Skeletal evidence of the social persona. Life, death and society in early medieval Alamannic communities

SKELETAL EVIDENCE OF THE SOCIAL PERSONA

Life, death and society in early medieval Alamannic communities

by Nivien SPEITH

APPENDIX

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Abbreviations for skeletal elements, sides and directions of the skeleton

Abbreviation	***Skeletal element***
Cl	clavicle
Sc	scapula
Hu	humerus
Ra	radius
Ul	ulna
Oc	carpal bones
Mc	metacarpals
Pm	manual phalanges
Vc	cervical vertebrae
Vt	thoracic vertebrae
Vl	lumbar vertebrae
Vs	sacrum (sacral vertebrae)
Co	costae (ribs)
OsC	ossa coxae
Pe	pelvis
Fe	femur
Ti	tibia
Fi	fibula
Pa	patella
Ot	tarsal bones
Mt	metatarsals
Pp	pedal phalanges
Sides and directions	
R	right
L	left
UL	upper limb
LL	lower limb
prox	proximal epiphysis
dist	distal epiphysis
stern	sternal epiphysis
acrom	acromial epiphysis
mid	middle

<u>Miscellaneous abbreviations</u>

Abbreviation	***Meaning***
M	male
F	female
I	indeterminate sex
M?	possible male
F?	possible female
U	unobservable
M.	muscle
Mm.	muscles (muscle group)
EC	entheseal changes
MSM	musculoskeletal (stress) marker
MMS	mean muscle score(s)

Appendix Chapter 2

Table 1: Grave good objects - description and categorization

object	*traditional 'functional' category*	*characterization* form [a]	occurrence [b]	generally associated with [b]	object as a grave good [a]
sword (= *spatha*)	weaponry	simple to elaborate types (damascened blade, gold-hilted (as found in grave of Childerich I (d. 482 AD; Christlein 1991: 69; Siegmund 1997); carried in a scabbard (from ca. the 6th. c. AD? Christlein 1991: 70); long, double-edged sword with a flat blade, about 80 cm long and ca. 6cm wide (Siegmund 1997 ; Halsall 2003b: 164); wooden handle, while scabbard would be wooden or of leather and fur (Siegmund 1997)	already in early burials (4^{th} c. AD, (Christlein 1991: 68)	males, 'warriors'; swords with golden handles probably not for actual use - demonstration of economic / political power? (Christlein 1991: 69f.); especially in 6^{th} c. often representing highest craftsmanship, thus probably expensive objects (Halsall 2003bb: 164); Martin (1997) attributes it to men on horseback who would also carry a shield and fight on foot	spatha is not found as part of the costume but as grave good (carefully arranged on or beside the deceased, Siegmund 1997); found on either the right or the left side of the deceased's body (Stork 1997a); meanings of functional and symbolic nature
seax	weaponry	short, "stocky" form (varying with periods), single-edged long knife, used like a dagger (Martin 1997b ; Siegmund 1997 ; Halsall 2003bb: 166); typically ca. 25cm long blade, 3cm wide ('short / narrow seax'; Siegmund 1997), in 7^{th} c. different (longer and slightly broader, probably rather used as cutting weapon ('broad seax'); carried on the left side of the hip (on belt, in leather scabbard) (Christlein 1991: 73f.; Siegmund 1997)	in early Alamannic burials (4^{th} c.), appearing in graves of wealthy men (Christlein 1991: 73 - but only individual finds); from 6^{th} c. onwards the most common weapon in Alamannic, Frankish and Bajuwarian areas (Christlein 1991: 73; Halsall 2003b: 166)	males, ('warriors')	positioned as part of costume (Siegmund 1997: 701) (Siegmund 1997: 701); may have indicated the man's ability to fight, and his social standing (Martin 1997b); potentially the poorer man's sword (Halsall 2003b: 166); smaller, "children's" versions exist (Christlein 1966: 24; Lohrke 2004a: 136), but debated whether just large knives (Lohrke 2004a: 100)
bow	weaponry	very rare material evidence of wooden bows (Oberflacht, Schiek 1992: 26ff.)		(primarily) males; (subadults)	bow & arrow = far-distance (projectile) weapon (Siegmund 1997); considered 'token weapons' in subadult male graves, but arrowhead may derive from light javelin or dart instead (Halsall 2003b: 166); some authors suggest arrows had amulet function when in female graves (Dübner - Manthey 1990: 71; Arnold 1992: 97; Lohrke 2004a: 86)
arrow(s)		iron arrow heads, mostly leaf-shaped, later also different forms due to varying influences (Christlein 1991: 73; Siegmund 1997)	appear in Germanic graves (3^{rd} c. AD; (3rd c. AD; Schach-Dörges 1997); almost complete disappearance from more wealthy burials and found exclusively in those of poor individuals by the 8^{th} c. (Christlein 1991: 73)		
shield	weaponry	round, partially flat, partially conic	from earliest periods on in all regions of	males, 'warriors'	survival of shield boss (Lebedynsky 2001:

object	*traditional 'functional' category*	*characterization* *form* [a]	*occurrence* [b]	*generally associated with* [b]	*object as a grave good* [a]
		wooden board of up to one meter diameter, possibly painted, with shield buckle (varying metals and forms) in centre (Christlein 1991: 71); slight variations in shape with course of early middle ages (Halsall 2003b: 167)	early medieval Europe, but with strong regional variation in deposition (Halsall 2003b: 163)		181f.); defence weapon (Siegmund 1997), protection (also symbolic nature)
lance	weaponry	iron head; typical weapon of late Roman Germanic warriors (Siegmund 1997), used for thrusting and also throwing (smaller examples, (Halsall 2003b: 164); late 5th and 6th c. long and narrow, 7th c. more massive, 8th c. more elongated again (Christlein 1991: 71)	throughout early medieval Europe	males, 'warriors' (stereotypical, Halsall 2003b: 164)	thrusting and slashing weapon; highly symbolic character, e.g. often depicted together with swords in Frankish sources (Siegmund 1997); defensive character
spear (= *ango*)	weaponry	special form of lance; throwing / thrusting weapon (close range), with overly long iron shaft and barbed hook (Halsall 2003b: 165)	rare; early Merovingian period (Halsall 2003b: 164)	duelling (Siegmund 1997); noble males, ('warriors'; (Halsall 2003b: 164)	mostly in 'élite' burials (due to duelling function, Christlein 1991: 72; Halsall 2003b: 165); mostly in Frankish areas (Siegmund 1997)
helmet / armour	weaponry	three types found across EM Europe (Steuer 1987) - "Spangenhelm" (e.g. Alamannic cemetery of Niederstotzingen, c. 600 AD; Paulsen 1967), helmets with elaborate frontal and nasal cover, Nordic ridge helmets (e.g. Sutton Hoo)	helmets 6th c. onwards, but very rare (Steuer 1987); armour extremely rare (Alamannic burials: Niederstotzingen, Paulsen 1967); more frequently on fringes of Frankish empire (socio-political reasons? Halsall 2003b: 170)	noble males, 'warriors', Frankish *antrustiones* (Steuer 1987)	helmets exclusively in elite burials, as 'always of foreign origin' (Christlein 1991: 73), or of foreign influence (Siegmund 1997); protection weapon (Siegmund 1997) or insignia (Steuer 1987)
axe	weaponry	in Germanic contexts used as throwing weapon (Siegmund 1997), as "battle axe", possibly wielded with one hand (Halsall 2003b: 165); early 5th c. relatively small; during 5th and 6th c. often in the form of a *francisca* ("throwing axe", Frankish areas, Siegmund 1997); broad, asymmetric blade (Christlein 1991: 73), double-headed (Halsall 2003b: 165); *francisca* with characteristically shaped edge (Dahmlos 1977), thus types are distinguishable	in earliest 'weapon' burials (4th c., Theuws 2009); very common in 6th c. Frankish burials (Halsall 2003b: 165)	males, 'warriors'; *francisca* = ethnic marker' for Franks	disappearance / decline in with 7th c., potentially with introduction of new battle styles (Frankish (!), Halsall 2003b: 165); symbolic character (Theuws 2009)
snaffle & harness	horses / riding	different forms of snaffle (Christlein 1991: 75f.; Siegmund 1997); harnesses often decorated with precious metals (Halsall 2003b: 173)	horse burials strongly in 6th c. (Stork 1997b); mainly 7th c.	noble males, 'warriors' (Halsall 2003b: 173f.)	symbolic grave accoutrement, not found in late antique, Roman, or Germanic burials; from 6th c. onwards, possibly a tradition introduced by Hunnic nomads (Siegmund 1997) or Thuringian immigrants (Stork 1997b); "élite burials"

object	***traditional 'functional' category***	***characterization***			
		form [a)]	***occurrence*** [b)]	***generally associated with*** [b)]	***object as a grave good*** [a)]
					(Christlein 1991: 75)
spur	horses / riding	metal spurs (bronze in 7^{th} c.), tied to shoes by leather band (Christlein 1973; 1991: 74)	appear in Alamannic graves with the 6^{th} c., but only rarely; mainly 7^{th} c. (Christlein 1973)	noble males, ('warriors')	used by Germanic people during Roman period - therefore points to graves of warriors on horseback (Siegmund 1997: 705); decreased as grave good with 5^{th} c., only reappeared with 7^{th} c. (Siegmund 1997); often only one spur thus potentially symbolic object (Halsall 2003b: 173)
wooden bucket	undefined		mainly 6^{th} c., heavy decrease with 7^{th} c. (Christlein 1973)	primarily males (Christlein 1973), but also females	
tools	tools	various forms		primarily males	include awl and bodkin (part of belt bag contents); fire steel and stones (flint), small grindstones; (Christlein 1991: 65; Lohrke 2004a: 108f.)
glassware	food supply	simple to elaborate (Steuer 1973)	mainly 6^{th} c., heavy decrease with 7^{th} c. (Christlein 1973)	males and females	produced in the Rhineland area, a special good especially during the 7^{th} c. (Lohrke 2004a: 125)
bronze ware	food supply	primarily bronze bowls (Christlein 1973)	mainly 6^{th} and 7^{th} c.	males and females	
bucket with bronze fittings	undefined			males and females	wooden bucket with bronze fittings, of which only the metal parts would be surviving in burials
golden ring	jewellery			females	part of (female) attire (Christlein 1991: 80)
ring (Br/Ag)	jewellery			females; subadults	part of (female) attire (Christlein 1991: 80); subadults would have had rings only on left hand, but also right hand occurs (Lohrke 2004a: 86)
coin(s)	amulets / jewellery (?)	complete or drilled	relatively rare (ca. 3.5% in early medieval burials in southwest Germany, (Krause 2002)	males and females	sometimes attached to girdle hanger (Christlein 1991: 80); found individually, near various areas of the body (Lohrke 2004a: 123)
belt / belt set / girdle hanger	costume	leather belt; buckles of either iron or silver or of more precious metals (varying forms, used for chronology; (varying forms, used for chronology; Siegmund 1997)		males and females	part of costume (Siegmund 1997 ; Lohrke 2004a: 90); from 5^{th} c. addition of belt bag; belt fittings esp. from 7^{th} c.; in female costume, also amulets, beads, coins hanging down from belt on girdle hanger (Christlein 1991: 65f., 80; Siegmund 1997), carried on left side of hip (Lohrke 2004a)

object	***traditional 'functional' category***	***characterization***			
		form [a)]	***occurrence*** [b)]	***generally associated with*** [b)]	***object as a grave good*** [a)]
comb	toiletry	bone combs		males and females	probably carried in belt bag (males) or on girdle hanger (females; Lohrke 2004a: 112); importance attached to long hair in Merovingian sources (Leges: free men characterized by long hair, Weidemann 1982: 365f.)
pottery	food supply	simple to elaborate (Steuer 1973)		males and females, subadults	food and drink accoutrements, associated with afterlife thought and devotion of bereaved (Ruoff 1985), but also with feasting as part of the funerary rite (Behm - Blanke 1979)
knife (Fe)	tool	used as simple tool or cutlery (Lohrke 2004a: 107)		males and females, (subadults)	part of attire, hanging on girdle hanger (Christlein 1991: 80) or carried in belt bag; in female burials found in lower limb area, i.e. probably carried attached to belt, in male burials found in hip or general torso area, i.e. potentially carried on belt or in bag (Lohrke 2004a: 100; 107)
goldleaf cross	amulets	made of sheet metal, gold-foil (Knaut 1994)	(later) 7th c. AD; possibly Langobardic origin (Knaut 1994 ; Riemer 1999)	males and females, subadults	mainly found in area of head or mouth, , exclusively burial good (Lohrke 2004a: 122); indicates presence of Christians
amulet	amulets / jewellery	various forms	throughout early medieval period	primarily females, subadults	carried on girdle hanger (female costume, Martin 1997b) or as part of necklace (Lohrke 2004a: 95); with 6thc. greater repertoire (glass whorls, rock crystals, bronze beads); later 6th c. additional amulets, carried on left side of belt set (among them, antler bases); apotropaic, talismanic and protective meanings (Thrane 1973); combination of symbolic and functional (= jewellery) aspect (Dübner - Manthey 1990: 65f.)
scissors	toiletry / tool	multifunctional tool		males and females	rare (Lohrke 2004a: 113)
tweezers	toiletry	tool		males	part of belt bag contents; utensil for beard maintenance (Lohrke 2004a: 113)
flint	tool	natural stone		primarily males	part of belt bag contents
beads	jewellery	various materials		females, subadults	glass beads part of female costume (Christlein 1991: 79); in different

object	***traditional 'functional' category***	***characterization***			
		form [a)]	***occurrence*** [b)]	***generally associated with*** [b)]	***object as a grave good*** [a)]
					combinations part of necklaces (Lohrke 2004a: 95)
bracelet	jewellery		5^{th} and 6^{th} c. mostly gold or silver, 7^{th} c. also bronze	females, (subadults)	part of female attire (Christlein 1991: 80)
necklace	jewellery	consisting of a string of beads, sometimes with an amulet	5^{th} / 6^{th} c. mostly one row, 7^{th} c. two - four rows	females, subadults	part of female attire (Christlein 1991: 80); worn by women of every age (Lohrke 2004a: 91); grave accoutrement in over 50% of female burials (Sasse and Theune 1996) and ca. 40% of subadult burials (both sexes, Lohrke 2004a: 91)
earrings (Au/Ag/Br)	jewellery		5^{th} and 6^{th} c. mostly gold or silver, 7^{th} c. also bronze	females, subadults	part of female attire (Christlein 1991: 80); mostly in pairs, but also single earrings (Lohrke 2004a: 95)
fibula (Au/Ag)	costume	varying types from the 5^{th} to the 8^{th} c., entailing varying forms of use (as worn on costume; (Martin 1994 ; Martin 1997b ; Lohrke 2004a: 94)		females	part of costume; mostly in pairs; sometimes served to attach an amulet (Christlein 1991: 78); examples of re-worked fibulae found (out of horse harness elements, Quast 2006: 314)
bow fibula	costume		mostly 5^{th} and 6^{th} c.	females	pair in hip region (?) (Christlein 1991: 80); typical for 6^{th} c., often in combination with small fibulae (Lohrke 2004a: 94); decline with late 6^{th} c. (Christlein 1991: 81)
disc fibula	costume		mostly 7^{th} c.	females	added to female costume in ca. 6^{th} c., often elaborate (Christlein 1991: 80); mainly worn during 7^{th} c. (Lohrke 2004a: 94); carried mainly on right shoulder (Christlein 1991: 81), thus commonly only one disc fibula found (Lohrke 2004a: 96)
small fibula	costume		mostly 6^{th} c.	females	added to female costume in 5^{th} c., shoulder region (Christlein 1991: 80)
calf decoration (Ag/Fe/Br/metal)	costume	metal objects, embellishing the 'leggings'	with 6^{th} c. (Christlein 1991: 81), esp. 7^{th} c. (Schiek 1992: 64f.)	females	part of costume (female, Lohrke 2004a: 118)
(hair-)pin	costume / jewellery	bone or metal pin (often silver), varying sizes		females	part of female costume (Christlein 1991: 78; Martin 1997b); may have served to hold several parts of clothing (Martin 1997b)
(sewing) needle	tool / costume	mostly bronze, sometimes bone		females, subadults	part of female costume (Möller 1977); in subadult burials found with both sexes;

object	*traditional 'functional' category*	*characterization*			
		form [a]	*occurrence* [b]	*generally associated with* [b]	*object as a grave good* [a]
					often found in torso area, i.e. possibly carried in bag, or near head (Lohrke 2004a)
wooden casket (with bone or metal fittings)	"household" item			females	mostly found in female burials (Koch 1997)
spindle whorl	tool			females	'female' tool (Lohrke 2004a: 90; 109); mostly one spindle whorl per burial; found in lower limb area, this possibly carried on girdle hanger (Lohrke 2004a: 109); also among artefacts that were given into the graves of women who died in childbed (Lohrke 2004a: 152)
weaving sword	tool	iron; evidence of spathae reworked into a weaving sword	weaving swords found in Langobardic, AS, northern Germanic, Thuringian burials	females	'female' tool (contrary, cf. Greg. Tur. VII.14, IV.25); apart from the east Frankish area, they were not commonly found as a grave good in Frankish burials, although some occur among wealthy female assemblages during the 6th c. (Banck - Burgess 1997)
key(s)	"household" item	forms in iron and bronze (ornamental keys; Lohrke 2004a: 110f.)		females; occasionally males	carried on girdle hanger, debated whether functional or symbolic; may symbolize wish for children in burials of younger women (Brather 2008), or indicate female presence in the household sphere (Steuer 1982b); male could be endowed with a larger key - allusion to ownership? (Brather 2008)
bucket sleeve & set	tool / "household" item			females	rare; carried by females on girdle hanger (Lohrke 2004a: 111f.)

[a] in Alamannic burials; [b] i.e. in the early medieval / Alamannic context

Appendix Chapter 4

List of Tables - Appendix Chapter 4

Table 2: Pleidelsheim - Skeletal Inventory

Skel. n°	Sex	Age (years)	Burial Type [a)]	Grave Intact	No of GG	No of AT	Period	Comments [b)]
1	m	26 - 35	A	x	2	2	II	
2	f	36 - 45	A	x	3	3	III	
3	f	26 - 35	A	x	1	1	III	
4a	f	26 - 35	C	x	7+	9	IV	
4b	m	46 - 59	C	x	[7+]	0	IV	
5	f	26 - 35	C	x	9+	9	IV	
6	m	7 - 12	A	x	3	3	II	
7/2	m	46 - 59	n.d.	x	1	1	III	
7/1	f	36 - 45	A	x	1	1	III	
8	m	36 - 45	B	x	4	4	III	
9	f	46 - 59	C	x	12+	12	IV	
10	m	46 - 59	A			2	III	
11	m	13 - 17	A	x	0	0	I	
12	m	36 - 45	B	x	5	4	IV	
13	f	26 - 35	A	x	8	6	IV	
14	f	36 - 45	A	x	8	6	III	
15	m	36 - 45	C	x	21+	16	IV	
16 A	f	26 - 35	D	x	4	4	VIII	with 16B
16 B	f	36 - 45	D	x	5+	5	VIII	with 16A
17	f	36 - 45	A	x	7	7	V	
18	f	36 - 45	A	x	1	1	I	
27	m	46 - 59	A			4	III	
31	f	36 - 45	B	x	8	7	VII	
32	f	18 - 25	A	x	3	3	II	
33	m	7 - 12	A	x	2	2	VII	
34	i	7 - 12	A	x	2	2	IV	
35	f	26 - 35	C	x	4	4	VII	
36	f	36 - 45	B	x	3	3	VII	
37	f	1 - 6	B	x	2	1	VIII	
38	m	36 - 45	A	x	9+	7	VII	
39	m	18 - 25	A	x	1	1	III	
40	m	36 - 45	A	x	14+	10	III	
41	f	26 - 35	C	x	3	3	VIII	
42	m	60+	A	x	9+	10	III	
43	i	1 - 6	A	x	3	2	II	
44	m	18 - 25	A	x	8	8	IV	
45	f	46 - 59	B	x	0	0	IV	
46	m	7 - 12	A	x	11	6	III	
47	f	36 - 45	B	x	4	4	III	
48	m	1 - 6	A	x	2	2	III	
49	f	60+	A	x	2	2	II	add. child burial (Koch 2001: 424) (no remains); MNI = 2
51	f	60+	A	x	1	1	III	
52	f	26 - 35	B			7	VIII	
53	f	1 - 6	A	x	0	0	III	
54	f	13 - 17	B	x		3	VIII	
55/1	i	46 - 59	B			5	VII	
56/1	m	26 - 35	n.d.			1	VI	
56/2	m	18+	n.d.			0	VI	
57	f	18 - 25	n.d.			2	III	
58	m	1 - 6	A	x	0	0	II	
59	f	36 - 45	A			0	III	
60	m	46 - 59	A	x	8	8	IV	
61	f	46 - 59	A	x	7	7	IV	
62/1	f	36 - 45	A	x	4	3	III	
62/2	m	46 - 59	A	x	[4]	0	III	
63	f	46 - 59	A	x	9	10	IV	add. child burial (Koch 2001: 430)

Skel. n°	Sex	Age (years)	Burial Type a)	Grave Intact	No of GG	No of AT	Period	Comments b)
								(no remains
64	m	26 - 35	C	x	8	8	VI	
65	f	36 - 45	A	x	9+	7	I	
66	f	46 - 59	A	x	3	3	I	
67	m	7 - 12	A	x	1	1	III	
68	i	13 - 17	C	x	11	9	V	add. child burial (Koch 2001: 433) (no remains); MNI = 2
69	m	13 - 17	A	x	8	3	I	
70/1	m	26 - 35	A	x	0	0	III	
70/2	i	18+	A	x	[0]	0	III	
71/1	m	26 - 35	B	x	16+	11	III	
72/1	m	46 - 59	A			1	II	
72/2	i	13 - 17	A			0	II	
73	m	1 - 6	A	x	3	3	III	
74	m	13 - 17	B			2	III	
75/1	f	26 - 35	A			3	II	
75/2	i	1 - 6	A			0	II	
75/3	f	26 - 35	A			0	II	
76	m	46 - 59	A	x	11	8	V	
77	f	26 - 35	B	x	6	7	VII	
78	i	36 - 45	C	x	14	10	VII	
79	m	46 - 59	A	x	10	5	I	
80	f	60+	B	x	5	6	IV	
81	f	60+	A	x	7	6	III	
82	m	46 - 59	A	x	5	4	IV	
83	m	36 - 45	A	x	2	2	II	
84	f	46 - 59	B			1	I	
85	f	26 - 35	n.d.	x	0	0	VI	
86	f	36 - 45	B	x	3	3	VII	
87	m	26 - 35	A	x	6	3	VII	
88	m	26 - 35	A	x	13	12	IV	
89	f	36 - 45	C	x	19+	13	IV	
90	m	46 - 59	n.d.	x	1	1	VII	
91	m	26 - 35	A			4	II	
92	f	36 - 45	C	x	3	3	VI	
93	m	46 - 59	B			2	III	
94	f	1 - 6	B			5	III	
95	m	18 - 25	C	x	12	9	IV	assoc. with horse burial (Koch 2001: 448)
96	f	18+	B			1	III	
97/1	i	26 - 35				1	IV	
97/2	f	26 - 35	B			1	IV	
98	f	60+	B	x	0	0	III	
99	f	46 - 59	A			1	III	
100	m	7 - 12	A	x	0	0	III	
101	m	18+	A	x		3	III	
102	m	26 - 35	B	x	14+	10	IV	
103	m	36 - 45	A	x	13	6	III	
104	m	46 - 59	D	x	10	6	III	with 105
105	f	26 - 35	D	x	4	5	III	with 104
106	f	60+	A	x	0	0	III	cranial deformation
107	m	46 - 59	A	x	4	3	IV	
108	f	26 - 35	C	x	4	4	VIII	
109	m	13 - 17	B	x	7	6	II	
110	f	18+	A	x	11	9	IV	
111	m	60+	A	x	5	4	III	
112	m	1 - 6	B	x	4	4	IV	
113	m	46 - 59	n.d.	x	12	7	III	
114	i	13 - 17	B	x	5	5	III	

Skel. n°	Sex	Age (years)	Burial Type [a)]	Grave Intact	No of GG	No of AT	Period	Comments [b)]
115	f	60+	A	x	15	12	III	
116	m	46 - 59	B	x	17	11	III	
117	m	13 - 17	B	x	1	1	IV	
118	f	1 - 6	B	x	7	3	III	
119	f	1 - 6	B	x	5	5	III	
120	m	46 - 59	A	x	15	8	IV	
121	f	13 - 17	A	x	1	1	n.d.	
122	f	18+	n.d.			0	n.d.	
123	m	36 - 45	n.d.	x	0	0	n.d.	
124	m	36 - 45	D	x	5	5	V	with 125
125	m	26 - 35	D	x	7+	5	V	with 124
126	f	26 - 35	C	x	13	12	IV	
127	m	46 - 59	A	x	10	7	IV	
128	f	36 - 45	C			13	V	
129a	m	46 - 59	A	x	6	6	IX	
129b	m	26 - 35	A	x	[6]	0	IX	
130a	m	18 - 25	n.d.			1	IX	
130b	i	13 - 17	n.d.			0	IX	
131	m	18+	n.d.	x	1	0	n.d.	
132	f	7 - 12	A	x	4	4	V	prone burial
133	i	26 - 35	D			3	IX	with 134
134	i	1 - 6	D	x	2	2	IX	with 133
135	f	36 - 45	C	x	6	6	V	
136	m	18+	D	x	11	9	VII	with 142 (no remains; Koch 2001: 470)
137	i	1 - 6	A	x	5	5	VIII	
138	m	36 - 45	A	x	5	5	III	MNI = 2
139	f	36 - 45	C			10	V	
140	f	18 - 25	C	x	20	14	IV	
147	f	26 - 35	B			3	VII	
148	f	46 - 59	n.d.	x	0	0	III	
149	f	18 - 25	B	x	9	9	VI	
150	i	18+	C			2	VII	
151	m	18+	n.d.			0	n.d.	
152	i	18+	n.d.			0	n.d.	cranium stolen at excavation (Koch 2001: 478)
153	m	36 - 45	n.d.	x	1	1	n.d.	
154a	i	18+	D	x	2	2	IX	multiple burial
154b	i	7 - 12	D	x	5	6	IX	
154c	i	1 - 6	D	x	[5]	1	IX	
155	f	18+	A	x	2	2	VIII	
158	m	60+	n.d.	x	0	0	n.d.	
159	f	18 - 25	n.d.	x	1	1	n.d.	
161	m	60+	n.d.			0	n.d.	
162	i	n.d.	A	x	3	1	n.d.	
163	f	46 - 59	n.d.	x	0	0	n.d.	
164	f	18+	n.d.	x	0	0	n.d.	
165	f	46 - 59	B	x	5	5	VIII	
166	m	18+	C	x	7	7	VI	
167	f	26 - 35	C			8	IX	
168	m	18+	D	x	5+	4	VIII	with 170 (no remains; Koch 2001: 485)
169	m	18+	n.d.	x	0	0	n.d.	
169	m	7 - 12	n.d.	x	0	0	IV	
171	i	18+	C	x	1	1	VII	
172	f	46 - 59	B	x	3	2	VII	
173	m	26 - 35	B			1	IX	
174	i	7 - 12	C	x	10+	8	VIII	
175	f	26 - 35	D	x	2	2	VII	

