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Softly smart: experiencing place identity

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A recent approach to place development is to construct integrated systems for managing cultural and identity resources so that they can be enjoyed through 'experiential itineraries'. These itineraries are designed on the basis of a survey of existing heritage, with a view to support creative industries or to help develop new ones. Visitor experience of a place can be further enhanced and virtualised using smart technologies. The aim of this paper is to illustrate the studies on experiential itineraries. The studies are rooted in the disciplines of psychology and economy, and, more recently, in disciplines that study places. The author proposes an analysis and design software tool for identification and enhancement of cultural and identity resources. The tool is a dynamic and interactive platform for complex and sensitive management of qualitative data of a place. It is conceived as a single platform with different entry points, both private and public, for local authorities, professionals and citizens. The paper concludes with a brief presentation of case studies carried out in the historical centres of Palestrina and Gaeta in Italy, both characterised by low-impact tourism. The main objective of these studies was to achieve smart experiential knowledge of a place allowing sustainable enjoyment of its resources.

1.   Introduction

The senses are part of our everyday life. Our sensory experience of a place makes us remember it more or less distinctly and with more or less pleasure. Urban studies agree that today the main goal of urban space planning is to alter the experience of that space for those who inhabit it. To illustrate the concept of 'experience' (Kolb, 1984), both theoretical and practical aspects will be examined. The following introduction to the concept of 'placemaking' will help to bring into better focus the specific experiential viewpoint adopted in this paper.

Placemaking can be defined – paraphrasing Cabe's definition of urban design – as 'the art of making places for people. It includes the way places work and matters such as community safety, as well as how they look. It concerns the connections between people and places, movement and urban form, nature and the built fabric' (DETR/CABE, 2000).

The importance of the relationship between places – in the broad sense – and people was first mooted in the early 1960s, when new ways of interpreting the urban environment arose in the USA and England. The key figures in these studies are Kevin Lynch (1960) and Gordon Cullen, whose theories, due to their particular attention to the perception and design of place and its identity, can be regarded as the origin of placemaking.

Lynch (1960) and Cullen's ways of interpreting the city have been implemented over the years. Nowadays, changes in the contemporary city are extremely fast. The urban image outlined by Gordon Cullen is no longer a typical example of the urban landscape. The rapid consumption of culture, chiefly for purposes of economic gain, is affecting many historic places, in the sense that their place identity is lost or is becoming increasingly hybrid and compromised.

One of the consequences is the creation of places that are not authentic and where the locals feel less and less at home. The typical visitor is commonly attracted by places where it is possible to take in as many attractions as possible with the least waste of energy and time. This has led to increasingly aggressive place marketing. Place identity (Sepe, 2013a), understood as a fundamental component of cultural heritage, is now increasingly at risk due to a contemporary trend towards place homologation, which makes all cities and towns look more and more alike. To take full account of the new urban trends, 'the art of making places for people' has updated its theory and added representational tools to improve its capability of illustrating increasingly complex urban scenarios and help visitors to experience them more profoundly. Over the last decades, computer science and the new technologies have become increasingly useful in place studies.

The aim of this paper is to illustrate studies on experiential itineraries. These studies are rooted in the disciplines of psychology and economy, and in place studies. Here, Div@ter – financed by Regional Operational Programme – European

231

Regional Development Fund (POR FESR) Lazio Region 2007/2013 Axis 1, Activity 1·1. – is proposed as an analysis and design tool for the identification and enhancement of cultural and identity resources. The tool is a dynamic and interactive platform for complex and sensitive management of the qualitative data of a place. Two case studies – the historical centre of Palestrina and the medieval centre of Gaeta in the Lazio region – aimed at smart and sustainable enhancement of local identity resources are briefly illustrated. In these studies, the new technologies are used as a dynamic tool capable of bringing to a visitor a 'soft' but in-depth understanding of a place, where perceptions, place identity and intangible features are the main objectives of the proposed itineraries.

2. Experiencing cultural and identity resources

Studies on experiential itineraries are rooted in the disciplines of psychology and economy, from which the current disciplines studying the landscape evolved. David Kolb (1984), one of the greatest experts of experiential learning in the field of psychology, defines learning as 'continuing education of the individual'. Learning benefits from various connections established between education, work and personal development. The individual thus acquires a 'system of skills through experiential methodologies, which lead to the development of educational goals adhering to the real world of work'. Experiential learning is a mode of learning based on experience, understood in its cognitive and sensory senses. By experimenting with situations, tasks and roles, subjects become active protagonists in organising their resources and expertise to pursue their goals. In the field of economic studies, 'experiential' acquires a more extensive meaning, more akin to the concept of 'landscape'. Three periods can be distinguished, from the 1980s onwards, in which distinctive patterns of consumer behaviour in terms of experience evolved.

The term 'experiential' was introduced in 1982 'as an approach that focuses on the symbolic, aesthetic and hedonistic nature of consumption, and which is based on the conception of the experience of consumption as an activity aimed at searching for amusements and sensations' (Kolb, 1984; Kolb et al., 1971). It was later shown that both rational and emotional components can coexist and influence the degree of satisfaction, inducing an experiential vision in the consumer. Recognition of the importance of variables, such as pleasurable emotions or the need to actually use a given product, as well as the act of purchasing in itself, became important components of product design. As Capitello et al. (2012) note, new concepts were introduced, such as 'shopping experience' (Falk and Campbell, 1997), 'Internet shopping experience' (Menon and Kahn, 2002) and 'customer experience aimed at creating competitive value'.

In the 2000s, new studies on customer experience have proposed a holistic experience bringing together customer demand and a company's offer to achieve optimal experience in gaining knowledge and in buying a product. While this approach can grant a company a significant competitive advantage, it requires an especially accurate study of the company's offer in terms of experience. It also requires the company to be able to differentiate its offer to meet different needs; this leads to customisation and an increase in time and costs compared with traditional offer designs. Decisive factors in this regard are, besides the quality and reputation of the product being offered, the attractiveness of the place being marketed and the functionality of its services, as well as intangible values such as tradition and hospitality of the population (Kolb, 1984).

