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Settlements and economy in the Bronze and Iron Age in Trentino-South Tyrol. Notes for an archaeozoological model

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ABSTRACT - About twenty Bronze and Iron Age sites in Trentino-South Tyrol furnish information about the structure and evolution of the animal populations in relation to the human economy. The analysis of the data reveals a group of historical influences which were integrated by more limited environmental influences or constrictions.

Key words: Trentino-South Tyrol, Protohistory, Economy, Human culture, Environment
Parole chiave: Trentino-Alto Adige, Protostoria, Economia, Cultura, Ambiente

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1. INTRODUCTION

In this paper the archaeozoological data are examined from a series of sites in Trentino-South Tyrol; the majority of these are settlements which date to the Bronze and Iron Ages, apart from Ciaslir del Monte Ozol (where the Luco Culture levels appertain to a cult site), Calferi (a burial site) and Moscheri (a cult site).

The most important studies have been carried out on the Bronze Age sites while for the Iron Age the archaeozoological data are of good quality but they are still relatively scarce and it is difficult to make generalisations on a regional scale, despite the large number of sites which have been excavated and partly published. Therefore, although it is possible to make a diachronic study for the Bronze Age, this is not possible for the Iron Age.

2. ENVIRONMENTAL AND CHRONOLOGICAL CONTEXT OF THE SITES EXAMINED. CULTURAL ATTRIBUTION AND EVOLUTION OF THE CULTURES

Trentino-South Tyrol is a predominantly mountainous region, in which the lowland plains areas coincide with the main valleys formed by the rivers Isarco, Rienza, Adige, Noce, Sarca and Brenta. The Bronze and Iron Age settlement systems resulted in the occupation of ecologically different environments, which included mid-altitude Alpine areas (Albanbühel, Nössing, Terlago-Monte Mezzana, Lasino, Isera-Castel Corno: upland sites), mid-high altitude (Sotciastel), upland prairies (Mandrom de Camp, rockshelter), wetlands (Ledro and Fiavé) and valley bottoms (Appiano, Vadena), in which there was a close relationship between the settlement and the water courses (Stufels,

Vadena, Schnalserhof, Nössing). For the whole of the time span considered here, these communities had an economy which was essentially based on agriculture and stock breeding. These activities must have involved a notable anthropic impact on the environment, with woodland clearance leading to phenomena of slope erosion (Coltorti & Dal Ri, 1985) and terracing carried out in order to create further farmland which was particularly important in the Bronze Age. Phenomena of slope erosion caused by the intensive exploitation of previously forested areas have also been documented (Coltorti & Dal Ri, 1985). During this period, in fact, the nearly ubiquitous settlement of this area by numerous communities which were in full demographic growth - at least judging by the quantity of sites known - led to the occupation of areas which had previously been depopulated or unproductive. Favourable climatic conditions made it possible to colonise the interior areas, and included the exploitation of the uplands for pastoral and mining activities.

The majority of the sites examined here date to the Early Bronze Age (Nössing, Schnalserhof, Sano-Mori, Castel Corno near Isera, Colombo di Mori and Terlago-Monte Mezzana, Lasino), Middle Bronze Age (Albanbühel, Sotciastel), Early and Middle Bronze Age (Ledro and Fiavé), Late Bronze Age (Appiano) and Final Bronze Age, and some were still occupied during the Iron Age (Vadena). Both Vadena and Stufels were occupied during various phases of the Iron Age.

