Review

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# JOHANNES LUDWIG JANSON, PROFESSOR OF VETERINARY MEDICINE IN TOKYO IN 1880-1902 Contributions to German-Japanese Medical Relations, Part IV

# JOHANNES LUDWIG JANSON, PROFESOR VETERINARSKE MEDICINE U TOKIJU OD 1880. DO 1902. Prilog njemačko-japanskim medicinskim vezama, IV. dio

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## SUMMARY

Among the German pioneers of Western medicine in Japan (8, 12) during the Meiji period (1868-1912), veterinary officer Johannes Ludwig Janson (1849-1914) was one of the most important figures. He arrived in Tokyo in October 1880 and taught at the Veterinary School in Komaba. During his tenure, the school in Komaba was integrated into the School of Agriculture of the Imperial University of Tokyo. Numerous of his graduates occupied high public offices. Among his publications, those about domestic animals and veterinary medicine in Japan deserve special attention. He married a Japanese girl and continued teaching in Komaba until 1902. He found his last resting place in Kagoshima, the native place of his wife. To this day, the Japanese consider Janson the founder of modern veterinary medicine in their country.

**Keywords:** history of veterinary medicine, 19th century, veterinary officer, Imperial University of Tokyo, Japan

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# Introduction

Johannes Ludwig Janson was born in a Prieborn district of Strehlen (Silesia) on 1 September 1849. No informations about his family are available because vital statistics were destroyed at the end of WW II. Janson enrolled in the Prussian military veterinary academy in Berlin. In 1869, he obtained the license to practice veterinary medicine. He served during the Franco-Prussian War 1870/71. In 1875, he was appointed provisional veterinary officer at the rural district of Strehlen (Reg.-Bez. Breslau). A year later he was appointed veterinary officer for the Krefeld und Gladbach district (Reg.-Bez. Düsseldorf). During home leave in 1905, the suspended veterinary officer retired on his own request from Prussian civil service. In 1877, he worked as horse doctor at public Brandenburgian and Saxonian stud farms. In 1880, Johannes Janson was appointed assistant professor to the military veterinary academy in Berlin, but as soon as October of the same year he went to Tokyo. Over the 22 years of his professorship and basic research, he had greatly contributed to the development of veterinary science in Japan. When he retired from the Komaba School of Agriculture in 1902, he was decorated and received the honorary title of Professor emeritus of the Imperial Tokyo University, and a statue in Komaba (Fig. 1), which has now moved to the Department of Veterinary Anatomy in Yayoi [9]. In 1904, the Tenno granted him a annualy pension of 1,200 Yen (1 Yen = 1.25 US = 3.75 German Mark = 0.75 g Gold).

Janson was a sociable man, a good dancer, and had friendly relations with the upper class people of Japan [9]. He married Haruko Taniyama from a Samurai family in Kagoshima. She spoke foreign languages and was a skilful dancer. Mr and Mrs Janson had four children, one son and three daughters. Two girls died as children (at that time infant mortality was about 20%). After retirement according to Japanese custom, Janson worked in Morioka High School of Agriculture and Forestry, now Iwate University [9], 532 km North of Tokyo. He spent his last days teaching at the 7th High School in Kagoshima-Ikenoue (Kyushu). Following Japan's declaration of war on 23 August 1914, he requested to withdraw his 10-year-old daughter Yuriko from elementary school, but was refused by the principal. Shortly after, Janson died at the age of 65 on 28 October 1914 in Kagoshima, the native place of his wife. His friend Yosizoh Tamari, the dean of the Kagoshima School of Agriculture delivered the funeral address at the service held in the Church of Christ of Yamashitamachi [10]. Janson's gravestone (Fig. 2) still exists above his urn at the municipal Cemetery of Kagoshima-Kusamura (Soumuta).



Figure 1. Statue of Johannes Janson at the Department of Veterinary Anatomy in Tokyo-Yayoi. "Imperial University of Tokyo, Statue of Professor emeritus Janson of The Third of Order" (in Japanese). Photo by M. Kuromaru

Slika 1. Kip Johannesa Jansona na Zavodu veterinarske anatomije u Tokiju – Yayoi. "Carsko Sveučilište u Tokiju, Kip profesora emeritusa Jansona, pripadnika Trećeg reda" (na japanskom).

