

Preliminary archaeozoological examination of Eneolithic deposits at Isera-La Torretta (province of Trentino) and comparison with coeval faunal remains of North-Eastern Italy

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ABSTRACT - Osteological investigations of Eneolithic findings at Isera-La Torretta, province of Trentino, during 1990-91 provide a general overview of the animal population present at that time and their economic exploitation. Out of 10767 bones 2339 were identified. According to this study, the site of Isera contains a truly large amount of deer bones (31.04%), followed, in terms of their economic importance, by ox bones (22.19%). Bones of wild animals (deer, wild boar, roebuck, beaver, bear, hare, chamois, badger) amount to 33.9%, while those of the domestic species (including ox, sheep, goat, pig) reach 59.91%. Compared with other Neolithic fauna, the animals examined in this research were of medium size. The oxen were of medium to large size. In conclusion, the fauna discovered at Isera indicates that the local economy still partly depended on hunting. Economic advancements toward the abandonment of hunting and the domestication of animals, as observed at other Eneolithic and Neolithic sites in North-Eastern Italy are moderate.

KEY WORDS: Isera-La Torretta, Eneolithic fauna, Archaeozoology

PAROLE CHIAVE: Isera-La Torretta, Età del Rame, Archeozoologia

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Research carried out in Isera (1990-91 by the Ufficio Beni Archeologi della Provincia di Trento) discovered Eneolithic deposits not only with a considerable amount of fictile and lithic cultural material but also with osteologic material which is of great importance because of the lack of availability of pre-historic, Neolithic and Eneolithic fauna to be examined. The analysis of the fauna gives a general economic picture which is still typical of Eneolithic fauna where hunting as a supply of meat finally loses its importance and is taken over by stock-farming in the Bronze Age. In Isera it has been observed that the majority of bone remains are those of deer (31.04%), whilst there were very few of wild boars (1.41%), roe deer (0.64%), beavers (0.3%), bears (0.34%), chamois (0.04%) and badgers (0.09%) (Fig. 1). Roe deer were therefore the most hunted wild animals and in fact there was a larger number of roe-deer bone remains than of

oxen ones, which were the second represented species (22.19%), followed by goats and sheep (21.89%) and pigs (12.83%) (Fig. 1). It was difficult to ascribe another group of bones, corresponding to 9.19% of the total amount, to other species as they could belong to either oxen or roe deer. The bone remains of wild animals correspond to 33.9% while those belonging to domestic animals correspond to 59.91%. The analysis of the date of death of the oxen, goat and sheep show that both adult and young animals were butchered and therefore animals were not only exploited for meat but also for secondary products. Pigs were only butchered when young for the obvious reason that meat was better.

The dimensions of the animals can be considered as average size for the period taken into consideration; oxen fit in better with medium and large size populations that start dying out (the large

ones) in the Neolithic Age and then particularly in the Bronze Age (the middle size ones) to giving way to other, smaller ones. Therefore, in Isera, as in other Neolithic-Eneolithic sites, the economy is still partly based on hunting (see Cornuda-Treviso, base of Upper Neolithic with the presence of 2/3 of wild animals, or Fimon Molino Casarotto-Vicenza, Neolithic Period of Square Mouth Culture with almost only wild animals).

On the other hand, other prehistoric faunas such as those of Colombare-Verona (Upper Neolithic-Copper Age) and of Monte Covolo-Brescia (Recent Neolithic and Bronze Age) Olmo di Nogara (Middle Bronze Age), Ronchettrin (Late Neolithic), Pieve di Colognola (Middle-Late Neolithic) in the Venice region, Monte Mezzana (Eneolithic) in the Trento region, the South Tyrol site of Fingerhof (Late Neolithic-Early Bronze Age), reveal the presence of almost exclusively domestic animals. A majority of domestic animals and a large representation of wild animals is to be found in

Moletta of Arco (Trento). There are other deposits to be found in this region but they are not of great importance due to the limited amount of findings.

The comparison between the anatomical presence of the two mostly represented animals, that is oxen and roe deer, is very interesting (Fig. 1): the majority of the bones found were those of roe deer limbs, while there were fewer chest and skull bones. In the evidence of this, it can be presumed that roe deer were butchered directly on the hunting spot, (consuming the less important parts which were less conservable?), far away from the settlement, and that the muscular parts were transported. This was not the case with oxen which were definitely butchered on the settlement. Even though many traces of butchering was found on the limbs of oxen, roe deer, bears and wild boars, it was impossible to observe a precise method used on the carcasses of the animals which differed from contexts of other prehistoric periods.