Only a brief synthesis of the cultural context will be given here. As early as the Early Bronze Age, the upper course of the river Adige tended to be culturally differentiated from the middle and lower parts of the river basin. The South Tyrol pottery assemblages, though demonstrating clear influences from the Polada Culture, were more heavily influenced by the Northern Alpine cultural circles (Arbon Culture, Straubing). The role of "melting-pot" between the North and South seems to be reflected in the constitution of a local entity, which extended over various areas of Austria and Switzerland, to which one can give a preliminary name of 'Inneralpine Bronzezeitkultur'. This facies essentially dates to the Early and Middle Bronze Age, and the phases of the late Bronze Age preceding the establishment of the Luco-Meluno group. In the Trentino sites (Ledro and Fiavé), which clearly demonstrate influences from the Polada Culture and its immediate developments, cultural traits developed during the Middle Bronze Age in the Alpine area which were characteristic of the Veneto and Lombardy regions, with significant elements of contact with the terramara cultural circle. Elements of these cultural aspects also filtered into South Tyrol, where they are manifested above all in the more refined ceramic forms which were susceptible, because of their aesthetic prestige, to repeated imitations. During the Late Bronze Age, and in more or less clear continuity with the traditional cultural aspects, the Luco-Meluno facies developed over the whole of the region and shows various elements of contact with the North Alpine Urnfield Culture. The Luco-Meluno facies dates between the 13th and the 6th centuries BC and is considered to lie at the basis of subsequent developments, from the end of the 6th century, of the Rhaetian Fritzens-Sanzeno Culture. Only five of the Iron Age sites studied (two upland sites - Monte Ozol and Dos Grum, two sites situated close to the valley bottom at the confluence between the rivers Isarco and Rienza (Stufels), and one site - Vadena - which lies slightly above the valley bottom of the river Adige) offer an interesting but limited picture of the behaviour of the 1st millennium BC populations with regard to stock breeding.

The Iron Age communities in Trentino-South Tyrol had contacts with the Roman Culture and economy as early as before 15 BC, the date adopted by historians to mark the beginning of the occupation of the Central Alpine area by Augustus's armies.

3. PRELIMINARY OBSERVATIONS

The examination of the current state of our knowledge, which is certainly not exhaustive, can only consist of a series of detailed observations from which one can then make some more general conclusions. Some of these, which will also be mentioned here, have already been published elsewhere (Riedel, 1986, 1996; Pucher, 1994, 1997).

There is no close biological relationship between human cultures and economy, and in particular animal economies. The spread of civilisation took place both rapidly and violently as well as gradually and pacifically, involving large scale movements of human populations or alternatively modest or virtually non-existent movements. The analysis of the animal populations must therefore be carried out independently for every site before correlating it with a particular culture or environment. The animal economies may have been formed in distant regions and after having spread into other areas may have remained more or less constant and badly adapted to the new environments, as a result of tradition.

The relationships between the composition of the animal populations and the cultures are not normally clear, and although the sites of Barche, Ledro and Fiavé appertained to the same cultural environment, they have different faunal assemblages.

The faunas of the Square Mouth Pottery Culture - Moletta Patone (Riedel, 1994), Rivoli (Jarman, 1976), Fimon, Cornuda (Riedel, 1988) - also have very

different compositions. Other cultures, like that of the Terramara, seem on the other hand to have more or less constant compositions and dimensions.

In the upper Adriatic region - at Canar during the EBA (RIEDEL, 1998), at San Vito (SCARPA, 1988) and Spina (RIEDEL, 1986) during the Etruscan and Greek civilisations, and at Venice (RIEDEL, 1990) and Torcello (RIEDEL, 1986) during the Mediaeval period - there was a constancy in the composition of the faunal assemblages characterised by a prevalence of pigs which was typically local and common to different cultures. The dimensions of the animals should also not always be related a priori to specific cultures or civilisations, even though these are determinant factors. It is best to remember however that cultural developments were certainly more rapid than those of the populations and the animal economy.

