**Supplementary Data 3. Osteometrics and non-metric variations for the BT1 and BT2 skeletons**

**Abbreviations and symbols used**

M# indicates measurement following the Martin system (Bräuer, 1988). If no indication, the reader needs to see Murail et al. (2005) for a definition of the measurement for the coxal bone, and Sládek et al. (2000) for the other bones. Non-metric variations were recorded following Hauser and De Stefano (1989) for the skull, Scott and Turner (2000) for the dentition, and Finnegan (1978) for the infracranial skeleton. Dental wear was recorded following Smith (1984).

“(##)” indicates a measurement with small degree of estimation.

"[##]" indicates a measurement with an important degree of estimation.

A-P: Antero-posterior

Arti.: Articular

BM: body mass

CA: Cortical area

Circum.: circumference

Diam.: diameter

D-V: Dorso-ventral

Lat.: Lateral

Lt: Left

Max.: Maximum

Med.: Medial

Mb: Mandibular

M-L: Medio-lateral

Mx: Maxillary

Rt: Right

S-I: Supero-inferior

TA: Total area

Table 1. Osteometric dimensions of the neurocranium, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  | M# | BT2 | |
|  |  | Left | Right |
| Glabella-opisthocranion chord | 1 | [191.0] | |
| Nasion-opisthocranion chord | 1d | [189.0] | |
| Glabella-inion chord | 2 | [188.0] | |
| Nasion-inion chord | 2a | [184.0] | |
| Basion-nasion chord | 5 | [151.0] | |
| Maximum cranial breadth | 8 | [136.0] | |
| Porion-bregma height | 20 | [129.5] |  |
| Auricular-bregma arc | 24a | [144.0] | [152.0] |
| Nasion-bregma chord | 29 | 117.6 | |
| Nasion-bregma arc | 26 | 132 | |
| Bregma-lambda chord | 30 | [115.0] | |
| Bregma-lambda arc | 27 | [132.0] | |
| Lambda-inion chord | 31(1) | (58.0) | |
| Bistephanic breadth | 10b | (123.6) | |
| Glabella-bregma arc | 26a | 126.0 | |
| Glabella-bregma chord | 29d | 115.0 | |
| Bregma-asterion chord |  | [150.0] | |
| Biauricular breadth | 11 | [131.0] | |
| Biasterion breadth | 12 | (112.0) | |
| Biporion breadth |  | [124.0] | |
| Mastoid breadth | 13a | 14.5 |  |
| Mastoid height | 19a | 35.6 |  |

Table 2. Osteometric dimensions of the face, in millimeters.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | M# | BT1 | BT2 | |
|  |  | Right | Left | Right | |
| Frontomalare-nasion chord | 43b |  |  | (54.9) | |
| Malar length, inferior | 41b |  |  | 38.5 | |
| Malar length, maximum | 41c |  |  | (58.8) | |
| Cheek height | 48d | 23.0 |  | 30.0 | |
| Bimaxillofrontal breadth | 50 |  | (28.4) | |

Table 3. Osteometric dimensions of the mandible, in millimeters and degrees.

|  |  |  |
| --- | --- | --- |
|  | M# | BT2 |
|  |  | Right |
| Gonion-condyle height | 70 | 57.9 |
| Projected length of the ramus | 70a | (60.0) |
| Minimum height of the ramus | 70(2) | 56.4 |
| Ramus breadth | 71 | 42.1 |
| Minimum ramus breadth | 71a | 42.4 |
| Coronoid height | 70(1) | 71.0 |
| Mandibular notch breadth | 71(1) | 39.7 |
| Greatest depth of the mandibular notch | 70(3) | 12.5 |
| Corpus height mental foramen | 69(1) | 32.8 |
| Corpus breadth mental foramen | 69(3) | 14.7 |
| Corpus height M1-M2 | 69(2) | 30.1 |
| Corpus breadth M1-M2 | 69b | 17.2 |
| Gonial angle | 79 | (116) |

Table 4. Non-metric variation of the skull.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | BT1 | | BT2 | |
|  | Left | Right | Left | Right |
| Metopic suture | Absent | | Absent | |
| Squamomastoid suture |  |  | Absent |  |
| Sutura squamae occipitalis | Absent | | Absent | |
| Sutura mendosa | Absent | | Absent | |
| Os japonicum |  | Absent |  | Absent |
| Trochlear spine |  |  |  | Absent |
| Coronal ossicle |  | | Absent | |
| Sagittal ossicle | Absent | | Absent | |
| Lambdoid ossicle | Present | | Absent | |
| Os preinterparietale | Absent | | Absent | |
| Sutura frontotemporalis |  |  |  | Absent |
| Parietal notch bone |  |  | Absent |  |
| Ossicle at asterion | Present |  | Absent |  |
| Zygomaticofacial foramen |  | Three |  | Two |
| Mastoid foramen |  |  | Present |  |
| Frontal groove | Absent | Absent |  | Absent |
| Supra orbital foramen |  |  | Present | Present |
| Foramen frontale |  |  | Absent | Absent |
| Zygomaxillary tubercle |  | Medium |  | Trace |
| Retromastoid process |  |  | Present | Present |
| Maxillary torus |  |  |  | Absent |
| Auditory exostosis |  |  | Absent |  |
| Suprameatal spine |  |  | Absent |  |
| Suprameatal depression |  |  | Present |  |
| Divided parietal bone |  |  | Absent | Absent |
| Marginal tubercle |  |  |  | Weak |
| Mentale foramen |  |  |  | One |
| Mylohyoid bridge |  |  |  | Partial |

Table 5. Mesiodistal (MD) and buccolingual (BL) diameters of the dental crowns, in millimeters.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | | | BT2 | |
|  |  | Left | | Right | | Right | |
|  |  | BL | MD | BL | MD | BL | MD |
| C | Mx |  |  |  |  | 10.5 | 9.2 |
| P3 | Mx |  |  |  |  | 11.2 | 8.9 |
| P4 | Mx |  |  |  |  | 11.4 | (8.0) |
| M1 | Mx |  |  |  |  | 13.6 | 11.9 |
| I1 | Mb |  |  |  |  | 7.2 | 6.0 |
| I2 | Mb |  |  |  |  | 7.7 | 7.2 |
| C | Mb |  |  |  |  | 9.5 | 8.9 |
| P3 | Mb |  |  | 8.8 | (6.9) | 9.9 | 8.0 |
| P4 | Mb |  |  |  |  | 9.5 | 8.8 |
| M1 | Mb |  |  |  |  | 11.7 | 12.9 |
| M2 | Mb | 10.1 | 10.5 |  |  | 11.8 | 12.2 |
| M3 | Mb | 11.4 | 11.5 |  |  |  |  |

