POLYTECHNIC OF TORINO FACULTY OF ARCHITECTURE Degree in Architecture *Honors theses*

The roofings of the Piazza Armerina's Roman Villa

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The years from Diocletianus to Costantius II: the social and economic changes. There are, in outline, the main events from the third to the fourth century A.D. and, in particular, the socio-economic changes caused the sicilian large agricultural estate transformations, allowing the building of the Piazza Armerina villa.

· Architectonic and historical description of the P.A.'s villa and comparison with other contemporary buildings. There is, through a new planimetry, a description of the main villa journeys and a new estimate of the main building phases through the Lugli and Carandini's studies. In short there is a comparison among the P.A. plain and the other villa plains and, for the main rooms, with other buildings in order to notice the

architectonic main basic themes of the fourth century in the Piazza Armerina's villa

· Room index cards. Description of each room: dimensions, maximum preserved highness, description of the masonry, plasters, frescos, mosaics and living functions. Each room of the villa is presented in an index card in its basic characteristics and illustrated, if possible, with photos and drawings. There is a short general summary at the end of the index cards for each items.

PART TWO

Volumetric hypothesis: analysis of the excavation data, reconstruction of the mansory decorations and of the roofings, comparison with the previous reconstructions and with the volumes of the survived or documented contemporary buildings. The rooms volumes and the villa roofings are rebuilt on the most recent data excavation. In this phase the comparison between the P.A.'s volumes villa and the other contemporary buildings is decisive to guarantee the coherence among the volume of the rooms and their roofings and the techniques and the materials of the fourth century. The forms and the structures most probables are the conclusive result. The representation rooms and the baths was covered with a light structure, made with fictile tubes, which allowed to define architecturally the volumes with cupolas and vaults decorated with mosaics and frescos.

To protect the exstrados of the vaults there was wooden pitch roofings, covered with tiles, which leant against perimetrical walls extended over the vaults edge. The basilica and the other slave rooms was covered with a pitch roof and a wooden intrados.

APPENDIX I

About the vaults made with fictile tubes. Short considerations about the building techniques of the fictile tubes and pots vaults, their history, diffusion and their economic and technology characteristics.

APPENDICE II

Optic devices and numeric ratio of the volumes of P.A.'s villa. Analysis and comment on a De Angelis D'Ossat 's written on the late ancient and high medieval architecture with reference to the P.A.'s architectonic whole.

ENDS Summary of the gained results with regardd to the intended goals. GENERAL BIBLIOGRAPHY.

PLATES Four enclosed plates illustrate the plotting of the villa with its main measures, the floor mosaics, a roofings whole plant and tree sections: the baths, the peristilium and the oval court.

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