## Rezensionen und Anzeigen

GIUSEPPE CERAUDO (a cura di), 100 anni di Archeologia aerea in Italia. Atti del Convegno Internazionale, Roma 15 / 17 aprile 2009. Archeologia Aerea: Studi di Aerotopografia Archeologica volume 4 / 5. Claudio Grenzi Editore, Foggia 2010. € 86.00. ISBN 978-88-8431-376-8; ISSN 2035-7540. 400 pages with 156 figures and 276 plates.

In April 2009 an international conference was held in Rome to celebrate the presence in the city exactly a hundred years previously of Wilbur Wright, five years after his first powered flight in America and just under a year after the first aerial sortie in Italy by the Frenchman Leon Delagrange. The conference Proceedings, brought together as Volumes 4 and 5 of the Italian review series Archeologia Aerea, pay tribute through a series of contributions (mostly 4–10 pages in length) to history and practice within Italy of what has become loosely known as 'aerial archaeology' – the recovery of archaeological information and understanding through the use of air-photo interpretation, air-photo mapping, targeted topographical studies, active aerial survey and an increasing range of remote-sensing techniques including satellite imagery, airborne laser scanning and (no doubt in the near future) the impact of unmanned aerial vehicles (UAVs or drones).

The profusely illustrated 400-page volume is divided into six Sections devoted, with occasional overlaps, to the early days of the study in Italy; methodological issues and case studies in photo-interpretation and targeted aerial photogrammetry; the systematic use of aerial photographs and air-photo mapping in current archeological projects; the application of other remote sensing techniques in Italy and elsewhere; contributions from outside Italy; and finally a variety of topics originally addressed at the meeting in Rome through a poster session.

An essential general introduction is contributed by Giuseppe Ceraudo, of the University of Salento at Lecce, editor and driving force behind the journal since its first appearance in 2004, initially under joint editorship with Fabio Piccarreta of the University of Napoli. After referring briefly to some of the pioneers of air photography and aerial archaeology in Italy, Ceraudo sets out the basic character of air photo studies as perceived in Italy, stressing the key role that such techniques can play in archaeological and historical research and conservation. In that last context he regrets shortcomings in the specified use of air photo evidence in the otherwise welcome initiation in Italy of socalled 'archeologia preventiva' - perhaps best rendered in English as 'pre-development archaeology'. Another reservation by Ceraudo is the tendency by some researchers to see other non-invasive techniques, such as geophysical prospection, as replacements for aerial archaeology rather than as complementary techniques in the search for a better non-invasive appreciation of what may lie beneath the surface of the ground. Ceraudo warmly welcomes the help received from British, German and other European colleagues in a revival in Italy, through visits and training schools from 2001 onwards, of oblique aerial exploration by archaeologists themselves after a near-hiatus imposed by bureaucratic inhibitions dating back to 1939 and the run-up to WWII. At the same time he rightly stresses the continuing importance of vertical photographs, both historical and newly acquired, and of the process of skilled interpretation and photogrammetrically accurate graphical representation of the natural and anthropogenic features identified on aerial photographs, whether vertical or oblique - and, naturally, of various forms of ground-based support in seeking deeper understanding of the evidence derived from aerial photographs in the first place. All of these points are of course relevant to similar studies in other countries, as well as to the better understanding of the papers presented in the following six Sections of the Proceedings.

The first Section contains seven contributions dealing with personalities, projects and archives from the early days of aerial photography in Italy, plus a final summary of regulations relating to the

activity both before and after its effective deregulation in December 2000. Going back to the very beginning, the first real use of aerial photography in Italian archaeology had taken place in 1899 through the use by Giacomo Boni of a tethered military balloon to capture vertical images of the excavations then in progress in the Foro Romano. That episode was followed by other photographic sorties with the assistance of the military along the Tiber and at Pompeii, Ostia, Venice and elsewhere in the years 1907–1912. As in many other parts of Europe, however, these first initiatives were not really followed up until after WWII, despite some far-sighted work and proposals for further studies put forward by Giuseppe Lugli in the 1930s. The advent of hostilities put paid to these plans but military intelligence photographs collected during the war prompted pioneering work immediately afterwards in southern Italy by two British army officers, John Bradford and Peter Williams-Hunt. Their demonstration of the vast potential of aerial photographs in revealing the previously 'hidden' multi-period landscapes of the Tavoliere plain on the heel of Italy helped towards a revival of aerial archaeology once the aftermath of the war gave way to the relative prosperity and burgeoning construction work and mechanised agriculture from the 1950s and 1960s onwards.