Skel. n°	Sex	Age (years)	Burial Type a)	Grave Intact	No of GG	No of AT	Period	Comments b)
176	f	60+	n.d.			2	n.d.	
177	f	46 - 59	D	x	7	7	VII	
178	m	36 - 45	B	x	8	7	VII	
179	f	46 - 59	n.d.	x	0	0	n.d.	
180a	m	18+	n.d.		5	4	VI	
180b	i	60+	n.d.			0	VI	
180c	i	1 - 6	n.d.			0	VI	
181	m	46 - 59	n.d.	x	0	0	n.d.	
182	f	7 - 12	B	x	9	7	VI	
183	f	60+	n.d.			1	n.d.	add. male ind. (no remains; Koch 2001: 491)
184	i	13 - 17	C			3	VII	
185	f	46 - 59	C	x	8	6	V	
186	f	1 - 6	n.d.	x	1	1	VI	
187	f	18+	C	x	2	2	V	
188	i	18+	C			2	V	
189	i	7 - 12	C	x	6	6	IV	
190	m	18 - 25	C	x	8	7	VIII	
191	i	18+	n.d.			0	n.d.	
192	f	1 - 6	n.d.	x	0	0	III	
193	i	7 - 12	n.d.	x	0	0	n.d.	
194	i	1 - 6	n.d.	x	0	0	n.d.	
195a	m	46 - 59	C			3	V	
195b	f	46 - 59	C			0	V	
196	f	46 - 59	C			3	VIII	
197	f	36 - 45	B	x	4	4	III	
198	i	18+	B	x	7+	4	IV	
199	f	13 - 17	C	x	4	2	VI	
200	m	7 - 12	C			2	VIII	MNI = 2
201	i	1 - 6	n.d.	x	5	4	VIII	
202	f	36 - 45	n.d.			1	n.d.	
203	i	13 - 17	A			2	IX	
204a	i	1 - 6	A			2	VIII	grave inclusions commingled (Koch 2001: 500f.)
204b	f	26 - 35	A			0	VIII	
205	i	7 - 12	A			1	VIII	
206	i	13 - 17	C	x	12	8	VII	
207a	f	36 - 45	n.d.	x	4	4	VIII	
207b	i	13 - 17	B	x	[4]	0	VIII	
209	i	1 - 6	n.d.			1	n.d.	
210	m	36 - 45	A	x		3	VII	
211	f	46 - 59	C	x	6	4	VI	
212	m	60+	n.d.			2	n.d.	
213	m	18+	n.d.	x	0	0	n.d.	
214	m	46 - 59	C	x	5+	3	VI	
215a	i	18+	C	x	3+	3	VI	
215b	i	18+	n.d.	x	[3+]	0	VI	
216	i	18+	C	x	6	4	VII	
217	f	46 - 59	n.d.	x	0	0	n.d.	
218	f	60+	B	x	4	4	VIII	
219	m	18+	C			4	VII	
220	f	46 - 59	C			10	VI	
221	f	46 - 59	n.d.	x		2	VI	
222	f	46 - 59	A	x	2	2	VII	
223	f	18+	C			5	VIII	
224	m	60+	n.d.	x	0	0	II	
225a	f	60+	C			7	VII	
225b	m	36 - 45	C			0	n.d.	
226	i	18+	C	x		4	VII	
227	i	7 - 12	C	x	7	4	VII	

Skel. n°	Sex	Age (years)	Burial Type [a]	Grave Intact	No of GG	No of AT	Period	Comments [b]
228	f	1 - 6	B	x	7	6	IX	
229	m	26 - 35	C			5	VI	
230	i	n.d.	C			2	VIII	
231	m	26 - 35	C	x	4	4	V	
232	m	26 - 35	B	x	12	11	VI	
234	f	36 - 45	A			0	VI	
235	m	36 - 45	n.d.			0	VI	
236	f	1 - 6				3	VI	
237	i	13 - 17	A			0	VI	
238	f	7 - 12	C	x	12	7	V	
239	m	26 - 35	n.d.			2	n.d.	
240	f	26 - 35	C			2	VII	
241	f	18+	n.d.	x	4	2	n.d.	
242	i	18+	C	x	11	8	VIII	
243	m	46 - 59	A	x	1	1	III	
244	m	26 - 35	C	x	6	4	V	
245	m	26 - 35	B	x	6	6	VII	
246	f	46 - 59	B			6	III	
247	m	36 - 45	C			6	IV	
248b	i	7 - 12	n.d.			4	VI	
248a	m	46 - 59	C			0	VI	
249	i	n.d.	C	x	5	5	VI	
250	f	7 - 12	C			7	VI	
251	f	26 - 35	n.d.		5	3	n.d.	
252	i	18+	n.d.			0	VI	
253a	f	60+	C			2	VI	
253b	m	1 - 6	n.d.			0	n.d.	
253c	f	13 - 17	n.d.			0	n.d.	
254	f	18+	A			0	VI	
255	i	1 - 6	B			0	VI	
256	i	18+	n.d.			0	n.d.	
257	i	n.d.	n.d.			1	n.d.	
258	m	36 - 45	n.d.			1	VI	
259	m	36 - 45	A	x	16	5	VI	
260	m	1 - 6	C	x	4+	4	VIII	
261	m	18+	C		7+	3	VIII	
262a	m	46 - 59	n.d.			0	n.d.	
262b	m	1 - 6	n.d.			0	n.d.	
263	m	18 - 25	C			3	VIII	
264	m	36 - 45	A	x	6	5	IX	

[a] A = coffin, B = simple 'pit' burial, C = chamber grave, D = double burial; [b] MNI relates to minimum number of individuals revealed as present in one burial in this skeletal analysis

Table 3: Neresheim - Skeletal Inventory

Skel. n°	Sex	Age (years)	Burial Type a)	Grave Intact	No of GG	No of AT	Period	Comments b)
1	f	7 - 12	B	x	0	0	n.d.	
2/1	m	1 - 6	B	x	17	10	III - VI	
2/2	f	26 - 35	B	x		0	III - VI	
3/1	f	36 - 45	B	x	1	1	n.d.	
3/2	f	46 - 59	B	x	[1]	1	n.d.	
4	i	18+	A	x	2	2	VIII	
5	f	36 - 45	B	x	3	3	IX	buried lying on right side = 'semi-prone' burial (Knaut 1993: 242)
6	f	36 - 45	B			1	III - VI	MNI = 3
7/1	f	26 - 35	A			4	III - VI	
7/2	i	7 - 12	A			0	n.d.	
8	f	46 - 59	A	x	0	0	n.d.	
9/1	f	36 - 45	B	x	1	0	n.d.	
9/2	f	7 - 12	B	x		0	n.d.	
10	m	26 - 35	B	x		2	VIII	
11	f	7 - 12	C	x	4	5	VIII	
12	i	1 - 6	A	x	3	4	V	
13	m	1 - 6	B	x	0	0	n.d.	MNI = 2 (teeth of 2nd child present)
14	i	1 - 6	A	x	0	0	n.d.	
15	m	36 - 45	B	x	1	1	VII	
16	f	36 - 45	A	x		2	VII	MNI = 2
17	m	7 - 12	B	x	0	0	n.d.	
18/1	f	36 - 45	B			1	n.d.	
18/2	f	36 - 45	B			0	n.d.	
19	m	7 - 12	A	x	0	0	n.d.	
20	f	36 - 45	B	x	4	4	IV	
21	f	36 - 46	A			2	VIII	MNI = 3
22/1	f	36 - 45	B			1	III	
23	f	13 - 17	A			4	VIII	
24	f	1 - 6	B	x	0	0	n.d.	
25	f	60+	B	x	0	0	n.d.	
26	i	26 - 35	B			3	VI	
27	f	26 - 35	B			1	VIII	
28	f	18+	A			1	VIII	
29	m	46 - 59	A			0	n.d.	
30	f	46 - 59	C			5	III - VI	
32	m	26 - 35	A			1	n.d.	
33	f	1 - 6	A	x	0	0	n.d.	
34	i	46 - 59	B	x	1	1	n.d.	
35	f	26 - 35	A			1	III - VI	
36	f	36 - 45	B			2	VII - X	
37	m	36 - 45	C			1	VII	
38	m	13 - 17	A	x	2	2	VIII	MNI = 2 (add. adult remains)
39	m	60+	A	x	0	0	n.d.	MNI = 2
40	m	36 - 45	A			0	n.d.	
41	f	13 - 17	A			1	III	
42	f	36 - 45	B	x	0	0	n.d.	MNI = 2 (add. child remains)
43	f	60+	A	x	0	0	n.d.	
44	m	26 - 35	B			6	VII	
45	m	46 - 59	A	x	5	5	III	
46	f	46 - 59	B			3	VII - X	
47	f	46 - 59	A			0	n.d.	
48	m	36 - 45	B	x	4	4	VIII	
49	m	36 - 45	A	x	11	6	III	
50/1	m	36 - 45	A			3	III	cranial deformation (Hahn 1993: 401)? (only few cranial

Skel. n°	Sex	Age (years)	Burial Type [a]	Grave Intact	No of GG	No of AT	Period	Comments [b]
								fragments left)
50/2	f	60+	A			0	n.d.	
51	m	36 - 45	A			3	VIII	
52	f	18 - 25	A	x	9	8	VII - X	
53	f	60+	B	x	1	1	n.d.	
54	f	36 - 45	B			1	n.d.	
55	f	60+	B	x	1	1	n.d.	
56	f	36 - 45	B	x	1	1	n.d.	MNI = 3 (incl. infant remains, 0-6 months)
57	f	46+	A	x	0	0	n.d.	
58	f	36 - 45	B			3	IX	
59	f	26 - 35	A	x	1+	1	n.d.	
60	f	7 - 12	A	x	0	0	n.d.	
61/1	m	60+	B			2	VIII	
61/2	f	13 - 17	B			0	VIII	
62	f	7 - 12	B	x	0	0	n.d.	
63	f	13 - 17	B	x	1	1	III	
64	f	36 - 45	A	x	1	1	n.d.	
65	i	18+	C			1	VII - X	
66	f	46 - 59	A			1	VII - X	
67	f	46+	B			0	n.d.	
68	f	46 - 59	B	x	0	0	n.d.	
69	f	7 - 12	B	x		3	VII	
70	f	60+	B			1	II	
71	f	36 - 45	B			1	III	MNI = 2
72	f	18 - 25	B	x	6	5	IX	
73	f	36 - 45	B			1	IX	
74	m	26 - 35	B			3	IX	
75	f	26 - 35	A	x	3	3	n.d.	
76	f	26 - 35	B			1	II	
77	m	36 - 45	A			3	IV	
78/1	f	26 - 35	B			1	n.d.	
78/2	m	36 - 45	B			0	III	cranial deformation (Hahn 1993: 406)? (only few cranial fragments left)
79	m	46 - 59	B	x	1	1	VII - X	
80	m	36 - 45	A	x	2	2	III	
81	f	60+	B	x	1	1	III	
82	f	26 - 35	B	x		6	III	
83	f	26 - 35	A			2	n.d.	cranial deformation (Hahn 1993: 408)? (only few cranial fragments left)
84	m	46+	B	x	0	0	n.d.	
85	f	36 - 45	A	x	0	0	n.d.	
86	f	1 - 6	A	x	1	1	II	
87	m	46 - 59	B	x	4+	4	III	
88	f	18+	B			3	VIII	
89	m	46 - 59	B			3	III	
90	f	26 - 35	A			7	IV	
91	f	36 - 45	A	x	0	0	n.d.	
92	f	18 - 25	B			3	n.d.	
93	i	1 - 6	A	x	3	3	VIII	
94	m	18 - 25	B	x	1	1	n.d.	MNI = 2
95	m	1 - 6	B	x	3	3	VI	
96	f	26 - 35	A	x	9	7	III	
97	m	46 - 59	A			2	n.d.	
98	f	46 - 59	B			2	VIII	
99	f	26 - 35	B			4	VII	
100	f	36 - 45	C	x	0	0	n.d.	

Skel. n°	Sex	Age (years)	Burial Type [a)]	Grave Intact	No of GG	No of AT	Period	Comments [b)]
101	m	18+	A	x	5	5	VIII	
102	m	46+	B	x	0	0	n.d.	
103	m	36 - 45	A			1	VI	
104	f	26 - 35	B	x	0	0	n.d.	
105	m	60+	B	x	1	1	n.d.	
106	f	46 - 59	B	x	1	1	n.d.	
107	i	1 - 6	A			2	VIII	
108	f	46 - 59	B			2	III - VI	
109	m	60+	A	x	4+	4	III - VI	
110	f	26 - 35	A	x	0	0	n.d.	
111	f	46 - 59	C			6	VII	
112	f	18 - 25	A			2	II	
113	f	18 - 25	C			3	III - VI	
114	m	7 - 12	A	x	4+	4	VII - X	
115/1	m	46 - 59	A	x		4	VIII	
115/2	f	36 - 45	A	x		0	VIII	
117	m	26 - 35	A			1	n.d.	
118	m	46 - 59	C			0	n.d.	
119	m	1 - 6	B	x	2	2	VII	
120	m	46 - 59	C			4	V	
121	i	18+	B	x	0	0	n.d.	
122	m	46 - 59	B	x	0	0	n.d.	MNI = 2 (add. child remains, ECH)
123	f	26 - 35	A	x	0	0	n.d.	
124	f	26 - 35	B	x	0	0	n.d.	
125/2	f	18+	B	x	0	0	n.d.	
125/1	m	13 - 17	B	x	0	0	n.d.	
126	m	36 - 46	B			0	n.d.	MNI = 2
127	f	46 - 59	A			3	III - VI	MNI = 3
128	m	46 - 59	A			4	n.d.	
129	m	1 - 6	B	x	3	2	III - VI	
130	i	1 - 6	B	x	9	7	III - VI	
131	f	36 - 46	B			1	VII	
132	m	18+	C			2	III - VI	
133/1	f	36 - 45	B	x	0	0	n.d.	
133/2	f	46 - 59	B	x	0	0	n.d.	
134	m	17 - 20	A			3	VIII	
135	f	46+	B			4	VII	
136	m	60+	B			1	VII - X	
137	f	36 - 45	A			1	IV	
138	m	60+	B	x	1	1	II	
139/1	m	46 - 59	A			2	III - VI	
139/2	m	18 - 25	A			0	III - VI	
139/3	i	18+	A			0	III - VI	
140/1	f	26 - 35	A	x	0	0	n.d.	
140/2	m	18+	A	x	[0]	0	n.d.	
141	m	18 - 25	A			3	I	MNI = 5
142	f	26 - 35	B	x	0	0	n.d.	
173	f	36 - 45	A	x	6	5	III	≙ burial 143
174	f	1 - 6	A	x	0	0	n.d.	≙ burial 144
175	f	46 - 59	A	x	0	0	n.d.	≙ burial 145
176	m	7 - 12	A	x	2	2	III	≙ burial 146
177	f	26 - 35	A	x	1	1	n.d.	≙ burial 147
178	f	18 - 25	A	x	6+	5	III	≙ burial 148
178	f	18+	A	x	[6+]	0	III	≙ burial 143
179	f	46 - 59	A	x	5	5	II	≙ burial 149
180	m	7 - 12	A			2	III	≙ burial 150

Skel. n°	Sex	Age (years)	Burial Type [a)]	Grave Intact	No of GG	No of AT	Period	Comments [b)]
181	f	26 - 35	A	x	2	2	III	≙ burial 151

[a)] A = coffin, B = simple 'pit' burial, C = chamber grave, D = double burial; [b)] MNI relates to minimum number of individuals revealed as present in one burial in this skeletal analysis

Table 4: Catalogue of children's burials - Pleidelsheim

Grave n˚	Skeleton n˚	Sex	Age Category	Burial Type	Period	n˚ of GG	n˚ of AT	Comments (regarding funerary context or pathological changes)
6	6	m	LCH	A	II	3	3	CO; endocranial new bone formation in patches on frontal + parietals, as well as on mandibular ramus R + L - scurvy (?)
33	33	m	LCH	A	VII	2	2	CO
34	34	i	LCH	A	IV	2	2	DEH (severe); CO
37	37	f	ECH	B	VIII	2	1	CO; traces of infection endocranially on right parietal & occipital, cribrotic layer of new bone formation on both temporal bones
43	43	i	ECH	A	II	3	2	
46	46	m	LCH	A	III	11	6	
48	48	m	ECH	A	III	2	2	CO
53	53	f	ECH	A	III	0	0	CO (moderate)
58	58	m	ECH	A	II	0	0	
67	67	m	LCH	A	III	1	1	
73	73	m	ECH	A	III	3	3	CO (severe)
75	75/2	i	ECH	A	II	-	0	only scapula fragment and right navicular of appendicular skeleton
94	94	f	ECH	B	III	-	5	CO (severe); inner ear infection? (left temporal)
100	100	m	LCH	A	III	0	0	DEH
112	112	m	ECH	B	IV	4	4	
118	118	f	ECH	B	III	7	3	patch of new bone formation on left parietal, ectocranially, area of obelion; periapical disease (abscess at 36) (?)
119	119	f	ECH	B	III	5	5	CO
132	132	f	LCH	A	V	4	4	prone position; CO; DEH
134	134	i	ECH	D	IX	2	2	
137	137	i	ECH	A	VIII	5	5	
154	154b	i	LCH	D	IX	5	6	
154	154c	i	ECH	D	IX	5	1	

Grave n°	Skeleton n°	Sex	Age Category	Burial Type	Period	n° of GG	n° of AT	Comments (regarding funerary context or pathological changes)
162	162	i	C	A	n.d	3	1	early childhood?; GG: iron knife; arrowhead
169	169	m	LCH	n.d.	IV	0	0	
174	174	i	LCH	C	VIII	10+	8	GG: ceramic bottle; bone comb; bronze needle; bronze ring; iron buckle; bronze sheet; iron fragments; glass beads; iron knife; animal bones
180	180c	i	ECH	n.d.	VI	-	0	
182	182	f	LCH	B	VI	9	7	GG: bone comb; bead; glass fragments; pottery fragments; iron fragments; iron bracket; slight periostitis on FeL shaft (anteriorly)
186	186	f	ECH	n.d.	VI	1	1	
189	189	i	LCH	C	IV	6	6	
192	192	f	ECH	n.d.	III	0	0	CO
193	193	i	LCH	n.d.	n.d.	0	0	CO (severe)
194	194	i	ECH	n.d.	n.d.	0	0	
200	200	m	LCH	C	VIII	-	2	GG: animal bone; pottery; bead; bronze string; MNI = 2; DEH
201	201	i	ECH	n.d.	VIII	5	4	
204	204a	i	ECH	A	VIII	-	2	
205	205	i	LCH	A	VIII	-	1	grave contents of 204 and 205 commingled
209	209	i	ECH	n.d.	n.d.	-	1	
227	227	i	LCH	C	VII	7	4	GG: iron buckle; iron seax; double-rowed comb; iron fragment; flagon; egg shells; animal skull; ceramic fragment; DEH
228	228	f	ECH	B	IX	7	6	GG: beads; pottery; simple comb; iron knife; 2 iron fragments; 2 belt buckles; bronze sheet; animal bone; CO
230	230	i	C	C	VIII	3+	2	GG: short seax; comb; iron fragments
236	236	f	ECH		VI	-	3	GG: vessel (pot); iron arrowhead; comb; pot fragment; CO
238	238	f	LCH	C	V	12	7	GG: lance head; iron arrowhead; ceramic vessel; glass vessel; animal bones; iron knives; bronze disc; 2 iron objects; firestone; eggshells
248	248b	i	LCH	C	VI	-	0	CO
249	249	i	C	C	VI	5	5	GG: iron knife, iron seax, iron fragments, pot, iron lance head

Grave n˚	Skeleton n˚	Sex	Age Category	Burial Type	Period	n˚ of GG	n˚ of AT	Comments (regarding funerary context or pathological changes)
250	250	f	LCH	C	VI	-	7	GG: amber beads; iron fragments; pottery shards; beads; comb; bronze ring; bronze fragments; 2 bronze belt buckles; animal bone amulet; new bone formation (compacted) on exterior mandible, from mylohyoid foramen to ramus (bilaterally); CO
253	253b	m	ECH	n.d.	n.d.	-	0	
255	255	i	ECH	B	VI	-	0	CO (severe)
257	257	i	C	n.d.	n.d.	-	1	
260	260	m	ECH	C	VIII	4+	4	
262	262b	m	ECH	n.d.	n.d.	-	0	

Table 5: Catalogue of children's burials - Neresheim

Grave n°	Skeleton n°	Sex	Age Category	Burial Type	Period	n° of GG	n° of AT	Comments (regarding funerary context or pathological changes)
1	1	f	LCH	B	n.d.	0	0	CO
2	2/1	m	ECH	B	III - VI	17	10	DEH
7	7/2	i	LCH	A	n.d.	-	0	
9	9/2	f	LCH	B	n.d.	1	1	GG: beads (necklace)
11	11	f	LCH	C	VIII	4	5	GG: belt garter (in multiple parts); iron knife; bronze sewing needle; bronze-iron arrowheads; iron fragments; iron buckle with ring; DEH
12	12	i	ECH	A	V	3	4	GG: bronze strap-end; bronze buckle; iron knife; egg shells; animal bone
13	13	m	ECH	B	n.d.	0	0	MNI = 2 (teeth of second child, around 4 yrs, present); CO (severe)
14	14	i	ECH	A	n.d.	0	0	
17	17	m	LCH	n.d.	n.d.	0	0	very small patch of new bone formation (woven bone) inside mandibular ramus, below mylohyoid ridge; new bone formation (woven and compact bone) on posterior side of FeL shaft, region M1/3
19	19	m	LCH	A	n.d.	0	0	extensive new bone formation endocranially, on mandible, towards HuR & HuL metaphyses - scurvy; CO; DEH
24	24	f	ECH	B	n.d.	0	0	
33	33	f	ECH	A	n.d.	0	0	case of scurvy (extensively); dental modification, probably by (constantly) suckling or biting on something
60	60	f	LCH	A	n.d.	0	0	DEH
62	62	f	LCH	B	n.d.	0	0	
69	69	f	LCH	B	VII		3	GG: beads; iron belt buckle; CO
86	86	f	ECH	A	II	1	1	GG: beads; path.: extensive ectocranial new bone formation on maxilla, temporal bones, basi-occiput; plaque-like new bone formation on R orbital roof - scurvy?
93	93	i	ECH	n.d.	n.d.	5	5	GG: iron belt buckle; iron fragments; goldleaf cross; animal bone
95	95	m	ECH	B	VI	3	3	GG: iron buckle; iron fragments; small pot; CO (severe)
107	107	i	ECH	A	VIII	-	2	

Grave n˚	Skeleton n˚	Sex	Age Category	Burial Type	Period	n˚ of GG	n˚ of AT	Comments (regarding funerary context or pathological changes)
114	114	m	LCH	A	VII - X	4+	4	GG: iron knife; bronze & iron fragments; iron arrowhead; iron buckle; pot fragments; CO
119	119	m	ECH	B	VII	2	2	GG: beads; CO
129	129	m	ECH	B	III - VI	3	2	GG: 2 arrowheads; iron fragments
130	130	i	ECH	B	III - VI	9	7	GG: iron fragments; iron buckle; iron knife; bronze pincer; flint stone; iron arrowhead; bronze strap-end
174	174	f	ECH	A	n.d.	0	0	CO
176	176	m	LCH	n.d.	n.d.	3	2	(severe) DEH; Vt8: neural arch = highly disorganised bone, bony exostosis towards spinal chord, focal destruction of dorsal side of neural arch; adjacent ribs (both sides) show patches of new bone formation towards the body of Vt8 = possible neoplasm (malignant tumour, *pers. comm.* K. Manchester & D. Ortner); Fe and Ti (bilaterally) show possibly newly organised bone along shafts
180	180	m	LCH	A	III	3	2	GG: 3 beads; small iron buckle; glass shard; CO (severe)

Table 6: Cranial measurements (mm)

#	measurement	#	measurement
M1	Maximum cranial length (g - op)	M43	Upper facial breadth (fmt - fmt)
M5	Cranial base length (n - ba)	M45	Bizygomatic diameter (breadth, zy - zy)
M8	Maximum cranial breadth (eu - eu)	M47	Total facial height (n - gn)
M9	Minimum frontal breadth (ft - ft)	M48	Upper facial height (n - pr)
M10	Maximum frontal breadth (co - co)	M51	Orbital breadth (d - ec)
M11	Biauricular breadth (au - au)	M52	Orbital height
M12	Maximum breadth of the occiput (ast - ast)	M54	Nasal breadth (al - al)
M13	Bimastoideal breadth (ms - ms)	M55	Nasal height (n - ns)
M13a	Mastoid width	M60	Maxillo-alveolar length (pr - alv)
M17	Basion-bregma height (ba - b)	M61	Maxillo-alveolar breadth (ecm - ecm)
M20	Auriculo-bregmatic height (po - b)	M65	Bicondylar breadth (cdl - cdl)
M23	Horizontal circumference (g - op - g)	M66	Bigonial width (go - go)
M24	Transverse arc (po - b - po)	M68	Mandibular length (cpl)
M25	Mediosagittal arc (n - op - o)	M69	Symphysis height (id - gn)
M26	Mediosagittal frontal arc (n - b)	M70	Mandibular ramus height
M27	Mediosagittal parietal arc (b -l)	M71	Mandibular ramus breadth
M28	Mediosagittal occipital arc (l - o)	M79	Mandibular ramus angle
M29	Mediosagittal frontal chord (n - b)		
M30	Mediosagittal parietal chord (b - l)		
M31	Mediosagittal occipital chord (l - o)		

