

THE WILD BOAR (*SUS SCROFA PRISCUS*)
FROM THE POST-VILLAFRANCHIAN LOWER PLEISTOCENE
OF UNTERMASFELD

1. Introduction

Some remains of a large species of *Sus* were found in Untermassfeld near Meiningen together with an association of large mammals (H.-D. Kahlke 1982; R.-D. Kahlke 1990) whose determination (*Macaca* sp., *Castor fiber*, *Panthera gombaszoegensis*, *Acinonyx* sp., *Lynx* sp., *Homotherium* sp., *Pachycrocuta brevirostris*, *Canis mosbachensis*, *Xenocyon lycaonoides*, *Ursus* gr. *etruscus-deningeri*, *Meles* sp., *Dicerorhinus etruscus brachycephalus*, *Equus* cf. *stenonis*, *Mammuthus* sp., *Hippopotamus major*, *Bison* sp., »*Cervus*« cf. *nestii*, *Eucladoceros* sp., Cervidae indet. cf. *Alces* and *Capreolus*) allows us to date the site from the post-Villafranchian part of the Lower Pleistocene. Indeed such a faunal list characterizes standard zone MNQ 20 from C. Guérin (Guérin 1982; 1988; Guérin et al. 1983), which began about one million years ago.

The specific determination of the Untermassfeld Suid is important owing to its implications for Quaternary Mammal evolution in Europe and for the biostratigraphy and the palaeoecology of the site. At that time two very different species of the genus *Sus* occurred in Europe, the last surviving populations of the South-East Asian linked *Sus strozzi* and the first representative of the recent European wild boar, *Sus scrofa*.

The extant wild boar, *Sus scrofa*, appeared in Europe immediately after the end of the Villafranchian period (Faure and Guérin 1982; Guérin et al. 1983; Geraads et al. 1986). *Sus scrofa* was preceded in Europe by two other *Sus* species, the large Villafranchian *Sus strozzi*, and the small Ruscinian-Lower Villafranchian *S. arvernensis* both anatomically close to the recent South-East Asian long snouted *Sus barbatus-S. verrucosus-S. celebensis* group, presently living in and around tropical forests (Major 1881; 1897; Azzaroli 1954; 1975; Guérin and Faure 1985). While *S. arvernensis*, with its latest form, *S. a. minor*, seems to disappear at the end of the Lower Villafranchian (zone MNQ 16), *S. strozzi* was present during the whole Villafranchian period (zones MNQ 16 to 19) and became extinct during the MNQ 20 zone, some relict populations remaining present during the most part of it.

Sus scrofa occurs over a huge geographical area extending across Europe, North Africa, Western to Eastern Asia including the Near and Middle East, South Siberia, India, Burma, Malaysia, Indonesia, Indochina, China, and Japan. This species constitutes a cline containing 15 subspecies (Groves 1981). The head and body length of the wild boar is up to 1,8 m, with a maximum shoulder height of about 1,1 m. In some of the coldest regions of its geographical range it is very tall and heavy, old males weighting more than 300 kg. The *Sus barbatus-verrucosus-celebensis* group extends into Malaysia, the Indonesian archipelago, and may be in Indochina; these pigs are just as so tall but lighter (maximum registered weights are about 150 kg) than those of the *S. scrofa* group. Over some parts of their range they are sympatric with *S. scrofa* (Groves 1981).

Sus scrofa constitutes a good ecological indicator; the species is attached to deciduous forests, woods and bushes, close to grasslands and small waterbodies. One of the most important limiting factors of its distribution is the snow thickness, which should not exceed 40 to 50 cm (Faure and Guérin 1983; 1984). The species is omnivorous but mostly vegetarian, eating roots, bulbs, fruits, leaves, mushrooms, insects, earthworms, molluscs, small vertebrates, young mammals and carrion. The *Sus barbatus-verrucosus-celebensis* group is more linked to tropical forest environments.

Fossil European forms of *Sus scrofa* do not differ from the recent ones above the subspecific level; two have been described and could be synonyms, *S. scrofa priscus* from the Middle Pleistocene of Germany and from Lunel Viel in France and *S. scrofa mosbachensis* from the Middle Pleistocene of Mosbach and Mauer (Germany), with less complex cheek-teeth. Both are tall and large. However, K. A. Hünemann (1975) upgrades *S. s. priscus* to specific rank. Upper Pleistocene European forms are traditionally allotted to *Sus scrofa* without subspecific distinction (K. A. Hünemann 1975, found the name *antiqui* Pohlig invalidated by »*Sus*« *antiquus* Kaup, a valid Miocene species now placed in the genus *Microstonyx* which in fact, following the International Code of Zoological Nomenclature, gives a new validity to *antiqui* for designating a subspecies of *Sus scrofa*!). The Upper Pleistocene pigs are often very large, especially when found from sites dating from the coldest periods. Because the species closely follows Bergman's rule (Faure and Guérin 1983), they match the tallest and heaviest recent subspecies, i. e. *Sus scrofa attila* from Central Europe. Linkage of *Sus stozzii* (and *Sus arvernensis*) with the *S. barbatus-verrucosus-celebensis* group is based on very clear anatomical evidence, but no fossil evidence is actually known to fill the spatiotemporal gap between the European Plio-Pleistocene forms and the Pleistocene and recent East-Asian ones.