In that context it is interesting to learn from the first paper in Section I that one of the key objectives in the formation in 1958 of the Italian national archive of aerial photographs, Aerofototeca Nazionale, was the desire to use the information derived from aerial photographs to ameliorate the rapidly increasing destruction of Italy's archaeological heritage in the face of these developments. In a sense the wheel has come full circle in that information from aerial photographs has now been recognised (however belatedly and inadequately) in Italian domestic law as an obligatory source of information in the control of development through the national and regional conservation and development-control processes. It remains to be seen how effective the creation of maps and reports on archaeologically sensitive areas will actually be in preventing or at least moderating the continuing destruction of Italy's heritage beyond the tiny proportion of potentially detectable sites that currently enjoy legal protection through the activities of the national and regional offices of the Soprintendenza Archeologica. Other contributions in Section I deal with the collaboration between the specialist (balloon) section of the military in Boni's work in the Foro Romano and elsewhere; with the use of aerial photographs in revealing ancient sites and landscapes in or around Rome, Ravenna and Bologna; and with the rich vein of archaeological evidence presented in a wide range of publications by Giulio Schmiedt of the Istituto Geografico Militare in the 1960s and 1970s.

Section II starts with some reflections by Armando De Guio and his colleagues at the University of Padua on the complexities and uncertainties of studying 'fossil landscapes' with the aid of aerial and remotely-sensed data. The focus then moves to seven case studies in the use of recent and historical air photographs, and of photogrammetric transcription, in combination with other sources of information, to uncover the pattern of ancient sites and landscapes, predominantly the urban structure of Roman towns, Roman systems of land division and Roman roads; other contributions focus on the recovery of information about prehistoric sites and the definition of archaeologically sensitive areas, of whatever date, in the open countryside. Perhaps the most striking article, however, is the description by Giorgio Pocobelli of his analysis and mapping of the stunningly clear air-photo evidence for the Etruscan and Roman town of Vulci, the third of three articles about the site that he has contributed to Archeologia Aerea (in Volumes 1, 2 and 4 / 5).

Section III presents ten case studies from various parts of Italy arising from current projects involving the systematic use of aerial photographs in the exploration and mapping of archaeological sites and landscapes, mostly with some discussion of methodology and in all cases with reference to other sources of information such as historical maps, satellite imagery or ground-based fieldwork. Three of the contributions look at various parts of the great Tavoliere plain in Puglia, from the reviewer's own experience among the richest 'cropmark' landscapes in Europe, ranging from vast Neolithic

enclosures, through later prehistory and the landscape reorganisation of the Roman period to the castles and related field systems of the Middle Ages. The character of this remarkable multi-period landscape is perhaps best exemplified in an article by Roberto Goffredo, of the University of Foggia, describing survey and mapping in the Carapelle Valley, using the University's regular combination of new oblique air-photography, the analysis of historical vertical photographs, geophysical prospection, field-walking survey and targeted excavation in addition to documentary and map-based research.

A linking theme in the thirteen papers of Section IV is the use of satellite imagery and in one case airborne laser scanning, in combination with aerial photographs, to assist various forms of archaeological and topographical survey, mostly in Italy but in three instances in Montenegro, Turkey and Syria. This is perhaps the least satisfactory part of the publication, most of the papers being too short or too tightly focused on individual localities to do full justice to the technicalities involved or to the broader potential of the techniques employed. An English-language paper by Frank Vermeulen, from the University of Ghent in Belgium, has a more straightforward concentration on the role of airphoto analysis and active aerial survey - by archaeologists themselves - within a decade of multidisciplinary and multi-period research in the Potenza Valley of east-central Italy. The final paper in this Section deals, briefly, with the use of aerial photographs in the identification and verification of archaeologically sensitive areas within the ambit of 'archeologia preventiva', including a useful Appendix setting out the full text of the relevant Italian national law enacted in June 2005. A longer paper by Stefano Campana, of the University of Siena, revolves around the importance of scale in territorial and archaeological mapping, as well as problems inherent in the relative visibility or invisibility of traditional archaeological evidence; while acknowledging the role of aerial and ground-based survey in favourable contexts he strongly advocates the potential contribution of large-scale geophysical survey in overcoming some of the problems involved in the definition of an intermediate scale of analysis between 'site-based' and 'landscape-scale' perspectives.

The four short papers in Section V, all in English, include a plea for a continuing role for archaeologically-targeted oblique aerial survey; a description of the invaluable historical and recent archive created by a pioneering commercial company (Aerofilms) that undertook mostly-oblique aerial photography over Britain and Ireland between 1919 and 2006; a short paper on the use of orthophotos to identify and locate new as well as already-listed archaeological sites around Cluj in Romania; and finally a brief summary on the use of air photos and active aerial survey to identify and characterise archaeological sites in Jordan, the only Middle Eastern country to have supported any such work in recent decades.

Section VI presents mainly two-page expansions of posters presented at the conference, on a wide variety of topics and from a range of universities throughout Italy, most notably the University of Salento at Lecce, long noted for its intensive work in high-quality archaeological photogrammetry.

