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Flying in a Rainy Spring: Romanian Surveys in 2011

Irina Oberländer-Târnoveanu¹ and Carmen Bem

Spring and early summer were very wet this year and we hardly found a suitable day for flying. That special day meant not just a no-rain day but the happy combination of weather, availability of the pilot, our own availability, equipment ready and planning at short notice. We missed at least two perfect clear days this way. What a loss at a time of such instable climate!

We continued to explore the landscape of Southern and South-East Romania, a project we started in the frame of the project European Landscapes: Past, Present and Future (Culture 2000 Programme, 2004 – 2007), enlarging the survey both towards East – by crossing the Danube in Central Dobrudja to the Black Sea Coast – and towards North – in the Sub-Carpathians hill area of the Prahova County (Figure 1).

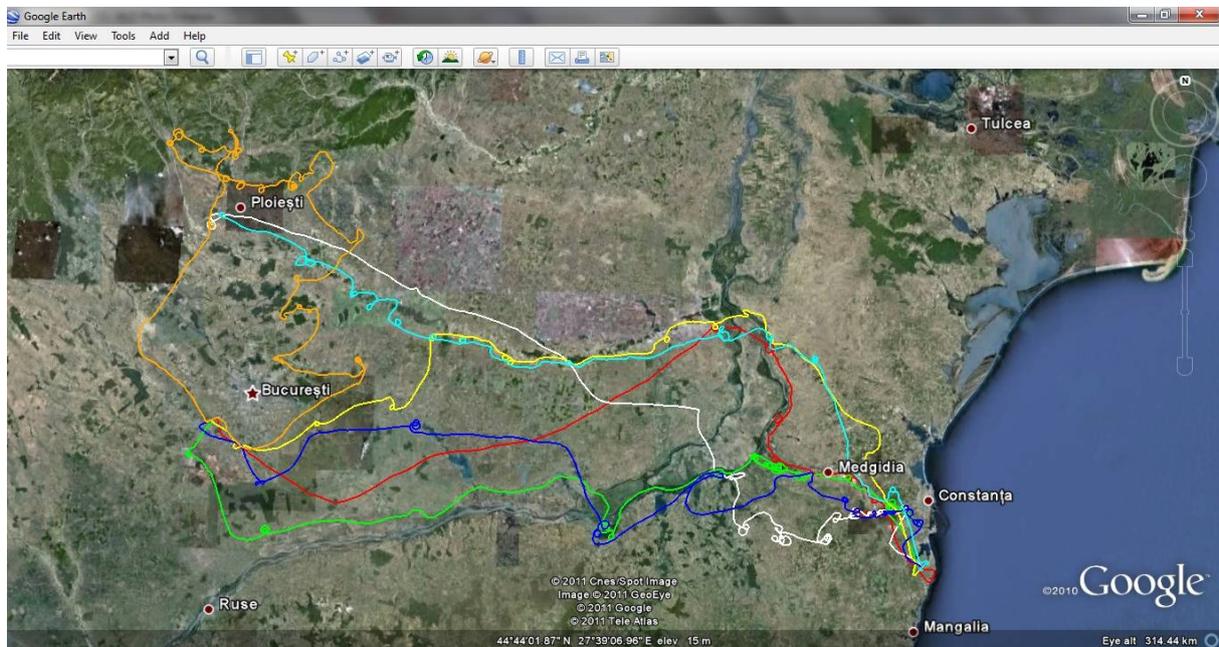


Figure 1. The seven flight routes in 2011 on Google Earth.

Compared to the Danubian Plain we were already familiar with (along the Mostiștea, Neajlov, Argeș, Vedea and Teleorman rivers), the new areas offered a different landscape and photographing experience. Our main goals are to better geographically locate the sites recorded in the National Archaeological Record database, to contribute to the aerial photo archive of the European archaeology and to monitor and document changes in the landscapes that might put our cultural heritage in danger.

Not having much choice in deciding on the theoretically best period for aerial photos because of the unstable weather conditions, we had at least the opportunity to get familiar with different soils, river beds, linear archaeological features, sites and monuments, village and cemeteries patterns and help with aerial views of preventive excavations along the future

¹ Irina@cimec.ro

motorways between Cernavoda and Constanța (in Dobrudja), and between Bucharest and Ploiești, in Ilfov and Prahova counties (Figure 1). We had four aerial surveys which include, in fact, seven flights: 1) 26 - 27 March, Ploiești/ Strejnic Airport – Constanța/ Tuzla Airport and back next day; 2) 29 - 30 April, Bucharest/ Clinceni Airport – Constanța Tuzla Airport and back next day; 3) 28 - 29 May, Bucharest/ Clinceni Airport – Constanța Tuzla Airport and back next day; 4) 17 June: Prahova. In total there were 19 flight hours. That is more than in the previous years and was possible due to our participation at the new European project Archaeolandscapes Europe (2010 - 2015) and its financial and logistical contribution.

