DOMUZTEPE DEATH PIT HUMAN BONE DATA CODING FORM

GENERAL DATA

Specimen number: A sequence of 2-3 numbers separated by periods (Lot #.Specimen #.Further identifier
Note: specimen numbers starting with -0- are lab generated numbers for specimens collected in large bone bags; the number of additional specimen identifiers is related to number of specimens in recovery bags

1. **Recovery Year**: Year specimen was recovered in excavation
2. **Context**: (Death Pit)
3. **Phase**: Layer in which specimen was deposited. Phase assignments made in the field by S. Campbell. See Sarah Kansa et al. 2009 for a description of phases.
4. **Associations W/ Other Phases**: The phase of conjoined or associated specimens.
5. **Specimen Conjoin/articulation**: Conjoining (refitting or articulating) specimen number(s).
6. **Specimen Association**: In situ and morphological specimen associations which may represent the same individual or element, but for which a conjoin or articulation could not be made with complete confidence. Apparent antimeres are also listed here.

SPECIMEN IDENTIFICATION AND DESCRIPTION

ELEMENT IDENTIFIERS
Note: For purpose of analysis, composite elements (innominate and cranium) were treated as a single element.

BODY SECTION 1	BODY SECTION 2	ELEMENT
skull	cranium	cranium
skull	UCF	UCF + cranial element id or indeterminate squamous vault fragment
skull	mandible	mandible
trunk	vertebra	cervical/thoracic/lumbar + vert number, if known
trunk	thorax	rib + rib number, if known
trunk	thorax	sternum
trunk	pelvis	innominate
trunk	pelvis	sacrum + sacral segment, if known
hand/foot	carpus	carpal + element id
hand/foot	carpus	metacarpal/phalange + ray and row, if known
hand/foot	tarsus	tarsal + tarsal element i.d.
hand/foot	**t**arsus	metatarsal/phalange + ray and row, if known
limb	forelimb	clavicle/scapula/humerus/radius/ulna
limb	hindlimb	femur/patella/tibia/fibula
limb	LBSF	HFT **(**human, indeterminate humerus, femur, tibia fragment)
limb	LBSF	RUF (human, indeterminate radius, ulna, fibula fragment)
limb	LBSF	ILBF **(**human, indeterminate long bone fragment)

BONE SIDE
- **l**   left
- **r**   right
- **u**   unsided
- **m**   midline

SEX
- **m**   male
- **f**   female
- **na**   sex cannot be determined
- **indet**   sex assessment = indeterminate, used for cranial specimens

Age Determinations

neo	neonate (0-1)
inf	infant (1-4)
juv	juvenile (5-9)
yng adol	adolescent (10-14)
lte adol	adolescent (15-19
ad1	adult 20—29
ad2	adult 30-39
ad3	adult >40
sub	subadult of indeterminate age
adol/ad	adolescent or adult of indeterminate age
ad	adult (skeletally mature element)

1. **Min Age**: (Minimum estimated in years)
2. **Max Age**: (Maximum estimated in years)
3. **Age Range (text Notes)**: Editor note: This field has the original Min Age and Max Age values, including non-numeric characters.

Specimen Quantification Properties:

1. **NISP**: NISP (number of identified specimens).
2. **MNE**: MNE (minimum number of elements). Indicates whether or not the specimen counts toward the Minimum Number of Elements estimate. A "1" specimen counts as an element for given element/age category
3. **MNI**: MNI (minimum number of individuals). Indicates whether or not the specimen counts towards the Minimum Number of Individuals estimate. A "1" value counts as an individual for given element/age/sex category
4. **ELEMENT SIZE**: A visual estimate of the size of each specimen calculated as a percentage of a complete element. Cylindrical bones (rib, humerus, radius, ulna, femur, tibia, fibula, metacarpal, metatarsal, phalange) measured as % of total length; irregular bones (cranium, mandible, vertebra, innominate, sacrum, scapula, rib, patella, carpal, tarsal) measured as % total element size
   - **1**   <25% of a complete element present
   - **2**   25-49% of a complete element present
   - **3**   50-74% of a complete element present
   - **4**   75-99% of a complete element present
   - **5**   complete

ELEMENT BONE PORTION PRESERVATION CODING:

A series of variables describing the preservation of specific bone portions or sub-elements.