Table 6. Non-metric variation of the teeth.

|  |  |  |  |
| --- | --- | --- | --- |
|  | BT1 | | BT2 |
|  | Left | Right | Right |
| I1 I2 shovel (lower) |  |  | Absent |
| C mesial canine Ridge (upper) |  |  | Present |
| C distal accessory ridge (upper and lower) |  |  | Absent |
| Premolar lingual cusp number > 1 (lower) |  | Absent | Absent |
| Premolar odontome |  |  | Absent |
| Premolar accessory marginal tubercle | Absent |  | Absent |
| P1 disto-saggital ridge (upper) |  |  | Absent |
| M1 Carabelli's (upper) |  |  | Absent |
| M1 cusp 5 (upper) |  |  | Absent |
| Mesial marginal accessory tubercles (upper molars) |  |  | Absent |
| M1 Cusp number (lower) |  |  | Five |
| M2 Cusp number (lower) |  |  | Four |
| M protostylid (lower) |  |  | Absent |
| M2 Groove pattern (lower) |  |  | X pattern |

Table 7. Osteometric dimensions of the vertebrae, in millimeters.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | BT1 | BT2 | | |
|  | M# | T11 or 12 | C6 | C7 | T1 |
| Canal breadth | M11 |  | 26.4 | 23.6 | 19.1 |
| Canal height | M10 |  | 14.0 | 15.7 | 14.1 |
| Caudal body M-L diam. | M8 |  | 25.9 | 26.4 | (33.5) |
| Caudal body A-P diam. | M5 | 38.8 | 16.3 | 17.1 | 17.8 |
| Cranial body A-P diameter | M4 | [40.8] | 14.8 | 16.5 | 16.8 |
| Cranial body M-L diameter | M7 |  | 25.3 | 28.6 | 28.0 |
| Ventral body Height | M1 | 22.3 | 13.8 | 15.1 | 16.9 |
| Dorsal body Height | M2 |  | 15.2 | 16.7 | 18.4 |
| Dorso-Ventral diameter |  |  |  | 64.2 | 64.5 |
| Sup. Facet height Rt |  |  |  | 12.5 | 11.0 |
| Sup. Facet Breadth Rt |  |  |  | 16.3 | 15.7 |
| Sup. Facet height Lt |  |  | 10.2 | 9.4 | 11.4 |
| Sup.Facet Breadth Lt |  |  | 12.7 |  | 16.3 |
| Inf. Facet height Rt |  |  |  | 15.6 | 12.8 |
| Inf. Facet Breadth Rt |  |  |  | 14.6 | 11.1 |
| Inf. Facet height Lt |  |  |  |  | 14.5 |
| Inf. Facet Breadth Lt |  |  |  |  | 14.1 |
| Median body Height | M3 | 25.4 | 12.6 | 13.6 | 16.0 |
| Spine Length |  |  |  | 36.0 | 37.9 |
| Sup. Max. Transverse diam. |  |  |  | 57.2 |  |

Table 8. Osteometric dimensions of the ribs, in millimeters.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | BT1 | BT2 | |
|  | M# | Left rib | 1 | 2? |
| Arti. tubercle breadth |  | 10.1 | 10.8 | 7.9 |
| Arti. tubercle height |  | 11.4 | 7.6 | 7.1 |
| Distal end breadth |  |  | 18.3 |  |
| Distal end height |  |  | 8.4 |  |
| Max. Shaft diameter at angle |  |  | 19.1 |  |
| Midshaft maximum diameter |  |  | 18.9 |  |
| Midshaft minimum diameter |  |  | 6.1 |  |
| Min. Shaft diameter at angle |  |  | 5.8 |  |
| Neck D-V diameter |  |  | 8.8 | 7.2 |
| Neck Length |  |  | 29.5 | 30.6 |
| Neck S-I diameter |  |  | 5.7 | 6.4 |
| Proximal (Head) breadth | M2 |  | 19.5 |  |
| Proximal (Head) height | M1 |  | 6.3 |  |
| Total length |  |  | 74.5 |  |
| Tuberculo-ventral chord |  |  | 84.5 |  |
| Tuberculo-ventral subtense |  |  | 26.9 |  |

Table 9. Osteometric dimensions of the clavicles, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT2 | |
|  | M# | Left | Right |
| Maximum length | 1 |  | 164.0 |
| arti. length |  |  | 160.0 |
| Conoid Length |  |  | 130.9 |
| Mid.Max. diameter |  | 15.4 | 15.0 |
| Mid.Min. diameter |  | 10.7 | 12.3 |
| Mid. S-I diameter | 4 | 10.9 | 12.8 |
| Mid. D-V diameter | 5 | 15.0 | 13.8 |
| Mid. circumference | 6 | 43.5 | 44.5 |
| Mid-Prox. S-I diam. |  |  | 13.1 |
| Mid-Prox. D-V diam. |  |  | 13.8 |
| Mid-Prox. Circum. |  |  | 43.0 |
| Prox. Curv. Chord |  |  | 130.9 |
| Prox. Curv. Subtense |  |  | 25.0 |
| Prox. Curv. Position |  |  | 60.0 |
| Prox. S-I diameter |  |  | 22.6 |
| Prox. D-V diameter |  |  | 20.3 |
| Conoid S-I diam. |  | 10.0 | 10.5 |
| Conoid D-V diam. |  | 16.5 | 20.8 |
| Min. Dist. D-V diam. |  | 17.1 | 18.9 |
| Acromial S-I diam. |  |  | 11.2 |
| Acromial D-V diam. |  |  | 15.5 |
| Whole shaft height | 2a |  | 34.0 |

Table 10. Osteometric dimensions and observations of the scapulae, in millimeters and degrees.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | BT1 | BT2 | |
|  | M# | Left | Left | Right |
| Infraspinal Breadth | M5 |  |  | 121.0 |
| Axillo-Glenoid Angle | M17 |  | 133 | 135 |
| Axillary Length | M3 |  |  | 144.4 |
| Funct. Axillary Length |  |  |  | 154.0 |
| Mid-Axillary Thickness |  |  | 11.1 | 15.0 |
| Morphology of the axillary border |  |  | Ventral | Ventral |
| Spinal Thickness |  | 10.0 |  | 8.4 |
| Gleno-Spinal Dist. |  |  | 42.6 | 45.2 |
| Acromial Breadth | M9 | 30.0 |  | 27.4 |
| Acromial Br. at base |  | 25.0 |  |  |
| Coracoid Length | M11 |  | 44.9 | 45.3 |
| Coracoid Breadth |  |  | 13.9 | 14.9 |
| Coracoid Thickness |  |  | 7.7 | 8.0 |
| Glenoid Max. Height | M12 |  | 39.2 | 42.3 |
| Glenoid Max.breadth | M13 |  | 28.2 | 29.8 |
| Glenoid Arti. Height |  |  | 38.2 | 38.8 |
| Glenoid Arti. Breadth |  |  | 25.9 | 27.6 |
| Glenoid Dep.Chord |  |  | 35.7 | 35.2 |
| Glenoid Dep. Subt. |  |  | 3.9 | 4.3 |

Table 11. Osteometric dimensions and observations of the humeri, in millimeters and degrees.

