

HUMAN REMAINS ANALYSIS FOR EL DORNAJO SITE

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September 2008.**

The following report consists of the analysis of human bone remains recovered during the excavation of El Dornajo site, in El Oro-Ecuador.

Two processes were taken into account when possible: data recollection and “on field” observations of burial and bone accumulation features during excavation; and bone by bone analysis in the laboratory.

While “on field” observations were important due to the very poor condition of the bones, especially for sex estimation and for describing the position of the remains, they have not been written separately from the rest of the observations made, except when necessary.

After separating non-human bones that were recovered within burial contexts, laboratory analysis addressed basic forensic anthropology questions including: age, sex and ancestry. As is standard when considering archaeological remains I considered that American Indian ancestry would be dominant in cranium traits.

Sex was determined specifically through the *scoring system for sexually dimorphic cranial features* (after Acsadi and Nemeskeru 1970, as found in Buikstra and Ubelaker 1994), assessing numeric values from 1- 5 for the available features. Other sex related features found in the pelvic girdle were not taken into because of the poor condition of the remains.

Age was assessed through dental development patterns and when possible through suture closure. For the former I used both the *sequence of formation and eruption of teeth among American Indians* (after Ubelaker 1989a as found in Buikstra and Ubelaker 1994) and the *Scott system for scoring surface wear in molars* (after Scott 1979: 214, as found in Buikstra and Ubelaker 1994). For cranial suture closure I used the criteria stated by Meindl and Lovejoy 1985 (as found in Buikstra and Ubelaker 1994).

Since remains were collected and labeled during field work, most of them according to side, size and anatomical position, laboratory analysis consisted mainly of examination of the state of conservation of the bones, particular features, identification of the exact bone and side it belonged to, as of pathologies and fractures.

A simple form was developed for this analysis and used for both the fragments and the complete elements of each burial. The form is divided into 4 sections: the first section includes general information including unit number, burial number, age and sex of the individual; the second section is specifically for the cranium, including the mandible; the upper extremities, rib cage, pelvic girdle, lower extremities, hands and feet are all part of the third section. Each of the first three sections contain five columns for either left or right anatomical siding, conservation state, number of diagnostic fragments found, and observations and pathologies. The fourth section addresses dentition describing the number of teeth types, stage of growth and general observations.

At the end of the form a space is reserved for annotations on burial placement, condition of unidentifiable remains, and for discussion of pathologies in detail. A more detailed report of pathologies is provided separately with a separate bibliographic reference section.

For those remains that presented several fragments and complete bones the previously described forms were used, complete with observations and pathology description. In cases where fragments were too scarce the recording form consisted only of the first part of the complete form; general information and the observation or annotation. When reviewing the remains belonging to screen recollection and not to a specific burials only unit, strata and level were recorded along with observations.

References and consults were made with the following publications:

- Byers, Steven N. ;
 "Introduction to Forensic Anthropology. A textbook" second edition; Pearsons, Boston-USA. 2005.
- Ubelaker, Douglas H. & Jane E. Buikstra;
 "Standards for data collection from human skeletal remains. Proceedings of a Seminar at The Field Museum of Natural History Organized by Jonathan Haas": Arkansas Archaeological Survey Research Series No. 44; 1994.
- White, Tim D. & Pieter A, Folkens;
 "The Human Bone Manual"; Academic Press, California- USA. 2005.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 16
BURIAL: # 1

DIAGNOSTIC TRAITS

SEX not defined
AGE 6- 9 years, according to dental development

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL			very fragmented	2	None connected fragments, recognizable because of curvature and cruciform eminence. Possible signs of porotic hyperostosis, lack of complete bone make diagnosis difficult.
PARIETALS	X	X	very fragmented	3	recognizable because the sagittal suture present in both
TEMPORALS			very fragmented	1	non sideable
FRONTAL					
NASAL					
MAXILAR			very fragmented	2	Recognizable in relation to molars found with it.
SPHENOID					
ZIGOMATICS					

MANDIBULAE					
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* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE	x	x	fragmentary	5	caracoid processes, left acromion and scapular notch
HUMERI	x	x	good	5	Right: fractured postmortem but complete. Left: without epiphysis, fractured diaphysis, segments together measure 13cm.
ULNAE	x		fragmentary	2	both epiphysis missing
RADIUS	x		fragmentary	2	Proximal epiphysis and 3c, of diaphysis present.
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE					
RIBS 1- 2	x	x	fragmentary	4	Both ribs, from both sides present.
RIBS 3-11				various	non diagnostic and non sideable
RIBS 12					
ESTERNON					
VERTEBRAE					

CERVICAL			fragmentary	1	c-2
THORACIC			fragmentary	various	various fragments of articular surfaces and spinous processes
LUMBAR					
SACRUM					
COCCYX					
OS COXAE					
FEMURAE	x	x	fragmentary	4	Right: fractured postmortem on the diaphysis, 3.5 cm below lesser trochanter. Head and greater trochanter missing. Left: distal epiphysis missing, proximal epiphysis includes lesser trochanter and part of the pectineal line.
PATELLA					
TIBIAE	x		fragmentary	3	Incomplete diaphysis but diagnostic. Right: two fragments, proximal epiphysis fractured on medial axis, distal epiphyses absent.
FIBULA	x			4	Right: distal and proximal epiphysis complete, part of diaphysis. Left: distal epiphysis incomplete.
TARSALS					
META TARSALS			good	1	non- sideable
PROXIMAL PHALANGES				4	non- sideable
MEDIAL PHALANGES				2	non- sideable
DISTAL PHALANGES				3	non- sideable

DENTITION

	permanent	deciduous	observations
incisive	2	6	Six deciduous shovel-shaped incisive; two shovel-shaped adult incisive.
canines	1	2	Two deciduous canines, broken roots. One adult canine, semi complete root
premolars	6	2	One premolar from maxilla, complete root, right. Three premolars with incomplete roots, no enamel wear. Two infantile premolars. Two premolars, incomplete and without roots.
molars	9	2	three first molar, semi complete roots; two deciduous second molars; one adult second molar, no roots. Three incomplete molars, no roots. Two molars with semicomplete roots.

Burial corresponds to a single individual. According to size of the cranial vault, as diagnosis of dental development (after the sequence of formation and eruption of teeth among American Indians by Ubelaker 1989), the individual was between the 6 and 9 years of age. Sex could not be determined as neither diagnostic traits from the skull nor pelvic girdle were available. In general terms, the state of the remains was very fragmentary, most of the fragments recovered were non diagnostic and very small (ranging from 1cm to 3cm), however, on those cases where fragments were diagnostic we couldn't find traces either of antemortem or perimortem fractures. Most of the damage to the bone was a consequence of the burial and, later on, of the excavation process. Data recorded *in situ* shows the individual had its legs crossed, feet on inverse position, medial sides of tibiae, fibula and femora facing up. Arms extended on lateral side of upper body, palmar side up. Vertebrae and ribcage anterior sides up. Head position was different, the mandible resting over sternum, and rest of the cranium resting over mandible.

Photos:



Dental pieces, Group 1, shows deciduous and permanent teeth, as shovel shaped incise; burial #1, unit 16-2, level 3, strata B.



Dental pieces, Group 1, shows deciduous and permanent teeth, as shovel shaped incise; burial #1, unit 16-2, level 3, strata B.



