

## THE ITALIAN VETERINARIANS CONTRIBUTE TO THE DEVELOPMENT OF THE VETERINARY SCHOOLS IN SOUTH AMERICA IN EARLY 19<sup>th</sup> CENTURY

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### ABSTRACT

The historical period between late nineteenth century and the first decades of '900 was characterized by a flow of veterinarians and agronomists who decided, either by choice or by necessity, to move from Europe to other continents. Sometimes it were the governments themselves who asked the veterinary schools of the old continent to recruit teaching staff who could be able to start *ex novo* vet schools or strengthen the existing ones, or who could be employed at field level for improving livestock production of those countries. One of the most important veterinarians was Domenico Giovine, who, in 1927, was invited by the Colombian government with the task to re-open the *Escuela Nacional de Veterinaria* in Bogota. Giovine re-defined the educational curriculum of the school, and was able to link teaching to research. He served as head of the school until 1931, and was founder-editor of the *Revista de Medicina Veterinaria*.

In 1902, Silvio Bonansea reached the United States of Mexico where he worked on diseases of grazing cattle and he was deputy director of the Commission for Agricultural Parasitology. Between 1904 and 1905, Salvatore Baldassarre taught in the new national high school of Agriculture and Veterinary in Buenos Aires. During that period, he had the opportunity to gather extensive information on livestock of Argentina. He took interest in cattle, sheep, horses and pigs breeding and in related industries. His observations allowed him to write the book "*La Zootecnia nella Repubblica Argentina*". In addition to promoting teaching, Baldassarre had the merit of making known to the world the characteristics of Argentinian cattle, giving a great boost to the international trade. When Baldassarre come back to Italy, he was replaced by Gaetano Martinoli who stayed in Buenos Aires until his retirement in 1937. In early '900, Giuseppe Torreggiani moved from Argentina, where he was emigrated, to Bolivia, called by the local government, and he was named national veterinary and charged of the direction of the Institute of Agriculture and Veterinary.

In 1920, it was Paolo Croveri, veterinarian bacteriologist and parasitologist who was called to Buenos Aires in order to run a serotherapeutic institute; from 1922 to 1926, thanks to his research skills, he was appointed head of the laboratory in the medical faculty of Buenos Aires, with the task of teaching laboratory techniques applied to the clinic.

In early 1909, Luigi Maccagno was called to Lima (Peru) where he was in-charged to set up the experimental station for animal production, which originated from the school of Agriculture. He stayed in Peru for a long period as teacher of Hygiene and Animal Production at the *Escuela Nacional de Agricultura y Veterinaria*, in Lima. A few months later, Maccagno was joined by Edmondo Marino Tabusso, lecturer from Turin Veterinary School, who became professor of Microbiology and Animal Pathology at the same School, and later he moved to the School of Medicine where he taught Human physiology.

## Key words

South America, Veterinary Schools, Italian Veterinarians and Teachers

In the second half of the 19<sup>th</sup> century and the first part of the 20<sup>th</sup> century, Italian emigration to the American continent was a very significant phenomenon not only in terms of numbers, but also in terms of technical, scientific and cultural skills. The motivations, at least in the case of mass emigration, were based on economic reasons and the hope for building a better future. It is not a coincidence that the American continent was always thought of as the place where everything was possible, even if expectations were not always met<sup>1</sup>.

On the other hand, technical and cultural “emigration” was justified by the attempts of local governments to avail themselves of highly qualified skills in order to improve or initiate *ex-novo* activities, including training, aimed to the development of their countries. From this point of view, it is interesting to note that several South American schools provided by regulation for the hiring of foreign teachers. For example, the *Instituto Superior de Agronomía y Veterinaria* of Buenos Aires provided for at least two teachers from abroad<sup>2</sup>. The model on which these schools were set was basically based on that of the Vet Brussels School and consequently, in the late 1800s the first teachers came from Belgium or France, while Italian teachers did not appear until the early 1900s.

In a previous article, we examined the role played by Domenico Giovine (1891-1970) on the development of veterinary education in Colombia<sup>3</sup>. Prof. Giovine, graduated in veterinary medicine in Turin (Italy) in 1912; in 1927 he was invited by the Colombian government, and he went to Bogota in-charged to reopen the *Escuela Nacional de Veterinaria*. Giovine re-defined the educational curriculum of the School, and he was able to link teaching to research. He served as head of the school until 1931, and was founder and editor of the *Revista de Medicina Veterinaria*. He developed several researches on infectious diseases, in particular about fowl typhoid and anaplasmosis; due to the scientific results and merits, he received a specific financial support devoted to the research in epizootiology, and to the opening the Laboratory of Infectious Diseases inside the School, where he also created the Pathological Anatomy Museum. He returned to Italy with the title of Honorary professor and was named Consul of Colombia in Turin.