4. COMPOSITION OF THE FAUNAS

Important historical-cultural and economic implications are suggested by the relationship between domestic and wild animals, which became standardised from the Bronze Age onwards. In fact during the Neolithic and Bronze Age - Moletta Patone (RIEDEL, 1994), Isera (JARMAN, 1970) - the percentage frequency of wild animals was quite high, while other sites (Sonnenburg, Terlago-Monte Mezzana, and Lasino-lower levels) seem to document a completely domestic faunal assemblage. This oscillation accompanied the long process of sedentism which culminated at the beginning of the Bronze Age: the constitution on a regional scale of habitations which were permanently settled for very long periods of time or for various epochs must have given rise to more and more extensive farmland, with the abandon of aleatory activities such as hunting. This seems to have been oriented exclusively towards deer, either in order to protect the fields, or (as documented at Lasino) for the procurement of antler and bone which were used for making tools or handles. During the course of the Bronze Age (Middle Bronze Age), wild animals were sometimes used as offerings at burial sites (Calferi di Stenico) or in cult sites in caves (Moscheri di Trambileno), thus confirming the ideologically marginal role played by wild animals in stable agro-pastoral communities. Among the wild animals, roe deer and wild boar are always rare. Bear is sporadically represented but at Ledro, where it is possible to imagine its cult significance, it is comparatively common.

Sonnenburg, an upland settlement in Val Pusteria, shows a substantial continuity in the composition of the fauna between the Copper Age and the Early Bronze Age, and the faunal assemblage is characterised by the prevalence of cattles (57%). The evolution in the composition of the faunal assemblages between the Copper Age and the Bronze Age on a regional level can only be understood at this site, and therefore at the moment this statement has only a purely indicative value. Although the sample of bones is very limited, at Fingerhof-Aica di Fié one observes a certain evolution in the faunal assemblages: during the Late Neolithic there is a higher frequency of sheep-goats, while in the EBA cattle become predominant.

The percentage relationships within the three main groups of domestic animals offer important indications about the economy of the sites.

The generalised scarcity of pigs (between about 5 and 15%) can essentially be interpreted in the framework of consolidated cultural traditions, since these appear to have been particularly abundant to the North of the Alps (but not in the area of the Inneralpine Bronzezeitkultur) and in similar natural environments. The specific percentage frequency of pigs seems to have been already established in the EBA, as is documented at the sites of Schnalserhof (6%) and Nössing (10%), and continued with more or less analogous percentages (cfr. Sotciastel and Albanbühel) in the Middle Bronze Age and early Final Bronze Age. However, important transformations in the composition of the faunal assemblages seem to have taken place during the Middle Bronze Age: at Appiano, for example, there was a notable increase in the importance of cattle (54%) compared with pigs (23%) and a decrease of caprines (22%). At Vadena, where the oldest faunal assemblage dated to the earliest Iron Age is composed of 33% cattle, 46% caprines and 21% pigs, the situation is only partially comparable. However, the relatively high percentage of pigs should be highlighted.

During the course of the Bronze Age sheep-goats constituted the most important group of domestic animals in the region; more rarely cattle prevailed, such as at Sonnenburg and, later, at Appiano. At Ledro and at Fiavé caprines prevailed with percentages of more than 60%. One can make the preliminary hypothesis that these oscillations depended on the lesser or greater availability of suitable areas for farming, or of areas suitable for grazing cattle. In other words it seems that the vast open areas with light soils, such as those at Appiano in particular, were more suited to the increase in the cattle population, while the Ledro environment, which was more limited from the point of view of suitable farmland, with a forest cover which is still quite consistent today, was more suited to keeping sheep-goats than cattle. At Schnalserhof, in the lower Val Venosta, the absence of farmland combined with the proximity of important areas of upland pastures, seem to have favoured a higher percentage of caprines. The model is less suitable for explaining the behaviour of the community at Fiavé, where farmland was widely

available: it is clear that, apart from environmental factors, cultural motives must also have been active.

It is more easy to explain the abundance of cattle at Sonnenburg, an area which was significantly well provided with cultivated areas perhaps as early as the Bronze Age; the upland environment which would have been more favourable to sheep-goats did not, however, influence the faunal composition at Albanbühel. Therefore the differences between the faunas at Sonnenburg and Eppan on the one hand and those at Albanbühel and, for example, Sotciastel on the other, as well as in the Fiavé and Ledro group, suggest a series of influences of a historical or environmental type which are difficult to define for each individual group.