2. Material

The Untermaßfeld Suid material comprises:

- A crushed immature skull IQW 1985/20 509 (Mei. 20 028), in two main fragments (Taf. 63, 1-2), the facial one bearing tooth rows with the four milk molars, the M1 and the unerupted M2 (Taf. 64);
- A juvenile mandible IQW 1980/16 539 (Mei. 16 060), bearing on each side the second to fourth milk molars (the first has fallen out), and the first molar (Taf. 65);
- A fragment of the right horizontal ramus of a half mandible, IQW 1984/20 310 (Mei. 19 830) bearing P4 and M1;
- An isolated right inferior P2, IQW 1985/20 709 (Mei. 19 829A) (Taf. 67, 8);
- An isolated left inferior P 4, unworn, IQW 1985/20 709 (Mei. 19 829B);
- An isolated left inferior M3, IQW 1984/19 965 (Mei. 19 485) (Taf. 67, 13);
- A left male upper canine, IQW 1984/20 269 (Mei. 19 789) (Fig. 3a-c and Taf. 66, 3-5);
- Two lower canines, IQW 1984/19 622 (Mei. 19 142) (Fig. 2 a-b and Taf. 66, 1-2) and IQW 1984/19 966 (Mei. 19 486) (Fig. 2 c-d and Taf. 67, 1-2);
- Five isolated anterior teeth: upper incisors IQW 1986/21 130 (Mei. 20 749) (Fig. 1a and Taf. 67, 5) and IQW 1984/20 307 (Mei. 19 827) (Fig. 1b and Taf. 67, 6), lower incisors IQW 1984/19 973 (Mei. 19 493) (Taf. 67, 3), IQW 1984/19 972 (Mei. 19 492) (Taf. 67, 4) and IQW 1984/20 194 (Mei. 19 714) (Taf. 67, 7).
- Four isolated germs of upper third and fourth premolars IQW 1985/20 709 (Mei. 20 228 A-D) (Taf. 67, 9-10).

3. Description

a: the skull

Since it is not fully grown, the skull fragment IQW 1985/20 509 (Mei. 20 028) does not provide any useful biometrical informations. However, the widely spaced temporal ridges and the transversally

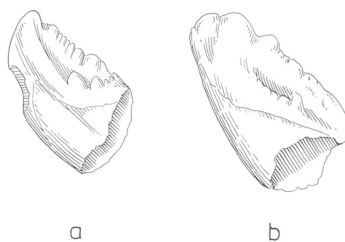


Fig. 1 *Sus scrofa priscus*, upper incisors. – a: IQW 1986/21 130 (Mei. 20 749). – b: IQW 1984/20 307 (Mei. 19 827). Scale = ca. 1:1.

depressed nuchal crest (Taf. 63, 1) are more reminiscent of *Sus scrofa* than of *Sus strozzii* or the *verrucosus-barbatus* group.

b: the mandibles

As for the skull, the mandible is not an adult one. We would simply remark that the posterior border of the symphysis is at the level of the anterior ridge of the D2, and that the minimum width of the postcanine constriction occurs immediately after the canine alveoli.

c: the canines

The male upper canine (Fig. 3 a-c and Taf. 66, 3-5) is triangular in transverse section, lateromedially flattened, with dorsal (narrowest), lateral and medial (widest) surfaces. Only the dorsal and the upper half of the lateral surfaces are covered with enamel. Basal transverse diameter is 30 mm, dorsoventral diameter is 20 mm.

The main lower canine (Fig. 2 a-b, Taf. 66, 1-2; Taf. 67, 1-2) is typically of the scrofan type, with the inferior surface near the base narrower than the enamel-less posterior surface, and not of the verrucose form, like *S. strozzii* (Major 1897; Stehlin 1899-1900; Azzaroli 1952; Groves 1981).

d: upper cheek teeth

All form the two juvenile tooth-rows of the skull fragment IQW 1985/ 20 509 (Mei. 20 028).