Domenico Giovine was not the only one to move to the American continent. One of the first Italian *zooiatri* -as the veterinary surgeons were called at that time- to emigrate to America was Silvio (or Silvino) Bonansea (1869-1946 ca)<sup>4</sup> (Fig.1). He was a botanist and a *zootechnics*; together with



Fig. 1 - Silvio Bonansea.

<sup>1</sup> P. BEVILACQUA, A. DE CLEMENTI, E. FRANZINA (Eds.), *Storia dell'emigrazione italiana*, Donzelli Editore, Roma, 2001.

<sup>2</sup> <https://www.agro.uba.ar/historia?page=3> (Accessed February 7, 2023).

<sup>3</sup> D. DE MENEGHI, L. C. VILLAMIL, I. GIOVINE, I. ZOCCARATO *From the lands of Muscat vine to Coffee lands: Domenico Giovine a veterinary from Canelli to Colombia*. In: I. ZOCCARATO (ed.) *Atti del 2° Convegno Associazione Italiana della Storia della Medicina Veterinaria e della Mascalcia*. Roma, 24-25 settembre 2021. Fondazione Iniziative Zooprofilattiche e Zootechniche, Brescia, 116, 133-142, 2022.

<sup>4</sup> [https://archive.org/details/Silvio-Bonansea-recto-PHAIDRA\\_o\\_3344](https://archive.org/details/Silvio-Bonansea-recto-PHAIDRA_o_3344) (Accessed February 06, 2023). Bonansea is best known as a botanist, but some of his work suggests that he also held degrees in zooiatry. In Italy, in 1897, he published the first edition of “*Allevamento del Coniglio*” (Utet Torino) that was reprinted in 1913 (<https://phaidra.cab.unipd.it/api/object/o:379821/diss/Content/get>) (Accessed February 7, 2023). In 1904, he published “*Apuntes de obstetricias*” first volume of the *Enciclopedia Mexicana de Medicina*

a group of Italian agronomists, he was hired by the Mexican government and employed in the *Station agrícola de San Jacinto*, the second example of Mexican research station on livestock. According to Cervantes *et al.* (2005) Bonansea «...was perhaps the foreign personage who influenced more in the establishment of the Mexican experimental agricultural station<sup>5</sup>...». In 1902, he was hired by the Mexican government as deputy director of the Commission for Agricultural Parasitology depending by the Ministry of *Fomento* (Agrarian Development) with the task of dealing specifically with livestock and animal production. During the period spent in Mexico he worked on diseases of grazing cattle such as anthrax and *hierba*, or pasture tetanus. In particular, he was concerned about *raniila*, a bovine disease characterized by hematuria. He, first, demonstrated that the disease of Mexican cattle, caused by a pyroplasma inoculated by ticks, was similar to *Tristeza* in Argentine and Texas fever in U.S.A.<sup>6</sup>. Previously, in 1893, Smith and Kilborne demonstrated the vector role of ticks in Texas fever transmission, identifying the pathogen as *Pyrosoma bigeminum*<sup>7</sup>. Bonansea in his communication to the Royal Academy of Agriculture of Turin claimed to have found in the calomel (a mercury chloride mineral) an effective remedy for this disease, and that he succeeded in developing a specific remedy called *Hemopyroplasma*. During his stay in Mexico, Silvio Bonansea was charged of the direction of *Gaceta Agrícola y Veterinaria* journal of the Ministry of *Fomento*. According to Zunino<sup>8</sup>, who considers Bonansea a pioneer of agroecology in Mexico in early '900, much more remains to be discovered in relation to the work of Bonansea also as a *zooiatra*.

In those same years, Prof. Salvatore Baldassarre, who was head and professor of Zootechnics at the School of Veterinary in Naples, moved to Argentina where he was appointed to the Chair of Zootechnics of the *Instituto Superior de Agronomía y Veterinaria de la Provincia de Buenos Aires*. However, due to health problems<sup>9</sup>, shortly in 1905, he went back to Italy. He

