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**Animal remains from Nagarjunakonda  
archaeological site (Andhra Pradesh) and  
their relevance to the ancient civilization**

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**ZOOLOGICAL SURVEY OF INDIA**



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## INTRODUCTION

Nagarjunakonda, the famous Buddhist site of Andhra Pradesh drew attention of the people in early twenties of the twentieth century and had been the point of attraction of the archaeologists, historians and pilgrims since then. The archaeological importance of the site was first brought to the notice by R. Saraswati in 1926, after learning about interesting findings from the place by the local people. Explorations at different times had initially created an impression about the site as one Buddhist settlement that came up during the rule of the Ikshvakus. But the large scale excavations, that commenced in 1954 and continued till 1960, subsequent to the decision of turning the valley into a reservoir of the Nagarjunasagar Dam, revealed cultural sequences from the lower Paleolithic to Medieval times. It also unearthed the remains of the township of Vijaypuri that flourished in the third and the fourth centuries A.D.

Nagarjunakonda or the hill of Nagarjuna is located in a valley on the southern bank of the river Krishna in the Palad Taluk of Guntur District of Andhra Pradesh (16°31' N:79°14' E). The site is now submerged as a result of the dam built across the river Krishna. The valley is bounded by hills on three sides while river Krishna flows through the other side. The nearest rail head of the site is at Macherla on the Guntur-Macherla line.

## TOPOGRAPHY AND HABITAT

Nagarjunakonda, or the hill of Nagarjuna, is located in a valley that forms a unique geographical unit from the view point of physiography, human cultures and economy. The valley proper is undulating with areas reaching about 130 m. contour level in its midst. The valley is the eastern part of a longer hill-grit valley, bisected by the northwardly flowing Krishna River. The hills are the spurs of the Nallamalai range of the adjoining Kurnool District. The ground slopes down from the foot of the hills towards the river, the lowest point becomes 76 m. above msl, and the highest point of the hills towards eastern side being about 245 m. above msl (see Text-Fig. 1). The hills were largely wooded and the river was almost dry during most part of the year with stony bed covered by pebbles and sands. The river used to swell seasonally resulting mighty flow.

The valley lies in a region of low rainfall that range from about 380 to 508 mm. per annum. It has also been one of the warmest places in Andhra Pradesh with a temperature reaching up to 48.8°C at times (with an annual temperature range of 21.1°C to 48.8°C). The prominent soil type of the valley is red gravelly but there have been mosaics of black soil patches. The black soil has been well known for its fertility and capable of retaining moisture due to its humus content. The origin of the black soil may be contributed to the existence of thick vegetation with more wet climatic conditions in distant past. The valley and the hills supported a sizeable flora as revealed by the study of Totadri and Srinivasan (1975). The vegetation could be broadly classified into: (i) vegetation of the plain composed largely of herbs together with a few shrubs and trees; (ii) scrub jungles of foothill zones; (iii) thorn forest of hills slopes, and (iv) dry deciduous forest of the hill top.

The wildlife of the valley was also varied and interesting (Subrahmanyam *et al.*, 1975). A number of monkeys, lemurs, mongooses, otters, bats etc. were sighted here. It was also home of a number of snakes. The valley with its scrub jungle might not have been a home ground for big game animals and large carnivores, but its proximity to a perennial water source and abundance of prey animals had surely encouraged large carnivores to visit this area from nearby thicker forests of Srisailam hills. Bison and sambers also inhabited this valley.

## HISTORY OF EXCAVATION

Longhurst (1938) drew attention of the scholars and the Govt. authority about the potentiality of Nagarjunakonda as an archaeological treasure. He did it primarily on the basis of an inquisitive search report of the Govt. Epigraphist, R. Saraswati in 1926. Subsequently, before construction of a dam across the river Krishna, this historic site with all its archaeological treasures was facing threat of complete submergence. It was therefore, decided by the Govt. of India that before submergence the entire valley would be thoroughly explored, excavated and archeological material be preserved. The work of excavation was initiated in 1954 by the Archaeological Survey of India (ASI). The entire valley was surveyed and divided into several sectors (see Text-Fig.2). These sectors were grouped under the series 'N' and 'S', the northern and southern of an imaginary baseline running east to west from the Peddakundellagutta to Phirangimotu Hill dividing the valley into two halves. Each sector was further subdivided into divisions of 100 sq. ft. (30.5 sq. m.) in which 20 sq. ft. (6.1 sq. m.) trenches were laid and systematic exploration of the entire valley was done. A large number of structural remains, artefacts and objects, and animal remains of different time periods were unearthed.

The animal remains were sent to the Zoological Survey of India (ZSI) for examination. Animals with hard exoskeletons (mollusks, turtles) or endoskeletons were recovered from the excavations. The recovered animal remains belong to the cultural strata of Neolithic, Megalithic and Early Historical periods. Earlier, Nath (1961) worked out skeletal parts of some animals obtained during the excavation. A systematic inventory of all available animal remains is documented here and their relevance in the ancient cultures is discussed in the present account.

## SITES OF EXCAVATION AND SUCCESSION OF HUMAN CULTURES

Sites numbering more than 130 spread over an area of about 23 sq. km. surrounded by the hills of Nallamalai Range, were excavated by the Archeological Survey of India (ASI). On the basis of recovered articles the sites were divided into seven different periods: Period I- Lower Palcolithic; Period II- Middle Paleolithic; Period III- Mesolithic; Period IV- Neolithic; Period V- Megalithic; Period VI- Early Historical; and Period VII- Medieval.

Remains of early Stone Age (Lower Paleolithic) represented by stone artefacts could be recovered from large part of the valley. The Middle Paleolithic industry exhibited a tendency of production of blades, blade flakes, scrapers etc. The Middle Paleolithic tradition seemed to have continued in the Mesolithic culture. The Mesolithic industries represented by microlithic implements were recovered only from a limited number of sites (Subrahmanyam *et al.*, 1975).

According to Subrahmanyam *et al.* (*loc. cit.*) the excavation of Nagarjunakonda revealed one of the most unique collections of neoliths in India. The Neolithic sites were situated along the foot of a dolerite dyke that traverses along the centre of the valley. Axes were more abundant but variety of adzes was also found in the Neolithic industry, and the neoliths belong to more than one phase. The influence of factors like, proximity of sources of water, accessibility of stone out-crops providing raw material of lithic objects largely determined the locations of neolithic settlements. The earliest neolithic phase of Nagarjunakonda did not yield any grey or burnished sherd. Animal bones/remnants could not be recovered from this phase. The next phase of the neolithic culture was characterized by the higher frequency of red ware over burnished grey ware. Animal bones were also recovered from this phase. The subsequent phase showed predominance of burnished grey ware, over the red ware, and quantities of animal bones.

Megalithic vestiges in Nagarjunakonda were noticed initially by Longhurst (1938) which he referred to as a pre-Buddhist tomb. Megalithic burials were investigated during the subsequent excavation by the ASI and megalithic finds like, iron implements, black and red ware pottery plus alloyed gold and silver implements were recovered. Animal bones were also recovered. There has been an estimated time gap of about one thousand year between the last phase of Neolithic culture and the Megalithic culture. There has again been a time gap between the Megalithic culture and early Historical phase (see Age of the Cultures).

The Medieval hill fort that came up on the hill contained medieval temples. These temples have been saved from the submergence during construction of the dam.

## AGE OF THE CULTURES

On the basis of typological comparisons of feet of the Lower and Middle Paleolithic cultures obtained during the excavation appear to be the Early Pleistocene to Middle Pleistocene, falling approximately within the time range of about 300,000 to 100,000 years before present YBP. Mesolithic microliths also abounded in the valley. However, surface collections revealed certain areas of concentration disclosing at the same time several typological differences (Ghosh, 1989). The estimated time period in respect of the Mesolithic culture appear to be the early part of the Holocene, falling approximately within the time range of 10,000 to 8,000 YBP. It is considered that the Neolithic facies of the valley of Nagarjunakonda as a part of the widely diffused culture that flourished in different parts of the Deccan and Karnataka. The earliest culture of Nagarjunakonda, on the basis of radio carbon test, is dated to about 2160 B.C. Further, the tool types suggest an early date-

a date which coincides with the beginning of Neoliths in the Deccan of Karnataka. So, this culture can be dated to a period earlier than 2500 B.C. (Subrahmanyam *et al.*, 1975). However, the evolved phase of the Neolithic culture is assigned to a period of about 1500 B.C.

The Megalithism was possibly an active and progressive principle till the Asokan time and its decadence is indicated by the fact that the megalithic folk remained illiterate even during the early centuries of the Christian era. The pit burial stone circles of Nagarjunakonda can be assigned to the time phase of inception of the culture, *viz.* about 750 B.C.

According to Ghosh (1987) a time interval has again been perceived between the Megalithic culture and the Early historical phase commencing in about 200 A.D. It may be noted here that the name of Nagarjunakonda occurs in Medieval records and does not seem to have any connection with 'Nagarjuna,' the Buddhist philosopher of the second century A.D.

### SYSTEMATIC ACCOUNT OF ANIMAL REMAINS

The animal remains of Nagarjunakonda archaeological site are worked out and the result of it is presented in Table 1

