

AERIAL OSTIA. BEFORE AND AFTER E42

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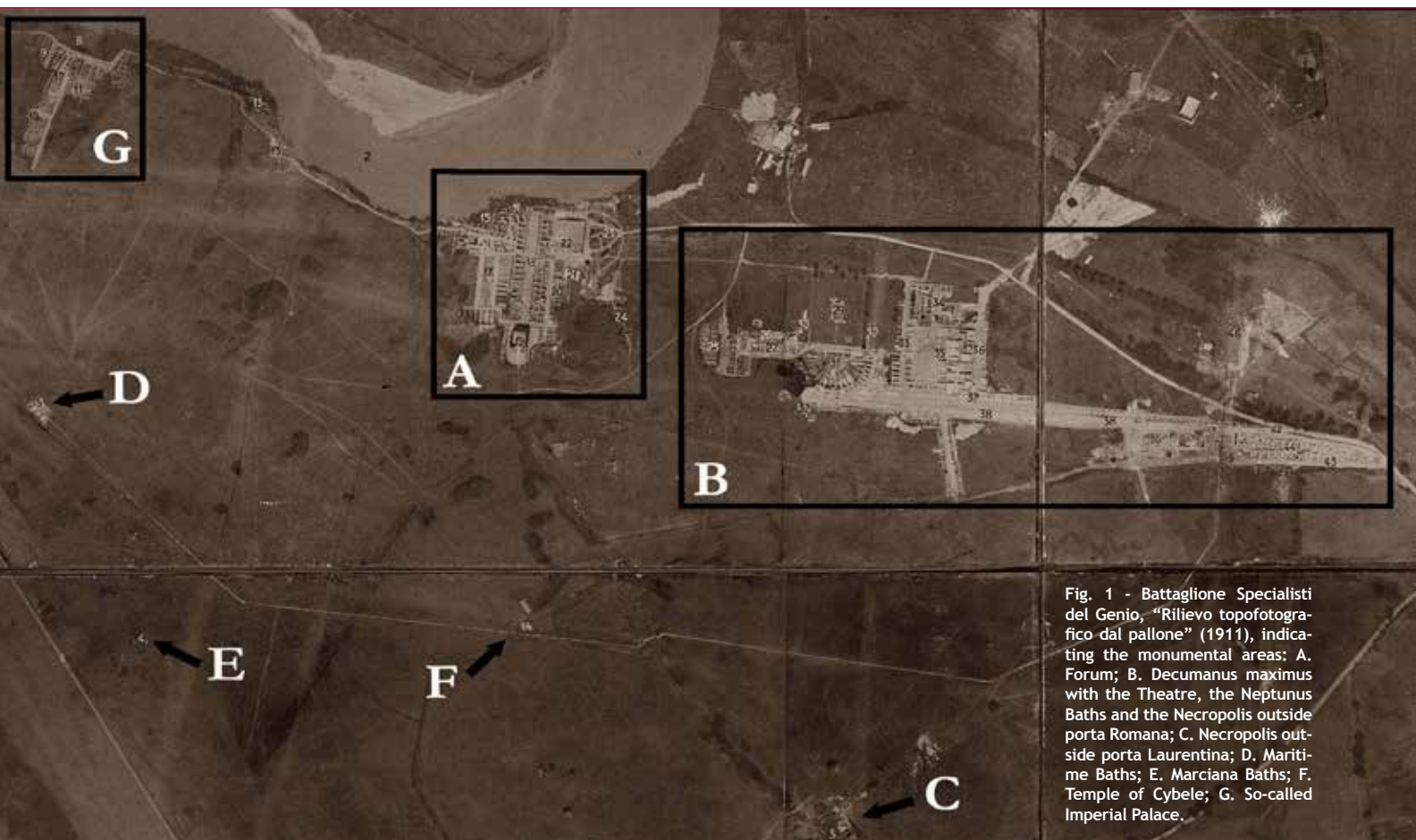


Fig. 1 - Battaglione Specialisti del Genio, "Rilievo topofotografico dal pallone" (1911), indicating the monumental areas; A. Forum; B. Decumanus maximus with the Theatre, the Neptunus Baths and the Necropolis outside porta Romana; C. Necropolis outside porta Laurentina; D. Maritime Baths; E. Marciana Baths; F. Temple of Cybele; G. So-called Imperial Palace.

