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The volume presented here uses an interdisciplinary and multimethodological aproach to study part of what is probably the most famous prehistoric culture within the Eastern European areal – the Cucuteni culture (also known as Trypolie in the ex-sovietic countries). The innovative aspect of this volume (for Romanian archaeology) is the integration of archaeological geophysics in the research strategy as one of the main methods of analysis along with spatial analysis using GIS and aerial prospection means. The author specializes in archaeological geophysics and it is a breadth of fresh air to see it used in this context as scientific methods of study tend to takeover archaeological research in the last decades and the above mentioned is core to almost every relevant wide-scale study.

Studies using different aerial prospection methods such as LiDAR or photography have been published in Romania since early 2000s if not earlier (see I. Oltean 2007, S. Berecki 2015 among others) but employing shallow geophysics alongside a wide range of methods is a premiere for large publications in Romanian archaeology.

The study focuses on a clearly defined area, Valley of Bahluiț River, which was also focused during Dr. Asăndulesei PhD research (Asăndulesei 2017; Asăndulesei et alii 2018).

The whole methodology of analysing spatially the paleolandscape and the positioning of Cucuteni settlements belonging to all three phases of the Eneolithic culture uses a wide range of means, from geomorphological and pedological methods to aerial photographs and LiDAR and back down to soil surface using non-invasive geophysical techniques to map the settlements and their archaeological structures.

The results are stunning and it is a good example of how interdisciplinary studies in archaeology produce valuable insights and overturn previously known “facts”. Spatial analysis using different methods and indicators leads to the conclusion that altitudes of 1-200 m were favoured but generally, higher elevation compared with the overall altitude of the area were preferred, with low slopes, favourable for both human access and activities as well as for agricultural purposes, orientated towards the sun for more solar exposure and relatively close to water sources. LiDAR and aerial photographs as well as geophysics have helped create a more accurate picture of those settlements in terms of positioning within the landscape and their internal layout as well as different expansion phases (see the case of Razboieni, Dealu Mare where a subsequent phase of expansion has been determined beyond the first set of defensive structures).

Overall, the book contains five chapters over 240 pages, written in Romanian with an extensive abstract in English at the end, is well structured and contains a chapter for each

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different method employed preceded by a necessary introduction at the beginning and the
mandatory conclusions at the end.

The introduction chapter of the book defines different concepts and terms which are
used further ahead in the book and are important to understand what the aims and objectives
are and how are they achieved. Debates on terms such as landscape archaeology or environmental
archaeology are approached in an objective manner to establish how these terms are used and
how they will be further considered.

The next 3 chapters use more or less the same structure. First, a theoretical part with
an introduction into GIS spatial analysis, aerial photogrammetry and Lidar and, respectively
archaeological geophysics followed by the factual content with a few case studies relevant for
the method used.

Chapter two, focuses on GIS and offers theoretical information on GIS and its usage
within the archaeology field and how it is used for spatial analysis. A spatial analysis for
Cucuteni settlements on Bahluiet valley follows shortly after describing the indicators and
methodologies to be employed. Using also specialist geographical information (geomorphological and pedological indicators) conclusions regarding altitude and positioning
are drawn among others.

Chapter three, aerial photography and photogrammetry intends to offer more wide-
scale, archaeological landscape type information to be used within GIS environment for
particular case studies where it can offer key data regarding the layout of the site in terms of
nearby geographical context and resources. Newest technology available, LiDAR is also used
on the main sites of the chapter like Râzboieni and Fedeleșeni.

Chapter four begins with a thorough introduction into shallow geophysics from its
beginnings at Oxford University, detailing its purposes and the techniques that have
developed over time and how they are used in today’s archaeological research. Out of the
three case studies presented here, all of them showing impressive results from magnetometry
data, mainly due to termoremaince of archaeological complexes of the Cucuteni settlements.
The survey strategy at the first site, Râzboieni/Dealul Mare shows how different surveying
techniques (earth resistance and magnetometry) are to be used considering all external factors
that impact the collection of data. This is also a great example of how geophysics can
successfully map the internal layout of a settlement and even detect subsequent phases of
expansion of the settlement. From the top of the hill towards the slopes beyond an initial two
set ditch and bank type of fortification spreads another alignment of houses and a further
defensive fortification system.

Last chapter, the conclusions, takes a look back at the aims and objectives and how the
book manage to achieve them. They are outlined on two main directions, one regarding the
methodology of such an interdisciplinary study starting with available archaeological data
and going through the whole process of obtaining and analysing data in a logical order from
topographical and aerial data to geophysics and how each of them brings something new to
the table. Second direction is given by the scientific relevance, how successful was this strategy
in studying the Cucuteni settlements in the Bahluiet basin. The answer the author gives is: it
was successful but the answer is there is no criteria on which the Cucuteni settlements in the
area can be classified which was the main goal of the scientific inquiry to begin with.
Prezentări de carte

References


