

Instructions for the Skeletal Inventory Coding Form

Keith Chan

Thank you for looking at my skeletal inventory coding form! I designed this form with the students of our 2007 bioarchaeological field school to be easier and faster than other forms we had used. If you have any questions, please email me at chekeichan@gmail.com.

Page 1 - Skeletal Inventory Coding Form

Upper left - Record-keeping information to make organization easier.

Upper right - Key information pertaining to this individual. This, and the previous section, are repeated on every page.

Body - Inventory information is recorded as general quartiles (ie. 0%, 25%, 50%, 75%, 100%). Sides are relative to you. Stand at the head of the articulated skeleton!

Page 2 - Sexing and Aging Form

Skeletal Sexing - It may help to cross out elements that do not apply.

Skeletal Aging - Follow fusion sequence from Buikstra and Ubelaker and chart of fusion timing from Buikstra and Ubelaker or White and Folkens. Write the overall result after "Age Range."

Dental aging techniques - Mark third molar eruption, wear, and molar 2 - molar 1 height if possible.

Overall Sex - Circle the final result based on the above indicators.

Overall Age - Write the range of ages and the probable (typically mean or mode) based on the above indicators.

Page 3 - Skeletal Inventory Coding Form

This provides a visual depiction of the skeletal inventory from page 1 (page 2 changes the topic to alleviate boredom!). Depending on which method is faster, color in whether bones are present or absent. Also choose the adult or juvenile skeleton and cross out the one you are not using.

Images are from Bass (1995), and the UMC Anthropology Coding Form.

Page 4 - Cranial Deformation and Measurements Form

Deformation - This form was designed for Andean remains, where deformation is an important indicator of ethnic origin. Mark the elements deformed if applicable and then sketch the shape so it can be categorized later.

Cranial Measurements - Measurements not listed can be added to the space at the end of the page.

Page 5 - Dental Pathology and Inventory Form

To make the orientation easier, place the cranial face first on the cushion, with the teeth facing you. Place the mandible with the distal end facing you.

Scott System - The same orientation as above is also used here.

Page 6 - Cranial Pathology Coding Form

The “pathology matrix” looks bizarre but once you learn how it works it makes pathology coding far easier than before. This system allows one to code any number of pathology without fear of running out of room. Each block represents one instance of pathology.

Coding is done using the existing UMC Skeletal Coding Instructions. Consult that key for the codes used for each category. The name is for the bone element (9 = maxilla). Specificity is the type of pathology. State is whether healing has occurred. L x W are for measurements. Location is for the anatomical location (e.g. posterior). Notes are for anything else.

Check off every item on the checklist to ensure that the element was examined, even if there is no pathology or the element is not present.

Page 7 - Postcranial Pathology Coding Form

This is the same as the previous page, except with codes for postcranial elements. Tip!: The codes for the cranial and vertebral elements are different than the postcranial elements. This means that you can save paper by writing the postcranial pathology on the blank spaces of the cranial form! Another tip: to not confuse the number one with the lower case L, write the one with serifs: “1.”

Page 8 - Photo Log

Document the photos taken of this individual. The first image should be of any identifying information. Under “Camera,” you can write the name of the pho-

tographer or the camera used. With the date taken, subject, and camera ID, the image should be able to be traced back to this burial.

Page 9 - Additional Notes

Write any observations for this individual, including notable features, impressions, or anything else that is relevant. Drawings can go on the back.

References

Bass WM. 1995. Human osteology : a laboratory and field manual. Columbia, Mo.: Missouri Archaeological Society.

Buikstra JE, Ubelaker D. 1994. Standards for Data Collection from Human Skeletal Remains. In: Proceedings of a Seminar at the Field Museum of Natural History. Fayetteville: Arkansas Archaeological Survey Press.

White TD, Folkens PA. 2000. Human Osteology. San Diego: Academic Press.

Site:
Recorder:
Date:

**Skeletal Inventory
Coding Form**

Individual:
Catalog #:
Sex: Age: Deformed?:

Cranium: Mark % Quartile Present (100%, 75%, 50%, 25%, 0%)

	Left	Single	Right		Left	Single	Right
Frontal:		_____		Maxilla:	_____		_____
Parietal:	_____		_____	Nasal:	_____		_____
Occipital:		_____		Ethmoid:		_____	
Temporal:	_____		_____	Lacrima:	_____		_____
Zygomatic:	_____		_____	Vomer:		_____	
Palate:	_____		_____	Sphenoid:		_____	