Long Bone Elements

(Clavicle, Humerus, Radius, Ulna, Femur, Tibia, Fibula, Metacarpal, Metatarsal, Phalange)

1. **Rep. Proximal Epiphysis (Long Bones)**: Field describing if an element portion is represented (present) in the specimen
2. **Rep. Proximal Metaphysis (Long Bones)**: Field describing if an element portion is represented (present) in the specimen
3. **Rep. Shaft (Long Bones)**: Field describing if an element portion is represented (present) in the specimen
4. **Rep. Distal Metaphysis (Long Bones)**: Field describing if an element portion is represented (present) in the specimen
5. **Rep. Distal Epiphysis (Long Bones)**: Field describing if an element portion is represented (present) in the specimen
6. **Shaft Circumference (Long Bones)**: LONG BONE SHAFT CIRCUMFERENCE: Visual estimate of shaft circumference calculated as a percentage of total shaft + metaphysis circumference
7. **Specimen Length (Long Bones) (mm)**: Specimen length (mm). NOTE: for metacarpals and metatarsals, only complete specimens are measured
8. **#ancient, #modern Fracture Edges (Long Bones)** : For all fragmented specimens, the number of ancient fracture planes is given first, followed by a period (.) and then the number of modern fracture edges

Scapula Elements

1. **Scapula: Glenoid Fossa**: Field describing if an element portion is represented (present) in the specimen
2. **Scapula: Axillary Border**: Field describing if an element portion is represented (present) in the specimen
3. **Scapula: Acromion**: Field describing if an element portion is represented (present) in the specimen
4. **Scapula: Spinoglenoid Ntch**: Field describing if an element portion is represented (present) in the specimen
5. **Scapula: Corocoid Process**: Field describing if an element portion is represented (present) in the specimen
6. **Scapula: Corocoid Notch**: Field describing if an element portion is represented (present) in the specimen
7. **Scapula: Spine**: Field describing if an element portion is represented (present) in the specimen
8. **Scapula: Body**: Field describing if an element portion is represented (present) in the specimen
9. **Scapula: Vertebral Border**: Field describing if an element portion is represented (present) in the specimen
10. **Scapula: Inf. Angle**: Field describing if an element portion is represented (present) in the specimen

Rib Elements

1. **Rib: Head, Neck, Tubercle (pxep)**: Field describing if an element portion is represented (present) in the specimen-click to edit.
2. **Rib: Tubercle -angle (vert Shaft)**: Field describing if an element portion is represented (present) in the specimen
3. **Rib: Angle-sternal End (sternal Shaft)**: Field describing if an element portion is represented (present) in the specimen
4. **Rib: Sternal Ep (dsep)**: Field describing if an element portion is represented (present) in the specimen

Vertebra Elements

1. **Vertebra: Spine**: Field describing if an element portion is represented (present) in the specimen
2. **Vertebra: Left Arch**: Field describing if an element portion is represented (present) in the specimen
3. **Vert: Right Arch**: Field describing if an element portion is represented (present) in the specimen
4. **Vert: Right Superior Articular Facet**: Field describing if an element portion is represented (present) in the specimen
5. **Vert: Right Inferior Articular Facet**: Field describing if an element portion is represented (present) in the specimen
6. **Vert: Left Superior Articular Facet**: Field describing if an element portion is represented (present) in the specimen
7. **Vert: Left Inferior Articular Facet**: Field describing if an element portion is represented (present) in the specimen
8. **Vert: Transverse Process**: Field describing if an element portion is represented (present) in the specimen
9. **Vert: Body**: Field describing if an element portion is represented (present) in the specimen
10. **Vert: Dens**: Field describing if an element portion is represented (present) in the specimen
11. **Vert: Indet**: Field describing if an unidentified/indeterminate portion of the element is represented (present) in the specimen

