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Canals, Water and Production in Fabriano's History: Study For The Construction of a Recovery Strategy and Development of Local Traditions

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✓ **KEYWORDS:** knowledge, local identity, fruition, development

➡ **ABSTRACT**

The goal of this research is oriented to verifying a method, based on both physical recovery of infrastructure, and on the construction of new paths of knowledge/fruition. The analysis of historical archived sources and studying architecture in its material-figural consistency, represent the first unavoidable step towards the construction of an effective recovery strategy, and an enhancement of local traditions. Specifically, this case study refers to the town of Fabriano in the Marche region, where you can analyse a system of particularly complex natural and man-made canals. From the most ancient times, this system was structured in parallel to the development of crafts that have honoured the city, both nationally and internationally, until the end of the nineteenth century.

In the town of Fabriano, the processes of transformation of traditional production systems have been accompanied by changes to the urban structure, with obvious problems of preservation of natural and man-made resources, which are closely linked to such production. The now disused factories and the old supply systems are bearers of tangible and intangible values that could contribute to building a cultural identity, stimulating new forms of local tourism.

To understand the city's transformation processes, it is necessary to refer to historical and archival sources, according to which, Fabriano was born shortly before 1165, by the union of two castles. The first territorial political structure showed different characteristics compared to other Marche cities. Indeed, it witnessed inactivity by institutional figures, such as the bishop, being replaced by small and difficult to manage laity or monastic groups. Even after the mid-twelfth century, a number of noble families had acquired power, creating a municipal organization (Luzzatto, 1909). The political role of the craft guilds emerged during the mid-thirteenth century. These were actively involved in the management of power, and knew how to interpret the productive vocation of Fabriano, developing commercial activities of national and European prominence (Angelelli, 1932). Many testimonies can verify the progressive affirmation of Fabriano workshops both on numerous Italian city markets (Rome, Genoa, Florence, Venice) and abroad (Provence, northern France and Spain).

In the mid-thirteenth century, weak craft unions, who had enjoyed the privilege of exclusively practicing a trade had become powerful and autonomous corporations, indeed, proper political and economic bodies that shared power with the nobility. Moreover, they had their own statutes annually approved by the municipal authorities, and they ensured protection and mutual assistance to their affiliates (Avarucci-Paoli, 1999). These were obliged to strictly ob-

serve regulations and religious practices, to apply the prescribed technical procedures for the processing of individual artefacts, which underwent quality and quantity inspections (Zonghi, 1880). Working hours had to be respected, as well as prices and wages. Internal hierarchies foresaw the division of labour into three functional categories (masters, labourers, apprentices). Activities were carried out in production facilities specially crafted inside and outside the town walls (Fig. 1).