Mandible: Mark % Quartile Present

	Left	Right		Left	Right
Body:	_____	_____	Ramus:	_____	_____

Postcranium (Long Bones): Mark % Quartile Present for Each Third

	Left				Right		
	Proximal	Midshaft	Distal		Proximal	Midshaft	Distal
Humerus:	_____	_____	_____	Humerus:	_____	_____	_____
Radius:	_____	_____	_____	Radius:	_____	_____	_____
Ulna:	_____	_____	_____	Ulna:	_____	_____	_____
Femur:	_____	_____	_____	Femur:	_____	_____	_____
Tibia:	_____	_____	_____	Tibia:	_____	_____	_____
Fibula:	_____	_____	_____	Fibula:	_____	_____	_____

Postcranium (Other Bones): Mark % Quartile Present

	Left	Single	Right		Left	Single	Right
Clavicle:	_____		_____	Sacrum:		_____	
Scapula:	_____		_____	Coccyx:		_____	
Hyoid:		_____		Talus:	_____		_____
Manubrium:		_____		Calcaneus:	_____		_____
Sternal Body:		_____		Tarsals:		_____	
Xiphoid:		_____		Metatarsals:		_____	
Ilium:	_____		_____	Carpals:		_____	
Ischium:	_____		_____	Metacarpals:		_____	
Pubis:	_____		_____	Phalanges:		_____	
Patella:	_____		_____			_____	
	Left		Right		Single		
Rib 1:	_____		_____	C1:	_____		
Ribs 2-6:	_____		_____	C2:	_____		
Ribs 7-10:	_____		_____	C3-C7:	_____		
Ribs 11-12:	_____		_____	T1-T12:	_____		
				L1-L5:	_____		

Site: _____
 Recorder: _____
 Date: _____

**Sexing and Aging
Form**

Individual: _____
 Catalog #: _____
 Sex: _____ Age: _____ Deformed?: _____

Skeletal Sexing: Note whether feature is indicative of female (F), possible-female (F?), indeterminate (I), possible-male (M?), or male (M)

Greater sciatic notch: _____	Mastoid process: _____	General bone robusticity/size: _____
Pubis squareness: _____	Glabella: _____	Humeral head diameter (mm): _____
Subpubic angle: _____	Nuchal crest (undeformed only): _____	43 <, 44-46, > 47
Auricular surface platform: _____	Superior orbital edge: _____	Femoral head diameter (mm): _____
Preauricular sulcus: _____	Zygomatic extension: _____	42.5 <, 42.6-47.4, > 47.5
Iliac flare: _____	Benfer's shelf: _____	Infant Features
Ventral arc: _____	Mandible chin shape: _____	Mandible shape: _____
Dorsal pitting: _____	Ascending ramus angle: _____	Auricular surface elevation: _____
Sacral curvature: _____		Arcuate line: _____
		Sciatic Notch: _____

Skeletal Aging

Epipheseal Closure: Mark % Quartile Fused (100%, 75%, 50%, 25%, 0%)

Occipital: _____	Proximal fibula: _____	Distal radius: _____
Neural arch: _____	Acromion of scapula: _____	Sacrum S3-S5: _____
Neural arch to centrum: _____	Iliac crest: _____	Sacrum S2-S3: _____
Distal humerus: _____	Humeral head: _____	Sacrum S1-S2: _____
Medial humerus: _____	Head of femur: _____	Medial clavicle: _____
Proximal radius: _____	Lesser trochanter: _____	Spheno-occipital synchondrosis: _____
Distal fibula/tibia: _____	Proximal tibia: _____	
Distal femur: _____	Greater trochanter: _____	Age Range: _____

M3 Eruption (y/n): _____ **M3 Wear (light/heavy):** _____ **M2 Height - M1 Height:** _____

Joint Surfaces

	Left	Right	Age Range
Pubic symphysis (Todd), p.22 Standards:	_____	_____	_____
Auricular surface, p.25 Standards:	_____	_____	_____
Sternal rib end, p.138 Bass:	_____	_____	_____

Overall Sex (circle)				
F	F?	Indeterminate	M?	M

Overall Age	
Range:	Probable age:

