

WP1: Supervisor Tor Vergata (Dept. Management and Law)

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FIRST IDENTIFICATION OF THE STUDY AREA

In the territory of the Region of Lazio, our team have identified, as a first approximation, sites and areas where it would be likely to applicate the methodologies, the technologies, the diagnostics and, the analysis tools provided by the DTC_ADAMO project.

The identification of the sites and areas are the result of a first context analysis (WP1). This analysis, carried out by STeMA 3.0 methodology (Prezioso, 2015), focused on the cultural assets outside the traditional sightseeing (according to the approved DTC proposal – p.942), in accordance with the goals of the project “Technologies for Analysis, Diagnostics and Monitoring for the Conservation and Restoration of Cultural Heritage” (ADAMO).

As a result of an historical, environmental and socio-economic context analysis (which will be implemented in the next months) our research team localized an area where is it possible recognize "a complex history of stratification that links the process of transformation of the environment to the change of society in different historical times" (Cannella, 2003). That area is situated in the south-oriental quadrant of the city of Rome (NUTS3). This target area is delimited by the Aurelian wall’s section of San Sebastiano gate, by the “via Appia” (Regina Viarum) (which starts here) and, by “the via Casilina” to the Castelli Romani (limited to Frascati, Monteporzio Ariccia).

The mentioned territory preserves a landscape of historical importance thanks to two main aspects. The first one is linked to its geographical position characterized by flat areas alternated with volcanic hills, where some craters became lakes. The second one refers to the urbanistic importance of this territory since the Paleolithic age where population established in this area, which became since the ancient times a strategic way across the Tiber valley, Etruria, Campania, Apennines to Tirrenian Sea. Several Italian populations inhabited the area, including the Romans that built there villas, baths and temples. This variety of populations, each one with its own culture, caused the development of recognizable identities that left traces on the territory. The historical events strongly characterized the territorial evolution. Fortified castles with cyclopean walls date back to the 9th – 11th centuries, around which there are villages, ruins of Roman buildings, fortresses, palaces, abbeys and baroque churches. After a first analysis (STeMA database and methodology) the team have reached out the punctual location (geo-referentiation) of the valuable elements gathered in “family” of origin (material and immaterial goods) according to the general classification (old city centers, archeological and monumental complexes, restricted archeological sites, historic centers, isolated monumental and archeological sites, historical fabric of infrastructures). In addition to this, the natural assets whence emerges a set of protected areas that helps the analysis, including regional parks, volcanic lakes, Agro Romano with vineyards, olive groves, orchards and pastures with historic and geographic significance. These elements are part of the *Parco Regionale dell’Appia Antica* and *Parco Regionale dei Castelli Romani*, which includes Albano and Nemi lakes and several villages plenty of pre-roman testaments and remains of villas and temples. The whole area presents high level of anthropization (updated data and mappings will be provided during the WP1).

In the study area, the presence of the city of Rome deeply affected the historical fabric of infrastructures. The polarization starts in the 4th century B.C., when, alongside the Roman

colonization, the territorial annexation accompanied the foundation of new cities, by the amendment of the agricultural territory, as well as by the construction of aqueducts and roads. Among the latter, it is important to highlight the complex of Consular roads: creations of incredible urban even used nowadays infrastructures that, more than other realizations affect the typical evolution of the fabric of infrastructures.

The team identified two main case studies in the area, useful for this investigation: Villa della Piscina (Rome, Centocelle) and Villa Mondragone (Monte Porzio Catone) which suit to the several applications of multiples methodologies, technologies diagnostics and, analysis tools used in order to create cohesive. In greater detail, according to the project, the enhancement of the way that starts from the Aurelian Walls (San Sebastiano gate – Metronia gate in the south zone of the city) proceeds to ancient via Appia and ancient via Labicana (currently Casilina). The route continues through suburban villas located in the quarters Centocelle – Appio Latino, passing through Tor Vergata (archaeological excavation of Passolombardo rural villa) and the Archaeology Museum for Rome (APR), reaching the Roman Castles. The sites located in the area cover the project interest's timeframes: From the Roman Era to the Renaissance and Baroque.

Concerning the technological interest of the project, the correlation between cultural sites and technology provides the following list:

- Aurelian wall's section of San Sebastiano gate (fiber optic sensor to control the variation of the structure's environmental parameters T6.5)
- Villa della Piscina's excavation in Centocelle, frescos' reconstruction from fragments to exhibition in the Museum that will be built (characterization of materials with laboratory techniques and in situ T2.1, T2.2, T2.3; T3.1, T3.2; T4.1)
- Villa Rustica's excavation in Passolombardo and APR Museum evaluation of life traces (plant and food reperts, human bones from burials T2.4; T7.1, T7.2, T7.3)
- Ad Decimum Catacombs or SS. Marcellino and Pietro Catacombs (frescos' conservation status T4.1, T4.6)
- Villa Mondragone (diagnostic analyses on frescos, evaluation of infiltration of water, evaluation of the roman mortar's conservation status in the villa's foundation, conservation status of the fountain's stones T4.1, T4.2, T4.5, T5.1, T5.3, T6.4)
- Frascati Bishop's Palace (virtual integrations of frescos, status of conservation of walls painted both in fresco and canvas, humidity infiltration and biodegradation T4.1, T6.4)
- Palazzo Chigi's Museum in Ariccia (diagnostic on 6th century finds: canvas, potteries, papers, metal objects, wooden sculptures T2.5, T3.1, T4.2, T4.3, T4.4, T4.6)

The set of the sites in the area are represented in the Map 1, processed in the STeMA lab, with STeMA methodology and STeMA-GIS_VAS technology. At the end of the project, the map will be released to be investigated interactively on the ADAMO Project's website.

Additional sites (located outside the study area) have been discussed in the preliminary meetings of the project. These would cover the role of comparison elements. The sites are:

- Sites on via Nomentana: Sant'Alessandro's Catacombs, frescos' status of conservation and monitoring of microclimate (T4.1, T4.6); Villa Blanc (annual monitoring T6.2, useful as input for the models in T6.1, T6.3)
- Locus Feroniae's excavation in Fiano Romano (Roman Republican-Imperial Era): specific for anthropology studies (T7.2) with a possible comparison with the results of Museum APR.

On completion of the WP1, process the responsible of the archaeological measurements in order to communicate (realization of documentary and stories).