**Table 1.** Systematic analysis of animal remains recovered from Nagarjunakonda archaeological site.

*Culture : Neolithic*

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Sus scrofa cristatus</i> Wag.	1	Left upper 2 <sup>nd</sup> molar	L-2'0" x 6'5"; S-4	4'10"	Complete
	1	Mandibular symphysis with teeth	L-B2(b2 10'4" C2 11'11"); S-3	4'2"	Broken
	1	Distal fragment of the right humerus with media and lateral condyle	"	"	Broken
<i>Axis axis</i> (Erxl.)	1	Distal fragment of right humerus	L-C1( C1 8'3" D 15'4"); S-2	2'2"	Broken
	1	Distal fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	Data not recorded		Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Axis axis</i> (Erxl.)	1	Fragment of shaft of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	S-4		Broken
<i>Cervus duvaucelii</i> Cuv.	1	Fragment of antler	L-C5 W to E 5 N to 6'4" ;S-2	0'8"	Broken
<i>Cervus unicolor</i> Kerr.	1	Distal fragment of right tibia	L-D; S-5		Broken
	1	Fragment of the horizontal ramus of the mandible	L-A3; S-1	1'5" to 2"	Complete
<i>Antilope cervicapra</i> (Linn.)	1	Proximal fragment of femur	Data not recorded	-	Broken
<i>Boselaphus tragocamelus</i> (Pallas)	1	Fragment of the left horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> molar	L- (B2 16'20", B3 10'2");S-4	4'0"	Complete
<i>Bos indicus</i> Linn.	1	Fragment of the proximal part of left calcaneum with tuber calcis	L-b2,0'6"S x 7'7"E; S-1	2'5 ½"	Broken
	1	2 <sup>nd</sup> Phalanx of fore limb	L-C2 SQ-3; S-3and2	1'11" to 1'16"	Complete
	1	2 <sup>nd</sup> molar fragment of lower jaw	L-C2 SQ-4; S-3 and 2	1'- 1'3"	Broken
	1	Distal fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-C2 SQ 3; S-3 and 2	1'.11" - 1"6"	Broken
	1	Metacarpophalangeal sesamoid bone	S-2	-	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	L-C3; S-15	6"-1"	Complete
	1	2 <sup>nd</sup> Lower molar of left side	L-E1 SEQ; S-3	2"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of proximal extremity of left 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-D4; S-27	7" – 10"	Broken
	1	Proximal fragment of right femur	L-D2(D-10'6", D3-10'2"); S-2	3'8"	Sub adult
	1	Fragment of Tibia	L-B2 6'7"S X 8'4" E ; S-1	1'5"	Broken
	1	Fragment of a molar tooth	L-C2 SQ-3; S-3 and 2	1'3" – 1'5"	Broken
	1	Proximal fragment of left tibia with broken medial and lateral condyles	L-C2 4'8" S X 3'2"E-1'6"; S-2a	1'6"	Broken
	1	Distal condyle fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-C2 4'8"S X 3'2" E-1'6" ;S-2	1'6"	Broken
	1	Fragment of right pelvis bone with a portion of acetabulam and ischium	L-A1 SWQ ; S-3	2'10"	Broken
	1	Fragment of spinous process of vertebra	L-T-4 SWQ.; S-3	2'10"	Cut mark
	1	Fragment of rib	"	2'10"	Broken
	1	Body of thoracic vertebra	L-C3(C3-21', C4-17'6'); S-3	2'9"	Broken
	1	Distal fragment of left radius	"	"	Broken
	1	Anterior fragment of right horizontal ramus of mandible with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar	L-C4; S-2	2'3"	Complete
1	Fragment of neck of scapula	L-B1 19'2.50" S X 5'4" E	1' 6 ½"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of distal shaft portion of femur without distal epiphysis	L-D1, SEQ.; S-3	2'8"	Cut mark
	1	Fragment of lumber vertebra	"	"	Broken
	1	Proximal fragment of the right radius with medial condyle	L-C3-22'2"; C4-14'0"	2'6"	Broken
	1	Fragment of lower end of the vertical ramus of mandible	L-B2 13'0" W X 1'11" S	1'8 ½"	Broken
	1	Fragment of rib	L-A2 4'6" S X 6'5" E :S-2	—	Broken
	1	Fragment of acetabulum portion of pelvic bone	"	"	Broken
	1	Distal fragment of right humerus	L-C1 SQ 4 ; S-33	10"	Chopping mark
	1	Fragment of horizontal ramus of right side mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L-B4 (B4-9'2", C49'3"); S-4	4'9"	Broken
	1	Fragment of left vertical ramus of mandible	"	"	Broken
	1	Fragment of head of femur	"	"	Broken
	1	Fragment of rib	"	"	Broken
	1	Right astragalus	L-A1 (C1-11'0", C1-14'6"); S-2	—	Complete
	1	First upper right molar tooth	L-D4 ; S-2	2'4"	Broken
	1	1 <sup>st</sup> phalanx of hind limb.	"	"	Sub adult
1	Fragment of rib	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> right metacarpal	"	"	Broken
	1	Fragment of Shaft	L-A5, 11'9" X B5 10'0"; S-2	1'6"	Broken
	1	Distal fragment of left tibia with medial malleolus	L-D1 NEQ.; S-3	2'6"	Broken
	2	Fragments of ribs	"	"	Broken
	2	Fragments of ribs	Data not recorded	-	Broken
	1	2 <sup>nd</sup> right upper molar	L-D4 14'5" E4 12'11"	3'	Broken
	1	Fragment of proximal end of 1 <sup>st</sup> phalanx	"	"	Broken
	1	Fragment of pubis of right pelvis	L-E4 S.W.Q.	1'2"	Broken
	1	Fragment of right vertical ramus of mandible with condyle.	"	"	Broken
	1	Fragment of blade of scapula	L- (B2-18'6", C2-6'11"); S-3	3'3"	Broken
	1	Distal fragment of left 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with a portion of shaft and lateral condyle	"	"	Broken
	1	Fragment of rib	L-E1 N.W.Q.; S-3		Broken
	1	Distal fragment of radius.	"	"	Sub adult
	1	Right upper 4 <sup>th</sup> premolar	"	"	Complete
	1	Fragment of vertical ramus of left side of mandible	L-A4	2'7"	Broken
1	Fragment of 3 <sup>rd</sup> metacarpal	L-A2 3'7"5 x 7'2"; S-2	6' ½" 1'10"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of 3 <sup>rd</sup> premolar of left lower jaw	L-B2 8'5.50" W X 1'11"S ; S-3	1'8 ½"	Broken
	1	Fragment of squamosal-temporal bone	L-E N.E.Q ; S-3	11"	Broken
	1	2 <sup>nd</sup> and 3 <sup>rd</sup> premolar of the left upper jaw	L-(B4-19'2", C4-9'3"); S-4	4'2"	Broken
	1	Right calcaneum with tubercalcis	L-B2(B2-14'5", B3-11'7"); S-2	4'1"	Broken
	1	Distal end of 3 <sup>rd</sup> metacarpal	L-B1(B2-14'4", C1-14'3"); S-2	2'5"	Broken
	1	Right upper 3 <sup>rd</sup> premolar	"	"	Broken
	1	Scapho-cuboid of proximal tarsal	L-C4(H3 15'6" X H4 7'8.50"); S-3	2'8"	Complete
	1	1 <sup>st</sup> left upper premolar tooth	L-A5(A5-16'5" B5-10'4'); S-3	3'10"	Broken
	1	Fragment of right calcaneum with a body and sustentaculum	"	"	Broken
	1	Fragment of rib	L-E5 SWQ; S-3	1'5"	Broken
	1	Fragment of pelvis with portion of acetabulum and Ischium	"	"	Broken
	1	Fragment of right pelvis with a portion of acetabulum, pubis and ischium	L-A4; S-2	1'3"	Broken
	1	Fragment of rib	L-D N.E.Q.; S-3	1'8"	Broken
	1	Fragment of right vertical ramus of mandible	L-7Q.E.Q; S-4	-	Broken
1	Distal part of 3 <sup>rd</sup> metatarsal with condyle	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	2	1 <sup>st</sup> and 2 <sup>nd</sup> molar of left mandible	L-BS-17	10"	Complete
	1	Distal part of 3 <sup>rd</sup> metatarsal with condyle	"	"	Broken
	1	Left calcaneum	L-2F,C4-13'6";S-3	2'	Broken
	1	Fragment of right pelvis with acetabulum	L-E5 E7 9'4 1/2"x 7'E5.S.W.Q.; S-3	2'5"	Broken
	1	Fragment of rib	L-D2 5'8" x 5'10"; S-4	5'4"	Broken
	1	Fragment of proximal part of 3 <sup>rd</sup> metatarsal	L-C2; (12'0"S x 6'4'E); S-2	1'7"	Broken
	1	Second phalanx of fore limb	L-A4	1'10"	Sub adult
	1	Fragment of neck of right scapula	L-16'2 1/2"W x 2'3"5;S-1	2'0"	Sub adult
	1	Fragment of distal epiphysis of left tibia with lateral malleolus and broken medial malleolus	"	"	Cut mark
	1	Left astragalus	L-D1 S.E.Q ;S-3	3'11"	Cut mark
	1	Left calcaneum without tubercalcis and body	"	"	Broken
	1	3 <sup>rd</sup> phalanx of hind foot	Neo 44	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of thoracic vertebra	"	—	Broken
1	Caudal vertebra	"	—	Broken	
1	Right scaphoid of the proximal carpus	"	—	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Part of left astragalus with distal condyle	"	—	Broken
	1	Fragment of cervical vertebra	"	—	Broken
	1	Right lower 2 <sup>nd</sup> premolar	"	—	Broken
	1	Right Calcaneum without tubercalcis and body	L-B5 10-H; S-2	0'8"	Broken
	1	3 <sup>rd</sup> right lower molar	L-A1 -1'4'E x 8'6"S.	10"	Complete
	1	1 <sup>st</sup> lower molar	"	"	Broken
	1	Fragment of posterior articular surface of cervical vertebra	"	"	Broken
	1	1 <sup>st</sup> phalanx of fore limb	"	"	Complete
	1	Fragment of blade of scapula	L-D1 D1-16'8" D2-8'7"; S-2	1'6"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of lumber vertebra	L-S.N.Q; S-3	2'7"	Broken
	1	Fragment of anterior portion of left ramus of mandible	L-E2 E3-17'6" E3-5'6"; S-2	—	Complete
	1	2 <sup>nd</sup> phalanx of forelimb	"	—	Broken
	1	Fragment of distal extremity of right humerus with a portion of medial condyle	L-B2 B2-16'16" B2-10'2"; S-4	4"	Broken
	1	Fragment of right vertical ramus of mandible with broken condyle	Neo-46	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Incisor tooth	"	—	Broken
	1	Fragment of left humerus without distal epiphysis	L-B2 B2-14'5" B1-11'7"; S-4	4'1"	Broken
	1	Left upper 3 <sup>rd</sup> premolar tooth	L-CB C210'6" D210'1"; S-3	3'1"	Complete
	1	Right lower 3 <sup>rd</sup> premolar tooth	"	"	Broken
	1	Fragment of distal end of 3 <sup>rd</sup> metatarsal having medial condyle	L-D18 ; S-4	5'10"	Broken
	1	Fragment of a vertebra with neural arch and spine	L-E4; S-3	1'11"	Broken
	1	Fragment of proximal part of large metatarsal	L-A1 14'E x 8'6" S	10"	Sub-adult
	1	2 <sup>nd</sup> phalanx of hind limb	"	"	Complete
	1	Left upper 2 <sup>nd</sup> molar tooth	L-2' from south and 1'4" from North	—	Sub adult
	1	Fragment of 1 <sup>st</sup> phalanx of hind Limb	L-H6 17'10" x 3'4"; S-1	—	Broken
	1	Fragment of 2 <sup>nd</sup> phalanx of hind limb	"	—	Broken
	1	Fragment of rib	L-B2; S-1	2'3"	Charred and cut mark
	1	Fragment of rib	L-7r SEQ;S-4	2'4"	Broken
	1	Fragment of molar tooth	L-C3;S-43	1'1" to 4'	Broken
1	Fragment of blade of scapula	L-A; 14E X 8'16"S-; S-2	10"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Proximal portion of left scapula with a part of glenoid cavity	L-B2 0'8''S x 8'10''E; S-1	2'6''	Broken
	1	1 <sup>st</sup> molar of right lower jaw	L-B1 8'1 ½''W x 5'4''S; S-3	1'11''	Broken
	1	Left 1 <sup>st</sup> molar tooth	S-2	—	Complete
	1	Left 2 <sup>nd</sup> molar tooth	"	—	Complete
	1	Left 3 <sup>rd</sup> molar tooth	"	—	Complete
	1	1 <sup>st</sup> Lower left molar tooth	"	—	Broken
	1	Left Lower 2 <sup>nd</sup> molar tooth	L-C2 SQ-3; S-45	1'16'' to 2'	Sub adult
	1	1 <sup>st</sup> molar tooth of left lower jaw	"	"	Broken
	1	1 <sup>st</sup> left upper premolar tooth	S-3	—	Complete
	1	2 <sup>nd</sup> left lower premolar tooth	"	—	Complete
	1	2 <sup>nd</sup> and 3 <sup>rd</sup> left upper molar teeth	"	—	Complete
	1	Distal extremity of 3 <sup>rd</sup> metacarpal with a single condyle	"	—	Broken
	1	1 <sup>st</sup> premolar tooth	L-B1 8'10''S x 4'6''E; S-1	1'16''	Broken
	1	Fragment of molar tooth	"	"	Broken
	1	Proximal part of right tibia bearing small portion of medial and lateral condyles with tubercalcis of spine	"	"	Broken
	1	Distal part of 3 <sup>rd</sup> metacarpal with medial condyle	L-D3-10'3''E3 4'3''; S-3	4'11''	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of distal condyle of 3 <sup>rd</sup> metacarpal	"	"	Broken
	1	2 <sup>nd</sup> phalanx	"	"	Complete
	1	Fragment of left pelvis with a portion of acetabulum and a small portion of ilium	"	"	Broken
	1	Fragment of part of left calcaneum with tubercalcis	L-B2 4'4"W x 2'6"S; S-1	1'6 ½"	Broken
	1	Fragment of rib	L-B2 2'8"S x 8'5"E; S-1	2'-2 ½"	Broken
	1	2 <sup>nd</sup> phalanx	S-2	—	Complete
	1	Fragment of rib	S-2	—	Broken
	1	Fragment of rib	L-5'4"S x 6'0"E; S-2	0'5 ½"	Broken
	1	Right astragalus	L-C3-9 C4-14 S-3	2'4"	Complete
	1	Fragment of anterior portion of horizontal ramus with broken 1 <sup>st</sup> premolar	L-C4 8'6" x D4 8'2"; S-3	4'3"	Broken
	1	Fragment of right 3 <sup>rd</sup> upper premolar tooth	"	"	Complete
	1	Right upper 1 <sup>st</sup> molar tooth	"	"	Complete
	1	Fragment of rib	S-9.4	—	Broken
	1	3 <sup>rd</sup> phalanx of forelimb	"	—	Broken
	1	Fragment of blade of ilium of left pelvis	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Proximal part of scapula with a portion of glenoid cavity	"	—	Broken
	1	Fragment of right vertical ramus of mandible with a portion of condyle	"	—	Eroded
	1	Left cuneiforms of fore limb	"	—	Broken
	1	2 <sup>nd</sup> upper right molar tooth	"	—	Broken
	1	Distal condylar part of 3 <sup>rd</sup> metacarpal	S-4	—	Broken
	1	Fragment of distal extremity of right femur with medial condyle	S-4	—	Broken
	1	2 <sup>nd</sup> upper molar tooth	"	—	Complete
	1	Fragment of left horizontal ramus of mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar	S-4	—	Broken
	3	Fragment of rib	L-A4S-3	3'2"	Broken
	1	Fragment of distal portion of 3 <sup>rd</sup> metacarpal with a condyle	L-A4S-3	2'8"	Charred
	1	Proximal part (head) of femur	L-B4-17'7" C4-4'8"; S-11	4'2"	Broken
	1	Fragment of right vertical ramus of mandible with condyle and coronoid process without tip	L-Tr D1 to E1 11'8" x 2'10"- 2'0"; S-8	2'2"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Proximal part of left femur with head and trochanteric fossa	L-E1, SEQ; S-3	2'	Cut mark
	1	Proximal part of right tibia with lateral and medial condyles	"	"	Broken
	1	Right naviculo cuboid with fused lateral and medial cuneiforms	"	"	Complete
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L-E2 17'6" E3 17'8"; S-2	3'3"	Complete
	1	Part of left horizontal ramus with fragment of 3 <sup>rd</sup> premolar, 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L-B1, 14'4" C1 14'3"; S-2	2'8"	Complete
	1	Fragment of shaft of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-D1 14'10" D2 10'6"; S-2	1'4"	Broken
	1	Fragment of right pelvis with a portion of acetabulum	L-E3, SW 8 ½"; S-2	10'	Broken
	1	Fragment of right tibia	L-B 17'8" x C 8'2"; S-3	3'4"	Broken
	1	Right 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-B2 1-1'6"- 2-8'5"; S-3	1'-8"	Broken
	1	Proximal part of left tibia with medial condyle	"	"	Broken
	1	Distal part of left femur	"	"	Cut mark
1	1 <sup>st</sup> phalanx of fore limb	"	"	Complete	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Bos indicus</i></b> <b>Linn.</b>	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> left metacarpal with proximal part of shaft	"	"	Broken
	1	Fragment of body of vertebra	"	"	Broken
	1	Fragment of astragalus	"	"	Broken
	1	Body of lumber vertebra with part of articular process	"	"	Broken
	2	Body of thoracic vertebra	"	"	Broken
	1	Distal part of 3 <sup>rd</sup> metatarsal	"	"	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Complete
	1	Body of thoracic vertebra	"	"	Broken
	1	1 <sup>st</sup> phalanx	"	"	Broken
	1	2 <sup>nd</sup> phalanx of hind limb	"	"	Complete
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Broken
	1	1 <sup>st</sup> phalanx of hind limb	"	"	Complete
	1	Part of right temporal bone of skull	"	"	Broken
	1	Caudal vertebra	"	"	Broken
	1	Left lower 1 <sup>st</sup> molar tooth	"	"	Broken
	1	Upper left 1 <sup>st</sup> premolar tooth	"	"	Eroded
1	Fragment of upper molar tooth	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Left lower 3 <sup>rd</sup> premolar tooth	"	"	Broken
	1	Right lower 2 <sup>nd</sup> premolar tooth	"	"	Broken
	1	Fragment of molar tooth	"	"	Broken
	1	Fragment of upper molar tooth	"	"	Broken
	1	Right upper 1 <sup>st</sup> molar tooth	"	"	Complete
	1	Part of right lower jaw with 1 <sup>st</sup> , 2 <sup>nd</sup> molar and 3 <sup>rd</sup> premolar teeth	L-E-8'4"D5-3'2"; S-2	3'1"	Wild type
		Fragment of rib	"	"	Wild type
	1	Fragment of upper molar tooth	L-B2 1'10 1/2"S x 12'0"E; S-3	2'0"	Broken
	1	Head of femur	L-C1, 11'2 1/2"S x 3'11 1/2"E; S-3	1'11"	Broken
	1	Incisor tooth	"	"	Sub adult
	1	Right humerus with medial condyle and part of distal articular surface	L-D2; D2-11'0" D3-4'8"; S-3	3'11"	Broken
1	Proximal part of metatarsal	L-D2-10'3" D3-14'3"; S-3	4'1"	Broken	
<i>Bubalus bubalis</i> (Linn.)	1	Distal part of right radius	L-D3 5'11" D2 1'2"; S-3	5'6"	Broken
	1	Right scapula with proximal part of glenoid cavity ischium	"	"	Broken
	1	Fragment of lateral vertical ramus of mandible with condyle	"	"	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Fragment of right ulna with semilunar notch and part of olecranon process	L-A1 -14 E x 8'6"-5'0"; S-2	10"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of phalanx	"	"	Broken
	1	Fragment of anterior portion of left horizontal ramus of mandible	L-B2 2 ½ S x 9'4'E	2'1"	Broken
	1	Fragment of molar tooth	L-C2 SQ-4; S-3	0'1"	Broken
	1	Part of scaphoid bone	L-Tr no 3; S-3	4"	Broken
	3	Fragment of body of vertebra	L-ENEQ		Broken
	1	1 <sup>st</sup> upper molar tooth	L-XLVN-XLIX-X 1'11"-XLVIII-LLIX 4'11"-8'2"; S-6	9'2"	Complete
	1	Proximal part of 3 <sup>rd</sup> metacarpal	"	-	Broken
	1	Fragment of horizontal ramus of mandible	L-B-0'3 ½"5 x 9'10 ½"E; S-1	2'3"	Broken
	1	Proximal part of left ulna with olecranon process and semilunar notch	S-3	2"	Broken
	1	Right cuneiform of fore limb	L-M6 91 12'6" 9 6 9'2"; S-1	1'4"	Broken
	1	Proximal part of a rib with head and tubercalcis	L-T A4; S-3	2' 4 ½"	Broken
	1	Fragment of left horizontal ramus of the mandible with 1 <sup>st</sup> premolar tooth	L-E.F.Q; S-3	3'9"	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Epiphysis of vertebra	"	"	Broken
	1	Fragment of shaft of right tibia	L-B4 17'7" C4 4'8"; S-4	4'2"	Broken
	1	Proximal part of right femur with trochanter	"	"	Broken
	1	Distal part of radius	"	"	Broken
	1	Fragment of rib	S-3	2'0"	Broken
	1	Fragment of molar tooth	L-B2 B3 6'2'N x 3'6"S	2	Broken
	1	Distal part of right femur	S-7	10'2"	Broken
	1	Distal part of 3 <sup>rd</sup> metacarpal	"	"	Broken
	1	Fragment of shaft of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-B5 18'6" C6 9'3"; S-3	3'1"	Complete
	1	Distal part of right tibia	"	"	Broken
	1	Fragment of rib	L-13;S-3	10' to 13"	Broken
	1	Fragment of spinous process of thoracic vertebra	L-E1-NEQ; S-3	"	Broken
	1	3 <sup>rd</sup> left lower molar tooth	L-E 5 8'4" D5 13'2"	-	Sub adult
	2	Fragments of rib	"	-	Broken
	1	Fragment of rib	"	-	Complete
	1	Fragment of rib	"	-	Broken
	1	Fragment of right tibia	L-B 17'8" x C 8'2"; S-3	3'4"	Broken
	1	Right 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-B2 1-1'6"- 2-8'5"; S-3	1'-8"	Broken
1	Proximal part of left tibia with medial condyle	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Distal part of left femur	"	"	Cut mark
	1	1 <sup>st</sup> phalanx of fore limb	"	"	Complete
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> left metacarpal with proximal part of shaft	"	"	Broken
	1	Fragment of body of vertebra	"	"	Broken
	1	Fragment of astragalus	"	"	Broken
	1	Body of lumbar vertebra with part of articular process	"	"	Broken
	2	Body of thoracic vertebra	"	"	Broken
	1	Distal part of 3 <sup>rd</sup> metatarsal	"	"	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Complete
	1	Body of thoracic vertebra	"	"	Broken
	1	1 <sup>st</sup> phalanx	"	"	Broken
	1	2 <sup>nd</sup> phalanx of hind limb	"	"	Complete
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Broken
	1	1 <sup>st</sup> phalanx of hind limb	"	"	Complete
	1	Part of right temporal bone of skull	"	"	Broken
	1	Caudal vertebra	"	"	Broken
	1	Left lower 1 <sup>st</sup> molar tooth	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Upper left 1 <sup>st</sup> premolar tooth	"	"	Eroded
	1	Fragment of upper molar tooth	"	"	Broken
	1	Left lower 3 <sup>rd</sup> premolar tooth	"	"	Broken
	1	Right lower 2 <sup>nd</sup> premolar tooth	"	"	Broken
	1	Fragment of molar tooth	"	"	Broken
	1	Fragment of upper molar tooth	"	"	Broken
	1	Right upper 1 <sup>st</sup> molar tooth	"	"	Complete
	1	Part of right lower jaw with 1 <sup>st</sup> , 2 <sup>nd</sup> molar and 3 <sup>rd</sup> premolar teeth	L-E-8'4" D5-3'2"; S-2	3'1"	Wild type
		Fragment of rib	"	"	Wild type
	1	Fragment of upper molar tooth	L-B2 1'10 ½"S x 12'0"E; S-3	2'0"	Broken
	1	Head of femur	L-C1, 11'2 ½"S x 3'11 ½"E; S-3	1'11"	Broken
	1	Incisor tooth	"	"	Sub adult
	1	Right humerus with medial condyle and part of distal articular surface	L-D2 D2-11'0" D3-4'8"; S-3	3'11"	Broken
	1	Proximal part of metatarsal	L-D2-10'3" D3-14'3"; S-3	4'1"	Broken
	1	Distal part of right radius	L-D3 5'11" D2 1'2"; S-3	5'6"	Broken
1	Right scapula with proximal part of glenoid cavity	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	1 <sup>st</sup> phalanx of hind limb	L-D1(D1 14'0"-11'4" D2 10'6"); S-2	1'4"	Wild type
	1	1 <sup>st</sup> phalanx of fore limb	"	"	Complete
	1	Fragment of right radius	"	"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of right horizontal ramus of mandible without teeth	L-D4 14'5" E4 12'4"; S-3	1'10"	Broken
	1	1 <sup>st</sup> right upper molar tooth	"	"	Broken
	1	3 <sup>rd</sup> right upper molar tooth	"	"	Broken
	1	Distal epiphysis of right radius	"	"	Complete
	1	Part of left patella	"	"	Eroded
	1	Proximal part of 1 <sup>st</sup> phalanx	L-D4 14'5" E 12-14"; S-3	1'10"	Broken
	1	3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal with condyle	"	"	Broken
	1	Fragment of distal extremity of 3 <sup>rd</sup> metatarsal	"	"	Broken
	1	Thoracic vertebra with a portion of body and arch	"	"	Broken
	1	Distal part of right humerus	L- C4 (C4 16'8" D4 8'11"); S-3	3'10"	Broken
	1	Distal extremity of left femur with part of medial condyle	L-A4 (A4 13'0"S A5 6'6"W); S-2	1'8"	Broken
	1	Part of left cuneiform of fore limb	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks.
<i>Bubalus bubalis</i> (Linn.)	1	Part of right 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal bones with medial condyles	"	"	Broken
	2	Fragment of rib	"	"	Broken
	1	Right calcaneum with tubercalcis and sustentaculum	L-B1 7'2" x B2 16'2"; S-3	4'0"	Complete
	1	Left calcaneum	L-XXV-1'6" x 4'7"-3'0"; S-2	3'0"	Complete
	1	Fragment of rib	L-E2 E3-17'6" A3-8'4"; S-2	2'3"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal bones	"	"	Broken
	1	Distal part of right radius with lateral condyle	L-C3( D3 7'4" D4 11'3"); S-2	2'4"	Cut mark
	1	Fragment of right vertical ramus with condyle and broken coronoid process	L-C3-20'6" C4-12'5"; S-3	3'3"	Broken
	1	Proximal part of left radius	L-Tr E3; S-7	10'2"	Broken
	1	Part of ilium	Data not recorded	-	Broken
	1	Distal part of right femur with a portion of shaft and medial condyle	L-C3; S-3	2'6"	Broken
	1	Distal extremity of left humerus with broken lateral condyle	L-C3 (C3-22'2" C4-14'0"); S-3	2'8"	Broken
	1	Part of trochlea of left femur	"	"	Broken
1	Distal part of right tibia	L-B2 B2 7'3" B2 4'5"; S-34	5'6"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Portion of maxilla with fragment of molar tooth	S-3	—	Broken
	1	Part of body of lumber vertebra	S-3	—	Charred and chopping mark
	1	Part of cervical vertebra with a portion of body and anterior articular process	Data not recorded	3'3"	Broken
	1	Left lower 3 <sup>rd</sup> molar tooth	L-B1 Bi-16'5" C1-7'10"; S-2	—	Complete
	1	Fragment of humerus	"	—	Broken
	1	Proximal part of metacarpal of right side	L-D1 D1 14'5"- 4" D2 10'6"; S-2	—	Broken
	1	Part of right 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-D1(D1-16'8" D2-8'7"); S-2	—	Complete
	1	Right patella	L-D1(D1-16'8" D2-8'7"); S-2	—	Complete
	1	Right astragalus	L-C2(C2 16'9" D3 20'8')		Broken
	1	Fragment of shaft of right ulna	L-B2(B1 5'6" C25'10"); S-3	4'7"	Broken
	1	Right astragalus	L-C2(C2 16'9" D3 20'8"); S-3	4'8"	Complete
	1	Fragment of blade of left scapula with glenoid cavity	L-D4 14'5" E4 12'14"; S-3	1'1"	Broken
	1	Fragment of blade of scapula	"	"	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Broken
	1	Distal extremity of left humerus with lateral condyle	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Left calcaneum without tubercalcis	L-C1( C1 7'3" D1 16'6"); S-2	2'2"	Cut mark
	1	Proximal part of right 3 <sup>rd</sup> metacarpal	L-C D1 16'70" D4 8'2"; S-3	4'3"	Complete
	1	Left calcaneum without tubercalcis	L-D5 E5 8'4" D5 13'2"; S-2	3'1"	Broken
	1	Distal part of humerus without lateral condyle	"	"	Chopping mark
	1	Fragment of blade of right scapula without spine	"	"	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	"	"	Complete
	1	Head of femur	"	"	Broken
	1	Left lower jaw with 1 <sup>st</sup> , 2 <sup>nd</sup> molar and 3 <sup>rd</sup> premolar teeth	"	"	Complete
	1	Fragment of rib	S-4	4'9 ½"	Wild type
	1	Distal part of right femur	"	"	Wild type
	1	Proximal condyle of tibia	L-B1 D1 11'5" B2 14'10"; S-3	4'	Broken
	1	Fragment of rib 13'6"; S-2	L-E1 9'9" A1	5'10"	Broken
	1	Third phalanx	"	"	Broken
	1	Distal part of astragalus with lateral condyle	L-D2 D2 13'6"; S-3	3'0"	Broken
	1	Fragment of upper left 1 <sup>st</sup> molar tooth	S-2	1'8"	Broken
	1	Right astragalus	L-C3 C3-21'0" C4-13'0"; S-3	2'6"	Complete
2	Fragment of femur	L-B1 B1 16'2"; S-2	2'5"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Proximal part of right radius with medial condyle	L-E5 8'4" D5 13'2"; S-2	–	Broken
	1	Fragment of shaft of left radius	"	"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	"	Broken
	1	Part of left naviculo-cuboid bone	L-E2 E3 11'6" A 38'6"	2'3"	Chopped mark
	1	Fragment of right head of femur	L-A3( A3 16'6" B3 8'0"); S-2	2'10"	Broken
	1	Distal part of 1 <sup>st</sup> phalanx	L-B2 6'2" x 3'0"	–	Chopped mark
	1	Fragment of 2 <sup>nd</sup> phalanx of fore limb	S-2	–	Broken
	1	Fragment of body of lumber vertebra	L-A2 1'5" x 7'3"; S-2	0'6"	Broken
	1	Fragment of head of femur	L-C1( C1 7'3" D1 16'8"); S-2	2'2"	Complete
	1	Fragment of right horizontal ramus of mandible with 3 <sup>rd</sup> molar tooth	S-9	–	Complete
	1	Fragment of right horizontal ramus of mandible with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar teeth	"	–	Broken
	1	Fragment of blade of scapula	L-A3( A3 1'3" O3 13'1"); S-3	2'10"	Broken
	1	Fragment of left pelvis with a portion of acetabulum cavity	"	"	Broken
	1	Right astragalus	L-B2;S-4	5'6"	Chopped mark
1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-B5( B5 18'6" C5 7'3"); S-3	3'1"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Left upper 1 <sup>st</sup> molar tooth	L-B2( B2 5'8" C2 15'10")	4'7"	Complete
	1	Fragment of right 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-B3 S-2	10'1"	Broken
	1	1 <sup>st</sup> lower molar tooth	S-2	1'10"	Complete
	1	2 <sup>nd</sup> lower molar tooth	"	"	Broken
	1	4 <sup>th</sup> premolar tooth	"	"	Broken
	1	Left astragalus	L-A3( A3 8'6" A4 17'0"); S-2	5'5"	Broken
	1	Proximal part of left metatarsal	L-D2( B3 10'3" E3 14'3"); S-3	4'11"	Broken
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of left 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	Neolithic site (L & S not recorded)	-	Broken
	1	Left humerus with broken head and attached to its distal end is left radius with ulna joined to distal end radius	"	-	Broken
	1	Left femur	"	-	Complete
	1	Fragment of right scapula with neck of glenoid cavity, some portion of blade	"	-	Broken
	1	Right humerus without distal epiphysis	"	-	Broken
	1	Right radius	"	-	Complete
	1	Fragment of right pelvis with shaft of ilium and acetabulum	"	-	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Right femur without head part and attached to distal end of right tibia	"	-	Broken
	1	Fused part comprising fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal and 1 <sup>st</sup> two phalanges.	"	-	Broken
	1	Two fused thoracic vertebra	"	-	Broken
	1	Three cervical vertebra fused together and one single cervical vertebra	"	-	Broken
	1	Ten thoracic vertebrae firmly attached	"	-	Broken
	1	Atlas and axis fused; also fused with atlas is occipital portion of skull with a foramen magnum	"	-	Broken
	1	Fragment of lumber vertebra	"	-	Broken
	1	Fragment of left carpal	"	-	Broken
	1	Fragment of sternum	"	-	Broken
	1	Sacrum without last two vertebra	"	-	Broken
	1	Fragment of caudal vertebra	"	-	Broken
	1	Fragment of rib	"	-	Broken
	1	Fragment of blade and scapula	"	-	Broken
	1	Caudal vertebra	"	-	Broken
1	1 <sup>st</sup> phalanx	"	-	Complete	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	3 <sup>rd</sup> left upper molar tooth	"	-	Complete
	1	Part of right calcaneum with tubercalcis	"	-	Broken
	1	Fragment of 2 <sup>nd</sup> right molar tooth	Neo- 16	-	Broken
	1	Fragment of radius	Data not recorded	-	Broken
	1	Fragment of right horizontal ramus of mandible with 3 <sup>rd</sup> premolar and 1 <sup>st</sup> molar teeth	L-AS 10'9" Bs 10'7"; S-2	1'6"	Complete
	1	Right horizontal ramus of mandible with 2 <sup>nd</sup> , 3 <sup>rd</sup> premolar and 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	"	Complete
	1	3 <sup>rd</sup> molar tooth	"	"	Complete
	1	Fragment of shaft of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	"	Broken
	1	Proximal part of radius with a portion of glenoid cavity	"	"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal with condyle	"	"	Broken
	1	Fragment of spinous process of vertebra	L-E4 S-2	1'4"	Broken
	1	Fragment of left tibia	L-E2 (E3-17'6" A3-7'8");	S-2	Broken
	1	Proximal part of left femur with head and trochanter	L-C3(C3 2'10" C4 13'0"); S-3	2'7"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of right scapula with a portion of blade having broken spine and without neck, glenoid process	S-13	–	Broken
<i>Ovis vignei</i> Blyth	1	Fragment of shaft of femur	L-B2 (B2 5'6" C2 15'10"); S-3	–	Broken
	1	Left lower 2 <sup>nd</sup> molar tooth	L-E3	2'	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of right horizontal ramus of mandible with 3 <sup>rd</sup> premolar and 1 <sup>st</sup> molar teeth	S-9	–	Broken mandible with intact teeth
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-A5 10'9" B5 10'7"; S-2	1'4"	Broken
	1	Fragment of shaft of right tibia	L-A2 3'3"S x 2'0"W; S-2	0'10"	Broken
	1	1 <sup>st</sup> right lower molar tooth	L-A5 17'4" x B5 9'7"; S-2	1'7"	Broken
	1	Fragment of shaft or radius	L-B2 14'4"W x 2'6"S ; S-2 and 3	–	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with single condyle	Data not recorded	–	Broken
	1	Left lower 3 <sup>rd</sup> premolar tooth	"	–	Broken
	1	Distal fragment of the shaft or 1 <sup>st</sup> femur with condylar fossa	L-F1 1'E 8'6"S; S-2	10"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-X – X 1'8" x 1'5"; S-4	8'3"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Fragment of left lower ramus of mandible with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	Data not recorded	—	Broken
	1	Fragment of left pelvis with portion of acetabulum and ischium	Neo 46	—	Broken
	1	Fragment of right pelvis with a portion of acetabulum and ischium	Neo 46	—	Sub-adult animal
	1	Distal fragment of the right humerus without condyle	Data not recorded	—	Broken
	1	3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with broken distal epiphysis	"	—	Sub-adult animal
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Sub-adult animal
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal without epiphysis	Neo 46	—	Sub-adult animal
	1	Fragment of rib	"	—	Sub-adult animal
	1	Fragment of shaft of radius	"	—	Broken
	1	Fragment of shaft of femur	L-D3 SQ-3; S-2	6" to 8"	Broken
	1	Fragment of left horizontal ramus of mandible with 3 <sup>rd</sup> molar tooth	"	"	Broken
	1	Fragment of distal part of left humerus	S-2	4" to 8"	Broken
	1	Fragment of 2 <sup>nd</sup> molar tooth	"	"	Broken
	1	1 <sup>st</sup> phalanx of hind foot	"	"	Broken