1 Maximum length estimated from biomechanical length using a least squares regression based on Upper Paleolithic fossils (maximal length = 1.021 \* biomechanical length - 1.962, r2 = 0.993, N = 37). 2 Estimated from radial and femoral mechanical length using the equation based on the Middle Upper Paleolithic sample: humeral mechanical length = - 33.751 + 1.476 \* radial mechanical length; p < 0.0001; r2 = 0.926; n=13.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | BT2 | |
|  | M# | Left | Right | Left | Right |
| Max. length | 1 | [380.0]1 | [380.0]1 | 352.0 | 363.5 |
| Arti. length | 2 |  |  |  | 358.0 |
| Biomechanical length |  | [374.0]2 | [374.0]2 | 346.0 | 358.0 |
| Prox. epiphysis breadth | 3 |  |  | 51.5 | 52.8 |
| Dist.epicondylar breadth | 4 |  |  | 60.0 | 61.6 |
| Mid max. diam. | 5 | 23.3 |  | 22.5 | 25.4 |
| Mid min. diam. | 6 | 17.8 |  | 18.4 | 20.0 |
| Mid circum. | 7a | 68.0 |  | 69.0 | 72.0 |
| Distal min. circum. | 7 | 65.0 | 72.0 | 64.0 | 70.0 |
| Supracondylar A-P |  | 16.0 | 19.7 | 15.7 | 18.6 |
| Longitudinal head diam. | 10 |  |  | 49.6 | 51.1 |
| Transverse head diameter | 9 |  |  |  | 46.1 |
| Distal arti. breadth | 12a |  |  |  | 46.1 |
| Capitular breadth | 12 |  |  |  | 18.5 |
| Trochlear breadth- crest | 11 |  |  | 27.1 | 26.9 |
| Trochlear medial A-P | 13 |  |  | 24.8 | 28.6 |
| Olecranon fossa breadth | 14 |  |  | 29.3 | 30.7 |
| Olecranon fossa depth | 15 | 12.3 |  | 12.2 | 12.5 |
| Septal aperture |  |  |  | Absent | Absent |
| Med. Pillar thickness |  | 10.4 |  | 10.0 | 12.1 |
| Lat. Pillar thickness |  |  |  | 15.3 | 15.3 |
| Cubital angle | 16 |  |  | 80 | 78 |
| Torsion angle | 18 |  |  |  | 140 |

Table 12. Cross-sectional properties of the humeri.

1: Section 35%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Section 50%.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | BT1 | | BT2 | |
|  | Left | Right | Left | Right |
| Mid-distal1 TA | 322.8 | 426.7 | 312.0 | 398.2 |
| Mid-distal TA (stand)2 | 413.2 | 546.1 | 427.1 | 545.1 |
| Mid-distal CA | 255.1 | 350.3 | 234.5 | 328.4 |
| Mid-distal CA (stand)3 | 326.5 | 448.4 | 321.1 | 449.5 |
| Mid-distal J | 16377.3 | 28504.7 | 14856.3 | 24792.8 |
| Mid-distal Zp (stand)4 | 40.8 | 61.2 | 43.9 | 61.7 |
| Mid-shaft5 TA |  |  | 342.3 | 423.1 |
| Mid-shaft TA (stand) |  |  | 468.6 | 579.2 |
| Mid-shaft CA |  |  | 246.7 | 316.8 |
| Mid-shaft CA (stand) |  |  | 337.7 | 433.7 |
| Mid-shaft J |  |  | 17604.7 | 27457.4 |
| Mid-shaft Zp (stand) |  |  | 49.7 | 66.5 |

Table 13. Osteometric dimensions of the ulnae, in millimeters and degrees.

1 Estimated from left side using a regression equation based on the Upper Paleolithic sample: right ulnar mechanical length = - 9.9632 + 1.04931 \* left ulnar mechanical length; p < 0.0001; r2 = 0.970; n = 17.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT2 | |
|  | M# | Left | Right |
| Total length | 2(1) | 287.0 |  |
| Arti. length | 2 | 259.0 |  |
| Biomech. length |  | 264.5 | [268.0]1 |
| Crest A-P diameter | 11 | 17.1 |  |
| Crest M-L diameter | 12 | 16.2 |  |
| Midshaft A-P diam. |  | 17.2 |  |
| Midshaft M-L diam. |  | 16.1 |  |
| Proximal shaft A-P diam. | 14 | 23.8 | 22.4 |
| Proximal shaft M-L diam. | 13 | 24.1 | 24.1 |
| Midshaft circum. |  | 49.5 |  |
| Dist. min. circum. | 3 | 40.0 |  |
| Olecranon length | 8 | 22.3 | 25.9 |
| Olecranon breadth | 6 |  | 27.4 |
| Olecranon height | 7 | 24.4 | 25.8 |
| Troch. notch chord | 7(1) | 24.8 | 25.5 |
| Diaph. sag. trc. angle | 15a | 17 | 20 |

Table 14. Cross-sectional properties of the ulnae.

1: Section 66%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Section 50%.

|  |  |  |
| --- | --- | --- |
|  | BT2 | |
|  | Left | Right |
| Mid-proximal1 TA | 201.5 | 229.8 |
| Mid-proximal TA (stand)2 | 275.9 | 314.6 |
| Mid-proximal CA | 157.2 | 191.3 |
| Mid-proximal CA (stand)3 | 215.2 | 314.6 |
| Mid-proximal J | 6356.6 | 8543.9 |
| Mid-Proximal Zp (Stand)4 | 30.9 | 37.9 |
| Mid-proximal bilateral asymmetry | 34.4 | |

Table 15. Osteometric dimensions and observations of the radii, in millimeters and degrees.