Innominate Elements

1. **Acetabulum**: Field describing if an element portion is represented (present) in the specimen
2. **Illium: Blade/fossa**: Field describing if an element portion is represented (present) in the specimen
3. **Ilium : Superior and Inferior Iliac Crest**: Field describing if an element portion is represented (present) in the specimen
4. **Ilium: Auricular Area**: Field describing if an element portion is represented (present) in the specimen
5. **Ilium: Sciatic Notch Apex**: Field describing if an element portion is represented (present) in the specimen
6. **Ilium: Int. Arcate Line Area**: Field describing if an element portion is represented (present) in the specimen
7. **Ischial Pubic Ramus**: Field describing if an element portion is represented (present) in the specimen
8. **Pubis: Symphysis**: Field describing if an element portion is represented (present) in the specimen
9. **Pubis: Iliopubic Ramus**: Field describing if an element portion is represented (present) in the specimen

Sacrum Elements

1. **Sacrum: Promontory**: Field describing if an element portion is represented (present) in the specimen
2. **Sacrum: Ala/auricular Area** : Field describing if an element portion is represented (present) in the specimen
3. **Sacrum: Dorsal Wall**: Field describing if an element portion is represented (present) in the specimen

Cranial Elements

1. **Cranium: Pre-conjoin Completeness**: (Visual assessment of the percentage of a complete cranium present at recovery).
   - **1** <25% complete
   - **2** 25-49% complete
   - **3** 50-74% complete
   - **4** 75-99% complete
   - **5** complete

2. **Cranium: Post Conjoin Completeness**: (Visual assessment of the percentage of a complete cranium present after refit).
   - **1** <25% complete

3. **Vault: Indeterminate Squama**: Field describing if an element portion is represented (present) in the specimen
4. **Frontal: Right Supraorbital Torus**: Field describing if an element portion is represented (present) in the specimen
5. **Frontal: Left Supraorbital Torus**: Field describing if an element portion is represented (present) in the specimen
6. **Frontal: Glabella**: Field describing if an element portion is represented (present) in the specimen
7. **Frontal: Squama**: Field describing if an element portion is represented (present) in the specimen
8. **Frontal: Temporal Lines**: Field describing if an element portion is represented (present) in the specimen
9. **Right Parietal: Superior Squama**: Field describing if an element portion is represented (present) in the specimen
10. **Right Parietal: Temporal Line**: Field describing if an element portion is represented (present) in the specimen
11. **Right Parietal: Inferior Squama**: Field describing if an element portion is represented (present) in the specimen
12. **Right Parietal Boss**: Field describing if an element portion is represented (present) in the specimen
13. **Left Parietal: Superior Squama**: Field describing if an element portion is represented (present) in the specimen
14. **Left Parietal: Temporal Line**: Field describing if an element portion is represented (present) in the specimen
15. **Left Parietal: Inferior Squama**: Field describing if an element portion is represented (present) in the specimen
16. **Left Parietal Boss**: Field describing if an element portion is represented (present) in the specimen
17. **Right Temporal Squama**: Field describing if an element portion is represented (present) in the specimen
18. **Right Zygomatic Arch**: Field describing if an element portion is represented (present) in the specimen
19. **Right Temporal Eam**: Field describing if an element portion is represented (present) in the specimen
20. **Right Temporal Mastoid**: Field describing if an element portion is represented (present) in the specimen
21. **Right Temporal Petrosal**: Field describing if an element portion is represented (present) in the specimen
22. **Right Temporal Glenoid**: Field describing if an element portion is represented (present) in the specimen
23. **Left Temporal Squama**: Field describing if an element portion is represented (present) in the specimen
24. **Left Zygomatic Arch**: Field describing if an element portion is represented (present) in the specimen
25. **Left Temporal Eam**: Field describing if an element portion is represented (present) in the specimen
26. **Left Temporal Mastoid**: Field describing if an element portion is represented (present) in the specimen
27. **Left Temporal Petrosal**: Field describing if an element portion is represented (present) in the specimen
28. **Left Temporal Glenoid**: Field describing if an element portion is represented (present) in the specimen
29. **Occipital: Lambda, Sup Planum**: Field describing if an element portion is represented (present) in the specimen
30. **Occipital: Inion**: Field describing if an element portion is represented (present) in the specimen
31. **Occipital: Inf Planum**: Field describing if an element portion is represented (present) in the specimen
32. **Occipital: Basioccipital**: Field describing if an element portion is represented (present) in the specimen
33. **Occipital: Foramen Magnum**: Field describing if an element portion is represented (present) in the specimen
34. **Right Maxilla: Body**: Field describing if an element portion is represented (present) in the specimen
35. **Right Maxilla: Dental Arcade I-c**: Field describing if an element portion is represented (present) in the specimen
36. **Right Maxilla: Dental Arcade P3-m3**: Field describing if an element portion is represented (present) in the specimen
37. **Left Maxilla: Body**: Field describing if an element portion is represented (present) in the specimen
38. **Left Maxilla: Dental Arcade I-c**: Field describing if an element portion is represented (present) in the specimen
39. **Left Maxilla: Dental Arcade P3-m3**: Field describing if an element portion is represented (present) in the specimen
40. **Sphenoid**: Field describing if an element portion is represented (present) in the specimen
41. **Right Nasal** : Field describing if an element portion is represented (present) in the specimen
42. **Left Nasal** : Field describing if an element portion is represented (present) in the specimen
43. **Right Zygomatic**: Field describing if an element portion is represented (present) in the specimen
44. **Left Zygomatic** : Field describing if an element portion is represented (present) in the specimen