**Culture: Megalithic**

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Sus scrofa cristatus</i> Wag.	1	Fragment of left humerus with distal portion	Data not recorded	–	Sub adult and eroded
	1	Distal part of right humerus	"	–	Broken
<i>Bos indicus</i> Linn.	1	Fragment of 1 <sup>st</sup> lower molar tooth	S-3	2'8"	Sub-adult
	1	2 <sup>nd</sup> phalanx of fore limb	Data not recorded	–	Complete
	1	Left lower 1 <sup>st</sup> molar tooth	"	–	Complete
	1	2 <sup>nd</sup> premolar tooth of left jaw	"	–	Complete
	1	Fragment of left pre-maxilla	"	–	Broken
	1	Right upper 1 <sup>st</sup> molar tooth	"	–	Broken
	1	Right upper 3 <sup>rd</sup> premolar tooth	"	–	Broken
	1	Right upper 1 <sup>st</sup> premolar tooth	"	–	Broken
	1	Fragment of upper molar tooth	"	–	Broken
	1	Left calcaneum	"	–	Complete
	1	Left Naviculo-cuboid bone	"	2'8"- S & 2'7"-N	Broken
	1	1 <sup>st</sup> right upper premolar tooth	"	"	Broken
	1	Fused lateral and medial cuneiform of left side	"	"	Broken
	1	Fragment of blade of scapula	"	2'2"- S & 2'3"- N	Broken
	1	Right cuneiform of Proximal metacarpal	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of rib	"	—	Broken
	1	Proximal fragment of left scapula with glenoid cavity	"	—	Broken
	1	Right upper 1 <sup>st</sup> molar tooth	"	—	Complete
	1	Left upper 3 <sup>rd</sup> premolar tooth	"	—	Complete
	1	Left upper 1 <sup>st</sup> molar tooth	"	—	Complete
	1	Left upper 1 <sup>st</sup> premolar tooth	"	—	Complete
	1	Distal fragment of 1 <sup>st</sup> phalanx	"	—	Broken
	1	Left astragalus	"	—	Eroded
	1	Fragment of a rib	S-2	—	Broken
	1	Fragment of rib	S-2	—	Broken
	1	2 <sup>nd</sup> phalanx of hind limb	S-2	—	Complete
	1	3 <sup>rd</sup> right lower molar tooth	Data not recorded	—	Complete
	1	3 <sup>rd</sup> upper premolar tooth	"	—	Complete
	1	3 <sup>rd</sup> left premolar tooth	"	—	Complete
	1	1 <sup>st</sup> left upper molar tooth	"	—	Sub adult
	1	Fragment of a rib	"	—	Broken
	1	Fragment of distal extremity of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Broken
	1	Left combined trapezoid and magnum of fore limbs	"	—	Complete
	1	Left scaphoid	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Bos indicus</i></b> <b>Linn.</b>	1	2 <sup>nd</sup> phalanx of fore limb	"	2'8"	Complete
	1	Fragment of left cannon bone	"	—	Broken
	1	Fragment of shaft of metatarsal	"	—	Sub adult
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with distal extremity	"	—	Eroded
	1	Fragment of shaft of tibia	"	—	Broken
	1	Fragment of tooth	"	—	Sub-adult animal
	1	3 <sup>rd</sup> right upper premolar tooth	"	—	Complete
	1	1 <sup>st</sup> molar tooth of the right upper jaw	"	—	Sub-adult
	1	2 <sup>nd</sup> right upper molar tooth	"	—	Sub adult
	1	Fragment of the left lunate of proximal carpus	"	—	Broken
	1	Fragment of distal extremity of the trochlear of femur	"	—	Broken
	1	Fragment of horizontal ramus of mandible	"	—	Broken
	1	Fragment of molar tooth	"	—	Broken
	1	Right upper 2 <sup>nd</sup> premolar tooth	"	—	Broken
	1	Fragment of left horizontal ramus of mandible	"	—	Broken
1	Fragment of horizontal ramus of mandible	"	—	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Left astragalus	"	—	Broken
	1	Left calcaneum	"	—	Broken
	1	Right radius with distal end and a portion of ulna	"	—	Eroded
	1	Fragment of humerus	"	—	Broken
	1	Left humerus without proximal and distal end	"	—	Broken
	1	Large 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Complete
	1	Right astragalus	"	—	Complete
	1	Proximal part of right femur with head	"	—	Broken
	1	Shaft of femur without proximal and distal extremities	"	—	Broken
	1	Left astragalus	"	—	Sub adult
	1	2 <sup>nd</sup> right upper premolar tooth	L-1 '10"-1' from south east	—	Complete
	1	1 <sup>st</sup> premolar of right upper jaw	"	—	Complete
	1	Incisor tooth	Data not recorded	—	Complete
	1	Fragment of the shaft of right femur	"	—	Broken
	1	Medial condyle of right femur	"	—	Broken
	1	Fragment of shaft of large 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal without proximal and distal portion	"	2'4"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Bos indicus</i></b> <b>Linn.</b>	1	Fragment of body of vertebra	"	"	Broken
	1	Proximal end of 3 <sup>rd</sup> and 4 <sup>th</sup> vertebra	"	"	Complete
	1	Right patella eroded	"	—	Broken
	1	Proximal fragment of thoracic rib	"	—	Broken
	1	Right Calcaneum	L-2" to S and 1'11" from N	—	Complete
	1	Distal fragment of right Tibia	"	—	Broken
	1	Right femur with distal extremity eroded	"	—	Eroded
	1	Left horizontal ramus of mandible with 2 <sup>nd</sup> premolar and 3 <sup>rd</sup> molar	Data not recorded	—	Teeth complete
	1	Right tibia	"	—	Complete
	1	Right humerus with broken extremity	"	1'6"	Broken
	1	Fragment of shaft of Tibia	"	—	Complete
	1	Fragment of left phalanx of hind limb	"	—	Complete
	1	Fragment of 2 <sup>nd</sup> phalanx of fore limb	"	—	Complete
	1	Fragment of left 2 <sup>nd</sup> phalanx	"	—	Complete
	1	Fragment of 3 <sup>rd</sup> phalanx	"	—	Broken
	1	1 <sup>st</sup> phalanx of right fore limb	"	—	Complete
1	Distal fragment of 1 <sup>st</sup> phalanx of fore limb	"	—	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Right 3 <sup>rd</sup> lower molar tooth	"	—	Complete
	1	Right 2 <sup>nd</sup> lower molar tooth	"	—	Complete
	1	Right 3 <sup>rd</sup> pre molar tooth	"	—	Broken
	1	1 <sup>st</sup> molar tooth	"	—	Broken
	1	Body of thoracic vertebra	"	—	Broken
	1	Shaft of right tibia without extremities	"	—	Broken
	1	Large metatarsal of right side with both extremity broken	"	—	Broken
	1	Large metacarpal of the right side with broken proximal distal extremity	"	—	Broken
	1	Left upper 1 <sup>st</sup> premolar tooth	"	—	Complete
	1	1 <sup>st</sup> premolar tooth of right upper jaw	"	—	Broken
	1	Right upper 2 <sup>nd</sup> molar tooth	"	—	Broken
	1	Fragment of head of the rib with tubercle	"	2'5"	Broken
	<i>Ovis vignei</i> Blyth	1	1 <sup>st</sup> right upper premolar tooth	"	—
1		Fragment of shaft of femur	"	—	Broken
1		Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal shaft	"	—	Broken
1		Fragment of shaft of tibia	"	—	Broken
2		Left upper 2 <sup>nd</sup> molar tooth	"	—	Sub adult