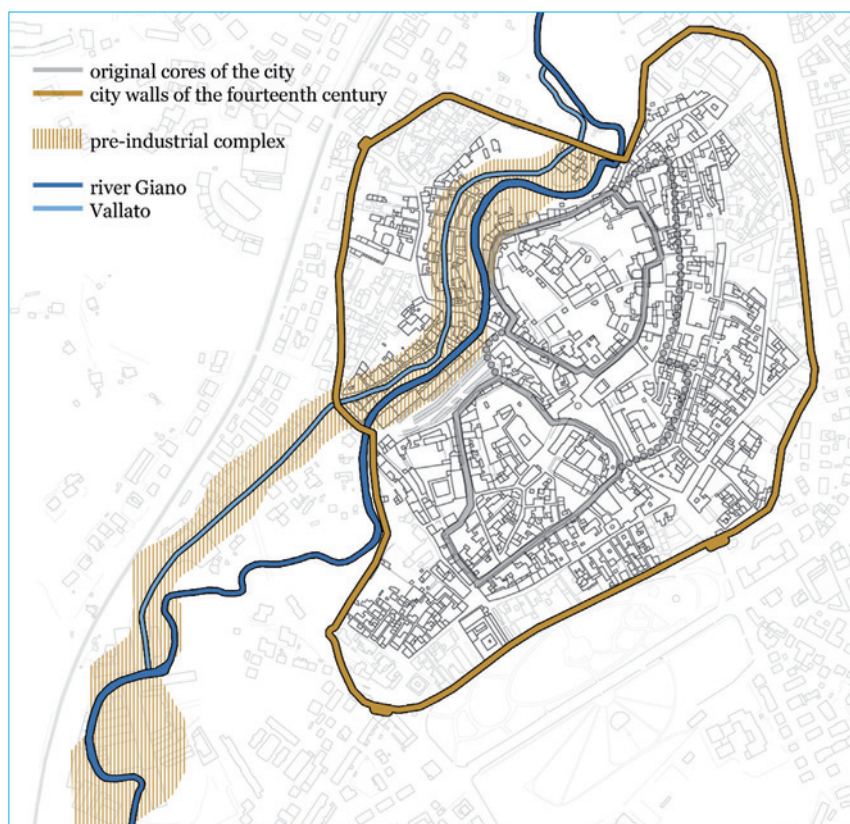


Fig. 1. The development of the town of Fabriano between the thirteenth and fourteenth century. Highlights the course of the River Giano and the path of Vallato, crossing the higher concentration of protoindustrial complex zone (G. Bugiardini reconstructive drawing)

The guilds of Arts and Crafts played a decisive role in communal life as of the second half of the thirteenth century, as shown by the first known document, which is dated 30 September 1278, in which the names of Consuls and Captains of the 12 Arts are mentioned, who, with the powers and responsibilities of the General Council of the Municipality elect Podestà Orso Orsini, the nephew of Nicholas III. Documents, historians give the exact size and importance that the Arts had reached in power, highlight the crucial role they played over a vast territory, among the most important of Marche for its gradually developing economy.

The oldest production activity is related to the blacksmith's craft, from the beginning of the early medieval settlements. The Art of blacksmith's figure was cited in the list of 1278, but

evidently groups of artisans dedicated to metal-working had penetrated the Fabriano community in a much earlier era, rising up to become a symbol of the traditionally hard working people who had settled in the Giano valley, and entering the world of folk legends that exalt the figure of the blacksmith (faber in amne cudit). It is however established that on the thirteenth century's seal of the city there was a workman, with the hammer in his right hand and tongs in his left, intent on beating iron on an anvil.

In its first municipal conformation, in the early Middle Ages, the city had an organic development with the River Giano, acquiring its morphology and exploiting opportunities to create the conditions of intense production and commercial development. Along its banks, a number of major factories had settled since the thirteenth century, which would have characterised the city in the following centuries (Lipparoni, 1990). These buildings were a proper proto-industrial system, based on a valley-artifacts-river relationship. Fabriano's urban form has been transformed over time, establishing strong connections with the "waterways: a city that overlooked a river; its canals and valleys, in a perfect anthropological and functional balance". These signs have strongly characterised the human and productive habitats for centuries, but are no longer recognisable these days. Fabriano reached its greatest extent in terms of space and "industrial development" at the beginning of the fourteenth century. This coincided with the construction of new walls and the creation of major waterworks; drawing water from the River Giano using specially designed locks, its people built a man-made canal called the *Vallato* (Carancini, 2014).

Illustrating such a complex feat of engineering entails highlighting the ingenuity and industriousness of Fabriano, in order to unravel one of the town's and all its territory's productive "secret". The hydraulic work exploited the natural river's height difference (a waterfall or more likely a rapid) that was used power the craft activities (paper mills, wool cloth-making, tanneries, forges and mills) to a level of several metres higher than the river's level. The waters of *Vallato* were employed, both to create the driving force for production machinery, and to keep the river flow under control, and also to differentiate the factory run-off water, in order to safeguard the health of the stretch of river inside the walls (Biondi, 1978).

The *Vallato* branched off from River Giano where the current Cartiere Miliani stands, through a bulkhead that regulated the water's flow. This metallic barrier was raised or lowered from the upper floor by a "screw" system, sliding along two side rails. Within the city, they distinguished three main sections: the *Vallato Cupo*, deeper, positioned upstream; the *Vallato Comune*, that it had several smaller channels to allow one "Municipal" exploitation of natural waters; the *Vallato Molendinorum*, its last stretch that poured its waters just outside the city walls, at the Moline bridge (Fig. 2).

Among the most representative areas for the concentration of factories that exploited the *Vallato* waters, there is an area called "Le Conce" for the presence of a thriving industry of tanning hides which had a notable development from 1200 to early 1800. Until the seventeenth century there were 18 tanneries in Fabriano, which gradually began to suffer, and eventually disappear altogether. These factories which partly still dot the course of the river, drew the water they needed to function through a system of man-made canals.