Pathology in fragments of cranium; burial #1, Unit 16-2, level 3, strata B.

The photo above shows a fragment cranium, occipital bone most likely, with a very low degree of porotic hyperostosis, however, since no other fragments of the skull were available for examination on this regard, we cannot assure that the damage doesn't belong to any other disease.



Cervical vertebra 2, posterior and anterior view; burial #1, Unit 16-2, Level 3.

The state of the atlas reveals a pathology known as *cifosis* which can create an abnormal curvature of the upper vertebrae of the spine, and cause malformation shown on this individual. Since cifosis is a birth defect, caused by metabolic problems or neuromuscular problems. It does not cause any pain but would affect the individual's posture; it can be corrected by maintaining a good posture while growing up.



Dental pieces, group 2, molars y premolars. Burial #1, unit 16-2, level 1, strata B.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 48- 49
BURIAL: # 2- 10

DIAGNOSTIC TRAITS

Female. Mastoid processes #2, nuchal crest #1, mental eminence #2, and no occipital protuberance.
 17- 21 years of age, according to dental development and cranial suture.

SEX

AGE

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL			very fragmented	various	
PARIETALS			very fragmented	various	
TEMPORALS	x	x	good	2	Almost complete, good state of mastoid processes.
FRONTAL			very fragmented	2	Two well preserved fragments with signs of interior corrosion and unknown pathology.
NASAL					
MAXILAR			good	2	
SPHENOID					
ZIGOMATICS	x		fragmented	1	Small fragment fused to maxilla, thin.

MANDIBULAE			good	3	Complete in 3 fragments. Fractured and with pathology due to eruption of m32 inside of mandible. Ante mortem and healing.
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* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES			fragmented	1	non sideable
SCAPULAE	x	x	fragmented	7	Both recovered in a fragmentary state. Right: part of coracoid process, glenoid cavity and most of the supraglenoid tubercle and scapular neck. Left: glenoid cavity complete, scapular spine, acromion process.
HUMERI	x	x	good	3	Left: Almost complete, distal articular surface fractured. Lateral and trochlea epicondyle absent. Head of humerus absent from lesser tubercle crest. Right: Almost complete, in two fragments. Capitulum absent. Head of humerus complete with surface wear due to soil composition.
ULNAE	x	x	good	5	Right: both epiphysis fractured postmortem. Proximal side visible until coronoid process, distal side

					complete. Left: only diaphysis.
RADIUS	x		good	1	Proximal epiphysis absent from radial tuberosity.
CARPALS	x		good	6	lunate, scaphoid, triquetral, trapezium, capitate and hamate.
META CARPALS	x	x	good	3	Right: 3; Left: 3
PROXIMAL PHALANGES	x	x	good	7	right: 3; Left: 4
MEDIAL PHALANGES					
DISTAL PHALANGES	x	x	good	5	Right: 4; Left: 1
RIB CAGE	x	x	good	19	<i>Mni</i> , obtained with medial epiphysis count. 10 left ribs, 9 right ribs, and non diagnostic.
RIBS 1- 2	x	x	good	4	
RIBS 3-11					
RIBS 12					
ESTERNON					
VERTEBRAE					
CERVICAL			good	2	c3, c4 complete, with pathologies in spinous process and articular surfaces.
THORACIC			good	4	t4, t5, t7, t9, identified because of spinous process and articular surfaces.
LUMBAR			fragmented	9	<i>mni</i> , obtained with body of vertebrae count is: 9
SACRUM			fragmented	1	Complete center, no wings.
COCCYX					

OS COXAE			fragmented	2	Incomplete, not possible to establish sex. Part of articular surface of femur and Ilium.
FEMURAE	x	x	good	7	Right: head and both trochanter, two fragments of diaphysis. Left: two fragments of diaphysis and head; greater trochanter, from neck, absent.
PATELLA		x	good	1	
TIBIAE	x	x	good	4	Right: both epiphysis fractured and missing. Left: no epiphysis.
FIBULA	x	x	fragmented	7	Right: In three fragments, no epiphysis. Left: in four fragments, with epiphysis in good state and fused
TARSALS		x	good	4	Talus, calcaneus, navicular and 3rd. Cuneiform.
META TARSALS	x	x	good	8	
PROXIMAL PHALANGES		x		4	
MEDIAL PHALANGES		x		1	
DISTAL PHALANGES		x		2	

DENTITION

	permanent	deciduous	observations
incisive	5		all shovel shaped, 3 from mandible (I 23, 24 and 25); I8 and I9 fractured postmortem
canines			
premolars	2		1 from maxilla, pm29 from mandible has caries

molars	6	mandible has 4, maxilla 2
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Burial belongs to a single individual. Data recorded in situ shows the individual had her legs crossed, feet on inverse position, and medial sides of tibiae, fibula and femora facing up. Arms extended on lateral side of upper body, palmar side up. Vertebrae and ribcage anterior sides up. Head position was different, the mandible resting over sternum, and rest of the cranium resting over mandible. The individual was a woman, between the ages of 17 and 21, the lack of 3rd molars completely erupted on both maxilla and mandible give as a good indication, as the lack of fused epiphysis on clavicle. Both the shovel incise and the auditory defect state that her ancestry is indigenous; however, nasal breath (19mm) and spinous process of the nose are both not that diagnostic and seem narrower and more pronounced than in normal native Americans. Unfortunately, due to the state of the remains during recovery and after handling it was not possible to measure other criteria that could have helped in assessing ancestry correctly. Pathologies on frontal have been identified as a consequence of sinus infection, it is noted that the interior surface of the bone is very porotic and the exterior surface presents a small hole, 1mm diameter. The c3 and c4 abnormal spinous processes also have been identified and in relation with some of the lumbar vertebrae that seemed to be abnormal, besides been very light and porous there is some abnormal growth of the body rim, but not to the outside as in osteoarthritis but to the inside of the body, it has been determined that the individual had a deviation of the spine called scoliosis.

Photos:



Vertebrae C3-C4, pathologies in spinous processes. Burial #2-10, unit 48-49, level 1, strata C.

These four photos, from the cervical vertebrae showing deviation on the spinous processes and a thickening of the process on C3, and the lower from bodies of lumbar vertebrae, might present together a condition known as scoliosis, or deviation of the spine. Most cases of scoliosis that are visible in both groups of vertebrae are very marked. The individual would have had pain and discomfort while working or carrying heavy weight. This condition however could be aggravated by some degree of osteoporotic disease, visible only on some lumbar bodies as creates a thickening of the body's rim and wear on articular surfaces.



Lumbar vertebrae (various), pathologies in bodies, bulked rims. Burial #2-10, unit 48-49, level 1, strata C.