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Left lower 2 <sup>nd</sup> molar tooth	"	—	Broken
	1	Fragment of the proximal part of the tibia	"	—	Broken
	1	Fragment of a molar tooth	"	—	Broken
	1	Distal condylar fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Broken
	1	Thoracic vertebra with transverse process and spinous process	"	—	Sub adult
	1	Fragment of rib	"	—	Broken
	1	Fragment of shaft of femur	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> right metatarsal with condyles	"	—	Broken
	1	Distal part of left tibia	"	—	Broken
	1	Proximal part of right tibia	"	—	Broken
	1	Proximal part of right scapula	"	—	Broken
	1	Part of atlas with ventral arch having posterior and anterior articular surface	"	—	Broken
<i>Capra hircus aegagrus</i> Erxl.	1	2 <sup>nd</sup> right upper molar tooth	"	1'11"	Complete
	1	Right calcaneum with tip of lateral calcis	2" x 1'10" from east part	2'6" x 2'10"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Fragment of right pelvis with a portion of shaft of ilium	"	"	Broken
	3	Spinous process of thoracic vertebra	"	"	Broken
	1	Fragment of left pelvis with a portion of shaft of ilium and acetabulum	"	"	Broken
	1	Left astragulus	"	"	Broken
	1	Distal part of shaft of left humerus	"	"	Broken
	1	Fragment of right pelvis	"	"	Sub-adult

*Culture: Early Historic*

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Turbinella pyrum</i> (Linn.)	1	Collumella part of the shell	L-A3 (4'7"E x B 1 ½" S ); S-2	0'11"	Broken
	3	Part of a shell	L-A1 (5'8"E x 3'8"S ; S-2	1'1"	Bangle- artifact
<i>Monetari monata</i> (Linn.)	1	Shell	Data not recorded	—	Complete
<i>Rita rita</i> (Ham.Bach.)	1	Pectoral spine	"	—	Broken
<i>Varanus griseus</i> Daud.	1	Caudal vertebra	Data not recorded	—	Broken
	1	Abdominal vertebra	"	—	Broken
<i>Varanus sp.</i>	1	Lumbar vertebra	"	3'8"	Broken
	1	Fragment of humerus	"	"	Broken
	1	Fragment of vertebra	"	"	Broken
	1	Fragment of vertebra	"	"	Broken
<i>Chitra indica</i> Gray	1	Part of epiplastron	L-B (N x H); S-2	—	Broken
	1	Proximal part of left tibia	L-A1 14E x 8'0"W; S-2	—	Broken
	2	Fragments of hypoplastron	S-3	—	Broken
	1	Fragment of epiplastron	S-3	—	Broken
	1	Fragment of hypoplastron	—	—	Broken
	1	Fragment of hypoplastron	L-E6 10'E1 1'5"; S-3	—	Broken
	1	Fragment of hypoplastron	L-P1 16 (W x H); S-1 and 3	—	Broken
	1	Fragment of epiplastron	"	—	Broken
	1	Fragment of epiplastron	L-D4;S-2 and 3	2'10"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Chitra indica</i> Gray	4	Fragments of hypoplastron	L-A1; S-1 and 2	1'0"	Broken
<i>Trionyx</i> sp.	2	Fragments of epiplastron	L-A5; S-2	1'9"	Broken
<i>Gallus</i> sp.	1	Fragment of metatarsal with spine	Data not recorded	—	Cut mark
	1	Left humerus broken at proximal end	S-2	—	Broken
	1	Fragment of tarso-metatarsal	Data not recorded	—	Broken
	1	Right tibia with distal condylar portion	"	—	Broken
	1	Right humerus	—	—	Complete
	1	Fragment of left humerus with condyle	L-B (N x 11); S-3	—	Broken
	1	Fragment of left tibio- tarsus	L- (S x 11); S-2 and 3	—	Broken
<i>Bandicota bengalensis</i> (Gray & Hardwicke)	1	Right humerus with a portion of shaft bearing distal extremity	"	—	Broken
<i>Bandicota indica</i> (Beehstein)	1	Fragment of left femur	L-Tr B2; S-4	—	Broken
	1	Proximal part of right femur	L-Tr B; S-4	—	Broken
<i>Elephas maximus</i> Linn.	1	2 <sup>nd</sup> lower molar tooth	L-C2 8'11"W x 4'1" S	1'10"	Sub-adult animal
<i>Sus scrofa cristatus</i> Wagner	1	Distal extremity fragment of right femur with a portion of medial condyle	"	—	Cut mark
	1	Proximal part of right radius with semilunar notch	L-B4; S-2 and 3	3'4"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Sus scrofa cristatus</i> Wagner	1	Fragment of rib	"	"	Broken
	1	Proximal part of left tibia without epiphysis	L-A1 (N x 4); S-1and2	2'6"	Broken
	1	Proximal part of left femur with head, trochanter minor and a portion of broken trochanter	L-18 S x 13 E;S-2	-	Broken
	1	Proximal part of right humerus	L-3'11" E x 7'6" S;S-2	1'0"	Broken
	1	Proximal part of right humerus with head	L-D5;S-2 and 3	-	Broken
	1	Left upper 2 <sup>nd</sup> molar tooth	L-2'0" x 6'5";S-4	4'10"	Complete
	1	Fragment of horizontal ramus of the mandible	L-E3 4'x 1'10";S-2	-	Broken
	1	Fragment of the right pelvis bone	L-C6; S-C3	-	Broken
<i>Axis axis</i> (Erxl.)	1	Fragment of right pelvis with a portion of acetabulum and ischium	L-D1 (N x 4); S-2	-	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal bones	Data not recorded	-	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	-	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	-	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	-	Broken
	1	Distal part of left humerus with medial and lateral condyles	S-2 and 3	2'3"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Axis axis</i> (Erxl.)	1	Left horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	Data not recorded	—	Intact teeth
	1	Fragment of axis vertebra with anterior articular process	L-A1 (N x H); S-1 and 2	—	Broken
	1	Fragment of 3 <sup>rd</sup> right upper molar tooth	Data not recorded	—	Broken
	1	Incisor tooth	"	—	Complete
<i>Muntiacus muntjak</i> (Zimmermann)	1	3 <sup>rd</sup> right lower molar tooth	"	—	Complete
<i>Cervus unicolor</i> Kerr.	1	Distal part of left humerus with medial condyle	L-6'2"E x 6'3"S; S-1	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal with lateral and medial condyles	L-0'10"N x 5'1"S; S-1	1'5"	Broken
	1	Distal part of left humerus with lateral and broken medial condyle	L-3'5"; S-4	—	Broken
	1	Fragment of an antler	Data not recorded	—	Broken
	1	1 <sup>st</sup> phalanx of fore limb	"	—	Broken
	1	Fragment of 2 <sup>nd</sup> phalanx	"	—	Broken
	1	1 <sup>st</sup> phalanx of hind limb	—	—	Broken
<i>Cervus duvaucelii</i> Cuveir	1	Fragment of an antler	S-4	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Canis familiaris</i> Linn.	1	Metatarsal bone	Data not recorded	—	Sub-adult animal
	1	Portion of 2 <sup>nd</sup> metatarsal broken	L-C3 12'5" x C4 14'10"; S-2	1'2"	Sub-adult animal
	1	Left 2 <sup>nd</sup> 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-B5 C5 16'0" C4 9'2"	2'6"	Sub-adult animal
<i>Felis chaus</i> Schreber	1	Distal part of left humerus	L-B-19; S-5	6"	Broken
<i>Hystrix indica</i> Kerr.	1	Distal part of right femur	Data not recorded	—	Broken
	1	Fragment of body of vertebra	"	—	Broken
	1	Fragment of body of thoracic vertebra	"	—	Broken
	1	Fragment of horizontal ramus of right mandible with 3 <sup>rd</sup> premolar and 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	—	Chopping mark
	1	Fragment of body of thoracic vertebra	"	—	Broken
<i>Equus caballus</i> Linn.	1	1 <sup>st</sup> phalanx of fore limb	S-2	0'8"	Complete
	1	Right upper 3 <sup>rd</sup> molar tooth	L-CQ S-3	1'7"	Complete
	1	Fragment of rib	L-Tr 2 D2	—	Broken
	1	Fragment of skull having posterior portion of nasal bones, frontal and parietal bones complete with interparietal bone and portion of right upper jaw bearing 3 <sup>rd</sup> and 4 <sup>th</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	Data not recorded	—	Skull portion broken; teeth intact