1 Maximum length estimated from biomechanical length using a least squares regression based on Upper Paleolithic fossils (maximal length = 1.048 \* articular length + 2.098, r2 = 0.985, N = 40). 2 Length approximated from fragment by comparison with Barma Grande 2.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | BT2 |
|  | M# | Right | Left |
| Maximum length | 1 | [291.4]1 | 268.0 |
| Arti. length | 2 | [276.0]2 | 254.0 |
| Prox. A-P diameter |  | 17.1 | 13.3 |
| Prox. M-L diameter |  | 12.2 | 13.1 |
| Prox. circumference |  | 49.0 | 41.5 |
| Crest A-P diameter | 5 | 13.8 | 13.2 |
| Crest M-L diameter | 4 | 17.8 | 16.2 |
| Mid A-P diameter | 5a | 13.9 | 13.3 |
| Mid M-L diameter | 4a | 17.6 | 15.7 |
| Mid circumference | 5(5) | 49.0 | 44.0 |
| Distal Circum. | 3 | 49.0 | 44.0 |
| Head-Neck length | 1a |  | 34.6 |
| Neck-Shaft angle | 7 |  | 9 |
| Head A-P diameter | 5(1) |  | 25.0 |
| Head M-L diameter | 4(1) |  | 25.0 |
| Neck A-P diameter | 5(2) | 13.9 | 13.7 |
| Neck M-L diameter | 4(2) | 12.2 | 12.4 |
| Neck circumference | 5(4) | 43.0 | 42.0 |
| Tuberosity position |  | 2 | 2/3 |
| Distal breadth | 5(6) |  | 33.0 |

Table 16. Cross-sectional properties of the radii.

1: Section 50%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Section 66%.

|  |  |  |
| --- | --- | --- |
|  | BT1 | BT2 |
|  | Right | Left |
| Mid-shaft1 TA | 179.7 | 145.3 |
| Mid-shaft TA (stand)2 | 230.1 | 198.9 |
| Mid-shaft CA | 166.9 | 119.8 |
| Mid-shaft CA (stand)3 | 213.6 | 163.9 |
| Mid-shaft J | 5441.0 | 3342.7 |
| Mid-shaft Zp (stand)4 | 24.7 | 20.1 |
| Mid-proximal5 TA | 181.2 | 146.9 |
| Mid-proximal TA (stand) | 232 | 201.1 |
| Mid-proximal CA | 165.7 | 109.7 |
| Mid-proximal CA (stand) | 212.1 | 150.2 |
| Mid-proximal J | 5493.7 | 3264.4 |
| Mid-proximal Zp (stand) | 24.9 | 19.8 |

Table 17. Osteometric dimensions of the trapezium, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Right |
| Maximum length | 1 | 17.4 |
| Maximum breadth | 2 | 26.4 |
| Maximum height | 3 | 17.5 |
| Scaphoid arti. height | 7 | (11.7) |
| Scaphoid arti. breadth | 6 | 10.1 |
| Trapezium arti. breadth | 8 | 9.4 |
| Metacarpal 1 arti. height | 5 | 12.0 |
| Metacarpal 1 arti. breadth | 4 | 17.0 |
| Metacarpal 2 arti. height | 11 | 6.7 |
| Metacarpal 2 arti. breadth | 10 | (5.2) |

Table 18. Osteometric dimensions of the triquetrals, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | BT2 |
|  | M# | Right | Left |
| Maximum length | 1 | 13.5 | 13.6 |
| Maximum breadth | 2 |  | 19.2 |
| Maximum height | 3 | 14.2 | 15.8 |
| Hamate arti. breadth | 4 |  | 16.1 |
| Hamate arti. height | 5 | 12.6 | 11.4 |
| Lunate arti. length | 7 | 10.6 | 9.3 |
| Lunate arti. breadth | 6 | 10.8 | 10.8 |
| Pisiform arti. length | 8 | (12.8) | 11.7 |
| Pisiform arti. breadth | 9 | 9.8 | 8.3 |

Table 19. Osteometric dimensions of the capitate, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Maximum length | 1 | 25.0 |
| Maximum breadth | 2 | 15.3 |
| Maximum height | 3 | 20.9 |
| Arti. length | 4 | 8.6 |
| Proximal arti. breadth | 5 | 14.2 |
| Proximal arti. height | 7 | (13.6) |
| Distal max arti. height | 7 | (19.9) |
| Distal max arti. breadth | 8 | 13.9 |
| Hamate arti. length | 9 | 19.3 |
| Hamate arti. height | 10 | 10.0 |
| Metacarpal 2 arti. height |  | 13.9 |
| Metacarpal 2 arti. breadth |  | 5.0 |
| Metacarpal 3 arti. height |  | (17.7) |
| Metacarpal 3 arti. breadth |  | 8.4 |

Table 20. Osteometric dimensions of the hamate, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Maximum length | 1 | 21.9 |
| Maximum breadth | 2 | 16.8 |
| Maximum height | 3 | 21.9 |
| Body height | 4 | 14.1 |
| Metacarpal arti. height | 7 | (11.9) |
| Metacarpal arti. breadth | 8 | 15.7 |
| Capitate arti. length | 9 | 20.3 |
| Capitate arti. height | 10 | 10.1 |
| Triquetral arti. length | 11 | 18.3 |
| Triquetral arti. height | 12 | 11.4 |
| Hamulus Length | 14 | 9.7 |
| Hamulus Thickness | 15 | 4.4 |
| Hamulus Projection | 5 | 7.8 |
| Arti. length |  | 19.9 |
| Metacarpal 4 arti. breadth |  | 7.7 |
| Metacarpal 5 arti. breadth |  | 7.8 |

Table 21. Osteometric dimensions of the pisiform, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Maximum length | 1 | 13.8 |
| Maximum breadth | 2 | 10.0 |
| Maximum thickness | 3 | 9.5 |
| Triquetral arti. length | 4 | 10.1 |
| Triquetral arti. breadth | 5 | 10.5 |

Table 22. Osteometric dimensions of the trapezoid, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Maximum length | 1 | 17.6 (patho) |
| Maximum breadth | 2 | 13.0 |
| Maximum Height | 3 | 15.3 |
| Scaphoid arti. breadth | 4 | 7.2 |
| Trapezium arti. breadth | 6 | 10.2 |
| Trapezium arti. height | 7 | 13.1 |