The research hereby presented on the history of Aerial Photography of the site of Ostia (Rome) has been carried out in the framework of the activities of the Ostia Marina Project, archaeological mission of the University of Bologna, active by ten years in Ostia¹.

This paper aims to analyze the development of aerial photography in Ostia, with a particular focus for the importance of such material for the study of the evolution of the archaeological area, of its surroundings and of its landscape. During an extensive research in the funds of the *Aerofototeca Nazionale* of the Italian Ministry of Cultural Heritage², fifteen photos have been identified, covering a time range from 1911 to 1983.

THE MATERIAL

Between the end of the XIX and the start of the XX century, Italian archaeology gets acquainted to the new technology of aerial photography. After the groundbreaking experience of Giacomo Boni in the Roman Forum from 1899 onward, along with the development of specific abilities in the Photographic Section of the Military engineering division³, aerial photography started to be systematically used for the study of sites like ancient Ostia and Pompeii (Stefani 2008).

For the history of aerial photography at Ostia 1911 is the starting point, with the *Rilievo Topofotografico dal Pallone* ('Topofotographic relief from balloon') (Fig. 1): a huge photomosaic carefully studied by Elizabeth Jane Shepherd (Shepherd 2006).

Ostia will see another campaign of aerial photography in 1934 by the SARA company, and during WWII will be covered twice by the runs of the British Royal Air Force (RAF), in 1943 and 1944. In the second half of the XX century we have three photographic campaigns by the SARA company under different names: ETA in 1953; SAF in 1964; again SARA in 1983. The Geographic Institute of the Italian Aviation has covered the area of Ostia in two different runs: 1957 and 1960.

Catalogue of the studied material

Year	Author	Frames
1911	Italian Army	1
1934	S.A.R.A. (Società per Azioni Rilevamenti Aerofotogrammetrici)	2
1943	British Royal Air Force	1
1944	British Royal Air Force	1
1953	E.T.A.	2
1957	Italian Air Force	1
1960	Italian Aviation	2
1964	S.A.F.	3
1983	S.A.R.A.	1

DANTE VAGLIERI AND THE RILIEVO TOPOFOTOGRAFICO

The arrival, in 1907, of Dante Vaglieri⁴ to the direction of the Office for the excavations at Ostia starts a new chapter in the history of the research in the site⁵. Vaglieri arrives in an area which has seen for century spoliations, depredations and by the XVIII century excavations conceived as treasure hunts to feed the enormous market of antiquities, whose fortune increased impressively with the spread of neoclassical taste⁶. The result of the activities carried out in the area for centuries was a site marked by the presence of isolated groups of ruins, separated by hills shaped by the still interred buildings, with a substantial lack of knowledge of the urbanization and history of the ancient city in its complex.

The answer of Dante Vaglieri to this condition consisted in the development of a real program of works, enunciated in his foreword to Lodovico Paschetto's book *Ostia colonia romana* (Paschetto 1912). "My program is threefold, and under these three points of view I will consider this excavation: 1) complete the excavation of the partially digged out buildings, taking care in the meanwhile of the preservation of all the ruins previously unearthed; 2) connect isolated groups of ruins; 3) through deep excavations and through analysis, bring light on the development of the history of Ostia"⁷.

Dante Vaglieri, well fitting in the cultural milieu of positivism, was particularly enthusiast of technological novelties: needing for his project a detailed knowledge of the site and its topography, he made request in 1911 to the Ministry of War of a 'topophotographic relief' of the site, such as the one realized during the year before in Pompeii, suitable also as cartographic base.

By the analysis of this huge photomosaic, we can individuate the different isolated nuclei of ruins: the area N of the Forum along the *Cardo Maximus* [1]; the area around the *De-*



FIG. 2 - "Rilievo topofotografico dal pallone" (1911), with the Dead River ('fiume morto') pointed out.

cumanus Maximus with the Theatre, the Baths of Neptunus and the necropolis outside *porta Romana* [2]. Easily recognizable are as well: the tombs of the necropolis outside *porta Laurentina* [3], digged by Carlo Lodovico Visconti between 1855 and 1857, and under further investigation at the time of the relief; the *Terme Marittime* [4], built along the track of the republican walls; the *Terme della Marciana* [5] (digged by the Scottish painter Gavin Hamilton between 1774 and 1775⁸, and again by Giovanni Pietro Campana between 1831 and 1835), still called with the traditional name of *Porta Marina*, even if in the photomosaic the walls appear clearly distant; the temple of Cybele [6] (digged by Visconti between 1867 and 1869), even if the whole complex is still not recognizable in its integrity; the enormous complex of the so-called *Palazzo Imperiale* [7], digged out by Visconti as well.