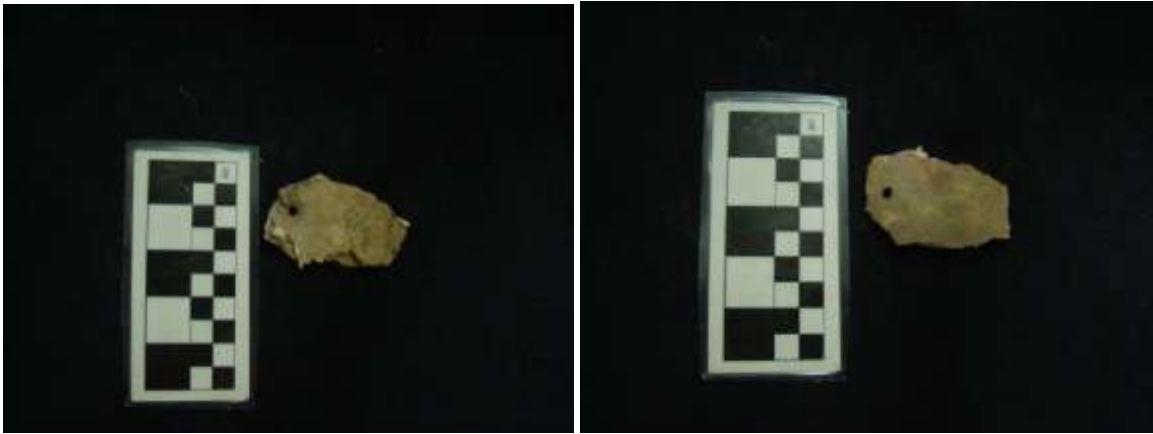
Complete mandible, age assessed by third molars, pathology produced by molar root. Burial #2-10, unit 48, strata C.

The pathology observed on the lower photo is caused after a long period of inflammation of soft tissue and infection. The third molar probably erupted painfully into the mandible causing a fracture, and later on the bone responded to the trauma by creating a callus around it. The condition must have been really painful especially during the eruption and fracture of mandible. It is however a condition one can live with, though some degree of pain could have been felt while eating, especially with hard to chew food.



Mastoid processes part of temporal from both sides; sex determination. Burial #2-10, unit 48, strata C.





Frontal, two fragments, with pathology. Close up to fragment. Burial #2-10, unit 48, strata C.

The fragments shown above present a very extensive infection on the frontal bone. The cause of the infection could have been linked with an accumulation of pus on the frontal sinuses, derived from the individual's nasal *tabique* as shown on the photos below. The individual had an apparent obstruction of the right nasal conduct; these could have developed into a sinus infection that affected both nasal and frontal bones.





Maxilla, part of facial surface, shows spinous process of nasal, dental growth. Burial #2-10, unit 48, level 1, strata C.

**FORMULARIO PARA DESCRIPCIÓN DE RESTOS ÓSEOS
HUMAN REMAINS DESCRIPTION FORM**

EL DORNAJO SITE

UNIT: 16
BURIAL: #3

DIAGNOSTIC TRAITS

SEX not defined
AGE not defined

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE					

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES	x		fragmentary	3	medial diaphysis absent
SCAPULAE					
HUMERI					
ULNAE					
RADIUS					
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE					
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE			very fragmented	3	Small part of Ilium, including iliac spine, iliac tuberosity and maybe part of the auricular surface.
FEMURAE			very fragmented	2	fragment of diaphysis and head of femur, non sideable

PATELLA					
TIBIAE			very fragmented	3	Diaphysis that shows a fragment of anterior crest, two smaller fragments, and one shows portion of soleal line.
FIBULA			very fragmented	1	Fragment of diaphysis, probably from distal half.
TARSALS					
META TARSALS	x			2	without distal articular surfaces
PROXIMAL PHALANGES				7	
MEDIAL PHALANGES					
DISTAL PHALANGES				2	both from first fingers

DENTITION

	permanent	deciduous	Observations
incisive			
Canines			
Premolars			
Molars			

Feature contains legs and feet of an individual. They were found on an extended position. Besides of the clavicle there are no upper body fragments. An intrusive foot was also found with the other remains, it contains 10 metatarsals, 8 proximal phalanges, 4 medial phalanges and 3 distal phalanges. Other than a possible pathology on auricular surface of Ilium we didn't find fractures or other significant pathologies.



Fragments of pelvis, possible pathology on articular surface and iliac tuberosity. Burial #3, unit 16, level 1, strata F.

The photo above shows fragments of pelvic girdle with abnormal wear in articular surface of the pelvis and other damages on the iliac bone. These however could not be identified with any precise pathology and could be a result of specific conditions or work or an old injury that created friction between pelvis and femur. We cannot be any more precise because of the state of the bone and lack of other bone fragments.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 16
BURIAL: # 4

DIAGNOSTIC TRAITS

SEX not defined
AGE 4- 6 years, according to dental development.

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL				various	Small fragments, identified because of curvature and interior surface.
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE	x	x	very fragmented	3	Less than 2cm each fragment but very diagnostic.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES		x	fragmentary	1	Medial diaphysis and part of the distal epiphysis.
SCAPULAE			fragmentary	2	supraglenoid tubercle and acromion
HUMERI					
ULNAE	x		very fragmented	2	only diaphysis
RADIUS	x		very fragmented	2	only diaphysis
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE	x	x	very fragmented	various	Various fragments of assorted ribs, less than 2cm in average.
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE			very fragmented	various	small fragments of Ilium

FEMURAE			fragmented	3	Head of femur and small fragments of diaphysis.
PATELLA					
TIBIAE					
FIBULA					
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive		3	shovel shaped, fragmented
canines		2	Fractured roots but diagnostic.
premolars		5	Infantile premolars, color and size diagnostic.
molars	8	2	All permanent molars don't have completed roots, only two have began to grow. Deciduous molars with completed roots. One of the permanent molars is stained with something that looks like copper.

Burial was found in a complicated position. Both arms and head were extended, dorsal side facing up. Legs and pelvis were found on a small area, as if person was seated and probably cross-legged. Ribs were also found near the legs. Dental development suggests strongly that this is a very young person, though sex could not be identified because both the cranium and the pelvic girdle were extremely fragmented. No pathologies or fractures were found in the available remains.



Molars, premolars, incisors and canines; burial #4, unit 16, level 2, strata F.



Molars, one stained, associated to cranium. Burial #4, unit 16, level 2.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 16-2
BURIAL: #5

The burial consists in a number of very small skull fragments. Though none of the fragments are diagnostic, their width and texture suggest they belong to a very young individual, not only infantile but probably less than 1 year of age.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 16-2

BURIAL: # 6

DIAGNOSTIC TRAITS

SEX not defined

AGE under 6 years

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL			very fragmented	2	very small fragments
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE					

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE					
HUMERI	x		fragmented	1	Distal epiphysis of humerus, with part of diaphysis, visible pathology on width of coronoid fossa.
ULNAE		x	fragmented	1	Almost complete proximal epiphysis, part of diaphysis present.
RADIUS					
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE					
<i>RIBS 1- 2</i>	x	x	fragmented	2	Beginnings of first rib.
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					

FEMURAE	x		fragmented	3	Head and trochanter, diaphysis until beginning of popliteal surface. Possible small distal epiphysis.
PATELLA					
TIBIAE	x	x	fragmented	2	Both distal epiphysis with very little of diaphysis attached.
FIBULA					
TARSALS			good	7	2 calcaneus, 2 cuneiform and 3 not defined.
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive			
canines			
premolars			
molars			

Individual burial, not anatomically disposed. Mixture of human and animal bones. Human remains belong to a single, very young individual. Most of the long bones don't have fused epiphysis and are very typical of an infant of less than 6 years old. Because of lack of teeth, ends of ribs or other age markers it is very difficult to assess a definite age at death for the remains. No pathologies except for that of the humerus, that could not be identified, were found, also no fractures.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 16-2
BURIAL: # 7

DIAGNOSTIC TRAITS

SEX not defined
AGE Young individual,
 probably under 15.