In the Trentino faunas which are partly more recent in date, the most interesting fact is the clear prevalence of bovids at Dos Grum which represent 56% of the bone remains (followed by 30% sheep-goats and 13% pigs). At Ciaslir del Monte Ozol, where the lower levels indicate a cult site, the composition of the fauna is very similar to that at Dos Grum.

5. ANALYSIS OF THE SPECIES

From a diachronic point of view one can compare the evolution of the dimensions of the cattle in the Bronze Age sites in the Po valley and peri-Alpine area and the parallel evolution of the cattle in the South Tyrol area, and observe that the evolutionary models in the two areas vary considerably. From the MBA onwards in the sites on the plain there was a tendency towards the gradual substitution of medium-sized races (for example 116cm of average withers height at Barche di Solferino; Riedel, 1994) with small-sized races (for example 106cm at Isolone sul Mincio; Riedel, 1994), while in Trentino-South Tyrol this substitution seems to have taken place at a later date, from the L-FBA onwards (for example, medium-sized cattle at Appiano-L-FBA, and small-sized ones at Vadena-EIA 1). At the same time there was an inverse tendency among the sheep-goats, as we shall see later.

It is interesting to note that this substitution coincided with an important historical-cultural change in the region which saw the establishment of the Luco Culture, which lay at the basis of the cultural developments which culminated with the constitution of the Rhaetian Culture during the Iron Age.

From a synchronic point of view the dimensions of the cattle in Northern Italy varied slightly in the Polada area-EBA (medium-sized at Barche, slightly smaller at Ledro; Riedel, 1994) and these variations can be seen in the subsequent small-sized fauna during the MLF-BA, even if they are not so visible.

As regards the Trentino-South Tyrol area (Lasino, Late Neolithic-EBA; Ledro, E-MBA; Albanbühel, M-LBA; Sonnenburg, mainly E-MBA; Nössing, mainly EBA; Appiano, LBA; Vadena, EIA 1; Sotciastel M-LBA), comparisons are difficult. However, one observes that the populations, which are medium-sized at Sonnenburg, Nössing and Albanbühel, are larger than those at Ledro, Appiano and Sotciastel.

At Sotciastel one can assume that the economy was less developed as a result of its isolated location. One notes a distribution of smaller forms in the South and larger ones in the North, on the other side of the Alpine watershed - Böheimkirchen, EBA, Lower Austria (Riedel, 1998), Wiesing, E-MBA, Tyrol (Pucher, 1994).

As regards the data from the Lasino rockshelter (TN), which indicate - so it would appear - very large cattle, these are difficult to interpret. They may be ancient forms related to particular populations of the Neolithic tradition.

In general there were small sheep in Northern Italy during the Bronze Age, smaller than 60cm in average withers height. Markedly taller sheep and goats appear in the FBA (for example at Sabbionara di Veronella; Riedel, 1993). This situation in Northern Italy is characteristic with respect to the sites located North of the Alpine watershed, where in the E-MBA (cfr. Wiesing, Tyrol. Pucher, 1994; Riedel, 1998). The caprines are markedly larger with respect to the coeval Northern Italian populations.

The data available for the South Tyrol (cfr. Sotciastel, Appiano, Sonnenburg, Albanbühel) document variable dimensions from site to site, which are not unlike those of the sites in the Po valley. Although Sotciastel and Ledro were perhaps sites with small-sized caprines, small dimensions did not necessarily influence the economic exploitation of the populations. From the EIA 1 onwards, as is documented by the abundant fauna of group III at Vadena, the sheep became larger in size, reaching up to 65cm in average height. One notes that this increase in the size of the sheep and also among the goats was accompanied, at Stufels for example, by a reduction in the size of the cattle, which were as small as the IA ones to the North of the Alps.

The variation in the size of the pigs was usually less important and characteristic than that of the cattle and sheep-goats. The pigs were slightly taller than 70cm of average withers in height and smaller than those to the North of the Alps, where they were also more numerous (for example at Wiesing in the Tyrol and at Böheimkirchen in Lower Austria).