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Equus caballus</i> Linn.	1	Distal part of femur with a single condyle	S-2	0'8"	Broken
	2	3 <sup>rd</sup> upper molar teeth	L-D1 SEQ;S-3	3'9"	Complete
	1	Fragment of axis vertebra	S-Tr D2	—	Broken
	1	3 <sup>rd</sup> cervical vertebra	L-Tr D2	—	Broken
	1	Spinous process of four sacral vertebrae	"	—	Broken
	1	Left tibia without proximal extremity	"	—	Broken
	1	4 <sup>th</sup> cervical vertebra without articular process	Data not recorded	—	Broken
	1	Atlas vertebra	"	—	Broken
	1	Fragments of 5 <sup>th</sup> and 6 <sup>th</sup> cervical vertebra	"	—	Broken
	1	Shaft of left femur	"	—	Broken
	1	Proximal part of right radius with small portion of ulna	"	—	Broken
	1	Right third metatarsal bone	"	—	Complete
	1	Left third metatarsal bone	"	—	Broken
	1	Left third metacarpal bone	"	—	Complete
	1	Right third metacarpal bone	"	—	Broken
	1	Distal part of right radius	L-Tr D2	—	Broken
	1	Distal part of left humerus with medial condyle and broken lateral condyle	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Equus caballus</i> Linn.	1	Right patella	L-Tr D2	—	Broken
	1	1 <sup>st</sup> phalanx with proximal end broken	"	—	Broken
	1	1 <sup>st</sup> phalanx	"	—	Broken
	1	Right humerus	"	—	Broken
	1	Left radius with some portion broken at both extremities	"	—	Broken
	1	Right femur with portion of head	"	—	Broken
	1	Right tibia	"	—	Complete
	1	Proximal part of right scapula with glenoid cavity	"	—	Broken
	1	Proximal part of left scapula with glenoid cavity	"	—	Broken
	1	Right pelvis with portion of acetabulum and shaft of ilium	"	—	Broken
	1	Left pelvis with a portion of acetabulum and ilium	"	—	Broken
	1	Right pelvis with a portion of acetabulum and ischium	"	—	Broken
	1	Left pelvis with a portion of acetabulum and ischium	"	—	Broken
	1	Fragment of left horizontal ramus of mandible	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Equus caballus</i> Linn.	1	Proximal part of right ulna without olecranon process and semilunar notch	"	-	Broken
	1	Body of thoracic vertebra	L-Tr D2	-	Broken
	1	Left large cuneiform bone	"	-	Broken
	1	Fragment of temporal bone	"	-	Broken
	1	Body of thoracic vertebra	"	-	Broken
	1	Fragment of the head of femur	"	-	Broken
	1	Condyle and tip of coronoid process and having 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> premolar and three molar teeth	L-Tr D2	-	Broken
	1	Posterior part of left horizontal ramus of mandible	"	-	Broken
	1	Left horizontal ramus of mandible	"	-	Broken
	1	Right astragalus	"	-	Complete
	1	1 <sup>st</sup> upper left molar tooth	L-Trch 2 3; S-3	2'4"	Complete
	1	2 <sup>nd</sup> left lower premolar tooth	L-Tr D2	-	Broken
	1	4 <sup>th</sup> upper molar tooth	"	-	Broken
	1	2 <sup>nd</sup> left lower molar tooth	"	-	Broken
	1	3 <sup>rd</sup> left upper molar tooth	"	-	Broken
1	2 <sup>nd</sup> right premolar tooth	"	-	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Equus caballus</i> Linn.	1	2 <sup>nd</sup> left lower premolar tooth	"	-	Broken
	1	3 <sup>rd</sup> left upper premolar tooth	"	-	Broken
	1	1 <sup>st</sup> left upper molar tooth	"	-	Complete
	1	3 <sup>rd</sup> right upper molar tooth	"	-	Complete
	1	3 <sup>rd</sup> left lower molar tooth	"	-	Broken
	1	1 <sup>st</sup> left lower molar tooth	"	-	Broken
	6	Incisor teeth	"	-	Complete
	1	2 <sup>nd</sup> left lower molar tooth	"	-	Complete
	1	Anterior part of maxilla with four incisors teeth	Data not recorded	-	Teeth intact
<i>Equus asinus</i> Linn.	1	2 <sup>nd</sup> right upper premolar tooth	S-4	5'4"	Complete
	1	1 <sup>st</sup> left upper molar tooth	"	"	Complete
	1	1 <sup>st</sup> left upper molar tooth	"	"	Broken
	1	Proximal fragment of right canon bone of fore limb with distal end broken	L-Tr D2	-	Broken
	1	Distal part of large metacarpal	S-2	1'9"	Broken
	1	1 <sup>st</sup> phalanx	D2 6'W x 4'6"S;S-2	2'0"	Complete
	1	Part of rib	"	"	Cut mark
	1	Distal extremity of canon bone with medial condyle	"	"	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of rib	L-B4 to C4 13'4"x 5'11"; S-5	3'3"	Broken
	2	Fragment of vertical ramus of mandible	L-AE; S.W.Q.; S-3	2'6"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of right vertical ramus of mandible	"	"	Broken
	1	Fragment of patella	"	"	Chopped
	1	Incisor tooth of mandible	L-Tr C2, 8'11"x 2 1/2";S-2	3'	Complete
	1	Right astragalus	L-A2 14'2"W x 5'0"S;S-3	3'8 "	Complete
	1	Fragment of right calcaneum	L-Tr D1 4'4"S x 2'11"E;S-3	2'4"	Broken
	1	Left astragalus	L-E4 9'10"E x 6'11"S;S-3	1'5"	Complete
	1	Fragment of rib	"	"	Broken
	1	Fragment of medial condyle of right femur	L-E27/2'3'E x 8'11"S;S-3	2'9"	Broken
	1	1 <sup>st</sup> phalanx of fore limb	"	"	Complete
	1	1 <sup>st</sup> right lower molar tooth	L-E4 12'10'E x 14'2"S;S-2	0'-11"	Complete
	1	3 <sup>rd</sup> right lower molar tooth	"	"	Complete
	1	Fragment of 3 <sup>rd</sup> lower molar tooth	"	"	Broken
	1	1 <sup>st</sup> left lower molar tooth	"	"	Broken
1	1 <sup>st</sup> left lower molar tooth	"	"	Broken	
1	1 <sup>st</sup> right lower molar tooth	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Bos indicus</i> Linn.</b>	1	Caudal vertebra	"	"	Broken
	1	Right scaphocuboid bone	"	"	Complete
	1	Right patella	L-E1 IV.E.Q;S-3	1'1"	Sub-adult
	1	Distal part of humerus with a portion of median and lateral condyle	"	"	Broken
	2	Fragment of thoracic vertebra with portion of neural arch with spinous process	"	"	Broken
	1	Caudal vertebra	S-7	-	Broken
	1	Fragment of sternum	"	-	Broken
	1	Left calcaneum	S-9	-	Complete
	1	Fragment of right vertical ramus of mandible with condyle and coronoid process	"	-	Broken
	1	1 <sup>st</sup> vertebra with broken head	L-Ds; S-1 and 3	2'4 ½"	Broken
	1	Fragment of right vertical ramus of mandible with condyle and broken coronoid process	"	"	Broken
	1	Fragment of rib	L-G13-1'W x 12'7"S S-2	1'5"	Broken
	1	Right 1 <sup>st</sup> molar of upper jaw	Data not recorded	-	Complete
	1	Fragment of rib	"	"	Broken
1	Fragment of 1 <sup>st</sup> molar tooth of right mandible	L-A5 4'5"E x 9'2" and S-2	1'8"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of 3 <sup>rd</sup> right upper molar tooth	L-A1 5'11"E x 3'7"S; S-2	1'3"	Broken
	1	Fragment of incisor tooth	"	"	Broken
	1	Proximal part of thoracic vertebra	S-2	—	Sub-adult
	1	Fragment of left horizontal ramus of mandible with condyle and a small portion of coronoid process	S-10	—	Broken
	1	Fragment of left astragalus	"	—	Broken
	1	Head of femur	L-B3 6'10"S x 6'9"N; S-1	1'2"	Broken
	1	2 <sup>nd</sup> phalanx of fore limb	L-D2 11'6"W x 12'1"S; S-4	3'8"	Complete
	1	Fragment of right pelvis with a portion of acetabulum having a portion of shaft of ilium	L-D2; S-1 and 2	2'7"	Sub adult
	1	Distal fragment of right tibia	L-B2 17'10"S x 9'2"W; S-3	3'5"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of shaft of humerus	"	"	Broken
	1	Proximal end of scapula with a portion of glenoid cavity	"	"	Broken
	1	1 <sup>st</sup> phalanx of fore limb	L-C1 9'3"W x 8'11"S; S-3	2'8"	Complete
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with a broken condyle	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Bos indicus</i> Linn.</b>	1	Fragment of rib	L-D1 11'2"E x 14'1"S; S-3	2'6"	Broken
	1	Left upper 1 <sup>st</sup> molar tooth	"	"	Complete
	1	Left lower 1 <sup>st</sup> molar tooth	L-B2 11'5"W x 2'2"S; S-3	"	Complete
	1	Fragment of right horizontal ramus of mandible with 3 <sup>rd</sup> molar tooth	L-D1 2'7"W x 15'2"S; S-3	2'2"	Complete
	1	Fragment of trochlea of right femur	L-A1; S-1 and 2		Broken
	1	Fragment of left pelvis bone	Data not recorded	—	Broken
	1	Distal part of femur	"	2'2"	Broken
	1	Right naviculo bone	"	—	Broken
	1	Proximal part of right femur with inter trochanteric fossa without head	S-5	—	Broken
	1	Proximal portion of left ulna with samilunar notch, without olecranon process	Data not recorded	—	Broken
	1	Right lower 3 <sup>rd</sup> premolar tooth	L-A2 5'4"S x 3'0"N	1'0"	Complete
	1	Right upper 2 <sup>nd</sup> molar tooth	"	"	Complete
	1	Left upper 2 <sup>nd</sup> molar tooth	"	"	Sub-adult
	1	Median condyle of femur	L-B3 B4 14'0" x 7'6"; S-4	4'2"	Broken
	2	Fragment of rib	"	"	Broken
1	Fragment of a molar tooth	L-13 5 ½" W x 10"S; S-4	4'2"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of left horizontal ramus of mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	Data not recorded	—	Broken
	1	Proximal part of left radius	S-4	8'11"	Broken
	1	Fragment of rib	S-2	4'2"	Broken
	1	Distal extremity of right tibia	"	"	Broken
	1	2 <sup>nd</sup> phalanx	S-3		Complete
	1	Fragment of rib	"		Broken
	1	Fragment of lumber vertebra	L-C3S-3	2'9 ½"	Broken
	1	Distal extremity of right radius	"	"	Broken
	1	Fragment of shaft of humerus	L-A 15'10"W x 5'8"S;S-3	1'8"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> right metatarsal	L-NW;S-2and3	—	Broken
	1	Fragment of rib	Data not recorded	—	Broken
	1	Left upper 3 <sup>rd</sup> premolar tooth	S-10	2'3"	Complete
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal bones	Data not recorded	2'10"	Broken
	1	Fragment of right ulna of proximal portion	S-2	—	Broken
	1	Distal portion fragment of radius and ulna	S-3	—	Broken
	1	3 <sup>rd</sup> right upper premolar tooth	L-E1 17'9 ½"S x 8 ½"E ;S-2	11'1/2"	Broken
	1	Right tibia	S-10	—	Complete
1	Cervical vertebra without body, anterior and	S-2 and 3	3'1"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks.
<i>Bos indicus</i> Linn.		posterior processes of right side, without neural arch, spine and transverse process			
	1	Thoracic vertebra	L-F.C.46;S-2	—	Broken
	1	2 <sup>nd</sup> right upper premolar tooth	"	—	Broken
	1	Cervical vertebra	"	—	Broken
	1	Fragment of axis vertebra	"	—	Broken
	1	Cervical vertebra	"	—	Broken
	1	1 <sup>st</sup> right upper premolar tooth	"	—	Broken
	1	2 <sup>nd</sup> phalanx of hind limb	"	—	Complete
	1	3 <sup>rd</sup> phalanx	"	—	Broken
	1	2 <sup>nd</sup> phalanx of forelimb	"	—	Complete
	1	Fragment of right pelvis with a portion of acetabulum and ischium	Data not recorded	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> right lower molar tooth	"	—	Broken
	1	3 <sup>rd</sup> right upper molar tooth	"	—	Broken
	1	Combined trapezoid and magnum bone	"	—	Broken
	1	Proximal part of left tibia with medial and lateral condyle	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bos indicus</i> Linn.	1	Fragment of rib	"	—	Broken
	1	Incisor tooth	"	—	Complete
	1	Fragment of rib	S-2	—	Broken
	1	Fragment of the body of lumber vertebra	L-1 0''S x 13'E; S-2	9''	Broken
	1	Right scapho-cuboid of tarsus	Data not recorded	—	Broken
	1	Caudal vertebra	"	—	Broken
	1	1 <sup>st</sup> molar tooth	"	—	Broken
	1	Right maxilla	S-3	—	Broken
	1	Lumber vertebra	"	—	Broken
	1	Proximal part of ulna with olecranon process	"	—	Broken
<i>Bubalus bubalis</i> (Linn.)	1	Fragment of radius	L-E2 16'9''E x 15'5''S; S-4	3'0''	Broken
	1	Fragment of right portion of blade of scapula with neck	S-3	—	Broken
	1	Fragment of right horizontal ramus of mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	S-3	—	Eroded
	1	Fragment of humerus	L-A1 7'3''x 3'4'';S-2	—	Cut mark
	1	Fragment of acetabulum of right pelvis bones	L-C2 9'6''W x 16'6''S;S-2	1'10''	Broken
	1	Fragment of medial condyle of right femur	L-D2 11'3''W x 9'9''S;S-4	3'8''	Broken
	1	Fragment of proximal part of large metacarpal	"	"	Broken
	1	1 <sup>st</sup> phalanx of left fore limb	L-B2 2'2''S x 5'5''E;S-1	4'9''	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Fragment of shaft of right femur	L-E1 13'7''W x 17'5''S;S-4	2'8''	Broken
	1	Proximal part of right ulna with portion of olecranon process having semilunar notch	Data not recorded	-	Broken
	1	Proximal part of right ulna with a portion of olecranon process and semilunar notch	"	-	Broken
	1	Proximal part of right radius with a portion of medial condyle and portion of shaft	"	-	Broken
	1	Distal part of right humerus without distal condyle	"	-	Cut mark
	1	Fragment of right 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal with slightly broken lateral and medial condyle	"	-	Broken
	1	Fragment of distal condyle of femur	"	-	Broken
	1	Fragment of distal medial condyle of right femur	"	-	Broken
	1	Proximal part of right radius having medial condyle	L-F4 12'10''E x 14'2''S;S-2	8'11''	Broken
	1	2 <sup>nd</sup> phalanx of hind limb	"	"	Complete
	1	Left astragalus	"	"	Complete
	1	Proximal portion of radius	"	"	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Bubalus bubalis</i> (Linn.)	1	Distal part of 1 <sup>st</sup> phalanx	"	"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	Data not recorded	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Broken
	1	Left patella	"	—	Eroded
	1	1 <sup>st</sup> phalanx of fore limb	"	—	Broken
<i>Bos frontalis gaurus</i> H. Smith.	1	Fragment of left horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	S-6	—	Broken
	1	Fragment of left horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	—	Broken
<i>Boselaphus tragocamelus</i> (Pallas)	1	Anterior part of left horizontal ramus of mandible with 2 <sup>nd</sup> premolar tooth	Data not recorded	—	Broken
<i>Lepus nigricollis</i> Cuvier	1	Proximal part of humerus with head and trochanter	L-E6 S-4	3'5"	Broken
	1	Distal part of tibia	L-B3 3'10" C3 10'2"	1'6"	Broken
	1	Distal part of left femur with condyles	"	"	Broken
	1	Fragment of right pelvis with acetabulum and portion of ilium and ischium	S-3	"	Broken
	1	Shaft of humerus	Data not recorded	—	Broken
	1	Shaft of tibia	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Lepus nigricollis</i> Cuvier	1	Proximal part of right tibia with medial and lateral condyle	"	—	Broken
	1	Proximal part of right femur with head, neck and trochanter	"	—	Broken
	1	Shaft of right femur	S-2	—	Broken
	1	Shaft of right tibia	"	—	Broken
	1	Part of right pelvis with acetabulum a portion of ischium and ilium	"	—	Broken
	1	Shaft of right humerus	Data not recorded	—	Broken
	1	Shaft of left tibia without proximal epiphysis	S-3	—	Broken
	1	Proximal fragment of shaft of right radius	"	—	Broken
	1	Proximal fragment of left scapula with portion of head, neck and glenoid cavity	"	—	Broken
	1	Distal fragment of femur	L-B4 B3 9'0"x C, 11'9"; S-2	1'2"	Broken
	1	Shaft of tibia	"	"	Broken
<i>Capra hircus aegagrus</i> Erxl.	1	Distal part of left tibia	Data not recorded	—	Broken
	1	Proximal part of left ulna with semilunar notch, without olecranon process	S-7	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of right horizontal ramus of mandible	"	—	Broken
	1	Proximal part of left scapula with a portion of blade and spine	L-B2 6'1''S x 8'4''E; S-1	—	Broken
	1	Fragment of right horizontal ramus of mandible with broken 3 <sup>rd</sup> molar tooth	L-A (N x H); S-2 and 3	3'6''	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> molar and 3 <sup>rd</sup> molar teeth	"	"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	"	Broken
	1	Fragment of vertical ramus of mandible with condyle and coronoid process	"	"	Broken
	1	Left lower 1 <sup>st</sup> molar tooth	"	"	Complete
	1	Left anterior portion of horizontal ramus without body	"	"	Complete
	1	Fragment of 1 <sup>st</sup> molar tooth	"	"	Broken
	1	Fragment of anterior part of right mandible with teeth socket	"	"	Broken
1	Fragment of right pelvis with acetabulum, a portion of ilium and ischium	"	"	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	L-N x 4; S-2 and 3	—	Teeth intact
	1	Fragment of shaft of femur	L-E4 10'9"E x 3'11"S; S-2	6'8"	Broken
	1	Right upper 3 <sup>rd</sup> molar tooth	L-Tr B4 13'4"x 6'10"; S-5	3'11"	Complete
	1	Fragment of shaft of femur	L-E5 S.W.Q	—	Cut mark
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	Data not recorded	—	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and fully erupted 1 <sup>st</sup> molar teeth	"	—	Complete
	1	2 <sup>nd</sup> molar tooth of left lower jaw	L-38; S-2 and 3	—	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and a fragment of 2 <sup>nd</sup> molar teeth	L-38; S-2 and 4	—	Broken
	1	Fragment of shaft of femur	L-D2 (N x H); S-1 and 2	—	Broken
	2	Fragment of ribs	"	—	Broken
	1	Left lower 1 <sup>st</sup> molar tooth	"	—	Complete
	1	Proximal fragment of shaft of tibia	L- (N x H); S-2	—	Broken
	1	Distal fragment of left humerus	Data not recorded	—	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of proximal part of shaft of left tibia	L- (N x H); S-3	—	Complete
	1	Fragment of left horizontal ramus of mandible with a molar tooth	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Complete
	2	Fragment of ribs	L-E3 S; S-2and3	1'7"	Broken
	1	2 <sup>nd</sup> right upper molar tooth	L-D1; S-1	2"	Complete
	1	3 <sup>rd</sup> right upper premolar tooth	"	"	Broken
	1	Fragment of distal end of shaft of metatarsal	"	"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L- (N x H); S-2and3	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	Data not recorded	—	Broken
	1	Fragment of left vertical ramus of mandible with condyle and broken coronoid process	"	—	Broken
	1	Fragment of left scapula with glenoid cavity	L-E4 12'10"E x 25'8"W; S-2	1'4"	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	L-C1 C1 1'8" D1 1'8"; S-2	—	Broken
	1	Distal fragment of left tibia	Data not recorded	—	Cut mark
	1	Fragment of right upper jaw with 2 <sup>nd</sup> molar tooth	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Right horizontal ramus of the maxilla with 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	"	—	Teeth intact
	1	Fragment of rib	"	—	Broken
	1	Proximal part of right tibia	L-D2	1'0"	Broken
	1	Fragment of horizontal ramus of mandible with 2 <sup>nd</sup> molar tooth	L-A5 S-3	1'0"	Broken
	1	Fragment of rib	"	"	Broken
	1	Right coronoid process of mandible	"	"	Broken
	1	Fragment of a rib	L- (N x H); S-1 and 2	—	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	—	Broken
	1	Proximal fragment of left scapula	"	—	Broken
	1	Proximal fragment of scapula with glenoid cavity	"	—	Broken
	1	Body of lumber vertebra	Data not recorded	—	Broken
	1	Fragment of right vertical ramus of mandible	"	—	Broken
	1	Proximal part of right scapula with glenoid cavity	"	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of vertical ramus of right mandible	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of shaft of femur	"	—	Cut mark
	1	Fragment of thoracic vertebra	"	—	Broken
	1	Fragment of shaft of femur	"	—	Broken
	1	Fragment of a molar tooth	"	—	Broken
	1	Fragment of right 3 <sup>rd</sup> molar tooth	"	—	Broken
	1	2 <sup>nd</sup> left upper molar tooth	L-E1; S-2	1'7"	Complete
	1	Fragment of shaft of left radius	L-D1; S-2	2'0"	Broken
	1	Distal part of humerus	Data not recorded	—	Chopping mark
	3	Fragment of horn core	L-E5; S-1	1'5"	Broken
	1	Proximal part of left scapula with glenoid cavity	L-C1 17'8"E x 16'0"S; S-3	2'8"	Broken
	1	Distal part of right tibia with medial malleolus and lateral malleolus	"	"	Broken
	1	Proximal shaft of femur with epiphysis	S-1	10"	Broken
	1	Fragment of right vertical ramus of mandible with coronoid process and condyle	"	"	Broken
	1	Left lower molar tooth	"	"	Complete