45. **Right Palatine**: Field describing if an element portion is represented (present) in the specimen
46. **Left Palatine**: Field describing if an element portion is represented (present) in the specimen
47. **Ethmoid**: Field describing if an element portion is represented (present) in the specimen
48. **Right Lacrimal**: Field describing if an element portion is represented (present) in the specimen
49. **Left Lacrimal**: Field describing if an element portion is represented (present) in the specimen

MANDIBLE Element

1. **Mandible: Right Condyle**: Field describing if an element portion is represented (present) in the specimen
2. **Mandible: Right Ascending Ramus**: Field describing if an element portion is represented (present) in the specimen
3. **Mandible: Right Body**: Field describing if an element portion is represented (present) in the specimen
4. **Mandible: Symphysis**: Field describing if an element portion is represented (present) in the specimen
5. **Mandible: Left Condyle**: Field describing if an element portion is represented (present) in the specimen
6. **Mandible: Left Ascending Ramus**: Field describing if an element portion is represented (present) in the specimen
7. **Mandible: Left Body**: Field describing if an element portion is represented (present) in the specimen

SURFACE CHARACTERISTICS: ASERIES OF VARIBLES DESCRIBING THE SURFACE CONDITION OF EACH SPECIMEN.

1. **Surface Exposure/ Readability**: Visual estimate of the percentage of specimen surface that is available for assessment.
   - 0   Not readable
   - **1** <25%
   - **2** 25-50%
   - **3** 50-75%
   - **4** 75-99%
   - **5** 100%

50. **Matrix Adhesion**: Bone surface assessment
51. **Surface Degradation Stage**: Visual assessment of bone surface damage due to sub-aerial or thermal exposure (following Behrensmeyer 1978, Buikstra and Swegle 1989).
   - **0** No evidence of bone surface degradation due to weathering or thermal exposure
   - **1** Degradation Stage 1: mild-moderate surface deterioration
   - **2** Degradation Stage 2: severe surface deterioration

52. **Surface Degradation Type**: Multiple types of damage are entered as individual values
53. **Surface Degradation Extent**: Extent of surface degredation
54. **Degredation Association W/ Thermal Exposure**: Surficial damage associated with bone scorching or burning (color variable states 3-5).
55. **Peeling**: Evidence of bone degradation by peeling

BONE DAMAGE VARIABLES: A series of variables recording various damage data

THERMAL ALTERATION: A series of visual assessments recording bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.