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*Veterinaria* work for which copyrights had been requested by the editor Ramón de S.N. Araluce (n. 344 in *Recopilación de Leyes, Decretos y Providencias*, p. 564, 1907). In 1905, he presented a lecture about “hog colera” at the Mexican Academy of Medicine (1905:151) in C. VIESCA TREVINÓ, *La Academia Nacional de Medicina de Mexico el pensamiento médico y su proyección en 150 años*, p.79, Interistemas Editores, Lomas de Chapultepec, Mexico, 2014. In 1911, it was printed *Diagnóstico-prevención y curación de la tuberculosis* (in Monthly Bulletin of the Library of U.S. Department of Agriculture). In addition, since 1910, some drugs for veterinary use are also registered in his name: *Aloina* and *Febrifugo bovino* (*Colección legislativa completa de la República Mexicana con todas las disposiciones expedidas para la Federación, el Distrito y los territorios federales Vol. 41, parte 2, 1910*). In 1929, he gave a lecture *Sobre lo dístomas y los parásitos en general que ocasionan grandes mortandades en los ganados bovino y ovino en Columbia* (*Rev. Soc. Colombiana Cien. Nat. (101) an.18, v.4, pp.125-129*).

<sup>5</sup> J. M. CERVANTES, A. M. ROMAN DE CARLOS, E. GONZALES, *The influence of Italian agronomist in the veterinary medicine in Mexico at the beginning of 20<sup>th</sup> century*. In A. VEGGETTI, E. LASAGNA, I ZOCCARATO (eds.) *Proceedings of 35<sup>th</sup> International Congress of the World Association for the History of Veterinary Medicine*. Grugliasco (TO) September 8-11, 2004. Fondazione Iniziative Zooprofilattiche e Zootecniche, Brescia, 59, 409-412, 2005.

<sup>6</sup> S. BONANSEA, *Contributo allo studio dei mercuriali nei bovini: il Calomelano è veramente nocivo ai bovini?* *Annali della Reale Accademia di Agricoltura di Torino*. LXIII, 22-30, 1920.

<sup>7</sup> L. DERRADI, *Inventaire des espèces de tiques (Arthropoda; Ixodinae) parasites des bovins et recherche de pathogène chez les tiques du genre Hyalomma au niveau de deux étages bioclimatiques*. Université des Frères Mentouri Constantine 1. Faculté des Sciences de la Nature et de la Vie. Thèse de Doctorat, 2022, pp. 131.

<http://archives.umc.edu.dz/bitstream/handle/123456789/13467/DER7940.pdf?sequence=1> (Accessed January 31, 2023).

<sup>8</sup> M. ZUNINO, *Per rileggere Croizat*, *Biogeographia* XVI, 1-23, 1992.

<sup>9</sup> M. DE AMICIS, *Il prof. Salvatore Baldassarre commemorato in Consiglio Zootecnico*, *La Clinica Veterinaria* 41 (3), 49-63, 1918. Prof. Baldassarre (1853-1917) was one of Italy's most eminent zootechnicians. He was also an enthusiast of the history of Veterinary medicine and in 1911 he wrote an essay on the history

was then replaced by Dr. Gaetano (Cayetano) Martinoli, zooiatra who taught in Buenos Aires until 1937<sup>10</sup>. He was pupil and assistant of prof. Baldassarre and during his absence (1904-1905) replaced him in teaching Zootechnics in Naples<sup>11</sup>. Martinoli remained in Argentina until his retirement, after which he returned to Naples, but he maintained relations with the Academia in Buenos Aires until his death<sup>12</sup>.

Other vets, namely Felice Cinotti, Angelo Baldoni and Virginio Bossi taught in Buenos Aires. All three were lecturers in clinical veterinary surgery. Cinotti and Baldoni went back to Italy, similarly to Baldassarre, within a year<sup>13</sup>, whereas Bossi stayed in Buenos Aires from 1907 to 1920, and he maintained his contract with the Institute. From February 1921 he moved to the newly established Faculty of Veterinary Medicine at the University of La Plata, always as a lecturer in veterinary surgery, farriery and equine podiatry; moreover, he was in charge as head of the veterinary hospital of the School<sup>14</sup>. Back to Italy in 1925, he held the chair of clinical surgery in Parma and, from 1927, the one in Milan<sup>15</sup>. According to Zuccarini's reports, in addition to the professors already mentioned, Prof. Alfredo Cassai and a number of other veterinarians also worked in Argentina, employed by the Ministry of Agriculture: Giuseppe Testa, Luigi Corigliano, who were respectively a municipal veterinarian, and a veterinary officer of the Argentine Army, and Giuseppe (José) Torreggiani. At present, very little is known about these vet colleagues, except that Torreggiani (1862-1940), graduated in Bologna in 1885, member of the Reale Società and Accademia of Turin, practiced in the city of Verona<sup>16</sup>. Then in 1906 he moved to Bolivia to the Veterinary Institute in La Paz<sup>17</sup> where, as expert veterinarian,

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of the School of Naples. From his stay in Argentina he left a powerful essay on the conditions of animal husbandry: *La Zootechnia nella Repubblica Argentina* published in Atti del R. Istituto d'Incoraggiamento di Napoli. Sesta Serie, Vol. 63, 265-508, 1907. Unfortunately, no information is given regarding his Argentine stay.