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Fragment of left horizontal ramus of mandible with broken 1 <sup>st</sup> premolar, 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L-A1 (N x H); S-1 and 2	—	Teeth intact
	1	Fragment of left vertical ramus of mandible with condyle and broken coronoid process	"	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of anterior part of left horizontal ramus of mandible	"	—	Broken
	1	Fragment of right upper jaw with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and fragment of 1 <sup>st</sup> molar teeth	L-N x HS-3	1'9"	Broken
	1	Fragment of right upper jaw with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and broken 1 <sup>st</sup> molar teeth	Data not recorded	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of anterior horizontal ramus of right side with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar teeth	L-A2 2'3"S x 7'1"W;S-2	0'8 ½"	Broken
	1	Fragment of shaft of humerus	L-(N x H); S- 2 and 3	—	Broken
	1	Proximal part of shaft of left tibia	"	—	Broken
	1	3 <sup>rd</sup> lower molar tooth	Data not recorded	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	Proximal fragment of right calcaneum with tubercalcis	"	—	Broken
	1	Proximal fragment of right scapula with glenoid cavity	"	—	Broken
	1	3 <sup>rd</sup> right upper molar tooth	S-2	—	Broken
	1	Distal part of femur	Data not recorded	—	Broken
	1	Right astragalus with distal end eroded	"	—	Eroded
	1	Fragment of shaft of radius	"	—	Cut mark
	1	Proximal part of left scapula with glenoid cavity	"	—	Broken
	1	Fragment of left maxilla with 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	—	Teeth intact
	1	Fragment of shaft of radius	S-2 and 3	—	Broken
	1	Part of right tibia	L-B, 18'4"N x 17'8"S; S-3	1'8"	Broken
	1	Anterior portion of horizontal ramus of mandible with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar teeth	Data not recorded	—	Broken
	1	Right 2 <sup>nd</sup> molar tooth	S-2 and 3	3'0"	Charred
	2	2 <sup>nd</sup> premolar tooth	"	"	Charred
	1	Fragment of shaft of left tibia	Data not recorded	—	Broken
	1	Fragment of shaft of left tibia with proximal epiphysis	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Capra hircus aegagrus</i> Erxl.	1	1 <sup>st</sup> phalanx	L-A5 18'1''S x 8'8''E;S-2	1'11''	Complete
	1	3 <sup>rd</sup> left upper molar tooth	Data not recorded	—	Complete
	1	Fragment of right calcaneum with tubercalcis	"	—	Broken
<i>Ovis vignei</i> Blyth	1	Fragment of vertical ramus with condyle	"	—	Broken
	1	Portion of squamus temporal bone	L-E4;S-2	2'6''	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of coronoid process of right vertical ramus	"	"	Broken
	1	Fragment of shaft of tibia	Data not recorded	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Broken
	1	Fragment of left vertical ramus with condyle	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Broken
	1	Distal part of left humerus without distal epiphysis	"	—	Broken
	1	Fragment of left pelvis with acetabulum	"	—	Broken
	1	Left upper 2 <sup>nd</sup> molar tooth	L-B2 26'4''E x 3'6''S;S-2	0'10''	Complete
	1	Left lower 1 <sup>st</sup> molar tooth	Data not recorded	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Fragment of the right ramus of mandible with 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar teeth	L-8'5''S x 11'11''E;S-2	2'3''	Cut mark
	1	Fragment of right pelvis with a portion of ilium and acetabulum	L-A, 1'3''E x 4'2''S;S-2	1'3''	Broken
	1	Fragment of right pelvis with a portion of acetabulum and ischium	"	"	Broken
	1	Left third upper premolar tooth	"	"	Sub-adult
	1	Left upper third premolar tooth	"	"	Broken
	1	Anterior part of right horizontal ramus with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> molar teeth	S-2	1'4''	Teeth intact
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	"	Broken
	1	Fragment of shaft of femur	"	"	Broken
	1	Fragment of rib	Data not recorded	—	Broken
	1	Shaft of scapula with a portion of glenoid cavity	"	—	Broken
	1	Fragment of left horizontal ramus of mandible with 1 <sup>st</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> molar teeth	"	—	Teeth intact
	1	Fragment of large metacarpal	LL-E2 4'9'' x E1 4'5''; S-3	2'10''	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Ovis vignei</i> Blyth</b>	1	Fragment of shaft of tibia	Data not recorded	—	Broken
	1	Fragment of astragalus	"	—	Eroded
	1	Proximal fragment of left radius with medial and lateral condyle	"	—	Broken
	1	1 <sup>st</sup> left upper molar tooth	"	—	Complete
	1	Proximal fragment of left tibia	"	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Lower 3 <sup>rd</sup> molar tooth	"	—	Complete
	1	Fragment of coronoid process of mandible	"	—	Broken
	1	1 <sup>st</sup> right lower molar with a small portion of body of mandible	"	—	Broken
	1	3 <sup>rd</sup> left lower premolar tooth	"	—	Broken
	1	Fragment of right pelvic bone with a portion of acetabulum and ischium	"	—	Broken
	1	Distal part of right humerus without condyle portion	"	—	Broken
	1	Fragment of shaft of tibia	"	—	Broken
	1	Fragment of horizontal ramus of left mandible with broken 3 <sup>rd</sup> molar tooth	L-N and H; S-2 and 3	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Fragment of right vertical ramus of mandible with condyle	"	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metacarpal	"	—	Broken
	1	Distal part of left humerus without distal epiphysis	Data not recorded	3'8"	Broken
	1	Fragment of blade of left scapula with a portion of neck	L-F.C; S-2	—	Broken
	1	Fragment of a molar tooth	L-A (NH); S-1 and 2	2'4"	Broken
	1	Olecranon process of ulna	S-3	—	Broken
	1	Fragment of horn core	L-A(N x H); S-1 and 2	—	Broken
	1	Fragment of rib	—	—	Broken
	1	Fragment of blade of scapula with broken spinous process	L-A North East 8 ½"x 8 ½"; S-2	1'8"	Broken
	1	Fragment of rib	"	"	Broken
	1	Fragment of blade of scapula	"	"	Broken
	1	Fragment of rib	"	"	Broken
	1	Distal fragment of left humerus without condyle	L-E4 12'10""E x 14'2""S; S-2	0'-11'	Broken
	1	Fragment of shaft of tibia	"	"	Broken
1	Fragment of right vertical ramus of mandible with condyle	S-7	—	Broken	

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<b><i>Ovis vignei</i> Blyth</b>	1	Fragment of left horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	"	—	Complete
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	Data not recorded	—	Broken
	1	Fragment of shaft of radius	"	—	Broken
	1	1 <sup>st</sup> phalanx of fore limb	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Broken
	1	Proximal part of 1 <sup>st</sup> phalanx	"	—	Broken
	1	Fragment of molar tooth	"	—	Broken
	1	1 <sup>st</sup> phalanx of fore limb	S-2	—	Broken
	1	Proximal part of right radius	Data not recorded	—	Broken
	1	Proximal part of right tibia	"	—	Sub adult
	1	Fragment of the 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Cut mark
	1	Fragment of the right horizontal ramus of mandible	"	—	Broken
	1	Fragment of right 1 <sup>st</sup> molar	"	—	Broken
	1	Fragment of left vertical ramus with condyle	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	—	Broken
	1	Left upper 2 <sup>nd</sup> molar tooth	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	3 <sup>rd</sup> right lower premolar with an formation of horizontal ramus	L-A; S-2 and 3	1'10"	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> molar tooth	"	"	Broken
	1	Fragment of rib	"	"	Broken
	1	Anterior fragment of the left horizontal ramus of the mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> premolar teeth	L-B2 1'10"S x 9'8"E;S-1	2"	Broken
	1	Fragment of left horizontal ramus of mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	-S2	-	Broken
	1	Fragment of right scapula with neck and glenoid cavity	"	-	Broken
	1	Fragment of left lower molar tooth	"	-	Broken
	1	Anterior part of left horizontal ramus of mandible	"	-	Broken
	1	Fragment of spinous process of thoracic vertebra with articular process	"	-	Broken
	1	Right 1 <sup>st</sup> upper molar tooth	L- N x H; S-2 and 3	-	Broken
	1	Fragment of right vertical ramus of mandible with broken coronoid process	"	-	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Distal part of left radius	"	—	Broken
	1	Fragment of shaft of tibia	"	—	Broken
	1	Head of femur	"	—	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	L-C1 1'5''W x 7'5''S;S-2	1'2''	Broken
	1	Fragment of shaft of tibia	Data not recorded	—	Broken
	1	Fragment of ulna with a portion of olecranon process and semilunar notch	"	—	Broken
	1	1 <sup>st</sup> phalanx	S-1	—	Sub-adult
	1	Fragment of lower right 3 <sup>rd</sup> molar tooth	Data not recorded	—	Broken
	1	3 <sup>rd</sup> phalanx	"	—	Broken
	1	Fragment of shaft of femur	"	—	Broken
	1	1 <sup>st</sup> left lower molar tooth	"	—	Broken
	1	Distal end of left tibia	"	—	Broken
	1	Fragment of right horizontal ramus of mandible with 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	"	—	Broken
	1	Fragment of right horizontal ramus of mandible with 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L- N x H; S-2 and 3	—	Broken
	1	Fragment of left maxilla with broken 1 <sup>st</sup> premolar and 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar teeth	"	—	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	Fragment of left pelvis with portions of acetabulum and ischium	"	-	Broken
	1	Fragment of right pelvis with portions of acetabulum and ischium	L- N x H; S-2 and 3	-	Broken
	1	Proximal part of shaft of right tibia	"	-	Broken
	1	Distal part of left tibia	"	-	Broken
	1	1 <sup>st</sup> phalanx of fore limb	"	-	Complete
	2	Fragment of rib	"	-	Broken
	1	Fragment of thoracic vertebra with body and portion of spine	"	-	Broken
	1	Fragment of right maxilla with 1 <sup>st</sup> molar tooth	"	-	Broken
	1	Distal part of right humerus with condyle	S-2 and 3	-	Broken
	1	Fragment of coronoid process of right mandible	"	-	Broken
	1	Fragment of 3 <sup>rd</sup> and 4 <sup>th</sup> metatarsal	"	-	Broken
	1	Anterior part of left horizontal ramus of mandible	"	-	Broken
	1	2 <sup>nd</sup> lower molar tooth	"	-	Complete
	1	Distal fragment of right humerus with condyles	"	-	Broken

Name of species	No. of Mtl.	Identity of Material	Locus (L)/ Stratum(S)	Depth	Condition of Material/Remarks
<i>Ovis vignei</i> Blyth	1	2 <sup>nd</sup> right lower molar tooth	S-6	—	Broken
	1	Fragment of shaft of femur	Data not recorded	—	Broken
	1	Fragment of left horizontal ramus of mandible with 3 <sup>rd</sup> molar tooth	L-N x H; S-2 and 3	—	Broken
	1	Proximal fragment of right scapula with glenoid cavity	"	—	Broken
	1	Fragment of left pelvis with portion of acetabulum	Data not recorded	—	Broken
	1	Fragment of thoracic vertebra	"	—	Broken
	1	Fragment of rib	"	—	Broken
	1	Fragment of right horizontal ramus of mandible with 2 <sup>nd</sup> and 3 <sup>rd</sup> premolar and 1 <sup>st</sup> and 2 <sup>nd</sup> molar teeth	L- N and H; S-3	3'0"	Teeth intact
	1	1 <sup>st</sup> phalanx	"	"	Broken
	1	Fragment of shaft of left radius	"	"	Broken
<i>Rattus rattus</i> Linn.	1	Right femur	Data not recorded	—	Broken

## FAUNAL DIVERSITY

Altogether remains of thirty animal species have been recovered from Nagarjunakonda archaeological site as presented in Table 2.

**Table 2.** Animal forms recovered from Nagarjunakonda excavation and their present state of distribution.

Group	Scientific name	Common name	Present natural distribution	Cultural stratum*
Mollusca: Vasidae: Turbinellinae	<i>Turbinella pyrum</i> (Linn.)	Chank	South east coast through Sri Lanka to South west coast in Kerala, Gulf of Kachchh, Gujarat; Bangladesh	H
Cypraeidae:	<i>Monetaria moneta</i> (Linn.)	Cowry	Tamil Nadu, Andaman and Nicobar Islands	H
Pisces: Osteichthyes: Teleostei	<i>Rita rita</i> (Ham.Buch)	Rita fish	Most rivers of northern India; Nepal; Bangladesh; Myanmar; Afghanistan; Pakistan: Indus plain and adjoining hilly areas	H
Reptilia: Varanidae	<i>Varanus griseus</i> Daud.	Desert monitor	India (arid zones of Madhya Pradesh, Maharastra, Rajasthan, Punjab); Pakistan; Afghanistan; Iran; North Africa	H
Chelonia	<i>Varanus sp.</i>	—	Not ascertained	H
	<i>Chitra indica</i> Gray	Narrow-headed softshelled Turtle	India (U.P., Bihar, West Bengal); Nepal; Pakistan; Malaysia and Thailand	H
	<i>Trionyx sp</i>	Indian soft shelled Turtle	Ganga, Sind and Mahanadai river systems ;common in North-west Pakistan; Bangladesh; and foothills of Nepal	H
Aves	<i>Gallus sp.</i>	—	Not ascertained	H
Mammalia: Carnivora: Canidae	<i>Canis familiaris</i> Linn.	Domestic Dog.	World-wide due to transshipment by human	H
Carnivora: Felidae	<i>Felis chaus</i> Schreber	Jungle cat	Throughout India; Afghanistan; Algeria; Arabia; Benin; China;	H

Group	Scientific name	Common name	Present natural distribution	Cultural stratum*
Proboscidea: Elephantidae	<i>Elephas maximus</i> Linn.	Indian Elephant	Egypt; Syria; Iraq; Israel; Kenya; Malawi; Morocco; Mozambique; Myanmar; Nepal; Palestine; Sri Lanka; Thailand; Vietnam; Zambia; Zimbabwe; Russia and other countries of earlier USSR  Western Ghats from Karnataka southwards, Orissa, Bihar, Western Himalaya, West Bengal and Assam in India; Sri Lanka; Myanmar; Thailand; Vietnam; Malaysia; Indonesia	H
Perissodactyla: Equidae	<i>Equus caballus</i> Linn.	Domestic Horse	Originally from North eastern Persia (Iran); North Western Afghanistan; Russia and Turkistan.	H
	<i>Equus asinus</i> Linn.	Donkey	Wild form in East Africa (Sudan, Somaliland). Domestic form distributed in many parts of the world through human agency	H
Artiodactyla: Suidae	<i>Sus scrofa cristatus</i> Wagner	Wild boar	Throughout India; Pakistan; Sri Lanka; Nepal; Bangladesh; Myanmar; Indonesia; Malaysia and Vietnam.	N, M, H
Artiodactyla: Cervidae: Cervinae	<i>Axis axis</i> ( Erxl.)	Chital/ spotted deer	Peninsular India, West Bengal, Sikkim northwards to Kumaon Himalaya; Nepal; Sri Lanka.	N, H
	<i>Cervus duvaucelii</i> Cuvier	Swamp deer/ Barsingha	Restricted to India; north of Ganges from Kumaon Himalaya to Assam, and south of Ganga (principally in Madhya Pradesh).	N
	<i>Cervus unicolor</i> Kerr.	Sambar	Forests of India; Myanmar; Sri Lanka; Nepal; Indonesia (Sumatra, Borneo, Java); Malaysia; introduced to Australia and New Zealand.	N, H
Artiodactyla: Cervidae: Munticinae	<i>Muntiacus muntjak</i> (Zimmermann)	Barking Deer	Countries of Indo-Malayan Sub-region; Cambodia; Vietnam; Laos; Formosa; Japan.	H

Group	Scientific name	Common name	Present natural distribution	Cultural stratum*
Artiodactyla: Bovidae: Bovinae	<i>Boselaphus tragocamelus</i> (Pallas)	Nilgai or Blue bull	From base of Himalaya to Karnataka, eastern Punjab, Gujarat and Assam.	N, H
	<i>Bos indicus</i> Linn.	Domestic Cow	Distributed world-wide through human agency.	N, M, H
	<i>Bubalus bubalis</i> (Linn.)	Indian Buffalo	Terai and plains of Brahamaputra valley in Assam, Orissa, Madhy Pradesh; and forests of the Nepal	N, M, H
	<i>Bos frontalis gaurus</i> H. Smith	Gaur or Indian Bison	Western Ghats, Southern Maharastra, Hill forests of Central and south eastern peninsula, West Bengal; eastward to Myanmar and Malaysia.	H
Artiodactyla: Bovidae: Antilopinae	<i>Antilope cervicapra</i> (Linn.)	Black Buck or Indian Antelope	Plains of India; uncommon in forests and hilly tracts.	N
Artiodactyla: Bovidae: Caprinae	<i>Capra hircus aegagrus</i> Erxl.	Wild goat	India; Pakistan (Baluchistan); Iraq; Iran; Asia Minor.	N, M, H
	<i>Ovis vignei</i> Blyth	Domestic sheep	Wild form ranges from Giligit, Astar and Ladak in Kashmir, eastward to northern Tibet, Punjab; Pakistan (Sind, Baluchistan), and southern Persia (Iran). Domestic form distributed in many parts of the world through human agency.	N, M, H
Rodentia: Muridae	<i>Bandicota bengalensis</i> (Gray and Hardwicke)	Indan mole rat	Throughout India; Indo-China; Indonesia; Myanmar; Nepal; Pakistan; Sri Lanka.	H
	<i>Bandicota indica</i> (Beecstein)	Indur, Chuha	Almost throughout India; Bangladesh; China; Indonesia; Laos; Malaysia; Myanmar; Nepal; Pakistan; Sri Lanka; Taiwan; Thailand; Vietnam.	H
	<i>Rattus rattus</i> (Linn.)	House rat	Original home was India and Myanmar; presently distributed worldwide through shipment of commodities.	H

Group	Scientific name	Common name	Present natural distribution	Cultural stratum*
Rodentia: Hystricidae	<i>Hystrix indica</i> Kerr.	Indian porcupine	Himalaya to Kanyakumari in India; Sri Lanka; westward to Iran; Baluchistan to Syria; Asia Minor and Palestine.	H
Lagomorpha: Leporidae	<i>Lepus nigricollis</i> Cuvier	Indian hare	Peninsular India, Central India (Vidharbha region and Madhya Pradesh), Kachchh and Kathiawar of Gujarat, Rajasthan, Punjab, Sikkim, Duars area of Bengal, Assam plains; Nepal; Bhutan; Sri Lanka and Sind of Pakistan.	H

\***Cultural Stratum:** N-Neolithic; M-Megalithic; H-Early Historical

## DISCUSSION

It is evident that the valley of Nagarjunakonda was one of the sites of most old human culture in India. Though the remains of fauna could not be recovered, material of early and late Stone Age represented by loose stone artefacts and microlithic implements were spread over a large part of the Valley. The old human folk inhabited this area are suggestive of its favourable environmental features and availability of resources for their subsistence.