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR			very fragmented	2	Molar sockets, small fragments.
SPHENOID			good	1	silla turcica, almost complete
ZIGOMATICS					
MANDIBULAE					

* only bones that have been identified at least once have been listed

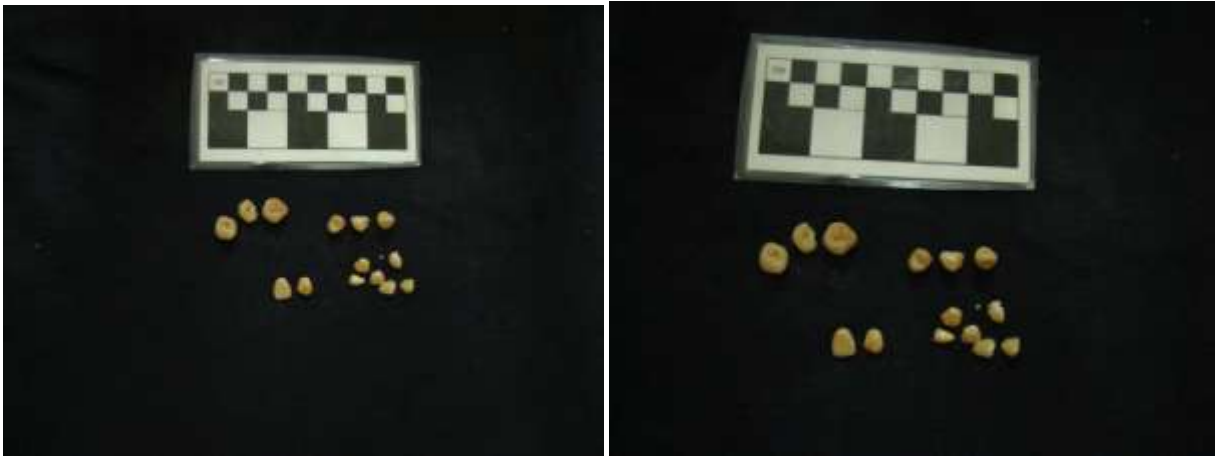
	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE			very fragmented	1	very small fragment, non sideable
HUMERI					
ULNAE					
RADIUS					
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE			very fragmented	various	A lot of very small fragments, under 1cm long.
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					
FEMURAE					
PATELLA					
TIBIAE					

FIBULA					
TARSALS			fragmented	1	possible calcaneus
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive	3		fragments
canines	3	1	No roots on permanent. Deciduous complete.
premolars	4		Fragmented and without roots. Two belong to the maxilla
molars	8		No roots, one has an abscess on the enamel. Five belong to the maxilla.

Found as an extended burial with face of cranium looking up. Arms and a leg seem to be extended and in anatomical position during excavation, however individual bones could not be identified during lab examination due to the fragmentary condition of the remains. Teeth development suggest a young individual, as the size and width of cranial vault, however a precise age cannot be determined. Besides of the abscess on one of the molars there were no other pathologies or fractures identified.



Molars, premolars and canines, en association a cranium. Burial #7, unit 16-2, strata F, level 1.

One of the molars presents an abnormal formation; the cause for this extra portion of enamel on the surface of the molar could not be found, however it is possible that it is in relation with the individuals diet.

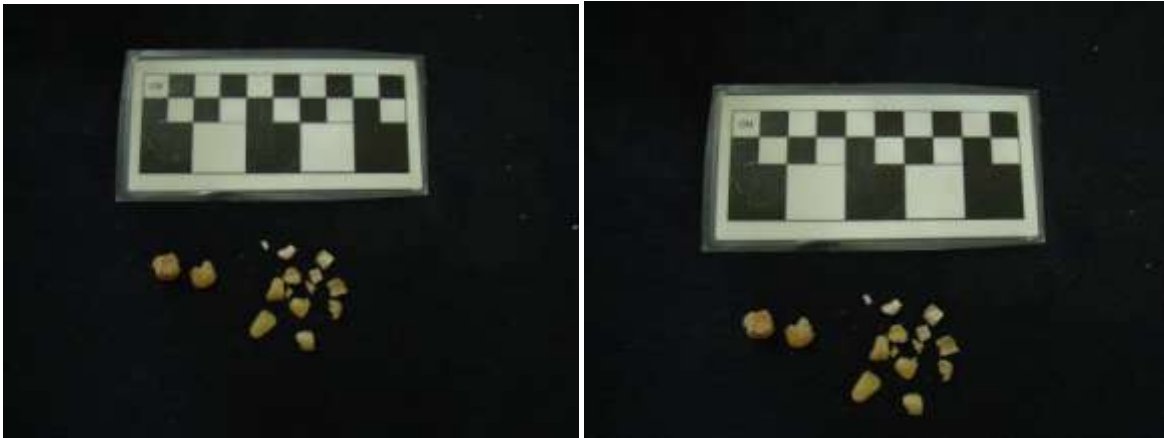
**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 16-2

BURIAL: #8

Burial consists of small fragments of skull, non diagnostic. With them two adult molars are found, as many pieces of enamel, again non diagnostic. The fragments of cranium are all very discolored due, apparently, to the soil they were found in.



Molars and fragments, in association with cranium. Burial #8, unit 16-2, strata F, level 1.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 16-2
BURIAL: #9

Number of fragments that belong to lower extremities. Distal epiphyses of fibula, with little diaphysis. Many small fragments that could belong to tibia or femur, according to their size. Some fragments suggest the presence of a pelvis, though the state of the remains is very fragmentary and not diagnostic. There is also a distal phalanx of foot. Fragments labeled "left leg" are in very bad condition and could not be identified. The remains were found in an extended position.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 49
BURIAL: #11

Accumulation of human bones, mixed with animal bones. Fragments of cranium, non diagnostic except for pieces of sphenoid. Several small fragments of ribs, again non diagnostic, and a probable, very fragmented, piece of scapula. According to size of skull and ribs, remains could belong to an infant; no age range can be identified with the available remains.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 49
BURIAL: #12

DIAGNOSTIC TRAITS

SEX masculine, mastoid process #5
AGE young adult

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					
PARIETALS					
TEMPORALS	X	x	good	2	The mastoid processes from both sides are very well preserved. No squama found.
FRONTAL					
NASAL					
MAXILAR			fragmented	2	Small, presence of molar sockets.
SPHENOID					
ZIGOMATICS					
MANDIBULAE	X	x	fragmented	3	Fragments contain molars and premolars.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES	X		fragmented	1	Part of diaphysis and medial epiphysis. Not enough to assess age.
SCAPULAE	X	x	very fragmented	2	Pieces of both scapulae, though not specifically diagnostic.
HUMERI	X	x	good	2	Both humerus, complete diaphysis, without epiphysis.
ULNAE	X	x	good	2	Right: only diaphysis; left: diaphysis and most of the "head", including ulna (brachial) tuberosity.
RADIUS	X	x	good	2	only diaphysis on both cases
CARPALS			good	1	scaphoid
META CARPALS		x	good	4	
PROXIMAL PHALANGES		x	good	5	
MEDIAL PHALANGES					
DISTAL PHALANGES		x	good	1	phalanx #1, (thumb)
RIB CAGE	X	x	very fragmented	various	Several non diagnostic fragments of ribs; no epiphysis found.
<i>RIBS 1- 2</i>			fragmented	2	Non sideable fragments of first and second rib.
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON			very fragmented	1	Only small fragment of center of manubrium, recorded <i>in situ</i> .
VERTEBRAE					