Foto: M. Kuromaru



Figure 2. Gravestone of J. Janson in Kagoshima. "Johannes Ludwig Janson, Prof. Univ. Tokyo, 1.IX.1849 Berlin – 28.X.1914 Kagoshima" (in Japanese). *Photo by A. Matsuo* 

Slika 2. Nadgrobni spomenik J. Jansonu u Kagoshimi "Johannes Ludwig Janson, prof. na tokijskom Sveučilištu, 1.IX.1849. Berlin – 28.X.1914. Kagoshima" (na japanskom). Foto: A. Matsuo

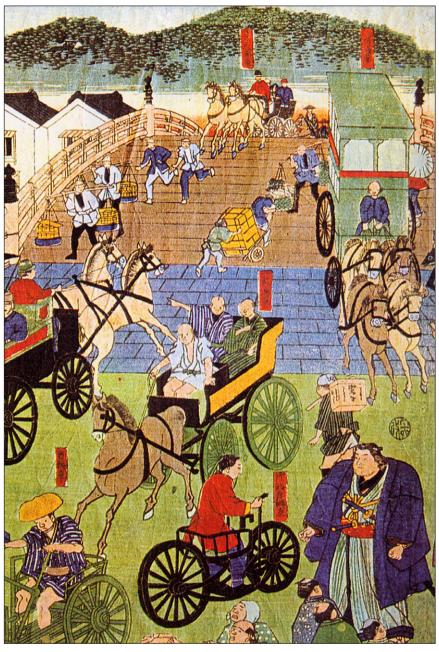


Figure 3. Horse carriages on the Nihonbashi bridge in Tokyo from the Meiji period (1868-1912), contemporary wood block print.

Slika 3. Konjske zaprege na tokijskom mostu Nihonbashi iz razdoblja Meiji (1868.–1912.), suvremeni drvorez

# **ACKNOWLEDGEMENTS**

I discovered Johannes Janson in March 2009 quite by chance while I studied German-Japanese medical history. I had not been aware of him even though I published two articles [7,8] about his assistant Carl Troester, who also worked in Komaba in 1880-83. For valuable advice, I am indebted to Professor Dr. J. Schäffer, head of the Museum of Veterinary History in Hannover, who gave me Janson's articles published in the Archiv für Tierheilkunde in 1881-95 [1-6]. To Dr. H. Kulemeyer, a colleague and librarian at Free University in Berlin-Düppel, I owe thanks for the data on Janson's civilian life in Germany. Professor Dr. M. Kuromaru provided the information about Janson's life and activities in Japan [9] and the photograph of his memorial stone kept at the Faculty of Agriculture in Tokyo. Mr. A. Matsuo, zoologist, has translated and collected data from Japanese sources [10].

# CHINESE-JAPANESE LITERATURE ON VETERINARY MEDICINE AROUND 1890

In his papers, Janson expressed interest in Chinese and Japanese literature on veterinary medicine [2] and explained the difficulties which arose from different meanings of the Chinese characters as well as from the reading of European technical terms. Many things in Japan were on the wrong side for a German; horses were led on the right side and stood with their hind quarter to the stable wall. Japanese chronology also puzzled him. Nowadays these things are well known, but in 1880 Janson had to learn them.

He was surprised to see that the Chinese used a textbook of veterinary medicine (in Japanese called *Bashimon*) as early as the Ming period (1550 BC). It was first reprinted in Japan about 1500 AD, and again in Osaka in 1890. In 1891, Janson published a critical review of Chinese-Japanese literature [2]. His indices A and B of the reviewed literature comprised 63 titles sent to the Military Veterinary Academy in Berlin. Eventually, he participated a textbook of veterinary medicine in 16 volumes, written by the Komaba school teaching staff, partly based on Janson's lectures.

# DOMESTIC ANIMALS IN JAPAN

According to Janson, silkworm breeding was one of the most important agricultural branch in Japan [4]. Because Buddhism did not encour-

age eating meat, domestic cattle were not of the same importance as in Europe. That gradually changed with Japan's opening to foreigners, who were settling in the treaty ports. Horses were first imported to Japan from Korea in the 5<sup>th</sup> century AD. From the small Mongolian horses, several rural breeds developed. Over the Samurai millennium, the horse became a symbol of the state. Horse breeding ceased to prosper in the times of war from the 14<sup>th</sup> through the 16<sup>th</sup> century, and did not recover before the Meiji Restoration in 1868, when hundreds of horses were imported from America, Hungary, and Algeria [4].