Table 23. Osteometric dimensions of the first metacarpals, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | BT2 |
|  | M# | Left | Left |
| Maximum length | 2 | 51.4 | 49.0 |
| Arti. length |  | 50.6 | 48.5 |
| Midshaft breadth |  | 15.2 | 13.0 |
| Midshaft height |  | 9.5 | 8.9 |
| Proximal maximum breadth |  |  | 16.5 |
| Proximal maximum Height |  | 17.1 | 15.8 |
| Proximal arti. breadth |  | 15.1 | 15.0 |
| Proximal arti. height |  | 14.7 | 13.3 |
| Distal height |  | 13.7 | 14.3 |
| Distal arti. breadth |  | 16.7 | 15.6 |
| Distal Maximum breadth |  | 17.9 | 16.5 |

Table 24. Osteometric dimensions of the second metacarpals, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | BT2 |
|  | M# | Right | Left |
| Maximum length | 2 | 75.4 | 74.7 |
| Arti. length |  | 71.6 | 70.6 |
| Midshaft breadth |  | 9.8 | 9.3 |
| Midshaft height |  | 8.8 | 8.7 |
| Proximal Maximum Height |  | 19.7 | 18.2 |
| Proximal Maximum breadth |  | 18.2 (patho) | 20.0 (patho) |
| Trapezoid arti. breadth |  | 11.9 | 9.4 |
| Trapezoid arti. height |  | 12.6 (patho) | 18.2 (patho) |
| Trapezium arti. breadth |  | 6.4 |  |
| Capitate arti. breadth |  | 4.2 | 5.3 |
| Distal maximum breadth |  | 15.3 | 15.3 |
| Distal height |  | 13.4 | (17.0) |
| Distal arti. breadth |  | 14.4 |  |

Table 25. Osteometric dimensions of the third metacarpals, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | BT2 |
|  | M# | Right | Left |
| Maximum length | 2 |  | 73.2 |
| Arti. length |  |  | 69.4 |
| Midshaft height |  | 10.6 | 9.6 |
| Midshaft breadth |  | 9.6 | 8.4 |
| Proximal maximum Height |  | 18.4 | 18.2 |
| Proximal maximum breadth |  | 14.4 | 12.6 |
| Capitate arti. height |  | 15.6 | 15.7 |
| Capitate arti. breadth |  | 11.5 | 12.3 |
| Distal maximum breadth |  |  | 14.4 |
| Distal arti. breadth |  |  | 14.2 |
| Distal height |  |  | 14.5 |

Table 26. Osteometric dimensions of the fourth metacarpal, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Midshaft Breadth |  | 6.2 |
| Midshaft Height |  | 6.9 |
| Proximal Maximum Height |  | 11.8 |
| Proximal maximum breadth |  | 11.4 |
| Hamate arti. height |  | 11.1 |
| Hamate arti. breadth |  | 6.9 |

Table 26. Osteometric dimensions of the fifth metacarpal, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left |
| Maximum length | 2 | (56.7) |
| Arti. length |  | (54.1) |
| Midshaft breadth |  | 8.9 |
| Midshaft height |  | 7.0 |
| Proximal maximum height |  | 12.0 |
| Proximal maximum breadth |  | 14.0 |
| Proximal arti. height |  | 11.4 |
| Proximal arti. breadth |  | 10.7 |
|  |  |  |

Table 27. Osteometric dimensions of the proximal phalanges, in millimeters.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | | | BT2 | | | | |
|  | M# | Right I | Right II | Right V | Left (?) III | Left I | Left II | Left III | Left IV | Left V |
| Arti. length |  | 33.5 | 42.8 | 33.9 | 43.1 | 30.4 | 41.2 | 46.3 | 42.3 | 34.1 |
| Maximum length | 3 | 34.7 | 45.7 | 36.3 | 44.9 | 32.5 | 43.5 | (48.4) | 43.7 | 35.7 |
| Midshaft breadth |  | 11.9 | 11.2 | 9.4 | 10.8 | 10.0 | 10.5 | 11.2 | 10.2 | 8.7 |
| Midshaft height |  | 7.8 | 7.3 | 6.3 | 7.1 | 6.4 | 7.2 | 7.6 | 6.6 | 6.0 |
| Distal breadth |  | 15.0 | 12.5 | 10.8 | (11,6) | 14.0 | 12.7 | 13.4 | 12.4 | 10.3 |
| Distal arti. breadth |  | 12.4 | 10.9 | 8.2 | 8.6 | 11.8 | 10.7 | 10.4 | 9.6 | 7.8 |
| Distal height |  | 9.6 | 9.0 | 7.0 |  | 9.2 | 8.5 | 9.2 | 8.1 | 6.9 |
| Proximal max. height |  | 12.4 | 12.3 | 10.8 |  | 12.0 | 11.9 |  | 11.7 | 10.3 |
| Proximal arti. height |  |  | 10.8 | 9.6 | 12.1 | 11.8 | 11.0 |  | 9.8 | 9.6 |
| Proximal max. breadth |  | 17.2 | 18.3 | 14.8 |  | 16.4 | 16.5 |  | 13.5 | 13.9 |
| Proximal arti. breadth |  | 16.3 | 13.6 | 11.9 |  | 15.7 | 14.0 |  | 12.2 | 12.0 |

Table 28. Osteometric dimensions of intermediate phalanges, in millimeters.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | | BT2 | | | |
|  | M# | Right | Right | Right | Left II | Left III | Left IV | Left V |
| Arti. length |  | 30.7 | 25.8 | 20.7 | 25.4 | 30.1 | 28.6 | 20.3 |
| Maximum length | 3 | 32.7 | 27.2 |  | 26.9 | 32.7 | 30.7 | 21.8 |
| Midshaft breadth |  | 9.6 | 8.1 | 8.0 | 8.3 | 9.3 | 9.1 | 7.5 |
| Midshaft height |  | 5.7 | 4.8 | 4.8 | 5.7 | 5.9 | 5.0 | 4.4 |
| Distal breadth |  | 10.8 | 10.1 | 9.3 | 10.3 | 11.2 | 10.3 | 9.1 |
| Distal arti. breadth |  | 9.7 | 9.1 | 7.7 | 8.5 | 9.1 | 8.9 | 8.0 |
| Distal height |  | 6.7 | 6.5 | 5.4 | 6.5 | 6.5 | 5.6 | 4.7 |
| Proximal maximum height |  | 10.1 | 9.4 |  | 9.6 | 10.5 | 9.8 | 8.5 |
| Proximal arti. height |  | 8.6 | 8.5 |  | 8.7 | 9.4 | 8.6 | 7.3 |
| Proximal maximum breadth |  | 14.4 | 13.1 |  | 12.9 | 14.0 | 12.9 | 11.2 |
| Proximal arti. breadth |  | 13.1 | 12.3 |  | 12.6 | 13.6 | 12.1 | 10.1 |