CERVICAL					
THORACIC			very fragmented	various	Fragments of both types of vertebrae, mostly bodies and spinous processes, though not specifically diagnostic.
LUMBAR			very fragmented	various	
SACRUM					
COCCYX					
OS COXAE					
FEMURAE					
PATELLA					
TIBIAE					
FIBULA					
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

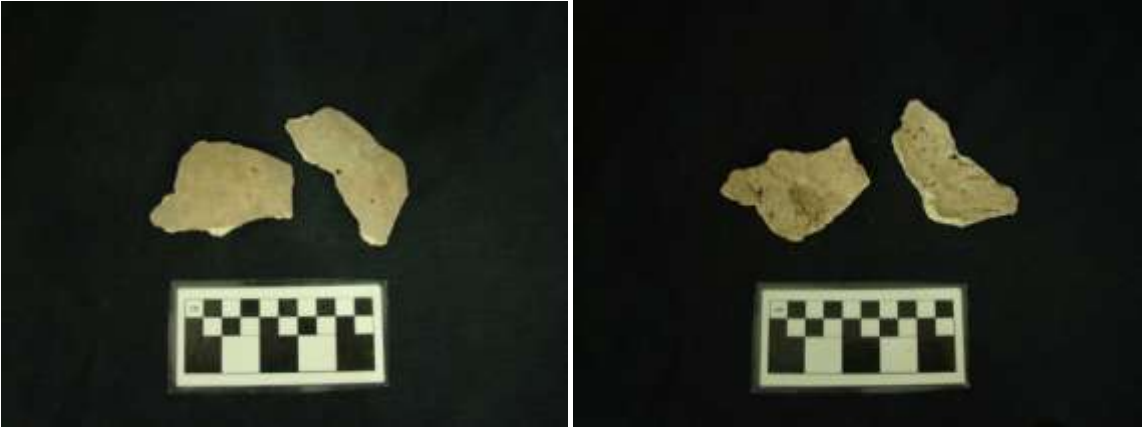
	permanent	deciduous	observations
incisive			
canines	2		One from the maxillae, two from mandible. Complete roots.
premolars	5		Two from maxillae have complete roots. Two from mandible in their sockets and with complete roots; pm20 has an abnormal growth, it remains very small though has its complete root.
molars	4		One from maxillae, complete root. Two complete molars from mandible and the root of m30.

Burial belongs to a single, male, individual. According to cranial suture, cranium size and dental development it belongs to a young adult, probably between the ages of 18 to 28. No ante mortem or perimortem fractures were found, most of the damage to the remains was caused by the soil conditions as from the excavation process. The body was found in an extended burial, palmar side up, cranium rests over mandible, mandible over sternum. Lower lumbar vertebrae, pelvic girdle, femora, tibia, fibula and feet remain unexcavated because the burial went into the unit walls (see drawing). Although this time the maxillae and nasal bones shattered during the excavation, the assessment on field was that the individual presented a narrow aperture and a rather pointed spinous process; as with burial #2/10, this presents problems while assessing ancestry. No incisive were found with this burial, so we couldn't see if there were other ancestry traits such as shovel shaped teeth.

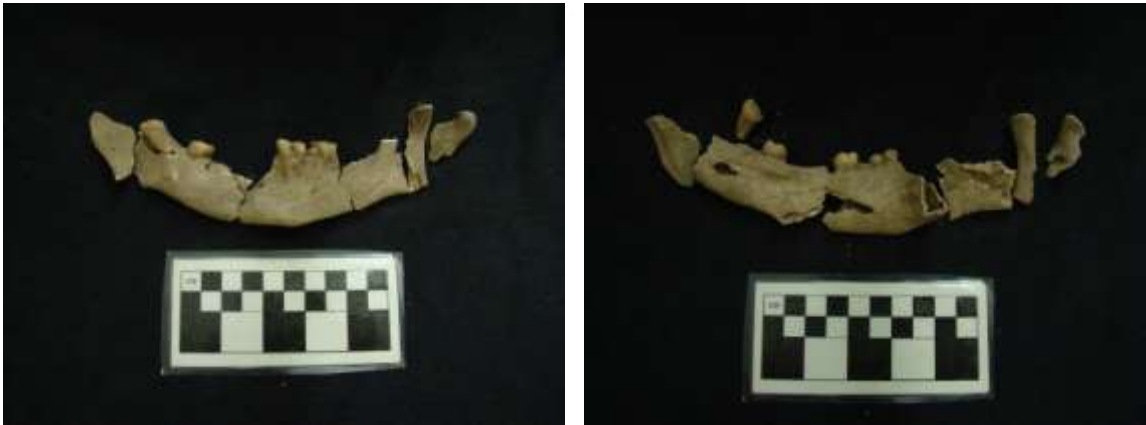
Photos:



Molar, canine and premolars. Burial #12, Unit 49, strata E, level 1.



Cranium, pathology not identified; Burial #12, Unit 49, strata E, level 1.



Mandible and detail of teeth, dental wear. Burial #12, Unit 49, strata E, level 1.



Maxilla, nasal aperture, with spinous process. Burial #12, Unit 49, strata E, level 1.



Molar, premolars and shovel shaped incise. Burial #12, Unit 49, strata E, level 1.



Masculine mastoid process. Burial #12, Unit 49, strata E, level 1.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 48
BURIAL: #13

Burial consists of several pieces of diaphysis, with no distinctive features, that possibly belong to long bones. Evidence of a lumbar vertebra, and fragments of several other vertebrae. Some loose fragments of ribs. Cranium very fragmented but identifiable. Part of maxilla also present, though very fragmented. Dental fragments also available: four molars, three of them with complete roots but fragmented: five incisive, permanent, shovel shaped; one small permanent premolar, two regular size adult premolars with complete roots. Other fragments include pieces of enamel and roots. Individual found lying on his back, cranium on side, right temporal facing up.



Molars, premolars and incisors with fragments of mandible. Burial #13, Unit 48, strata F, level 2.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 48
BURIAL: #14

DIAGNOSTIC TRAITS

SEX not defined
AGE 7- 11 years, according to dental development

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					Very fragmented pieces of cranium could belong to either of these bones. What is noticeable is that fractures seem to follow suture lines, both sagittal and coronal. Fragments are those of a small individual, though a little thicker than usual.
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE			very fragmented	various	Small fragments, few teeth sockets complete.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE			very fragmentary	1	small fragment, non sideable
HUMERI					
ULNAE		x	very fragmentary	1	Small fragment, possibly of head of ulna.
RADIUS	x	x	very fragmentary	2	right: small fragment of diaphysis, 3cm long; left: distal epiphysis, very small, no diaphysis
CARPALS			good	2	lunate and scaphoid
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE			very fragmentary	various	Small, non diagnostic fragments.
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					

COCCYX					
OS COXAE		x	very fragmentary	1	Small fragmented of articular surface of the femur, the rest of fragments are very small and non diagnostic.
FEMURAE	X	x	very fragmentary	3	Both femoral heads available, though in very fragmentary state so diameter could not be obtained. Left: small fragment of condile.
PATELLA		x	fragmented	1	Almost complete, indicates young individual due to size.
TIBIAE					
FIBULA					
TARSALS			fragmented	2	calcaneus and tallus
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive	1	4	
canines		2	
premolars	2	3	Incomplete roots on permanent premolars.
molars	9		No roots in most of them, only one with the beginning of a root.