E42: THE BIRTH OF THE ARCHAEOLOGICAL AREA

As Vaglieri couldn't fulfill his program (he died while working in his office during the night between December 12th and 13th 1913), for some years there is no progress in aerial photographic documentation. With the only interruption of the years of WWI and the immediate aftermath, the methodic exploration of the ancient city was continued by Guido Calza⁹ (director of the site by 1924 onward) and Italo Gismondi¹⁰: an archaeologist and an architect, whose joint efforts and vision gave to Ostia the shape that we still can see visiting the site. The progresses after the first decade of Guido Calza as director can be seen in a zenithal photograph of 1934 by SARA, when the *drachenballon* was already over, due to the success of airships and airplanes (Fig. 2).

In the perspective of the continuation of the program of Dante Vaglieri to connect isolated groups of ruins, we see that the nuclei of the Theatre (in the meanwhile partially renovated, with the rebuilding of the cavea¹¹) and of the Forum (in the previous twenty years extensively excavated with its surroundings). Furthermore, also the *Horrea Epagathiana*, the *Terme dei Sette Sapienti*, and the *Terme della Marciana* have been digged out.

Only few years after, Ostia will attract the attention of the fascist government. For the Universal Exposition foreseen to



Fig. 3 - "Rilievo topofotografico dal pallone" (left) and SARA photograph, 1934 (right). Theatre and Forum area.



Fig. 4 - Ancient Ostia, SARA photograph, 1934.

take place in 1942 in Rome, the regime will project the building of a *new Rome* and the excavation of the ancient Ostia. The original project, presented on the occasion of the symposium for the conclusion of the celebrations for the two thousandth anniversary of the birth of the emperor Augustus in 1938¹², consisted in the excavation of the so-called *monumental centre* of the city (Fig. 3), operated in continuity with the program of Dante Vaglieri. The idea was to extend the digged area toward S, following the path of the so-called *Decumanus Maximus*, to reach the already digged *Terme della Marciana*; toward SE to the temple of Cybele with its complex; and toward SW to the *Terme dei Sette Sapienti*. The aerial photographs taken during WWII by the British Royal Air Force (RAF)(Fig. 4) bring evidence of how in some cases the digging has gone beyond the original project, completing the excavation of buildings or blocks only half-way explored, such as for the complex of the *Casa a giardino*. In other cases the foreseen objectives have not been reached, mostly



Fig. 7 - I. Gismondi, Scale model of ancient Ostia; Rome, Museo della via ostiense.

for the interruption of the activities due to the start of WWII, this is in particular the case of the *insula IV,ix*, currently investigated by the Ostia Marina Project.

NEW URBANISTIC ELEMENTS

The high quality of the aerial photographs taken by the RAF (especially of the frame 4072 of the strip of the year 1944) allows to evaluate not only the progression of the excavations in the years 1938-1942, but also to develop some reflections on the urbanization of the city. In particular appears worth of mention the SE area of the city, around the gate in the city walls at the end of *via del Sabazeo*. The crucial importance of this area will emerge afterwards thanks to the research of the German Archaeological Institute, that here will identify the Christian episcopal group.¹³ In an ETA photograph of 1953, it is possible to read clearly the marks of the two roads bringing to the aforementioned gate (Fig. 5).



Fig. 5 - The foreseen excavation areas by the E42 project, as reported on the RAF aerial photograph of 1944.

Fig. 6 - Excavation project of the “monumental centre of ancient city”: highlighted in pink the already excavated areas, in yellow the areas to be excavated, in light green the areas with grass, and in dark green the areas to be planted with trees (with changes, from CALZA 1938).



