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Group photos from the Arcland-supported training schools at Kostolac, Serbia (top) and Velling, Denmark (bottom)

## **Aerial Archaeology Training School, Denmark, 2-8 July 2011**

Lis Helles Olesen<sup>1</sup>, Pete Horne, Chris Musson

The second of the current year's aerial archaeology training schools, organised in partnership with the "An aerial view of the past - Aerial archaeology in Denmark" a project of the Holstebro Museum in Denmark, and LAND Aerial Archaeological Network Denmark, brought together 9 tutors and 16 students from 9 different countries across Europe in an intensive programme of ground-based instruction and in-air experience above the archaeologically-rich landscapes of Western Jutland.

Over five days at the Vestjyllands Hojskole study centre near Velling the students were introduced to the general principles of archaeological air survey, as well as the basic procedures of photo interpretation and mapping for communication with the general public, researchers and planners.

All students also took part in supervised flights from the nearby Stauning Airport, seeking out and photographing some of Jutland's distinctive prehistoric, Viking and later archaeological sites, some of them unknown or only partially understood before their recording during the training school. A particular example was a crop-marked ring-ditch cemetery of probable prehistoric date, its scale and character now extended far beyond the sketchy outline previously available from limited soilmark evidence.

The students, now equipped with elementary skills in the collection and uses of 'aerial' information, will take back to their own countries and institutions an understanding of the value of aerial exploration and air-photo interpretation as tools for securing a better understanding and conservation of their own country's varied archaeological and landscape heritage.

The ancient settlements, field systems and communication routes that they saw as striking patterns and colour variations in the landscape below them became 'real' as parts of their national heritage that are under unremitting threat of damage or destruction by construction projects or by year-on-year erosion by ploughing and other agricultural activities.

Stress was laid throughout the school on the ways that aerial evidence can broaden professional and academic understanding of past societies and capture the imagination of the general public in valuing the often fragile traces of the past that lie half-hidden in the landscape around them. The international exchange of skills, experience and understanding between the school's tutors, pilot and students typified the aims of the *ArchaeoLandscapes* project, building upon the contribution that earlier projects within the EU's *Culture Programme* have made over the past decade to the Europe-wide application of aerial photography and other forms of remote sensing for cultural purposes.

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Velling 2011 photos by Pete Horne

Students (and tutors) at the school were introduced to new and more efficient ways of carrying out 'traditional' and time-consuming tasks, both in the air and in ground-based analysis of the collected evidence. Camera-mounted GPS units and independent flight-path loggers greatly simplified the aerial operation, especially for those flying for the first time. At the same time, however, the inevitable 'glitches' with instrument failure and operator error illustrated the time-honoured search for 'back-up' systems (formerly known as 'two of everything') at all stages of the operation.

An essential part of the school was an exercise in which each pair of students mapped and interpreted the content of photographs that they had themselves taken during their training flights. The wide range of results, and the way in which the students had also called upon lidar data, historical maps, national and national archaeological records etc, showed how well they had absorbed the lesson that 'aerial' information only becomes 'real' when combined with other sources of data in the search for credible – if sometimes widely varying – archaeological interpretations.

Such events, of course, are also great fun. They are the starting point of friendships and professional partnerships that will last down the years and spread the message of aerial archaeology, remote sensing and landscape studies across national boundaries and perceived cultural divisions. If other *ArchaeoLandscapes* events can prompt the same enthusiasm and commitment among those taking part, the gain for the common cultural heritage of Europe will have fully justified the investment in the planning and organisation of the Danish and other training schools in the remaining 4 years of the project.

### **Course Details**

There were 31 applicants for the 16 places on the course.

Countries represented at the school:

Tutors: Denmark (4), England (2), Poland (1), Slovenia (1), Wales (1)

Students: Belgium (1), Denmark (6), Estonia (1), Faroe Islands (1), Finland (2), Netherlands (2), Norway (1), Poland (2).

6 students received grants from ArcLand to assist their attendance.

The 5 full days of varied teaching, exercises and supervised project work included 2.5 hours in the air for each student.

Approximately 1000 sq km of the Western Jutland landscape were surveyed from the air, recording many archaeological sites including some totally newly discovered and others where important new information was identified.

One 'statistic' may provide an amusing footnote to the school. In the 22.5 hours of flying undertaken during the school less than ten seconds was spent on photography. (3700 photographs were taken in a total time of 6.74 seconds, 1/500<sup>th</sup> of a second for each exposure.)