



Sights from the air

P. Tartara

(patrizia.tartara@cnr.it)

The first aerial shots were taken by aerostat balloon during the second half of the nineteen century for military purpose and subsequently utilized for civilian, archaeological and town planning uses (Roman Forum 1900, Pompei 1910, Venezia 1913, etc.). Sights from the air have given the most objective representation of the landscape and traces progressively left by human activities. After the First World War the use of airplanes for photogrammetric shots suitable to create cartography (territorial map making) has permitted to realize a good basic documentation; successively it has been increased by aerial reconnaissance during the Second World War. Aerial shots by RAF, USAF and Luftwaffe brought to the establishment of rich aerial photograph Archives, particularly in Europe, which have had a very low utilization for the historical restoration of landscape. From the fifties, aerial documentation becomes systematic for different scale analysis and territorial planning. The use of satellite imagery and multispectral bands integrates the historical and recent aerial photographs; the former is particularly helpful for cartography updating, for large scale environmental analysis, for study and research of territories with not available air photographs or lacking in aerial shots.

The amount and density of archaeological buried evidences, unknown at the most, is very substantial in Italy and in the whole Mediterranean area; here air-photo interpretation is being applied at advanced levels, but not systematically, since several decades.

Some archaeological research teams, working for the knowledge of territorial cultural heritage, utilize historical and recent aerial photographs intensively (aerial photographs previous the II WW, just before the intensive and extensive use of mechanical means to till the land, preserve a large amount of traces or cropmarks of buried evidences; recent shots taken on different conditions of climate and crops, allow to see and read important elements and remains). The activity is developing through :

- 1) photo interpretation of traces or cropmarks concerning buried structures on different territorial environment;
- 2) data transfer from aerial photography to cartography which is essential to knowledge, but very important even to transfer the knowledge to the conservation of cultural heritage through the geographical positioning of each localized evidence (it can be realized with analytical photogrammetry, encoding data or specific software).

During the Conference will be presented samples of some archaeological sites (Cerveteri, Veio, Arpi, etc.).