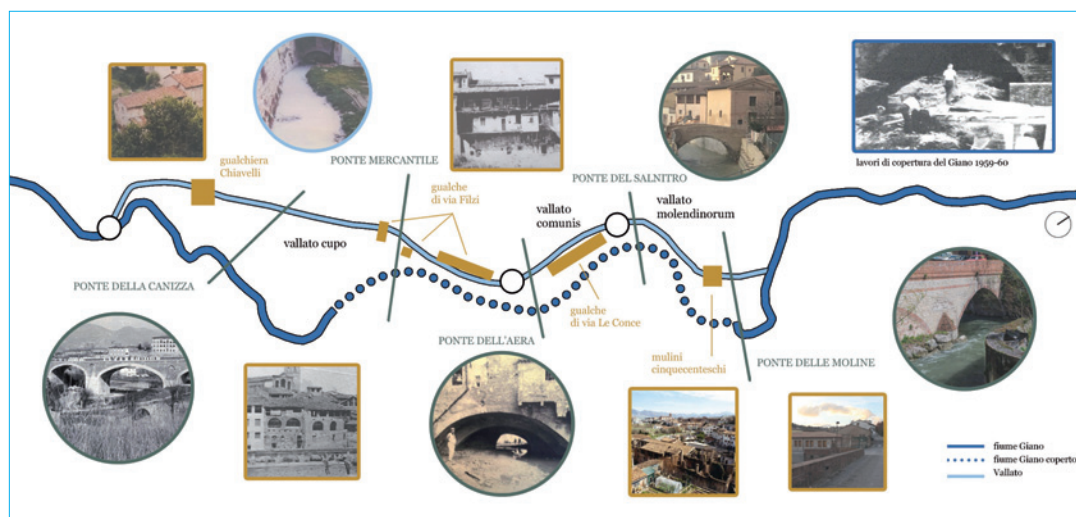


Fig. 2. The River Giano and the Vallato with the identification of the various sections and the significant elements along the way that might be of interest for a new strategy (G.Bugiardini reconstructive drawing)

With the collapse of original activities, canals were buried and were replaced by streets to access the shops and warehouses that have gradually replaced industrial activities, hence the numerous modifications and tampering with the external openings, as well as the creation of environments that have fragmented the original spatial continuity.

These mills had a very similar architectural style and construction. They consisted of a basement where the first stages of processing were carried out. In these places, there were the tanks and boilers where skins or wool were soaked in specific solutions. Premises open to the public were located on the ground floor. They were well lit, with easy and instant access where the packaging and sale of products was focused. They were connected internally with stairs, generally located on head or dividing walls. The upper floors were divided into large rooms that housed the drying rooms where sheets of paper, wool or leather, depending on the type of craft were placed to dry.

These premises were characterised on their facade by wooden trellises, providing fresh air, allowing air to circulate drying the valuable products. The rest of the wall was made of brick, a widely used material in the city due to the presence of many furnaces, which had also been active since the Middle Ages and met the same statutory rules governing other craft activities (Fig. 3).

The historical and urban value of the factories is highlighted by the Superintendence for Architectural Heritage of Marche that, by placing its seal of protection, underlined «For the formal and typological and structural characteristics that distinguish them clearly, while in the vast and varied construction landscape of the old town of Fabriano, and for their intrinsic historical value such testimony remains as artefacts, with whose productive activity these buildings have greatly influenced the economic history of the city, the aforementioned buildings, therefore, are deemed worthy of preservation».



Fig. 3. One of the most interesting factories along Via delle Conce; the building was used as a tannery and then to other crafts, until the abandonment which occurred in the mid-80s (drawing of G.Bugiardini)

At the end of the nineteenth century, the “Conce” area, so strongly was it characterised by the presence of canals and related architectural structures, had lost its original connotation and was abandoned; also the canals and the supply of water were subject to a long slow oblivion (Castagnari, 1986). Long abandoned, these buildings mostly show a state of advanced deterioration. The *Vallato* was subject to an inexorable burying operation, as was the River Giano, too (Fig. 4).

A first attempt to give relevance to the Fabriano water system was undertaken by the Superintendent Icilio Bocci, who had published a short treatise devoted to “Il ponte dell’Aéra e l’Ospedale di Santa Maria del Buon Gesù”, (Bocci, 1907). In that study, he described the river and its artefacts, including the «so-called Aéra Bridge, over the River Giano, notable for its solidity and construction, because it rests on a column supported by six houses and a section of the highway, and was capable to resist the river’s current». The work went up to the honour of the universal chronicle five centuries ago, when Giorgio Vasari cites it as an extraordinary work by Bernardo Rossellino, built in 1449. The bridge certainly underwent major transformations over the centuries, right up to its current complex constructive articulation. Despite the architectural importance of the building, the bridge is unknown to most of Fabriano’s inhabitants, as indeed is its entire water system, both natural and man-made, which has gouged the centre of Fabriano for centuries.