Table 7: Cranial indices

#	Index	#	Index
I1	Cranial index (M8/M1*100)	I13	Transverse fronto-parietal index (M9/M8*100)
I2	Cranial length-height index (M17/M1*100)	I39	Upper facial index (M48/M45*100)
I3	Cranial breadth-height index (M17/M8*100)	I42	Orbital index (M52/M51*100)
I4	Length-auricular height index (M20/M1*100)	I48	Nasal index (M54/M55*100)
I5	Breadth-auricular height index (M20/M8*100)	I54	Maxillo-alveolar index (M61/M60*100)
I12	Transverse forehead index (M9/M10*100)	IMH	Mean-height index (M17 x 100 / mean of M1 and M8)

Table 8: Postcranial measurements (mm)

Bone / #	Measurement	Bone / #	Measurement
Clavicle		**Sacrum**	
Cl1	Maximum length	S2	Anterior length
Cl4	Vertical diameter at midshaft	S5	Anterior superior breadth
Cl5	Sagittal diameter at midshaft	S19	Maximum transverse diameter of base
Scapula		**Ossa Coxae**	
Sc1	Scapular height	P1	Pelvic Height
Sc2	Scapular breadth	P12	Iliac breadth
Sc12	Glenoid height (vert. diam. of glenoid fossa)	P17	Pubis length
Sc13	Transverse diameter of glenoid fossa	P15	Ischium length
Humerus		**Femur**	
Hu1	Maximum length	Fe1	Maximum length *(caput - condyles)*
Hu2	Total length	Fe2	Physiological (bicondylar) length
Hu4	Epicondylar breadth	Fe6	Sagittal diameter at the midshaft
Hu5	Maximum diameter at the midshaft	Fe7	Transverse diameter at the midshaft
Hu6	Minimum diameter at the midshaft	Fe8	Midshaft circumference
Hu7	Minimum circumference at the midshaft	Fe9	Subtrochanteric transverse diameter
Hu10	Vertical head diameter	Fe10	Subtrochanteric sagittal (ant.-post.) diameter
		Fe18	Medio-lateral head diameter *(max. diam.)*
Radius		Fe19	Sagittal head diameter
Ra1	Maximum length *(head - styl. proc.)*	Fe20	Head circumference
Ra2	Physiological length *(head - fac. art. carpea)*	Fe21	Epicondylar breadth
Ra3	Minimum circumference at the midshaft		
Ra4	Transverse diameter at the midshaft	**Tibia**	
Ra5	Sagittal diameter at the midshaft	Ti1a	Maximum length *(lat. cond. - med. mall.)*
Ra4(1)	Maximum head diameter *(transv. diam.)*	Ti1b	Length (max. condylo-malleolar length)
Ra5(6)	Distal epiphyseal breadth *(d. max. breadth)*	Ti3	Maximum proximal epiphyseal breadth
		Ti6	Distal epiphyseal breadth
Ulna		Ti8a	Sagittal diameter at the nutrient foramen
Ul1	Maximum length *(olecr. - styl. proc.)*	Ti9a	Transverse diameter at the nutrient foramen
Ul11	Dorso-volar diameter at the midshaft		
Ul12	Transverse diameter at the midshaft	**Fibula**	
		Fi1	Maximum length
		Talus	
		Ta1	Maximum length
		Ta2	Width of the talus
		Ta4	Maximum length of the trochlea
		Ta5	Maximum width of the trochlea

Table 9: Postcranial indices

#	Index	#	Index
I-Hu	Length-breadth index (Hu7/Hu1*100)	I-Ti	Platycnemic index (Ti9a/Ti8a*100)
I-Fe1	Length-breadth index (Fe8/Fe1*100)	I-HuRa	Humero-radial index (Ra1/Hu2*100)
I-Fe2	Robusticity index ((Fe6+Fe7)/Fe2*100)	I-FeTi	Femoro-tibial index (Ti1a/Fe1*100)
I-Fe3	Platymeric index (Fe10/Fe9*100)	I-ClHu	Claviculo-humeral index (Cl1*100/Hu2)
I-Fe4	Pilasteric index (Fe6/Fe7*100)		

Appendix Chapter 5

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Table 10: Age and Sex Distribution Pleidelsheim (all individuals)

Age Category	M	F	I	Total n°	M %	F %	I %	Total n° %
ECH	7	9	11	**27**	6.7	8.3	21.2	**10.2**
LCH	7	4	8	**19**	6.7	3.7	15.4	**7.1**
C	0	0	4	**4**	0.0	0.0	7.7	**1.5**
AD	5	4	9	**18**	4.8	3.7	17.3	**6.8**
YA	6	5	0	**11**	5.7	4.6	0.0	**4.1**
YMA	18	22	2	**42**	17.1	20.2	3.8	**15.8**
OMA	19	22	1	**42**	18.1	20.2	1.9	**15.8**
MTA	25	22	1	**48**	23.8	20.2	1.9	**18.0**
OA	6	12	1	**19**	5.7	11.0	1.9	**7.1**
A	12	9	15	**36**	11.4	8.3	28.8	**13.5**
Total adult	91	96	29	**216**	86.7	88.1	55.8	**81.2**
Total child	14	13	23	**50**	13.3	11.9	44.2	**18.8**
Total	**105**	**109**	**52**	**266**	**100.0**	**100.0**	**100.0**	**100.0**

Table 11: Age and Sex Distribution Neresheim (all individuals)

Age Category	M	F	I	Total n°	M %	F %	I %	Total n° %
ECH	5	4	5	**14**	8.9	4.2	41.7	**8.5**
LCH	5	6	1	**12**	8.9	6.3	8.3	**7.3**
C	-	-	-	**-**	-	-	-	**-**
AD	2	4	0	**6**	3.6	4.2	0.0	**3.7**
YA	4	6	0	**10**	7.1	6.3	0.0	**6.1**
YMA	5	21	1	**27**	8.9	21.9	8.3	**16.5**
OMA	12	26	0	**38**	21.4	27.1	0.0	**23.2**
MTA	14	18	1	**33**	25.0	18.8	8.3	**20.1**
OA	6	7	0	**13**	10.7	7.3	0.0	**7.9**
A	3	4	4	**11**	5.4	4.2	33.3	**6.7**
Total adult	46	86	6	**138**	82.1	89.6	50.0	**84.1**
Total child	10	10	6	**26**	17.9	10.4	50.0	**15.9**
Total	**56**	**96**	**12**	**164**	**100.0**	**100.0**	**100.0**	**100.0**

Table 12: Pleidelsheim - Age and Sex Distribution Intact Burials

Age Category	M	F	Total n˚	M %	F %	Total n˚ %
AD	4	3	**7**	5.8	4.3	**5.0**
YA	4	4	**8**	5.8	5.7	**5.8**
YMA	13	13	**26**	18.8	18.6	**18.7**
OMA	15	17	**32**	21.7	24.3	**23.0**
MTA	18	15	**33**	26.1	21.4	**23.7**
OA	4	8	**12**	5.8	11.4	**8.6**
ECH	5	7	**12**	7.2	10.0	**8.6**
LCH	6	3	**9**	8.7	4.3	**6.5**
Total adult	58	60	**118**	84.1	85.7	**84.9**
Total child	11	10	**21**	15.9	14.3	**15.1**
Total	**69**	**70**	**139**	**100.0**	**100.0**	**100.0**

Table 13: Neresheim - Age and Sex Distribution Intact Burials

Age Category	M	F	Total n˚	M %	F %	Total n˚ %
AD	2	1	**3**	7.4	1.9	**3.8**
YA	1	3	**4**	3.7	5.7	**5.0**
YMA	1	13	**14**	3.7	24.5	**17.5**
OMA	4	13	**17**	14.8	24.5	**21.3**
MTA	6	8	**14**	22.2	15.1	**17.5**
OA	4	5	**9**	14.8	9.4	**11.3**
ECH	5	4	**9**	18.5	7.5	**11.3**
LCH	4	6	**10**	14.8	11.3	**12.5**
Total adult	18	43	**61**	66.7	81.1	**76.3**
Total child	9	10	**19**	33.3	18.9	**23.8**
Total	**27**	**53**	**80**	**100.0**	**100.0**	**100.0**

Table 14: Pleidelsheim - Age and Sex Distribution of the adult population by burial type

Pleidelsheim	Burial Type*					
	A	B	C	A %	B %	C %
			Males			
ECH	3	1	1	4.3	1.4	1.4
LCH	5	0	0	7.1	0.0	0.0
AD	2	3	0	2.9	4.3	0.0
YA	2	0	3	2.9	0.0	4.3
YMA	6	5	4	8.6	7.1	5.7
OMA	8	3	3	11.4	4.3	4.3
MTA	14	2	3	20.0	2.9	4.3
OA	2	0	0	2.9	0.0	0.0
Total M	42	14	14	60.0	20.0	20.0
			Females			
ECH	1	4	0	1.4	5.5	0.0
LCH	1	1	1	1.4	1.4	1.4
AD	1	1	0	1.4	1.4	0.0
YA	1	1	1	1.4	1.4	1.4
YMA	4	4	8	5.5	5.5	11.0
OMA	8	5	5	11.0	6.8	6.8
MTA	5	5	6	6.8	6.8	8.2
OA	5	3	2	6.8	4.1	2.7
Total F	26	24	23	35.6	32.9	31.5
Total	**68**	**38**	**37**	**47.6**	**26.6**	**25.9**

*A = coffin, B = simple (pit) burial, C= chamber grave

Table 15: Neresheim - Age and Sex Distribution of the adult population by burial type

Neresheim	Burial Type*					
	A	B	C	A %	B %	C %
			Males			
ECH	0	5	5	0.0	8.5	8.5
LCH	3	1	4	5.1	1.7	6.8
AD	-	-	-	n.d.	n.d.	n.d.
YA	3	1	0	5.1	1.7	0.0
YMA	2	3	0	3.4	5.1	0.0
OMA	7	4	1	11.9	6.8	1.7
MTA	6	6	2	10.2	10.2	3.4
OA	2	4	0	3.4	6.8	0.0
Total M	23	24	12	39.0	40.7	20.3
			Females			
ECH	3	1	0	3.4	1.1	0.0
LCH	1	4	1	1.1	4.5	1.1
AD	1	1	0	1.1	1.1	0.0
YA	3	2	1	3.4	2.2	1.1
YMA	12	8	0	13.5	9.0	0.0
OMA	8	17	1	9.0	19.1	1.1
MTA	7	9	2	7.9	10.1	2.2
OA	2	5	0	2.2	5.6	0.0
Total F	37	47	5	41.6	52.8	5.6
Total	**60**	**71**	**17**	**40.5**	**48.0**	**11.5**

*A = coffin, B = simple (pit) burial, C= chamber grave

Table 16: Children (male) in Pleidelsheim: Details of graves

Skel n˚	Grave Goods																		
	seax	arrow(s)	tools	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	key(s)	No of GG	No of AT	grave intact	Period	'arch'. sex
early childhood																			
58															0	0	x	II	f
48								x	x						2	2	x	III	f
73							x	x	x						3	3	x	III	f
112			x		x				x		x				4	4	x	IV	
260	x	x				x	x								4+	4	x	VIII	
253b												x	x					n.d.	i
262b																		n.d.	i
late childhood																			
6									x	x			x		3	3	x	II	f
46		x	x	x			x				x			x	11	6	x	III	
67					x										1	1	x	III	f
100															0	0	x	III	
169															0	0	x	IV	i
33					x				x						2	2	x	VII	f
200								x				x						VIII	f

Table 17: Children (female) in Pleidelsheim: Details of graves

Skel n°	Grave Goods: arrow(s)	lance	tools	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	necklace	spindle whorl	No of GG	No of AT	grave intact	Period	'arch'. sex
early childhood																							
53																			0	0	x	III	i
94				x		x							x		x		x					III	
118					x			x								x			7	3	x	III	
119	x							x			x	x		x					5	5	x	III	m
192																			0	0	x	III	i
228								x	x	x	x	x			x				7	6	x	IX	
186											x								1	1	x	VI	i
236	x									x	x											VI	m
37											x								2	1	x	VIII	
late childhood																							
132								x		x					x	x			4	4	x	V	
238	x	x	x					x			x	x		x					12	7	x	V	m
182				x				x	x	x	x					x		x	9	7	x	VI	
250							x		x	x	x	x			x		x			7		VI	

Table 18: Adolescents (male) in Pleidelsheim: Details of graves

Skel n˚	Grave Goods								No of GG	No of AT	grave intact	Period	'arch'. sex
	seax	axe	glassware	belt buckle (Fe)	comb	knife (Fe)	flint	glass beads					
11									0	0	x	I	
69			x	x			x		8	3	x	I	
109		x		x	x	x	x	x	7	6	x	II	
74				x	x							III	
117	x								1	1	x	IV	

Table 19: Adolescents (female) in Pleidelsheim: Details of graves

Skel n˚	Grave Goods					No of GG	No of AT	grave intact	Period	'arch'. sex
	arrow(s)	belt buckle (Fe)	comb	beads	glass beads					
199	x	x				4	2	x	VI	i
54		x	x		x	3	3	x	VIII	
121		x				1	1	x	n.d.	m
253c				x	x				n.d.	i

Table 20: Adults (Males) in Pleidelsheim: Details of graves

Skel n°	Grave Goods																																No of GG	No of AT	grave intact	Period	'arch'. sex
	sword	seax	arrow(s)	shield	lance	axe	spur	wooden bucket	tools	glassware	bronze ware (vessel)	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bracelet	calf decoration (Ag/Au/Br/Fe)	hairpin	(sewing) needle	key(s)					
young adult																																					
39																									x								1	1	x	III	
44	x	x			x				x						x			x		x			x										8	8	x	IV	
95		x	x		x				x	x					x				x	x					x								12	9	x	IV	
190																x	x			x						x		x	x			x	8	7	x	VIII	f
263		x	x														x																			VIII	
130a																	x																			IX	
young middle adult																																					
1																x	x																2	2	x	II	
91							x								x	x				x																II	
70/1																																	0	0	x	III	
71/1	x	x		x	x				x						x	x	x	x						x	x								16+	11	x	III	
88	x	x		x	x				x				x	x		x	x			x						x	x						13	12	x	IV	
102		x	x		x	x			x						x		x			x					x						x		14+	10	x	IV	
125					x	x										x				x					x								7+	5	x	V	
231	x	x			x											x																	4	4	x	V	
244			x	x															x						x								6	4	x	V	

Skel n°	Grave Goods																																No of GG	No of AT	grave intact	Period	'arch'. sex
	sword	seax	arrow(s)	shield	lance	axe	spur	wooden bucket	tools	glassware	bronze ware (vessel)	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bracelet	calf decoration (Ag/Au/Br/Fe)	hairpin	(sewing) needle	key(s)					
56/1																				x																VI	
64		x	x												x		x	x	x	x	x												8	8	x	VI	
229					x											x	x	x	x																	VI	
232		x	x		x				x							x	x	x	x	x			x		x								12	11	x	VI	
87									x											x					x								6	3	x	VII	
245		x			x											x	x	x	x														6	6	x	VII	
129b		x		x	x											x	x			x													[6]	0	x	IX	f
173																	x																			IX	f
239			x															x																		n.d.	
old middle adult																																					
83						x										x																	2	2	x	II	
8			x					x										x	x														4	4	x	III	
40		x	x		x				x							x		x	x	x				x	x								14+	10	x	III	
103	x		x			x			x											x					x								13	6	x	III	
138			x												x	x				x					x								5	5	x	III	
12		x														x	x			x													5	4	x	IV	
15	x	x		x	x	x			x					x	x	x	x	x		x			x	x	x						x		21+	16	x	IV	
247			x					x			x				x				x				x													IV	
124							x					x			x	x		x															5	5	x	V	

Skel n°	Grave Goods: sword	seax	arrow(s)	shield	lance	axe	spur	wooden bucket	tools	glassware	bronze ware (vessel)	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bracelet	calf decoration (Ag/Au/Br/Fe)	hairpin	(sewing) needle	key(s)	No of GG	No of AT	grave intact	Period	'arch'. sex
235																																				VI	
258																									x											VI	
259		x	x						x							x	x																16	5	x	VI	
38		x								x						x	x	x		x											x		9+	7	x	VII	
178		x	x						x							x		x		x					x								8	7	x	VII	
210																x		x								x							3	3	x	VII	
225b																x			x	x						x	x									VII	
264		x			x											x	x			x													6	5	x	IX	
123																																	0	0	x	n.d.	
153																				x													1	1	x	n.d.	
mature adult																																					
79			x						x							x				x					x								10	5	x	I	
72/1																			x																	II	
7/2																			x														1	1	x	III	
10			x																	x																III	
27									x							x		x		x																III	
62/2																x		x		x													[4]	0	x	III	
93																		x												x						III	
104									x					x		x				x				x	x								10	6	x	III	

Skel n°	sword	seax	arrow(s)	shield	lance	axe	spur	wooden bucket	tools	glassware	bronze ware (vessel)	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bracelet	calf decoration (Ag/Au/Br/Fe)	hairpin	(sewing) needle	key(s)	No of GG	No of AT	grave intact	Period	'arch'. sex
	Grave Goods																																				
113		x	x						x							x		x		x					x								12	7	x	III	
116		x	x	x	x	x									x	x		x	x						x						x		17	11	x	III	
243																x																	1	1	x	III	
4b																x	x	x	x	x	x	x				x	x						[7+]	0	x	IV	
60		x			x	x			x						x		x			x					x								8	8	x	IV	
82			x		x											x				x													5	4	x	IV	
107																x		x		x													4	3	x	IV	
120	x	x	x						x							x								x	x							x	15	8	x	IV	
127		x	x						x						x			x							x						x		10	7	x	IV	
76	x		x						x						x		x		x	x					x								11	8	x	V	
195a			x															x	x																	V	
214				x					x	x																							5+	3	x	VI	
248a																			x	x						x	x									VI	
90		x																															1	1	x	VII	
129a		x		x	x											x	x			x													6	6	x	IX	
181																																	0	0	x	n.d.	
262a																																				n.d.	
old adult																																					
224																																	0	0	x	II	f

Skel n°	Grave Goods																															No of GG	No of AT	grave intact	Period	'arch'. sex
	sword	seax	arrow(s)	shield	lance	axe	spur	wooden bucket	tools	glassware	bronze ware (vessel)	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bracelet	calf decoration (Ag/Au/Br/Fe)	hairpin	(sewing) needle	key(s)					
42		x	x			x			x						x	x	x	x	x				x										9+	10	x	III	
111			x		x	x									x																		5	4	x	III	
158																																	0	0	x	n.d.	
161																																				n.d.	
212																x				x																n.d.	f

Table 21: Adults (Females) in Pleidelsheim: Details of graves

Skel n°	seax	arrow(s)	wooden bucket	tools	glassware	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bronze beads	bracelet	necklace	earrings	gold / silver fibula	bow fibula	disc fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	wooden casket	spindle whorl	weaving sword	key(s)	No of GG	No of AT	grave intact	Period	'arch'. sex
	Grave Goods																																							
young adult																																								
32							x														x		x													3	3	x	II	
57										x											x																		III	m
140				x	x				x		x	x	x			x				x	x					x	x					x	x		x	20	14	x	IV	
149									x	x	x	x	x	x				x		x	x															9	9	x	VI	
159														x																						1	1	x	n.d.	
young middle adult																																								
75/1										x		x								x																			II	
75/3										x		x								x																			II	
3										x																										1	1	x	III	
105							x			x	x									x	x															4	5	x	III	
4a										x	x	x	x	x	x	x				x	x															7+	9	x	IV	
5										x	x			x		x				x	x											x	x		x	9+	9	x	IV	
13	x	x								x	x			x					x																	8	6	x	IV	m
97/2										x																													IV	
126				x						x	x	x		x		x	x			x						x					x		x		x	13	12	x	IV	
85																																				0	0	x	VI	
35						x						x		x	x																					4	4	x	VII	

Skel n°	seax	arrow(s)	wooden bucket	tools	glassware	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bronze beads	bracelet	necklace	earrings	gold / silver fibula	bow fibula	disc fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	wooden casket	spindle whorl	weaving sword	key(s)	No of GG	No of AT	grave intact	Period	'arch'. sex
	Grave Goods																																							
77							x			x					x					x	x			x	x											6	7	x	VII	
147										x		x								x																			VII	
175												x	x																							2	2	x	VII	
240										x											x																		VII	
16 A										x		x	x								x															4	4	x	VIII	
41										x		x									x															3	3	x	VIII	
52	x	x								x	x	x	x	x																									VIII	m
108										x		x	x							x																4	4	x	VIII	
204b	x										x																												VIII	
167				x					x	x	x			x				x		x	x																		IX	
251								x												x	x																		n.d.	
old middle adult																																								
18													x																							1	1	x	I	
65										x	x	x		x													x			x			x			9+	7	x	I	
2										x											x						x									3	3	x	III	
7/1													x																							1	1	x	III	
14				x						x	x			x		x			x																	8	6	x	III	m ?
47											x	x				x														x						4	4	x	III	
59																																							III	

Skel n°	Grave Goods																																			No of GG	No of AT	grave intact	Period	'arch'. sex
	seax	arrow(s)	wooden bucket	tools	glassware	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bronze beads	bracelet	necklace	earrings	gold / silver fibula	bow fibula	disc fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	wooden casket	spindle whorl	weaving sword	key(s)					
62/1										x		x		x																						4	3	x	III	m
197													x	x						x				x												4	4	x	III	
89				x				x		x	x	x		x		x				x	x	x					x	x							x	19 +	13	x	IV	
17										x		x	x	x							x						x								x	7	7	x	V	
128			x		x						x	x	x	x		x	x			x	x						x					x	x						V	
135										x		x	x		x					x											x					6	6	x	V	
139					x					x	x		x							x	x						x	x					x	x					V	
92										x				x						x																3	3	x	VI	
234																																							VI	
31										x	x	x	x	x	x										x											8	7	x	VII	
36										x			x								x															3	3	x	VII	
86										x		x									x															3	3	x	VII	
16 B										x		x	x								x										x					5+	5	x	VIII	
207a										x			x	x							x															4	4	x	VIII	
202										x																													n.d.	
mature adult																																								
66														x						x									x							3	3	x	I	
84												x																											I	m
99										x																													III	

Skel n˚	Grave Goods																																			No of GG	No of AT	grave intact	Period	'arch'. sex
	seax	arrow(s)	wooden bucket	tools	glassware	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bronze beads	bracelet	necklace	earrings	gold / silver fibula	bow fibula	disc fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	wooden casket	spindle whorl	weaving sword	key(s)					
148																																				0	0	x	III	
246											x	x							x		x					x							x						III	
9									x	x	x		x	x						x	x			x			x		x				x		x	12 +	12	x	IV	
45																																				0	0	x	IV	
61									x					x				x								x	x		x				x			7	7	x	IV	
63							x			x			x	x						x	x						x		x		x		x			9	10	x	IV	
185										x				x		x					x										x		x			8	6	x	V	
195b		x										x	x																										V	
211												x	x	x						x																6	4	x	VI	
220							x			x	x	x	x	x	x					x								x					x						VI	
221														x						x																			VI	m
172												x								x																3	2	x	VII	
177										x	x		x	x			x			x								x								7	7	x	VII	
222										x										x																2	2	x	VII	
165										x		x		x						x					x											5	5	x	VIII	
196												x		x						x																			VIII	
163																																				0	0	x	n.d.	
179																																				0	0	x	n.d.	
217																																				0	0	x	n.d.	

Skel n°	Grave Goods																																			No of GG	No of AT	grave intact	Period	'arch'. sex
	seax	arrow(s)	wooden bucket	tools	glassware	bucket w. fittings (Br/Ag)	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	eggshells	amulet	scissors	tweezers	flint	beads	glass beads	bronze beads	bracelet	necklace	earrings	gold / silver fibula	bow fibula	disc fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	wooden casket	spindle whorl	weaving sword	key(s)					
old adult																																								
49												x														x										2	2	x	II	
51										x																										1	1	x	III	
81																				x	x			x			x		x				x			7	6	x	III	
98																																				0	0	x	III	
106																																				0	0	x	III	
115					x				x	x	x	x	x							x	x			x		x	x						x			15	12	x	III	
80										x	x			x						x	x												x			5	6	x	IV	
253a																				x	x																		VI	
225a										x			x	x						x	x										x	x							VII	
218										x		x		x						x																4	4	x	VIII	
176													x							x																			n.d.	
183		x																																					n.d.	

Table 22: Children (male) in Neresheim: Details of graves

Skel n°	Grave Goods															No of GG	No of AT	grave intact	Period	'arch.' sex
	arrow(s)	glassware	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	pottery	knife (Fe)	eggshells	beads	glass beads	bronze beads	earrings	small fibula	hairpin	key(s)					
early childhood																				
2/1			x	x	x	x			x	x	x		x	x	x	17	10	x	III - VI	f
129	x				x											3	2	x	III - VI	
95	x			x		x										3	3	x	VI	
119								x	x							2	2	x	VII	f
13																0	0	x	n.d.	n.d.
93				x												5	5		VII - X	n.d.
late childhood																				
176										x		x				2	2	x	III	f
180		x		x															III	f
114	x			x		x	x									4+	4	x	VII - X	
17																0	0	x	n.d.	n.d.
19																0	0	x	n.d.	n.d.

