Chapter 20

A New Cloud Library for Integrated Surveys: The Ancient Via Flaminia and the Nextone Project

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ABSTRACT

The chapter presents an innovative way to improve the archaeological landscape, based on researches about Via Flaminia. This is an extraordinary land that collects layered remarkable characteristics i.e. archaeological evidences, historical and natural landscape, ancient and modern infrastructures. Documenting this appreciable heritage is mandatory to use cutting edge technologies of survey, integrated management of data and innovative communication systems. The final purpose is the heritage preservation and its long life. Although previous deep researches and several scientific surveys were carried out, a major lack is their fragmentary non-reusable nature. The regional project “Cultural Evolved District” Flaminia Nextone discusses best practices in culturally based development of this area. The methods are survey and analysis of architectural and archaeological heritage, supported by information technologies. As results, the chapter shows a catalogue of buildings survey, their semantic/ontological organization in a Cloud library (2D/3D) and several outputs collected in exhibitions.
INTRODUCTION

In this chapter we present an innovative way to approach and improve the archaeological landscape, based on our researches about Via Flaminia. The ancient consular route, that connected Rome to Adriatic see, served as the main street of the Roman town of Fanum Fortunae and Ariminum. The area along Ancient Flaminia is an extraordinary land that collects layered remarkable characteristics (i.e. archaeological evidences, historical and natural landscape, ancient and modern infrastructures). In documentation and preservation of this complex and appreciable heritage is mandatory to use cutting edge technologies of survey, integrated management of data and innovative communication systems. Although previous deep researches and several scientific surveys were already carried out, a major lack consists in their fragmentary non-reusable nature.

In order to promote economic cultural-based development, Marche Region launched in 2013 a project called “Cultural Evolved District” (DCE - Distretto Culturale Evoluto, in Italian). Among several proposals, our group suggested and indicated a strategic project for the Flaminia’s area. Fano, the principal municipality involved, is the project leader. The project, called Flaminia Nextone, is already financed and it is in its first phase. Based on our knowledge and expertise, Flaminia Nextone will discuss and analyse current and future trends in several technology and representation domains identified as key areas.

The Nextone project looks to the potential of digital cultural heritage stimulating a newborn cultural industry that will foster economic growth and occupation in this area of Marche. The DCE will also acts as a stimulus for future R&D in/for the cultural heritage sector. For this reason, the project has a public-private partnership with some SMEs engaged in technology, cultural industry and heritage exploitation. The project promotes a local development, starting from tangible and intangible cultural complex and ICT tools, increasing competitiveness and attractiveness of suburban areas. Heritage and cultural identity become a catalyst for creativity and innovation. The project is close to the guidelines of European agenda for culture: a major challenge is to integrate the cultural and creative sectors into regional and local development strategies (Figure 1).

Roman cultural identity is linked to territory that is well-known thanks to the archaeological evidences of the Via Flaminia. This chapter demonstrates how it is possible to increase this identity and promote cultural tourism in the region, thanks to survey, investigation and representation of architectural and archaeological heritage (AAH). Moreover politicians and local administrators in the last years want to develop the connection between the region and its Roman past, through the cultural association Vitruvian Study Centre (CSV).

Another issue of the project consists in the innovation in digital cultural heritage: this is an international matter, but this problem can be divided and managed in several bottom-up processes. The definition of standard for interoperability is affordable enough to ensure the reuse of data and linked open data. Emerging technologies in the public sector will require further research, starting with identifying the specific challenges of the cultural heritage (from now on CH) sector. The introduction of new technologies could lead to the exploitation, preservation and better conservation of the CH.

Our role, in the Nextone project, is mainly to carry out research applications, concerning cultural institutions tasks (heritage communication, management and preservation) and multimedia installations especially connected to archaeological museums. Nowadays, they are turning to simple storages of artefacts to active places that offer more information, emotive involvement and added values to visitors’ experience.

A main goal is to enlarge the knowledge, appreciation and exploitation of Via Flaminia cultural historical sites, starting from existing...