<sup>10</sup> C. M. NUEVO FREIRE <http://zootecniadigital.blogspot.com/2017/02/briznas-de-zootechnia.html?m=1> (Accessed January 25, 2023).

<sup>11</sup> A. CECIO, *Due secoli di Medicina veterinaria a Napoli (1798-1998)*, Fridericiana editrice Universitaria, Napoli, 2000, p.104.

<sup>12</sup> O. A. PÉREZ, *Martinoli Cayetano M.V.* In: <http://anav.org.ar/martinoli-cayetano-med-vet/> (Accessed February 4, 2023). He was born in Naples in 1871. Graduate in Agricultural Sciences from the Superior School of Agriculture of Portici on August 21, 1893. On July 16, 1895 he graduated in Veterinary Medicine in Turin. He stayed in Germany where he perfected his studies and returned to Italy, settled in Portici where, for three years, he was charged of Practical Work of Zootechnics. In 1903, he was charged of the External Conformation Course. He was appointed Professor of Zootechnics and Hygiene at the Higher School of Veterinary Medicine in Naples in 1904. Later he held the same position at the homonymous School in Parma. He began teaching at the *Instituto Superior de Agronomía y Veterinaria* on April 4, 1907 as Professor of Conformation and Zootechnics, a position he held for 30 years. In 1910 he was elected Academic Advisor of the Faculty of Agronomy and Veterinary of Buenos Aires, a position that in those years also implied his appointment as Full Academician of the National Academy of Agronomy and Veterinary and in 1941, already living in Italy, he was appointed Honorary Academician. In 1925, the National Commission of Culture awarded him a prize in Science for his book on General Zootechnics (MARTINOLI CAYETANO *Tratado de Zootechnia General y Nociones de Alimentación de los Animales Domésticos*. 1ª ed. Buenos Aires: Palacio del Libro, 1932). He was appointed Doctor Honoris Causa of the University of Buenos Aires in 1928 and Honorary Professor in 1937 upon his retirement. He created the Museum of Zootechnics that would later bear his name. He died on March 20, 1945.

<sup>13</sup> <https://www.agro.uba.ar/historia?page=3> (Accessed February 3, 2023).

<sup>14</sup> J. F. OTTINO, *Los orígenes de los estudios superiores de veterinaria en la Argentina. Santa Catalina*, <http://meran.fcv.unlp.edu.ar/meran/opac-detail.pl?id1=8471#.Y-PGbnbMJPY> (Accessed January 14, 2023).

<sup>15</sup> E. CABASSI G. LIUZZO, *L'insegnamento medico veterinario a Parma*, Graphital Edizioni, 2001, p.148.

<sup>16</sup> G. MAZZINI, *Cronistoria della reale Società e Accademia Veterinaria Italiana*, Tipografia G. Candeletti, Torino, 1896.

<sup>17</sup> E. ZUCCARINI, *Il lavoro degli italiani nella Repubblica Argentina dal 1516 al 1910*, La Patria degli italiani Editore, Buenos Aires, 1910, pp. 423-424. Torreggiani during his stay in Argentina has published a book: *Manual dell'Estanciero - Práctica racional aplicada a la conservación y al refinamiento de nuestro*

defined the educational curriculum of the School<sup>18</sup> and was charged of the direction of the National Institute of Agriculture and Veterinary «*Eliodoro Villazón*» in Cochabamba.

Another important Italian veterinarian who worked in Argentina was Paolo Croveri (1887-1939). In 1920, he was charged of the direction of the Serotherapics Institute in Buenos Aires; shortly, in 1923 he was named *Jefe de laboratorio* at the Faculty of Medicine of the National University of Buenos Aires where he taught Analytical techniques applied to human medicine<sup>19</sup>.

Italian veterinarians also distinguished themselves in Peru. In 1909, the Peruvian government hired Luigi Maccagno (Luis Macagno) (1877-1939) who boosted livestock breeding programs for 28 years<sup>20</sup> and studied livestock and animal health problems of Peru, while Marino Edmondo (Edmundo) Tabusso (1879-1946) organized and headed the Laboratory of Microbiology, Sera and Vaccines (National Institute of Animal Biology of the Ministry of Agriculture), and later he taught Human physiology at the Medical Faculty of the San Marcos University, in Lima.