MODERN (MOSTLY DESTRUCTIVE) ROADS

If by one side, as it has been already illustrated, the history of the landscape of Ostia has been deeply influenced by the vision of Dante Vaglieri of a unique archaeological area, by the other side ironically the needs of the work for the circulation and the urbanization of the surroundings, decade by decade have cut out some sites from the main archaeological area. Aerial photography is in this case a privileged instrument for the study of such a phenomenon.

Part of the E42 Project was the realization of a branch of the Rome-Ostia highway, the so-called “via panoramica”, just along the border of the archaeological site with a new access to the area for the foreseen tourists. The “via panoramica” cuts out from the site the Necropolis outside porta Laurentina, an extremely important funerary area explored already during XIX century under the papal government; as the original plan of the E42 project shows, the Necropolis was originally even meant to be reintegrated and planted with trees as part of the landscaping of the site.

In the decade before the Olympic Games of Rome (1960), the borders of the archaeological park were interested by two interventions: the first one was the construction of the new bridge over the Tiber toward the *Isola Sacra* (the so-called “Ponte della Scafa”) with the isolation of the ruins of Tor Boacciana, previously connected to the site with a large curve of the road; the second intervention, even more important, has been the construction of the highway SS269 for the new international airport of Fiumicino, a work that has meant the destruction of the part of the site overlooking the ancient seashore and of part of the via Severiana (Fig. 6). The works for the connection of the SS269 with adjoining roads in 1961 led to the discovery of the Synagogue of Ostia,¹⁴ eventually included in a photograph of 1983.

THE STRENGTH OF THE TIBER

The 1911 “relief” allows to evaluate impressive changes of the natural landscape and in particular the variations of the course of the Tiber,¹⁵ with the so-called “Fiume

Morto” (Dead River)(Fig. 7), the ancient course of the river before the flooding of 1557, survived until the XX century as a swamp, and to evaluate the erosive strength of the Tiber, that surely impacted the crucial area of the in-river harbor of the ancient city with consequences that it’s still difficult to determinate.

The need to control the river and limit the erosion that threatened to endanger the “castrum”, the original heart of the ancient city, is reflected in the redesign of the left embankment visible in the 1934 photographs: works meant to safeguard both from erosion and the danger of floodings such as the one occurred in 1892, with the reuse of land from excavations to strengthen the levee.

A NATURALISTIC OASIS

Air photographs allow also to observe and follow the development and diffusion of vegetation in Ostia as part of the landscaping.¹⁶ The 1911 “relief” documents the first two gardens of the site: a French garden at the “Casone del Sale” (headquarter of the archaeological site) and another garden in the “Foro delle Corporazioni”. These gardens, studied by Massimo de Vico Fallani,¹⁷ were meant to recall ancient gar-



Fig. 8 - Photo-mosaic of ancient Ostia, ETA photographs, 1953.



Fig. 9 - Photo-mosaic of ancient Ostia, Aeronautica Militare photographs, 1960.

dens, and they fit well in the architectural taste of the early XX century.

The SARA photographs of 1934 show the systematic planting of pines along the path of the Decumanus Maximus (Fig. 8-9). The turning point happened with the E42 project, that joined to the extensive excavation of the ancient city an ambitious landscaping program, overseen directly by the architect Michele Busiri Vici¹⁸ which was meant to include originally massive plantings of trees, both to provide shadow and relief from the sun to visitors and to help in the readability of some monuments, such as the harbor supposed on the left embankment, to be recalled by a wood that was never realized.

Afterwards cypresses will be used to recall the original position of the lost columns of the Forum outside porta Marina, as appears in a SARA 1983 photograph.

CONCLUSIONS

This review of the aerial photograph imagery of Ostia over a period of more than seventy years, allows to carry on different readings, ranging from the analysis of the geomorphological features of the area to the assessment of the impact of the works of the archaeologists. It is particularly interesting to evaluate this last factor of human influence: while we usually think to excavation as the systematic analysis of layers, this study does shed light on the footprint of such activities. Archaeological activities emerge therefore as the last (and still today visible) layer of an incredibly complex palimpsest. In the case of Ostia it is possible to see this footprint in the selective diggings and in the

extensive works aimed at the preservation and landscaping of the site.

Another crucial aspect that must be noted is the different approach to aerial photography that archaeologists have taken over time. While in the first period (and in particular for the 'rilievo' by Dante Vaglieri) aerial imagery has been approached chiefly as topographic tool for the management of sites, in the decades after WWII the interest has shifted toward landscape studies.