Table 29. Osteometric dimensions of the distal phalanges, in millimeters.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | BT1 | | | | BT2 | | | | |
|  | Right II | Right III | Right IV | Right V | Left I | Left II | Left III | Left IV | Left V |
| Arti. length |  | 18.2 | 17.5 | 16.4 | 24.3 | 18.7 | 18.7 | 18.9 | 17.6 |
| Maximum length |  | 18.7 | 18.4 | 17.2 | 26.1 | 19.4 | 20.2 | 19.9 | 18.3 |
| Midshaft breadth | 5.0 | 5.8 | 5.0 | 3.9 | 8.1 | 5.1 | 5.8 | 5.6 | 4.3 |
| Midshaft height | 3.0 | 3.7 | 3.8 | 2.7 | 5.1 | 3.6 | 3.6 | 3.5 | 2.9 |
| Distal breadth |  | 7.4 | 6.8 | 5.4 | 9.2 | 6.6 | 7.4 | 7.6 | 5.4 |
| Distal height |  | 4.0 | 3.4 | 3.3 | 3.6 | 3.0 | 3.8 | 4.1 | 3.1 |
| Proximal maximum height | 6.1 | 7.0 | 6.3 | 5.3 | 8.8 | 6.2 | 6.9 | 6.1 | 5.6 |
| Proximal arti. height | 4.7 |  | 5.2 | 4.9 | 8.0 | 6.0 | 6.5 | 5.2 | 5.4 |
| Proximal maximum breadth | 10.5 | 11.3 | 10.8 | 9.1 | 14.3 | 10.3 | 11.0 | 10.4 | 8.9 |
| Proximal arti. breadth | 8.8 | 9.7 | 9.3 | 8.3 | 13.0 | 10.0 | 9.6 | 9.5 | 8.0 |

Table 30. Osteometric dimensions and observations of the coxal bone, in millimeters. All the measurements were used to assed the sex of BT2, following Murail et al. (2005). The observations follow the scoring systems of Brůžek (2002) and Schmitt (2005).

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | BT2 |
|  | M# | Murail et al. 2005 | Left |
| Coxal length | 1 | DCOX | 229.0 |
| Coxal breadth | 12 | SCOX | 159.0 |
| Greater sciatic notch height | 15.1 | IIMT | 37.8 |
| Cotylo-sciatic breadth | 14.1 | SIS | 38.6 |
| Cotylo-pubic width |  | SPU | 27.5 |
| Spino-sciatic length |  | SS | 81.0 |
| Spino-auricular length |  | SA | 77.8 |
| Preauricular surface |  |  | M |
| *Development of negative relief* |  |  | m |
| *Presence of grooves or pitting* |  |  | m |
| *Development of positive relief* |  |  | i |
| Great sciatic notch |  |  | M |
| *Proportions of lengths of sciatic notch cords* |  |  | m |
| *Form of contour notch chords* |  |  | m |
| *Course of the contour above the posterior chord* |  |  | f |
| Composite arch |  |  | M |
| Transverse organization (SSPIA) |  |  | 2 |
| Modification of the articular surface (SSPIB) |  |  | 1 |
| Modification of the iliac tuberosity (SSPIC) |  |  | 1 |
| Apical modification (SSPID) |  |  | 1 |
|  |  |  |  |

Table 31. Osteometric dimensions and observations of the femora, in millimeters and degrees.

1: Estimated using a regression based on femoral bicondylar length using 50 modern femora (r2 = 0.996), (Trinkaus, et al., 2006). 2: Estimated using a regression based on femoral biomechanical length using 13 MUP femora (r2=0.992) (Trinkaus, et al., 2006).3: Estimated using the regression equation between tibial and femoral mechanical length calibrated on the rest of the Middle Upper Palaeolithic sample: femoral length = 31.058 + 1.105 \* tibial length; p < 0.0001; r2 = 0.846; n=18. 4: The medial condyle is damaged and was virtually reconstructed in 3D for measurement by using the distal portion of BT1 femur. 5: Estimated using a regression based on femoral lateral condyle AP diameter using 40 modern femora (r2 = 0.886), (Trinkaus and Ruff, 2012). 7: Estimated using a regression based on femoral lateral condyle height and breadth, and femoral neck diameters using 40 modern femora (r2 = 0.886; Trinkaus, pers. comm.).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | BT2 | |
|  | M# | Right | Left | Right | Left |
| Maximum length1 | 1 |  | [486.3] | [488.3] |  |
| Bicondylar length2 | 2 |  | [486.1] | [488.2] |  |
| Bicond. Trochantanteric | 4 |  |  | (469.0) |  |
| Biomechanical length |  |  | [456.0]3 | [458.0]4 |  |
| Anterior curvature chord | 27 |  | (290.0) |  |  |
| Mid A-P diam. | 6 | 40.6 | 39.2 | 38.8 | 36.4 |
| Mid M-L diam. | 7 | 30.2 | (29.3) | 28.3 | 28.9 |
| Mid Circum. | 8 | 112.0 |  | 106.0 | 104.0 |
| Prox. M-L diam. | 9 | 39.1 | 41.9 | 36.7 | 37.6 |
| Prox. A-P diam. | 10 | 32.9 | 32.1 | 31.1 | 31.8 |
| Prox. Peri |  | 112.0 | 114.0 | 107.0 | 108.0 |
| Neck S-I diam. | 15 |  |  | 36.7 | 35.9 |
| Neck A-P diam. | 16 |  |  | 28.3 | 27.0 |
| Neck circumference | 17 |  |  | 106.0 | (106.0) |
| Head S-I diam. | 18 |  | [51.1]5 | [49.0]6 |  |
| Neck shaft angle | 29 |  |  | 125.0 | 120.0 |
| Bicondylar Angle | 30 |  | 7.0 |  |  |
| Glut. Tub. Br. |  | 14.6 | 13.9 | 11.1 | 12.1 |
| Hypotroch. Fossa |  | Present | Present | Present | Present |
| 3rd Trochanter |  |  | Present | Absent | Absent |
| Lesser Troch. Projection |  |  |  | 39.8 | 43.4 |
| Lesser Troch. Position- Gr. Troch. |  |  |  | 58.8 | 60.3 |
| Lateral Condyle Breadth | 21e |  |  | 26.7 |  |
| Intercondylar Breadth |  |  | 24.5 |  |  |
| Medial Patellar Projection |  |  | (70.8) |  |  |
| Lateral Patellar Projection | 22 |  | (70.3) |  |  |
| Median Patellar Projection |  |  | 70.0 |  |  |
| Patellar Surface Circum. |  |  | 47.0 |  |  |
| Lateral condyle Height | 25 |  | 41.2 | 39.1 |  |
| Medial condyle Height | 26 |  | 37.9 |  |  |

Table 32. Cross-sectional properties of the femora.