CYLINDRICAL BONE (all long bones, ribs)

1. **Epiphysis Corttical Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
2. **Epiphysis Cancellous Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
3. **Metaphysis Cortical Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
4. **Metaphysis Fracture Edge Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
5. **Metaphysis Medullary Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
6. **Shaft Cortical Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
7. **Shaft Fracture Edge Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.
8. **Shaft Medullary Color**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.

IRREGULAR BONES

9. **Irregular Bones: Color/extent**: Visual assessment and recording of bone discoloration related to thermal exposure. Note: recorded color is based on presence of darkest detectable discoloration, not on overall color.

SPECIMEN COLOR
- **0** No pronounced color change: white-yellow
- **1** Light red brown
- **2** Mottled medium red brown
- **3** Mottled dark red brown
- **4** Mottled brownish purple
- **5** Black-calcined

MODIFIER
- **.1** Generalized (over large areas or entire surface)
- **.2** Localized

Color Interpretation:
0-1 no thermal exposure; 2 problematic thermal exposure; 3 moderate scorching; 4 severe scorching-light burning; 5 thorough burning

Polish and Toothmarks

    10. **End Polish**: Assessed on limb long bones and long bone shaft fragments only)
    11. **Non End Polish**: Assessed on limb long bones and long bone shaft fragments only)
    12. **Tooth Mark Type: Location**: Indication of tooth damage on bone, as well as location of damage

Cutmarks

1. **Cutmark #**: Identifier for cut mark being recorded
2. **Cutmark Type**: Type of cutmark found by visual inspection. An indication of the cutmark extent or degree of expression is also usually indicated.
3. **Cutmark Location**: Location on the bone specimen of the observed cutmark

Loadpoints

1. **Loadpoint #**: Identifier for the loadpoint observation
2. **Loadpoint Type**: Description of loadpoint (impact related) modification or damage to bone
3. **Loadpoint Location**: Location on the bone specimen of loadpoint damage/modification
4. **Opposing Loadpoint #**: Identifier for secondary loadpoint modification/damage from forces transmitted by the primary loadpoint event
5. **Opposing Loadpoint Type**: Description of secondary loadpoint modification/damage from forces transmitted by the primary loadpoint event
6. **Depressed Fractures**: Description of loadpoint depressed fracture features, if present.
7. **Radiating Fracture Lines (rf)** : Presence / absence of loadpoint radiating fracture line features.
8. **Concentric Fractures W/ Incipient/attached Flakes (cf)**: Presence / absence of loadpoint concentric fractures and incipient attached flakes features.
9. **Negative Flake Scar (fs)**: Describes flake scars on fractured surface that split bone
10. **Cortical Flake Scar (fs)**: Describes cortical bone flake scars, if present
11. **Diverging Fracture Lines**: Presence / absence of loadpoint diverging fracture line features.
12. **Lateral Stress Features**: Presence / absence of loadpoint lateral stress features.
13. **Notch Type**: Description after Capaldo and Blumenschine 1994
14. **Notch Length (mm)**: Distance between inflection points (mm)
15. **Notch Depth (mm)**: Distance between inflection points (mm)
16. **Notch Truncation**: Indicates if a notch is truncated by adjacent notch or fracture
17. **Flake Scar Width (mm)**: Flake scar width (mm)
18. **Flake Scar Lngth (mm)**: Flake scar length (mm)
19. **Cranium: Arcuate Impact Zone (az)**: Presence / absence.
20. **Cranium: Bft Associated Percussion Marks (pm)**: Presence / absence.
21. **Cranium: Vault Release (vr)**: Presence / absence.
22. **Cranium: Associated Concentric Frags (ac)**: Presence / absence.