At Appiano near Bolzano (L-FBA) one notes the presence of particularly large pigs which were transitional forms between wild and domestic forms. However, it has not been possible to establish whether we

are dealing with more numerous crossbreeds of wild and domestic forms, or else a singular but unlikely result of sampling of the local economic conditions or a more intense influence of the forms of animal cultures to the North of the Alps. Some large-sized animals also seems to be present at Nössing (especially in the EBA), which show clear influences of the coeval cultures to the North of the Alps.

The other characteristics at Eppan (small cattle, large caprines) resemble the later regional faunas (FBA: for example at Pfatten); the faunal assemblage is a characteristic example of the difficulty involved in archaeozoological interpretation and reconstructions.

The age classes demonstrate a general use of caprines as sources of secondary products, while the use of cattle was quite balanced with respect to the need to obtain meat, traction and secondary products related to milk. On the basis of the high percentages of new-born or foetal individuals among the cattle at some MBA sites in South Tyrol (Sotciastel and Albanbühel), we have recently suggested that this may be related to slaughtering connected with the extraction of substances from the intestines which were useful for cheese making. This activity is in fact documented in the ethnographic record up to very recent periods. Other interpretations are however also possible: the difficulty of foraging during the winter period, scarce interest in increasing the size of the herds, high infant mortality etc.

Pigs were generally slaughtered at a young age, and were used almost exclusively for meat.

Dogs, which were present throughout the Bronze Age with breeds slightly smaller than 50cm of avergahe withers height played an essentially "social" role: guard dogs or pets. A clear but irregular dimensional evolution towards larger-sized breeds took place in Trentino-South Tyrol during the Bronze Age. It seems that this evolution should be interpreted in terms of the progressive selection of a discrete variety of breeds, and this process became much more marked in the Iron Age.

The horse appears in a very sporadic fashion during the EBA (Mori-Colombo, Sonnenburg) and becomes more common towards the end of the 2nd millennium; however, its comparative rarity seems to confirm that its main characteristic was that of a "status symbol"; like the dog, the horse also underwent phenomena of selection which during the Iron Age led to the constitution of different breeds, some of which were even smaller than the Bronze Age ones. The increase in the presence of horses during the FBA also seems to have accompanied the important cultural caesura between the E-MBA and the L-FBA.

As regards the Iron Age, the most important sites from the point of view of the quality and quantity of the data are Vadena and Stufels in South Tyrol. The faunal assemblages in Trentino (Dos Grum and Ciaslir del Monte Ozol) furnish only a very general picture. On the basis of what is already known or published, one observes that from the Bronze Age to the Iron Age, and in particular in Trentino, there was a marked increase in the number of cattle. During the Iron Age this increase seems to have taken place in two quite distinct areas from the point of view of the faunal assemblages, with a prevalence of cattle in Trentino and a more balanced number of cattle and caprines in South Tyrol.

The Iron Age witnessed the consolidation of the important transformations in the composition of the faunas and in the dimensions of the main domestic animals which took place between the LBA and the FBA. The picture remained practically unchanged during the whole of the 1st millennium, and was subsequently radically altered at the beginning of the Roman period.

6. CONCLUSIVE REMARKS ON THE ARCHAEOZOOLOGICAL MODEL

The abandon of hunting as a very important economic activity took place in the EBA over the whole of the region and in surrounding areas. The phenomenon was related to the establishment of sedentary settlements and in particular to the constitution of large agro-pastoral areas around the villages.

The greater or lesser quantity of cattle and caprines may have depended not only on the traditional economic habits but also on the greater or lesser availability of cultivated land or land suitable for use as pasture. Settlements characterised by limited farmland seem to be characterised by a larger number of sheep-goats.

The scarcity of pigs characterised the whole of the protohistory of Trentino-South Tyrol. Since the phenomenon is characteristic of all of the settlements, it is likely that it did not depend on the environment but rather on precise economic and cultural choices.