1: Section 50%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Ratio of the antero-posterior bending moment on the medio-lateral bending moment of the section.

|  |  |  |
| --- | --- | --- |
|  | BT1 | BT2 |
|  | Right | Right |
| Mid-shaft1 TA | 806.0 | 763.2 |
| Mid-shaft TA (stand)2 | 1031.7 | 1044.8 |
| Mid-shaft CA | 550.1 | 610.7 |
| Mid-shaft CA (stand)3 | 704.1 | 836.1 |
| Mid-shaft J | 102753.2 | 99816.7 |
| Mid-shaft Zp (stand)4 | 127.8 | 133.3 |
| Shape index Ix/Iy5 | 1.97 | 2.02 |

Table 33. Osteometric dimensions and observations of the patella, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Right |
| Maximum Height | 1 | 43.6 |
| Maximum breadth | 2 | 50.6 |
| Maximum thickness | 3 | 23.1 |
| Arti. height | 4 | 33.7 |
| Arti. breadth |  | (48.7) |
| Median Facet breadth | 5 | (21.4) |
| Lateral Facet breadth | 6 | 28.9 |
| Vastus notch |  | Present |

Table 34. Osteometric dimensions and observations of the tibiae, in millimeters and degrees.

1: Estimated from biomechanical length using a least squares regression based on Upper Paleolithic fossils (Lateral total length = 1.024 \* biomechanical length + 5.218, r2 = 0.999, N = 15). 2: Proximal portion missing; length estimated by comparison with BG5, whose nutrient foramen lies at the same level when the distal articular surfaces are placed as the same level. 3 Estimated using the regression equation between tibial and femoral mechanical length calibrated on the rest of the Middle Upper Paleolithic sample: tibial length = 34.084 + 0.766 \* femoral length; p < 0.0001; r2 = 0.846 n=18.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | BT2 | |
|  | M# | Right | Left | Right | Left |
| Lateral total length | 1 | [399.5]1 |  | [399.5]1 |  |
| Biomechanical length |  | [385.0]2 |  | [385.0]3 |  |
| Anterior Curv. chord |  |  |  | 255.0 |  |
| Distal Max. breadth | 6 |  | (52.0) |  |  |
| Prox. A-P Dia | 8a |  |  | 39.8 |  |
| Prox. M-L Dia | 9a | 26.9 |  | 29.1 |  |
| Prox. Circum. | 10a |  |  | 107.0 |  |
| Mid. A-P diameter | 8 | 36.0 |  | 34.3 | 37.0 |
| Mid. M-L diameter | 9 | 27.2 |  | 27.1 | 27.1 |
| Mid. circumference | 10 | 102.0 |  | 91.0 | 96.0 |
| Distal Min. Circum | 10b | 90.0 | 95.0 | 85.5 |  |
| Medial Condyle Breadth | 3a |  |  |  | 34.1 |
| Lateral Condyle Breadth | 3b |  |  | (40.0) |  |
| Medial Retroversion Angle | 12 |  |  |  | (11) |
| Medial Condyle Depth | 4a |  |  |  | (52.3) |
| Lateral Condyle Depth | 4b |  |  | (45.9) |  |
| Interbercular Distance |  |  |  | 11.6 |  |
| Minimum transverse diameter at the tuberosity | 5 |  |  | 37.8 |  |
| Max. A-P. diameter at the tuberosity | 4 |  |  | 47.7 | 47.1 |
| Distal Max. depth | 7 |  | 43.2 |  |  |
| Talar arti. breadth |  |  | 33.6 |  |  |
| Lateral Talar Depth |  |  | 33.0 |  |  |
| Medial Squatting Facet |  |  | Absent |  |  |
| Lateral Squatting Facet |  |  | Absent |  |  |
| Flexor Line |  | Present | Present | Present | Present |

Table 35. Cross-sectional properties of the tibiae.

1: Section 50%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Ratio of the maximum bending moment on the minimum bending moment of the section.

|  |  |  |
| --- | --- | --- |
|  | BT1 | BT2 |
|  | Right | Right |
| Mid-shaft1 TA | 692.3 | 642.2 |
| Mid-shaft TA (stand)2 | 886.1 | 879.1 |
| Mid-shaft CA | 552.5 | 489.6 |
| Mid-shaft CA (stand)3 | 707.1 | 670.3 |
| Mid-shaft J | 82726.6 | 69381.9 |
| Mid-shaft Zp (stand)4 | 129.3 | 121.7 |
| Shape index Imax/Imin5 | 2.29 | 1.89 |

Table 36. Osteometric dimensions of the fibula, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Right |
| Mid.Max. diameter | 2 | 19.3 |
| Mid.Min. diameter | 3 | 15.6 |
| Neck Max. Diam. |  | 13.9 |
| Neck Min. Diam. |  | 7.9 |
| Neck circumference | 4a | 35.0 |

Table 37. Cross-sectional properties of the fibula.