Place experience thus becomes an integral part of the product experience. The enhancement of products (Rieunier, 2002) takes on a meaning that goes beyond the mere sale of material goods. It extends to the supplying of complex experiences enriched by intangible elements capable of stimulating the sensory and experiential components of consumption. Place experience has to do with attracting people to the places where local products are made by including these products in a more generalised offer involving the entire target area. The overall supply does not consist of just a single product; rather, it consists of a system where one or more companies, local institutions or entertainment facilities promote a new image of the area. Demand thus becomes demand for experiences, which, in its turn, requires appropriate hosting structures.

Setting up a local system to support experiential activities requires the definition of an appropriate networking approach. A study by Splendiani et al. (2013), while it actually deals with the promotion of local products, outlines a logic that can also be extended to other kinds of cultural 'products'.

As Montella (2009) explains 'In the case of local systems for the promotion of local products, the most appropriate organisational models display a "variable geometry" reflecting different thresholds of efficiency and effectiveness characterising different kinds of processes within the network'.

Two methods of network construction can be distinguished. One is characterised by a bottom-up organisational logic consisting of the convergence of different actors towards a shared project. In the second method, which is mainly top-down, a governing body manages the aggregation of the different actors and planned activities, and is expected to last over time (Golinelli, 2002).

The resulting supply system makes the user no longer a passive subject of a standardised economy, but an active subject, involved in the production and consumption processes, and

capable of creating value. The concept of value is also extended to local stakeholders, who contribute to the construction of the network. Value is thus 'created jointly by the parties involved (…) transcending the boundaries between functions and specialised disciplines and taking a holistic view which, at the district level, implies setting up a marketing network where there are no buyers and sellers, but partners who exchange resources to jointly carry out interdependent activities aimed at the preparation of experiences' (Splendiani *et al.*, 2013). The 'exhibition' of experience has an operative potential in support of the development of creative forces. This approach originates in the studies of the economist Florida, but has evolved to encompass the impact that the creative approach has on the landscape (Carta, 2007; Degen and Rose, 2012; Florida, 2005; Landry, 2008; Sepe, 2009, 2013b).

The aim of the detailed organisation of experiential itineraries is to raise awareness among the inhabitants of a given place, and innovatively promote an area through its products and cultural values. One of the first examples of experiential itineraries are 'typical itineraries', which are aimed at the promotion of local products with an emphasis on the experiential dimension and the resources offered by the area these local products are an expression of. The purpose of typical itineraries is to present a product and thereby reap social and symbolic benefits. An interesting example in this regard is the Wine Routes instituted by Government Act 268/1999 – Discipline of Wine Routes (Nocifora *et al.*, 2011).

Itineraries centred on the experience of typical products are an example of negotiation between the various forms of exploitation of the resources of an area. They are also an important opportunity for the development of disadvantaged and marginalised areas, as they can catalyse the interest of institutions, producers and inhabitants in joint projects. The actors involved, motivated by the idea of offering what they have to a broader range of users, strive to build a network of relationships with manufacturers and other entities participating in initiatives to promote an area. The success of this strategy depends on individual producers' willingness and ability to coordinate. Their synergy can be a real added value and open up experiential vistas (Splendiani *et al.*, 2013). Ongoing initiatives throughout Italy, including some in Trentino, are a prime example of this approach, demonstrating how these routes are capable of raising interest. Websites about wine trails provide detailed information about the different ways to get to know an area and its products, enabling the user to make decisions regarding various types of experience offered to him or her. In the area studied in the following pages, there is a Vesuvius Wine Route (http://www.stradadelvinovesuvio.com/) aimed at the promotion of wine and other typical products in the area of the Park of Vesuvius, together with the area's natural resources and landscapes.

3. Planning identity smartly

Nowadays, new tools are being used to enhance our knowledge of places. The introduction of new technologies has helped researchers to study local areas in a more in-depth way. The emergence of the Internet as a medium of communication in Europe in the last 20 odd years has not only produced geographical dematerialisation and cancelled physical distance, but also opened up spaces and their users to new meanings and uses (Castells, 1989). In a time of economic crisis, the web's ability to cut costs and speed up communication has increasingly established it as not just a tool but a method for achieving new interpretations of places and new forms of socialisation (Sepe, 2013a, 2013b, 2015).

The spread of the Internet has changed forms of citizen participation. Community hubs, network thinking and social networks are only some of the current modes of relation among web communities. High-technology infrastructures are used in a new culture of exchange, creating new possibilities of interaction within communities. The tension that may result can have outcomes that are difficult to foresee, introducing unexpected phenomena of localism and contextualisation. Thanks to the innovative contribution of these infrastructures, place usage is being reorganised, creating contexts where social exchange comes to replace more traditional forms. Such processes are not easy to identify because the visible evidence does not always correspond to the transformations in progress.

Such cyber communities have the common goal of supporting specialised social groups that are often geographically distant (Graham and Marvin, 2001). The success of these cyber groups is due in the first place to the fact that the networks support 'imaginary communities' (Anderson, 1991), unhampered by the barriers imposed by the physical urban space. In this perspective, the Internet is the medium that has allowed social networks to develop and led some scholars to speculate about a global society based on networks (Frederick, 1993). One of the uses of new technologies and the web is augmented reality, which uses physical and virtual tools to enrich 'human sensorial perception by means of information, generally manipulated and conveyed electronically, which would not be perceptible using the five senses' (Di Bari and Magrassi, 2005). There are indeed many combinations of the physical and the virtual that can be implemented for a whole range of different purposes. It is these combinations that spawn 'smart cities' (Campbell, 2012). In a 'smart city', the whole range of technology is placed at the service of the city to improve the quality of life and ensure its sustainability. In this case, forms of hybridisation vary widely in terms of both significance and application, so that the issues are sometimes hard to define.