Prof. Maccagno graduated in “*Zooiatria*” in 1899 in Turin and shortly after, he was named assistant at the chair of Animal Production. In 1905, he obtained the *Libera docenza* (lecturer) in Animal Production and Hygiene. From 1905 to 1908, he taught Veterinary Hygiene in the School of Veterinary of Turin<sup>21</sup>. In Lima, he was charged of the direction of the Experimental Station of the Agricultural School and successively he was one of the professors commissioned to set up the Veterinary School, originated from the School of Agriculture and Veterinary Medicine. In this position, he was responsible for the livestock improvement, acclimatization and reproduction at the same school, for studies on crop plants in different areas of the country, disseminating the methodologies for cheese and butter production, the development of poultry farming and veterinary hygiene<sup>22</sup>. He worked on llamas breeding<sup>23</sup>. In 1909, he founded the journal *El Zootecnico*. He also founded the *Academia Internacional de Contabilidad, Comercio e Industria* of Lima<sup>24</sup>.

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ganado, F.lli Maucci, Buenos Aires, 1907. Previously, in 1906, he has written *Nella Repubblica Argentina - Osservazioni di un veterinario* printed on the *Annuario dell'Emigrante Italiano*.

<sup>18</sup> From the *Giornale della Reale Società Veterinaria*, LVIII (10) p. 294, 1909: *Ministerio de Colonización y Agricultura de Bolivia “Plan General para la enseñanza de Veterinaria y Agronomía y para la Organización de los Servicios de Fomento y Defensa Agrícola Ganadera” par el veterinario nacional Dr. José Torreggiani - Aprobado par Resolución de fecha 10 de diciembre de 1907. La Paz, Tip. Y Miquel Gamarra, 1908*. The guidelines developed by the Torreggiani were very detailed and articulated. In these guidelines, the author had also indicated the needs for tools for all practice activities by pointing out what was already available and owned by him. Total cost for the construction of the buildings was 300,000 *bolivianos* at the time. To publicize the start of agricultural and veterinary teaching he had planned a series of six lectures: 1) history of veterinary medicine; 2) veterinary medicine and human medicine; 3) veterinary medicine and public hygiene; 4) veterinary medicine and livestock production; 5) military veterinary medicine; 6) veterinary jurisprudence. The lectures were to be given every Friday afternoon, beginning on December 22, 1907, by Dr. Torreggiani at the Faculty of Medicine of La Paz. See the obituary published in *Rev. Med. Veterinaria Buenos Aires* v.22 (5-6) pp.3-4, 1940.

<sup>19</sup> Information about the activity of Paolo Croveri are available in I. ZOCARATO and D. DE MENEGHI, <https://storiamedicinaveterinariaemascalcia.files.wordpress.com/2021/06/croveri-paolo-def.pdf> (Accessed January 13, 2023). Croveri worked for many years as veterinary officer in Africa where he developed great skills as bacteriologist on infectious disease. Successively he graduated in Medicine and he became professor of Tropical diseases in Modena and Turin Universities.

<sup>20</sup> Peru - Universidad Nacional Mayor de San Marcos, Facultad de Medicina Veterinaria - WikiVet English (Accessed January 10, 2023).

<sup>21</sup> *Bollettino Ufficiale del Ministero dell' Agricoltura, Industria e Commercio*, Anno 6, Vol. 5, 741-742, 1917.

<sup>22</sup> P. E. PAULET, *La enseñanza técnica en el Perú - La escuela de Agricultura*, Ilustración Peruana, 1, II, 261-264, 1909.

<sup>23</sup> *Los Auquénidos peruanos* published by *Ministerio de Fomento Dirección de agricultura y ganadería, Lima*, 1932. Quoted by E. MASCHERONI, *The Auchenia (LLMAS) of South America*, *International Review of Agriculture*, XXXII (1) 134T-142T, 1941.

<sup>24</sup> *Bollettino del Regio Ministero degli Affari Esteri*, VI (1), p. 1028, 1928.