From the LBA onwards the changes in the settlement systems and the economy were accompanied by changes in the morphology of the main domestic animals; larger forms of dogs and caprines appeared while the cattle were represented by progressively smaller forms. Pigs do not show any significant changes.

The horse became relatively more important, with increases in the percentages compared with previous periods; its average dimensions were medium-small (125-130cm) but variable.

Northern influences (for example small cattle, large caprines, locally large pigs) seem to have been as important in various epochs as others southern ones (small caprines etc.).

The main characteristics of stock breeding in the L-FBA remained virtually unchanged during the following Iron Age; the traditional economy was radically substituted during the Roman period, with the introduction of new animal breeds, new stock breeding techniques and new products.

As regards the use of the mountainous regions for pastoral activities, the examination of one site (Mandrom de Camp) does not seem to indicate that the faunal composition was very different from that of the settlements themselves; however it is possible that they carried out activities connected with harvesting and not directly with breeding herds at high altitudes during the summer season; in the case of Mandrom de Camp one can hypothesise the periodic migration of small communities accompanied by all their animals, including pigs, which represented an alimentary resource which was used during activities which did not actually involve stock breeding.

The site of Sotćiastel in the upper Val Badia, where there was an equilibrium between the number of cattle and caprines, documents the agricultural colonisation of internal areas rather than the pure and simple exploitation of upland pastures, with the constitution of large areas of farmland around the settlement which was neither seasonal nor specialised only in stock breeding.

At Vadena the notable difference between the percentage of cattle between the EIA 1 (33%) and the IA (45% in the EIA 2 and 39% in the MLIA) was accompanied by a parallel variation in the number of sheep-goats (EIA 1: 46%; EIA 2 35%; MLIA 45%) and pigs (EIA 1 21%; EIA 2 20%; MLIA 16%). At Vadena in the first phases in the life of the settlement the natural environment, which was covered in a dense forest and limited towards the east by the river Adige, favoured the breeding of caprines, while the woodland clearance and land reclamation for agricultural purposes which started during the FBA and was completed during the EIA permitted an increase in the cattle population; during the MLIA the change in the size of the cattle, the relative increase in the caprines and the decrease in the number of pigs can be interpreted as the evolution of economic choices which were not directly conditioned by the surrounding natural environments.

At Stufels the situation was analogous and seems to have reproduced the same practice of land reclamation. The main differences can be observed between the 2nd and 3rd chronological group (II: VI-V century BC; III: V-IV century BC), with 33% and 48% respectively of cattle accompanied by 58% and 39% respectively of caprines. At Stufels one can therefore also interpret the transformation in the composition of the faunal assemblage in terms of the evolution of the anthropic impact on the environment surrounding the settlement.

Vadena and Stufels are good examples of how the fauna, when analysed in relation to the chronological evolution of the site, can locally make a contribution to understanding the dynamics of the human-environment relationship and how stock breeding was part of the processes of land use, specifying the specific functions of the sites when these are highlighted by other historical and environmental studies.

SUMMARY - About twenty Bronze and Iron Age settlements in Trentino-South Tyrol make it possible to sketch a model of the structure and evolution of the animal populations used by the human economy, and to make some considerations on their relationship with the human cultures and the environment. The populations were sometimes constituted outside of the local habitat and were then imported by means of immigration, diffusion and conquest. The strength of tradition tended to leave them unchanged: they were then adapted to the environment and to the cultures of surrounding regions. Some trends had a transregional value, such as the breeding of large-sized sheep-goats in this area and in the Po valley, or of small cattle like in the Northern regions. The analysis of these factors reveals a combination of historical influences integrated with more limited environmental influences or constrictions.