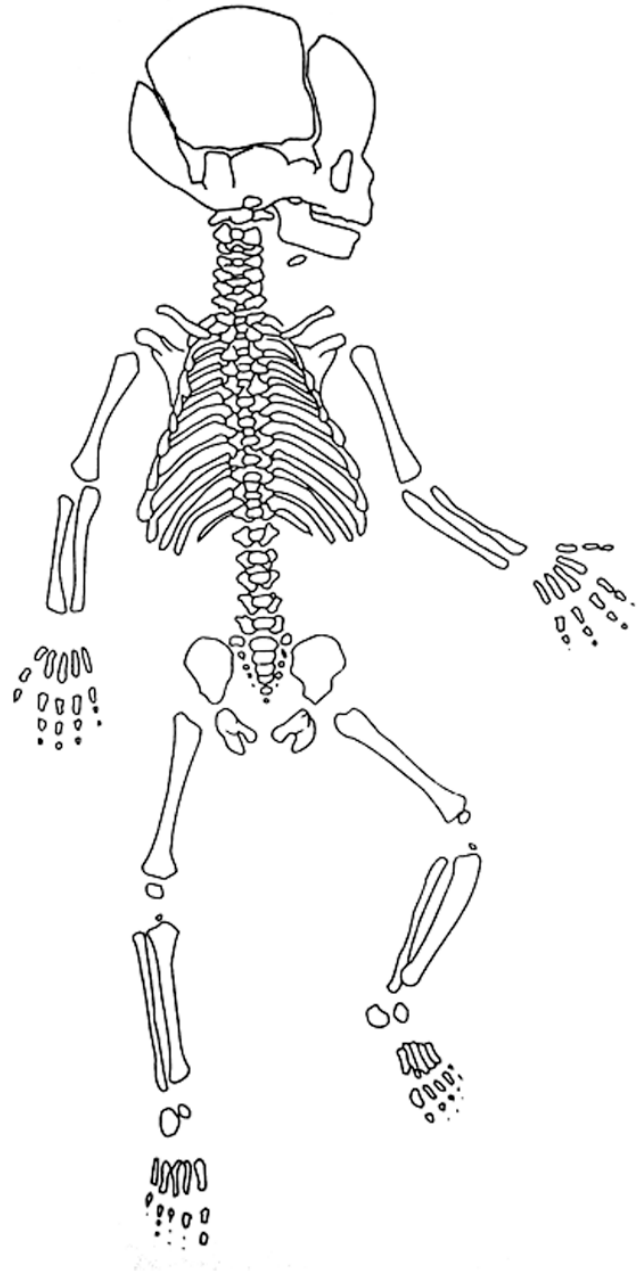
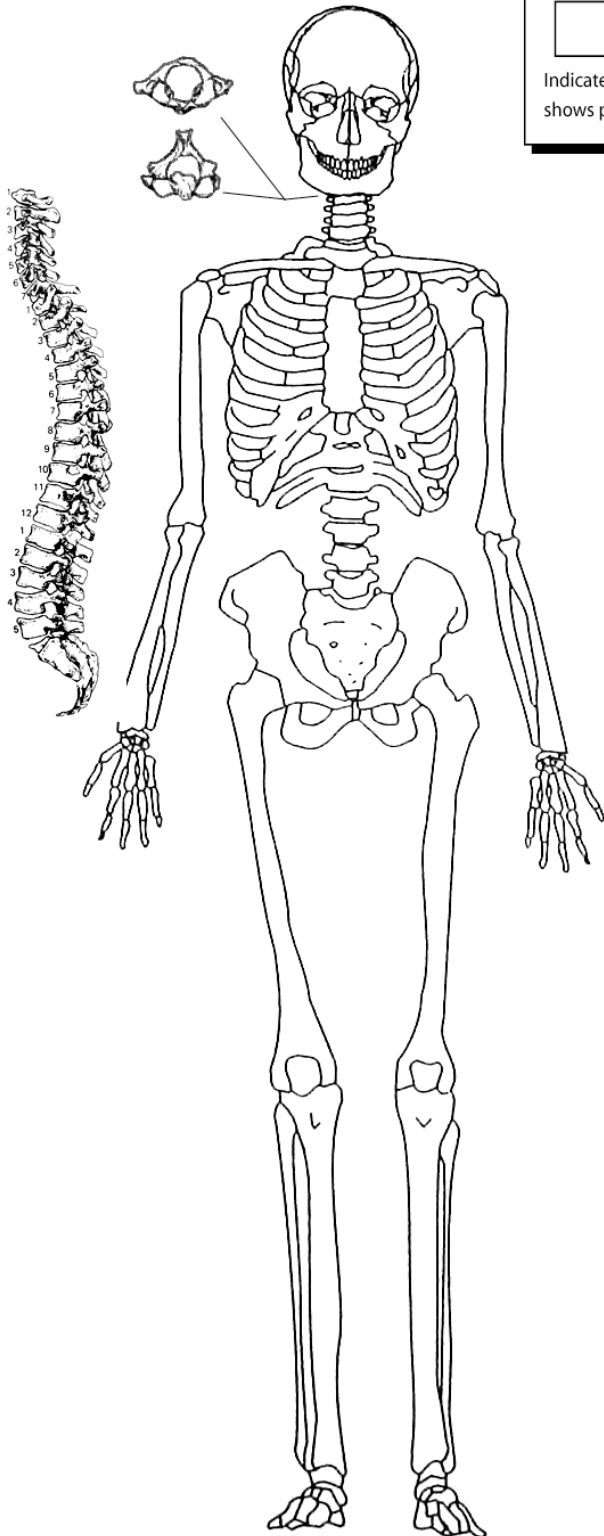
Site:
Recorder:
Date:

Skeletal Inventory Coding Form

Individual:
Catalog #:
Sex: Age: Deformed?:

Present
 Absent

Indicate whether shading shows presence or absence.