The four upper milk molars are present on each side (Taf. 64). D1 possesses an elongate crown with two successive cusps and a strong anterior cingulum. D2 and D3 are bilobated, the anterior lobe being much narrower than the posterior. D4 has two successive transverse pairs of major cusps. Length of the D3 - D4 segment is 30 mm. The dimensions of D2 to D4 are outside the observed range (Tab. 1) in fos-

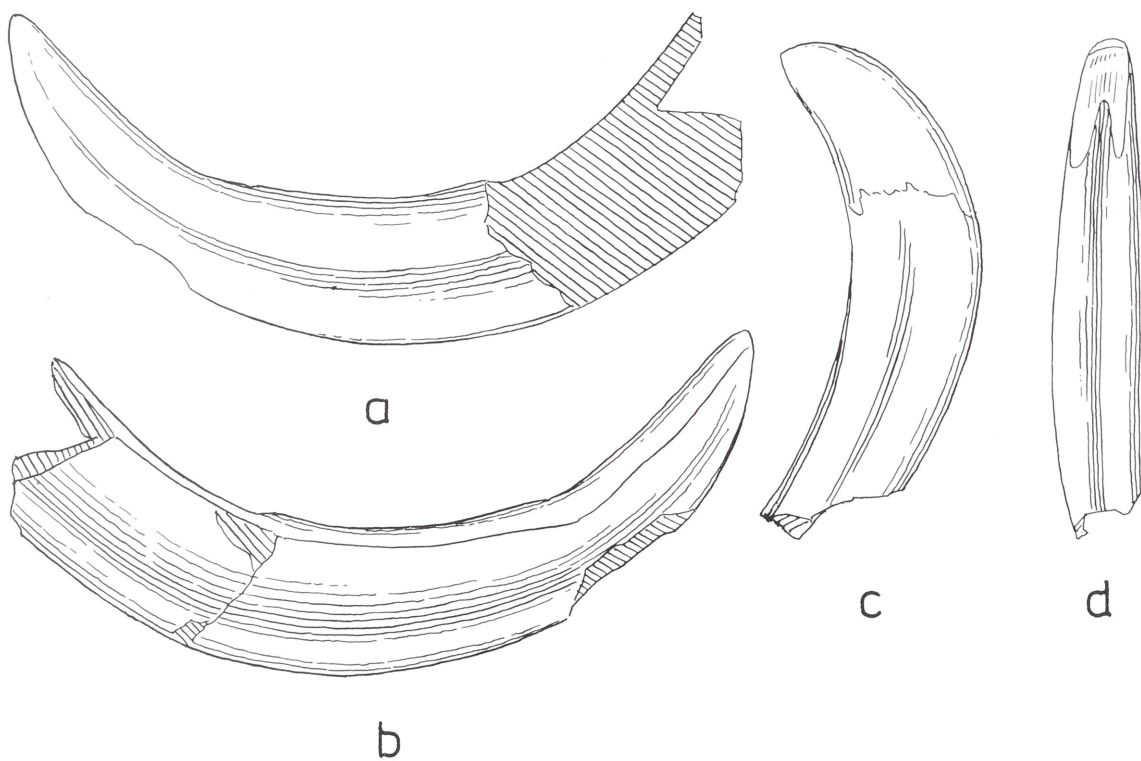


Fig. 2 *Sus scrofa priscus*, lower canines. – a-b: IQW 1984/19 622 (Mei. 19 142). – c-d: IQW 1984/19 966 (Mei. 19 486). Scale = ca. 1:1.

sil *Sus scrofa* from Upper Middle to Upper Pleistocene, but our comparison sample is very poor; they are closer to *Sus scrofa priscus* and to *Sus strozzii*, but our comparison sample is poor again.

The first upper molar is very little worn. It has a crown (Taf. 64) which comprises four major cusps aligned in two pairs separated by an intermediate central cusp. The prominent anterior cingulum ends medially in a pillar situated at the antero-lingual edge of the tooth. The posterior cingulum is prominent too and bears a series of five small tubercles. Three little pillars constitute the lingual cingulum at the entry of the median valley. Length and breadths go slightly beyond the maximum observed in our comparison sample of 44 recent European *Sus scrofa* and are close to the higher values we found for about 50 Pleistocene *S. scrofa*; anterior and posterior breadths are close to the mean values of *S. strozzii* but the length of the Untermaßfeld tooth is greater (Tab. 1).

The second upper molar is unerupted. Its crown morphology is roughly similar to that of the first molar, with more complicated cingula (Taf. 64); the posterior one, very prominent and separated from the posterior pair of major cusps by a single centrally placed posterior pillar, bears a transverse row of five