Many authoritative historians are interested in the River Giano, its canals and bridges, without achieving a level of detail so as to understand its characteristics and architectural style and the

real importance as a basic urban infrastructure in the fabric of Fabriano. The definitive forgetfulness came with the 'filling' of the river, carried out in mid 1900s for hygienic and health reasons. The lack of information, alleged by Bocci, lasted until the late nineteenth century. From that time onwards, some development projects have been initiated in order to discover the signs of such important figures in history, but despite several attempts their results are still not apparent. Among these initiatives there is the restoration of the former Fabriano Tannery. This fell within a broader recovery programme of the entire River Giano valley, and foresaw amongst others things, improvements in terms of roads, parking lots, hydraulic arrangement and re-qualification of the watercourse (Keoma-Conforti, 2011), in addition to the reorganisation of the surrounding environmental system (Figs 5-6).



Fig. 4. The "Conce" area, in the early '900. It was characterized by the presence of canals and related architectures with crafted function (private collection)



Figs 5 and 6. Recently, the Gianone River has been affected by some restorations and some sections have been uncovered and enhanced (photos of G.Buscarini)

Conclusions

As already noted, the history of the city of Fabiano is closely linked with its waterways, just as it was on the banks of its rivers when the town developed and settled in the course of centuries, the various productive activities, vectors of development and prosperity for the city and its territory. The conservation project of waterways and related handicrafts represents an initial essential element, but it is equally necessary to proceed with a more complex development strategy that can grasp new opportunities for development. What this means is to start a series of coordinated and interdisciplinary actions, an investment in time, which starting from consolidated reference models, can enhance local excellence. The overall strat-

egy may allow the rediscovery of this heritage of identity, oriented on the one hand, towards the maintenance of architectural elements and material-structural components; on the other, to make the existence of such architecture compatible with the new environmental requirements, in order to incorporate every useful innovation to ensure its function in a renewed circuit of interest. This, above all, considering the city's involution process, which has been characterised by a strong de-industrialisation and is in search of a new identity and a new trajectory of development.

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ANNEX I

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Preamble

The ancient consular route Flaminia was one of the most important connection between Rome and the towns of Fanum Fortunae and Ariminum on the Adriatic coast. The lands buffering the remnant itinerary is still today a remarkable territorial setting (i.e. archaeological remains, outstanding rural and natural landscapes, ancient and modern infrastructure and heritage). The memory of the ancient Roman Empire is still rooted in this territory, as witnessed by the rich archaeological heritage and the predominant buildings along the way. The need to foster and to maintain such outstanding common patrimony has been motivating for local politicians and public administrators to begin a series of actions highlighting its Roman past. Thanks to the engagement of the centre of Vitruvian Studies (CSV), local administrators acknowledged a joint initiative to start smart cultural and rural-environmental tourism activities. This also raises important questions concerning the revitalisation of territories and their historical heritage, on the demand for a sustainable development and maintenance, in order to strengthen the relationship between dwellers and the palaces they live.

The Uniscape En Route seminar “Landscape & archaeology” will focus on smart and sustainable initiatives in landscape & archaeology.

The “En Route international seminar” series is a tool to promote the European Landscape C both the European-wide academic community and local stakeholders (institutions, politicians and economic actors). This provides local landscape actors the opportunity to raise the question at home to a wider European context, as well as providing academics the opportunity to present a new audience within a specific landscape context. Thus, by reaching out towards local communities combining the more academic activities with other thematically related events (site visits, etc.), the seminars will offer a concrete opportunity for “awareness-raising” (Chapter II-Article 6).

Presentation

In many European countries local cultural heritage is a powerful driver for developing various activities related to tourism. Management and open access to cultural heritage are challenges in enabling local communities to conserve their resources.

There are three main pre-conditions for the development of sustainable tourism of cultural heritage:

a) good knowledge of cultural heritage; b) strong awareness of local people for their protection activity; c) access to innovative and creative ICT tools to design tourism solutions with respect to the environment and a relevance for local identity.