III CONGRESO CIENTIFICO PANAMERICANO  
PERSONAL DE LA SEXTA SECCION: CIENCIAS BIOLÓGICAS Y AGRICULTURA



Señales: Ing. Agr. JOSE VANDERHART, Director de la Escuela Nacional de Agricultura y Veterinaria de Lima (E. de A. de L.) - R. D. PIZZANI, Encargado de Estudios, S. J. del Colegio de Ingenieros, Habana, Cuba - Dr. FORTINATO I. HEREDIA, coordinador de las Universidades Mayores de San Marcos de Lima, de la U. y del Cuzco, Presidente de la Sub-Sección de Biología, Sr. FRANCIS LALAN, Delegado del Gobierno de Venezuela - Ing. Agr. GILBERTO PALACE, presidente de la E. de A. de L., delegado del Gobierno Peruano y de la Sociedad Nacional Agraria del Perú, Presidente de la Sección - Dr. L. S. PRING, Director General de la Unión Panamericana, Presidente de la Delegación del Gobierno de los Estados Unidos de América, delegado de la Sección - Dr. CARLOS J. ROMERO VEGA, representante de la U. de L., Director del Museo de Historia Natural de la U. de L., Presidente de la Sub-Sección de Zoología y Secretario General de la Sección - Ing. Agr. STANIS ULASZAK, profesor de la E. de A. de L., Presidente de la Sub-Sección de Agricultura - Ing. Agr. RICARDO ESCOBAR, Presidente de la Sub-Sección de Zootecnia - Dr. FRANCISCO LÓPEZ VILLALBA, delegado de la Universidad de Illinois - Urbana, E. U. de A. - Dr. ALVARO WARRABARUA, Biólogo, Profesor del Instituto de Fisiología de la U. de L. - Dr. JOSÉ S. NICHOLAS FORNELL, biólogo de la E. de A. de L. - Ing. Agr. WASHINGTON ESCOBAR, profesor de la Gran Escuela de Lima - Ing. Agr. J. MORALES Y RIVERA, profesor de la E. de A. de L. - Ing. Agr. JACINTO GALIMON, profesor de la E. de A. de L. - Dr. F. MOURA, Médico veterinario - Dr. CARLOS VALDEZ de la Torre, Carabobo, de la U. de L., antiguo secretario de la Universidad del Cauca, Secretario de la Sub-Sección de Zoología - Dr. RICHARD MANNING, coordinador de la U. de L. - Sr. WILSON PONSINO, biólogo, delegado del Departamento de Agricultura de Washington - Dr. CARLOS A. BAÑADO - Ing. Agr. F. PEDRO MARIOTTI, delegado del Gobierno de la Argentina y de la Universidad de Buenos Aires - Sr. ROBERT CROMACK, biólogo, delegado del Museo Americano de Historia Natural de Nueva York - Dr. ARMAND F. BOURGEOIS, delegado del Colegio Francés - E. U. de A. - Dr. ANTONIO NAVARRÉ TORO y Sr. FRANCIS W. PIERCE, delegado de la Academia de Ciencias Naturales de Montevideo - Dr. ALVARO BARRONIA YANQUE, profesor de la E. de A. de L. y candidato de la U. de L. - Ing. Agr. LUIS O. SORIANO, profesor de la E. de A. de L., Secretario de la Sub-Sección de Agricultura - Dr. ENRIQUE GONZÁLEZ ALONSO, Médico veterinario, profesor de la E. de A. de L., Secretario de la Sub-Sección de Zootecnia - Dr. PAUL MARVIN, Médico veterinario - Ing. Agr. MIGUEL U. REARDO, Director de la Escuela Práctica de Agricultura del Huancayo, Perú, Secretario de la Sub-Sección de Biología - Ing. Agr. JOSÉ D. VALDIVIAZO, profesor de la E. de A. de L., Secretario de la Sub-Sección de Agricultura.

Fig. 2 - Prof. Tabusso (red arrow) during the 3<sup>rd</sup> Pan American Congress.

Prof. Tabusso (Fig.2)<sup>25</sup> graduated at first in *Zoootria* (1900) and later (1904) in Medicine at Turin University. In 1905, he obtained the *Libera docenza* in Infectious Animal Diseases and he was charged of the course until the end of 1909. In 1910, he reached Lima and was charged as professor of Microbiology and Animal Pathology, and he was named head of Laboratory of Microbiology, Sera and Vaccines. In 1911, he validated on the Peruvian University his title in Medicine and Surgery, and he became Inspector of the Nurses School of the Italian hospital of Lima. In 1917, he was named *Jefe de trabajos practicos* of Human Physiology at the Faculty of Medicine, *Universidad Mayor San Marcos*, Lima. Three years later, he validated his PhD diploma at the Medicine Faculty of Lima. In 1923, he was named lecturer on General and Human Physiology at the Medicine Faculty and a year later, he obtained the position of full professor in the same subject<sup>26</sup>. Before leaving to Colombia, when he was still in Italy, Tabusso was a mountain enthusiast and skilled climber<sup>27</sup>. Tabusso served for years as adjunct secretary of the *Reale Società Nazionale ed Accademia Veterinaria Italiana* and he was coauthor of the chronicle of this Society<sup>28</sup>.

