## XII. CONCLUSIONS

## FACTUAL SUMMARY

The archaeological Late Copper age site of Lîga is situated about one kilometre north of the modern village of Telish in Cherven Briag Municipality, Pleven County (Fig. I.1). Nearby, 1.2 km south of the site, lies another famous site from the same period known as Redutite. This contained three building horizons of the Copper Age and one of the so-called Transitional Period. The research objectives for Lîga were to a high degree dictated by the excavations at Redutite, supplemented by information from Sadovec-Golemanovo Kale and Pipra sites. These data were considered a good starting point for building-up a local sequence of land-use at Lîga, and, most importantly, for tracing movements of peoples and ideas. So far, the majority of settlement investigations in Western Bulgaria have produced a mass of isolated phenomena, coupled up merely with the help of particular types of artefacts. A different situation presented itself around Telish, with an opportunity to produce and to piece together evidence into coherent historical sequences, resembling those of the southern area of Bulgaria (with the impressive tells). In this light, issues such as spatial organisation, changes in the planning of settlement and its architecture, duration and causes of abandonment, etc. could be set in a broader temporal and geographical perspective, revealing the "dialectics" of a Late Copper Age settlement.

The site of Lîga is situated at the edge of a broad plateau, 20 m high, 195 m above sea level (Fig. I.2 & I.3). The Redutite site is located on the same plateau. Towards southwest and northeast the plateau has a wavy appearance. The hillock chosen for the Lîga settlement is deliminated by ravines in the south and north, created during seasonal runoff of water. At the foot of the site there used to be stream, presently a system of three dams known as the Lake of Gorni Dabnik. In all, 275 m<sup>2</sup> were excavated, excluding survey trenches. The depth of the excavated trenches varied between 0.5 and 1.2 m. The excavation strategy was aimed to concentrate on few areas where the archaeological contexts could be investigated fully and at great detail (Fig. XII.1). As a result, it has been established that the site was in use several times until

the present. The earliest occupation - Lîga 1 - is dated to the beginning of the Late Copper Age. Traces of this settlement were only established in some parts of the excavated area. Remains of one dwelling were recorded on the southern fringes of the site. This structure was supported by a wattle frame, resting on massive timbers. It was 7.6 m long, the estimated internal space being 39-40 m<sup>2</sup>. The orientation of the dwelling was N-S. At the SE corner of the house was part of a regular stone pavement made of water-worn well-sorted cobbles of sandstone and brown flint (Fig. II.5). The pottery from the house had dark lustrous surfaces, often painted with graphite and occaionaly with red and yellow pigmens (Pl. 6:1-7), in this sharply contrasting the generally light pottery of the following phase. The Lîga 1 settlement was abandoned for reasons as yet unknown.

Around 4400 BC (calibrated) a new settlement – Lîga 2 – was established at the site. Level terraces were created on the remains of the Lîga 1 dwellings, causing severe destruction of the debris of the previous occupational phase. The archaeological excavations at Lîga were concentrated on the material vestiges of this settlement. Three dwellings were fully investigated. Their identification was uncomplicated due to the settlement was burned down, and reddish burned daub clearly outlined the structures. In the northern part of the excavated area, numerous limestones were discovered, displaying a semi-circular or oval pattern. Stones in such configurations obviously belong to structural features, in fact house foundations, even when lacking preserved burned daub.

House 1 was discovered almost exactly on top of the house from the previous occupational phase. With a slight deviation towards the East, it even followed the orientation of the earlier construction (Pl. 2). The size was  $6.50\times5.70$  m, the internally available area 28.3 m². House 2 is perhaps the one, which applies the best to a supposed standard, since a partly excavated neighbouring house had a similar length (Pl. 1). External dimensions of House 2 are  $7.4\times6.0$  m, the internal area being 34.5 m². House 3 was the longest among the investigated houses (Pl. 1). It was 8.45 m long and 5.90 m wide in the middle part (external



Fig. XII.1. Working at Lîga, view from the East.

lengths). The internally available area was 37.80 m<sup>2</sup>. The houses were orientated N-S. Except for House 1, the uncovered remains indicate that usually the entrance was in southern wall, while the oven of the house stood at the northern wall.

The western part of the Lîga site was left unoccupied. During Lîga 2, the slopes of the hillock were made steeper by a shallow ditch or trench (0.8 m deep), an arrangement intended to inhibit movement up and down the slopes, thus perhaps made to protect livestock, kept in the 500–550 m² unoccupied area. Sounding of the terrain established that the houses of Lîga 2 were occupying an area of ca. 50×55 m. The total area with burned remains of buildings extended over ca. 1900 m² (Fig. II.1).