SUMMARY - Investigations at Isera-La Torretta undertaken by the "Ufficio Beni Culturali di Trento" during 1990-91 provided - among other findings - a large number (10767) of Eneolithic bones of which 2339 pieces were identified in this study. According to this study, the site of Isera contains a truly large amount of deer bones (31.04%), followed, in terms of their economic importance, by ox bones (22.19%). Bones of wild animals (deer, wild boar, roebuck, beaver, bear, hare, chamois, badger) amount to 33.9%, while those of the domestic species (including ox, sheep, goat, pig) reach 59.91% (Fig. 1). In conclusion, the fauna discovered at Isera indicates that the local economy still partly depended on hunting. Similar results were achieved e.g. at Cornuda, Veneto, (Late Neolithic) with a two thirds representation of wild animals, and at Fimon-Molino Casarotto, Veneto, (Square Mouth Pottery Culture) with an almost exclusive representation of wild animals. Conversely, other prehistoric faunal assemblages already imply economic advancements toward the abandonment of hunting and the domestication of animals: e.g. at Colombare, Veneto (Upper Neolithic-Eneolithic), Monte Covolo, Brescia (Lower Neolithic and Bronze Age), Olmo di Nogara, Veneto (Middle Bronze Age), Ronchettrin, Veneto (Late Neolithic), Pieve di Colognola, Veneto (Middle-Late Neolithic), Monte Mezzana, Trentino (Eneolithic), and Fingerhof, South Tyrol (Late Neolithic-Early Bronze Age), the faunal composition consists of mostly domesticated animals.

RIASSUNTO - Le ricerche ad Isera hanno messo in evidenza un rilevante quantitativo di resti osteologici (determinati 2.339). Nel sito si nota una assoluta prevalenza di resti ossei di cervo (31,04%). Segue seconda per importanza tra le specie rappresentate il bue (22,19%). In questo quadro i resti ossei dei selvatici ammontano al 33,9%, mentre quelli delle specie arrivano al 59,91%. Le dimensioni degli animali possono essere considerate medie per l'epoca presa in esame; i buoi si inseriscono meglio fra popolazioni di statura medio e grande. A Isera si riscontra una fauna, che come in altri siti neolitici-eneolitici è collegabile ad un'economia ancora relativamente basata sulla caccia.

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	Cattle	Deer	Cattle or Deer	Sheep	Goat	Goat or Sheep	Roe-deer	Pig	Wild boar	Beaver	Bear	Hare	Chamois	Badger
Horncore-Antler	1	20	-	-	-	1	2	-	-	-	-	-	-	-
Skull	29	3	17	-	1	17	-	8	-	-	-	-	-	-
Upper jaw	2	-	-	-	-	-	-	8	-	-	-	-	-	-
Upper teeth	70	31	-	-	-	83	1	49	-	-	1	-	-	-
Mandible	25	11	8	-	-	20	2	18	2	-	-	-	-	1
Lower teeth	109	34	1	-	-	113	1	60	-	-	-	-	-	1
Hyoides	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Atlas	1	2	2	-	1	-	-	1	1	-	-	-	-	-
Axis	-	4	1	-	-	-	-	1	-	-	-	-	-	-
Cervical vertebra	7	6	13	-	-	4	-	1	-	-	-	-	-	-
Thoracic vertebra	3	8	3	-	-	6	-	1	-	-	-	-	-	-
Lumbar vertebra	2	5	8	-	-	5	-	3	-	-	-	-	-	-
Sacrum	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Caudal vertebra	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Rib	15	-	27	-	-	10	-	10	-	-	-	-	-	-
Scapula	1	10	24	-	-	8	2	13	-	-	-	-	-	-
Humerus	7	19	6	4	-	12	1	15	1	-	-	-	-	-
Radius	9	28	3	2	1	7	-	6	-	1	1	-	-	-
Ulna	12	19	-	-	-	6	-	17	-	-	1	-	-	-
Carpalia	22	37	-	1	-	2	-	2	1	-	-	-	-	-
Metacarpus	9	52	-	3	-	5	-	9	8	-	-	-	-	-
Pelvis	3	18	28	-	-	8	-	10	3	1	-	-	-	-
Femur	4	5	26	-	-	8	-	1	-	2	-	-	-	-
Patella	1	9	-	-	-	1	-	2	-	-	-	-	-	-
Tibia	1	26	17	3	-	8	-	6	-	-	-	-	-	-
Fibula	-	-	-	-	-	-	-	-	-	3	-	-	-	-
Calcaneus	4	11	10	2	1	2	-	6	1	-	-	-	-	-
Tarsalia	12	31	5	-	-	3	-	-	-	-	-	-	-	-
Metatarsus	11	62	-	3	2	14	5	-	2	-	1	1	-	-
Astragalus	4	19	5	9	-	3	-	3	3	-	-	-	-	-
Phalanx 1	27	106	-	4	-	1	1	-	1	-	2	-	1	-
Phalanx 2	14	53	-	4	1	2	-	8	6	-	2	-	-	-
Phalanx 3	6	16	-	-	-	-	-	3	1	-	-	-	-	-
Various	107	75	11	-	-	120	-	39	3	-	-	-	-	-
Total (2339)	519	726	215	35	7	470	15	300	33	7	8	1	1	2
%	22,19	31,04	9,19	1,50	0,30	20,09	0,64	12,83	1,41	0,30	0,34	0,04	0,04	0,09

Fig. 1 - Isera la Torretta: the composition of the fauna