RIASSUNTO - Una ventina di insediamenti dell'Età del Bronzo e del Ferro del Trentino Alto Adige permettono di abbozzare un quadro delle strutture e dell'evoluzione delle popolazioni animali legate all'uomo e alla sua economia e di esporre alcune considerazioni sui loro rapporti con le culture umane e con l'ambiente. Le popolazioni possono essersi costituite all'infuori dell'habitat locale ed essere state importate poi per immigrazione, diffusione o conquista. La forza della tradizione tende a lasciarle un po' immutate; esse possono poi adattarsi più o meno puntualmente ad alcune influenze ambientali e a quelle di culture di regioni confinanti. Alcune evoluzioni hanno un valore transregionale, come per es. l'insorgere di grandi razze capro-ovine nella nostra area e nella pianura padana o di piccoli buoi, questi ultimi un po' in sintonia con le regioni settentrionali. L'analisi di questi problemi rivela un insieme di influenze storiche integrate da più limitate influenze o costrizioni ambientali.

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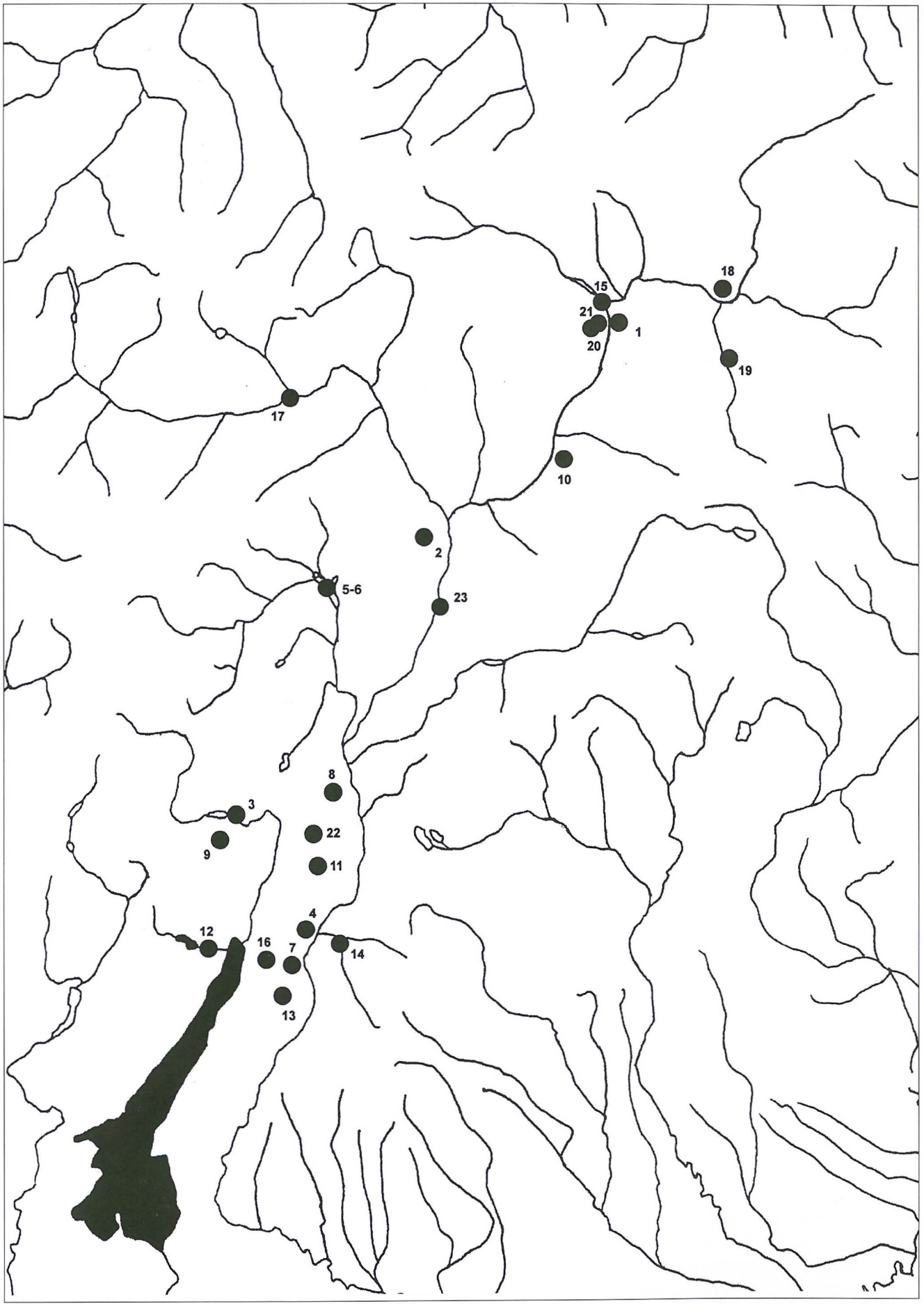
	Site	Age	Culture	Composition	References
1	ALBANBÜHEL	MBA	IBK	C.O.>B>M	Riedel & Rizzi 1995
2	APPIANO-EPPAN	L-FBA	Luco/Laugen	B>M>C.O.	Riedel 1994
3	CALFERI-STENICO	MBA	MBA-TN	-	Perini 1979
4	CASTEL CORNO-ISERA	EBA	Polada	B>C.O.>M	Riedel & Tecchiati (in prep.)
5	CIASLIR MONTE OZOL	FBA	Luco/Laugen	-	Riedel (unpubl.)
6	CIASLIR MONTE OZOL	MIA	FR.SZ	B>C.O.>M	Riedel (unpubl.)
7	COLOMBO DI MORI	EBA	Polada	C.O.>B>M	Marconi