The Lîga 2 settlement was abandoned after the conflagration. The proximity of C-14 and AMS dates available from Redutite and Lîga implies that soon after the abandonment of the Lîga 2 settlement a new settlement was established at Redutite – Redutite II. The abandonment of the Lîga site lasted until ca. 4000 BC. At that time, the southern part of the site was se-

lected for a cemetery with several burials. In the excavated area alone, seven graves have been discovered, one grave holding remains of two individuals.

During the Early Bronze Age, the excavated area was part of a marginal activity zone for a settlement higher up on the plateau. The occupational debris of this was partly overlapping with the eastern limits of the Lîga 2 settlement, as has been established through drillings. Besides scattered pottery shards, found during the excavation, one pit is with certainty attributed to the EBA, Orlea-Sadovec culture. Another pit, intersecting House 3, contained vessels of Early Iron age Basarabi culture. This pit is dated to 875 BC. Some materials from Lîga are attributed to the Late Antiquity.

Material recovered from the Lîga site was subjected to several specialist studies. Pottery investigations (Chapters IV & V) demonstrated a great degree of individuality in pottery production, questioning established chronology. Ceramic sets from widely different periods of the Copper Age, according to traditional chronology, were found in contemporary houses.

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Bulgarian Periodization / BC cal		Western Bulgaria	Central Balkans (Serbia)	Thrace (Bulgaria)	Thessaly (Greece)	Middle Danube Basin	Northern Europe	
BRONZE AGE	EARLY	Magura-	Vučedol			Makó	Corded Ware	MNBI
	-2600/2500	Cotofeni Orlea-Sadovec	Cotofeni- Kostolac Černavoda III	Ezero	Early Thessalian	Baden	Funnel	MNA I-V
TRANSI- TIONAL PERIOD	-3300/3200	Galatin	Bubanj-Hum Ib	?	Rachmani (FN 5)	Boleráz Balaton Bodrog- keresztúr	Beaker Culture	TNII TN I
COPPER AGE	LATE -4000/3900	KSB Ia	KSB Ia Vinča D	KGK VI	•)	Tiszapolgár / Lengyel		
	MIDDLE -4550/4400	Dyakovo	Vinča C	Marica IV		Lengyel	Ertebølle (Mesolithic)	
	EARLY 4900/4850- 4600/4550	Gradeshnica / Dikili Tash- Slatino	Vinča B2/C	Marica I-III (Karanovo V)	Classical Dimini (LN 4)	/ Tisza		

Fig. XII.2. Comparative chronological table. KSB Ia – the Krivodol-Sălcuţa-Bubanj Hum Ia cultural complex, KGK – Kodžadermen-Gumelniţa-Karanovo cultural complex, LN – Late Neolithic, FN – Final Neolithic, TN – Early Neolithic, MN – Middle Neolithic.

Flint studies (Chapter VII) revealed reliance on both local but also regional sources of flint. Research on ground stone tools (Chapter VIII) shows that these were as important as flint and bone tools. Bone artifacts (Chapter IX) demonstrate the amplitude of concepts applied to bone as medium for answering both utilitarian and non-utilitarian demands. Finally, important in understanding past economies, the animal bones (Chapter X) show a stress on sheep/goat but also cattle as being a vital source of subsistence.

## PERSPECTIVES

The main challenge of the Lîga project has been to carry out highly detailed excavations producing a huge data-set, other fieldwork, analyses, and studies of the available archaeological data from the Telish region in Northern Bulgaria during the Late Copper Age of the fifth millennium BC; this in order to create a historical perspective on a general cultural process. In addition, very may other studies in and out of Bulgaria were accomplished.

The original aspiration was to arrive at an understanding of the the "Copper Age Gap", the ephemeral period of transition to the Bronze Age. But gradually it was acknowledged that the Copper Age proper held the key to an understanding: a period following upon the Neolithic, but powered to become a historical shortcut which – if it had been successful – would have created a totally different European development in the fourth millennium BC (Fig. XII.2).

The excavations at Lîga were at first regarded as the crucial bit of evidence, which, when pieced together with regional data – including the neighbouring site of Redutite – would provide data to bridge the "Gap". Contrary to expectations, Lîga has instead become a cornerstone anchoring data and studies, not least the still unpublished material from Redutite. Through a context orientated research programme, with maximum focus on details, new standards have been set for future projects in the area. Although very time consuming (1.3 tonnes of ceramic sherds were analyzed, for example), such a strategy has provided a new basis for understanding daily life in a Late Cop-

per Age settlement and – through this – detected and explained the main currents of regional socio-economic development and thereby even larger processes.

