

ITALY

General Direction of Cadastral Survey and of the Technical Services
of Finance Department

An Archæologic Map of Rome

*Communication of the General Director Prof. GIOVANNI BOAGA
to the 7th International Congress of Photogrammetry at Washington, 1952*

The Administration of Italian Cadastral Survey, in the course of the last ten years has given special care to cadastral mapping of the Municipality of Rome, carrying out new surveys and bringing up-to-date those performed in recent times, in order to follow the frequent and rapid transformations which already have and will occur, specially in the area of the city itself.

In performing this work it was not possible not take into account the particularities of Rome, where the passing of centuries has left its profound and admirable traces of the events of which the Eternal City was a centre as well as of the civilization which started from it and bestowed it with an incomparable attraction in the spiritual world.

Though the cadastral surveying work has been carried out according to its particular civil, fiscal and geodetic purposes, it was endeavoured to furnish also an appreciable contribution to the knowledge of Rome from a cultural point of view and to supply a further topographic basis for future archæologic studies and researches.

In the surveying program the compilation of apposite sheets on scale 1:500 was therefore foreseen for particularly interesting areas from an archæologic point of view, and specially for the zone of the Palatinum, the hill which preserves the most antique memories of Rome, consisting of imposing ruins, strewn between an impressive vegetation and offering the view of a marvellous panorama.

From a technical point of view, it was preferred — also referring to the map scale — to apply a combined surveying method, i. e. using for planimetry the tacheometric survey already carried out or still to be performed and applying then air photogrammetric methods for completion by other planimetric details as well as for plotting of contour lines and spot-heights and for the rapid ascertainment of cultivations.

From the archæologic point of view it was retained opportune to

distinguish by different colouring the ruins originating from a different epoch, thus furnishing an information not necessary, of course, for the cadastral Survey, but obviously very important for cultural aims.

According to the above mentioned purposes, performing of work under the direct guidance of the General Direction of Cadastral Survey was decided, having this Administration an experimental air surveying laboratory provided with Nistri's plotting apparatus (the well known Photocartograph Aeronormal) at its disposal. For the purpose of a better and adequate division of tasks, the kind collaboration of the Superintendence of Palatinum and of the Forum Romanum was requested. The latter furnished for the first sheet of the map, already accomplished, a both precious and expert contribution, for which I like to express my best thanks.

The sheet I mentioned above is shown at the Exhibition of Photogrammetry connected with the 7th International Congress at Washington. It covers one of the most important parts of Palatinum, i. e. the temple of Cibele, the house of Livia, the palace of Flavias, the temple of Apollo, etc.: marvellous ruins well known by archæologists and foreign visitors.

Further sheets, already surveyed, will be completed by means of air photogrammetry, in order to cover the entire area of Palatinum and of the Forum. 14 sheets are necessary for this purpose.

Contemporary with these archæologic sheets, other map sheets are elaborated for cadastral purposes only. The latter contain only topographic details, which — according to laws — must be completely and accurately reproduced for the entire area of the Municipality.

As regards photogrammetry, the above mentioned work may be considered an important and special application of the method established for planimetric completion and integration by contours of field surveyed maps by means of air photogrammetry. This combination of proceedings is of a considerable importance also from a conceptual and scientific point of view, as it constitutes a harmonizing synthesis of different surveying methods, the classical and the modern ones; it permits to apply each other without any prejudice and with evident usefulness as well as with best results.

A kind and precious contribution was given to the Cadastral Administration by the ETA Ltd. of Rome, an Air Survey Company belonging to Nistri's group. This company - having carried out an air survey of Rome for town-planning purposes - kindly put on the disposal of the Cadastral Survey the photographs and photo-prints of the Palatinum area.

The ancient and modern cartography of Rome and of its archæologic areas has already a long tradition, dating from several centuries: «*nihil sub sole novi*». From the city and from its most important zones, very appreciable maps are available from the oldest copper-printed to the modern ones, the latter having been produced by the Military Geographical Institute, by the Italian Touring Club as well as by other National Cartographic Institutes.

The Administration of the Cadastral Survey retains, however, that the new archæologic map presents special particularities.

In fact, it is not only the latest map of that area, but presents also a high degree of accuracy like that of every cadastral survey in our country, and is distinguished by its very large scale.

In my character as Chief of the Cadastral Survey, I'm very glad to present the new map to the expert-opinion of engineers, land-surveyors, archæologists and town-planners, both experts and amateurs, and I think that the compilation of this map constitutes an appreciable example of collaboration, which is always necessary between scientists and technicians, in order that both of them may gain a steady progress.

Rome, July 18th, 1952

The General Director
G. BOAGA

Un plan archéologique de Rome.

Résumé de la communication du Directeur Général du Cadastre Italien
Prof. GIOVANNI BOAGA

Au cours du lever du plan cadastral de la Ville de Rome, 14 feuilles spéciales ont été compilées pour la zone archéologique du Palatinum et du Forum Romanum. Une des ces feuilles est exposée à la VII^{me} Exposition Internationale de Photogrammétrie.

Le lever a été exécuté au moyen d'une méthode mixte, cest à dire, lever de terre moyennant le tachéomètre et la stadia pour la planimétrie de la zone, qui a été ensuite complétée et intégrée d'altimétrie avec le procédé aérophotogrammétrique.

L'échelle du plan est de 1:500, telle à rendre bien visible les petits détails.