Table 23: Children (female) in Neresheim: Details of graves

Skel no	Grave Goods							No of GG	No of AT	grave intact	Period	'arch.' sex
	arrow(s)	glassware	belt buckle (Fe)	belt set	knife (Fe)	glass beads	(sewing) needle					
early childhood												
86						x		1	1	x	II	
24								0	0	x	n.d.	n.d.
33								0	0	x	n.d.	n.d.
174								0	0	x	n.d.	n.d.
late childhood												
69		x	x			x		2	2	x	VII	
11	x		x	x	x		x	4	5	x	VIII	m
1								0	0	x	n.d.	n.d.
9/2								0	0	x	n.d.	n.d.
60								0	0	x	n.d.	n.d.
62								0	0	x	n.d.	n.d.

Table 24: Adolescents (male) in Neresheim: Details of graves

Skel no	Grave Goods		No of GG	No of AT	grave intact	Period	'arch.' Sex
	arrow(s)	belt set					
38	**x**	**x**	2	2	x	VIII	
125/1			0	0	x	n.d.	n.d.

Table 25: Adolescents (female) in Neresheim: Details of graves

Skel no	seax	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	beads	glass beads	spindle whorl	No of GG	No of AT	grave intact	Period	'arch.' sex
41						**x**					III	
63		**x**						1	1	x	III	n.d.
23			**x**	**x**	**x**		**x**				VIII	
61/2	**x**		**x**								VIII	n.d.

Table 26: Adults (Males) in Neresheim: Details of graves

Skel no	Grave Goods: sword	seax	arrow(s)	shield	lance	snaffle & harness	spur	tools	glassware	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	pottery	knife (Fe)	eggshells	tweezers	flint	beads	glass beads	bracelet	gold / silver fibula	bow fibula	No of GG	No of AT	grave intact	Period	'arch.' sex
young adult																											
141										x					x		x									I	n.d.
139/2																										III - VI	n.d.
134			x											x			x									VIII	
94		x																					1	1	x	n.d.	
young middle adullt																											
44	x	x		x	x	x	x																			VII	
10											x	x												2	x	VIII	n.d.
74								x						x			x									IX	
32													x													n.d.	n.d.
117											x															n.d.	n.d.
old middle adult																											
49										x				x				x		x	x	x	11	6	x	III	f
50/1								x						x			x									III	
78/2																										III	n.d.
80											x			x									2	2	x	III	n.d.
77											x			x			x									IV	n.d.
103													x													VI	n.d.

Skel no	sword	seax	arrow(s)	shield	lance	snaffle & harness	spur	tools	glassware	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	pottery	knife (Fe)	eggshells	tweezers	flint	beads	glass beads	bracelet	gold / silver fibula	bow fibula	No of GG	No of AT	grave intact	Period	'arch.' sex
										Grave Goods																	
15																			x				1	1	x	VII	f
37	x																									VII	
48	x										x	x		x									4	4	x	VIII	
51											x	x							x							VIII	
40																										n.d.	n.d.
126																										n.d.	n.d.
mature adult																											
45	x								x			x		x			x						5	5	x	III	
87								x				x		x			x						4+	4	x	III	
89											x	x	x													III	n.d.
139/1					x								x													III - VI	
120	x			x	x						x															V	
115 / 1	x	x									x	x														VIII	
79					x																		1	1	x	VII - X	
29																										n.d.	n.d.
84																							0	0	x	n.d.	n.d.
97											x	x														n.d.	
102																							0	0	x	n.d.	n.d.
118																										n.d.	n.d.

Skel no	Grave Goods																						No of GG	No of AT	grave intact	Period	'arch.' sex
	sword	seax	arrow(s)	shield	lance	snaffle & harness	spur	tools	glassware	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	pottery	knife (Fe)	eggshells	tweezers	flint	beads	glass beads	bracelet	gold / silver fibula	bow fibula					
122																							0	0	x	n.d.	n.d.
128											x		x	x			x									n.d.	n.d.
old adult																											
138										x													1	1	x	II	n.d.
109											x		x	x		x							4+	4	x	III - VI	n.d.
61/1		x									x															VIII	
136												x														VII - X	
39																							0	0	x	n.d.	n.d.
105														x									1	1	x	n.d.	n.d.

Table 27: Adults (Females) in Neresheim: Details of graves

Skel n°	Grave Goods: seax	arrow(s)	shield	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	bronze beads	earrings	gold / silver fibula	bow fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	spindle whorl	bucket sleeve & set	No of GG	No of AT	grave intact	Period	'arch.' sex
young adult																														
112												x									x								II	
178				x				x								x			x		x					6+	5	x	III	
113								x			x											x							III - VI	
72								x				x				x		x				x				6	5	x	IX	
52								x	x			x			x	x							x	x	x	9	8	x	VII - X	
92										x						x								x					n.d.	
young middle adult																														
76							x																						II	n.d.
82					x	x		x				x				x				x							6	x	III	
96								x	x		x	x						x		x	x					9	7	x	III	
181								x							x											2	2	x	III	
90						x		x			x	x				x				x				x					IV	
2/2																											0	x	III - VI	
7/1		x						x	x		x																		III - VI	m
35																x													III - VI	
99											x					x						x	x						VII	
27																		x											VIII	

Skel n°	seax	arrow(s)	shield	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	bronze beads	earrings	gold / silver fibula	bow fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	spindle whorl	bucket sleeve & set	No of GG	No of AT	grave intact	Period	'arch.' sex
	Grave Goods																													
59								x																		1+	1	x	n.d.	n.d.
75							x		x			x														3	3	x	n.d.	
78/1																								x					n.d.	
83								x			x																		n.d.	n.d.
104																										0	0	x	n.d.	n.d.
110																										0	0	x	n.d.	n.d.
123																										0	0	x	n.d.	n.d.
124																										0	0	x	n.d.	n.d.
140/1																										0	0	x	n.d.	n.d.
142																										0	0	x	n.d.	n.d.
177							x																			1	1	x	n.d.	n.d.
old middle adult																														
22/1																			x										III	
71					x																								III	
173													x		x				x	x					x	6	5	x	III	
20															x	x	x			x						4	4	x	IV	
137																x													IV	
6																x													III - VI	
5								x								x		x								3	3	x	IX	

Skel n˚	seax	arrow(s)	shield	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	bronze beads	earrings	gold / silver fibula	bow fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	spindle whorl	bucket sleeve & set	No of GG	No of AT	grave intact	Period	'arch.' sex
							Grave Goods																							
58								x	x			x																	IX	
73																						x							IX	
16								x			x																2	x	VII	n.d.
131																x													VII	
21			x								x																		VIII	m
115 / 2																													VIII	n.d.
36								x	x																				VII - X	n.d.
3/1								x																		1	1	x	n.d.	n.d.
9/1																										1	0	x	n.d.	n.d.
18/1												x																	n.d.	n.d.
18/2												x																	n.d.	n.d.
42																										0	0	x	n.d.	n.d.
54								x																					n.d.	n.d.
56								x																		1	1	x	n.d.	n.d.
64								x																		1	1	x	n.d.	n.d.
85																										0	0	x	n.d.	n.d.
91																										0	0	x	n.d.	n.d.
100																										0	0	x	n.d.	n.d.
133/1																										0	0	x	n.d.	n.d.

Skel n˚	Grave Goods																									No of GG	No of AT	grave intact	Period	'arch.' sex
	seax	arrow(s)	shield	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	bronze beads	earrings	gold / silver fibula	bow fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	spindle whorl	bucket sleeve & set					
mature adult																														
179								x				x			x				x		x					5	5	x	II	
30								x	x	x	x					x													III - VI	i
108											x				x														III - VI	
127								x	x							x													III - VI	
111											x			x	x						x	x		x					VII	
135	x	x						x			x																		VII	m
98									x							x													VIII	
46								x				x				x													VII - X	
66																x													VII - X	
3/2								x																		[1]	1	x	n.d.	n.d.
8																										0	0	x	n.d.	n.d.
47																													n.d.	n.d.
57																										0	0	x	n.d.	n.d.
67																													n.d.	n.d.
68																										0	0	x	n.d.	n.d.
106								x																		1	1	x	n.d.	n.d.
133/2																										0	0	x	n.d.	n.d.
175																										0	0	x	n.d.	n.d.

Skel n˚	Grave Goods																									No of GG	No of AT	grave intact	Period	'arch.' sex
	seax	arrow(s)	shield	glassware	ring (Br/Ag)	coin(s)	(belt) buckle (Ag/Br)	belt buckle (Fe)	belt set	comb	pottery	knife (Fe)	amulet	flint	beads	glass beads	bronze beads	earrings	gold / silver fibula	bow fibula	small fibula	calf decoration (Ag/Au/Br/Fe)	hairpin	spindle whorl	bucket sleeve & set					
old adult																														
70								x																					II	n.d.
81								x																		1	1	x	III	n.d.
25																										0	0	x	n.d.	n.d.
43																										0	0	x	n.d.	n.d.
50/2																													n.d.	n.d.
53								x																		1	1	x	n.d.	n.d.
55												x														1	1	x	n.d.	n.d.

Table 28: Pleidelsheim - Number of artefact-types in different burial types (intact burials only)

	Burial Type					
n˚ of AT	**A**	**B**	**C**	**A %**	**B %**	**C %**
			Males			
0	6	0	1	10.3	0.0	1.7
1	4	1	0	6.9	1.7	0.0
2 - 4	12	3	4	20.7	5.2	6.9
5 - 7	9	3	1	15.5	5.2	1.7
8 - 10	6	1	2	10.3	1.7	3.4
11+	1	3	1	1.7	5.2	1.7
Total M	38	11	9	65.5	19.0	15.5
			Females			
0	2	2	0	3.7	3.7	0.0
1	4	1	0	7.4	1.9	0.0
2 - 4	7	7	6	13.0	13.0	11.1
5 - 7	6	7	3	11.1	13.0	5.6
8 - 10	1	1	2	1.9	1.9	3.7
11+	1	0	4	1.9	0.0	7.4
Total F	21	18	15	38.9	33.3	27.8
Total PH	**59**	**29**	**24**	**52.7**	**25.9**	**21.4**

Table 29: Neresheim - Number of artefact-types in different burial types (intact burials only)

	Burial Type					
n˚ of AT	**A**	**B**	**C**	**A %**	**B %**	**C %**
			Males			
0	2	6	0	7.4	22.2	0.0
1	1	4	0	3.7	14.8	0.0
2 - 4	5	6	0	18.5	22.2	0.0
5 - 7	2	0	0	7.4	0.0	0.0
8 - 10	0	1	0	0.0	3.7	0.0
Total M	10	17	0	37.0	63.0	0.0
			Females			
0	12	14	1	22.6	26.4	1.9
1	4	8	0	7.5	15.1	0.0
2 - 4	3	3	0	5.7	5.7	0.0
5 - 7	4	2	1	7.5	3.8	1.9
8 - 10	1	0	0	1.9	0.0	0.0
Total F	24	27	2	45.3	50.9	3.8
Total NE	**34**	**44**	**2**	**42.5**	**55.0**	**2.5**

Appendix Chapter 6

List of Tables - Appendix Chapter 6

Table 30: Pleidelsheim - comparison of three body-height estimation methods - Males (observable: n˚ = 52)

Skeleton n˚	Pearson (1899)	S.D.	Breitinger (1938)	S.D.	Trotter (1970)	S.D.
8	173.6	3.0	173.1	3.7	178.4	3.4
10	176.6	3.3	177.7	4.8	182.1	3.3
11	168.5	3.0	168.9	4.7	172.6	3.4
12	161.2	3.0	163.1	4.8	160.9	3.3
15	174.2	3.0	174.1	4.7	179.7	3.4
27	165.8	3.0	168.2	4.7	171.1	3.4
39	175.0	3.0	176.7	4.7	182.7	3.4
40	171.2	3.0	172.3	4.7	177.2	3.4
42	172.2	3.0	173.3	4.7	177.9	3.4
44	173.6	3.0	171.7	4.7	175.9	3.4
60	166.7	3.0	165.6	4.7	169.1	3.4
62/2	165.9	3.3	168.3	4.8	168.5	3.3
74	170.0	3.3	172.0	4.8	173.7	3.3
76	167.9	3.0	169.5	4.7	173.4	3.4
79	166.1	3.3	168.5	4.8	168.7	3.3
82	178.1	3.0	177.1	4.8	183.2	3.0
83	171.5	3.0	172.9	4.7	177.9	3.4
87	177.9	3.3	178.9	4.8	183.7	3.3
88	173.2	3.5	173.5	4.7	178.9	3.4
91	177.3	3.0	176.3	4.7	182.2	3.4
93	163.5	3.5	165.2	4.7	168.6	3.4
95	178.7	3.5	178.5	4.7	184.7	3.4
102	156.0	3.0	175.5	4.7	161.0	3.4
103	174.2	3.0	175.3	4.7	181.2	3.4
104	170.1	3.0	171.3	4.8	172.8	3.3
107	168.2	3.0	169.9	4.7	174.1	3.4
109	169.4	3.5	170.5	4.7	174.9	3.4
111	160.2	3.0	163.4	4.7	166.3	3.4
113	172.0	4.0	-	-	178.4	4.3
116	173.1	3.3	174.6	4.8	177.6	3.3
120	161.8	4.0	163.5	5.4	166.7	4.3
124	165.9	3.3	171.4	4.9	171.8	4.1
125	164.7	3.5	166.6	4.7	169.8	3.4
138	168.2	3.3	170.3	4.8	171.4	3.3
153	172.8	3.3	176.9	4.9	179.2	4.1
158	171.5	3.0	173.1	4.7	178.4	3.4
210	154.4	3.5	162.2	3.9	159.1	4.5
212	164.4	3.5	166.6	4.7	169.6	3.4
229	173.4	3.3	174.9	4.8	178.0	3.3
231	172.0	3.5	173.1	4.7	177.7	3.4
232	162.6	3.0	165.8	4.7	168.3	3.4
243	161.8	4.0	165.3	5.4	166.7	4.3
244	172.8	3.0	167.2	4.7	170.6	3.4
245	168.5	3.5	169.3	4.7	173.9	3.4
258	162.3	3.3	165.2	4.8	164.0	3.3
259	164.1	3.0	166.8	4.7	170.3	3.4
129a	174.7	3.5	174.3	4.7	180.4	3.4
225b	169.1	3.3	171.1	4.8	172.6	3.3
262/1	171.1	3.3	174.4	4.9	177.3	4.1
56/1	172.8	3.0	174.5	3.5	178.9	3.4

Skeleton n˚	Pearson (1899)	S.D.	Breitinger (1938)	S.D.	Trotter (1970)	S.D.
71/1	174.5	3.3	178.0	4.9	181.0	4.1
72/1	171.7	3.3	173.6	4.8	175.9	3.3
max	**178.7**	**4.0**	**178.9**	**5.4**	**184.7**	**4.5**
min	**154.4**	**3.0**	**162.2**	**3.5**	**159.1**	**3.0**
mean	**169.4**	**5.6**	**171.2**	**4.5**	**174.2**	**6.2**

The age correction factor was not used on these stature estimates.

Table 31: Pleidelsheim - comparison of three body-height estimation methods - Females (observable: n˚ = 60)

Skeleton n˚	Pearson (1899)	S.D.	Bach (1965)	S.D.	Trotter (1970)	S.D.
2	155.7	3.1	162.9	4.1	160.1	3.6
3	151.6	3.1	152.1	3.9	154.9	3.6
5	163.4	3.1	159.4	3.9	169.5	3.6
9	153.6	3.3	161.2	4.1	156.6	3.7
14	171.2	3.4	166.6	3.9	180.4	3.7
17	171.2	3.1	168.7	3.9	179.1	3.6
18	149.9	3.1	150.9	3.9	152.9	3.6
31	154.7	3.1	154.9	3.9	158.8	3.6
32	153.1	3.4	153.0	3.9	158.1	3.7
36	154.3	3.1	161.3	4.1	158.3	3.6
41	160.7	3.1	158.2	3.9	166.2	3.6
45	156.6	3.1	157.0	3.9	161.2	3.6
49	153.4	3.3	161.0	4.1	156.4	3.7
51	151.5	3.3	159.9	4.1	154.1	3.7
57	155.2	3.4	154.4	3.9	160.7	3.7
59	163.1	3.3	167.6	4.1	168.7	3.7
61	160.6	3.4	158.6	3.9	167.4	3.7
62/1	158.5	3.4	157.0	3.9	164.8	3.7
63	156.3	3.3	163.0	4.1	160.1	3.7
65	156.3	3.5	163.7	3.9	161.5	4.5
66	152.7	3.5	160.9	3.9	157.1	4.5
80	149.3	3.3	158.3	4.1	151.2	3.7
81	151.4	3.3	159.7	4.1	153.9	3.7
84	162.3	3.3	167.1	4.1	167.7	3.7
85	150.2	3.5	159.0	3.9	154.1	4.5
86	159.8	3.3	165.4	4.1	164.5	3.7
89	157.1	3.1	163.8	4.1	161.8	3.6
92	157.8	3.1	158.6	3.9	162.6	3.6
99	149.3	3.3	158.3	4.1	151.2	3.7
105	153.4	3.1	160.7	4.1	157.2	3.6
106	154.3	3.4	153.8	3.9	159.6	3.7
108	160.2	3.4	158.6	3.9	166.8	3.7
115	162.1	4.1	162.7	4.5	169.6	4.2
128	163.1	3.3	167.6	4.1	168.7	3.7
135	155.0	3.1	157.3	3.9	163.6	3.7
139	154.7	3.3	162.0	4.1	158.1	3.7
140	166.4	3.3	169.8	4.1	172.9	3.7
149	163.3	3.1	159.8	3.9	169.4	3.6
163	158.5	3.4	157.0	3.9	164.8	3.7
165	162.3	3.1	154.9	3.9	158.8	3.6
172	154.6	3.5	162.4	3.9	159.4	4.5
175	159.3	3.1	163.8	4.1	164.4	3.6
179	148.1	3.1	151.2	3.9	150.6	3.6

Skeleton n˚	Pearson (1899)	S.D.	Bach (1965)	S.D.	Trotter (1970)	S.D.
183	161.8	4.1	163.3	4.5	162.7	4.2
196	158.5	3.4	157.3	3.9	164.8	3.7
197	156.9	3.3	163.4	4.1	160.8	3.7
202	162.2	3.1	159.6	3.9	168.0	3.6
211	156.1	4.1	158.3	4.5	161.1	4.2
217	154.3	3.1	160.4	4.1	158.3	3.6
218	150.3	3.3	158.9	4.1	152.4	3.7
220	155.4	3.1	161.7	4.1	159.7	3.6
221	168.1	4.1	165.4	4.5	178.2	4.2
222	155.7	3.5	163.3	3.9	160.8	4.5
240	155.7	3.4	154.7	3.9	161.3	3.7
246	154.9	3.3	162.1	4.1	158.3	3.7
253a	160.8	3.3	166.0	4.1	165.7	3.7
16 A	144.8	3.1	147.2	3.9	146.6	3.6
7/1	174.2	3.0	173.3	4.7	179.7	3.4
75/1	160.2	3.5	166.7	3.9	166.2	4.5
75/3	153.9	3.1	153.7	3.9	157.9	3.6
max	**174.2**	**4.1**	**173.3**	**4.7**	**180.4**	**4.5**
min	**144.8**	**3.0**	**147.2**	**3.9**	**146.6**	**3.4**
mean	**157.3**	**5.8**	**160.3**	**5.0**	**162.0**	**7.2**

The age correction factor was not used on these stature estimates.

Table 32: Neresheim - comparison of three body-height estimation methods - Males (observable: n˚ = 27)

Skeleton n˚	Pearson (1899)	S.D.	Breitinger (1938)	S.D.	Trotter (1970)	S.D.
10	171.3	3.0	170.9	4.7	175.6	3.4
32	173.7	3.0	173.7	4.7	179.2	3.4
37	172.5	3.3	177.7	4.9	178.9	4.1
39	169.0	4.0	169.7	5.4	175.0	4.3
40	177.9	3.3	178.9	4.8	183.7	3.3
44	168.9	3.3	171.0	4.8	172.3	3.3
45	169.3	3.0	171.5	4.7	174.9	3.4
49	164.6	3.0	164.8	4.7	168.6	3.4
51	180.9	3.0	178.3	4.7	184.5	3.4
74	166.8	3.3	169.2	4.8	169.7	3.3
77	169.0	3.0	169.5	4.7	173.9	3.4
79	168.5	3.3	170.6	4.8	171.8	3.3
80	177.1	3.0	175.5	4.7	180.9	3.4
84	174.9	3.0	173.7	4.7	178.2	3.4
87	167.0	4.0	167.3	5.4	172.8	4.3
94	168.0	3.3	170.1	4.8	171.1	3.3
103	168.7	3.4	169.9	4.7	174.1	3.4
117	177.3	3.5	177.1	4.7	183.2	3.4
120	174.8	3.3	177.7	4.9	181.3	4.1
126	171.6	3.3	175.0	4.9	177.9	4.1
134	180.0	3.0	179.5	4.7	186.7	3.4
136	160.1	3.3	166.8	4.9	165.6	4.1
115 / 1	173.6	3.3	175.1	4.8	178.3	3.3
139/2	177.0	3.0	193.8	4.7	203.6	3.4
141	168.2	3.3	172.3	4.9	174.2	4.1
50/1	171.8	3.0	173.5	4.7	177.9	3.4
78/2	168.2	3.3	170.3	4.8	171.4	3.3
max	**180.9**	**4.0**	**193.8**	**5.4**	**203.6**	**4.3**
min	**160.1**	**3.0**	**164.8**	**4.7**	**165.6**	**3.3**
mean	**171.5**	**4.9**	**173.5**	**5.6**	**177.2**	**7.4**

The age correction factor was not used on these stature estimates.

Table 33: Neresheim - comparison of three body-height estimation methods - Females (observable: n˚ = 42)

Skeleton n˚	Pearson (1899)	S.D.	Bach (1965)	S.D.	Trotter (1970)	S.D.
5	148.6	3.1	149.8	3.9	151.3	3.6
20	162.3	3.4	160.0	3.9	169.4	3.7
22	156.4	3.4	155.2	3.9	162.2	3.7
36	162.6	3.1	160.0	3.9	168.6	3.6
42	155.1	4.1	157.9	4.5	159.7	4.2
43	163.7	3.4	160.6	3.9	171.2	3.7
47	156.4	4.1	157.9	4.5	161.6	4.2
52	156.1	4.1	158.5	4.5	161.1	4.2
53	159.3	3.1	159.8	3.9	164.5	3.6
54	160.9	3.4	158.9	3.9	167.7	3.7
56	161.7	3.1	160.5	3.9	167.5	3.6
57	153.6	3.1	154.2	3.9	157.5	3.6
59	151.9	3.1	162.6	3.9	155.4	3.6
67	154.4	3.5	162.2	3.9	159.1	4.5
68	169.6	3.4	165.2	3.9	178.4	3.7
70	163.4	3.4	161.0	3.9	170.9	3.7
71	163.4	3.4	161.0	3.9	170.9	3.7
73	168.7	3.3	171.4	4.1	175.9	3.7
75	166.0	3.4	162.2	3.9	174.1	3.7
76	162.5	3.4	160.3	3.9	169.7	3.7
81	153.8	3.4	153.5	3.9	159.0	3.7
82	158.4	3.3	164.5	4.1	162.8	3.7
85	152.8	3.3	160.4	4.1	155.6	3.7
90	158.0	3.4	156.8	3.9	164.2	3.7
91	160.0	3.1	158.0	3.9	165.8	3.6
92	149.3	3.4	150.5	3.9	153.5	3.7
100	153.6	3.4	153.1	3.9	158.7	3.7
106	158.6	3.3	164.2	4.1	163.0	3.7
110	160.2	3.4	158.6	3.9	166.8	3.7
113	168.3	3.3	171.2	4.1	175.4	3.7
123	155.1	3.3	162.2	4.1	158.6	3.7
124	156.6	3.5	163.9	3.9	161.8	4.5
137	155.0	3.4	154.5	3.9	160.4	3.7
173	159.9	3.1	158.2	3.9	165.2	3.6
175	156.7	3.3	163.3	4.1	160.6	3.7
177	154.6	3.1	154.5	3.9	158.7	3.6
115 / 2	160.0	3.3	165.5	4.1	164.8	3.7
133/1	158.8	3.5	165.6	3.9	164.5	4.5
140/1	152.4	3.1	153.5	3.9	155.9	3.6
178/1	161.5	3.5	167.7	3.9	167.8	4.5
18/1	160.1	3.5	166.9	3.9	166.5	4.5
9/1	160.6	3.4	158.9	3.9	167.4	3.7
max	**169.6**	**4.1**	**171.4**	**4.5**	**178.4**	**4.5**
min	**148.6**	**3.1**	**149.8**	**3.9**	**151.3**	**3.6**
mean	**158.6**	**4.9**	**160.1**	**5.0**	**164.1**	**6.3**

The age correction factor was not used on these stature estimates.