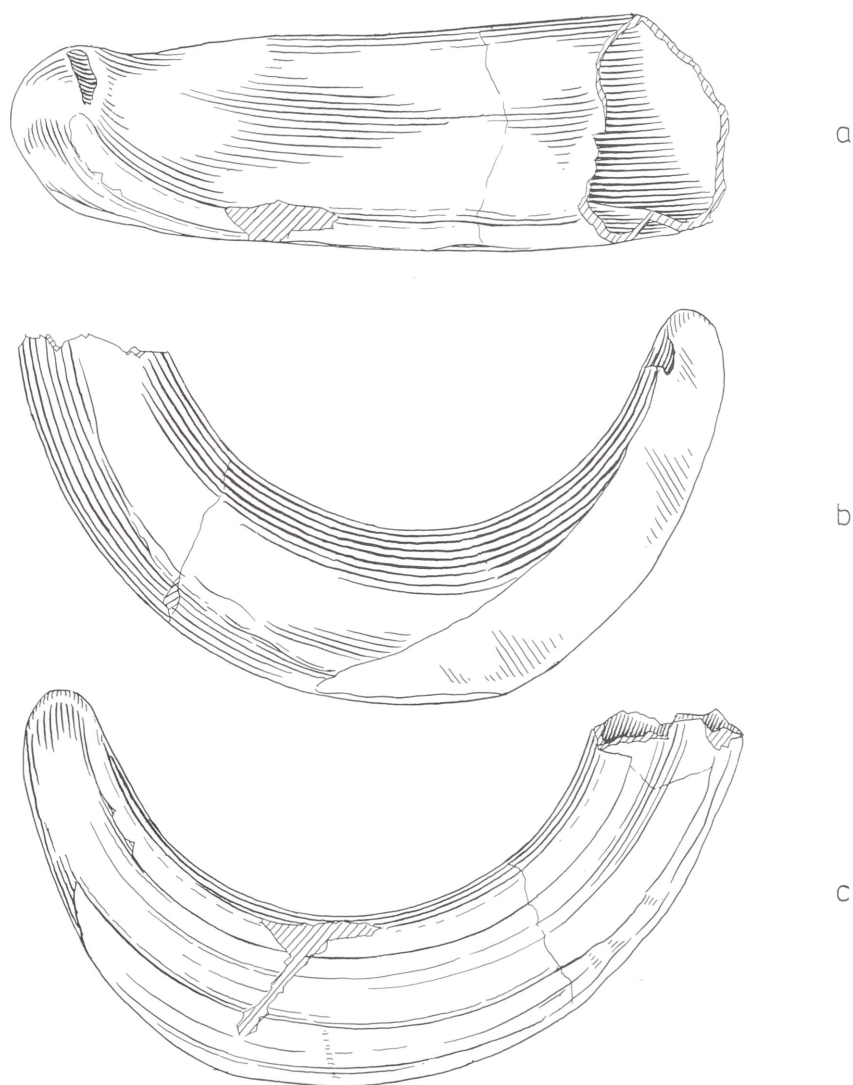


Fig. 3 *Sus scrofa priscus* upper canine IQW 1984/20 269 (Mei. 19 789). – a: Upper view. – b: Medial view. – c: Lateral view. Scale = ca. 1:1.

Untermaßfeld		<i>Sus scrofa</i>									<i>Sus strozzi</i>			
Mei 20 028		recent <i>Sus scrofa</i>			Up.-Up. Mid. Pleist. <i>S. scrofa</i>			Low. Mid. Pleist. <i>S. scrofa</i>						
		n	min. mean. max.	S. D.	n	min. mean. max.	S. D.	n	min. mean. max.	S. D.	n	min. mean. max.	S. D.	
D1/ L.	11,5							1	10					
D1/ b.	5,5							1	5					
D2/ L.	12,5				2	10,5 - 10,75 - 11,0		3	11,0 - 11,67 - 12,0	0,577	1	10,5		
D2/ b.	8				2	5,5		2	07,0 - 07,25 - 07,5		1	6,5		
D3/ L.	15				5	12,5 - 13,30 - 14,0	0,57	3	13,0 - 13,17 - 13,5	0,289	2	16		
D3/ ant. b.	8				5	5,5 - 7,70 - 11,0	2,168	3	07,0 - 08,00 - 10,0	1,732	2	07,5 - 07,75 - 08,0		
D3/ post. b.	11				2	7,5 - 7,75 - 08,0		3	10,0 - 10,67 - 11,0	0,577	2	10,5 - 10,00 - 11,0		
D4/ L.	16				4	14,5 - 14,75 - 15,0	0,289	4	14,0 - 14,88 - 16,0	1,031	2	15,5 - 16,50 - 17,5		
D4/ ant. b.	14				4	10,5 - 11,75 - 14,5	1,848	4	13,0 - 13,38 - 13,5	0,25	2	13,0 - 13,75 - 14,5		
D4/ post. b.	15				4	11,0 - 11,75 - 13,5	1,19	4	13,0 - 14,50 - 18,0	2,345	2	13,0 - 13,75 - 14,5		
M1/L.	20,5	44	13,0 - 17,24 - 20,0	1,34	36	13,5 - 17,63 - 21,5	1,688	15	14,5 - 17,67 - 20,0	1,611	13	17,0 - 18,85 - 22,0	1,586	
M1 ant. b.	17,5	44	11,5 - 14,73 - 17,0	0,955	35	13,0 - 15,24 - 19,0	1,664	13	15,0 - 16,27 - 18,0	0,906	6	16,5 - 17,25 - 19,0	0,88	
M1/post. b.	18,5	44	10,0 - 15,34 - 18,5	1,315	36	13,0 - 15,13 - 18,0	1,456	14	15,5 - 16,93 - 19,0	1,191	6	17,0 - 18,08 - 20,0	1,497	
M2/L.	27	44	18,0 - 23,08 - 26,5	1,617	42	17,0 - 23,05 - 29,0	2,702	15	23,0 - 25,10 - 28,0	1,526	15	25,0 - 27,63 - 30,5	1,457	
M2/ant. b.	22	44	14,0 - 19,05 - 21,0	1,405	41	14,0 - 18,43 - 22,5	2,347	14	19,0 - 21,29 - 22,5	0,935	15	21,0 - 22,87 - 24,5	0,972	
M2/post.b.	20	44	13,5 - 19,00 - 22,0	1,798	39	14,0 - 17,88 - 22,0	2,355	16	19,0 - 22,03 - 24,0	1,176	16	21,0 - 22,59 - 25,0	0,917	