Site:
Recorder:
Date:

Cranial Deformation and Measurements Form

Individual:
Catalog #:
Sex: Age: Deformed?:

Deformation:

Purposely deformed? Yes/No

Affected Element	Yes/No
Occipital	_____
Frontal	_____
Parietal	_____
Other:	_____

Draw general shape of deformity →

Cranial Measurements

(# indicates *Standards* description, p.79-84)

# Cranium	mm
-----------	----

1 Max cranial length (g-op)	_____
2 Max cranial breadth (eu-eu)	_____
3 Bizygomatic breadth (zy-zy)	_____
4 Basion-bregma height (ba-b)	_____

Postcranial Skeletal Measurements:

# Clavicle	Left	Right
35 Max length:	_____	_____

# Humerus	Left	Right
40 Max length:	_____	_____
41 Epicondylar breadth:	_____	_____
42 Max diameter of head:	_____	_____
n/a Anterior-posterior diameter:	_____	_____
n/a Medial-lateral diameter:	_____	_____

# Radius	Left	Right
45 Max length:	_____	_____

# Ulna	Left	Right
48 Max length:	_____	_____

# Pelvis	Single
n/a Bi-iliac breadth	_____

# Femur	Left	Right
60 Max length:	_____	_____
61 Bicondylar length:	_____	_____
62 Epicondylar breadth:	_____	_____
63 Max head diameter:	_____	_____
66 Anterior-posterior diameter:	_____	_____
67 Medial-lateral diameter:	_____	_____

# Tibia	Left	Right
69 Max length:	_____	_____
72 Max diameter at nutrient foramen:	_____	_____
73 Medial-lateral diameter at nutrient foramen:	_____	_____

# Fibula	Left	Right
75 Max length:	_____	_____

Site:
Recorder:
Date:

**Dental Inventory
and Pathology
Form**

Individual:
Catalog #:
Sex: Age: Deformed?:

Maxilla																		
	Left									Right								
	M3	M2	M1	PM4	PM3	C	I2	I1	I1	I2	C	PM3	PM4	M1	M2	M3		
Presence:																		
Hypoplasias:																		
Caries:																		
Calculus:																		
Abscess:																		
Buccal-Lingual Diameter:																		

Mandible																		
	Left									Right								
	M3	M2	M1	PM4	PM3	C	I2	I1	I1	I2	C	PM3	PM4	M1	M2	M3		
Presence:																		
Hypoplasias:																		
Caries:																		
Calculus:																		
Abscess:																		
Buccal-Lingual Diameter:																		

Scott System (by quadrants)																					
Left							Right														
	M3			M2			M1			M1			M2			M3					
	Distal			Distal			Distal			Distal			Distal			Distal					
Maxilla	Buccal																			Buccal	
Mesial			Mesial			Mesial			Mesial			Mesial			Mesial						
Mandible																					

Key

Presence
1 Present (in occlusion)
2 Present (no occlusion)
3 Missing
4 Missing (premortem)
5 Missing (postmortem)
6 Present (damaged)
7 Present (unobservable)

Hypoplasias
0 None
1 Horizontal grooves
2 Horizontal pits
3 Nonlinear pits
4 Single pit

Calculus
0 None
1 Minor staining on CEJ
2 Moderate staining (< crown)
3 Severe staining (> crown)

Carious Lesions
0 None
1 Occlusal surface
2 Mesial-distal surface
3 Buccal-lingual surface
4 Cervical lesions
5 Root lesions
6 Pulp exposure

Abscesses
0 None
1 Small
2 Moderate
3 Large

Skeletal Pathology Coding Instructions

General Pathology Coding | Código Patología General:

I. Bone Cell Response (General) | Respuesta célula del hueso (General)

1. Bone Loss | Perdido del Hueso
2. Bone Formation | Hueso en Formación
3. Bone Loss & Formation | Hueso Perdido y en Formación
4. Bone Movement | Movimiento del Hueso
5. Misc. (Unknown) | Indeterminado (Desconocido)