Table 34: Pleidelsheim - Skeletons with evidence of Spondylosis cervicalis

Skel n°	sex	age category	DJD Summary
62/2	m	**MTA**	spondylosis cervicalis; spondyloarthrosis Vt (bilaterally); spondylosis Vt 3/3; SN Vt 3/3
79	m	**MTA**	DJD shoulder R and L; coxarthrosis (severe) bilaterally; DJD knee R and left; ankylosis of Vc2 and 3 (both sides); spondylosis cervicalis; spondylosis and spondyloarthrosis Vc (Vc 4 and 5), Vt and Vl, spondylosis Vs; severe SN Vt 2/3, 3/3, Vl
107	m	**MTA**	spondylosis cervicalis; spondylosis Vt 2/3, Vt 3/3; spondyloarthrosis Vt 2/3, Vt 3/3; SN Vt 3/3, Vl; ankylosis of Vl 4 & 5; DJD left elbow, right shoulder
111	m	**OA**	spondylosis cervicalis; spondyloarthrosis in Vt 1/3, 2/3; SN in Vt 2/3, 3/3; spondylosis in Vt, Vl, Vs; slight DJD elbow joint R and L, shoulder joint L, sacroiliac joint, ankle joint (Ti DE) L (secondary to haematoma on TiL?)
120	m	**MTA**	spondylosis cervicalis; SNs; spondylosis Vt; slight extra-vertebral arthritis and coxarthrosis
158	m	**OA**	osteophytic lipping on rims of glenoid fossae ScR and ScL, OA of Hu heads (osteophytic lipping, porosity); OA at medial ClL (porous pitting of medial surface); acromial clavicular ends porotic and slight OA changes; slight osteophytic lipping on DE HuR; slight OA in joint capsule DE HuL - PE UlL; slight osteophytic lipping on DE RaR and RaL; eburnation and porosity on DE UlR and UlL; eburnation on trapezoid L; eburnation on distal MC4L, proximal phalanx (3 or 4) = joint porosity and slight osteophytic lipping; slight coxarthrosis R and L; osteophytic lipping and some bony nodules on and around joint surface of DE FeR; slight osteophytic lipping around joint surface of PE TiR; slight pitting of dorsal surface of Patella L; osteophyte development on calcaneal surface R (between talar articular surfaces); slight osteophyte development on DE FiL and plantar surface of talus L; 2 intermediate phalanges of left foot show osteophytic lipping proximally; MT1 of left foot shows distally porosity on joint surface; OA of axis, very strong spondylosis cervicalis; bony exostosis (strong) on shaft of 2 ribs (rib pair)
173	m	**YMA**	spondylosis cervicalis
212	m	**OA**	spondylosis cervicalis (considerable); osteophytosis in Vt 1/3 - 3/3
224	m	**OA**	spondylosis cervicalis (grade III); strong osteophytosis in Vt
245	m	**YMA**	spondylosis cervicalis; slight OA right elbow; Coxarthrosis?
259	m	**OMA**	slight spondylosis cervicalis; OA ribs Vt1/3, 3/3; SN in Vt3/3; spondylosis in Vt 3/3; osteophytic lipping in trochlear notch of UlR
49	f	**OA**	DJD TMJ, shoulder R and L; spondylosis cervicalis; ankylosis of Vc 2 and Vc 3 (left side only)
51	f	**OA**	spondylosis cervicalis; spondyloarthrosis Vt
59	f	**OMA**	spondylosis cervicalis
65	f	**OMA**	coxarthrosis left; osteophytosis left acetabulum (left ossa coxae); spondylosis cervicalis; spondylosis Vt - Vl; joint DJD in knees
66	f	**MTA**	slight spondylosis cervicalis; spondylosis Vt2/3 and 3/3; SN in Vt2/3, 3/3, Vl; osteophytosis ClR sternal end; DJD grade 2 in heads HuR and HuL; slight coxarthrosis Ossa coxae right, FeL

Skel n°	sex	age category	DJD Summary
92		**OMA**	spondylosis cervicalis; SN in Vl; spondylosis in Vt 1/3, Vl and Vs; spondyloarthrosis in Vt 1/3; slight osteophytosis ScR and ScL, both patellae; slight coxarthrosis both Fe
98		**OA**	coxarthrosis; arthritis of left shoulder (ScL and HuL), left elbow (UlL and HuL); spondylosis cervicalis; arthritic changes to Vt
106		**OA**	DJD right shoulder, left elbow, coxarthrosis R and L, spondyloarthrosis Vt, Vl, Vs, spondylosis cervicalis
115		**OA**	DJD sternoclavicular joint, bilaterally; DJD elbow, bilaterally; coxarthrosis, bilaterally; OA in cervical spine, left side; spondylosis cervicalis; OA of rib head facets Vt; SN in Vl; spondylosis in Vl
135		**OMA**	spondylosis cervicalis; spondyloarthrosis in Vl
176		**OA**	spondylosis cervicalis; ankylosis of Vc3 and Vc4, right articular facets; osteophytosis in Vt 3/3; SN and osteophytosis in Vl
196		**MTA**	spondylosis cervicalis; slight OA left shoulder joint and prox. phalanx on right hand; slight coxarthrosis
197		**OMA**	spondylosis cervicalis
218		**OA**	spondylosis cervicalis; slight DJD on Vt's; wedge-shaped Vl1; syndesmophyte on Vl5
7/1		**MTA**	spondylosis cervicalis; spondylosis in Vt; syndesmophytes in Vl 1, beginning stages in Vt 11 and 12

Table 35: Neresheim - Skeletons with evidence of Spondylosis cervicalis

Skel n°	sex	age category	DJD Summary
29	**m**	**MTA**	spondylosis cervicalis; spondyloarthrosis Vc; SN Vt 2/3, 3/3, Vl; spondylosis Vt 3/3, Vl; slight DJD left shoulder, left elbow, right hip
39		**OA**	DJD: right sternoclavicular joint, right and left acromioclavicular joint; right and left shoulder, left and right elbow, right wrist, right and left hip, left knee; OA distal UlR; spondylosis cervicalis; OA Vc; spondylosis Vt, heavy spondylosis Vl; SN Vt, Vl
40		**OMA**	spondylosis cervicalis; heavy spondylosis Vt
45		**MTA**	DJD: shoulder R + L, sternoclavicular joint L, elbow R + L, wrist R + L (OA), hip R + L, sacroiliac joint R + L, knee R + L (OA); spondylosis cervicalis; OA Vc; SN Vt 3/3,Vl; osteophytosis Vt, Vl; DJD of articular facets of ribs
79		**MTA**	spondylosis cervicalis; coxarthrosis right side
84		**MTA**	DJD both glenoid fossae (ScR and ScL), both elbow joints, right MC1, left knee joint, left foot; spondylosis cervicalis
102		**MTA**	DJD: right sternoclavicular joint, right and left shoulder, left and right elbow, left and right wrist, right and left hip; OA distal UlR; spondylosis cervicalis: spondylosis Vt: SN Vl
128		**MTA**	OA of Vc 1 and Vc2, Vc4; SN Vt 3/3; osteophytosis Vt 2/3, 3/3; spondylosis cervicalis; spondylosis Vl, Vs; slight DJD right sternoclavicular joint, both shoulders and elbow joints
136		**OA**	spondylosis cervicalis; OA in Vt 1/3; osteophytosis in Vt and Vl; syndesmophytes in Vl; intervertebral osteochondrosis Vl; DJD in both hip joints
115 / 1		**MTA**	spondylosis Vt 2/3, 3/3; spondylosis cervicalis; spondyloarthrosis Vc
61/1		**OA**	OA in both foots (proximal talii); spondylosis cervicalis; slight spondylosis in Vt 1/3; DJD in left sternoclavicular joint
43	**f**	**OA**	DJD: right and left shoulder, right acromioclavicular joint, right elbow, right (acetabular rim changes) and left (porosity) acetabulum; spondylosis cervicalis; OA Vc (Vc 2 - 5); ankylosis Vc2 and Vc3; SN Vt1/3 - 3/3, Vl; intervertebral osteochondrosis Vt 2/3; osteophytosis Vl
68		**MTA**	spondylosis cervicalis; OA rib heads; OA Vc; SN Vt 3/3
83		**YMA**	spondylosis cervicalis
106		**MTA**	OA Vc; spondylosis cervicalis; osteophytosis Vt 2/3; spondylosis Vl; DJD elbow R + L, right TMJ
108		**MTA**	spondylosis cervicalis; heavy spondylosis Vt; OA right elbow joint
111		**MTA**	spondylosis cervicalis; SN Vt 2/3
127		**MTA**	spondylosis cervicalis
175		**MTA**	spondylosis cervicalis; spondylosis Vt 1/3, 2/3; spondyloarthrosis Vc
133/1		**OMA**	DJD: right sternoclavicular joint, right and left elbow joint, right and left hip; spondylosis cervicalis; SN Vt 3/3, Vl; severe spondylosis Vl and Vs

Skel n°	**sex**	**age category**	**DJD Summary**
3/1		**OMA**	rotator cuff disease; DJD right TMJ; slight DJD both shoulders; spondyloarthropathy Vc (Vc2 and Vc3); spondylosis cervicalis; intervertebral disc disease Vt (including syndesmophytes at Vt10); spondylosis Vl; SN Vt 3/3
9/1		**MTA**	DJD: TMJ R+L, elbow R+L, wrist R+L, hip R+L; OA both knee joints; spondylosis cervicalis

Table 36: Pleidelsheim - Trauma (antemortem / perimortem)

Skel. n°	Sex	Age	Trauma	Tol*	Side	Bone(s) affected, location
10	m	MTA	(crush?) fracture	AM	L	navicular
11	m	AD	avulsion fracture	AM	R	scapula (*os acromiale*)
12	m	OMA	blunt-force trauma	AM	L	parietal bone
			avulsion fracture	AM	R	scapula (*os acromiale*)
27	m	MTA	blunt force trauma	AM	R	temporal bone
44	m	YA	enthesopathy	AM	R	tibia, antero-medial upper shaft
47	f	OMA	fracture	AM	R	2nd or 3rd proximal manual phalanx
79	m	MTA	fracture	AM	R	clavicle, midshaft
82	m	MTA	sharp-force trauma	AM	L	parietal bone, occipital bone
102	m	YMA	enthesopathy	AM	L	humerus, antero-medial distal shaft
			enthesopathy	AM	R	tibia, antero-lateral midshaft
			enthesopathy	AM	L	tibia, lateral distal shaft
			spondylolysis	AM		VL5
103	m	OMA	blunt force trauma	AM	midline	frontal bone
			sharp-force trauma (cut mark)	PM	R	humeral head
111	m	OA	fracture	AM	L	fibula, distal shaft
116	m	MTA	sharp-force trauma	AM	R	frontal bone
			blunt force trauma	AM	midline	parietal bone
			fracture, with subsequent pseudoarthrosis	AM	R	clavicle, midshaft
			fracture	AM	R	2nd metacarpal, midshaft
			fracture, with subsequent deformation & enthesopathy	AM	R	2nd metatarsal
120	m	MTA	sharp-force trauma	AM	R	frontal bone (across supraorbital ridge)
138	m	OMA	fracture	AM	R	ulna, distal shaft
161	m	OA	avulsion fracture	AM	L	humerus, medial epicondyle
			avulsion fracture	AM	L	scapula (*os acromiale*)
196	f	MTA	fracture	AM	R	mandible
217	f	MTA	enthesopathy	AM	R	humerus, antero-medial shaft
229	m	YMA	sharp-force trauma, trepanation (fatal)	AM / PM	R	parietal
232	m	YMA	fracture	AM	R	ulna, midshaft
244	m	YMA	avulsion fracture	AM	R	scapula (*os acromiale*)
			sharp-force trauma (cut marks)	PM	L	clavicle, superior side
			sharp-force trauma (cut marks), incl. spalling	PM	L	humerus, anterior medial to distal shaft
			sharp-force trauma (cut marks)	PM	L	radius, anterior distal shaft
			sharp-force trauma (cut marks), incl. spalling	PM	R	ulna, anterior proximal shaft

Skel. n°	Sex	Age	Trauma	ToI*	Side	Bone(s) affected, location
			sharp-force trauma (cut marks)	PM	L	iliac blade, antero-laterally
245	m	YMA	fracture	AM	R	2nd metatarsal
247	m	OMA	fracture	AM	R	tibia, distal shaft
258	m	OMA	avulsion fracture	AM	L	scapula (*os acromiale*)

* =**T**ime **o**f **I**ncidence, AM: antemortem (healed), PM: perimortem

Table 37: Neresheim - Trauma (antemortem / perimortem)

Skel. n°	Sex	Age	Trauma	ToI*	Side	Bone(s) affected, location
5	f	OMA	fracture, with subsequent compensatory growth	AM	R	tibia, fibula (midshafts)
22	f	OMA	spondylolysis	AM	R	Vl4
25	f	OA	fractures	AM	R	ribs (indet.)
30	f	MTA	fracture	AM	L	tibia, fibula (midshafts)
39	m	OA	avulsion fracture	AM	R	scapula (*os acromiale*)
44	m	YMA	spondylolysis	AM	R	Vt12
48	m	OMA	fracture	AM	R	tibia, midshaft
49	m	OMA	avulsion fracture	AM	R	scapula (*os acromiale*)
66	f	MTA	depression (2x) (trepanation attempts)	AM	L	parietal bone
74	m	YMA	spondylolysis	AM	R, L	VL2: partial; Vl3: bilaterally
80	m	OMA	oblique fracture	AM	L	fibula, proximal shaft
			fracture	AM	R	clavicle, acromial metaphysis
81	f	OA	spondylolysis	AM	R, L	Vs
94	m	YA	spondylolysis	AM	R	Vl3
			avulsion fracture	AM	R	scapula (*os acromiale*)
97	m	MTA	fracture, with callus formation at sternal metaphysis	AM	R, L	clavicle
102	m	MTA	Colles’ fracture	AM	R	radius, distal shaft
134	m	YA	fracture	AM	R	3rd metatarsal, midshaft
136	m	OA	avulsion fracture	AM	L	humerus, lateral epicondyle
137	f	OMA	avulsion fracture	AM	R, L	scapula (*os acromiale*)
173	f	OMA	spondylolysis	AM	R	Vl4
177	f	YMA	fracture	AM	l	rib (indet.)
			spondylolisthesis	AM	R,L	Vl4, Vl5
181	f	YMA	avulsion fracture	AM	L	scapula (*os acromiale*)
50/2	f	OA	fracture	AM	R	tibia
61/1	m	OA	oblique fracture	AM	R	tibia, distal shaft
78/1	f	YMA	fracture	AM	R	rib (indet.)
9/1	f	OMA	Colles’ fracture	AM	L	radius, distal shaft

* =**T**ime **o**f **I**ncidence, AM: antemortem (healed), PM: perimortem

Table 38: Pleidelsheim - Pathological observations (miscellaneous)

Skel n°	Sex	Age Category	Pathological changes
3	f	YMA	cortical defect to right mandibular condyle; subluxation of femoral head FeR and FeL
12	m	OMA	*os acromiale* on ScR
27	m	MTA	pitting in endocranial frontal area, left and right
35	f	YMA	cranial table, especially frontal (metopic suture area, extending towards left side of frontal), thickened, also along middle-posterior part of sagittal suture on parietals, towards parietal eminence; slight bowing of tibial shafts
40	m	OMA	possible gout on left MT1
44	m	YA	developmental defect in glenoid fossa of ScR and ScL
49	f	OA	mandible slightly dislocated right & left
54	f	AD	nasal aperture is rounded, with 'plaque'-like new bone formation on right and left side of maxilla (below zygomatics) and below / on edge of nasal aperture
60	m	MTA	endocranial lesion at end of middle meningeal artery, left side of parietal, almost underneath bregma; left side of MCIII, left proximal epiphysis, shows erosive lesion of approx. 5x4mm diameter
82	m	MTA	osteoma covering part of sagittal suture and parietal R and L, near lambda (opisthocranium area); nasal aperture shows rounded margins, with dipping extending inferiorly, nasal spine is broken off
83	m	OMA	bony exostosis in both entrances of auditory meatus
84	f	MTA	button osteoma at external occipital protuberance
86	f	OMA	bony exostosis on lateral FeR shaft
90	m	MTA	three perforations in parietals: slowly expanding, grown lesions, more expanding endocranially than ectocranially, but possibly perforating (at least one, however too degraded) - not malignant, as remodeling observable around lesion edges
91	m	YMA	small button osteoma (5.1mm) on right parietal, beside sagittal suture and above lambda
103	m	OMA	small osteoma in left frontal sinus
105	f	YMA	partial spina bifida occulta; strong vascular etching on frontal, endocranially, left side
111	m	OA	enthesopathy TiL D1/3
113	m	MTA	small osteoma in frontal sinus
120	m	MTA	osteoma (3.9 x 4.4mm) in left frontal sinus; bony exostosis on medial FiL shaft
127	m	MTA	4 - 5 osteomata on frontal bone, endocranially

Skel n°	Sex	Age Category	Pathological changes
138	m	OMA	small enthesophyte on lateral side of MT1
148	f	MTA	osteoporosis? (bones all very light in weight)
158	m	OA	Paget's Disease
161	m	OA	*os acromiale* on ScL
217	f	MTA	enthesopathy on antero-medial HuR
220	f	MTA	left foot: 1st prox. phalanx shows joint mice in joint capsule; distal phalanx is slightly deformed
243	m	MTA	two foramina with new bone formation around openings in left maxillary sinus, from roots of 27 and 28
244	m	YMA	*os acromiale* on ScR; strong bowing of anterior tibiae and of left fibular shaft
258	m	OMA	*os acromiale* on ScL
259	m	OMA	childhood Ricketts (bowing of FeR and FeL, TiR and TiL) - might explain arthritic changes to the thorax
71/1	m	YMA	button osteoma on frontal bone, near midline; spina bifida occulta
72/1	m	MTA	fused atlas (Vc1) and occipital

Table 39: Neresheim - Pathological observations (miscellaneous)

Skel n°	Sex	Age Category	Pathological changes
7	f	YMA	circular perforation of ca. 10mm diameter in left frontal (effect of grave robbery?)
8	f	MTA	cortical defect in proximal articular surface of left 1st phalanx
10	m	YMA	very porous palate
36	f	OMA	nasal aperture shows dipping
39	m	OA	cortical defect (small hole) in RaR prox. articular surface, talo/calcaneal joint right and left; sacro-iliitis
43	f	OA	cortical defect (small hole) in proximal joint surface of right proximal first pedal phalanx
45	m	MTA	three button osteomata (one of them very small) on right frontal, ectocranially
47	f	MTA	bony exostosis at rib neck of left rib
51	m	OMA	healed dental abscess on right mandible (46/47 area)
55	f	OA	diploe of parietal fragments seems relatively thick
56	f	OMA	torsion of femoral neck is stronger on right side, flatter on left; deep fossa on superior edge of auricular surface of right ilium, with rounded as well as irregular sharp margin = abcess?
59	f	YMA	cortical defect (small hole) ScL, glenoid fossa; osteochondritis dissecans in trochlea of HuR and HuL (bilaterally)
68	f	MTA	osteophytic growth including fossa in the front of osteophyte on superior neck of distal epiphysis of right MT1 (hallux protraction?)
70	f	OA	bony exostosis on TiL P1/3, antero-lateral shaft
80	m	OMA	submarginal osteophyte on Vl4, left side of vertebral body; enthesophyte above articular facet on rib neck of a right rib head fragment
85	f	OMA	cortical defect (small hole) in proximal joint surface of left proximal first pedal phalanx
91	f	OMA	small bony exostosis on lateral side of left mandibular condyle (just underneath; enthesophyte?)
92	f	OMA	spondylolisthesis Vl5 / Vs1; ankylosis of Vt3 and Vt4
94	m	YA	9mm long gap above greater tubercle HuR - developmental defect?
120	m	MTA	bony exostoses on palate and palatal process - behind third molars left and right, caused by mechanic pressures
126	m	OMA	cortical defect (small hole) to glenoid fossa ScR and ScL
134	m	YA	infection to right acetabulum?
136	m	OA	ligamentous ossification at HuL lateral epicondyle (lateral avulsion)

Skel n°	Sex	Age Category	Pathological changes
175	f	MTA	osteomata endocranially; hyperostosis frontalis interna
140/1	f	YMA	ossified blood clot left medial femoral shaft
18/1	f	OMA	one middle meningeal artery on left parietal, leading from temporal obliquely towards the sagittal sulcus, is strongly enlarged
50/1	m	OMA	destructive focal lesion in Vl1, inferiorly, left side
61/1	m	OA	ossification of possible blood clot that formed in between muscle attachment and bone on medial-distal side of FeR D 1/3
78/1	f	YMA	left articular facet of Vt2 and adjacent rib head show degenerative changes (destructive lesion / changes to facets); 1st left rib shows severe ossification of cartilage at sternal end

Table 40: Pleidelsheim - Prevalence of pathological changes by sex and period

			tibial periostitis	maxillary sinusitis	trauma	DJD, extra-vertebral	OA*	spondylosis	spondyloarthrosis	spondylolysis	Schmorl's nodes	Cribra orbitalia	enamel hypoplasia	caries	periodontal disease	peri-apical disease	AMTL
pre-Frankish	M	n	5	1	7	23	4	13	8	0	15	7	7	13	3	6	6
		%	55.6	25.0	43.8	51.1	100.0	54.2	61.5	0.0	53.6	41.2	43.8	43.3	50.0	66.7	37.5
	F	n	6	2	1	22	1	15	6	0	8	6	7	10	4	6	4
		%	75.0	28.6	50.0	47.8	50.0	51.7	60.0	0.0	38.1	42.9	29.2	33.3	33.3	54.5	40.0
	Total	n	11	3	8	45	5	28	14	0	23	13	14	23	7	12	10
		%	64.7	27.3	44.4	49.5	83.3	52.8	60.9	0.0	46.9	41.9	35.0	38.3	38.9	60.0	38.5
ca. 525 - 600 AD	M	n	3	2	8	19	0	7	4	1	11	8	6	9	3	3	6
		%	33.3	50.0	50.0	42.2	0.0	29.2	30.8	100.0	39.3	47.1	37.5	30.0	50.0	33.3	37.5
	F	n	1	3	0	13	1	5	2	0	7	1	11	11	3	3	4
		%	12.5	42.9	0.0	28.3	50.0	17.2	20.0	0.0	33.3	7.1	45.8	36.7	25.0	27.3	40.0
	Total	n	4	5	8	32	1	12	6	1	18	9	17	20	6	6	10
		%	23.5	45.5	44.4	35.2	16.7	22.6	26.1	50.0	36.7	29.0	42.5	33.3	33.3	30.0	38.5
7th c. AD	M	n	1	1	1	3	0	4	1	0	2	2	3	8	0	0	4
		%	11.1	25.0	6.3	6.7	0.0	16.7	7.7	0.0	7.1	11.8	18.8	26.7	0.0	0.0	25.0
	F	n	1	2	1	11	0	9	2	1	6	7	6	9	5	2	2
		%	12.5	28.6	50.0	23.9	0.0	31.0	20.0	100.0	28.6	50.0	25.0	30.0	41.7	18.2	20.0
	Total	n	2	3	2	14	0	13	3	1	8	9	9	17	5	2	6
		%	11.8	27.3	11.1	15.4	0.0	24.5	13.0	50.0	16.3	29.0	22.5	28.3	27.8	10.0	23.1

Table 41: Neresheim - Prevalence of pathological changes by sex and period

			tibial periostitis	maxillary sinusitis	trauma	DJD, extra-vertebral	OA*	spondylosis	spondyloarthrosis	spondylolysis	Schmorl's nodes	Cribra orbitalia	enamel hypoplasia	caries	periodontal disease	peri-apical disease	AMTL
pre-Frankish	M	n	1	1	1	5	1	5	4	0	7	2	4	5	0	1	6
		%	25.0	25.0	16.7	38.5	100	55.6	66.7	0.0	70.0	18.2	28.6	50.0	0.0	25.0	46.2
	F	n	1	15	1	5	1	5	1	3	0	4	10	7	2	2	8
		%	25.0	45.5	12.5	100.0	100	55.6	100.0	100.0	0.0	36.4	50.0	50.0	100.0	66.7	53.3
	Total	n	2	16	2	10	2	10	5	3	7	6	14	12	2	3	14
		%	25.0	43.2	14.3	55.6	100	55.6	71.4	60.0	53.8	27.3	41.2	50.0	40.0	42.9	50.0
ca. 525 - 600 AD	M	n	3	2	3	0	0	0	0	0	1	1	3	1	1	1	0
		%	75.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	10.0	9.1	21.4	10.0	33.3	25.0	0.0
	F	n	0	2	2	0	0	0	0	0	0	1	1	1	0	0	1
		%	0.0	6.1	25.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	5.0	7.1	0.0	0.0	6.7
	Total	n	3	4	5	0	0	0	0	0	1	2	4	2	1	1	1
		%	37.5	10.8	35.7	0.0	0.0	0.0	0.0	0.0	7.7	9.1	11.8	8.3	20.0	14.3	3.6
7th c. AD	M	n	0	1	2	8	0	4	2	2	2	8	7	4	2	2	7
		%	0.0	25.0	33.3	61.5	0.0	44.4	33.3	100.0	20.0	72.7	50.0	40.0	66.7	50.0	53.8
	F	n	3	16	5	0	0	4	0	0	3	6	9	6	0	1	6
		%	75.0	48.5	62.5	0.0	0.0	44.4	0.0	0.0	100.0	54.5	45.0	42.9	0.0	33.3	40.0
	Total	n	3	17	7	8	0	8	2	2	5	14	16	10	2	3	13
		%	37.5	45.9	50.0	44.4	0.0	44.4	28.6	40.0	38.5	63.6	47.1	41.7	40.0	42.9	46.4