Both tangible and intangible assets can contribute to the attractiveness of a city, generating a vision of experiential itineraries

233

and parts of the city. Experiential routes exemplify the smart use of Information and Communication Technology (ICT) as a tool to support local knowledge through interactive and multimedia devices. An interesting example of this is an 'itinerary project' set up in Pisa (PIUSS, http://www.pisa2015.org), aimed at promoting tourism through pedestrian itineraries of cultural interest along which multimedia kiosks with Wi-Fi access are deployed, providing tourists the cultural information through mobile apps. Here, the author has a system for the use of cultural heritage whereby the values and symbols of an area are promoted in a sustainable manner (Peano and Voghera, 2011).

4. Tool platform

The tool's dynamic and interactive platform collects and manages the identity resources of a place. This open source platform can import tangible and intangible spatial data from different sources, integrating them with information provided by the users. It can also calculate indicators and represent the information in interactive and immediately understandable maps (Sepe, 2014). Furthermore, Div@ter is a geographical business intelligence tool for redesigning places. It is conceived as a single platform with different entry points, both private and public – for local authorities, professionals and citizens.

The tool collects the main data using the PlaceMaker method, already experimented in many contexts, integrating them with the structured data and allowing the development of new services based on them (Sepe, 2013c). The method is an urban analysis and planning method. Its aim is to identify elements that are not recognisable in traditional maps and which constitute the contemporary identity of places, and to help plan suitable actions for the protection and sustainable development of these places. By employing a protocol that is at once rigid – being organised into steps, objects and products – and flexible, it is possible to adapt it to different kinds of places and different purposes. The method assembles, processes and reconstructs data from surveys based on physical reconnaissance, sensorial perceptions, graphical elaboration, and photographic and video records, and interfaces these data with an overview of expectations, an analysis based on traditional cartography, and two questionnaires administered to local inhabitants. It comprises eight steps, five of analysis and three of design. The final product of the method consists of two complex maps including dynamic information summoned from the database. One is an analytical map, the other a design map. Their purpose is to represent place identity and plan actions to establish a dialogue with local people and complement traditional urban planning tools as a means of making decisions taking into account the intangible aspects of a place.

The information collected by the surveyor and imported and systematised by the platform in the course of several surveys, questionnaires and analyses is summarised in multimedia maps

in the form of symbols. In the tool, places and elements identified with the method are represented by inserting symbols and elements in maps connected to multimedia information sheets that can be continuously updated. In the first step, devoted to anticipatory analysis, it is possible to input digitalised text or sketches into the system (Figures 1–4).

After analysing expectations, a text, image or sketch is chosen as a symbol of a given spot. If the database does not contain a suitable symbol, a new one can be created. These data are necessary to construct a multimedia database (containing information such as images, text etc.) linked to the symbols. In the second phase, once the five surveys have been carried out, in addition to the place-name database, sketches in digital format, images and video are inputted into the method software. A second partial map with symbols and the related multimedia information sheet is constructed from the data obtained in the second phase.

In the third phase, different types of maps used for traditional urban analysis are imported into the software. The product of this phase is a map identifying the components required for site description that can be found only through traditional plan interpretation. The symbols on this map will not be associated with a multimedia information sheet but with those of two traditional maps.

In the fourth phase, the information obtained from the questionnaire is transferred onto the fourth partial map. The information sheets for the symbols mainly comprise images and written text.

In the fifth phase, the collected information is assembled. The recorded data provide the basis for the construction of the graphical system of symbols and the related multimedia information sheet. By overlaying the maps obtained in the previous phases with the software, a final complex map is produced, with symbols and the related multimedia general information sheets.

In the sixth phase, identity resources are detected. The software draws up an analytical map by selecting elements identifying the potentialities, critical issues and quality of identity resources. It thus constructs three superimposable maps and identifies the possible sites for planning actions. The connection to the multimedia information sheet is provided by one or more symbols.

