

Basel–Tuscany, a long-lasting link

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A significant contribution of Burkart Engesser to field surveys and palaeontological studies is undoubtedly on the Late Miocene faunas from Maremma in southern Tuscany, especially the celebrated Baccinello basin in the Grosseto district. This is not just a coincidence, but is the continuation of a long tradition.

The interest of successive Palaeontologists of the Naturhistorisches Museum Basel (NMB) in Tuscan fossils and fossiliferous localities has a long history that dates back to the second half of the nineteenth century. This started with Ludwig Rüttimeyer (1825–1895) who was the professor of Zoology and Comparative Anatomy at the University of Basel in 1855. Rüttimeyer was mainly interested in the natural history of Tertiary mammal species, and a number of specimens from Italy (as well as from other countries in Europe, especially France) were acquired by the NMB during his period of activity.

The interest in the Tuscan mammal fossil record became particularly strong thanks to the activity of Charles Immanuel Forsyth Major (1843–1923), a physician of Scottish origin who grew up in Switzerland. He graduated in Medicine in Basel in 1868 and started his professional practice in Florence (Italy) where he stayed for about a decade. As many nineteenth century medical doctors, however, he was fascinated by natural history and devoted much of his spare time to the study of fossil mammals. His interest in extinct vertebrates exceeded his dedication to medicine, so that he finally decided to cease practising in the mid 1880s. Forsyth Major was a correspondent of Charles Darwin (Cioppi & Dominici, 2010), and his name

appears three times in the second edition of *The Descent of Man* (a much improved edition, published in 1874) about sexual dimorphisms in fossil pigs tusks, about the occurrence of fossil apes in Europe, and about a bovid skull “wholly without horns” from Upper Valdarno, believed to be that of a “*Bos etruscus*” female. The latter is an issue that re-addresses us to the story of the Basel-Florence exchanges. About this specimen (housed in the collection of the Florence Museum), Forsyth Major (1874, 1890) was in disagreement with “the leading authority in the field of Tertiary Ruminants”, i.e. Rüttimeyer. The eminent palaeontologist from Basel (Rüttimeyer, 1878) described this specimen as type of a new species (*Leptobos strozzii*), later on formally synonymized to *L. etruscus* by Forsyth Major (1890). Forsyth Major’s main interests were especially Primates and, more generally speaking, Plio-Pleistocene mammals (e.g. among others, Forsyth Major, 1872, 1875–1877, 1890). His entire scientific production clearly shows how deep his attention was for Tuscan vertebrate fossils, and whilst he was active in Florence, he systematically searched for new material, mainly in Tuscany but also in other Italian regions (Sardinia, Calabria, Sicily), bringing hundreds of specimens to the Florence Museum. Forsyth Major had intensive relationships with colleagues and institutions across Europe and in Basel too. Samples collected during his Italian field surveys are now housed in several museums, amongst others in the Natural History, London, in the Collège Gaillard in Lausanne (Switzerland), and in the Naturhistorisches Museum Basel.

Other Tuscan material (namely from Upper Valdarno) kept in Basel from the Plio-Pleistocene of Italy was bought by another eminent Basel palaeontologist, Hans Georg Stehlin (1870–1941). He was the president of the board of the Naturhistorisches Museum from 1920 to 1940 and a student of Ludwig Rüttimeyer at the University of Basel.

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Fig. 1 A picture taken in the early 1900s, from the archives of the NMB. According to handwritten notes, the main fossil hunter (“*scavatore di fossili*”) is Mr. Filippo Brillì (the old men handling a basket and a hammer). The picture offers us a portrait of the family of this Upper Valdarno “fossil hunter”. The young man on the left is F. Brillì’s son (Ugo, who after 1909 continued the correspondence with NMB, until 1911). The person on the right is a certain

Mr. Bagnolesi, while the woman in the middle, with a white scarf, most probably F. Brillì’s wife, is referred to as “*La Massaia*” (the Housewife). It is worth noting that in the official toponym archive of Tuscany (<http://sira.arpat.toscana.it/sira/Toponomastica/COMUNI.htm>), a locality named “Case Brillì”, is recorded nearby the village of Castefranco di Sopra, very close to some of the most celebrated fossiliferous sites in Upper Valdarno

He kept a 40-year long correspondence with his friend Hans Carl Iselin (a pastor in Florence), who was of great help in putting Stehlin in contact with several local “fossil hunters”, who in turn found and sent him material from several sites in Tuscany, especially from Valdarno. As a rule, Stehlin paid the discoverers for their fossils, and accounts of these payments, as well as information about fossil hunters and fossiliferous localities, are still available in the archives of the NMB (Fig. 1).