Table 42: Pleidelsheim - Cribra orbitalia distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**C.O.**	13	3	9
	no C.O.	20	2	14
	p	NS (FET)		NS (FET)
Females	**C.O.**	13	2	10
	no C.O.	23	3	14
	p	NS (FET)		NS (FET)
Total	**C.O.**	26	5	19
	no C.O.	43	5	28
	p	NS (FET)		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**C.O.**	15	7	3
	no C.O.	24	15	16
	p		NS	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 43: Pleidelsheim - Dental enamel hypoplasia distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**D.E.H.**	14	1	9
	no D.E.H.	18	2	14
	p	NS (FET)		NS (FET)
Females	**D.E.H.**	22	1	20
	no D.E.H.	15	3	9
	p	NS (FET)		NS (FET)
Total	**D.E.H.**	36	2	29
	no D.E.H.	33	5	23
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**D.E.H.**	17	9	11
	no D.E.H.	16	15	11
	p		NS	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 44: Pleidelsheim - Tibial periostitis distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**tibial periostitis**	5	2	2
	no tibial periostitis	37	4	7
	p	NS (FET)		NS (FET)
Females	**tibial periostitis**	2	2	2
	no tibial periostitis	46	6	45
	p	NS (FET)		NS (FET)
Total	**tibial periostitis**	7	4	4
	no tibial periostitis	83	10	52
	p	.04* (FET)		.036* (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**tibial periostitis**	9	4	0
	no tibial periostitis	44	27	25
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 45: Pleidelsheim - Maxillary sinusitis distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**max. sinusitis**	3	2	0
	no max. sinusitis	39	4	9
	p	NS (FET)		NS (FET)
Females	**max. sinusitis**	2	1	2
	no max. sinusitis	46	7	45
	p	NS (FET)		NS (FET)
Total	**max. sinusitis**	5	3	2
	no max. sinusitis	85	11	54
	p	NS (FET)		.044* (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**max. sinusitis**	5	2	2
	no max. sinusitis	48	29	23
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 46: Pleidelsheim - Spondylosis distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**spondylosis**	19	3	4
	no spondylosis	17	2	4
	p	NS (FET)		NS (FET)
Females	**spondylosis**	24	3	-
	no spondylosis	13	3	-
	p	NS (FET)		-
Total	**spondylosis**	43	6	28
	no spondylosis	30	5	17
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total		24	13	5
		17	13	13
	p	NS		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 47: Pleidelsheim - Spondyloarthrosis distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**spondyloarthrosis**	12	2	3
	no spondyloarthrosis	22	2	4
	p	NS (FET)		NS (FET)
Females	**spondyloarthrosis**	7	4	-
	no spondyloarthrosis	26	2	-
	p	.042* (FET)		-
Total	**spondyloarthrosis**	19	4	10
	no spondyloarthrosis	48	6	30
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**spondyloarthrosis**	13	5	3
	no spondyloarthrosis	26	20	14
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 48: Pleidelsheim - Spondylolysis distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	spondylolysis	1	0	0
	no spondylolysis	29	4	60
	p	NS (FET)		n.d.
Females	spondylolysis	0	0	-
	no spondylolysis	33	4	-
	p	n.d.		-
Total	spondylolysis	1	0	0
	no spondylolysis	62	8	39
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	spondylolysis	0	1	1
	no spondylolysis	37	23	15
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 49: Pleidelsheim - Schmorl's nodes distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	Schmorl's nodes	23	1	5
	no Schmorl's nodes	10	1	2
	p	NS (FET)		NS (FET)
Females	Schmorl's nodes	15	0	-
	no Schmorl's nodes	16	3	-
	p	NS (FET)		-
Total	Schmorl's nodes	38	1	20
	no Schmorl's nodes	26	4	18
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	Schmorl's nodes	23	8	9
	no Schmorl's nodes	12	14	5
	p		NS	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 50: Pleidelsheim - extra-vertebral DJD distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	DJD	36	3	8
	no DJD	6	0	2
	p	NS (FET)		NS (FET)
Females	DJD	32	4	32
	no DJD	17	3	16
	p	NS (FET)		NS (FET)
Total	DJD	68	7	40
	no DJD	23	3	18
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	DJD	45	21	16
	no DJD	8	10	11
	p		.031*	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 51: Pleidelsheim - Osteoarthritis distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	**OA**	3	1	0
	no OA	38	2	9
	p	NS (FET)		NS (FET)
Females	**OA**	2	0	2
	no OA	47	7	46
	p	NS (FET)		NS (FET)
Total	**OA**	5	1	2
	no OA	85	9	55
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**OA**	4	1	1
	no OA	48	30	26
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 52: Pleidelsheim - Caries distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	**caries**	27	0	10
	no caries	16	5	1
	p	.012* (FET)		.002** (FET)
Females	**caries**	23	3	23
	no caries	24	4	23
	p	NS (FET)		NS (FET)
Total	**caries**	50	3	33
	no caries	40	9	24
	p	.047*		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**caries**	29	11	11
	no caries	19	18	20
	p		.048*	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 53: Pleidelsheim - Peri-apical disease distribution

Pleidelsheim		GG	no GG	GG no weaponry [a)]
Males	**peri-apical d.**	14	1	8
	no peri-apical d.	76	11	49
	p	NS (FET)		NS (FET)
Females	**peri-apical d.**	8	0	2
	no peri-apical d.	35	5	9
	p	NS (FET)		NS (FET)
Total	**peri-apical d.**	6	1	6
	no peri-apical d.	41	6	40
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**peri-apical d.**	10	3	4
	no peri-apical d.	38	26	27
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 54: Pleidelsheim - Periodontal disease distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**periodontal d.**	14	1	9
	no periodontal d.	76	11	48
	p	NS (FET)		NS (FET)
Females	**periodontal d.**	5	1	0
	no periodontal d.	38	4	11
	p	NS (FET)		NS (FET)
Total	**periodontal d.**	9	0	9
	no periodontal d.	38	7	37
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**periodontal d.**	7	5	3
	no periodontal d.	41	24	28
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 55: Pleidelsheim - AMTL distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**AMTL**	12	2	3
	no AMTL	31	3	8
	p	NS (FET)		NS (FET)
Females	**AMTL**	6	1	6
	no AMTL	41	6	40
	p	NS (FET)		NS (FET)
Total	**AMTL**	18	3	9
	no AMTL	72	9	48
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**AMTL**	11	4	5
	no AMTL	37	25	26
	p		NS (FET)	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 56: Pleidelsheim - Trauma distribution

Pleidelsheim		**GG**	**no GG**	**GG no weaponry** [a)]
Males	**trauma**	13	0	0
	no trauma	28	5	8
	p	NS (FET)		(.066) (FET)
Females	**trauma**	1	0	1
	no trauma	44	6	43
	p	NS (FET)		NS (FET)
Total	**trauma**	15	0	1
	no trauma	71	11	51
	p	NS (FET)		.013* (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**trauma**	9	6	4
	no trauma	43	24	19
	p		NS	

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 57: Neresheim - Cribra orbitalia distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**C.O.**	6	2	5
	no C.O.	3	1	3
	p	NS (FET)		NS (FET)
Females	**C.O.**	8	8	-
	no C.O.	10	5	-
	p	NS (FET)		-
Total	**C.O.**	14	10	13
	no C.O.	13	6	13
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**C.O.**	20	21	2
	no C.O.	16	18	3
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 58: Neresheim - Dental enamel hypoplasia distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**D.E.H.**	3	2	2
	no D.E.H.	5	0	2
	p	NS (FET)		NS (FET)
Females	**D.E.H.**	10	5	-
	no D.E.H.	7	4	-
	p	NS (FET)		-
Total	**D.E.H.**	13	7	12
	no D.E.H.	12	4	9
	p	NS (FET)		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**D.E.H.**	27	22	4
	no D.E.H.	6	15	1
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 59: Neresheim - Tibial periostitis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**tibial periostitis**	2	1	0
	no tibial periostitis	11	3	8
	p	NS (FET)		NS (FET)
Females	**tibial periostitis**	2	2	-
	no tibial periostitis	22	16	-
	p	NS (FET)		-
Total	**tibial periostitis**	4	3	2
	no tibial periostitis	33	19	30
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**tibial periostitis**	6	9	0
	no tibial periostitis	47	51	7
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 60: Neresheim - Maxillary sinusitis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**max. sinusitis**	1	0	1
	no max. sinusitis	12	4	7
	p	NS (FET)		NS (FET)
Females	**max. sinusitis**	5	1	-
	no max. sinusitis	19	17	-
	p	NS (FET)		-
Total	**max. sinusitis**	6	1	6
	no max. sinusitis	31	21	26
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**max. sinusitis**	5	7	2
	no max. sinusitis	48	53	5
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 61: Neresheim - Spondylosis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**spondylosis**	6	3	3
	no spondylosis	3	1	2
	p	NS (FET)		NS (FET)
Females	**spondylosis**	6	5	-
	no spondylosis	9	5	-
	p	NS		-
Total	**spondylosis**	12	8	9
	no spondylosis	12	6	11
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total		19	19	1
		17	16	1
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 62: Neresheim - Spondyloarthrosis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**spondyloarthrosis**	4	2	2
	no spondyloarthrosis	5	2	3
	p	NS (FET)		NS (FET)
Females	**spondyloarthrosis**	4	5	-
	no spondyloarthrosis	12	6	-
	p	NS (FET)		-
Total	**spondyloarthrosis**	8	7	6
	no spondyloarthrosis	17	8	15
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**spondyloarthrosis**	12	8	0
	no spondyloarthrosis	25	26	2
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 63: Neresheim - Spondylolysis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**spondylolysis**	1	0	0
	no spondylolysis	8	3	5
	p	NS (FET)		NS (FET)
Females	**spondylolysis**	2	0	-
	no spondylolysis	13	10	-
	p	NS (FET)		-
Total	**spondylolysis**	3	0	2
	no spondylolysis	21	13	18
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**spondylolysis**	1	5	0
	no spondylolysis	32	27	2
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 64: Neresheim - Schmorl's nodes distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**Schmorl's nodes**	6	3	4
	no Schmorl's nodes	3	0	2
	p	NS (FET)		NS (FET)
Females	**Schmorl's nodes**	3	4	-
	no Schmorl's nodes	10	6	-
	p	NS (FET)		-
Total	**Schmorl's nodes**	9	7	7
	no Schmorl's nodes	13	6	12
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**Schmorl's nodes**	14	13	1
	no Schmorl's nodes	19	15	0
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 65: Neresheim - extra-vertebral DJD distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**DJD**	5	3	3
	no DJD	7	1	4
	p	NS (FET)		NS (FET)
Females	**DJD**	8	6	-
	no DJD	15	10	-
	p	NS		-
Total	**DJD**	13	9	11
	no DJD	22	11	19
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**DJD**	15	23	3
	no DJD	35	27	3
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 66: Neresheim - Osteoarthritis distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**OA**	1	2	0
	no OA	11	2	7
	p	NS (FET)		.047* (FET)
Females	**OA**	2	1	-
	no OA	21	15	-
	p	NS (FET)		-
Total	**OA**	3	3	2
	no OA	32	17	28
	p	NS (FET)		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**OA**	2	5	0
	no OA	48	45	6
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 67: Neresheim - Caries distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**caries**	5	2	3
	no caries	4	1	1
	p	NS (FET)		NS (FET)
Females	**caries**	11	7	-
	no caries	10	8	-
	p	NS		-
Total	**caries**	16	9	14
	no caries	14	9	11
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	**caries**	19	19	2
	no caries	27	34	4
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 68: Neresheim - Peri-apical disease distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	**peri-apical d.**	2	1	2
	no peri-apical d.	7	2	2
	p	NS (FET)		NS (FET)
Females	**peri-apical d.**	2	2	-
	no peri-apical d.	19	13	-
	p	NS (FET)		-
Total	**peri-apical d.**	4	3	4
	no peri-apical d.	26	15	21
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	**peri-apical d.**	7	4	1
	no peri-apical d.	39	49	5
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 69: Neresheim - Periodontal disease distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	periodontal d.	2	0	1
	no periodontal d.	7	3	3
	p	NS (FET)		NS (FET)
Females	periodontal d.	2	0	-
	no periodontal d.	19	15	-
	p	NS (FET)		-
Total	periodontal d.	4	0	3
	no periodontal d.	26	18	22
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	periodontal d.	3	3	1
	no periodontal d.	43	50	5
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 70: Neresheim - AMTL distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	AMTL	6	2	3
	no AMTL	3	1	1
	p	NS (FET)		NS (FET)
Females	AMTL	12	9	-
	no AMTL	9	6	-
	p	NS		-
Total	AMTL	18	11	15
	no AMTL	12	7	10
	p	NS		NS
Grave Type [b)]		**A**	**B**	**C**
Total	AMTL	22	30	2
	no AMTL	22	30	2
	p	NS		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 71: Neresheim - Trauma distribution

Neresheim		GG	no GG	GG no weaponry [a)]
Males	trauma	2	1	1
	no trauma	10	3	6
	p	NS (FET)		NS (FET)
Females	trauma	3	1	-
	no trauma	20	15	-
	p	NS (FET)		-
Total	trauma	5	2	4
	no trauma	30	18	26
	p	NS (FET)		NS (FET)
Grave Type [b)]		**A**	**B**	**C**
Total	trauma	6	7	1
	no trauma	42	43	4
	p	NS (FET)		

[a)] Statistical test result displayed for difference between all three types of burial accoutrement; [b)]A = coffin burial, B = 'simple' burial, C = chamber burial; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 72: Pleidelsheim Weapon burials - Distribution of childhood stress indicators

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	C.O.	5	15	9
	no C.O.	9	18	14
	p	NS		NS
Males	D.E.H.	5	12	9
	no D.E.H.	8	20	14
	p	NS		NS

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 73: Pleidelsheim Weapon burials - Non-specific infection distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	tibial periostitis	4	8	2
	no tibial periostitis	33	19	7
	p	(.057*, FET)		NS (FET)
Males	max. sinusitis	3	2	0
	no max. sinusitis	34	25	9
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 74: Pleidelsheim Weapon burials - Vertebral DJD distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	spondylosis	16	12	4
	no spondylosis	17	9	4
	p	NS		NS (FET)
Males	spondyloarthrosis	10	6	3
	no spondyloarthrosis	22	14	4
	p	NS		NS (FET)
Males	spondylolysis	1	0	0
	no spondylolysis	27	19	60
	p	NS (FET)		NS (FET)
Males	Schmorl's nodes	20	11	5
	no Schmorl's nodes	8	6	2
	p	NS		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 75: Pleidelsheim Weapon burials - Extra-vertebral DJD distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	DJD	31	19	8
	no DJD	7	6	2
	p	NS		NS (FET)
Females	DJD	0	49	32
	no DJD	4	24	16
	p	.015* (FET)		.018* (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 76: Pleidelsheim Weapon burials - Osteoarthritis distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	OA	4	1	0
	no OA	34	23	9
	p	NS (FET)		NS (FET)
Females	OA	0	2	2
	no OA	4	71	46
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 77: Pleidelsheim Weapon burials - Caries distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	caries	17	10	10
	no caries	15	6	1
	p	NS		.033* (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 78: Pleidelsheim Weapon burials - Trauma distribution

Pleidelsheim		weaponry	no weaponry	GG no weaponry [a)]
Males	trauma	16	1	0
	no trauma	21	24	8
	p	.001** (FET)		.000** (FET)
Males	weapon-related trauma	6	0	-
	no trauma	31	25	-
	p	(.073*, FET)		-
Males	weapon-related trauma	6	0	-
	no weapon-rel. trauma [b)]	10	1	-
	p	NS (FET)		-

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; $p = \chi^2$ - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level; [b)] but other trauma

Table 79: Neresheim Weapon burials - Distribution of childhood stress indicators

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	C.O.	2	14	5
	no C.O.	1	9	3
	p	NS (FET)		NS (FET)
Males	D.E.H.	5	14	2
	no D.E.H.	3	4	2
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 80: Neresheim Weapon burials - Non-specific infection distribution

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	tibial periostitis	2	6	0
	no tibial periostitis	9	24	8
	p	NS (FET)		NS (FET)
Males	max. sinusitis	2	2	1
	no max. sinusitis	9	28	7
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 81: Neresheim Weapon burials - Vertebral DJD distribution

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	spondylosis	4	13	3
	no spondylosis	4	10	2
	p	NS (FET)		NS (FET)
Males	spondyloarthrosis	2	9	2
	no spondyloarthrosis	6	13	3
	p	NS (FET)		NS (FET)
Males	spondylolysis	2	1	0
	no spondylolysis	5	19	5
	p	NS (FET)		NS (FET)
Males	Schmorl's nodes	5	14	4
	no Schmorl's nodes	1	7	2
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 82: Neresheim Weapon burials - Extra-vertebral DJD and osteoarthritis distribution

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	**DJD**	5	16	3
	no DJD	6	12	4
	p	NS (FET)		NS (FET)
Males	**OA**	1	2	0
	no OA	10	26	7
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 83: Neresheim Weapon burials - Caries distribution

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	**caries**	2	5	3
	no caries	3	2	1
	p	NS (FET)		NS (FET)

[a)] Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level.

Table 84: Neresheim Weapon burials - Trauma distribution

Neresheim		weaponry	no weaponry	GG no weaponry [a)]
Males	**trauma**	3	3	1
	no trauma	7	25	6
	p	NS (FET)		NS (FET)

Statistical test result displayed for difference between "weaponry" and "GG no weaponry"; *p* = χ^2 - test, unless indicated as 'FET' = Fisher's exact test (sample size < 5); * significance at p < .05 level, **significance at p < .01 level

Appendix Chapter 7

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Table 85: Pleidelsheim - Distribution of muscle scores

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
177	f	MTA	16	41.7	2.8	0.0
261	m	A	0	0.0	0.0	0.0
175	f	YMA	13	36.1	0.0	0.0
231	m	YMA	8	19.4	2.8	0.0
89	f	OMA	13	36.1	0.0	0.0
171	i	A	2	5.6	0.0	0.0
168	m	A	0	0.0	0.0	0.0
71/1	m	YMA	20	55.6	0.0	0.0
72/1	m	MTA	19	41.7	5.6	5.6
72/2	i	AD	2	5.6	0.0	0.0
86	f	OMA	0	0.0	0.0	0.0
153	m	OMA	18	27.8	22.2	0.0
82	m	MTA	17	27.8	5.6	13.9
217	f	MTA	36	100.0	0.0	0.0
246	f	MTA	28	72.2	5.6	0.0
229	m	YMA	24	58.3	8.3	0.0
196	f	MTA	11	22.2	8.3	0.0
220	f	MTA	22	52.8	8.3	0.0
172	f	MTA	9	22.2	2.8	0.0
88	m	YMA	9	19.4	2.8	2.8
2	f	OMA	21	52.8	5.6	0.0
70/1	m	YMA	4	11.1	0.0	0.0
70/2	i	A	0	0.0	0.0	0.0
104	m	MTA	20	13.9	30.6	11.1
105	f	YMA	29	44.4	33.3	2.8
35	f	YMA	0	0.0	0.0	0.0
36	f	OMA	0	0.0	0.0	0.0
38	m	OMA	0	0.0	0.0	0.0
54	f	AD	0	0.0	0.0	0.0
52	f	YMA	2	5.6	0.0	0.0
114	m	AD	36	100.0	0.0	0.0
113	m	MTA	15	19.4	19.4	2.8
245	m	YMA	18	27.8	13.9	8.3

Skel n°	Sex	Age category	n° of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
12	m	OMA	25	55.6	13.9	0.0
173	m	YMA	7	16.7	2.8	0.0
185	f	MTA	0	0.0	0.0	0.0
181	m	MTA	6	2.8	13.9	0.0
190	m	YA	0	0.0	0.0	0.0
166	m	A	0	0.0	0.0	0.0
163	f	MTA	10	5.6	13.9	8.3
234	f	OMA	8	16.7	5.6	0.0
90	m	MTA	0	0.0	0.0	0.0
155	f	A	0	0.0	0.0	0.0
197	f	OMA	6	11.1	5.6	0.0
219	m	A	5	11.1	0.0	2.8
224	m	OA	1	0.0	0.0	2.8
195	m	MTA	10	13.9	8.3	5.6
64	m	OMA	14	25.0	13.9	0.0
235	m	OMA	0	0.0	0.0	0.0
212	m	OA	3	5.6	2.8	0.0
176	f	OA	9	8.3	5.6	11.1
239	m	YMA	0	0.0	0.0	0.0
211	f	MTA	13	36.1	0.0	0.0
183	f	OA	9	25.0	0.0	0.0
18	f	OMA	23	58.3	5.6	0.0
240	f	YMA	10	27.8	0.0	0.0
1	m	YMA	0	0.0	0.0	0.0
213	m	A	6	16.7	0.0	0.0
216	i	A	0	0.0	0.0	0.0
214	m	MTA	0	0.0	0.0	0.0
151	m	A	0	0.0	0.0	0.0
87	m	YMA	0	0.0	0.0	0.0
85	f	YMA	6	16.7	0.0	0.0
56/1	m	YMA	0	0.0	0.0	0.0
56/2	m	A	0	0.0	0.0	0.0
55	i	MTA	0	0.0	0.0	0.0
262/1	m	MTA	11	13.9	16.7	0.0
178	m	OMA	0	0.0	0.0	0.0
129a	m	MTA	5	5.6	8.3	0.0

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
129b	m	YMA	0	0.0	0.0	0.0
130a	m	YA	2	2.8	2.8	0.0
130b	i	AD	1	0.0	2.8	0.0
131	m	A	3	8.3	0.0	0.0
218	f	OA	23	33.3	30.6	0.0
91	m	YMA	36	66.7	27.8	5.6
232	m	YMA	16	30.6	8.3	5.6
120	m	MTA	12	11.1	19.4	2.8
158	m	OA	25	2.8	47.2	19.4
11	m	AD	24	36.1	11.1	19.4
207a	f	OMA	0	0.0	0.0	0.0
207b	i	AD	0	0.0	0.0	0.0
225a	f	OA	0	0.0	0.0	0.0
225b	m	OMA	5	13.9	0.0	0.0
195	f	MTA	5	13.9	0.0	0.0
187	f	A	1	0.0	2.8	0.0
251	f	YMA	0	0.0	0.0	0.0
84	f	MTA	23	36.1	25.0	2.8
83	m	OMA	25	33.3	30.6	5.6
202	f	OMA	3	8.3	0.0	0.0
203	i	AD	2	5.6	0.0	0.0
221	f	MTA	14	19.4	11.1	8.3
222	f	MTA	7	19.4	0.0	0.0
223	f	A	8	22.2	0.0	0.0
7/1	f	OMA	0	0.0	0.0	0.0
7/2	m	MTA	20	25.0	30.6	0.0
243	m	MTA	21	52.8	5.6	0.0
244	m	YMA	34	77.8	16.7	0.0
258	m	OMA	20	47.2	8.3	0.0
253a	f	OA	18	25.0	25.0	0.0
92	f	OMA	16	22.2	22.2	0.0
93	m	MTA	24	36.1	25.0	5.6
247	m	OMA	3	2.8	5.6	0.0
259	m	OMA	30	75.0	8.3	0.0
75/1	f	YMA	22	50.0	11.1	0.0
74	m	YA	14	33.3	5.6	0.0

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
13	f	YMA	8	19.4	0.0	2.8
98	f	OA	13	25.0	11.1	0.0
99	f	MTA	18	41.7	8.3	0.0
159	f	YA	7	19.4	0.0	0.0
161	m	OA	11	8.3	11.1	11.1
164	f	A	0	0.0	0.0	0.0
121	f	AD	26	66.7	5.6	0.0
122	f	A	5	13.9	0.0	0.0
135	f	OMA	22	47.2	13.9	0.0
103	m	OMA	23	27.8	36.1	0.0
115	f	OA	18	44.4	5.6	0.0
8	m	OMA	32	83.3	5.6	0.0
16 A	f	YMA	24	66.7	0.0	0.0
16 B	f	OMA	14	33.3	5.6	0.0
15	m	OMA	21	36.1	22.2	0.0
68	i	AD	0	0.0	0.0	0.0
39	m	YA	35	91.7	5.6	0.0
17	f	OMA	27	66.7	8.3	0.0
139	f	OMA	20	55.6	0.0	0.0
140	f	YA	19	50.0	2.8	0.0
126	f	YMA	0	0.0	0.0	0.0
127	m	MTA	0	0.0	0.0	0.0
128	f	OMA	13	36.1	0.0	0.0
108	f	YMA	0	0.0	0.0	0.0
109	m	AD	13	27.8	8.3	0.0
110	f	A	0	0.0	0.0	0.0
165	f	MTA	20	50.0	5.6	0.0
179	f	MTA	19	25.0	27.8	0.0
14	f	OMA	20	50.0	5.6	0.0
4a	f	YMA	7	19.4	0.0	0.0
4b	m	MTA	0	0.0	0.0	0.0
5	f	YMA	12	33.3	0.0	0.0
96	f	A	27	55.6	19.4	0.0
95	m	YA	10	27.8	0.0	0.0
97/1	i	YMA	0	0.0	0.0	0.0
97/2	f	YMA	7	19.4	0.0	0.0

Skel n°	Sex	Age category	n° of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
40	m	OMA	17	27.8	16.7	2.8
41	f	YMA	5	13.9	0.0	0.0
116	m	MTA	18	16.7	30.6	2.8
117	m	AD	14	36.1	2.8	0.0
75/2	f	YMA	14	36.1	0.0	2.8
76	m	MTA	15	25.0	16.7	0.0
77	f	YMA	25	69.4	0.0	0.0
31	f	OMA	29	61.1	19.4	0.0
32	f	YA	34	94.4	0.0	0.0
62	f	OMA	19	52.8	0.0	0.0
65	f	OMA	21	36.1	19.4	2.8
66	f	MTA	22	33.3	22.2	5.6
45	f	MTA	19	47.2	5.6	0.0
47	f	OMA	2	5.6	0.0	0.0
60	m	MTA	17	47.2	0.0	0.0
61	f	MTA	11	30.6	0.0	0.0
138	m	OMA	17	44.4	2.8	0.0
136	m	A	0	0.0	0.0	0.0
27	m	MTA	22	47.2	13.9	0.0
9	f	MTA	7	13.9	5.6	0.0
10	m	MTA	16	38.9	5.6	0.0
81	f	OA	18	50.0	0.0	0.0
80	f	OA	4	11.1	0.0	0.0
111	m	OA	28	50.0	22.2	5.6
150	i	A	4	11.1	0.0	0.0
148	f	MTA	4	11.1	0.0	0.0
149	f	YA	6	16.7	0.0	0.0
147	f	YMA	2	0.0	0.0	5.6
42	m	OA	22	44.4	13.9	2.8
57	f	YA	25	63.9	5.6	0.0
59	f	OMA	14	38.9	0.0	0.0
3	f	YMA	34	61.1	30.6	2.8
44	m	YA	30	83.3	0.0	0.0
101	m	A	19	50.0	2.8	0.0
102	m	YMA	30	50.0	27.8	5.6
106	f	OA	10	11.1	13.9	2.8

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of Muscle Scores (%)		
				A (%)	B (%)	C (%)
107	m	MTA	25	30.6	38.9	0.0
123	m	OMA	15	41.7	0.0	0.0
124	m	OMA	7	16.7	0.0	2.8
125	m	YMA	10	27.8	0.0	0.0
263	m	YA	0	0.0	0.0	0.0
264	m	OMA	15	13.9	25.0	2.8
62	m	MTA	24	36.1	25.0	5.6
63	f	MTA	18	50.0	0.0	0.0
64	m	YMA	0	0.0	0.0	0.0
78	i	OMA	0	0.0	0.0	0.0
79	m	MTA	21	16.7	16.7	25.0
49	f	OA	27	52.8	22.2	0.0
51	f	OA	12	33.3	0.0	0.0

