Document 1: Craniometric Data Key

Abbreviation	Measurement	Description	Reference
GOL	Maximum cranial length	Straight-line distance between glabella and opisthocranion in the mid-sagittal plane	M[1]-1; H[2]-GOL
NOL	Nasio-occipital length	Straight-line distance from nasion to opisthocranion in the mid-sagittal plane	M-1d, H-NOL
BNL	Basion-nasion length/Cranial base length	Straight-line distance from nasion to basion.	M-5; H-BNL
BBH	Basion-bregma height	Straight-line distance between basion and bregma.	M-17; H-BBH
XCB	Maximum cranial breadth	Maximum cranial breadth perpendicular to the median sagittal plane, above the suparmastoid crest and adjacent region.	M-8; H-XCB
XFB	Maximum frontal breadth	Maximum breadth at the coronal suture, perpendicular to the medial plane.	M-10; H-XCB
WFB	Minimum frontal breadth	Straight-line distance between two frontotemporals.	M-9
STB	Bistephanic breadth	Breadth between the intersections (on either side) of the coronal suture and the inferior temporal line marking the origin of the temporalis muscle (stephanion points).	H-STB
ZYB	Bizygomatic breadth	The greatest breadth across the zygomatic arches (wherever found), perpendicular to the median plane.	M-45; H-ZYB
AUB	Biauricular breadth	The least exterior breadth across the roots of the zygomatic processes, wherever found.	M-11B, H-AUB
WCB	Minimum cranial breadth	Breadth across the sphenoid bone at the base of the temporal fossa, at the infratemporal crests.	M-14; H-WCB
ASB	Biasterionic breadth	Straight-line distance between one asterion to the opposite asterion.	M-12; H-ASB
BPL	Basion-prosthion length	Straight-line distance between basion and prosthion.	M-40; H-BPL
UFHT	Upper facial height (Nasion-prosthion height)	Straight-line distance between nasion and prosthion.	M-48; H-NPH
NLH	Nasal height	The average height from nasion to the lowest point on the border of the nasal aperture on either side.	H-NLH

NLB	Nasal breadth	Greatest distance between the anterior edges of the nasal aperture.	M-54; H-NLB
OBH	Orbital height	Straight-line distance between the upper and lower borders of the left orbit, perpendicular to the long axis that bisects the orbit.	M-52; H-OBH
OBB	Orbital breadth	Breadth from ectoconchion to dacryon of left orbit such that the longitudinal axis bisects the orbit into approximately equal upper and lower regions.	M-51A; H-OBB
JUB	Bijugal breadth	External distance between the jugalia (deepest points in the curvature between the frontal and temporal processes of the malar).	M-45-1; H-JUB
MAL	Maxillo-alveolar length	Straight-line distance between prosthion and alveolon.	M-60
MAB	Maxillo-alveolar breadth	Maximum breadth of the exterior alveolar processes of the maxilla measured at location of second maxillary molar.	M-61; H-MAB
MDH	Mastoid height	Vertical length of the mastoid process below, and perpendicular to, the eye-ear plane.	H-MDH
MDB	Mastoid breadth	The width of the mastoid process at its base, through its transverse axis.	H-MDB
ZMB	Bimaxillary breadth	Straight-line distance between the zygomaxillare on either side.	M-46; H-ZMB
UFBR	Upper facial breadth (Bifrontal breadth)	Straight-line distance between the frontomalare (the most anterior point on the fronto-malar suture) on either side.	M-43; H-FMB
EKB	Biorbital breadth	The breadth across the orbits from ectoconchion to ectoconchion.	H-EKB
XML	Malar, maximum length	The total length of the malar in a diagonal direction, from the lower end of the zygotemporal suture on the lateral surface of the bone, to zygoorbitale, the junction of the zygomaxillary suture with the lower border of the orbit, on the left side.	H-XML
WMH	Cheek height	The minimum distance, in any direction, from the lower border of the orbit to the lower margin of the maxilla, mesial to the masseter attachment, on the left side.	H-WMH

FOL	Foramen magnum length	The distance from basion to opisthion.	H-FOL
FRC	Nasion-bregma chord/Frontal chord	Straight-line distance from nasion to bregma taken in the midplane on the external surface of the frontal bone.	M-29; H-FRC
PAC	Bregma-lambda chord/Parietal chord	Straight-line distance from bregma to lambda, taken in the midplane on the external surface of the cranial vault.	M-30; H-PAC
OCC	Lambda-opisthion chord/Occipital chord	Straight-line distance from lambda to opisthion, taken in the midplane on the external surface of the cranial vault.	M-31; H-OCC
SSS	Bimaxillary, or zygomaxillary, subtense	Using the small coordinate caliper, the subtense, or projection, from subspinale to the bimaxillary width.	H-SSS
NAS	Nasio-frontal subtense	Using the small coordinate caliper, the subtense from nasion to the bifrontal breadth.	H-NAS

[1] M= Martin R. and K. Saller. 1957. Lehrbuch der anthropologie. Band 1. Third Edition. Stuttgart: Gustav Fischer Verlag.

[2] H= Howells W.W. 1973. Cranial variation in man: a study by multivariate analysis of patterns of difference among recent human populations. Papers of the Peabody Museum of Archaeology and Ethnology Volume 67. Cambridge, Massachusetts: Harvard University.