Burial belongs to a single individual, found seated; legs extended anterior face of tibiae facing up, feet dorsal side up. During

excavation seemed to be an adult, but after further review during lab it appears the remains belong to a young individual, between the ages of 7 and 11 years old. No pathologies were found. Most long bones, both upper and lower, were very fragmented, specially the lower, since they were found on hard clay. The diagnostic fragments however are consistent with a young individual both in size and features.

Photos:



Molars, premolars, canines and incisors with caries. Burial #14, Unit 48, strata E, level 1.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 48
BURIAL: # 15

DIAGNOSTIC TRAITS

SEX not defined
AGE adult, not defined

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					Cranium fragments are indicative of an adult individual. None of the fragments were diagnostic however.
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE			fragmented	various	Small fragments related to teeth.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE					
HUMERI					
ULNAE		X	very fragmentary	1	Small fragment of distal epiphysis.
RADIUS					
CARPALS					
META CARPALS			good	2	non sideable
PROXIMAL PHALANGES					
MEDIAL PHALANGES			good	2	
DISTAL PHALANGES					
RIB CAGE					
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					

FEMURAE	x	X	fragmented	5	Left: head of femur, 30mm diameter. Small fragment of diaphysis. Right: fragments of head and two of diaphysis, though in very bad condition.
PATELLA	x		fragmented	1	small fragment
TIBIAE	x		fragmented	1	Segment of distal epiphysis and diaphysis. Fused, indicative of adulthood.
FIBULA	x		very fragmentary	1	Small fragment of proximal epiphysis.
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive	5		One of them shovel shaped. Almost 8 separate fragments of enamel.
canines	2		completed roots
premolars	5		completed roots
molars	7		Completed but fragmented roots. One of them presents pathology, extra formation of enamel on surface, middle of molar.

Burial belongs to a single individual, found seated; legs extended anterior face of tibiae facing up, feet dorsal side up. On examination of teeth development, fusion of epiphysis in long bones and cranium is determined that the burial belongs to an adult, exact or average age however could not be assessed from lack of pelvic girdle, clavicles, or cranial sutures. Besides

the pathology found on one of the molars and on a lumbar vertebrae there are no other abnormal traits visible. Upper extremities are very fragmented, probably from excavation process and soil conditions.

Photos:



Molars, premolars, canines and incisors. Burial #15, Unit 48, strata E, level 1.



Thoracic vertebra, pathology in body. Burial #15, Unit 48, strata E, level 1.

The photos above present thoracic vertebrae with extensive wear and possible signs of rheumatoid arthritis. Given the state of conservation of the remains we cannot be more accurate or sure regarding the pathology, but evident wear in the body and rim suggest strongly the given disease.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 49
BURIAL: #16

DIAGNOSTIC TRAITS

SEX not defined
AGE 18- 25 years, according to dental development;
 young individual extremities

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					Very fragmented cranium, size indicates it belongs to an adult. Very white and fractured due to the sand it was found on.
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR			very fragmentary	various	small fragments in relation to teeth
SPHENOID					
ZIGOMATICS					
MANDIBULAE			very fragmentary	various	small fragments in relation to teeth

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE			very fragmentary	1	small fragment, non sideable
HUMERI			very fragmentary	2	Small fragment of head of humerus, non sideable. Distal epiphysis present pathology, very rounded hole on articular surface of ulna.
ULNAE			good	1	infantile ulna, non sideable
RADIUS					
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE					
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					

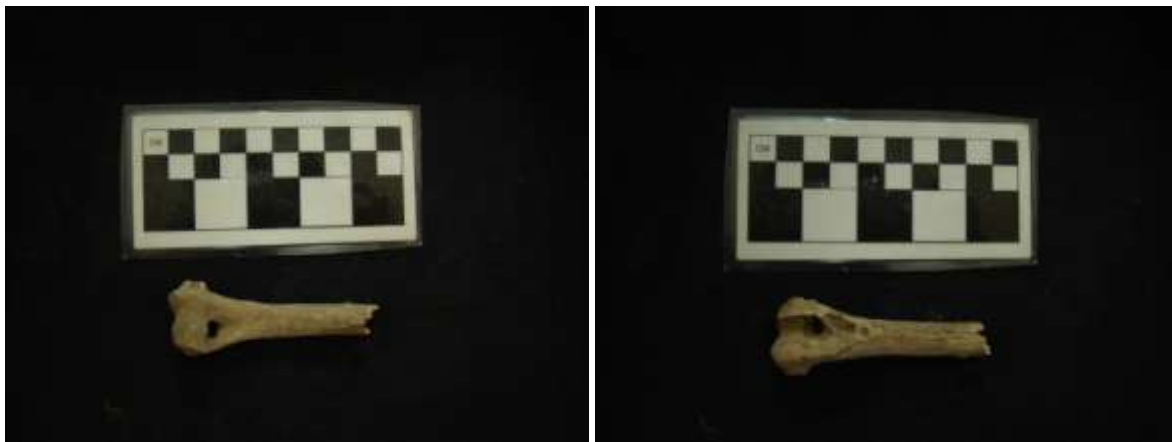
FEMURAE			good	2	Infantile femora fragment.
PATELLA					
TIBIAE					
FIBULA					
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

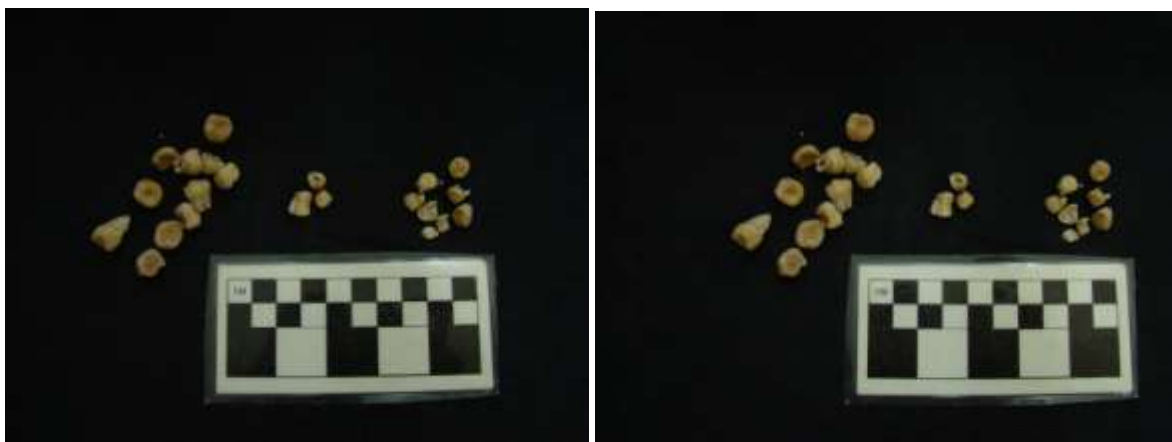
	permanent	deciduous	observations
incisive	5		Complete, shovel shaped and several smaller fragments of enamel.
canines			
premolars	3		completed roots
molars	11		completed roots

Burial comprehends two features. The first belongs to a single, adult, individual. During excavation remains were found extended, laying on back, cranium resting on one side. The cranium was mostly found in a sandy soil, that could account for the whitening and fragile state of the remains. Upper extremities have been much damaged during burial and excavation processes, most of the fragments are non diagnostic and measure 1cm average. Lower extremities were not excavated. The second feature is formed by two infantile bones, in good state of conservation, and several skull fragments, all showing that the individual was a small child, not buried anatomically, and possibly in relation to the other extended burial.