Table 86: Neresheim - Distribution of muscle scores

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of muscle scores (%)		
				A (%)	B (%)	C (%)
175	f	MTA	16	33.3	11.1	0.0
179	f	MTA	1	2.8	0.0	0.0
181	f	YMA	0	0.0	0.0	0.0
49	m	OMA	24	63.9	2.8	0.0
50/1	m	OMA	26	25.0	30.6	16.7
50/2	f	OA	0	0.0	0.0	0.0
120	m	MTA	18	16.7	16.7	16.7
121	i	A	2	5.6	0.0	0.0
122	m	MTA	4	11.1	0.0	0.0
123	f	YMA	8	22.2	0.0	0.0
35	f	YMA	10	27.8	0.0	0.0
36	f	OMA	25	63.9	5.6	0.0
37	m	OMA	8	22.2	0.0	0.0
32	m	YMA	24	25.0	41.7	0.0
34	i	MTA	17	19.4	16.7	11.1
96	f	YMA	12	30.6	2.8	0.0
97	m	MTA	10	5.6	16.7	5.6
98	f	MTA	0	0.0	0.0	0.0
77	m	OMA	26	58.3	13.9	0.0
61/1	m	OA	1	2.8	0.0	0.0

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of muscle scores (%)		
				A (%)	B (%)	C (%)
61/2	f	AD	1	0.0	2.8	0.0
115 / 1	m	MTA	5	13.9	0.0	0.0
115 / 2	f	OMA	4	11.1	0.0	0.0
117	m	YMA	12	30.6	2.8	0.0
118	m	MTA	3	8.3	0.0	0.0
46	f	MTA	14	16.7	22.2	0.0
47	f	MTA	19	44.4	8.3	0.0
48	m	OMA	0	0.0	0.0	0.0
173	f	OMA	20	41.7	13.9	0.0
22	f	OMA	17	27.8	16.7	2.8
23	f	AD	0	0.0	0.0	0.0
25	f	OA	0	0.0	0.0	0.0
26	i	YMA	0	0.0	0.0	0.0
52	f	YA	13	33.3	2.8	0.0
53	f	OA	17	38.9	5.6	2.8
87	m	MTA	24	27.8	36.1	2.8
88	f	A	0	0.0	0.0	0.0
99	f	YMA	4	11.1	0.0	0.0
100	f	OMA	16	33.3	8.3	2.8
101	m	A	0	0.0	0.0	0.0
29	m	MTA	10	5.6	8.3	13.9
28	f	A	0	0.0	0.0	0.0
27	f	YMA	0	0.0	0.0	0.0
64	f	OMA	6	8.3	8.3	0.0
65	i	A	0	0.0	0.0	0.0
66	f	MTA	5	2.8	5.6	5.6
20	f	OMA	16	41.7	2.8	0.0
21	f	OMA	0	0.0	0.0	0.0
111	f	MTA	9	25.0	0.0	0.0
112	f	YA	2	5.6	0.0	0.0
113	f	YA	10	22.2	5.6	0.0
78/1	f	YMA	8	8.3	2.8	11.1
78/2	m	OMA	21	47.2	11.1	0.0
79	m	MTA	8	16.7	2.8	2.8
136	m	OA	17	25.0	16.7	5.6
137	f	OMA	19	44.4	8.3	0.0
82	f	YMA	20	47.2	8.3	0.0
83	f	YMA	16	27.8	16.7	0.0
177	f	YMA	30	66.7	16.7	0.0
178/1	f	YA	25	69.4	0.0	0.0

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of muscle scores (%)		
				A (%)	B (%)	C (%)
178/2	f	A	17	47.2	0.0	0.0
138	m	OA	8	19.4	2.8	0.0
140/1	f	YMA	14	30.6	2.8	5.6
140/2	m	A	9	13.9	8.3	2.8
139/1	m	MTA	0	0.0	0.0	0.0
139/2	m	YA	18	36.1	11.1	2.8
139/3	i	A	2	5.6	0.0	0.0
51	m	OMA	28	25.0	41.7	11.1
75	f	YMA	21	36.1	22.2	0.0
76	f	YMA	11	25.0	5.6	0.0
3/1	f	OMA	7	5.6	5.6	8.3
3/2	f	MTA	0	0.0	0.0	0.0
4	i	A	0	0.0	0.0	0.0
54	f	OMA	12	30.6	2.8	0.0
55	f	OA	2	0.0	2.8	2.8
56	f	OMA	26	61.1	11.1	0.0
102	m	MTA	31	52.8	27.8	5.6
103	m	OMA	19	41.7	5.6	5.6
104	f	YMA	2	5.6	0.0	0.0
134	m	YA	19	52.8	0.0	0.0
135	f	MTA	6	13.9	2.8	0.0
67	f	MTA	27	58.3	16.7	0.0
109	m	OA	21	16.7	25.0	16.7
110	f	YMA	20	55.6	0.0	0.0
68	f	MTA	19	44.4	8.3	0.0
39	m	OA	24	8.3	50.0	8.3
59	f	YMA	29	80.6	0.0	0.0
57	f	MTA	31	75.0	11.1	0.0
58	f	OMA	3	8.3	0.0	0.0
80	m	OMA	28	52.8	25.0	0.0
81	f	OA	19	25.0	22.2	5.6
84	m	MTA	28	22.2	25.0	30.6
85	f	OMA	33	75.0	13.9	2.8
30	f	MTA	19	50.0	2.8	0.0
73	f	OMA	13	36.1	0.0	0.0
74	m	YMA	14	36.1	2.8	0.0
128	m	MTA	10	11.1	16.7	0.0
131	f	OMA	0	0.0	0.0	0.0
132	i	A	0	0.0	0.0	0.0
133/1	f	OMA	27	47.2	22.2	5.6

Skel n˚	Sex	Age category	n˚ of observable muscle sites	Distribution of muscle scores (%)		
				A (%)	B (%)	C (%)
133/2	f	MTA	0	0.0	0.0	0.0
70	f	OA	10	25.0	2.8	0.0
71	f	OMA	14	38.9	0.0	0.0
72	f	YA	4	11.1	0.0	0.0
89	m	MTA	7	19.4	0.0	0.0
90	f	YMA	6	16.7	0.0	0.0
91	f	OMA	22	55.6	5.6	0.0
92	f	YA	16	44.4	0.0	0.0
94	m	YA	24	58.3	8.3	0.0
124	f	YMA	16	44.4	0.0	0.0
125/2	f	A	0	0.0	0.0	0.0
126	m	OMA	15	19.4	11.1	11.1
127	f	MTA	7	16.7	2.8	0.0
45	m	MTA	26	11.1	38.9	22.2
105	m	OA	5	11.1	2.8	0.0
106	f	MTA	15	36.1	5.6	0.0
108	f	MTA	9	25.0	0.0	0.0
15	m	OMA	6	13.9	2.8	0.0
16	f	OMA	6	16.7	0.0	0.0
18/1	f	OMA	11	22.2	5.6	2.8
18/2	f	OMA	0	0.0	0.0	0.0
9/1	f	OMA	25	27.8	30.6	11.1
10	m	YMA	27	47.2	27.8	0.0
7	f	YMA	0	0.0	0.0	0.0
8	f	MTA	3	2.8	0.0	5.6
6	f	OMA	4	8.3	2.8	0.0
5	f	OMA	16	27.8	16.7	0.0
40	m	OMA	12	25.0	5.6	2.8
42	f	OMA	7	2.8	11.1	5.6
43	f	OA	25	13.9	44.4	11.1
44	m	YMA	17	47.2	0.0	0.0
141/1	m	YA	15	30.6	11.1	0.0
142	f	YMA	0	0.0	0.0	0.0

Table 87: Differences in entheseal changes by enthesis and sex

Enthesis	n°				Intra-population comparison		Inter-population comparison	
	Pleidelsheim		Neresheim		PH	NE	M	F
	M	F	M	F	M * F	M * F	PH * NE	PH * NE
Right side					**p - value**	**p - value**	**p - value**	**p - value**
M. subscapularis (HSC)	32	24	15	23	.634	.299	.123	.323
M. supraspinatus & infraspinatus (HSI)	26	18	8	12	.716	.893	.717	.687
Mm. medial epicondyle (HEM)	25	22	20	32	.083	.010**	.082	.325
Mm. lateral epicondyle (HEL)	22	23	14	25	.469	.988	.970	.534
M. biceps brachii (RBB)	32	37	20	28	.524	.386	.556	.796
M. triceps brachii (UTB)	21	20	23	31	.261	.114	.905	.767
M. pectoralis major (HGP)	47	44	23	23	.006**	.090	.193	.067
M. deltoid (HDE)	51	52	29	48	.879	.317	.269	.975
M. pronator teres (RRP)	30	38	15	26	.012**	.348	.574	.327
Mm. semimembranosus & biceps femoris (CSB)	16	20	15	15	.527	.051*	.479	.586
M. gluteus minimus (FPF)	22	21	14	17	.017*	.280	.600	.488
M. gluteus medius (FMF)	18	18	8	15	.413	.334	.331	.476
M. iliopsoas (FIP)	20	27	16	15	.057(*)	.547	.502	.688
M. quadriceps femoris (PQF)	38	45	12	24	.226	.137	.147	.308
Achilles tendon (CTS)	31	18	9	21	.298	.014**	.004**	.150
M. gluteus maximus (FGF)	45	50	25	34	.029*	.211	.283	.081
Mm. vastus medialis, adductor longus & brevis (FLA)	45	55	34	53	.006**	.008**	.899	.550
M. soleus (TSO)	43	54	25	39	.001**	.001**	.518	.216
Left Side					**p - value**	**p - value**	**p - value**	**p - value**
M. subscapularis (HSC)	26	22	10	15	.938	1.000	.401	.449
M. supraspinatus & infraspinatus (HSI)	22	20	9	9	.849	.051*	.005**	.469
Mm. medial epicondyle (HEM)	32	25	16	25	.158	.044*	.418	1.000
Mm. lateral epicondyle (HEL)	32	25	15	18	.164	.065	.537	.650
M. biceps brachii (RBB)	33	35	24	27	.094	.059(*)	.518	.914
M. triceps brachii (UTB)	25	26	21	29	.731	.096	.325	.083
M. pectoralis major (HGP)	43	43	20	19	.059(*)	.023*	.579	.632
M. deltoid (HDE)	55	51	32	44	.851	.382	.312	.938
M. pronator teres (RRP)	36	37	19	23	.047*	.034*	.193	.750
Mm. semimembranosus & biceps femoris (CSB)	17	18	15	20	.173	.100	.549	.539
M. gluteus minimus (FPF)	19	18	14	18	.430	.426	.266	.159
M. gluteus medius (FMF)	16	18	13	15	.934	.527	.331	.472
M. iliopsoas (FIP)	19	26	16	20	.014**	.353	.337	.460
M. quadriceps femoris (PQF)	37	45	10	20	.019*	.238	.493	.122
Achilles tendon (CTS)	29	19	12	21	.434	.053*	.017*	.201
M. gluteus maximus (FGF)	46	46	27	41	.009**	.393	.175	.007**
Mm. vastus medialis, adductor longus & brevis (FLA)	46	54	33	52	.002**	.002**	.413	.775
M. soleus (TSO)	46	52	21	40	.077	.005**	.082	.781

M = males, F = females; PH = Pleidelsheim, NE = Neresheim; Mann Whitney U test; * significance at p < .05 level, ** significance at p < .01 level

Table 88: Rank-ordering Pleidelsheim. The numbers of individual scores used in calculating the mean are shown in parentheses following the mean score. Top six mean scores for each population are in bold.

Male MMS	Male Rank	Muscle / Side	Female Rank	Female MMS	p - value [a)]
		Right Side			
0.50 (32)	7	M. subscapularis (HSC)	**3**	0.42 (24)	.634
0.27 (26)	18	M. supraspinatus & infraspinatus (HSI)	**5**	0.33 (18)	.716
0.12 (25)	25	Mm. medial epicondyle (HEM)	27	0.00 (22)	.083
0.36 (22)	14	Mm. lateral epicondyle (HEL)	9	0.26 (23)	.469
0.56 (32)	**5**	M. biceps brachii (RBB)	**1**	0.46 (35)	.524
0.19 (21)	22	M. triceps brachii (UTB)	24	0.05 (20)	.261
0.62 (47)	**2**	M. pectoralis major (HGP)	10	0.25 (44)	.006**
0.20 (51)	21	M. deltoid (HDE)	13	0.21 (52)	.879
0.20 (30)	21	M. pronator teres (RRP)	27	0.00 (38)	.012**
0.44 (16)	9	Mm. semimembranosus & biceps femoris (CSB)	7	0.30 (20)	.527
0.45 (22)	8	M. gluteus minimus (FPF)	20	0.10 (21)	.017*
0.06 (18)	27	M. gluteus medius (FMF)	14	0.17 (18)	.413
0.45 (20)	8	M. iliopsoas (FIP)	16	0.15 (27)	.057[(*)]
0.26 (38)	19	M. quadriceps femoris (PQF)	17	0.13 (45)	.226
0.39 (31)	13	Achilles tendon (CTS)	12	0.22 (18)	.298
0.60 (45)	**3**	M. gluteus maximus (FGF)	**6**	0.32 (50)	.029*
0.40 (45)	12	Mm. vastus medialis, adductor longus & brevis (FLA)	19	0.11 (55)	.006**
0.56 (43)	**5**	M. soleus (TSO)	14	0.17 (54)	.001**
		Left Side			
0.42 (26)	10	M. subscapularis (HSC)	**3**	0.42 (22)	.938
0.32 (22)	17	M. supraspinatus & infraspinatus (HSI)	**4**	0.35 (20)	.849
0.19 (32)	22	Mm. medial epicondyle (HEM)	25	0.04 (25)	.158
0.34 (32)	16	Mm. lateral epicondyle (HEL)	15	0.16 (25)	.164
0.70 (33)	**1**	M. biceps brachii (RBB)	**2**	0.43 (35)	.094
0.08 (25)	26	M. triceps brachii (UTB)	18	0.12 (26)	.731
0.42 (43)	10	M. pectoralis major (HGP)	13	0.21 (43)	.059[(*)]
0.22 (55)	20	M. deltoid (HDE)	11	0.24 (51)	.851
0.17 (36)	23	M. pronator teres (RRP)	26	0.03 (37)	.047*
0.41 (17)	11	Mm. semimembranosus & biceps femoris (CSB)	14	0.17 (18)	.173
0.16 (19)	24	M. gluteus minimus (FPF)	23	0.06 (18)	.430
0.06 (16)	27	M. gluteus medius (FMF)	23	0.06 (18)	.934
0.53 (19)	**6**	M. iliopsoas (FIP)	22	0.08 (26)	.014**
0.32 (37)	17	M. quadriceps femoris (PQF)	25	0.04 (45)	.019*
0.45 (29)	8	Achilles tendon (CTS)	**6**	0.32 (19)	.434
0.59 (46)	**4**	M. gluteus maximus (FGF)	8	0.28 (46)	.009**
0.39 (46)	13	Mm. vastus medialis, adductor longus & brevis (FLA)	21	0.09 (54)	.002**
0.35 (46)	15	M. soleus (TSO)	14	0.17 (52)	.077

[a)] Mann Whitney U test; * significance at $p < .05$ level, ** significance at $p < .01$ level

Table 89: Rank-ordering Neresheim. The numbers of individual scores used in calculating the mean are shown in parentheses following the mean score. Top six mean scores for each population are in bold.

Male MMS	Male Rank	Muscle / Side	Female Rank	Female MMS	p - value [a)]
		Right Side			
0.87 (15)	**3**	M. subscapularis (HSC)	**2**	0.61 (23)	.299
0.38 (8)	16	M. supraspinatus & infraspinatus (HSI)	9	0.42 (12)	.893
0.35 (20)	19	Mm. medial epicondyle (HEM)	24	0.03 (32)	.010**
0.36 (14)	18	Mm. lateral epicondyle (HEL)	10	0.36 (25)	.988
0.70 (20)	7	M. biceps brachii (RBB)	7	0.50 (28)	.386
0.17 (23)	24	M. triceps brachii (UTB)	24	0.03 (31)	.114
0.87 (23)	**3**	M. pectoralis major (HGP)	**6**	0.52 (23)	.090
0.34 (29)	20	M. deltoid (HDE)	14	0.21 (48)	.317
0.13 (15)	25	M. pronator teres (RRP)	23	0.04 (26)	.348
0.60 (15)	10	Mm. semimembranosus & biceps femoris (CSB)	15	0.20 (15)	.051*
0.36 (14)	18	M. gluteus minimus (FPF)	16	0.18 (17)	.280
0.00 (8)	26	M. gluteus medius (FMF)	22	0.07 (15)	.334
0.31 (16)	21	M. iliopsoas (FIP)	15	0.20 (15)	.547
0.58 (12)	11	M. quadriceps femoris (PQF)	11	0.25 (24)	.137
1.33 (9)	**1**	Achilles tendon (CTS)	**6**	0.52 (21)	.014**
0.80 (25)	**6**	M. gluteus maximus (FGF)	**5**	0.56 (34)	.211
0.38 (34)	16	Mm. vastus medialis, adductor longus & brevis (FLA)	21	0.08 (53)	.008**
0.68 (25)	8	M. soleus (TSO)	21	0.08 (39)	.001**
		Left Side			
0.60 (10)	10	M. subscapularis (HSC)	**3**	0.60 (15)	1.000
0.00 (9)	26	M. supraspinatus & infraspinatus (HSI)	**5**	0.56 (9)	.051*
0.31 (16)	21	Mm. medial epicondyle (HEM)	23	0.04 (25)	.044*
0.47 (15)	15	Mm. lateral epicondyle (HEL)	20	0.11 (18)	.065
0.83 (24)	**4**	M. biceps brachii (RBB)	8	0.44 (27)	.059(*)
0.24 (21)	22	M. triceps brachii (UTB)	25	0.00 (29)	.096
0.50 (20)	14	M. pectoralis major (HGP)	17	0.16 (19)	.023*
0.34 (32)	20	M. deltoid (HDE)	12	0.23 (44)	.382
0.37 (19)	17	M. pronator teres (RRP)	23	0.04 (23)	.034*
0.53 (15)	12	Mm. semimembranosus & biceps femoris (CSB)	11	0.25 (20)	.100
0.36 (14)	18	M. gluteus minimus (FPF)	13	0.22 (18)	.426
0.23 (13)	23	M. gluteus medius (FMF)	19	0.13 (15)	.527
0.31 (16)	21	M. iliopsoas (FIP)	18	0.15 (20)	.353
0.50 (10)	14	M. quadriceps femoris (PQF)	15	0.20 (20)	.238
1.17 (12)	**2**	Achilles tendon (CTS)	**4**	0.57 (21)	.053*
0.81 (27)	**5**	M. gluteus maximus (FGF)	**1**	0.66 (41)	.393
0.52 (33)	13	Mm. vastus medialis, adductor longus & brevis (FLA)	21	0.08 (52)	.002**
0.67 (21)	9	M. soleus (TSO)	18	0.15 (40)	.005**

[a)] Mann Whitney U test; * significance at $p < .05$ level, ** significance at $p < .01$ level

Table 90: Pleidelsheim - Changes in muscle marking with age: All entheses

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	88.76	7.30	3.93
YAF [16 – 25]	95.73	4.27	0.00
YA Total [16 – 25]	91.53	6.10	2.37
MAM [26 – 45]	73.96	23.06	2.98
MAF [26 – 45]	85.05	13.59	1.36
MA Total [26 – 45]	79.57	18.27	2.16
OAM [46+]	53.15	36.36	10.49
OAF [46+]	77.69	19.47	2.84
OA Total [46+]	66.27	27.33	6.40
AM [18+]	93.94	3.03	3.03
AF [18+]	80.49	19.51	0.00
A Total [18+]	86.49	12.16	1.35
Total M	69.03	25.02	5.95
Total F	82.85	15.35	1.80
Total	76.01	20.14	3.85

Table 91: Pleidelsheim - Changes in muscle marking with age: Upper Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	93.67	3.80	2.53
YAF [16 – 25]	100.00	0.00	0.00
YA Total [16 – 25]	96.18	2.29	1.53
MAM [26 – 45]	77.61	19.40	2.99
MAF [26 – 45]	84.40	14.00	1.60
MA Total [26 – 45]	80.89	16.80	2.32
OAM [46+]	57.27	32.16	10.57
OAF [46+]	71.84	24.90	3.27
OA Total [46+]	64.83	28.39	6.78
AM [18+]	93.75	6.25	0.00
AF [18+]	80.00	20.00	0.00
A Total [18+]	87.10	12.90	0.00
Total M	72.37	21.86	5.76
Total F	80.25	17.62	2.14
Total	76.22	19.79	3.99

Table 92: Pleidelsheim - Changes in muscle marking with age: Lower Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	84.85	10.10	5.05
YAF [16 – 25]	92.31	7.69	0.00
YA Total [16 – 25]	87.80	9.15	3.05
MAM [26 – 45]	69.79	27.23	2.98
MAF [26 – 45]	85.66	13.21	1.13
MA Total [26 – 45]	78.20	19.80	2.00
OAM [46+]	48.51	41.09	10.40
OAF [46+]	83.47	14.11	2.42
OA Total [46+]	67.78	26.22	6.00
AM [18+]	94.12	0.00	5.88
AF [18+]	80.77	19.23	0.00
A Total [18+]	86.05	11.63	2.33
Total M	65.46	28.39	6.15
Total F	85.26	13.25	1.49
Total	75.80	20.48	3.72

Table 93: Neresheim - Changes in muscle marking with age: All entheses

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	84.21	14.47	1.32
YAF [16 – 25]	94.37	5.63	0.00
YA Total [16 – 25]	89.12	10.20	0.68
MAM [26 – 45]	68.08	26.38	5.54
MAF [26 – 45]	79.51	16.84	3.65
MA Total [26 – 45]	75.54	20.16	4.30
OAM [46+]	42.31	39.62	18.08
OAF [46+]	72.53	23.08	4.40
OA Total [46+]	57.79	31.14	11.07
AM [18+]	55.56	33.33	11.11
AF [18+]	100.00	0.00	0.00
A Total [18+]	84.62	11.54	3.85
Total M	59.51	30.37	10.12
Total F	78.98	17.50	3.52
Total	70.99	22.78	6.23

Table 94: Neresheim - Changes in muscle marking with age: Upper Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	78.38	18.92	2.70
YAF [16 – 25]	91.89	8.11	0.00
YA Total [16 – 25]	85.14	13.51	1.35
MAM [26 – 45]	74.05	20.25	5.70
MAF [26 – 45]	80.14	15.68	4.18
MA Total [26 – 45]	77.98	17.30	4.72
OAM [46+]	46.92	40.00	13.08
OAF [46+]	74.22	21.88	3.91
OA Total [46+]	60.47	31.01	8.53
AM [18+]	62.50	25.00	12.50
AF [18+]	100.00	0.00	0.00
A Total [18+]	76.92	15.38	7.69
Total M	63.66	27.93	8.41
Total F	79.65	16.63	3.72
Total	72.91	21.39	5.70

Table 95: Neresheim - Changes in muscle marking with age: Lower Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
YAM [16 – 25]	89.74	10.26	0.00
YAF [16 – 25]	97.06	2.94	0.00
YA Total [16 – 25]	93.15	6.85	0.00
MAM [26 – 45]	61.74	32.89	5.37
MAF [26 – 45]	78.89	17.99	3.11
MA Total [26 – 45]	73.06	23.06	3.88
OAM [46+]	37.69	39.23	23.08
OAF [46+]	71.03	24.14	4.83
OA Total [46+]	55.27	31.27	13.45
AM [18+]	0.00	100.00	0.00
AF [18+]	100.00	0.00	0.00
A Total [18+]	92.31	7.69	0.00
Total M	55.17	32.92	11.91
Total F	78.33	18.33	3.33
Total	69.09	24.16	6.76

Table 96: Pleidelsheim - Mean muscle scores (MMS) for each sex and age category by side

Sex / Age Category	MMS UL R	n°	MMS UL L	n°	MMS LL R	n°	MMS LL L	n°
YAM	0.08	43	0.03	36	0.21	52	0.12	47
MAM	0.21	129	0.13	139	0.25	117	0.22	118
OAM	0.39	107	0.49	120	0.46	104	0.51	98
YAF	0.00	26	0.00	26	0.07	32	0.04	33
MAF	0.12	123	0.14	127	0.14	134	0.07	131
OAF	0.28	122	0.29	123	0.18	127	0.14	121

Table 97: Neresheim - Mean muscle scores (MMS) for each sex and age category by side

Sex / Age Category	MMS UL R	n°	MMS UL L	n°	MMS LL R	n°	MMS LL L	n°
YAM	0.31	22	0.10	15	0.08	19	0.10	20
MAM	0.32	81	0.23	77	0.29	77	0.30	72
OAM	0.40	64	0.38	66	0.57	62	0.40	68
YAF	0.07	26	0.00	11	0.00	17	0.13	17
MAF	0.20	147	0.15	140	0.16	143	0.19	146
OAF	0.28	72	0.13	56	0.29	67	0.29	78