Several archaeological periods are represented at Lîga, but the fullest account was achieved in the layers of Lîga 2. This settlement provided testimony on a community, which possessed the operational instruments to organize its members into viable cooperative networks ensuring day-to-day survival. This dependence on fellow members is manifested by the uniform layout of the nucleated settlement, resembling most of all the hutments of a military camp. Bigger houses reflect bigger households and are not openly aimed to undermine the communal equality. Arenas for rivalry and competition – so to say – were created inside the houses, for example by various forms of display of graphite painted pottery. From the outside, all structures might well have looked the same: clay houses with dull grey walls likely undecorated.

It has been demonstrated that proliferation of technological variability in pottery production is a reflection of new modes of networking, based on, and with implications for, the economic orientation. The traditional archaeological approach to the Copper Age in the Balkans views the Krivodol-Sălcuţa-Bubanj Hum (KSB) Ia-complex's open settlements (in the West) in contrast to the tells in rich plains of the Kodžadermen-Gumelniţa-Karanovo VI group (in the East). A main achievement of the present study is that such settlement strategies should not be viewed as excluding and opposing each other, but as parallel in nature. In terms of social complexity, sense of territoriality, and settlement arrangements they exhibit and stem from a common background.

By shifting from the easily tillable plains to exploitation of new and varied environments, wholly different requirements were set on these innovative and symbolically intelligent communities, recognised as the bearers of the KSB-complex (cf. Sherratt 1980). A point, which has also been developed in the present study is that animal husbandry (mainly sheep/goat but also cattle) was increasing in importance over time, from being merely a supplement to agriculture to an equally vital source of subsistence. Animal husbandry would inevitable lead to increased mobility and, likely, to a regular practice of transhumance. In

support of this are the few studies on paleoecology related to the Copper Age conducted in Bulgaria so far. For instance, palynological evidence collected from Pirin Mountains in South-western Bulgaria (belonging to the KSB area) points towards seasonal upland pasturage beginning in the Copper Age (Stefanova & Bozilova 1995).

Distribution maps of KSB sites show that these were located on routes of ancient communication, determined by passages across the Balkans. Emphasis on geographical setting is clearly demonstrated by the remains of Roman roads, which used the same localities to build their strongholds and road stations in order to protect traffic. Telish, as attested through the remains of Late Roman strongholds at Sadovec and Pipra, was situated at a very cross-roads, which later on, in Roman times (as also today), led along the Iskar River to the Oeskus (at Gigen, where the Romans built a bridge across the Danube in 328 AD) in the North and to Serdica (Sofia) in the South, to Montana in the West and to Storgozija (Pleven) in the East, and from there on to mighty Philippopolis (Plovdiv) in the southeast (Neikov 2001).

The high degree of mobility in the Lîga-socicties can even be observed from the flint where a high 18% of the tools are from localities more than 30 km away. Analyses of 16 copper items from Redutite show that these come from 15 different sources (Pernicka et al. 1997). One of the awls is probably from the Majdanpek-region in Eastern Serbia, also under influence from the KSB-complex.

Higher mobility required a more complex settlement system, which even encompassed five different types of settlements in the Telish area, from fortresses to permanent open settlements like Lîga and caves used only temporarily. By contrast, the patterns of settlement in areas dominated by tells, e.g. around the Polyanitsa Tell in NE Bulgaria (Todorova 1982), demonstrate close range networking between several coexisting settlements within a distance rarely exceeding five km. The contemporary KSB sites are not spaced that densely; instead the settlers were relying on a system of strongholds and refuge places and basing their networking on regionally remote alliances. They were thus delineating a structure characteristic of much of Europe in the fourth millennium BC and later.

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Detachment from ground-water agriculture (cf. Sherratt 1980) was the one factor which first of all provided the higher flexibility of the bearers of the KSB-complex – the last of the Copper Age groups – thus preparing them for the changes that caused the termination of the Copper Age: Likely climatic worsening, decline in population, perhaps warfare

and even migration along the alliance routes, likely towards the North. Significantly, Central Europe is seeing marked growth almost everywhere, eventually also in metallurgy, in the fourth millennium BC, while the "Copper Age Gap" signals a decline in South-Eastern Europe.