In the questionnaire phase, the seventh phase, the software functions are the same as that for the questionnaire in the analysis phase. In this phase, information will be imported by the software to construct the map and the multimedia information sheet listing the interview questions and answers. The software will also highlight the relationship between the answers given, the nationality and age of the interviewee, and the location where the interview was administered.
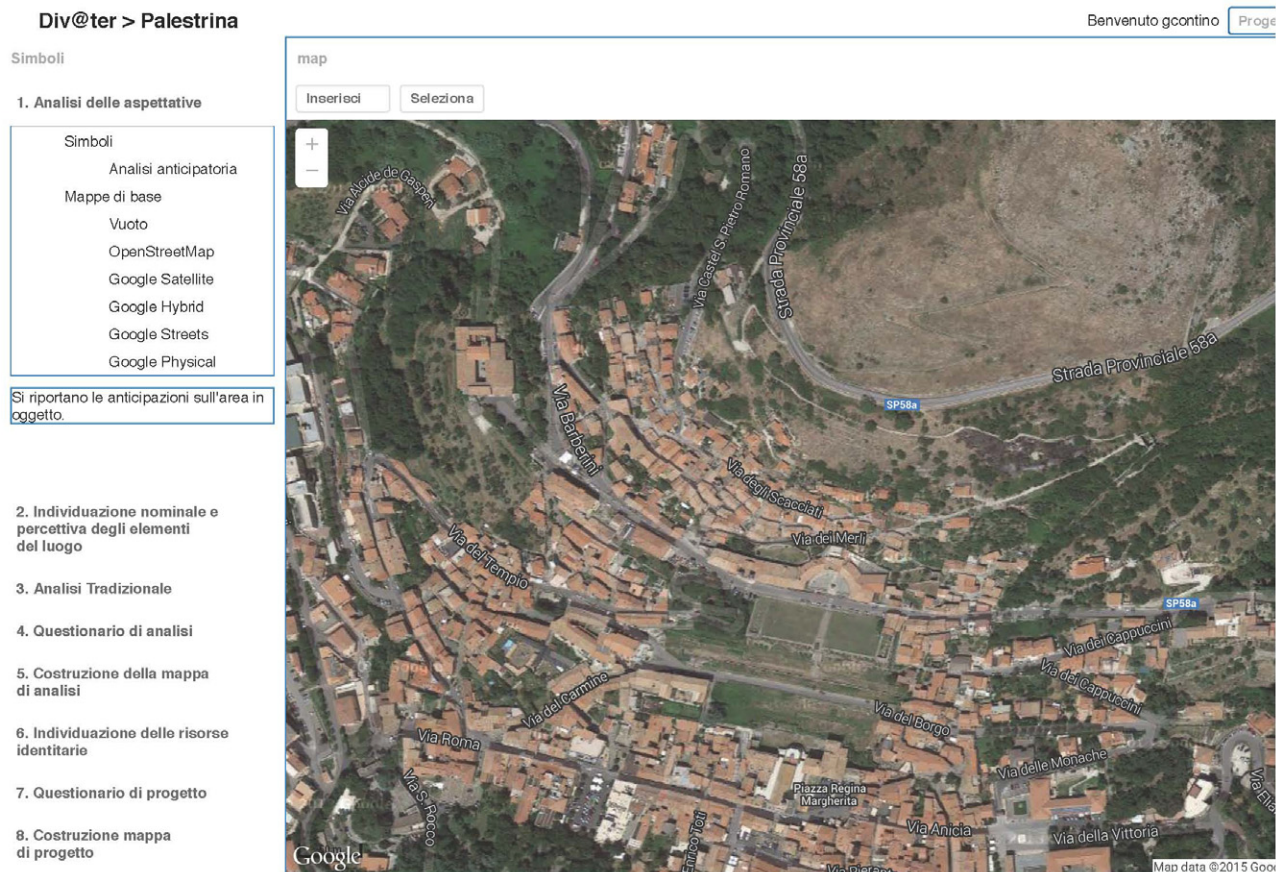
Figure 1. Palestrina, Div@ter platform. Google Maps.
Map data © 2015.

In the eighth and last phase, the software processes the results obtained in the analysis and design phases to construct the complex project map. The information sheets connected to the symbols include both the project data and the analysis phases. For both complex maps, the software can update the results with new data.

The tool platform has been tested in many places in Europe, the USA, China and Japan, with different objectives (2014). The following case studies were carried out in the framework of the tool – dynamic and interactive platform for complex and sensitive management of the qualitative data of a place – project financed by POR FESR, Lazio Region, 2007/2013 Axis 1, Activity 1·1.

5. Experiment: the demand for culture and innovation

The areas in Palestrina and Gaeta illustrated below are both situated in the historical town centre. These two cases were chosen because they are both characterised, for different reasons, by a state of slow decline of some parts of the study area and low-impact tourism, and in both cases innovative enhancement of identity resources provides a sustainable solution.

Today, cultural tourism in the Italian region of Lazio is mainly concentrated in some especially attractive localities, ignoring cultural sites that are equally interesting, but less well known or not sufficiently promoted. The need for promotion, management and sustainable use of the cultural heritage of the Lazio region calls for innovation, on the one hand, and, on the other, preservation and promotion of new activities for different types of actors.

The crucial points highlighted by the tool research project were the need to create new areas of cultural attraction in the Lazio region – as provided for in recent regional planning documents – to decongest the best-known and most popular cultural sites; the importance of mitigating wear of the most

235

Figure 2. Palestrina, Div@ter platform. Google Maps.
Map data © 2015.

attractive cultural sites; the importance of developing adequate knowledge for sustainable use of the region's cultural heritage as a whole; the need to find innovative ways to protect and enhance place identity, intended as a key factor for sustainable competitiveness; and the creation of an innovative methodological and dynamic platform for the management of complex and sensitive urban data. The type of data collected so far in some cases is very partial and hence not an adequate representation of the current state of the areas they refer to; in other cases, the data are overly complicated, making the data managing process excessively lengthy. The information available for individual sites is often abundant, but usually not controlled and unfiltered, and thus not suitable for smart superimposition and cross-referencing. Furthermore, it is underused for city design and planning, for the promotion of tourism, crafts, cultural heritage services for public administration and so on, or for training and teaching in schools and universities. Finally, there is often an insufficient dialogue between the purveyors of this information and professionals and administrators, as well as residents, municipalities, users of places and tourists, and

this detracts from the quality of projects and the liveability of places.

To illustrate the two case studies, the last phase – the eighth phase – of the tool protocol for both case studies is shown. This phase consists in the identification of actions for the enhancement of the identity resources detected in the previous phases and the construction – for specific case studies – of smart experiential itineraries.