Photos:



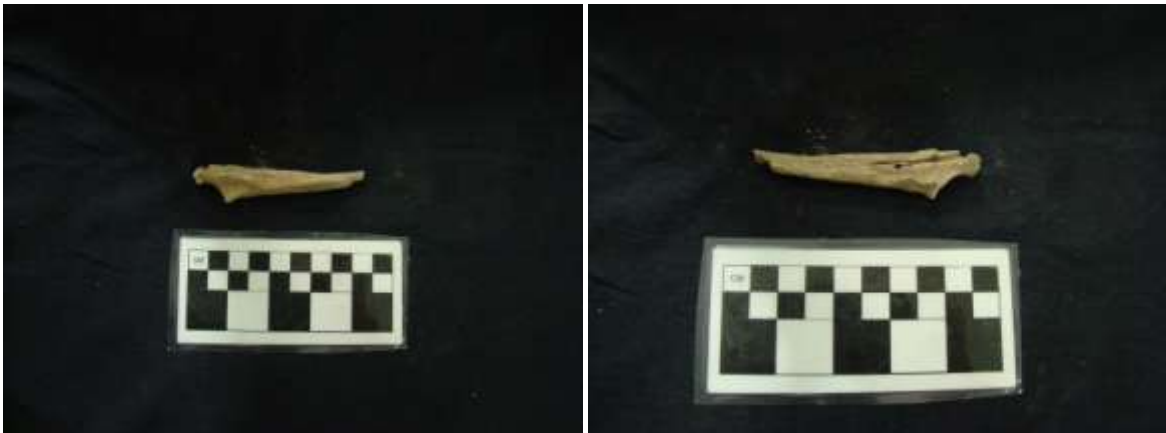
Humerus, epiphysis distal, pathology not identified. Entierro #16, unidad 16-2, estrato C, nivel 1.



Molars, premolars and incisive. Burial #16, Unit 49, strata E, level 1



Infantile femur, two fragments. Burial #16, unit 16-2, strata C, level 1.



Infantile Ulnae. Burial #16, unit 16-2, strata C, level 1.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 49
BURIAL: #17

DIAGNOSTIC TRAITS

SEX not defined
AGE 18- 28 years, according to dental development.

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					
PARIETALS					
TEMPORALS					
FRONTAL					
NASAL					
MAXILAR			very fragmentary	various	Small fragments, non diagnostic.
SPHENOID					
ZIGOMATICS					
MANDIBULAE			very fragmentary	various	Small fragments, non diagnostic.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE			very fragmentary		Recorded <i>in situ</i> , remains however are today too fragmentary and non diagnostic.
HUMERI					
ULNAE					
RADIUS					
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE			very fragmentary	various	Several fragments of ribs, non sideable, non diagnostic.
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					

FEMURAE					
PATELLA					
TIBIAE					
FIBULA					
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	Deciduous	observations
incisive	7		
canines	3		
premolars	4		completed roots
molars	7		completed roots

Burial belongs to a single, adult, individual. Fragments of both lower and upper extremities are recorded during the excavation process, but when examined in lab was found too damaged, too fragmentary and non diagnostic. The position the burial presented while excavated is of an individual lying down on the side, over lateral side of right humerus and right femora.



Molars, premolars, canines and incisive. Burial #17, Unit 49, strata F, level 5

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 49
BURIAL: #18

DIAGNOSTIC TRAITS

SEX masculine, supra orbital margins #4
AGE Adult

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL					
PARIETALS			fragmented	various	non diagnostic small fragments
TEMPORALS					
FRONTAL			fragmented	2, various	Non diagnostic small fragments. Two fragments containing part of frontal and orbits, including supra orbital margins.
NASAL			fragmented	1	small fragment of upper nasal, includes part of metopic suture
MAXILAR					
SPHENOID					
ZIGOMATICS					
MANDIBULAE			very fragmentary	3	Related to teeth, very bad state of conservation.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE					
HUMERI					
ULNAE		X	very fragmentary	1	Small fragment of head (proximal epiphysis), side was determined <i>in situ</i> , actual remains are non sideable.
RADIUS		X	very fragmentary	2	Fragment of diaphysis 3cm long, distal epiphysis very fragmented.
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE					
<i>RIBS 1- 2</i>					
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					

THORACIC					
LUMBAR					
SACRUM					
COCCYX					
OS COXAE					
FEMURAE	x		very fragmentary	1	head of femur, 41mm diameter
PATELLA					
TIBIAE					
FIBULA					
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	Deciduous	observations
incisive	3		All teeth with completed roots. Seem to be exposed to some kind of heat, most of them blackened. Color and texture similar to wood, very brittle.
canines	1		
premolars	2		
Molars	4		

Burial belongs to a single, adult, male individual. Skull very fragmented but diagnostic. Fragments of both lower and upper extremities are recorded during the excavation process, but when examined in lab was found too damaged, too fragmentary and non diagnostic. The position the burial presented while excavated is of an individual lying down on the

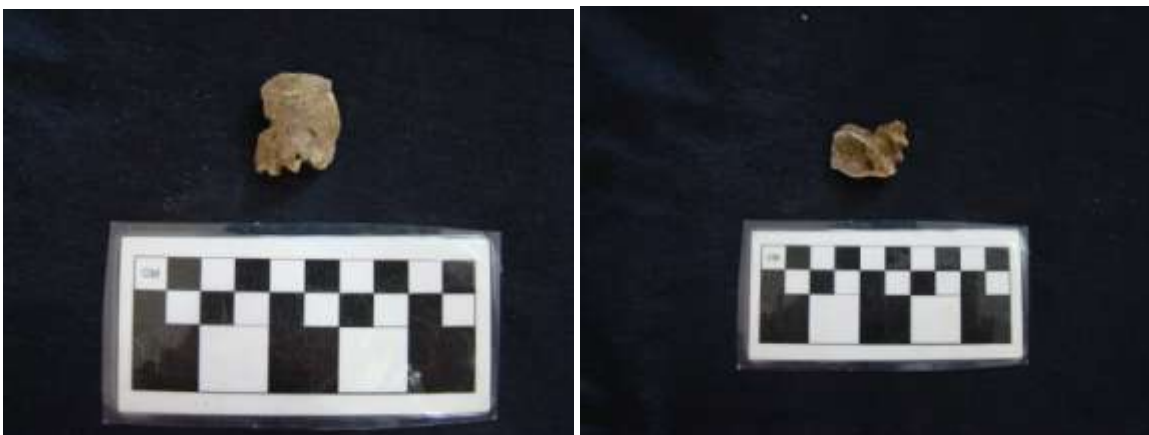
side, over lateral side of left humerus and left femora. Teeth and mandible appear to be exposed to heat, the color and texture of bone and teeth point to heat damage.



Molars, premolars, canines, incisive. Blackened. Burial #18, Unit 49, strata G, level 2.



Supra orbital margins #5; burial #18, Unit 49, strata G, level 2.