It is amply clear that certain natural features like, availability of source of freshwater and easy accessibility of stone outcrops for the artefacts had influence upon the location of the Neolithic society. The valley of Nagarjunakonda had these essential prerequisites for the Neolithic settlements. Cultivation, domestication of animals, and stock-breeding and use of pottery are the three prominent features of a Neolithic society. These point out to the greater control of man on its food requirements and supply. The conditions showed efforts of man to produce its food over the supply ensured by the nature. The people gradually changed life style from nomadism to settled habitation. Eventually, hunting of animals did not take the major role in the augmentation of food supply of the society. According to Subrahmanyam *et al.* (1975) this tendency is also apparent from the predominance of blades and lunates in the associated microlithic industry. Further, Nagarjunakonda disclosed one of the finest collections of neoliths in India. The point or arrow-head in this industry do not count for more than five per cent. It may therefore be conjectured that the small tools of this phase might have been used more for food production than the food gathering.

The remains of at least 10 vertebrate animals have been recovered from Neolithic period (see Table 2, Text-Fig. 3). Many of them *viz.*, *Bos indicus*, *Bubalus bubalis*, *Ovis vignei* and *Capra hircus aegagrus* were domestic forms by all probability. Further, occurrence of the deer species *viz.*, *Cervus unicolor* and *Axis axis*, black buck (*Antelope cervicapra*) and

Nilgai (*Boselaphus tragocamelus*) are of significance. These species have not been encountered normally in the wild from this part of the country in recent past. The habitat conditions were surely much different from the present situation and which provided support bases for these animals to flourish. The available finds suggest that the Neolithic settlements were located near or amidst forested patch continued with grasslands or browsing vegetation on undulating terrain. The settlers were also adapted to pastoral economy and cultivation of food crops.

Remains of about 5 animals have been recovered from the megalithic culture of Nagarjunakonda (see Table 2, Text-Fig. 3). Most of these animals have been recovered from the megalithic human burials. The practice of burial was probably common in the megalithic society and the ritual was elaborated with offerings of various grave goods as well as sacrifice of animals.

Quite a good number of animal species (about 27) have been recovered from the stratum of early historical period (see Tables 2 and 3, Text-Fig. 3). The remains of pony (*Equus caballus*) and elephant (*Elephas maximus*) are of special interest. Subrahmanyam *et al.* (*loc. cit.*) related the pony as an adjunct of 'Asvamedha' by one of the Ikshvaku kings who ruled during the time, and the elephants with kingly enterprise and suzerainty. The donkey (*Equus asinus*) and the bull (*Bos indicus*) were perhaps used as beasts of burden and in agricultural practice while the goats (*Capra hircus aegagrus*) and pigs (*Sus scrofa*) were used for food. The desert monitor (*Varanus griseus*), that presently seen only in the arid zones of central and northwestern India and Pakistan appear to had a wider distribution in the past. It is evident that changes of habitat conditions due to increased population and related anthropogenic pressure have contributed to the contraction/change of distribution zones of many autochthonous animals in wilderness. The occurrence of three species of rodents *viz.*, common rat (*Rattus rattus*), Indian mole rat (*Bandicota bengalensis*) and large bandicoot (*Bandicota indica*) are common also in other prehistoric animal remains of India, while that of the crested porcupine (*Hystrix indica*) is not quite common. Nath (1961) mentioned that this species has not been found in any other prehistoric sites of India. Earlier, Sewell and Guha (1931) worked out the animal remains of Mohenjodaro and Prashad (1936) worked out those of Harappa. It was also not noticed in the worked out remains of Lothal by Saha *et al.* (2004) and Nagda by Pal *et al.* (2004).

It was noted, prior to the large scale excavation by the Archeological Survey of India, that the green pastures on the slopes of the hills of the valley and beyond had attracted large number of animals in Nagarjunakonda through ages. Correspondingly, the cultivars and the cattle breeders of the plains of Guntur and Nellore Districts used to send their animals for grazing to the hills of Nallamalai range in summer months while fodder was scarce in the plains (Subrahmanyam *et al.*, *loc. cit.*). These facts explain considerably the occurrence of a number of animal species in the remains that are related to the economy of a folk of agriculture base.

Significantly, the types of megaliths found in Nagarjunakonda are analogous to many of these found in the prehistoric sites like, Brahmagiri, Maski, Hasmatpet etc. The occurrence

of red and black ware in earlier periods in the north substantiates the origin there. The knowledge and method somehow travelled from north towards south through central India and which were adopted by megalithic builders in Nagarjunakonda. It also denotes partial migration of certain ethnic group towards south. This place served as shelter for migrating group for at least a sizeable period till new forces pushed them further south beyond Deccan. Subrahmanym *et al.* (*loc. cit.*) have therefore, conferred that the megalithic folk of Nagarjunakonda were not probably a people of single tradition but heterogeneous combination of several groups with different customs. Seemingly, they coexisted peacefully without severe hostility. In the process of spread of megalithic pottery, industry and cultural traits from the north to the south, central and south-central India served as the link. An assessment of gradual decline and the rise of megalithic cultures in the prehistoric sites of India may explore the movements of megalithic groups as well as forces operative behind the process.

## SUMMARY

Nagarjunakonda located in a valley on the southern bank of river Krishna in Guntur District of Andhra Pradesh is presently submerged for construction of a dam across the river in that place. However, an organized excavation in the valley before construction of the dam in 1950s revealed one of the oldest human cultures in India. In past, the place was successively colonized by human folk of different cultural phases *viz.*, Lower Paleolithic, Mesolithic, Neolithic, Megalithic, Early historical and Medieval. The age of these human cultures date back from 300,000 years before present (YBP) to about 1800 YBP. Favourable environmental features, richness of biota, availability of enough freshwater and stone outcrops etc. had influenced the man to select this area at different phases of civilization as their abode. Handful of evidences in form of stone artefacts, weaponeries, crafts, industries and remains of animals, scattered in different strata within the valley, point out to gradual progression in lifestyle of the human folks from hunter-gatherer nomadism to settled habitation with greater control on food requirements and supply. Remains of fauna however could not be recovered from excavation before the Neolithic phase of culture (c. 2160 B.C.). The analysis of animal remains (1060 examples/ fragments) comprising mostly of hard exoskeletons of mollusks and turtles and endoskeletons of vertebrates revealed the presence of 2 species of Mollusca, 1 species of Pisces, 4 species of Reptilia, 1 species of Aves and 22 species of Mammalia. While presence of several animals indicates past ecological features of the valley, many others had pointed out their importance in the subsistence and economy of the people. Occurrence of some non-indigenous animals (*viz.*, *Equus sp.*, *Capra hircus*, *Ovis vignei*) with recovered potteries and crafts denoted their relevance in migration of certain ethnic groups from north to south in the dispersal process of old human folk as well as probable composition of ancient folk of the valley.

An effort has been made here to put down the result of analysis of animal remains and the wealth of information out of the archaeological and historical studies together to examine whether these emanate any historical trajectory of biological systems and socio-cultural set-up.

**Table 3.** Comparative availability of Animal Remains (specimens) in different Cultural phases at Nagarjunakonda

CULTURAL PHASE	ANIMAL GROUPS					
	Mollusca (No.)	Fish (No.)	Reptilia (No.)	Birds (No.)	Mammals (No.)	Total (No.)
Neolithic	–	–	–	–	398	398
Megalithic	–	–	–	–	130	130
Early Historical	5	1	29	7	490	532
<b>Total: 1060</b>						

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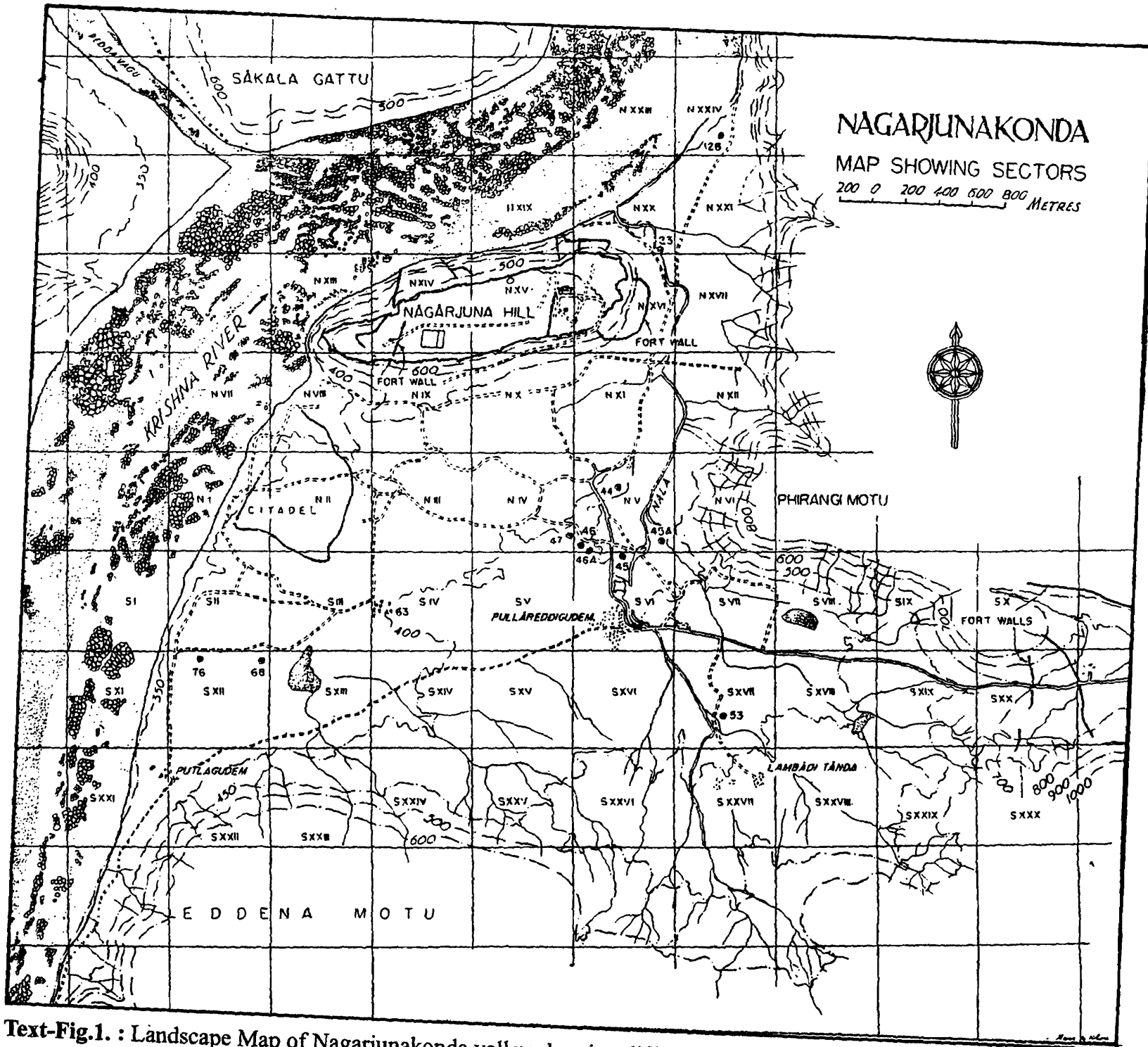
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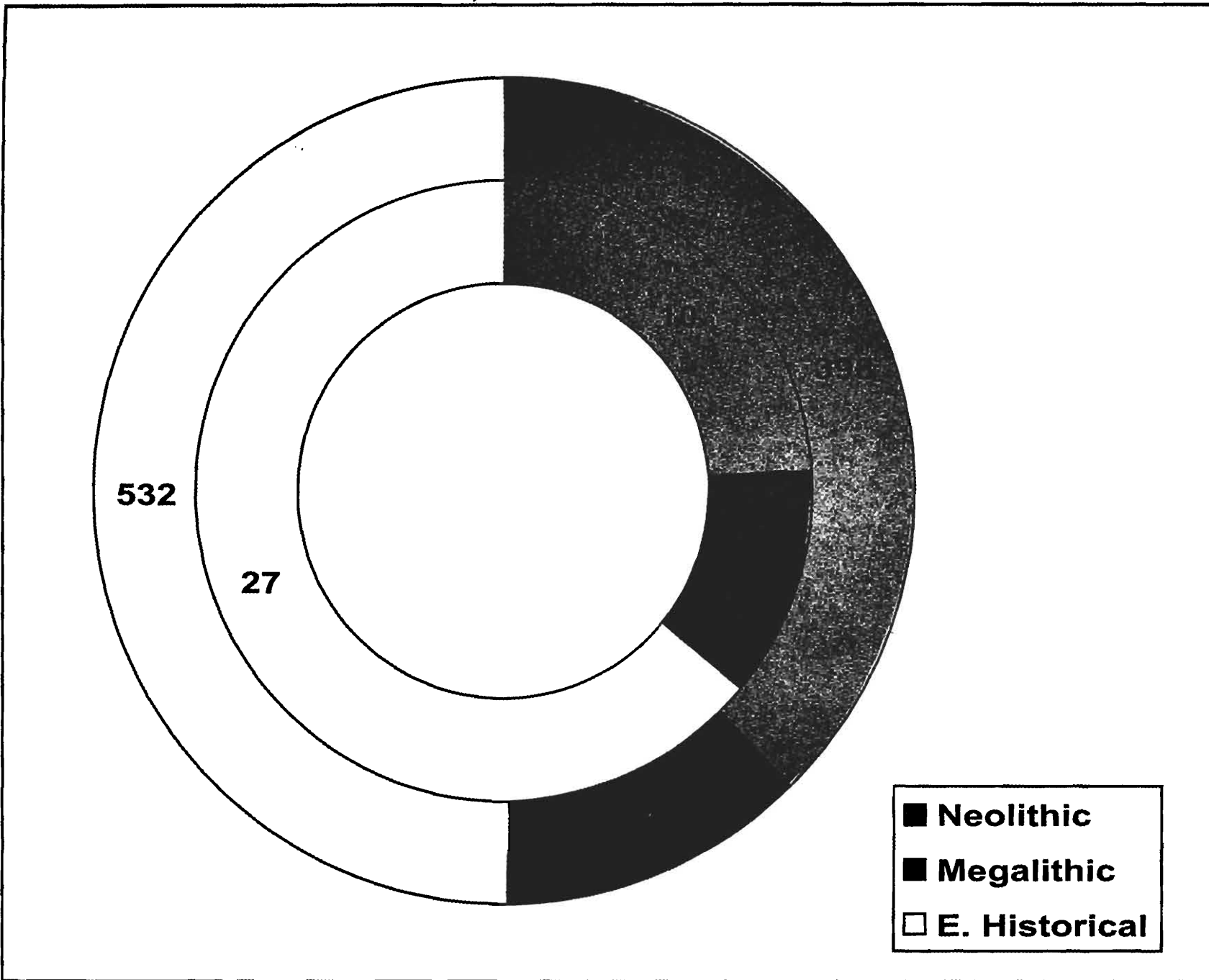




**Text-Fig. 1. :** Landscape of Nagarjunakonda valley before submergence under Nagarjuna Sagar Dam



Text-Fig.1. : Landscape Map of Nagarjunakonda valley showing different sectors (after Subrahmanyam *et al.*, 1975)



**Text-Fig. 3. :** Relative availability of animal remains (outer circle) and number of animal species (inner circle) in the Neolithic, Megalithic and Early Historical Cultures of Nagarjunakonda