6. Palestrina and Gaeta case studies

Palestrina is a city dating from the eighth century BC, with an urban plan of the medieval type. Its main attractions are an archaeological museum where artefacts are displayed both inside the museum building and outside it, where the remains of the temple are preserved. Due to their character and location, the ruins of this temple put a strong stamp on the urban image of the place.
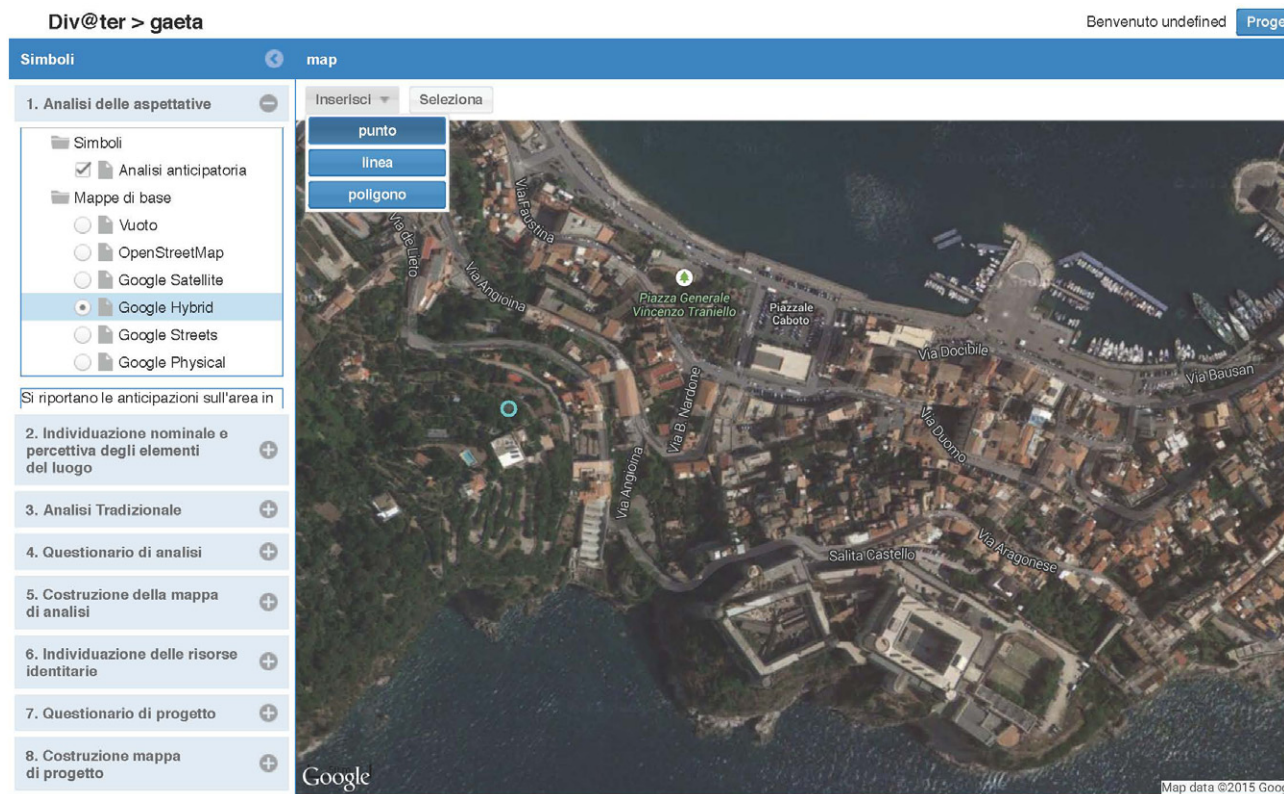
Figure 3. Gaeta, Div@ter platform. Google Maps.
Map data © 2015.

In spite of Palestrina's highly interesting historical and archaeological heritage, visitor stays are short and mainly limited to the museum, overlooking some equally compelling sights.

The objective of this case study is to detect the tangible and intangible resources of the historic centre of Palestrina and plan one or more thematic routes capable of drawing visitors into a deep experience of the place. The support of a dynamic and interactive platform offers the possibility of planning customised routes, even ahead of time (Figure 5).

The actions outlined here are aimed at enhancing and promoting Palestrina's identity-related resources in an integrated and sustainable way, and at addressing the criticalities observed. Among the actions proposed here, the first two consist of the creation of thematic itineraries.

The first action consists in creating a cultural and landscape itinerary. Palestrina's nature and architecture on Via degli Scacciati are mainly experienced by the locals, who use the streets and steps to enter and exit their homes, or cultivate

the plots alongside it. Renovating the panoramic streets and the architectures and stairs with benches, adequate paving and scenic viewpoints would make it attractive for visitors and tourists as well as locals. The itinerary should include archaeological museums and all the historical monuments of Palestrina.

The second action consists in creating a religious itinerary. On many streets of Palestrina there are churches or other suitable places for meditation, which convey a sense of quiet and peace in various ways. Scenic views, the scents of nature, the taste of the plants, the song of the birds and the tactile perception of nature, if organised into a single itinerary, can create a rich sensorial experience. Such an itinerary should also provide information concerning the religious history of churches and Palestrina.

The third action consists in enhancing public spaces and monuments. This action does not concern the monuments themselves as much as the places where they stand. The specific steps to be taken are: fully exploiting all accesses to town; promoting public spaces with important monuments;
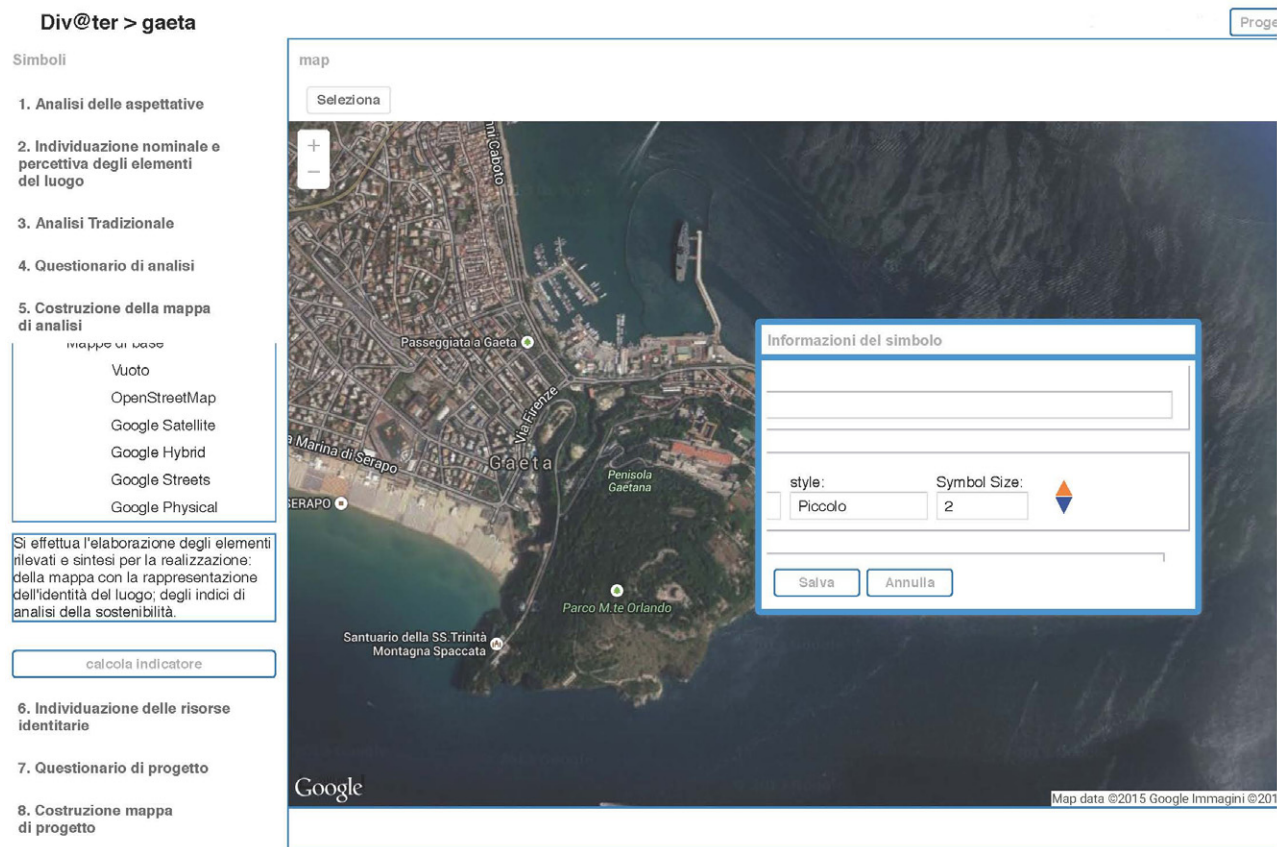
237