In the second half of the twentieth century, the tradition was not abandoned and it was the turn of Johannes Hürzeler (1908–1995) to continue the strong link between the NMB and Tuscany. Hürzeler, a student of Stehlin, entered the Museum as curator in 1937 and became head of the Osteology department 20 years later. The name of Prof. J. Hürzeler is associated with his discoveries and work on the Late Miocene endemic ape *Oreopithecus* and other extinct endemic mammals of this peculiar late Miocene Tusco-Sardinian palaeobioprovince. Hürzeler actively worked in Tuscany from 1947, 6 years after the death of his professor. In the late 1950s, he spent months working at Baccinello, following mining at coal mines that at that time were still in production. This careful and rigorous survey led him to the discovery of the nearly complete skeleton of

Oreopithecus on 2 August 1958. This gave the long-lasting Swiss-Italian tradition a new dimension and raised international interest.

Since 1970, Prof. Hürzeler was constantly accompanied by a young student during the surveys in southern Tuscany. This student was Burkart Engesser to whom this issue is dedicated, and he naturally replaced Hürzeler as the head of the Osteology department of the NMB. Together with his professor, he named new bovid and a giraffid species of the *Oreopithecus* bearing sites: *Maremmia lorenzi* Hürzeler and Engesser 1976, *Etruria vialli* Hürzeler and Engesser 1976, and *Umbrotherium azzarolii* Hürzeler and Engesser 1976; the three species were later formally described by Hürzeler (1983, *M. lorenzi*), and Abbazzi et al. (2008, *E. vialli* and *U. azzarolii*). Afterwards, Burkart described rodents from the area, including the new genus and species *Anthracoglis marinoi* Engesser 1983, and the new species *Huerzelerimys oreopithecii* (Engesser 1989), *Anthracomys lorenzi* Engesser 1989; *Apodemus etruscus* Engesser 1989, and *Kowalskia nestori* Engesser 1989, and thanks to his research in Tuscany developed his interest in Island faunas.

Burkart followed the tradition, and kept on doing fieldwork in Tuscany up until the late 1990s (Fig. 2). In recognition of his contribution to the palaeontology of the

Fig. 2 Lunch break at Baccinello during the autumn 1986 field campaign. Prof. Johannes Hürzeler (at the age of 78) was part of the team. Burkart Engesser is at the centre; to his right, prof. Claudio De Giuli from the University of Florence (who passed away prematurely in 1988). On the left of the picture Prof. Terry Harrison (New York University) partly hides Dr. Giovanni Lorenz. Lorenz (1968) is a former student of Prof. Hürzeler, who studied the geological setting of Baccinello and published the first exhaustive geological map of the Baccinello area (Photo L. Rook)



Late Miocene *Oreopithecus* faunas, a new species of the tusco-sardinian endemic dormice has been recently named after him: *Anthracoqlis engesseri* Casanovas-Vilar et al. 2011.

On the occasion of the celebrations for the 50th anniversary of the discovery of the famous *Oreopithecus* skeleton (nicknamed Sandrone) at Baccinello, Burkart wrote in a touching memory of Hürzeler's research on *Oreopithecus*:

“[Hürzeler] very much liked the Maremma, but not only for its extinct animals, but also for its culture, its people, its vegetation and its wine. For more than 30 years he visited this area almost every year, and collected fossils, mainly in the Baccinello basin” (Engesser 2000, p. 15).

A quotation that actually would fit perfectly the figure of Burkart Engesser and his love for southern Tuscany, in perfect harmony with the feelings of his mentor.

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