Figure captions - Bogaard et al. submission

Fig. 1. Topographical map of south-west Germany showing the location of the *Bandkeramik* settlement of Vaihingen an der Enz

Fig. 2. View of the *Bandkeramik* settlement with ditch system and double palisade in the foreground, looking north towards the *Keuperbergland* of the Stromberg

Fig. 3. Map showing the major features of the Vaihingen region

Fig. 4. Plan of the *Bandkeramik* settlement in the “Seite field” (*Gewann Seite*). Red: the ditched enclosure

Fig. 5. Chronological summary

Fig. 6. Distribution of LBK regional traditions in the Neckar valley

Fig. 7. Distribution of the Flomborn-period ‘clan’ groups at Vaihingen

Fig. 8. Distribution of post-Flomborn ‘clan’ groups at Vaihingen

Fig. 9. Plan of the Bandkeramik settlement of Vaihingen an der Enz with complete (dark grey) and incomplete (grey) building ground plans indicated

Fig. 10. Ground plan of Building 5 (black) with outer ditches (grey)

Fig. 11: Proportions of hunted taxa among identified specimens dating to the äLBK (n = 144, total n = 892; weight = 7 791g, total weight = 35 922.4 g), earlier LBK (n = 705, total n = 4 496; weight = 41 452.4g, total weight = 165 700g) and later LBK (n = 78, total n = 462; weight = 3 209.8g, total weight = 13 087.6g).

Fig. 12: Proportions of domesticated taxa dating to the äLBK (cattle (n = 494), pig (n = 170), Caprinae (n = 84)), earlier LBK (cattle (n = 1902), pig (n = 1032), Caprinae (n = 566)) and later LBK (cattle (n = 173), pig (n = 146) und Caprinae (n = 70)).

Fig. 13: Age distribution of domesticated cattle (*Bos taurus*) based on eruption and wear of mandibular teeth dating to the earlier LBK (n =35) and to the LBK in general (n = 38).

Fig. 14: Box-Plot der LSI values for domesticated cattle (*Bos taurus*) from Vaihingen/Enz (n = 228), Cuiry lès Chaudardes (n = 228), Elsass (n = 102), Herxheim (n = 45), Entzheim (n = 43), Eilsleben (n = 156), central Germany (n = 163), Göttingen Grone (n = 25), Dresden Cotta (n = 17) and Lothringen (n = 37). Reference skeleton: female auroch as in Steppan (2001). The box extends from the 25th to the 75th percentile, while the median is indicated by the central horizontal line. The vertical 'whiskers' above and below the box encompass all values, including outliers.

Fig. 15: The age distribution of sheep (*Ovis aries*) and goat (*Capra hircus*) based on eruption and wear of mandibular teeth dating to the earlier LBK (n = 37) and the LBK in general (n = 45).

Fig. 16: Proportions of male and female domesticated pigs (*Sus domesticus*) in ages classes 6-12 months (females n = 2; males n = 5) and 12-24 months (females n = 11;

males n = 8). The basis of the calculation is the total number of teeth belonging to juvenile domesticated pigs (n =114).

Fig. 17: Proportions of hunted fauna among identified specimens of the Flomborn period 'clan' groups A (n = 198, weight = 9782.1g), D (n = 164, weight = 8688g), B (n = 94, weight = 5962.5g), C (n = 59, weight = 5284g), E (n = 23, weight = 1151.5g), and later LBK groups I (n = 54, weight = 2039g) and II (n = 18, weight = 1095g).

Fig. 18: Proportions of hunted taxa of among identified specimens of the Flomborn period 'clan' groups A red deer n = 95, Ur n = 24, wild boar n = 45, roe deer n = 31), D (red deer n = 87, aurochs n = 27, wild boar n = 24, roe deer n = 22), B (red deer n = 20, aurochs n = 29, wild boar n = 35, roe deer n = 8), C (red deer n = 19, aurochs n = 19, wild boar n = 13, roe deer n = 5), E (red deer n = 2, aurochs n = 10, wild boar n = 5, roe deer n = 5), and of the later LBK groups I (red deer n = 30, aurochs n = 7, wild boar n = 7, roe deer n = 9) and II (red deer n = 4, aurochs n = 5, wild boar n = 8, roe deer n = 1).

Fig. 19: Proportions of domesticated taxa among identified specimens of the Flomborn period 'clan' groups A (n = 1227), D (n = 819), B (n = 495), C (n = 309), E (n = 156), and of the later LBK groups I (n = 286) and II (n = 125).

Fig. 20. Mapping of the proportions of einkorn, emmer and ‘new type’ glume bases per unit

Fig. 21. Mapping of Feathergrass awn and opium poppy seed counts per unit

Fig. 22. Topographical and geological conditions and distribution of other Early Neolithic settlements in the region surrounding the Bandkeramik settlement of Vaihingen/Enz (after Knipper 2011, Fig. 9.17)

Fig. 23. Examples of variation in $^{87}Sr/^{86}Sr$ ratios (diamonds) and $\delta^{18}O$-values (circles) in cattle teeth from Vaihingen/Enz: A) Very homogeneous Sr isotope ratios in several teeth of an animal indicate year-round presence on loess. B) Fluctuation in $^{87}Sr/^{86}Sr$ ratios reflect a lengthy stay in the Mittelgebirge during the warm season, presumably in the Stromberg mountains north of Vaihingen. C) Relatively low $^{87}Sr/^{86}Sr$ values are most likely explicable as grazing in river valleys cutting into shelly limestone. These resources were especially used in the warm season.

Fig. 24. Distribution of Sr isotope ratios in cattle teeth (by A) LBK subperiod and B) regional ceramic tradition) in comparison with C) proportional areas of dominant geological substrates, loess, shelly limestone (*Muschelkalk*) und *Keuper* (after Knipper 2011, Fig. 9.45, 9.46)

Fig. 25. Distribution of $^{87}Sr/^{86}Sr$ ratios of humans and domestic animals from the Bandkeramik settlement of Vaihingen/Enz, on the basis of individual measurements and kernel density curves of value distributions The dataset of cattle includes samples from 57 teeth and 44 individuals, while for all other groups each data point represents one tooth/individual (data: Bentley et al. 2003, 2004, Knipper 2011)

Fig. 26. Plot of human and animal bone collagen and archaeobotanical cereal grain and pulse seed $\delta^{13}C$ and $\delta^{15}N$ values. Charred crop $\delta^{15}N$ values are adjusted for charring effects

Fig. 27 Four modelled scenarios estimating the animal protein fraction (percentage) of total dietary protein in the Vaihingen human diet. The linear mixing models incorporate: an 'inferred' plant $\delta^{15}N$ value (A), the actual measured Vaihingen cereal and pulse $\delta^{15}N$ values (B-D) and the Vaihingen human bone collagen $\delta^{15}N$ value (mean +9.1‰)

Fig. 28. Mean $\delta^{15}N$ values of bulk collagen, glutamic acid and phenylalanine in human, cattle and red deer

Fig. 29. First attempt at modeling of nutrition based on the peak population estimate and agricultural methods reconstructed for Vaihingen (yellow highlight), newly calculated and adapted from Ebersbach 2003 fig. 4.

Fig. 30. Summary of chronological changes in land use at Vaihingen.

Fig. 31. Summary of contrasts in land use practice between regional traditions and 'clan' groupings of longhouses at Vaihingen.