Once in Colombia, Maccagno and Tabusso, who certainly knew each other from their university days, applied to open a veterinary clinic and for this reason, they asked for registration of the clinic's logo (Fig. 3). The Ministry of *Fomento* authorized the opening with the agreement that the clinic would also be made available for the practical activities of students of the National School of Agriculture and Veterinary Medicine. The ministry

<sup>25</sup> La Vida Agrícola Vol. II, n.14, 1925.  
<sup>26</sup> A. TAURO (ed.), *Anuario bibliográfico peruano de 1946*, Ediciones de la Biblioteca Nacional, Lima, pp. 249-251, 1948.  
<sup>27</sup> G. BERUTTO L. FORNELLI, *Alpi Graie meridionali*, Touring editore, p.233, 1980. In the summer of 1906 Tabusso had, probably, opened a route on the South South-East slope of Mount Sevrin. Many climbs are also reported in the *Club Alpino Italiano* magazine (Rivista mensile del Club Alpino Italiano, XXVI (4), 171, 1907.  
<sup>28</sup> G. MAZZINI M. E. TABUSSO, *La cronistoria della Reale Società ed Accademia Veterinaria Italiana nei suoi primi cinquanta anni di vita*. Tip. Cassone, Torino, 1908.



Fig. 3 - The Chiron used as logo of the veterinary clinic of Maccagno and Tabusso.

authorized the opening of clinic in Santa Beatriz area<sup>29</sup>. In the mid-1920s, the two veterinarians were also among the founders of the Peruvian Touring Club<sup>30</sup>.

Although not strictly related to a “migratory” phenomenon, Italian zooiatrics were present also in Ecuador, through a military mission carried out within the framework of a bilateral agreement between the governments of the two countries<sup>31</sup>. The focus of the mission was to improve the technical education of the Ecuadorean army, particularly the air force; a veterinary lieutenant, dr. Pietro Salvestroni, and an instructor farrier non-commissioned officer, Ciriaco Cuppi, were also part of the mission<sup>32</sup>. During his stay in Ecuador, Salvestroni was charged of the technical direction of the Ecuadorean Army's farriery school, and he wrote technical reports for the Ministry of Agriculture of Ecuador and did some interesting works on foot-and-mouth disease and piroplasmosis<sup>33</sup>.

The work of Italian veterinary surgeons in South America continued for a long time. No longer in the capacity of pioneers who were asked to start Schools and teaching, but rather as consultants and experts to address specific animals health problems. From this point of view, it is worth mentioning the emergence of foot-and-mouth disease, which entered Colombia in 1950 through the Venezuelan border, activated the organization of structures to fight the

<sup>29</sup> *Boletín de la dirección Fomento*, Año VIII (7) p. 108 and p. 113, 1910.

<sup>30</sup> <https://www.touring.pe/historia/> On May 20, 1924, at the premises of the Society of Engineers, located on Nicolás de Piérola Avenue, in La Colmena, where the first meetings of the organization were held, the Founding Act was signed in the presence of Messrs. Marino Edmundo Tabusso, Andrés F. Dasso, José Antonio de Lavalle, Juan J. Rospigliosi, Fernando Carbajal, Luis Macagno, J. Calderón, Carlos G. de Menchaca, Miguel Dasso, Leonidas González Honderman, Camilo Vallejos Z., Eduardo Dibós Dammert, A. C. Shumway, José G. Otero, C. de Marzo, Otto Wagner, G. R. Prada y Alberto Boza. (Accessed February 2, 2023).

<sup>31</sup> This was the military mission led by General Alessandro Pirzio Biroli that reached Guayaquil in 1924. P. SOAVE, *La “scoperta” geopolitica dell’Ecuador, mire espansionistiche dell’Italia ed egemonia del dollaro, 1919-1945*. FrancoAngeli, Milano 2008.

<sup>32</sup> E. MACÍAS NÚÑEZ, *Misiones militares extranjeras y su aporte a la profesionalización del Ejército Ecuatoriano*, Centro de Estudios Históricos del Ejército, Quito, Ecuador, 2012.