II. Classification (Specific) | Clasificación (Específico)

1. Bone Loss | Perdido del Hueso
 1. Resorptive Lesion (Lytic) | Lesión Reabsorción (Lytic)
 2. Bowing (Rickets, Disuse) | Doblando (Rickets, Sin uso)
 3. Porosis (Pinpoint to Coalesced) | Porosidad (Pequeño a Grande)
 4. Cortical Thinning (Osteopenia | Osteoporosis) Perdido de la densidad de la corteza
 5. Trauma (Fractures) & Element Loss | Trauma y Perdido de un Elemento
 6. Resorption (Dental) | Reabsorción
 7. Erosion (non-lytic) | Erosión
2. Bone Formation | Formación del Hueso
 1. Increased Density / Sclerosis | Densidad Aumentado / Sclerosis
 2. Periostitis of any type
 3. Osteomyelitis (Medullary Involvement w/ fistula or Sinus Formation) | Incluye medullary reacción o formación de un concavidad
 4. Neoplasm | Nuevo crecimiento (Use with un'aid bone formation, describe in notes)
 5. Ossified Cartilage | Osificación del cartilago
 6. Ossified Connective Tissue (Ectopic Bone, Enthesopathy, Myostitis Ossificans) | Tejido blando osificación
 7. Osteophyte Formation (non-joint) | Formación de Osteophyte (no articulación) 6 and 7 are similar
3. Bone Loss & Formation
Use combination of codes from 1 & 2 and provide description
4. Bone Movement
 1. Dislocation (describe in notes)

III. Severity | Servidad

- .5) Trace
- 1) Mild
- 2) Moderate
- 3) Severe

- 8) Cervical Vert.
- 9) Thoracic Vert.
- 10) Lumbar Vert.
- 11) Hand
- 12) Foot
- 13) Superior
- 14) Inferior
- 15) Anterior
- 16) Posterior
- 17) Medial (Mesial)
- 18) Lateral (Distal)
- 19) Occusal
- 20) Proximal
- 21) Distal

IV. Activity | Actividad

- 1) Active | Activo
- 2) Healed | Curado
- 3) Healing | Curando

Location - General | Ubicación - General

- 1) Frontal
- 2) Parietal
- 3) Occipital
- 4) Ectocranial
- 5) Endocranial
- 6) both Endo. & Ecto.
- 7) Rib

Location (Long Bones) | Ubicación (Huesos Largos)

1. Proximal 1/3 Shaft
2. Distal 1/3 Shaft

3. Middle 1/3 Shaft
4. Proximal Joint
5. Distal Joint
6. Proximal Tuber.
7. Distal Tuber.
8. >1 above (describe in notes)

Location (Clavicle)

1. Medial (Sternal) 1/3 Shaft
2. Lateral (Acromial) 1/3 Shaft
3. Middle 1/3 Shaft
4. Medial (Sternal) Joint
5. Lateral (Acromial) Joint

Joint Pathology Coding:

- I. Osteophyte Formation (Lipping)
- II. Porosity (Pitting)
- III. Eburnation (Polishing)
- IV. Erosion (Lytic Destruction)

Severity:

- .5) Trace
- 1) Mild
- 2) Moderate
- 3) Severe
- 4) Bony Anklyosis

Location Codes ALL Joints:

- 1) Surface (Subchondral Bone)
- 2) Margin (Perip. w/o encroachment of subchondral bone)
 - 2a. Lipping
- 3) Both 1 & 2

Location (Vertebrae)

1. Sup. articular facet
2. Inferior articular facet
3. Both 1 & 2
4. Margin (Periphery Only)
 - 4a. Superior Margin
 - 4b. Inferior margin
5. End-plate Sup.
6. End-plate Inf.
7. Both 5 & 6

6. Superior
7. Inferior

Location (Scapula)

1. Glenoid Fossa
2. Acromion Proc.
3. Coracoid Proc.
4. Body (general)
5. Body (superior)
6. Body (inferior)
7. Body (medial)
8. Body (lateral)

8. More than one of the above (Describe in notes)
9. Costal articular demi-facet
10. Transverse process articular facet

Location (Long Bones)

1. Proximal Facet | Condyle
2. Distal Facet | Condyle
3. Both 1 & 2

Location (Innominate / Pelvis)

1. Auricular Surface
2. Accessory Facet
3. Acetabulum
4. Pubic Symphysis
5. Ischium
6. Obturator Foramen
7. Ilium

Location (Sacrum)

1. Superior End-plate
2. Lumbar Articular Facet
3. Auricular Surface
4. Accessory Facets

Location (Rib)

5. Head facet
6. Neck facet
7. body
8. sternal facet