Figure 4. Gaeta, Div@ter platform. Google Maps.
Map data © 2015.

programming building maintenance; creating new public spaces for the socialisation of locals and visitors; and improving the mobility and parking system (Figure 6).

The fourth action consists in differentiating activities. Creating new activities, besides the currently present handicraft shops, to promote available natural and cultural resources would encourage the presence of tourists and, hence, of the locals at different times of the year. These activities could include a flower-arranging festival and a street theatre festival, which should maintain a close connection with the various places of Palestrina and its countryside.

Finally, the fifth action is the creation of information points. To improve access to cultural and identity-related resources, both information points and adequate signage are needed. Information points should be planned to provide information about the new itineraries, events and workshops, and typical products. They should be designed to harmonise with the history and architecture of the place. Each information

point should be equipped with multimedia devices to visualise and navigate the tool multimedia maps of identity-related resources, and of itineraries and activities.

As to Gaeta, this is a city also dating from the eighth century BCE, and an established tourist attraction. The medieval town centre, however, in spite of its outstanding historical and cultural heritage, is plagued by a generalised state of barely sufficient maintenance of buildings and routes. Outside holiday periods, the area looks abandoned. The objective of this case study is to identify existing resources and the cultural identity of the medieval centre, and plan an enjoyable itinerary for visitors (Figure 7).

The first action proposed is creating an itinerary of 'stairs', making the most of Gaeta's hilly morphology and peculiar architectural features. This itinerary should go from Via dell'Annunziata all the way to the castles. Along various kinds of stairs, visitors will discover the different ages and ancient roots of Gaeta.

(a)

(b)

Figure 5. (a) Palestrina, Corso Pierluigi, the main street of the historic centre. (b) Palestrina, view by the stairs of Via Marucchi

Renovating the panoramic streets and the architectures and stairs with benches, adequate paving and scenic viewpoints would make the route attractive for the locals, as well as for visitors and tourists.

The second action is creating a happy Gaeta itinerary. The scents of nature, if organised into a single itinerary, can make for a rich sensorial experience. Such an itinerary should also provide information about the local products of Gaeta and its producers.

The third action consists in promoting monuments of historical interest. This action concerns both the monuments themselves and the places where they stand. The specific steps to be taken are: programming maintenance of monuments; promoting public spaces – including streets and stairs – with important monuments; creating new public spaces for socialisation

of locals and visitors; and improving the mobility and parking system.

The fourth action consists in differentiating activities. Creating new activities in the medieval centre, including the castles, would favour the presence of visitors and, hence, of inhabitants at different times of the year. All these activities should maintain a close connection with various places of Gaeta.

Finally, the fifth action is the creation of information points. As for Palestrina, both information points and adequate signage are needed. Information points should be planned to provide information about the new itineraries, events and typical products. They should be designed to harmonise with the history and architecture of the place. Each information point should be equipped with multimedia devices to visualise and navigate multimedia mapping tools (Figure 8).

7. Discussion

New technologies are used here as a dynamic tool offering visitors a 'soft' but in-depth knowledge of a place, where perceptions, place identity and intangible characteristics of the sites are the main objects of visitor routes. From a technological point of view, the main characteristics of the dynamic platform are flexibility, ease and rapidity of use, and graphical impact.

Its flexibility allows it to store, manage, modify and update in a specific format the multimedia data required to create multimedia information sheets, connected to the symbols placed on the maps. As to ease and rapidity of use, with simple and quick operations, maps are generated based on official traditional cartography or other kinds of maps.

The software database allows creation and modification of the PlaceMaker method symbols used in the map. The symbols may also contain links to other symbols, maps or Internet addresses. The partial maps and symbols created for the final complex maps can be overlaid and connected.

The final product is characterised by a strong graphical impact. The symbols used in complex maps can be translated by the method into numerical indices in order to calculate the useful parameters for the study of the sustainability of the places in question, such as liveability, well-being, chaos and so on. The map can be adapted to local changes by updating the multimedia database and symbols.