The first three aerial surveys covered the Ialomița River Valley, the Lower Danube, and Central Dobrudja, an area first explored last year. We focused on some archaeological features identified in 2010 on the high southern terrace of Ialomița River and the line of fortifications known under the name of Trajan's Vallum, crossing Central Dobrudja from Cernavoda to Constanța. The last ones were surveyed among others, by Ioana Bogdan-Cătănciu and Ioana Oltean but the area is so rich in archaeology and so menaced by modern infrastructure (A2 motorway construction at present) and agriculture that documenting what can still be identified is never enough. We used several sources: old maps, satellite images, recent publications and archaeological reports.

Along the fortification lines consisting of earth and stone vallums crossing Central Dobrudja East – West from Constanța (ancient Tomis) to Cernavoda on the Danube we documented several Roman castra and towers (Figure 2), fortified precincts, medieval villages and other features. Some fortifications described in the 19th century and documented by Carl Schuchart on aerial photos during the first World War were destroyed later in the 20th century by infrastructure works, industrial exploitation, mechanised agriculture and vandalism (among these stone quarries in Medgidia, the Danube – Black Sea Channel, roads, irrigation channels and military works) while others cannot be identified anymore at ground level.

We learnt that the best time for taking photos in this area between the end of March and the end of May is late afternoon (17:30 – 19:30), when the humidity is lower and the shadows more visible. We also found that satellite images on Google Earth are not always informative because they are taken at times and seasons that are not the best for recording archaeological features. Some archaeological features we photographed are not detectable on Google Earth: compare, for instance, in Figure 3a our photo with the Trajan's Vallum and the same area in the satellite image dated 26.08.2005 on Google Earth (Figure 3b).

On the Ialomița River we took photos of very interesting unknown sites such as that of Axintele (Ialomița county), a fortified Iron Age (?) settlement with double ditches and a central entrance gate flanked by two towers built in wood and light material (Figure 4).



Figure 2. The Great defensive Vallum crossing Dobrudja East-West. Aerial photo: CIMEC 2011 (Carmen Bem).



Figure 3.a. The vallum and two Roman camps. Aerial photo: CIMEC 2011 (Carmen Bem).



Figure 3.b. The same area, satellite image on Google Earth 2005. The fortification on the right is not visible.



Figure 4. Fortified unknown Iron Age (?) settlement at Axintele, Ialomița county. Aerial photo: CIMEC 2011 (Carmen Bem).



Figure 5. The promontory of the Middle – Late Bronze Age cemetery in Câmpina-Slobozia, St. Nicholas Church. Aerial photo: CIMEC 2011 (Irina Oberländer).

The last survey explored an area north of Bucharest, very different from the landscape we were used to, especially in the higher hill area between the Middle Prahova Valley and the Teleajăn Valley. Seeing this area from the air for the first time, we were a bit unsure and could not entirely follow the initial plan. We were surprised how features on the map look like from above, found and shot some sites by chance and were not able to identify others. Flying late in the afternoon proved unwise because the river valleys are much narrower than in the plain areas and therefore darker and misty late in the afternoon. We also noticed how quickly the weather is changing in the upper areas because of the proximity of the high Carpathian Mountains. We surveyed some known archaeological sites such as the Roman earth camp of Sfârleanca, Prahova county, dated between 106 and 118 A.D. and placed in a strategical location at the border between lower and higher land and at the crossing of two river valleys going up towards the mountains) or the Middle Bronze Age cemetery of Câmpina – St. Nicholas Church in Slobozia neighbourhood, on the upper terrace of the Doftana River, close to the Prahova Valley (Figure 5). We took spectacular photos of medieval churches and manors (Bellu Manor Museum in Urlați, the archaeological site of Târgșoru Vechi) and of a modern abandoned prison, Doftana (in Telega, Prahova County), built in 1895 – 1897, former communist memorial museum until 1990 (Figure 6), remains of salt exploitation (in Telega) and oil fields (North of Ploiești).

We made no new finds and sometimes the light was poor, causing us to miss some of the known sites, but our Prahova survey was still interesting and taught us some lessons for future investigations. We plan to come back in late autumn when soil marks may be more visible in this green area.



Figure 6. Doftana Prison, 1897 (Telega, Prahova County), historical monument. Aerial photo: CIMEC 2011 (Irina Oberländer).