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1 Introduction

When CIMEC — Information Centre for Culture and Heritage — initiated a database for sites and monuments in 1992, using existing lists in order to gather, within a short time, a core of information regarding our immovable heritage, the attempt raised a chorus of 'don't do it', accompanied by arguments such as: 'not enough information', 'wrong information', 'wait until a site form will be designed', 'there are other institutions more capable of creating a national record'.

We nevertheless proceeded. We had ten years experience with the National Database of movable heritage — over 700,000 records — and seriously needed to have references for the field 'place of discovery'. The Ministry of Culture agreed to finance our project. In the last three years, while various commissions debated over a site card — with no final conclusions yet — while the organisations and people responsible for the monuments changed several times and the law for the protection of cultural heritage is still being debated — we recorded the existing information regarding the sites and monuments proposed for protection, using a core data standard. Thus, with modest resources and much perseverance, we have sofar gathered over 16,600 records which are proving to be a valuable source of information. And a reason for the Ministry of Culture to decide this year to finance the expansion of the initial project at CIMEC. It would seem therefore that we were right to proceed, instead of to wait.

2 The source of information: from paper list to computer record

The Romanian Archaeological Sites and Monuments Database has 3,900 records of sites and 12,700 records of monuments proposed for protection. The main source of information — a national list compiled manually in 1991 by the Historical Assemblies, Monuments and Sites Direction (DMASI) — still remains to be checked and updated and no new list has been forthcomimg for the last four years.

The formal distinction between a 'site' and a 'monument' was based on the position — under or above ground level, on the chronological period — 'monuments' are mostly late medieval and modern, while 'sites' are prehistoric to early medieval, and on its condition — ruined versus roofed over. We maintained this formal grouping of the list, as is traditional in Romania. There is also a special chapter for buildings with a memorial value — very confusing in fact, as there are many buildings with both an architectural and a memorial value.

Because the list we used to record the information from was often ambiguous, both in content and in form, as well as difficult to read, we had to analyse, check with other sources and interpret the information.

Descriptive information regarding location, period and finds was separated into multiple fields but the data content still requires improvement. We also tried to normalise the terminology by compiling terminology lists for periods, cultures and site types. The present information in the database therefore closely follows that in the list, while being much more structured and thus suitable for analysis.

The list of protected sites and monuments was based on proposals sent in by county museums. The list is richer for those counties where archaeological excavations have a longer tradition and were a significant number of archaeologists are involved in the area (around the university centres, such as Cluj and Iaşi, for instance, or in Dobroudja). We had no information regarding archaeological sites in Bucharest and consequently, our statistical data will not include Bucharest. Although there will certainly be archaeological areas underrepresented, the selection is a sample of present knowledge in the field. Only a systematic survey will bring more light in the future. Part of the recorded sites are not excavated and there is no guarantee that the periods and the site types indicated for them are correct.

Nevertheless, for the first time, we have a core of data for analysis. We have tried to look at the distribution of sites by period, archaeological culture, site type and location. Our software is Paradox 4.0 (Borland) on PC.

3 Statistical view of the database

Statistical analysis is very exciting for the researcher. As soon a number of records have been gathered, the temptation to try various ways of sorting, counting and grouping is overwhelming. First, you get hundreds of data from thousands of records. Very interesting, but still

Table 1. The distribution of sites by location.

region		%	number of sites
Moldavia	(eastern part of the country, 19.4% of the territory)	16	654
Dobroudja	(southeastern part, 6.5%)	14	550
Walachia	(southern part, excluding Bucharest city, 19.8%)	19	755
Oltenia	(southern part, 12.3%)	8	334
Banat	(southwestern part, 7.2%)	6	225
Transylvania	(central part, 23.9%)	32	1,278
Crişana & Maramureş	(northwestern and northern parts, 10.9%)	5	193

difficult to follow or to graph them. Then, you realize that you have to group the information in larger classes in order to make some sense out of it:

– administrative divisions (40 counties), in historical regions (8);
– site types, in categories (for instance, various types of settlements grouped as 'settlement');
– various periods and archaeological cultures, in larger chronological divisions.

During this preliminary processing, you must take care not to alter the basic information through artificial grouping. Yet, you realize that if you want to identify dominant features or trends by periods or geographical areas that you should ignore low frequency data (site types mentioned only once in a period and county, for instance) and establish a limit beyond which you consider the data for comparison.

As much as you find the figures obtained fascinating, they are boring for a reader, the more so if he or she hardly knows the geography or the history of the territory. I therefore want to present fewer figures and more what they said to me.

3.1 General view

The database contains 3,900 site locations. Among them, 63% are declared single-level sites while 37% are complex, multilevel sites. Among the two thirds of sites identified by only one period or site type, future research will certainly reveal more complex situations.