8	DOS GRUM-CADINE	M-FBA	Luco/Laugen	B>C.O.>M	Riedel (unpubl.)
8	DOS GRUM-CADINE	EIA	Meluno/Melaun	B>C.O.>M	Riedel (unpubl.)
9	FIAVÉ	E-MBA	MBA-TN	C.O.>B>M	Jarman 1975
10	FINGERHOF-AICA DI FIÉ	EBA	IBK	B>M>C.O.	Riedel 1994
11	LASINO	EBA	Polada	C.O.>B>M	Riedel & Tecchiati 1992
12	LEDRO	E-MBA	Polada	C.O.>B>M	Riedel 1994
13	MANDROM DE CAMP	E-LBA	Polada, Luco/Laugen	C.O.>B>M	Riedel & Tecchiati (in prep.)
14	MOSCHERI-TRAMBILENO	MBA	MBA-TN	-	Tecchiati 1997
15	NÖSSING-VARNA	E-MBA	IBK	B>C.O.>M	Riedel & Tecchiati i 1999
16	SANO-MORI	EBA	Polada	C.O.>B>M	Riedel & Tecchiati (in prep.)
17	SCHNALSERHOF-NATURNO	EBA	Polada	C.O.>B>M	Riedel & Tecchiati 2000
18	SONNENBURG-S.LORENZO	E-MBA	IBK	B>C.O.>M	Riedel 1994
19	SOTCIASTEL-S.LEONARDO	M-LBA	IBK	C.O.>B>M	Riedel & Tecchiati 1998
20	STUFELS HOTEL DOMINIK	E-MIA	Meluno/Melaun -FR.SZ	C.O.>B>M	Riedel 1994
21	STUFELS HOTEL STREMITZER	MIA	FR.SZ	C.O.>B>M	Riedel 1994
22	TERLAGO-MONTE MEZZANA	EBA	Polada	B>M>C.O.	Riedel 1994
23	VADENA-PFATTEN III	EIA 1	Luco/Laugen	C.O.>B>M	Riedel in press (2001)
23	VADENA PFATTEN II	EIA 2	Meluno/Melaun	B>C.O.>M	Riedel in press (2001)
23	VADENA-PFATTEN I	MLIA	FR.SZ	C.O.>B>M	Riedel in press (2001)

Keys
Age – E: early; M: middle; L: late; F: final; BA: bronze age; IA: iron age
Culture – IBK: inneralpine Bronzezeitkultur; MBA-TN: middle bronze age-trentino-gardesana culture; FR.-SZ: rhaetian fritzens-sanzeno culture
Composition (number of remains) – B: cattle; C.O.: caprines; M: pig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