People participation is another important factor, as this study has stressed. Questionnaires, both in the field and online, are a good test of citizen and tourist appreciation of the new experiential itineraries.
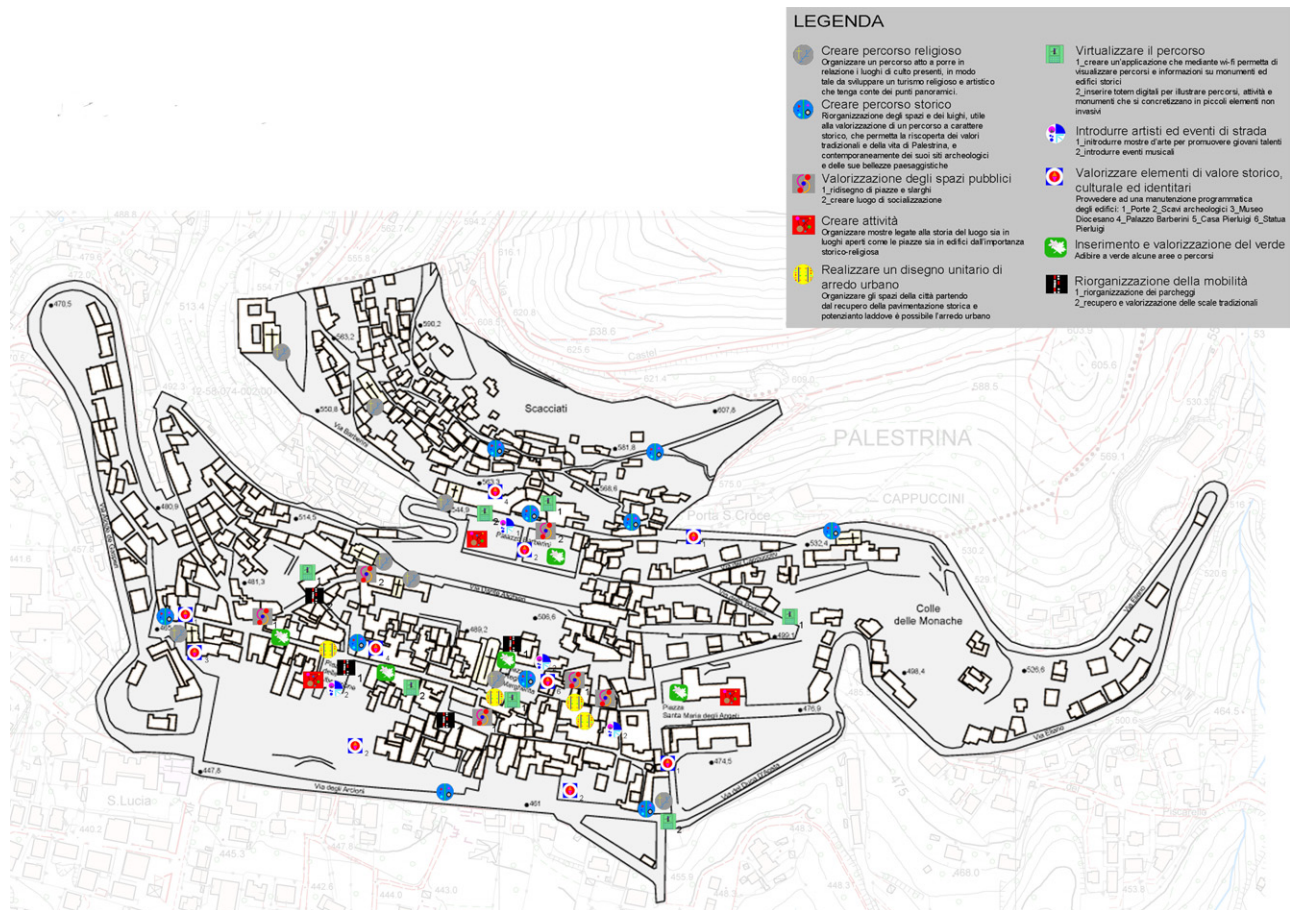
Figure 6. Palestrina, the design project

All these aspects are important stepping stones in the construction of an innovative approach to the experience of places. Both case studies emphasise sustainability understood in its threefold sense, as not depleting cultural resources, not depleting the environment, and – in future steps – involving the local population and businesses in the decision-making processes.

8. Conclusion

The concept of experiential itinerary and its definition are illustrated. This concept has its origins in studies by psychologists, subsequently fleshed out with ideas borrowed from economics and more recent urban planning approaches. The starting point is the perceptual studies of Kevin Lynch (1960), which have recently found application in the field of urban design. Some examples of the use of experience in planning the development of an area are also given.

Today, new approaches to mapping the city have arisen, with the main purpose of identifying urban dynamicity by using direct observation supported by ad hoc electronic devices. These approaches construct experience by creating bottom-up and top-down networks. In bottom-up networks, businesses, stakeholders and institutions work together to allow different actors to participate in all stages of the process. Top-down networks, instead, are created to serve the interests of economic actors. In both cases, the success of the operation depends on its sustainability, understood as taking care not to deplete cultural resources and the environment, and involving in decision making the local population and companies producing local products.

These factors are of specific interest for the object of the study of the two historical centres: Palestrina and Gaeta in the Lazio region. Technological tools may increase these the potential of these places for innovation and regional competitiveness, for both locals and visitors, and may help to avoid oversimplification of information or marketing. A smart approach to place-making and the new Div@ter multimedia tool currently being developed are illustrated here.

(a)

(b)

Figure 7. (a) Gaeta, Piazza Traniello, one of the main squares of the historical centre. (b) Gaeta, view of stairs

The tool is a dynamic and interactive platform aimed at improving knowledge of the tangible and intangible resources of a place – which are often neglected by town smart services – to improve the quality of life of citizens and visitors and support local participation and planning. The tool platform imports data using a protocol that is at once rigid and flexible, and supports a method capable not only of recognising and representing the identity of places, but also of developing criteria for their sustainable planning. Herein lies the innovativeness of the method.