This **Uniscape En Route** seminar will investigate how it is possible to increase cultural identity and tourism in the region, thanks to the knowledge, representation and valorisation of architectural heritage and landscape, conceived in a broad sense. A main goal for the “Landscape and Architecture” seminar is to share and compare positive experiences in several working fields involved in tourism, dissemination of landscape & archaeological heritage. In particular, the event will discuss the pre-conditions and their results SMART (specific, measurable, achievable, realistic).

The seminars provide a forum conducive to sharing best practices (by researchers, designers, etc.) and experiences. **The “Landscape & archaeology” seminar will deal to the following four topics:**

Smart Landscape

The very concept of Smart Landscape, underlined in this initiative, is of particular interest for the interest of people in starting up economic activities and new enterprises linked to agriculture. Such a return to agriculture is marked by the need of people to express new ways of creating value through new “smart” management frameworks, able to combine new technologies with the resources (landscape, biodiversity, food quality and safety). The multifunctional services provided by the sector (environmental, social and cultural services) represent an important opportunity for rural areas and the new emerging contexts of peri-urban and urban fringes.

A new and interesting concept gaining ground in urban planning research concerns the “playable city”, a creative, homely and attractive city, which is able to captivate both its resources and citizens by giving new meaning to its landmarks. Here great attention is paid to people, hospitality and culture: they are the key factors in reconfiguring urban services, places and stories.

“Playable city” could appear as a counterpart to “smart city”, because the idea of creative, playful territory seems opposed to functional and technological aspects. Nevertheless we are deeply convinced that these two features should be reasonably kept together in order to trigger effective and positive changes. The open theme of playable city is, moreover, fits perfectly with the European Landscape Convention. Disseminating measures aimed at enhancing and developing smart and playable culture in order to

Archaeology and digital documentation

Smart archaeology is framed in a complex of activities regarding the whole process of conservation and engagement of archaeological evidence. All these aspects are closely related. In recent years, remains have been involved in several kinds of investigation: from preventive archaeology to landscape archaeology or cyberarchaeology.

The seminar will share experiences of sustainable tourism and archaeological heritage protection through partnerships among several subjects involved in dissemination and safeguarding activities (research institutions, governments, sponsors, cooperatives).

A specific aim is to make archaeological science more accessible in order to improve engagement through the use of digital tools (3D model, 3D reconstruction, VR & AR) and experimental archaeology. These kinds of technologies are effective for researchers or non-researchers to access archaeological data: single artefacts, archaeological complexes or cultural archaeological landscapes.

Due to EU policies on cultural and creative industries (Green Paper on the potential of Creative Industries), the digitalization and virtualization of archaeological heritage. According to the seminar, the landscape and evidences as heritage, new life can be breathed into cultural landscapes arising from new values, and contributing to the sustainability of heritage.

Smart Industrial Archaeology

Technical and productive innovation, often real deindustrialization processes, which affect rural societies are a key issue on local agendas (management, development, cultural heritage, etc.). In particular, the sprawling Italian landscape masks a complex of different layers (physical, infrastructural, manufacturing plants), which are specially dense along the historical road networks of communication. This situation is often found in rural areas, where the lack of access to ancient cultural heritage, tradition and identity presents challenges for the policy makers. A careful restoration to preserve the identity of places in rural settings could provide an opportunity for the renewal of a symbolic past - paper mills, kilns, mills, warehouses for goods, customs, etc. The cultural and territorial context could help to stimulate tourism and preserve important a landscape of many territories.

Heritage sustainable valorization and cultural districts

The use and re-use of cultural heritage will address the challenges of economic impact and development. This kind of economic growth arose thanks to the increase in culturally-centred businesses embedded within the territory and the local community. They are developing through new models devoted to the tourism experience.

The discussion over strong and weak points of the extra urban cultural districts (E-UCD), especially in Mediterranean countries, is central to the "Landscape and archaeology" seminar. This concept is rural, since it contains small towns, usually important in terms of heritage and tradition. The countryside distinguishes itself for its valuable landscapes and traditional agricultural or food products (DOCG, designation of origin etc.). Furthermore, in recent years E-UCDs became destinations of interest for a holiday experience that combines entertainment, culture, relaxation and also gastronomy. For this reason, the local supply has been usually developed towards tourism services and the organization of events.

Best practices often show a public-private partnership with some SMEs engaged in technology and heritage exploitation, developing the concept of cultural districts. Using landscape and heritage as a framework, the cultural districts can be a way of overcoming the fragmentation of initiatives.

labs; development of cross-border integrated strategies to manage natural and cultural heritage and the revitalisation of local economies.