Part of Nasal; Burial #18, Unit 49, strata G, level 2.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 49
BURIAL: #19

Fragments of lumbar vertebrae, small fragments of ribs (non diagnostic). Neither age nor sex can be determined from the remains, though they seem to belong to an adult or young adult.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 16-2
BURIAL: #20

Fallen from profile. Very small fragments of skull that have been very damaged in time by soil or other elements, current color is very white.

**HUMAN REMAINS DESCRIPTION
FORM**

EL DORNAJO SITE

UNIT: 48
BURIAL: #14-15

Fragments of assorted bones. Small piece of head of femur; fragments of diaphysis of long bones, non diagnostic; Fragments of fibula, distal epiphysis in very bad state of conservation.

HUMAN REMAINS DESCRIPTION FORM

EL DORNAJO SITE

UNIT: 28
BURIAL: surface recollection

DIAGNOSTIC TRAITS

SEX One female, other unknown.
AGE not defined

CRANIUM *

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
OCCIPITAL			fragmented	1	Belonging to at least two different individuals. One of them female, (mastoid processes #1), other unknown.
PARIETALS			fragmented	2	
TEMPORALS			fragmented	1	
FRONTAL			fragmented	2	
NASAL					
MAXILAR		X	fragmented	1	no teeth
SPHENOID					
ZIGOMATICS					
MANDIBULAE	x	X	good	3	Almost complete, No teeth, all lost postmortem.

* only bones that have been identified at least once have been listed

	RIGHT	LEFT	CONSERVATION STATE	# DIAG. FRAGMENTS	OBSERVATIONS AND PATHOLOGIES
CLAVICLES					
SCAPULAE			fragmented	3	Related but not correspondent fragments of scapulae.
HUMERI					
ULNAE					
RADIUS		X	fragmented	1	Head (proximal epiphysis) of radius.
CARPALS					
META CARPALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					
RIB CAGE			fragmented	various	assorted ribs, non sideable, non diagnostic
<i>RIBS 1- 2</i>	x		fragmented	1	first rib
<i>RIBS 3-11</i>					
<i>RIBS 12</i>					
ESTERNON					
VERTEBRAE					
<i>CERVICAL</i>					
<i>THORACIC</i>					
<i>LUMBAR</i>					
SACRUM					
COCCYX					
OS COXAE					
FEMURAE					

PATELLA					
TIBIAE			very fragmented	2	Diagnostic fragments of tibiae, diaphysis.
FIBULA			very fragmented	1	Distal epiphysis, non sideable, very damaged.
TARSALS					
META TARSALS					
PROXIMAL PHALANGES					
MEDIAL PHALANGES					
DISTAL PHALANGES					

DENTITION

	permanent	deciduous	observations
incisive			
canines			
premolars			
molars			

Surface recollection, Unit 28. The feature involves various individuals, at least two identifiable through cranium. Long bones, especially from the legs are present as fragments of several diaphyses, but again could not be determined. No molars or other teeth. No ante mortem fractures were found, though the head of radius presents pathology, it is difficult to be certain due to state of the remains.



Mandible, dos fragments, y maxilla. Surface recollection, Unit 28



Mastoid processes right and left, female. Surface recollection, Unit 28.



Radius with pathology; surface recollection, Unit 28

The radius presents a clear inflammation of the bone, probably associated to previous trauma, and could also be related to a tumor formation on the bone.

Conclusion:

After a review of the remains found on the El Dornajo site, there are several considerations to be made.

The first is the number of adult versus young individual found in total on the excavated burials.

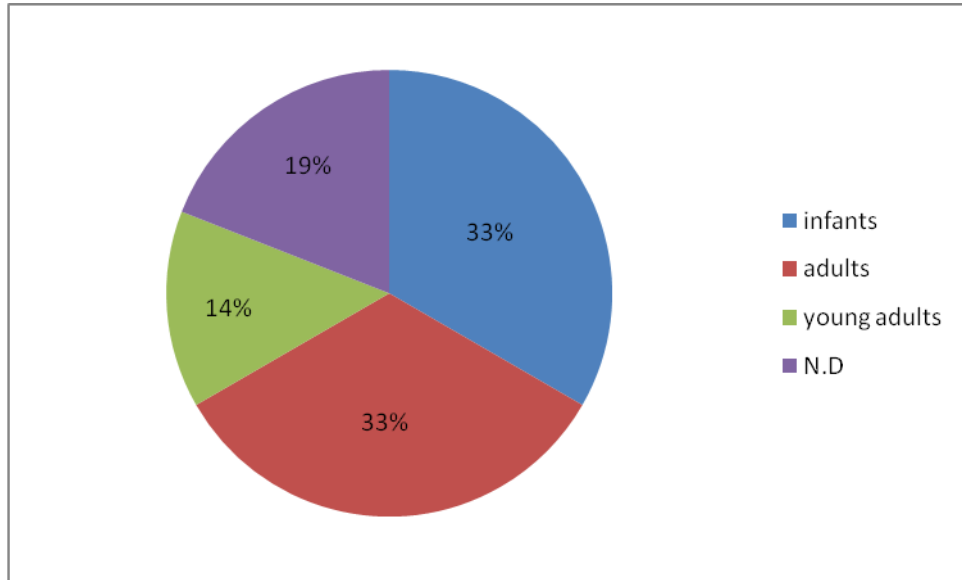
We note that out of the total of twenty burials (that contain 21 individuals recuperated), 7 contain a very young individual, ranging from under one year of age to 11 years. Four of the infant burials were found mixed with animal bones inside a vessel or near another adult burial (see 16). Out of the seven young individuals, only burial #1 presented any pathologies, both porotic hyperostosis and cifosis, the first a direct consequence of diet, the second a birth defect that was present long enough visible evidence on the immature bone.

Also, three individuals described as “young adults” because of lack of eruption of third molars were found. These are a female individual from 17- 21 years of age in burial #2-10 that presented a group of interesting pathologies (see burial #2-10), an individual under 15 years of age with molar malformation in burial #7, and a male young adult in burial #12.

Adult remains were in total present in seven burials, it is worth noting that these adults all correspond to the lower levels of excavation in the units. Of these six, only one female and one male were recognized, and only other two presented the visible pathologies, a lumbar vertebrae with rheumatoid arthritis in burial #15 and a radius with bone response to trauma in the surface recollection on unit 28.

The other four burials were in a very bad state of conservation, and therefore could not be identified either by sex or age attributes.

Individuals according to age in %



On a second approach, if we take into account the number and nature of the pathologies presented, it is safe to assess that it was in general a healthy population. Either because of the state of the remains or because of the techniques used during examination, only few identifiable pathologies were found, and of those only the ones presented on individual #2-10 and #15 as in the radius of the surface recollection on unit 28 presented serious diagnostics, that could have made the individuals' daily activities problematic and caused, probably on long term, their deaths.

Some other defects such as the porotic hyperostosis on burial #1 and the abnormal growth of molar surface on burials #7 and #15 suggest an unbalanced diet, though not strong enough to cause other nutrition markers such as enamel hypoplasia or growth lines in long bones. This assessment would be easily debated once the diet considerations for the site are finished.

One very particular thing regarding the burials was the position in which individuals #1 and #2-10 were found. The crossed legs and extended upper position are not common and should be checked in reference to other burials in the area. Also, the unusual conditions in which some infants were buried mixed with animal bones and in relation with adult or young adult burials is an interesting find.