と運搬業のために飼養されていたが、次第に農耕用に変化して戦後まで続いた。伊那谷では、多くの馬を飼養し、家族の一員のように扱い、馬肉を食し、さらには人々を守る観音菩薩とする独特の文化が発展した。

キーワード:伊那谷,馬,近代,中馬(ちゅうま),物流,墓標