Table 98: Pleidelsheim - Correlation of MMS and age: Males

Enthesis	MMS			p - value [a)]
	YAM	MAM	OAM	
HSCR	0.00	0.24	1.09	.000**
HSCL	0.00	0.14	1.00	.000**
HSIR	0.25	0.23	0.38	NS
HSI L	0.50	0.09	0.63	NS
HEM R	0.00	0.08	0.22	NS
HEM L	0.00	0.00	0.43	.028*
HEL R	0.25	0.36	0.43	NS
HEL L	0.00	0.13	0.75	.004**
RBB R	0.00	0.43	1.00	.003**
RBB L	0.00	0.43	1.21	.000**
UTB R	0.00	0.00	0.44	.042*
UTB L	0.00	0.00	0.18	NS
HGP R	0.25	0.68	0.68	NS
HGP L	0.00	0.50	0.50	NS
HDE R	0.25	0.23	0.16	NS
HDE L	0.00	0.27	0.25	NS
RRP R	0.00	0.18	0.31	NS
RRP L	0.00	0.13	0.25	NS
CSB R	0.00	0.22	1.00	.011**
CSB L	0.00	0.13	0.86	.007**
FPF R	0.00	0.36	0.86	.013**
FPF L	0.00	0.10	0.50	NS
FMF R	0.00	0.11	0.00	NS
FMF L	0.00	0.13	0.00	NS
FIP R	0.00	0.50	0.56	NS
FIP L	0.00	0.50	0.75	NS
PQF R	0.00	0.24	0.46	(.057)
PQF L	0.00	0.13	0.62	.022*
CTS R	0.00	0.36	0.78	.014**
CTS L	0.00	0.33	0.82	.005**
FGF R	0.38	0.44	0.89	.019*
FGF L	0.29	0.40	0.94	.001**
FLA R	0.38	0.29	0.53	NS
FLA L	0.25	0.37	0.56	NS
TSO R	0.67	0.64	0.47	NS
TSO L	0.50	0.47	0.22	NS

[a)] Spearman's Rank Correlation Coefficient test, correlation significant at *p>0.05, **p>0.01 (2-tailed); NS = not significant, ND = no data

Table 99: Pleidelsheim - Correlation of MMS and age: Females

Enthesis	MMS YAF	MMS MAF	MMS OAF	p - value [a)]
HSCR	0.00	0.42	0.50	NS
HSCL	0.00	0.63	0.36	NS
HSIR	0.00	0.25	0.50	NS
HSI L	0.00	0.43	0.40	NS
HEM R	0.00	0.00	0.00	ND
HEM L	0.00	0.08	0.00	NS
HEL R	0.00	0.22	0.40	NS
HEL L	0.00	0.17	0.20	NS
RBB R	0.00	0.27	0.68	.022*
RBB L	0.00	0.47	0.47	NS
UTB R	0.00	0.00	0.11	NS
UTB L	0.00	0.00	0.27	.052(*)
HGP R	0.00	0.24	0.26	NS
HGP L	0.00	0.14	0.33	NS
HDE R	0.00	0.09	0.35	.029*
HDE L	0.00	0.05	0.42	.003**
RRP R	0.00	0.00	0.00	ND
RRP L	0.00	0.00	0.07	NS
CSB R	0.00	0.38	0.33	NS
CSB L	0.00	0.29	0.13	NS
FPF R	0.00	0.00	0.13	NS
FPF L	0.00	0.00	0.00	ND
FMF R	0.00	0.13	0.29	NS
FMF L	0.00	0.14	0.00	NS
FIP R	0.00	0.17	0.18	NS
FIP L	0.00	0.00	0.20	NS
PQF R	0.00	0.25	0.06	NS
PQF L	0.00	0.06	0.05	NS
CTS R	0.00	0.17	0.25	NS
CTS L	0.00	0.33	0.33	NS
FGF R	0.25	0.29	0.36	NS
FGF L	0.00	0.32	0.33	NS
FLA R	0.00	0.17	0.08	NS
FLA L	0.00	0.12	0.09	NS
TSO R	0.40	0.04	0.29	NS
TSO L	0.40	0.08	0.26	NS

[a)] Spearman's Rank Correlation Coefficient test, correlation significant at *p>0.05, **p>0.01 (2-tailed); NS = not significant, ND = no data

Table 100: Neresheim - Correlation of MMS and age: Males

Enthesis	MMS			p - value [a)]
	YAM	MAM	OAM	
HSCR	0.50	0.75	1.20	NS
HSCL	0.00	0.50	0.75	NS
HSIR	0.50	0.00	1.00	NS
HSI L	0.00	0.00	0.00	ND
HEM R	0.00	0.13	0.67	.006**
HEM L	0.00	0.13	1.00	.001**
HEL R	0.00	0.00	0.71	.003**
HEL L	0.50	0.29	0.80	NS
RBB R	0.00	0.60	1.00	NS
RBB L	0.00	0.64	1.22	.007**
UTB R	0.00	0.22	0.18	NS
UTB L	0.00	0.22	0.33	NS
HGP R	1.00	0.69	1.14	NS
HGP L	1.00	0.33	0.67	NS
HDE R	0.50	0.07	0.64	NS
HDE L	0.00	0.25	0.46	NS
RRP R	0.00	0.11	0.25	NS
RRP L	0.00	0.38	0.40	NS
CSB R	0.00	0.57	0.83	NS
CSB L	0.00	0.43	0.67	NS
FPF R	0.33	0.25	0.67	NS
FPF L	0.00	0.33	0.60	NS
FMF R	0.00	0.00	0.00	ND
FMF L	0.00	0.00	0.75	.008**
FIP R	0.00	0.11	1.00	.010**
FIP L	0.00	0.14	0.67	NS
PQF R	0.00	0.50	0.67	NS
PQF L	0.00	0.50	0.50	NS
CTS R	0.00	1.50	1.29	NS
CTS L	0.00	1.50	1.00	NS
FGF R	0.00	0.50	1.63	.000**
FGF L	0.25	0.46	1.50	.000**
FLA R	0.00	0.27	0.56	NS
FLA L	0.00	0.36	0.75	NS
TSO R	0.50	0.58	0.82	NS
TSO L	0.50	0.80	0.56	NS

[a)] Spearman's Rank Correlation Coefficient test, correlation significant at *p>0.05, **p>0.01 (2-tailed); NS = not significant, ND = no data

Table 101: Neresheim - Correlation of MMS and age: Females

Enthesis	MMS YAF	MAF	OAF	p - value*
HSCR	0.50	0.53	0.83	NS
HSCL	0.00	0.67	0.33	NS
HSIR	0.00	0.50	0.33	NS
HSI L	0.00	0.63	0.00	NS
HEM R	0.00	0.05	0.00	NS
HEM L	0.00	0.07	0.00	NS
HEL R	0.00	0.33	0.57	NS
HEL L	0.00	0.15	0.00	NS
RBB R	0.25	0.47	0.67	NS
RBB L	0.00	0.53	0.38	NS
UTB R	0.00	0.00	0.10	NS
UTB L	0.00	0.00	0.00	ND
HGP R	0.50	0.47	0.67	NS
HGP L	0.00	0.08	0.33	NS
HDE R	0.00	0.19	0.36	NS
HDE L	0.00	0.21	0.33	NS
RRP R	0.00	0.00	0.11	NS
RRP L	0.00	0.00	0.13	NS
CSB R	0.00	0.13	0.40	NS
CSB L	0.00	0.27	0.29	NS
FPF R	0.00	0.18	0.25	NS
FPF L	0.00	0.20	0.29	NS
FMF R	0.00	0.00	0.25	NS
FMF L	0.00	0.14	0.14	NS
FIP R	0.00	0.27	0.00	NS
FIP L	0.00	0.20	0.13	NS
PQF R	0.00	0.21	0.38	NS
PQF L	0.00	0.23	0.20	NS
CTS R	0.00	0.50	0.75	NS
CTS L	0.00	0.57	0.67	NS
FGF R	0.00	0.56	0.75	NS
FGF L	0.00	0.68	0.83	NS
FLA R	0.00	0.03	0.18	NS
FLA L	0.00	0.00	0.24	.005**
TSO R	0.00	0.12	0.00	NS
TSO L	0.25	0.12	0.22	NS

[a] Spearman's Rank Correlation Coefficient test, correlation significant at *p>0.05, **p>0.01 (2-tailed); NS = not significant, ND = no data

Table 102: Prevalence of EC in each scoring and age category: Male Burial Groups (intact graves) - Upper Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
Pleidelsheim - M GG			
YAM [16 – 25]	100.0	0.0	0.0
MAM [26 – 45]	76.7	20.5	2.8
OAM [46+]	63.1	26.2	10.6
M GG Total	74.7	20.1	5.2
Pleidelsheim - M N GG			
YAM [16 – 25]	50.0	30.0	20.0
MAM [26 – 45]	100.0	0.0	0.0
OAM [46+]	9.5	76.2	14.3
M N GG Total	38.5	48.7	12.8
Neresheim - M GG			
YAM [16 – 25]	84.6	15.4	0.0
MAM [26 – 45]	83.3	16.7	0.0
OAM [46+]	42.2	42.2	15.6
M GG Total	66.0	27.4	6.6
Neresheim - M N GG			
YAM [16 – 25]	n.d.	n.d.	n.d.
MAM [26 – 45]	n.d.	n.d.	n.d.
OAM [46+]	39.5	44.2	16.3
M N GG Total	39.5	44.2	16.3

Table 103: Prevalence of EC in each scoring and age category: Male Burial Groups (intact graves) - Lower Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
Pleidelsheim - M GG			
YAM [16 – 25]	89.1	10.9	0.0
MAM [26 – 45]	65.5	30.5	4.0
OAM [46+]	45.4	45.4	9.2
M GG Total	62.4	32.5	5.2
Pleidelsheim - M N GG			
YAM [16 – 25]	57.1	7.1	35.7
MAM [26 – 45]	100.0	0.0	0.0
OAM [46+]	0.0	54.5	45.5
M N GG Total	52.8	19.4	27.8
Neresheim - M GG			
YAM [16 – 25]	90.9	9.1	0.0
MAM [26 – 45]	64.9	35.1	0.0
OAM [46+]	44.2	38.5	17.3
M GG Total	57.0	17.0	74.0
Neresheim - M N GG			
YAM [16 – 25]	n.d.	n.d.	n.d.
MAM [26 – 45]	n.d.	n.d.	n.d.
OAM [46+]	38.6	40.9	20.5
M N GG Total	38.6	40.9	20.5

Table 104: Prevalence of EC in each scoring and age category: Female Burial Groups (intact graves) - Upper Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
Pleidelsheim - F GG			
YAF [16 – 25]	100.0	0.0	0.0
MAF [26 – 45]	83.3	15.7	1.0
OAF [46+]	72.7	25.8	1.6
F GG Total	81.6	17.3	1.1
Pleidelsheim - F N GG			
YAF [16 – 25]	n.d.	n.d.	n.d.
MAF [26 – 45]	100.0	0.0	0.0
OAF [46+]	69.6	23.9	6.5
F N GG Total	73.1	21.2	5.8
Neresheim - F GG			
YAF [16 – 25]	94.7	5.3	0.0
MAF [26 – 45]	78.5	17.8	3.7
OAF [46+]	66.7	29.2	4.2
F GG Total	78.7	18.0	3.3
Neresheim - F N GG			
YAF [16 – 25]	n.d.	n.d.	n.d.
MAF [26 – 45]	80.2	15.4	4.4
OAF [46+]	64.6	27.1	8.3
F N GG Total	74.8	19.4	5.8

Table 105: Prevalence of EC in each scoring and age category: Female Burial Groups (intact graves) - Lower Limb

Age category	Muscle scores (% for all sites in all individuals in age category)		
	A	B	C
Pleidelsheim - F GG			
YAF [16 – 25]	93.9	6.1	0.0
MAF [26 – 45]	78.8	20.3	0.9
OAF [46+]	91.9	5.4	2.7
F GG Total	84.7	14.0	1.3
Pleidelsheim - F N GG			
YAF [16 – 25]	n.d.	n.d.	n.d.
MAF [26 – 45]	n.d.	n.d.	n.d.
OAF [46+]	75.4	23.1	1.5
F N GG Total	75.4	23.1	1.5
Neresheim - F GG			
YAF [16 – 25]	100.0	0.0	0.0
MAF [26 – 45]	74.0	23.7	2.3
OAF [46+]	70.0	20.0	10.0
F GG Total	76.6	20.1	3.3
Neresheim - F N GG			
YAF [16 – 25]	n.d.	n.d.	n.d.
MAF [26 – 45]	83.6	11.0	5.5
OAF [46+]	65.2	30.4	4.3
F N GG Total	76.5	18.5	5.0

Table 106: Pleidelsheim - Changes in muscle marking with age: Males with weapons (M W)

Age Category	Muscle Scores (% for all sites in individuals in age category) A	B	C
Upper Limb			
YAM [16 - 25]	100.0	0.0	0.0
MAM [26 - 45]	78.4	18.9	2.6
OAM [46+]	66.0	21.0	13.0
All M W	76.6	17.8	5.6
Lower Limb			
YAM [16 - 25]	89.2	10.8	0.0
MAM [26 - 45]	67.9	28.3	3.7
OAM [46+]	50.0	40.6	9.4
All M W	65.0	30.0	5.0

Table 107: Pleidelsheim - Changes in muscle marking with age: Males without weapons (M NW)

Age Category	Muscle Scores (% for all sites in individuals in age category) A	B	C
Upper Limb			
YAM [16 - 25]	83.9	9.7	6.5
MAM [26 - 45]	75.6	20.5	3.8
OAM [46+]	48.7	42.7	8.5
All M NW	62.8	30.5	6.6
Lower Limb			
YAM [16 - 25]	75.0	13.6	11.4
MAM [26 - 45]	77.1	22.9	0.0
OAM [46+]	50.5	36.8	12.6
All M NW	63.1	27.8	9.1

Table 108: Neresheim - Changes in muscle marking with age: Males with weapons (M W)

Age Category	Muscle Scores (% for all sites in individuals in age category)		
	A	B	C
Upper Limb			
YAM [16 - 25]	90.5	9.5	0.0
MAM [26 - 45]	100.0	0.0	0.0
OAM [46+]	50.0	41.2	8.8
All M W	70.8	24.6	4.6
Lower Limb			
YAM [16 - 25]	95.5	4.5	0.0
MAM [26 - 45]	100.0	0.0	0.0
OAM [46+]	20.8	29.2	50.0
All M W	67.2	13.1	19.7

Table 109: Neresheim - Changes in muscle marking with age: Males without weapons (M NW)

Age Category	Muscle Scores (% for all sites in individuals in age category)		
	A	B	C
Upper Limb			
YAM [16 - 25]	62.5	31.3	6.3
MAM [26 - 45]	72.3	21.6	6.1
OAM [46+]	45.8	39.6	14.6
All M NW	61.9	28.8	9.2
Lower Limb			
YAM [16 - 25]	82.4	17.6	0.0
MAM [26 - 45]	57.5	36.6	6.0
OAM [46+]	41.5	41.5	17.0
All M NW	52.5	37.4	10.1

Table 110: Rank-ordering Pleidelsheim - Weapon burial groups. The numbers of individual scores used in calculating the mean are shown in parentheses following the mean score. Top six mean scores for each population are in bold.

PH M W MMS	PH M W Rank	Muscle / Side	PH M NW Rank	PH M NW MMS	p - value [a)]
		Right Side			
0.47 (19)	**4**	M. subscapularis (HSC)	**3**	0.58 (12)	.483
0.21 (14)	9	M. supraspinatus & infraspinatus (HSI)	8	0.40 (10)	.215
0.14 (14)	13	Mm. medial epicondyle (HEM)	12	0.10 (10)	.759
0.25 (12)	8	Mm. lateral epicondyle (HEL)	**4**	0.56 (9)	.164
0.71 (17)	**2**	M. biceps brachii (RBB)	**5**	0.55 (11)	.438
0.00 (10)	16	M. triceps brachii (UTB)	8	0.40 (10)	.068
0.50 (26)	**3**	M. pectoralis major (HGP)	**1**	0.76 (17)	.137
0.15 (27)	12	M. deltoid (HDE)	9	0.30 (20)	.229
0.06 (17)	15	M. pronator teres (RRP)	8	0.40 (10)	.031*
0.44 (9)	7	Mm. semimembranosus & biceps femoris (CSB)	7	0.50 (6)	.683
0.69 (13)	**2**	M. gluteus minimus (FPF)	13	0.13 (8)	.031*
0.11 (9)	16	M. gluteus medius (FMF)	14	0.00 (8)	.346
0.67 (12)	**3**	M. iliopsoas (FIP)	12	0.14 (7)	.065
0.18 (22)	14	M. quadriceps femoris (PQF)	11	0.38 (13)	.350
0.26 (19)	13	Achilles tendon (CTS)	**3**	0.67 (9)	.173
0.62 (26)	**5**	M. gluteus maximus (FGF)	**4**	0.63 (16)	.841
0.43 (28)	8	Mm. vastus medialis, adductor longus & brevis (FLA)	10	0.43 (14)	1.000
0.46 (26)	**6**	M. soleus (TSO)	**1**	0.79 (14)	.081
		Left Side			
0.36 (14)	**5**	M. subscapularis (HSC)	**5**	0.55 (11)	.419
0.27 (11)	7	M. supraspinatus & infraspinatus (HSI)	**6**	0.44 (9)	.435
0.00 (14)	16	Mm. medial epicondyle (HEM)	7	0.43 (14)	.034*
0.19 (16)	10	Mm. lateral epicondyle (HEL)	**2**	0.67 (12)	.019*
0.89 (18)	**1**	M. biceps brachii (RBB)	**3**	0.58 (12)	.207
0.17 (12)	11	M. triceps brachii (UTB)	13	0.00 (10)	.361
0.35 (26)	**6**	M. pectoralis major (HGP)	**4**	0.56 (16)	.224
0.19 (31)	10	M. deltoid (HDE)	10	0.29 (21)	.324
0.09 (22)	14	M. pronator teres (RRP)	11	0.25 (12)	.218
0.29 (7)	11	Mm. semimembranosus & biceps femoris (CSB)	**4**	0.63 (8)	.350
0.27 (11)	12	M. gluteus minimus (FPF)	14	0.00 (6)	.282
0.13 (8)	15	M. gluteus medius (FMF)	14	0.00 (6)	.386
0.75 (8)	**1**	M. iliopsoas (FIP)	9	0.44 (9)	.309
0.10 (21)	17	M. quadriceps femoris (PQF)	**5**	0.58 (12)	.066
0.29 (17)	11	Achilles tendon (CTS)	**2**	0.70 (10)	.148
0.64 (28)	**4**	M. gluteus maximus (FGF)	**6**	0.53 (15)	.644
0.39 (28)	9	Mm. vastus medialis, adductor longus & brevis (FLA)	8	0.46 (13)	.804
0.32 (28)	10	M. soleus (TSO)	8	0.46 (13)	.588

[a)] Mann Whitney U test; * significance at p < .05 level, ** significance at p < .01 level

Table 111: Rank-ordering Neresheim- Weapon burial groups. The numbers of individual scores used in calculating the mean are shown in parentheses following the mean score. Top six mean scores for each population are in bold.

NE M W MMS	NE M W Rank	Muscle / Side	NE M NW Rank	NE M NW MMS	p - value [a)]
		Right Side			
1.00 (3)	**2**	M. subscapularis (HSC)	**4**	0.83 (12)	.755
1.50 (2)	**1**	M. supraspinatus & infraspinatus (HSI)	13	0.00 (6)	.009**
0.40 (5)	**5**	Mm. medial epicondyle (HEM)	10	0.33 (15)	.792
0.50 (2)	**4**	Mm. lateral epicondyle (HEL)	10	0.33 (12)	.661
0.14 (7)	8	M. biceps brachii (RBB)	**1**	1.00 (13)	.035*
0.20 (5)	7	M. triceps brachii (UTB)	12	0.17 (18)	.865
0.67 (3)	**3**	M. pectoralis major (HGP)	**2**	0.90 (20)	.659
0.00 (5)	9	M. deltoid (HDE)	8	0.42 (24)	.140
0.00 (3)	9	M. pronator teres (RRP)	12	0.17 (12)	.463
0.67 (3)	**5**	Mm. semimembranosus & biceps femoris (CSB)	11	0.38 (13)	.872
0.00 (3)	10	M. gluteus minimus (FPF)	**5**	0.77 (22)	.160
0.00 (3)	10	M. gluteus medius (FMF)	11	0.38 (26)	1.000
0.00 (3)	10	M. iliopsoas (FIP)	10	0.42 (26)	.286
1.00 (2)	**2**	M. quadriceps femoris (PQF)	9	0.45 (11)	.550
0.00 (0)	10	Achilles tendon (CTS)	**6**	0.76 (21)	ND
0.80 (5)	**4**	M. gluteus maximus (FGF)	14	0.20 (10)	.855
0.38 (8)	7	Mm. vastus medialis, adductor longus & brevis (FLA)	12	0.33 (9)	.784
0.25 (4)	9	M. soleus (TSO)	**3**	0.80 (20)	.255
		Left Side			
0.33 (3)	**6**	M. subscapularis (HSC)	**5**	0.67 (6)	.371
0.00 (1)	9	M. supraspinatus & infraspinatus (HSI)	13	0.00 (7)	1.000
0.00 (2)	9	Mm. medial epicondyle (HEM)	9	0.38 (13)	.299
0.00 (1)	9	Mm. lateral epicondyle (HEL)	**6**	0.54 (13)	.397
0.40 (5)	**5**	M. biceps brachii (RBB)	**3**	0.89 (18)	.246
0.40 (5)	**5**	M. triceps brachii (UTB)	11	0.20 (15)	.637
0.67 (3)	**3**	M. pectoralis major (HGP)	7	0.50 (16)	.606
0.14 (7)	8	M. deltoid (HDE)	9	0.38 (24)	.404
0.33 (3)	**6**	M. pronator teres (RRP)	9	0.38 (16)	1.000
0.50 (2)	**6**	Mm. semimembranosus & biceps femoris (CSB)	12	0.33 (12)	1.000
0.50 (4)	**6**	M. gluteus minimus (FPF)	8	0.50 (10)	.497
0.33 (3)	8	M. gluteus medius (FMF)	**1**	1.33 (9)	.644
0.25 (4)	9	M. iliopsoas (FIP)	**2**	1.09 (11)	.936
2.00 (1)	**1**	M. quadriceps femoris (PQF)	7	0.58 (12)	.073
2.00 (1)	**1**	Achilles tendon (CTS)	8	0.50 (12)	.280
1.00 (5)	**2**	M. gluteus maximus (FGF)	13	0.30 (10)	.613
0.86 (7)	**3**	Mm. vastus medialis, adductor longus & brevis (FLA)	15	0.00 (5)	.375
0.00 (3)	10	M. soleus (TSO)	**4**	0.78 (18)	.070

[a)] Mann Whitney U test; * significance at $p < .05$ level, ** significance at $p < .01$ level

Table 112: Rank-ordering Pleidelsheim and Neresheim Weapon Burials. The numbers of individual scores used in calculating the mean are shown in parentheses following the mean score. Top six mean scores for each population are in bold.

PH M W MMS	PH Rank	Muscle / Side	NE Rank	NE M W MMS	p - value [a)]
		Right Side			
0.47 (19)	**4**	M. subscapularis (HSC)	**2**	1.00 (3)	.263
0.21 (14)	9	M. supraspinatus & infraspinatus (HSI)	**1**	1.50 (2)	.012**
0.14 (14)	13	Mm. medial epicondyle (HEM)	**5**	0.40 (5)	.239
0.25 (12)	8	Mm. lateral epicondyle (HEL)	**4**	0.50 (2)	.485
0.71 (17)	**2**	M. biceps brachii (RBB)	8	0.14 (7)	.049*
0.00 (10)	16	M. triceps brachii (UTB)	7	0.20 (5)	.157
0.50 (26)	**3**	M. pectoralis major (HGP)	**3**	0.67 (3)	.513
0.15 (27)	12	M. deltoid (HDE)	9	0.00 (5)	.441
0.06 (17)	15	M. pronator teres (RRP)	9	0.00 (3)	.674
0.44 (9)	7	Mm. semimembranosus & biceps femoris (CSB)	**5**	0.67 (3)	.825
0.69 (13)	**2**	M. gluteus minimus (FPF)	10	0.00 (3)	.070
0.11 (9)	16	M. gluteus medius (FMF)	10	0.00 (3)	.564
0.67 (12)	**3**	M. iliopsoas (FIP)	10	0.00 (3)	.088
0.18 (22)	14	M. quadriceps femoris (PQF)	**2**	1.00 (2)	.184
0.26 (19)	13	Achilles tendon (CTS)	10	0.00 (0)	ND
0.62 (26)	**5**	M. gluteus maximus (FGF)	**4**	0.80 (5)	.859
0.43 (28)	8	Mm. vastus medialis, adductor longus & brevis (FLA)	7	0.38 (8)	.680
0.46 (26)	**6**	M. soleus (TSO)	9	0.25 (4)	.565
		Left Side			
0.36 (14)	**5**	M. subscapularis (HSC)	**6**	0.33 (3)	.937
0.27 (11)	7	M. supraspinatus & infraspinatus (HSI)	9	0.00 (1)	.564
0.00 (14)	16	Mm. medial epicondyle (HEM)	9	0.00 (2)	1.000
0.19 (16)	10	Mm. lateral epicondyle (HEL)	9	0.00 (1)	.716
0.89 (18)	**1**	M. biceps brachii (RBB)	**5**	0.40 (5)	.149
0.17 (12)	11	M. triceps brachii (UTB)	**5**	0.40 (5)	.509
0.35 (26)	**6**	M. pectoralis major (HGP)	**3**	0.67 (3)	.262
0.19 (31)	10	M. deltoid (HDE)	8	0.14 (7)	.882
0.09 (22)	14	M. pronator teres (RRP)	**6**	0.33 (3)	.235
0.29 (7)	11	Mm. semimembranosus & biceps femoris (CSB)	**6**	0.50 (2)	.593
0.27 (11)	12	M. gluteus minimus (FPF)	**6**	0.50 (4)	.312
0.13 (8)	15	M. gluteus medius (FMF)	8	0.33 (3)	.447
0.75 (8)	**1**	M. iliopsoas (FIP)	9	0.25 (4)	.219
0.10 (21)	17	M. quadriceps femoris (PQF)	**1**	2.00 (1)	.006*
0.29 (17)	11	Achilles tendon (CTS)	**1**	2.00 (1)	.050*
0.64 (28)	**4**	M. gluteus maximus (FGF)	**2**	1.00 (5)	.408
0.39 (28)	9	Mm. vastus medialis, adductor longus & brevis (FLA)	**3**	0.86 (7)	.324
0.32 (28)	10	M. soleus (TSO)	10	0.00 (3)	.252

[a)] Mann Whitney U test; * significance at p < .05 level, ** significance at p < .01 level