It allows a complex understanding of places, a higher degree of awareness both in making operative place-designing decisions at different scales and in creating new needs and fostering new business initiatives. The tool has used the PlaceMaker method protocol to highlight elements that are not recognisable in traditional maps and constitute the contemporary identity of places, and identify suitable actions for the protection and sustainable development of these places.

The method incorporates several different modes of utilisation addressed to different kinds of users, including administrators, sector professionals, citizens and tourists. The platform allows updating of the data and, hence, of the thematic maps, an indispensable feature considering the current speed of the evolution of places. The detection of tangible and intangible resources of the historic centres of Palestrina and Gaeta results in the identification of thematic itineraries aimed at offering visitors a profound experience.

The new visitor routes are aimed at improving knowledge of Palestrina and Gaeta from a different point of view, encouraging enjoyment of these places starting from their best- and less-known contemporary identity resources, not only related to their archaeological sites but also in particular to their cultural and local roots. The network of public spaces with their different identities provides a suitable cultural connection between the different attractions and experiential itineraries based on the promotion of local products.

The idea is to induce people to go on smart and perceptive visits to experience the less well-known local features. The itineraries should be equipped with sensors and information points which should inform about the local history and culture, immersing people in the atmosphere of the place in an innovative way. The support of the dynamic and interactive platform allows visitors to plan customised itineraries before the visit, allowing better and innovative knowledge of the place.

These experiential itineraries should also encourage more frequent use by locals and help them to identify with the ancient history of their area. This should stimulate the locals to participate more actively in the place's life, and avert threats of globalisation or of the locals' gradual desertion of places, leaving them only to the tourists.

9. Subsequent steps

Questionnaires of analysis and design both onsite and online constitute a good test of citizen and tourist appreciation of the new itineraries.

In both the case studies presented above, a memorandum of understanding – formal in the case of Gaeta, preliminary in
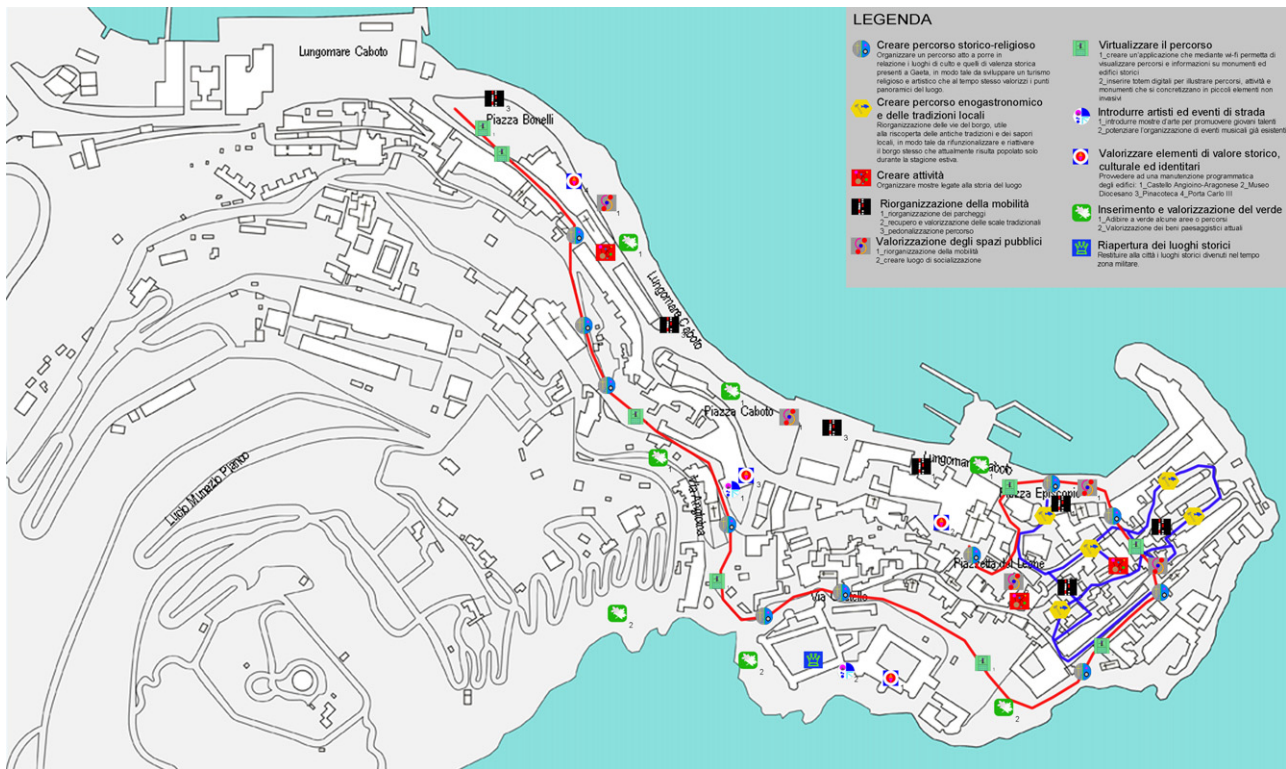
Figure 8. Gaeta, the design project

the case of Palestrina – has been signed with the local administrations for the application of the tool protocol.

The collaboration of research, operative subjects – in this case, the computer companies involved in the project – and local administrations is essential for the success of the project. However, these different subjects do not always share the same objectives and may work at different speeds. Furthermore, in public administration people and interests often change, sometimes at relatively short notice.

At this stage of the research project, people who were interviewed about their interest in the actions proposed mostly expressed a positive judgment. It is still not possible to foresee if the authors' research will actually be put into practice by implementing these itineraries. This will depend on in-depth analysis, accurate design, innovation, an agreement between the parts involved and on people participation.

Finally, it is crucial for a correct implementation of this research project that technology serves the purpose of increasing the potential for innovation and regional competitiveness of Palestrina and Gaeta and not of simplifying information or carrying out marketing operations.

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