Participants

Scholars

Researchers

Academics

NGOs Associations

SME or start-up specialized in the I&C technologies

Public Institutions involved in Touristic activities

PhD students and students

Representatives of some projects (tourism-landscape-archaeology - ICT) developed at international level

Preliminar scheduling of seminar

23rd June 2016

Arrival of participants at FANO, registration

Key note speech: Salvatore Settis (title TBD)

indoor seminar: first session of presentations (morning)

indoor seminar: second session of presentations (afternoon)

24th June 2016

En-route seminar along Flaminia

Exploring the archaeological sites and the landscape along the Flaminia road (morning and afternoon). Starting point Fano, end point Fermignano (around 50 km). Intermediate stops: Acquafredda, Gorge and Cagli. Transport media: cycle, bus or car. Along this route, three or four stops with one or four En-route sessions (seminars "en plein air") with the participation of local people, archaeologists and experts.

Conference or Round table at Fossombrone.

25th June 2016 -CAGLI

Key note speech: TDB

indoor seminar: session of presentations

early afternoon: Conclusions

Topics

T1-Smart Landscape

- T1.1. Rural Tourism an opportunity to foster local economy
- T1.2. Ecoservices and multifunctionality of rural landscape
- T1.3. Landscape management and maintenance
- T1.4. Rural Urban partnership: increasing competitiveness of rural and urban spaces
- T1.5. Improving the quality of urban and rural spaces involving citizens
- T1.6. New territorial instruments (ITI, CLLD; etc.) to improve attractiveness of rural and urban spaces
- T1.7. Open Spaces and ICTs (geospatial technologies, Drones, Beacons, etc.)
- T1.8. Monitoring of Urban, Rural and intermediate landscapes: the role of Landscape Observatories
- T1.9. Landscape in action: ecomuseum and participative processes

T2-Archaeology and digital documentation

- T2.1. Digitization of archaeological heritage
- T2.2. Remote sensing techniques in the archaeological field
- T2.3. 3D reconstruction
- T2.4. Point cloud analysis
- T2.5. 4D modelling
- T2.6. Predictive and preventive archaeology
- T2.7. GIS and related databases
- T2.8. Virtual archaeology
- T2.9. Web archaeology
- T2.10. Virtual and Augmented Reality applied to the visualization and conservation
- T2.11. Monitoring and conservation of archaeological remains
- T2.12. Archaeology of architecture: methods and interpretations

T3-Smart Industrial Archaeology

- T3.1. Industrial landscape of historical routes and traditional roads
- T3.2. Archaeology of transports and road infrastructures
- T3.3. Industrial heritage and industrial location: the role of land transport
- T3.4. Industrial heritage and Roman consular roads: fractures and continuity in the long a
- T3.5. Contributions of the industrial heritage to the enhancement of the historic and cultural landscape (archaeological, artistic, religious, food, etc.)

T4-Heritage sustainable valorization and cultural districts

- T4.1. Cultural districts
- T4.2. Strategic actions for territorial development
- T4.3. Policies and regulatory framework in archaeological exploitation
- T4.4. Tangible and intangible heritage
- T4.5. Valorisations of ancient routes
- T4.6. Compatible re-use of archaeological sites
- T4.7. GIS tools and applications
- T4.8. Portals and Digital Libraries
- T4.9. Mobile applications
- T4.10. Remote sensing applications for cultural heritage

Publications

The Flaminia En-route seminar will accept only original, unpublished work.

All accepted papers or abstracts will be published in UNISCAPE En-route: I Quaderni, a special di Careggi.

Each accepted paper needs at least one paid registration fee.

The 10 best submitted papers will be published in the Journal **SCIRES-IT** (SCientific RES Technology), e-ISSN 2239-4303 (<http://caspur-ciberpublishing.it/index.php/scires-it>).

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Important dates

29th January 2016 ATRACTS DEADLINE

The “Landscape & archaeology” seminar accepts English or Italian written abstracts. Each abstract will not exceed 500 words. In the abstract will be indicated author's name and institution and general

Send a PDF file (first-author_etal.pdf) via email to en-route@uniscape.eu

22nd April 2016 NOTIFICATION OF ABSTRACT ACCEPTATION and SELECTION POSTER/PAPER

BEST PAPERS SELECTION DURING THE SEMINAR

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