<sup>33</sup> ANNUARIO VETERINARIO ITALIANO, 143-144, 1934-1935. Before coming to Ecuador, Salvestroni had been Croveri's assistant in Merca (Somalia). Later, before the outbreak of the IIWW he had, with the rank of major, taken part in a mission to South Africa where he had deepened his knowledge of ectoparasites of livestock and their treatments. Later he returned to Ecuador where he stayed for a long time despite the fact that his name had been proclaimed in the list of certain blocked nationals due to the outbreak of war (F.B.I., *Totalitarian activities ECUADOR Today...*, June 1942).

disease. The sanitary perspective had setbacks and the production of the vaccine was entrusted to the Samper Martínez Institute. Foot-and-mouth disease was an exotic disease for the country up to that time, there was no experience with the management of the virus, its behavior under field conditions and the methods and techniques for laboratory diagnosis were unknown. The *Instituto Antiaftoso* was then created, and later, the *Instituto Zooprofiláctico Colombiano* (IZC), through the cooperation with the Zooprophyllactic Institute (*Istituto Zooprofilattico Sperimentale*) of Brescia (Italy). An interesting training experience on the diagnosis and prevention of foot-and-mouth disease and other animal diseases of economic importance was started in this institute. The training of professionals in the preparation of biologicals and vaccines, field and laboratory diagnosis, initiated the institutionalization of the development of sanitary services. By Decree 0527 of March 10, 1956, the Colombian Zooprophyllactic Institute was created with the advice and technical direction of the Zooprophyllactic Institute of Brescia. Silvio Barei and Arrigo Sironi participated in the technical direction of the new institution, as did Angiolino Poggi.

The technological development of the industrial production of biologics began then with the production of the anti-foot-and-mouth disease vaccine cultivated on bovine lingual epithelium (Frenkel type). The group of Italian scientists, led by Professor Silvio Barei, not only started the production of the foot-and-mouth disease vaccine, but also established a group of diagnostic and research centers for animal diseases in all species, and trained a significant number of veterinary professionals in vaccine development and diagnostic technologies.

In conclusion, we can state that Italian veterinary medicine played a leading role in the founding of some of the South American schools (mainly in Colombia and Peru) and in other schools, it made an important contribution of knowledge as in the case of Argentina and Mexico.

Given the fragmentary nature of the information available to-date, further investigation further research work is required on the role of the Italian vets in Latin America. Moreover, it cannot be overlooked how, with a few exceptions (Baldassarre and Bossi) very little is known in Italy about the many other vets who contributed to the development of Veterinary Medicine in South America.

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## VETERINARY MEDICINE EDUCATIONAL TABLES IN THE UNIVERSITY OF TURIN

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### ABSTRACT

ASTUT, Archivio Scientifico e Tecnologico dell'Università di Torino, is an institution devoted to the preservation of the historical material heritage of the University of Turin. Instruments, furniture and accessories are kept in our stores. We keep also a collection of large-format educational tables of veterinary anatomical topic. We have little less than three hundred tables, drawn probably between 1900 and 1950 and only two tables are signed by the author. They were used as supports during the lessons, before the introduction of projection of slides and other teaching devices. We also preserve the original cabinet with drawers and the clamps to hang the tables on the wall. The boards represent tissues, organs, systems and comparison between different species of animals and are made with China ink or watercolors or tempera techniques. Sometimes the attention to details is astonishing and the realism, too and they represent an iconographic resource of great impact and suggestion.

### Key words

Educational Tables, Material Heritage, Veterinary Anatomy.

ASTUT, the Archivio Scientifico e Tecnologico dell'Università di Torino, was founded in 1992 when some researchers realized that it was necessary to create an institution devoted to the preservation of a large heritage of instruments, testimony of the history of science. In our university, which is more than six centuries old, attention was paid to the documents and books but not to the "material heritage"; since the beginning of the nineties awareness rose that instruments and objects of science and technology are under risk to disappear. The choice of calling such institution "Archives" instead of "Museum"<sup>1</sup> was due to the actual impossibility of having spaces, funds and staff enough for a permanent exhibition<sup>2</sup>. Nevertheless we try to collect, restore and study all the instruments that were used by researchers in different academic disciplines. It often happened that instruments forgotten in dusty attics and dark cellars were discovered: ASTUT quickly incorporated them in its storage. Every day we collect all kinds of instruments forsaken in the laboratories in order to preserve them as a "memory for the future". We try to keep alive this heritage by organizing temporary exhibitions about different themes and producing audiovisual aids to help understanding how instruments actually work. The actual seat for the Archives is in a northern suburb of the city, in Manifattura Tabacchi, an old tobacco factory founded at the

<sup>1</sup> M. GALLONI, *Musei scientifici e reperti storico-scientifici presso l'Università di Torino*. In: *Nuova dimensione e prospettive per i musei scientifico-tecnologici in Piemonte*, Politecnico di Torino, Torino, 1991, pp. 27-33.

<sup>2</sup> M. GALLONI, *L'Archivio scientifico e tecnologico dell'Università di Torino*. In: *Archivi universitari ed accademici per la storia della scienza e della tecnologia*, CUSL, Bologna, 1994, pp. 47-53.