Table 1 Compared dimensions of the upper cheek teeth of *Sus scrofa priscus* from Untermaßfeld (mm).

major and two accessory pillars. The labial cingulum bears a sole faint tubercle at median valley level. The lingual cingulum bears at the same level a cluster of one major and three minor tubercles. On the antero-lingual corner of the tooth are two tubercles indicating the medial end of the anterior cingulum. The main cusp and cingulum morphology is more complicated than that of *Sus strozzi* (see for example Azzaroli 1952, Taf. XIV, fig. 2 b), but less than in Upper Middle Pleistocene and Upper Pleistocene *S. scrofa*. The posterior lobe of the tooth is distinctly narrower than the anterior. Length and anterior breadth (Tab. 1) are superior to the higher values observed on a sample of 44 recent *S. scrofa* but fall into the observed range of both Lower Middle Pleistocene and Upper Middle to Upper Pleistocene *S. scrofa*. Mean values for *Sus strozzi* are higher. Paracone height is 14 mm.

e: lower cheek teeth

Lower cheek teeth of the Untermaßfeld wild boar are to be found on each side of the juvenile mandible IQW 1980/16 539 (Mei. 16 060) and on a fragment of an adult mandible (IQW 1984/20 309 (Mei. 19 829); three other teeth are isolated.

The three lower milk molars are present on each side of the juvenile mandible (Taf. 65); they are fairly worn. D2 is a mediolaterally compressed simple conical tooth, whose main cusp bears strong anterior and posterior sagittal crests. D3 possesses a long and mediolaterally compressed crown with a longitudinally S shaped wear facet. D4 has a trilobated crown, narrow in front. Length for the D3 - D4 segment is 35 mm. Dimensions are close to *S. strozzi* and to the higher values observed in fossil *S. scrofa*.

The first lower molars are moderately worn on the juvenile mandible (Taf. 65), while that of the adult fragment is very worn. The tooth comprises two pairs, separated by a single median pillar, of major pillars, of which the lingual are posteriorly offset, and a well developed posterior cingulum. Length of the less worn example is beyond the observed range of about sixty recent European *S. scrofa*, anterior and posterior breadth being above average. The three dimensions are above the average of fossil Upper Middle Pleistocene and Upper Pleistocene *S. scrofa*, and above the average of *S. strozzi*, they are beyond

the maximum values observed for Lower Middle Pleistocene *S. scrofa*, but comparison sample is poor. The lower third molar (Taf. 67, 13) is slightly worn. It has a trilobated crown with a major pair of pillars (of which the lingual are offset posteriorly) in each of the first two lobes, which are separated by a single median pillar. The junction of the second and the long third lobes is marked by a double median pillar; behind this, there is an asymmetrical pair (labial largest) of major pillars and the talonid terminates in a large single pillar posterolingually offset. The anterior cingulum is well developed. There are small tubercles at the labial end of the two transverse valleys. The crown morphology appears to be more complicated than for *S. strozzi* (Azzaroli 1952, Taf. XIII), in which there is no real third pair of major pillars (Hünemann 1975).

The dimensions are very close to the maxima observed in a sample of 60 recent European *Sus scrofa* (Tab. 2 a) and are above the average of fossil *S. scrofa* (about 80 from the Upper Middle to Upper Pleistocene, and about 30 from the Lower Middle Pleistocene) and of 24 *S. strozzi* (Tab. 2 b).

The second lower premolar is not worn. Dimensions (Tab. 2 a and b) are beyond the maximum observed in recent and Upper Middle Pleistocene - Upper Pleistocene *S. scrofa*, and the length is superior to the higher value found for twelve *S. strozzi*, when length and breadth fall into the observed range of Lower Middle Pleistocene *S. scrofa*.

Two moderately worn specimens of the fourth lower premolar, perhaps from the same individual, were collected. The crown is mediolaterally compressed, narrow and tall, with an obvious labial syncline. The wear facet is shaped as a longitudinally stretched S (Taf. 67, 8). A small accessory tubercle is present half-way up at the posterolabial corner of the tooth. The dimensions (Tab. 2 a and b) are close to the maximum of recent and fossil *S. scrofa* and *S. strozzi*.