The first livestock census of December 1877 recorded 1.5 million horses and 1.1 million cattle. Japan then counted about 35 million people. Janson was surprised that only stallions were kept in Tokyo. For several years he had had no mare for anatomical lectures. Traditional draught animals were water buffalos and bulls, which also pulled the festival carriage of the Tenno. With the country's opening, European carriages became popular (Fig. 3), but not as much as rickshaws that were superior, less expensive, quicker, and more enduring than any horse-drawn vehicle. A new competition came with the railway.

All large Buddhist temples kept white horses, which were considered holy. They were fed with beans and lived more than 40 years. Horses were also used to carry goods on small mountain roads. A cavalcade of ten to twenty would be led by a groom. The Tokyo horse tram owned about 600 horses. Usually they would do the job for no longer than three years. A few treaty ports would have horse races according to the European custom. Soon they caught the interest of the Japanese. During the Edo period (1615-1868), there was no cavalry. However, by 1888 the army was approximately 10,000 horses strong. When Janson first inspected cavalry stallions, their selection and nutritional status did not seem encouraging. However, ten years later the cavalry was not inferior to European squadrons.

Cattle were introduced to Japan not before the Yayoi period (300 BC to 300 AD). They were used to work in the fields. The small Wagyu cattle (Fig. 4) were strong and sturdy. In 1866, Tokyo saw its first slaughterhouse for foreigners; in 1882 meat was first introduced in army diet. The number of cattle bred for meat increased from 36,000 to 100,600 between 1882 and 1887. The famous Kobe beef was already available, and 600 g cost 1 Yen = 1 US\$ [4]. Today, the price amounts to 200-400 Eur/kg filleted steak.



Figure 4. Black Wagyu Cattle at a farm in Kobe in 1968. Photo by A. Kast. Slika 4. Crno govedo vrste Wagyu na farmi u Kobe 1968. (Foto: A. Kast)

As Japanese cows were not suitable for milk production, milk cows were imported from the USA (250 US\$ per cow) and bred. By 1890, Tokyo already had 214 town farms with 2,000 milk cows. Five hundred grams of Japanese butter cost 3 Mark. Cheese was not produced because the Japanese could not stand its smell.

Sheep and goat breeding did not play a major role in Japan, and pig breeding developed very slowly in the 19<sup>th</sup> century. Poultry however had been farmed since the Yayoi period. From 1864, Japanese-bred hens had been appreciated worldwide, while chickens from abroad were used to improve the Japanese varieties. The same is true for rabbits, first introduced to Japan in 1873 [4].

# VETERINARY SCIENCE

Kuwashima Nakakami, sent to China by Tenno Kammu (782-807), is considered the founder of veterinary medicine in Japan. Tenno Daigo (898-930) introduced the title Bai (Ba = horse, i = physician) for military veterinarians. Later, High Priests became famous for their knowledge of cattle diseases. During the Edo period (1615-1868), textbooks of veterinary medi-

cine from China and Holland were imported and translated. In 1840, Kikuchi Tosui became known as "the old curesmith of Yedo". Tosui wrote a book about the anatomy of the horse, taught many students, and is said to have started a new age of Japanese veterinary medicine [1].

In 1874, an agricultural school was established in Tokyo-Komaba with a department of veterinary medicine. Step by step, it became the Tokyo University Faculty of Agriculture. In April 1874, a Lieutenant Auguste D. Angot of the French Veterinary Corps became the school's first foreign teacher, who trained military horse doctors until 1878. From October 1876, he was joined by a 33 year-old English John A. McBride, who remained there until November 1879 and enjoyed considerable reputation. Department's dean was a physician, Dr Sugita, who was taught medicine by two German physicians from 1871 to 1875. One was surgeon Leopold Müller (1822-93) and the other internist Theodor Hoffmann (1837-94) [1]. The first 15 candidates, taught by McBride, graduated in September 1880. About one year after McBride left, two Germans accepted the School's invitation to teach, namely a Royal Prussian veterinary officer Johannes Ludwig Janson and a junior horse doctor Carl Troester [7, 8] of the East Prussian field artillery regiment No.1 of Königsberg. From December 1880, the two colleagues taught at the Imperial College of the School of Agriculture in Tokyo-Komaba. In June 1882, another 20 students graduated. For one year they were taught by McBride, one year by Japanese teachers, and for another two years by Janson and Troester. On 16 June 1883, 31 veterinarians received their Jui Gakusha (ju = animal, i = physician & gakusha = scholar) diploma from General Graf Saigo, minister of agriculture, in person. The diploma had the same status as of all other Tokyo University graduates. Between 1883 and 1890, 107 veterinarians received the diploma. By then, Janson's faculty consisted of five Japanese professors and assistants. There were other eight Veterinary Schools at the time, of which Sapporo and Sendai school could issue high school diplomas. According to official figures, about 3,000 veterinarians worked in Japan at the time [1].

