INNOVATION AS A TOOL FOR LOCAL DEVELOPMENT. INTRODUCING NEW TECHNOLOGIES FOR THE INTERPRETATION OF CULTURAL HERITAGE: THE CASE OF THE RI-SE PROGRAM IN STEREIA ELLADA.

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ABSTRACT

The introduction and pilot application of innovative methods in the field of cultural heritage presentation and interpretation can have a significant effect on local development by boosting tourism and the related economic activities, increasing familiarity with new technologies and creating a sense of local pride. This paper aims to examine the role of cultural innovation in local and regional development, mainly through the promotion of cultural tourism with the involvement of local community.

The paper focuses on the presentation of a case study that illustrates the potential of local communities to utilize lesser known heritage monuments and sites in their vicinity in order to create tourist attractions. The case study presented is that of the RI-SE Innovative Actions Program that was implemented in the Greek Region of Sterea Ellada from 2003 to 2004, aiming to introduce and incorporate innovation in the region’s economic and cultural activities through the provision of new services and the utilization of high technology. Within the framework of this program, five pilot Multimedia Centres for Heritage Interpretation were established in the municipalities of Orchomenos, Lamia, Gravia, Karystos and Fragista, in close collaboration with the respective local authorities.

One of the above Municipalities that participated in the program, Gravia, is presented in even greater detail and further analysed as a success story that emerged from the RI-SE program. Finally, a first appraisal of the program’s results is attempted and some key issues are discussed which must be taken into account in the design and implementation of similar projects by other municipalities.

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1. INTRODUCTION

Cultural heritage in Greece has always been a major pole of attraction for visitors to the country and consequently among the basic contributors to the formation of the touristic flow. The hundreds, or rather thousands of archaeological and historical monuments and sites are distributed in every region of the country. A small percentage of them comprise the world famous and highly significant sites, such as the Acropolis of Athens, Delphi, Olympia, Mycenae, Knossos and several others, which are the focus of mass tourism. A second category, slightly larger than the first, are those sites that form part of more specialized touristic or educational programs. However, the majority of Greece's monuments and sites are either lesser known or even totally unknown to the broader public, although they have their own place in the long process of historic development and comprise an important constituent of the cultural identity of a region or community. Such often modest in appearance places include small archaeological sites, historic places like battlefields, medieval fortresses, small churches and abandoned monasteries, structures of vernacular architecture etc., often in bad state of preservation and therefore off the beaten path of established tourism (Konsola 1993).

It is precisely these overlooked sites that are of interest for this paper which intends to show how they can become a positive instrument for local development. Namely, these less spectacular heritage sites in peripheral areas, if they are properly conserved, restored, interpreted and promoted and in general managed successfully can prove extremely useful in providing a truer understanding of local history and identity as well as socio-economic advantages for local communities by attracting visitors and thus stimulate local economies either through direct or indirect effects or even through more general spin-offs (see, among others: Pearce 1990, Greffe and Pfieger 2005, Tsartas 2005). These sites can arouse the interest of more sophisticated travelers seeking authenticity and excitement in discovering the original sense of an unknown place which offers a strong alternative to the products and experiences available in places of mass tourism (Liu 2005).

Local communities in order to take advantage of the presence of these small sites located in their vicinity can play a decisive role in developing and implementing a cultural tourism project. They cannot of course intervene in the stages of conservation and restoration as these are often the responsibility of the central government (especially the Ministry of Culture) which in most cases is interested only
in the first stage, that of conservation. This emphasis on conservation results in a tendency to remove heritage sites from the experience of the host community, which is thus deprived of the opportunity to recognize and appreciate their value and to establish a sense of local “ownership” and affiliation (Grimwade and Carter 2000). However, the crucial element of interpretation and presentation to visitors, both local residents and tourists, can be undertaken at local level by municipal councils, voluntary associations etc., certainly under the professional guidance of experts and within the framework of internationally recognized and appropriately applied standards (ICOMOS 1999). The interpretation of cultural heritage is a complex and sometimes controversial procedure, since its purpose is to give meaning to archaeological and historic monuments and sites and to convey this meaning to the wider public (Uzzel 1989, Howard, 2003). To this end, many different means can be used. Besides the traditional means, such as publication of pamphlets, guidebooks, maps etc., which constitute the main sources of information (Prentice 1993), today modern technologies are often used (e.g. multimedia presentations that combine pictures, videos, narration, music and text, virtual reality setups, interactive installations, individual guiding systems etc.) as site interpretative media. High-technology solutions are ideal means of interpretation since they allow for a high degree of versatility and interactivity, thus making interpretation a two-way, open-ended and ongoing process (Jones-Garmil 1997, Economou 2006).