The entity 'site' is defined by place, site type and period. For 3,900 locations, we entered over 4,500 records of site types, 6,000 records for periods and 4,800 records for archaeological cultures. For each record we have entered location (county, town/village, place, location details), single or complex site, site type, name, period, culture, date, finds, and references.

3.2 The distribution of sites by location

The distribution of the sites by location is shown in table 1 and figure 1. Central and southeast Romania — that is, Transylvania and Dobroudja — have the highest site density related to their surface. The density of the sites in those areas indicates a long tradition of habitation due to geographical and environmental conditions.

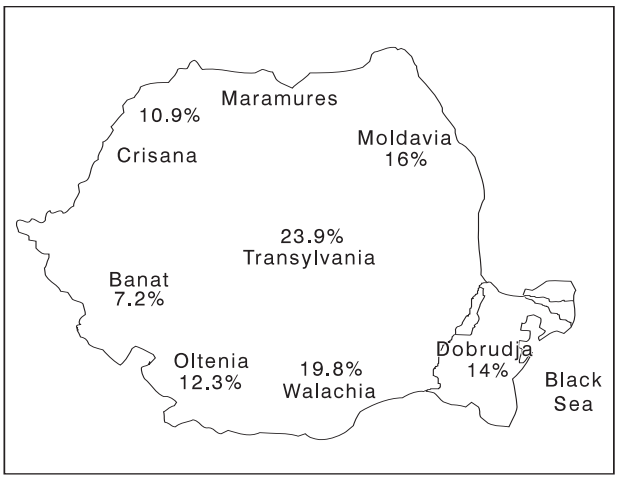

Figure 1. Distribution of sites by region.

The counties with the largest number of sites (over 100) are, in descending order: Cluj (325), Constanţa (288), Tulcea (262), Dâmboviţa (217), Bistriţa-Năsăud (190), Iaşi (184), Sălaj (168), Caraş-Severin (128), Buzău (124), Prahova (120), Mureş (114).

The high number of sites for a single period in a county can show the dominant archaeological feature of that area. For the Roman Period, the greatest number of sites is in the area of the former Province of Dacia (Cluj county – 124 Roman sites on a surface of 6,650 square km; Bistriţa-Năsăud – 92 Roman sites etc.) and in the former province of Moesia Inferior and Scythia Minor (Tulcea county – 121 Roman sites and Constanţa county, 118 sites for the same period). For the Medieval Period, the area around the former capital of Moldavia, Iaşi, has the highest number of protected medieval sites – 94. For the Bronze Age, Dâmboviţa county has 83 sites.

Table 2. The distribution of sites by period.

period	until	%	number of sites
Prehistoric Period including Palaeolithic			
Neolithic, Bronze Age, Hallstatt	the 5th c. B.C.	40	2,546
Palaeolithic	6 millennium BC	1	69
Neolithic	2nd millennium BC	12	766
Bronze Age	12th century BC	14	869
Hallstatt	6 - 5th century BC	12	767
Greek	7th c. BC-1 c. AD, Dobroudja	1	40
La Tène	4th c. BC-1 c. AD	13	1,312
Roman Period	1st-late 3rd/ 4th c. AD	21	1,312
Early Byzantine and Migrations period	4th-12th c.	9	572
Medieval	13th-late 18th c.	16	1,053
Various periods	uncertain	1	63

With the exception of the Neolithic Period and the end of the La Tène (2nd-1st centuries BC), during all the periods the greatest density of human remains were found in the hill areas, on both sides of the Carpathians Mountains.

3.3 The distribution of sites by period

The distribution of the sites by period is given in table 2 and figure 2. Of the prehistoric archaeological culture, in descending order of frequency, more than half are Geto-Dacian sites (53%), followed by the great Neolithic cultures of Cucuteni (14%), Gumelniţa (5%) and Starčevo-Criş (3%), which represent together 21% of the sites with a known culture. The Bronze Age culture has 19%: Monteoru (5%), Noua (5%), Suciu de Sus (5%), Tei (4%).

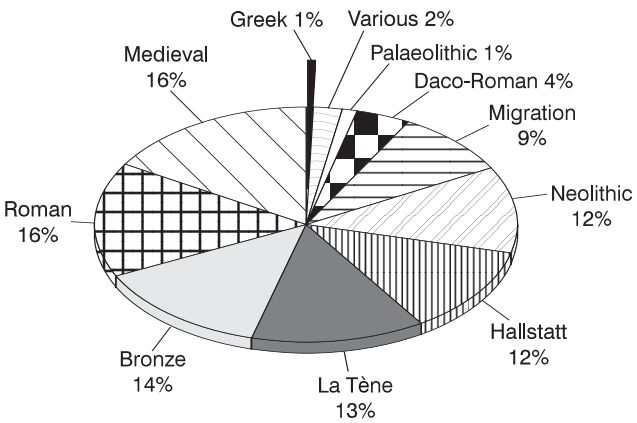

Figure 2. Distribution of sites by period.