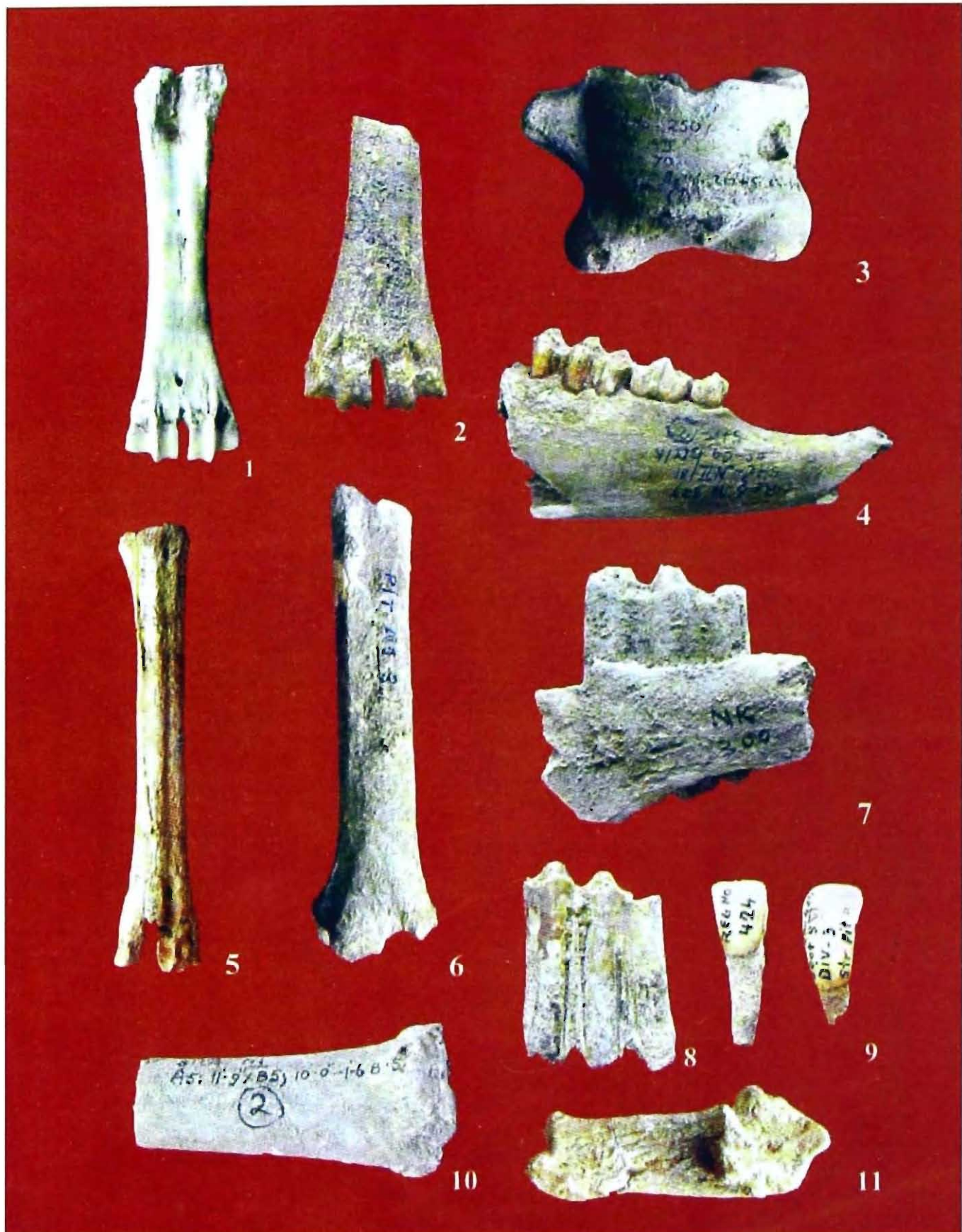
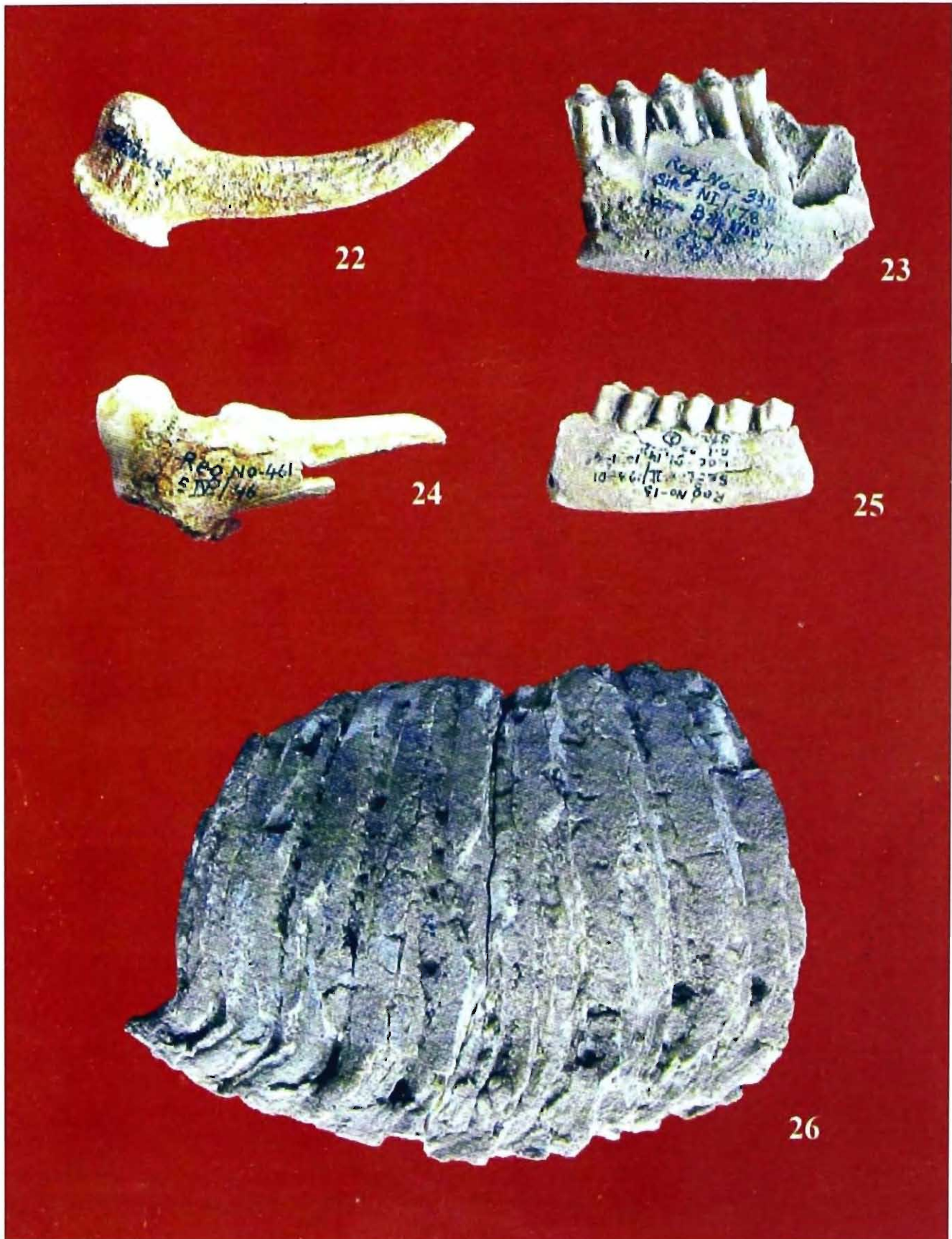


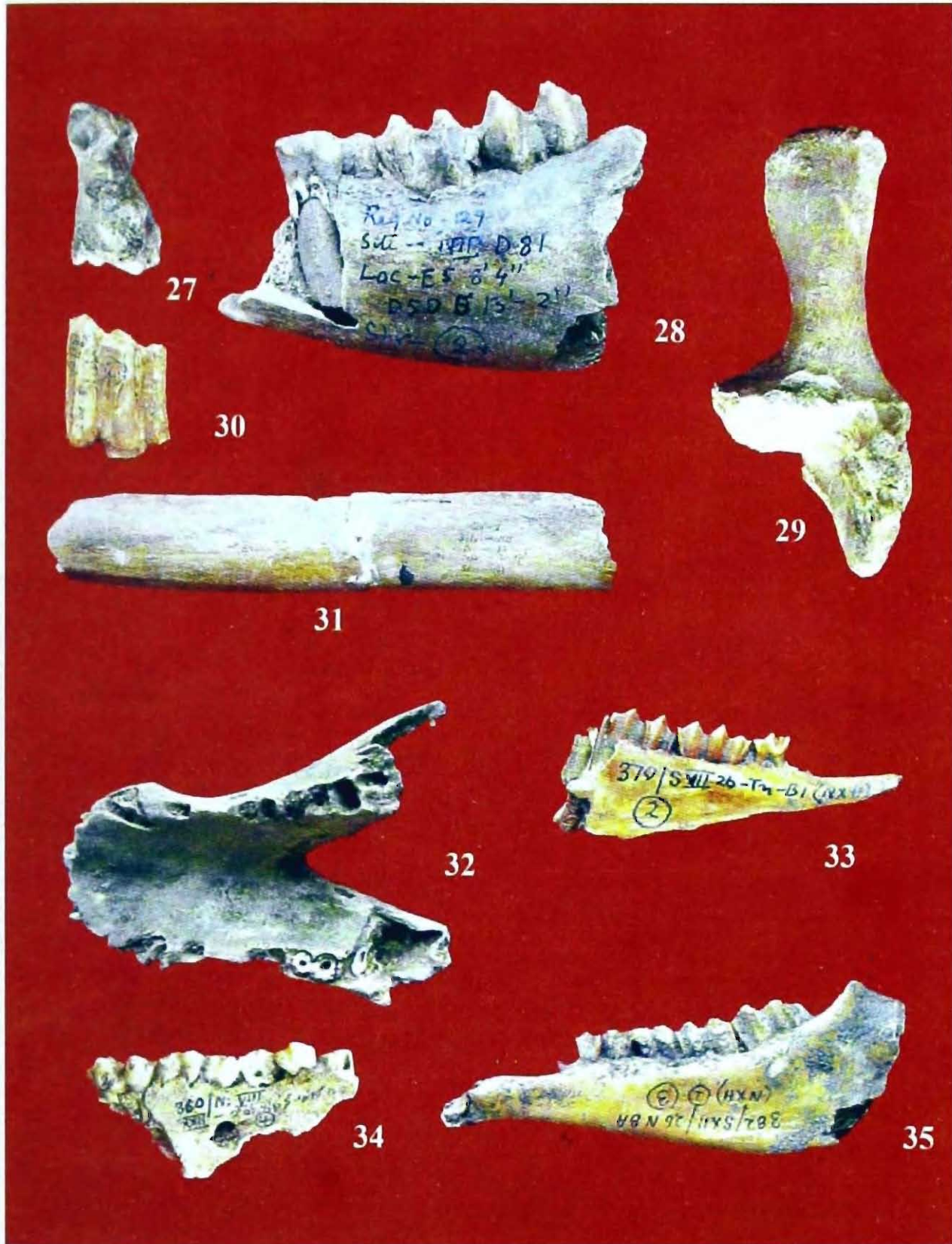
Plate I. Figs. 1-11. *Bos indicus* Linn. : 1, Right 3rd and 4th metacarpal (0.24x); 2, Distal portion of 3rd and 4th metacarpal (0.38x); 3, Right astragalus (0.44x); 4, Right horizontal ramus of mandible with 1st, 2nd and 3rd premolars (0.38x); 5, Right 3rd and 4th metatarsal (0.23x); 6, Right tibia (0.28x); 7, 3rd molar tooth (0.50x); 8, Left lower 3rd premolar tooth (0.45x); 9, Incisor teeth (0.63x); 10, Metacarpal (0.20x); 11, Left calcaneum (0.29x).



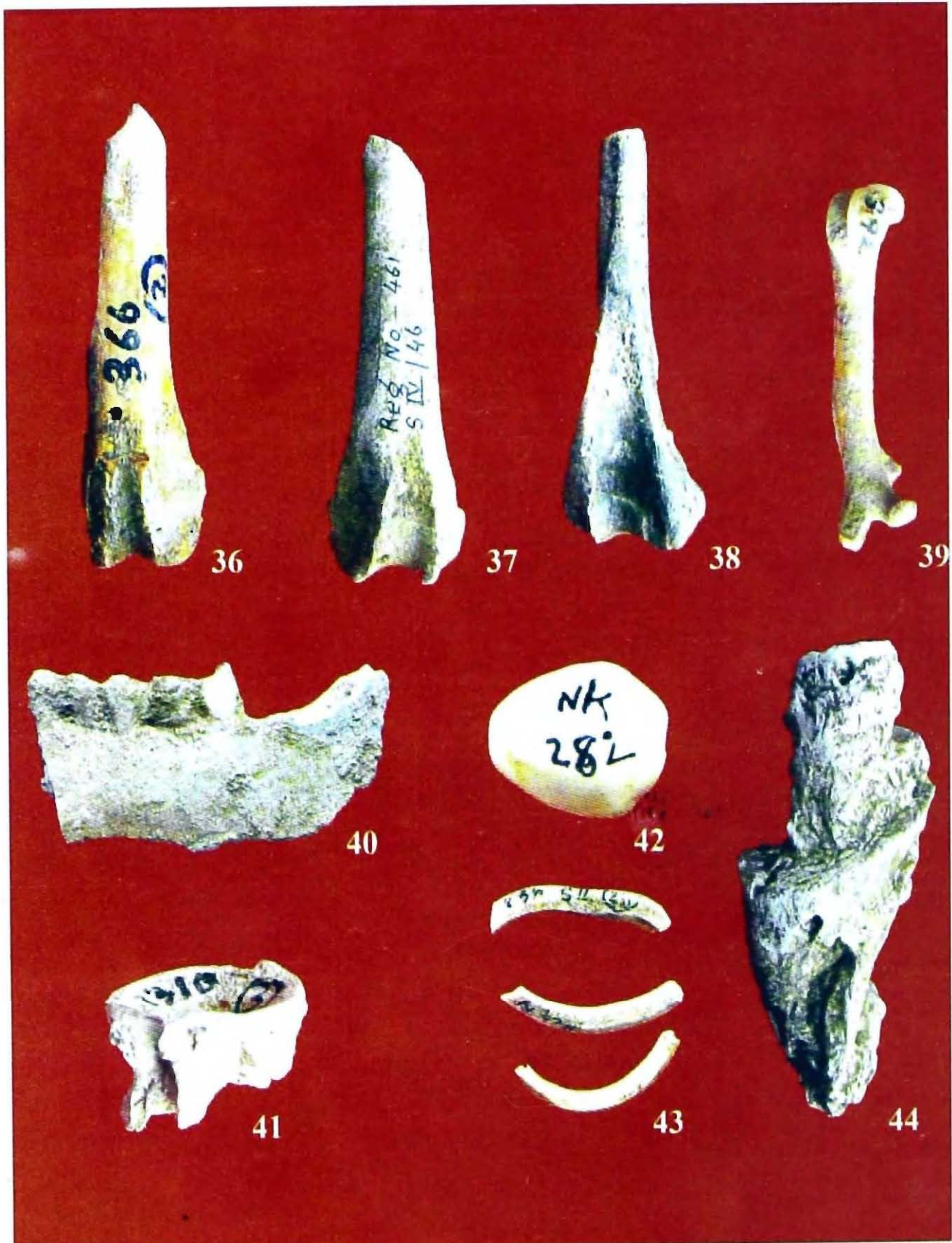
**Plate II.** Figs. 12-21. *Equus caballus* Linn. : 12, Skull portion with 3rd and 4th premolar and 1st and 2nd molar teeth (0.31x); 13, Right 3rd metatarsal (0.36x); 14, Right femur (0.29x); 15, Right tibia (0.29x); 16, Anterior portion of maxilla with four incisor teeth (0.68x); 17, Axis vertebra (0.53x); 18, 2nd left upper premolar tooth (0.68x); 19, Right mandible with 2nd, 3rd and 4th premolar and three molar teeth (0.24x); 20, Right upper 3rd premolar tooth (0.68x); 21, Right humerus (0.35x).



**Plate III.** Figs.22-26. 22, *Cervus duvacelli* Cuvier, Fragment of antler (0.78x); 23, *Boselaphus tragocamelus* (Pallas), 2nd and 3rd molar teeth (0.42x); 24, *Antelope cervicapra* (Linn.), Proximal fragment of femus (0.66x); 25, *Axis axis* Erxl., Left horizontal ramus of mandible with three premolar teeth (0.48x). 26, *Elephas maximus* Linn., 2nd lower molar tooth (0.63x).



**Plate IV.** Figs. 27-35. 27-31 *Bubalus bubalis* (Linn.), 27, 1st phalanx of hind limb (0.27x); 28, Lower jaw with 1st, 2nd and 3rd premolar teeth (0.45x); 29, Left calcaneum (0.37x); 30, Left lower 3rd premolar tooth (0.30x); 31, Fragment of rib (0.25x); 32, *Sus scrofa cristatus* Wagner, Mandibular symphysis without teeth (0.40x); 33, *Ovis vignei* Blth., 2nd and 3rd premolar and 1st molar teeth on mandible (0.57x); 34, *Sus scrofa cristatus* Wagner, Left upper jaw with 1st, 2nd, 3rd and 4th premolar teeth (0.47); 35, *Capra hircus aegagrus* Erxl. Right horizontal ramus of mandible with 2nd and 3rd premolar and 1st, 2nd and 3rd molar teeth.



**Plate V.** Figs. 36-44. 36, *Lepus nigricollis* Cuvier, Distal fragment of femur (1.02x); 37, *Hystrix indica* Kerr., Fragment of right femur (0.64x); 38, *Felies chaus* Schreber, Fragment of left humerus (1.07x); 39, *Bandicota indica* (Beecstein), Left femur (0.83x); 40, *Bos gaurus* H. Smith, Left horizontal ramus of mandible with 2nd and 3rd molar teeth; 41. Teleostean fish, Abdominal vertebra (1.65x); 42. *Monetaria moneta* (Linn.), Complete shell (1.50x); 43-44 : *Turbinella pyrum* (Linn.); 43, Fragments of bangle made of *Turbinella* shell (0.59x); 44, Collumella part of shell (1.03x).