For sure the turning point matches the development of Aerial and Landscape Archaeology after the war, and can be linked to the specific interest for such disciplines of former Allied pilots. A particular mention

must be given to John Bradford: former RAF pilot, photographer and photo-interpreter, after the end of wartime operations, being attached to the University of Oxford, he did pioneer archaeological landscape studies with an extensive use of the Allied material.¹⁹

After the war aerial photograph imagery will be used also to look for elements useful for the understanding of the topography of Ostia and Portus, the most famous example being the search for traces of the harbour of Claudius.²⁰

Overall Ostia is, among the archaeological sites, one of the most covered by aerial photographs in Italy during XX century, allowing aerial imagery to be a privileged instrument for archaeologists to study the birth and development of the site itself, its natural landscape, and try to read in the soil some marks whispering us the stories that one day those hills and fields will tell us (Fig. 10).



Fig. 10 - Photo-mosaic of ancient Ostia, SAF photographs, 1964.

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ENDNOTES

- The Ostia Marina Project is active particularly in the suburban area along the ancient seacost outside the gate of the city walls called Porta Marina; for an overview of the activities of the OMP see (David 2009), (David 2013a), (David 2013b), (David 2014).
- For an overview of the collections of the Aerofototeca Nazionale see (Guaitoli 2003) (Ceraudo, Shepherd 2010) and (Boemi 2011).
- The historical and cultural environment in which aerial photography developed in Italy from 1899 onward is focused by (Ceraudo 2004) that remains crucial for the understanding of the phenomenon and its implications; for some details on the technology see (Tardivo 1911).
- The centennial of the death of Dante Vaglieri has been celebrated with a conference promoted by the Italian Ministry of Culture, whose proceedings (De Vico Fallani, Shepherd 2014) provide a complete overview of the biography, work and achievements of Vaglieri.
- The last years of his life, spent at the direction of the excavations of Ostia, have been studied by Paola Olivanti with particular attention for the cultural environment to which the figure of this archaeologist belongs (Olivanti 2014).
- A concise history of the excavations at ancient Ostia can be found in the first chapter of (Calza 1953); more details can be found in (Bignamini 2003) for the period up to 1801; for the XIX century and the first years of the XX see (Marini 1998), (Olivanti 2001) and (Marini Recchia 2002).
- (Vaglieri 1912), translation from the authors.
- Gavin Hamilton has been the first digger of Ostia of whom we have some detailed knowledge about; his biography has been recently published along with the corpus of his letters (Cassidy 2011).
- A contribution to the debate on aerial archaeology in the first two decades of XX century has been given by Guido Calza, in an article published in 1920 (Calza 1920).
- (Filippi 2007) with bibliography.
- For the Theatre and its rebuilding see (Shepherd 2005).
- (Calza 1938).
- For the Episcopal Group see (Bauer 1999).
- (Floriani Squarciarino 1964), (Olsson 2001).
- The variations of the course of the Tiber have been studied extensively by Antonia Arnoldus-Huyzendveld: (Arnoldus-Huyzendveld 1995), (Arnoldus-Huyzendveld 2000).
- The gardens of Ostia have been studied by E.J. Shepherd (Shepherd 2008).
- (De Vico Fallani 2014)
- For other details on the figure of Busiri Vici see (Natoli 2001).
- Bradford 1957, see vii-xi on Allied imagery.
- Meiggs 1960, pl IV-V.

ABSTRACT

During the XXth century, numerous studies were carried out in the site of ancient Ostia, also thanks to the support of aerial photography. Starting from the "Topophotographic survey" realized by the Italian Army in 1911, up to the "Atlante di Ostia antica" realized in 1996, Ostia has become one of the most photographed from up high among archaeological sites all around Italy. The analysis of aerial photographs allows to develop a research structured in two main branches: the study of the ancient city and of its urban development, and the transformation of the landscape conceived by archaeologists during the last century. Through aerial photographs it is possible to understand the impact of the extensive excavations carried out from 1938 onward under the will of the fascism on the occasion of the Universal Exhibition foreseen for 1942 in Rome (E42).

KEYWORDS

ANCIENT OSTIA; AERIAL PHOTOGRAPHY; E42

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CAPTIONS

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