4. Affinities

The characteristics of the Untermaßfeld Suid do not agree with those of *Sus strozzi*, namely for the shape and cristae of the posterior part of the skull, for its canines, and for the structure of its cheek teeth. All are typical of a very large *Sus scrofa* with simply built cheek teeth, with corresponds to a rather primitive form (Hünemann 1969).

As mentioned above, two post-Villafranchian European subspecies of *Sus scrofa* have been described, *S. s. priscus* Goldfuss, 1823, de Serres, 1835-39, from the Middle Pleistocene from Germany and Lunel-Viel (France) and *S. s. mosbachensis* Küthe, 1933, from the Middle Pleistocene of Mosbach and Mauer (Germany). Both possess less complex cheek teeth than the recent form and are tall and large, especially the first one. Saying he is unable to find any valuable criteria to distinguish *S. scrofa mosbachensis*, Kuss (1961) disagrees with the validity of this subspecies, while Hünemann (1969) does not seem to believe that it is already different from *S. s. priscus*, to which he attributes the Süßenborn Suid. This would imply a stratigraphic range extending from the end of the Villafranchian to the Mindel/Elster glacial. The same author (Hünemann 1977) considers that the recent *S. scrofa scrofa* subspecies originated during the Mindel-Riß interglacial, which roughly corresponds to Guérin's MNQ zone 23. In our opinion this form is somewhat younger and dates probably from MNQ zone 24, corresponding to the penultimate glacial period.

The post-Villafranchian Lower Pleistocene *Sus scrofa priscus* material we used as comparison sample comes from:

- Caune de l'Arago, Tautavel, Pyrénées-Orientales, France (MNQ 22);
- Châlon-Saint-Cosme, Saône-et-Loire, France (MNQ 20?);
- Ceyssaguet, Haute-Loire, France (MNQ 20);
- Forest bed, incl. Corton (Suffolk), Pakefield, East Runton, West Runton (Norfolk), Sidestrand, Trimmingham, Great Britain (mainly MNQ 21);
- La Nautérie à La Romieu, Gers, France (MNQ 22?);
- Valley of the river Lippe, Rhineland, Germany (MNQ 22?);
- Lunel Viel, Hérault, France (mainly MNQ 23);

Variables	Untermaßfeld				recent <i>S. scrofa</i>		
	Mei. 16 060	Mei. 19 830	Mei. 19 829	Mei. 19 405	n	min. mean max.	S. D.
D/2 L. D/2 b.	13 5,5						
D/3 L. D/3 b.	13,5 6,5						
D/4 L. D/4 ant. b. D/4 mid. b. D/4 post. b.	22 8,5 9 10,5						
M/1 L. M/1 ant. b. M/1 post. b.	20 13 14,5	17,5 13 14,5			59 57 58	13,0 - 16,25 - 19 08,5 - 11,07 - 15 09,5 - 12,13 - 18	1,615 1,083 1,323
M/3 L. M/3 ant. b. M/3 mid. b. M/3 post. b.				45 21 19,5 16,5	60 60 58 34	25,0 - 37,42 - 44,5 12,0 - 17,26 - 21 09,5 - 16,16 - 20 09,5 - 13,56 - 21	4,302 1,928 2,718 2,071
P/2 L. P/2 b.			15 7		58 57	05,0 - 11,96 - 14 04,0 - 05,44 - 07,5	1,636 0,682
P/4 L. P/4 b.		17 12,5	16 12		61 61	08,5 - 14,59 - 17,5 07,0 - 09,75 - 12,5	1,637 1,105

a

Variables	Up.-Up. Mid. Pleist. <i>S. scrofa</i>				L. Mid. Pleist. <i>Sus scrofa</i>				<i>S. strozzi</i>						
	n	min.	mean.	max.	S. D.	n	min.	mean.	max.	S. D.	n	min.	mean.	max.	S. D.
D/2 L. D/2 b.	2 2	08,0	8,50	9,0		2 2	09,0	09,5	10,0						
D/3 L. D/3 b.	9 9	09,0	10,61	12,0	1,193 0,601	1 1	11 5,5				1 1	12 7			
D/4 L. D/4 ant. b. D/4 mid. b. D/4 post. b.	15 15 15 14	17,5	19,70	22,5	1,645 0,941 1,121 1,101	5 5 5 5	21,0	24,20	36,0	6,611 2,168 2,236 1,696	3 2 3 3	23,5	23,83	24,0	
M/1 L. M/1 ant. b. M/1 post. b.	46 41 43	13,5	17,20	23,5	1,768 1,198 1,324	15 15 16	13,5	17,50	19,0	1,701 0,945 1,153	20 16 16	17,5	19,35	22,0	1,434 0,974 0,694
M/3 L. M/3 ant. b. M/3 mid. b. M/3 post. b.	82 81 67 74	30,0	39,51	56,0	5,763 2,612 2,329 1,159	31 33 19 28	35,5	40,05	47,5	2,59 1,726 1,576 1,159	23 24 24 24	40,0	43,78	48,0	2,522 0,897 1,442 1,429
P/2 L. P/2 b.	15 14	10,0	12,37	14,5	1,445 1,337	7 7	12,0	13,50	17,0	1,936 1,376	12 12	10,5	12,71	14,0	0,941 0,557
P/4 L. P/4 b.	42 42	12,5	15,38	18,0	1,426 1,475	10 10	15,0	16,00	18,0	0,943 1,219	17 18	15,0	15,65	17,0	0,679 0,664