3.4 Sites by period and by region

The *Palaeolithic* is best represented in Northern Moldavia: (Iaşi 9 sites and Botoşani 2), the Southwest (Hunedoara 7 and Timis 5) and the South Carpathian Hill Region (Vâlcea 5, Argeş 4, Gorj 3).
The *Neolithic Period* — more evenly spread: (Cluj 70, Iaşi 69, Vrancea 35, Botoşani 32, Buzău 32, Giurgiu 31).
The *Bronze Age*: (Dâmboviţa 103, Cluj 60, Maramureş 53, Buzău 52, Sălaj 46, Vrancea 36, Vâlcea 34).
Hallstatt: (Bistriţa-Năsăud 51, Iaşi 42, Cluj 31, Buzău 30, Vâlcea 26).
La Tène: (Iaşi 98, Tulcea 57, Călăraşi 46, Bistriţa-Năsăud 42, Vâlcea 41).
The Roman Period: (Cluj 124, Tulcea 141, Constanţa 132, Bistriţa-Năsăud 92, Sălaj 67, Caraş-Severin 58, Mureş, Sibiu, Vâlcea).
The *Medieval Period*: (Iaşi 154, Dambovita 53, Constanţa 49, Tulcea 66).

The high number of archaeological sites in an area is in part a sign of demographic growth for a certain period but also a consequence of the continuous movement of the population over a territory, a phenomenon encountered from Prehistoric times until the Early Middle Ages. Some of the sites are temporary settlements.

3.5 Sites by site type

The settlements represent about two thirds of the number of sites (60%), followed by cemeteries (15%) (fig. 3). The number of settlements could be inflated due also to the fact that any uncertain site is often classified as ‘settlement’. Also the fortifications which appeared as early as the Neolithic Period, and became significant in the Bronze Age, built as they were on high peaks and with complicated defence systems, led archaeologists to classify them as a ‘fortress’ rather than as a ‘settlement’ or fortified settlement. The sites designated as fortresses cover 8% of the sites. We also found over 90 records for barrow areas, period not indicated.

Table 3. Site types by period. In brackets number of sites.

	periods					
	Neolithic	Bronze Age	Hallstatt	La Tène	Roman	Medieval
settlements	84% (530)	83% (724)	71% (334)	74% (650)	50% (528)	59% (620)
occupation layers	6% (39)					
Tell	4%					
fortifications	2% (26)	3% (24)	8% (33)	12% (109)	24% (254)	16% (164)
cemeteries	2% (15)	8% (68)	11% (52)	8% (73)	8% (90)	11% (120)
mines				1% (1)	1% (3)	
salt mines	1% (2)					
vestiges	10% (6)					
isolated burials		<1% (3)				
isolated structures				1% (1)	% (88)	8% (84)
undetermined		6% (54)	10% (49)	5% (40)	9% (99)	6% (69)

3.6 Sites by site type and by location

I wanted to look at the distribution of the main site types by county, taking into consideration only the counties with more than ten sites of the same type. The settlements Iaşi, Dâmboviţa, Bistriţa-Năsăud, Buzău, Giurgiu, Prahova, Tulcea, and Vâlcea have the highest number of locations, in hill areas and along river valleys. Areas undergoing frequent movements of populations have also a large number of barrows, cemeteries, and isolated burials: Buzău, Cluj, Tulcea, Constanţa, Prahova, and Caras-Severin. In the border areas — along the Danube —, in Tulcea and Constanţa, along the Carpathian Mountains, on the Transylvanian side — Harghita and Covasna, and at the Northern border of Dacia — Cluj and Bistriţa-Năsăud, the number of fortifications is the highest.

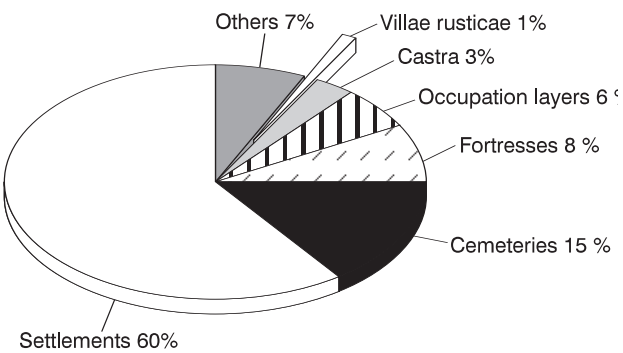

Figure 3. Distribution of sites by categories.

3.7 Sites by site type and by period

Site types by period show more or less the same characteristics, with a greater variety of site types for the Roman and Medieval Periods, when the social structure and economic activity became more complex (table 3).

4 Conclusions

A statistical analysis of the distribution of sites can reveal the degree to which the protection list properly reflects the field reality, and is not a subjective personal selection.

It clearly indicates the need for a systematic survey, with modern investigation methods, for the proper recording of the sites to be protected. Until then, we can try to find further answers to our questions through statistics.

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