1: Section 50%. 2: 100\*TA /BM. 3: 100\*CA /BM. 4: 1000\*(J^0.73) / (BM\*biomechanical length).5: Ratio of the maximum bending moment on the minimum bending moment of the section.

|  |  |
| --- | --- |
|  | BT2 |
|  | Right |
| Mid-shaft1 TA | 145.7 |
| Mid-shaft TA (stand)2 | 199.5 |
| Mid-shaft CA | 119.0 |
| Mid-shaft CA (stand)3 | 162.9 |
| Mid-shaft J | 3992.9 |
| Mid-shaft Zp (stand)4 | 15.1 |
| Shape index Imax/Imin5 | 2.24 |
| Fibular J / Tibial J (%) | 5.75 |

Table 38. Osteometric dimensions of the talus, in millimeters and degrees.

|  |  |  |
| --- | --- | --- |
|  |  | BT 2 |
|  | M# | Right |
| Length | 1 | 59.9 |
| Maximum length | 1a | 69.3 |
| Width | 2 | 46.2 |
| Talar height | 3 | 34.8 |
| Arti. breadth | 2b | 53.3 |
| Arti. height | 3b | 30.3 |
| Length of the trochlea | 4 | 37.7 |
| Breadth of the trochlea | 5 | 34.7 |
| Head-neck length | 8 | 26.8 |
| Head length | 9 | 35.7 |
| Head breadth | 10 | 25.8 |
| Posterior calcaneal length | 12 | 39.4 |
| Posterior calcaneal breadth | 13 | 26.8 |
| Neck angle | 16 | 20° |
| torsion angle | 17 | (29°) |

Table 39. Osteometric dimensions of the calcaneus, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Left |
| Maximum length | 1 | 96.0 (patho) |
| Total length | 1a | 84.8 |
| Body length | 5 | 67.7 |
| Height of the tuber calcanei | 7 | (51.2) |
| Breadth of the tuber calcanei | 8 | 38.1 |

Table 40. Osteometric dimensions of the cuboid, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Right |
| Medial length | 1 | 41.4 |
| Height | 3 | 28.2 |
| Lateral cuneiform height |  | 18.3 |
| Lateral cuneiform breadth |  | 17.3 |
| Navicular facet |  | Absent |
| MT4-5 arti. height |  | 20.2 |
| MT4-5 arti. breadth |  | 30.6 |

Table 41. Osteometric dimensions of the medial cuneiform, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Left |
| Superior Length | 3 | (30.1) |
| Middle Length | 2 | 26.2 |
| Inferior Length | 1 | (26.8) |
| Navicular arti. Br. |  | (16,8) |
| Metatarsal 1 arti. Ht. | 5 | 30.5 |
| Metatarsal 1 arti. Brt. |  | 16.7 |
| Distal Height | 7 | 34.9 |

Table 42. Osteometric dimensions of the lateral cuneiform, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT1 |
|  | M# | Right |
| Superior Length | 1 | 25.7 |
| Middle Length | 2 | 19.5 |
| Metatarsal 3 artic. | 3 | 17.6 |
| Navicular arti. Br. | 4 | 14.6 |
| Cuboid arti. height |  | (18.8) |
| Cuboid arti. breadth |  | 17.1 |
| Metatarsal 3 arti. Ht. |  | (24.2) |

Table 43. Osteometric dimensions and observations of the first metatarsals, in millimeters.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | BT1 | |
|  | M# | Right | Left |
| Maximum length | 1 |  | 71.5 |
| Midshaft height | 4 | 17.5 | 16.4 |
| Midshaft breadth | 3 | 15.9 | 15.2 |
| Proximal maximum height | 7 |  | 31.3 |
| Proximal maximum breadth | 6 |  | 22.8 |
| Proximal Artic. height |  |  | 30.3 |
| Proximal Artic. breadth |  |  | 21.1 |
| Distal height | 9 | 24.5 | 22.3 |
| Lateral Head Height |  | 23.8 | 22.8 |
| Distal Max. Breadth |  | 27.8 | 26.4 |
| Distal Artic. Breadth | 8b | 23.2 | 23.3 |
| MT2 Facet |  |  | Present |

Table 44. Osteometric dimensions of the second, fourth, and fifth metatarsals, in millimeters.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | BT1 | | | | |
|  | M# | Right II | Left IV | Right V | Left V |
| Arti. length | 2 | 84.1 | 78.4 |  |  |
| Midshaft breadth | 3 | 10.2 | 8.0 | 12.4 |  |
| Midshaft height | 4 | 10.8 | 13.4 | 9.4 |  |
| Proximal max. Ht |  | 22.8 | 21.4 | 17.3 | 18.0 |
| Proximal Max. Br |  | 17.0 | 14.5 | 23.5 | 24.1 |
| Prox Art breadth | 6b | 15.3 | 11.6 | 15.0 | 16.3 |
| Distal max. Ht | 9a | 17.4 | 16.8 |  |  |
| Distal Max. Br |  | 12.6 |  |  |  |
| Dist Art breadth | 8b | 12.5 |  |  |  |

Table 45. Osteometric dimensions of the proximal pedal phalanges, in millimeters.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | BT1 | | | |
|  | M# | Left I | Right II-IV | Right III-V | Left III-V |
| Arti. length |  | 35.2 | 24.9 | 23.3 | 23.6 |
| Maximum length | 3 | 39 | 27.8 | 25.6 | 26 |
| Midshaft breadth |  | 15.6 | 5.73 | 6.2 | 7.4 |
| Midshaft height |  | 12.9 | 6.3 | 6.1 | 5.8 |
| Distal breadth |  | 18.6 | 9.1 | 9.7 | 11.7 |
| Distal arti. breadth |  | 17.4 | 8 | 8.7 | 11 |
| Distal height |  | 11.9 | 6.25 | 6.3 | 8.2 |
| Proximal maximum height |  | 16.6 | 11.4 | 11.1 | 11.3 |
| Proximal arti. height |  | 16.4 | 8.5 | 9.7 | 10.1 |
| Proximal maximum breadth |  | 21.7 | 11.4 | 11.9 | 12.8 |
| Proximal arti. breadth |  | 20.8 | 10.7 | 10.7 | 11.4 |

Table 46. Osteometric dimensions of the proximal pedal phalanges, in millimeters.

|  |  |  |
| --- | --- | --- |
|  |  | BT2 |
|  | M# | Left? II-III |
| Arti. length |  | 16.99 |
| Maximum length | 3 | 14.33 |
| Midshaft breadth |  | 7.81 |
| Midshaft height |  | 6.67 |
| Distal breadth |  | 9.46 |
| Distal arti. breadth |  | 9.34 |
| Distal height |  | 6.17 |
| Proximal maximum height |  | 10.38 |
| Proximal arti. height |  | 8.68 |
| Proximal maximum breadth |  | 11.66 |
| Proximal arti. breadth |  | 10.66 |

Table 47. Osteometric dimensions of the distal pedal phalanges, in millimeters.

|  |  |
| --- | --- |
|  | BT1 |
|  | Left I |
| Arti. length | 24.5 |
| Maximum length | 26.9 |
| Midshaft breadth | 13.0 |
| Midshaft height | 8.4 |
| Distal breadth | 12.2 |
| Distal height | 6.2 |
| Proximal maximum height | 11.8 |
| Proximal arti. height | 10.1 |
| Proximal maximum breadth | 20.0 |
| Proximal arti. breadth | 17.6 |

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