Just for curiosity's sake, a senior military blacksmith Albert Müller of the 9<sup>th</sup> Prussian Hussar Regiment in Trier had worked as master horseshoer in Komaba for three years.

In May 1890, Tokyo hosted the first veterinary congress with 200 participants. It resulted in a number of papers, most of which were postponed because of disputes they raised. The congress participants were welcomed by the Tenno, who invited them to a garden party.

Janson's article [1] contains a table with the School's curriculum. For enrolment high school education was required. The preparatory, three-year curriculum was intended for both farmers and veterinarians, and included natural science and languages, while Latin and anatomy were intended only for future veterinarians. The winter term ran from 1 November through 12 April, and the summer term from 16 April to 31 October, which means that the vacation time was short. The preparatory course was followed by a special three-year veterinary course, which included two-month summer vacations, just like the Berlin School. However, hygiene of foodstuff and slaugtherhouse subjects were missing from the programme. Studies ended with a state examination roughly comparable to German. Most graduated veterinarians were employed in public services.

Animal epidemic control included reporting, killing of infected live-stock, burying cadavers, disinfection, and compensation to owners. Janson complained about the lack of import control. In 1856, he intensively studied dog parasites, heartworm (*Dirofilaria immitis*, Leydy) in particular. Heartworm is still common in Japanese dogs [3].

Oriental cattle plague or rinderpest is caused by a paramyxovirus. It is an acute infectious disease with inflammation and bleeding of the mucosa. In 1890 and 1893, the epidemic came from Korea to Japan, spread very rapidly on the Island of Honshu, but was suppressed in two years. Animals affected recovered within a week. Janson observed only three deaths and considered it no more dangerous than influenza [5]. However, in 1894, 500,000 people died from the plague in South China. Two Japanese physicians, who were severely infected in Hong Kong, survived [6]. Janson already knew that rodents, especially rats, could carry the germs.

# MILITARY VETERINARIAN

Horse doctors had been enlisted in the Imperial Japanese Army since 1872. They ranked equal to military officers, received the same pay, and wore the same uniform as army surgeons. In 1990, the chief of veterinary staff at the ministry of war had the rank of lieutenant colonel, four division veterinarians were majors, 20 regiment veterinarians were captains, and 33 other veterinarians lieutenants. Other veterinarians occupied various positions in schools, hospitals, or remount depots [1].

In 1999, 115 years after the opening of the veterinary school in Tokyo, there were 22,284 licensed veterinarians in Japan and 16 Veterinary Faculties, which ranks Japan the third after the USA and Russia. Japanese

veterinarians acknowledge two teachers as their forefathers, that is, McBride and Janson, who introduced Western standards into the Japanese veterinary medicine [11].

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### Sažetak

Jedna od najvažnijih ličnosti među predvodnicima zapadnjačke medicine u Japanu u razdoblju Meiji (1868.–1912.) bio je veterinarski časnik Johann Ludwig Janson (1849.–1914.). U Tokio je stigao u listopadu 1880. da bi poučavao na veterinarskoj školi u Komabi. Za njegova poučavanja, ova je škola postala dijelom Poljoprivrednoga fakulteta Tokijskoga carskog sveučilišta. Mnogi njegovi studenti poslije su dobili priznanja i visoke funkcije.

Među Jansonovim publikacijama posebnu pažnju zaslužuju one posvećene domaćim životinjama i veterini. Oženio se Japankom i poučavao u Komabi do 1902. godine. U njezinom rodnome mjestu Kagoshimi nalazi se Jansonovo posljednje počivalište. I dandanas ga Japanci smatraju osnivačem moderne veterine u svojoj zemlji.

Ključne riječi: povijest veterinarske medicine, XIX. stoljeće, veterinarski časnik, Carsko sveučilište u Tokiju, Japan