The overall impression from the Proceedings is of an active presence for air-photo and remote-sensing studies in many Italian universities, and of the variety of uses to which the analysis of both historical and recently-gathered aerial and remote-sensing information can be put. As is the case with many conference Proceedings, however, there is a degree of compression imposed by the desire to include as many worthwhile contributions as possible – broader discussion of some of the topics or projects would certainly have been welcome. In addition, some of the photographs and other graphical representations are too small for effective readability, which is a pity within the otherwise excellent design and printing of the volume.

A final comment can perhaps be reserved for the importance and quality of the Archeologia Aerea series as a whole. After its first appearance in a rather limiting near-A4 format in 2004, as a publica-

tion of the Istituto Poligrafico e Zecca dello Stato, it expanded after Volume 2 to a more generous  $30 \times 24$  cm with excellent printing and consistently attractive design by Claudio Grenzi Editore in Foggia, the text and figures always supplemented by extensive marginal notes and bibliographical references. The price varies from issue to issue, the 400-page double volume 4/5 costing  $\in$  86 but the current 168-page volume 7, for 2013, only  $\in$  39. The series is a credit to the energy and ingenuity of its long-time editor Giuseppe Ceraudo and the University of Salento, not least in finding sponsors for the successive issues of what has been from the outset an enviable national vehicle for the reporting of Italian work within aerial archaeology and remote sensing. Would that other countries across Europe could find the means to support such a series!

GB–Aberystwyth SY23 4NE Tanyffordd, Pisgah E-Mail: abermusson@btinternet.com Chris Musson

Peter Haupt, Landschaftsarchäologie. Eine Einführung. Konrad Theiss Verlag, Stuttgart 2012. € 39,95. ISBN 978-3-534-24863-6. 222 Seiten mit 66 Abbildungen und 5 Tabellen.

Mit diesem für eine Einführung umfangreichen Buch liegt zum ersten Mal für den deutschsprachigen Raum ein Überblick zu den Fragestellungen und Methoden des innerhalb der Archäologie verhältnismäßig neuen, stark interdisziplinär arbeitenden Forschungszweiges der "Landschaftsarchäologie" vor. Peter Haupt hat diese aktuelle Einführung zeitnah aus einer Vorlesung entwickelt, die er an der Philipps-Universität Marburg im Wintersemester 2010 / 2011 gehalten hatte. Die immer an der archäologischen Arbeitspraxis orientierten, gut verständlich geschriebenen allgemeinen Ausführungen zu Quellen, Methoden und Ressourcennutzung können durchaus auch als Einführung in die generellen Arbeitsweisen der modernen Archäologie gelesen werden. Der anschließende, ein gutes Drittel des Bandes umfassende Abschnitt mit der ausführlichen Vorstellung von sechs Fallbeispielen aus der Forschung dient der anschaulichen Erläuterung der generellen Informationen.

Im Einleitungsteil definiert der Verf. die Landschaftsarchäologie als Erforschung vor allem von "Wechselwirkungen zwischen Mensch und Umwelt", welche zur Entstehung vergangener und gegenwärtiger Kulturlandschaften geführt haben. Nach einem (sehr) kurzen Abschnitt zur Forschungsgeschichte folgt die wichtige Feststellung, dass Landschaftsarchäologie auch mit einem stärkeren Schwerpunkt im Bereich der theoretischen Humanwissenschaften betrieben werden könne – zumal auf diese Weise eigentlich erst die grundlegenden Ergebnisse der Landschaftsarchäologie in einen historisch-ethnologisch-soziologischen Zusammenhang gesetzt werden (S. 10). Gerade weil Haupt dies betont und beim Fallbeispiel Bibracte trotz mustergültiger Prospektion und intensiver Forschung feststellen muss, dass die "rein" landschaftsarchäologischen Ansätze allein keine funktionale Deutung ermöglichen (S. 171 ff.), wäre es angebracht gewesen im Beispielteil hierzu ein konkretes Forschungsprojekt und dessen Ergebnisse vorzustellen. Dies geschieht zumindest ansatzweise mit der interessanten Diskussion zur Erklärung der Extremlagen menschlicher Siedlungen (S. 137 ff.) und bei der Erläuterung der allgemeinen Grenzen der Interpretation in der Archäologie (S. 186 f.).

Anschließend wird auf die Nachbarwissenschaften verwiesen. Hierbei sind die hier formulierten Abgrenzungen zur (forschungspolitisch aktuellen) Umweltarchäologie und zur Siedlungsarchäologie, die auch als unmittelbare Vorgängerin der Landschaftsarchäologie verstanden werden kann, zu diskutieren.

Interessant aufgebaut und gut verständlich geschrieben ist der folgende Abschnitt, in dem Verf. verschiedene Definitionen von Landschaft aus unterschiedlichen Fächern diskutiert. Als nachvollzieh-