b

Table 2 Compared dimensions of the lower cheek teeth of *Sus scrofa prisca* from Untermaßfeld. – a: With recent *Sus scrofa*.
b: With fossil *Sus scrofa* and with *Sus strozzi* (mm).

- Mauer, Germany (MNQ 21);
- North Sea, between 51.35.49/51.38.49 lat. N and 3.01.39/3.08.35 long. E;
- Montsaunès, Haute Garonne, France (MNQ 23?);
- Mosbach, Germany (MNQ 20 and 22);
- Petralona, Greece (MNQ 22 pro parte);
- Vallonnet, Alpes-Maritimes, France (MNQ 20).

Hünemann (1969) adds to our *S. s. priscus* list the sites of Sainte-Suzanne and Saint-Didier (France), Palombara Marcellina (Italy), Sundwig, Süßenborn and Voigtstedt (Germany), Beremend and Gombaszög (Hungary).

All these sites pertain to the post-Villafranchian part of the Lower Pleistocene and to the Middle Pleistocene, corresponding to MNQ zones 20 to 23, a span of time roughly equivalent to the interval from the beginning of the Günz glacial to the end of the Mindel-Riß interglacial.

The palaeoecological significance of *Sus scrofa priscus* was probably the same as for recent *Sus scrofa*, with a preference for a wet forest landscape during interglacial periods.

5. Conclusion

Despite the lack of sufficient material, the wild boar of Untermaßfeld appears to be a very large *Sus scrofa* with cheek teeth more simply built than for the Upper Middle Pleistocene, Upper Pleistocene and recent representatives of the species. It can therefore be allotted to *Sus scrofa priscus* from the Lower and Middle Pleistocene of Europe.

Summary

About a dozen wild boar remains found at Untermaßfeld near Meiningen (Southern Thuringia, Germany) belongs to a very large *Sus scrofa* with cheek teeth more simply built than those of the Upper Middle Pleistocene, Upper Pleistocene and recent representatives of the species. It can therefore be allotted to *Sus scrofa priscus*, which is a characteristic form of the post-Villafranchian part of the Lower Pleistocene and of the Middle Pleistocene of Europe (standard zones MNQ 20 to 23). This form, of which *S. scrofa mosbachensis* is probably a junior synonym, presents the same ecological requirements as the recent European wild boar.

Résumé

Une douzaine de restes de sangliers ont été découverts dans le gisement d'Untermaßfeld près Meiningen (Thuringe du Sud, Allemagne). Ils peuvent être attribués à un très grand *Sus scrofa* aux dents jugales de construction plus simple que pour les représentants du Pléistocène moyen récent, du Pléistocène supérieur et de l'Holocène de la même espèce; ceci permet de les placer dans la sous-espèce *Sus scrofa priscus*, forme caractéristique de la partie postvillafranchienne du Pléistocène inférieur et du Pléistocène moyen ancien d'Europe (standard zones MNQ 20 à 23). Cette forme, dont *S. scrofa mosbachensis* est sans doute un synonyme récent, avait probablement les mêmes exigences écologiques que le sanglier actuel d'Europe.

Zusammenfassung

Etwa ein Dutzend fossile Überreste von der Fundstelle Untermaßfeld bei Meiningen (Süd-Thüringen, Deutschland) gehören zu einem sehr großen *Sus scrofa* mit einfacher gebauten Molaren im Vergleich zu solchen aus dem oberen Mittelpleistozän, dem Oberpleistozän und rezenten Vertretern der Spezies. Die Funde werden zu *Sus scrofa priscus* gestellt, der charakteristischen Form des postvillafrankischen Abschnitts des europäischen Unter- und des Mittelpleistozäns (Standard-Zonen MNQ 20 bis 23). Diese Form, von der *S. scrofa mosbachensis* wahrscheinlich ein jüngeres Synonym ist, zeigt etwa die gleichen ökologischen Ansprüche wie das rezente europäische Wildschwein.

References

- Azzaroli, A. 1954: Filogenesi e biologia di *Sus strozzii* e di *Sus minor*. *Palaeontogr. Ital.* 48, 41-76, Pisa.
- 1975: Remarks on the Pliocene Suidae of Europe. *Zeitschr. Säugetierkd.* 40 (6), 355-367, Hamburg.
- Faure, M. and Guérin, C. 1982: Les Suidae (Mammalia, Artiodactyla) du Plio-Pléistocène d'Europe occidentale. Problèmes et intérêt stratigraphique. 9ème RAST, Paris, Soc. géol. France édit., p. 238, Paris.
- 1983: Le *Sus scrofa* (Mammalia, Artiodactyla, Suidae) du gisement pléistocène supérieur de Jaurens, à Nespouls, Corrèze, France. *Nouv. Arch. Mus. Hist. nat. Lyon* 21, 45-63, Lyon.
- 1984: *Sus strozzii* et *Sus scrofa*, deux mammifères artiodactyles marqueurs des paléoenvironnements. *Palaeogeogr. Palaeoclim. Palaeoecol.* 48, 215-228, Amsterdam.
- Geraads, D., Guérin, C. and Faure, M. 1986: Les Suidés du Pléistocène ancien d'Oubéidiyeh (Israel). In: E. Tchernov and C. Guérin (Eds.), *Les mammifères du Pléistocène inférieur de la vallée du Jourdain à Oubéidiyeh* 93-105. *Mém. trav. Centre Rech. franç. Jérusalem*, 5, Association Paléorient édit.; Paris.
- Groves, C. 1981: Ancestors for the pigs: taxonomy and phylogeny of the genus *Sus*. *Tech. Bull. n° 3*, Depart. Prehist. Research, School of Pacific Studies. Australian National University Press, A.C.T., 96 S., Canberra.
- Guérin, C. 1982: Première biozonation du Pléistocène européen principal résultat biostratigraphique de l'étude des Rhinocerotidae (Mammalia, Perissodactyla) du Miocène terminal au Pléistocène supérieur d'Europe occidentale. *Géobios* 15, 593-598, Lyon.
- 1988: Biozones or mammal Units? Methods and Limits in Biochronology. In: E. H. Lindsay, V. Fahlbusch and P. Mein (Eds.), *European Neogene Mammal Chronology*, 119-130. NATO Advanced Research Workshop »European Neogene Mammal Chronology« Munich, Mai 1988, Plenum Press; New York.
- Guérin, C., Mourer-Chauviré, C., Ballesio, R., Faure, M. and Debard, E. 1983: Biostratigraphie comparée des faunes de grands mammifères et d'oiseaux du Pléistocène supérieur en Europe occidentale et en URSS d'Europe. *Bull. AFEQ* 2/3 (14-15), 133-144, Paris.
- Guérin, C. and Faure, M. 1985: Les Suidae (Mammalia Artiodactyla) du Pliocène de la Formation de Perpignan. Coll. »Hommage à Charles Depéret«, p. 22. *Mus. Hist. nat. Perpignan*, oct. 1985, Perpignan.
- Hünemann, K. A. 1969: *Sus scrofa priscus* Goldfuss im Pleistozän von Süßenborn bei Weimar. *Paläont. Abh. A* 3 (3/4), 611-616, Berlin.
- 1975: *Sus scrofa* Linné aus dem Pleistozän von Weimar-Ehringsdorf. *Paläont. Abh.* 23, 251-263, Berlin.
- 1977: *Sus scrofa* L. aus dem Jungpleistozän von Taubach bei Weimar in Thüringen. *Quartärpaläontologie* 2, 225-235, Berlin.
- Kahlke, H.-D. 1982: *Hippopotamus antiquus* DESMAREST, 1822 aus dem Pleistozän von Meiningen in Südtüringen (Bezirk Suhl). *Zeitschr. geol. Wiss.* 10 (7), 943-949, Berlin.
- Kahlke, R.-D. 1990: Übersicht zur Großsäugerfauna der unterpleistozänen Komplexfundstelle Untermaßfeld bei Meiningen (Südtüringen). *Kurzref. 37. Jahrestagg. Gesellsch. Geol. Wiss. DDR in Jena 1990: Regionale und Angewandte Geologie Thüringens*, 30-31, Berlin.
- Kuss, S. E. 1961: Ein Beitrag zur Pliocän-Fauna von Herxheim/Pfalz. *Ber. Naturf. Ges. Freiburg i. Br.* 51 (2), 145-148, Freiburg i. Br.
- Major, C. J. Forsyth 1881: Studi sugli avanzi pliocenici del genere *Sus* (*Sus strozzii* Menegh.). *Atti Soc. Tosc. Sci. Nat. Proc. Verb.* 2, p.227.
- 1897: On *Sus verrucosus* Müll. & Schleg., and allies, from the Eastern Archipelago. *Ann. Mag. nat. Hist., ser. 6* (19), 521-542, London.
- Stehlin, H. G. 1899-1900: Über die Geschichte des Suidengebisses. *Abh. Schweiz. paläont. Ges.* 26/27, 1-527, Zürich.