In the following chapters will be presented a case study illustrating the use of a few of the above new technologies for the presentation and interpretation of less known heritage sites in rather isolated places of the Region of Sterea Ellada with the active participation of local agents.

2. OVERVIEW OF THE RI-SE PROJECT

The RI-SE (Regional Innovation Sterea Ellada) program, part of the European program “Innovation Actions”, aimed to introduce and incorporate innovation in the region’s economic and cultural activities through the provision of new services and the utilization of high technology. Its application was undertaken by the Regional Development Institute of the Panteion University, Athens, on behalf of the General Secretariat of the Region of Sterea Ellada (Central Greece). It was carried out from 2003 to 2004, receiving funding from the European Regional Development Fund and the Greek Ministry of Economy and Finance.

The program comprised four actions, each of them targetting different sectors of the Region’s economy (environment, small businesses, multimedia centers, cultural tourism). Action 4 of the RI-SE program focused on two objectives:
a. the promotion of the Region’s rich and diverse cultural heritage, utilizing the communication potential of multimedia and b. the development of cultural tourism with the involvement of local communities. The scientific supervisor of this Action was Professor Dora Konsola of Panteion University.

Within the framework of this action, five pilot Centres for Heritage Interpretation were created in the municipalities of Orchomenos, Lamia, Gravia, Karystos and Fragista. Different multimedia solutions were employed in each of the Centres in order to interpret a wide variety of monuments, ranging from a prehistoric tomb to the site of a 19th century battle of the Greek War of Independence.

What follows is a description of these pilot installations, as well as an estimation regarding the project’s impact on local communities and economies.

Map of the Sterea Ellada Region, showing the five municipalities that participated in Action 4 of the RI-SE program.

3. CRITERIA FOR SITE SELECTION

The selection of the monuments to be presented through this project was a painstaking procedure, based on two sets of criteria. The first set referred to the characteristics of the archaeological / historic site to be selected, while the second referred to the municipalities that would host the installations.

The criteria referring to the archaeological / historic sites were the following two, directly or indirectly connected to tourism:
• **Less known to the wide public and not yet developed as a tourist destination.** Since the tourist flow in the Region concentrates mostly on the World Heritage site of Delphi, this project aimed to create new tourist attractions in order to channel the flow to the rest of the Region and to reduce intraregional inequalities.

• **Covering all of the important time periods of the Region’s history.** The field of cultural heritage in Greece is often considered to be limited to sites of the classical period. Therefore, the sites promoted through this project would have to represent a wider variety, including monuments and sites related to historic periods that are less familiar to the wider public (for example, the periods of Ottoman and Latin domination).

The criteria referring to the selection of the municipalities were:

• **The degree of isolation.** One of the main aims of the RI-SE project was to utilize modern technology in order to create new development opportunities for the isolated and disadvantaged areas of the Region. The selection of the municipalities that participated in Action 4 of the program was heavily influenced by this factor, resulting in the selection of four small-sized municipalities, one of which is located at the Region’s most mountainous and isolated Prefecture, Evrytania. The fifth municipality that was selected was Lamia, a large city, the capital of the Region. However, the installation that was established there promotes a network of monuments (the Frankish Castles of the Region) located in areas that fit the criteria described above. The placement of the installation in Lamia served as a showcase for the project and as a starting point for the diffusion of visitors to the rest of the Region.

• **The availability of a suitable venue.** The venues would have to belong to the municipality and to fit a minimum set of specifications that would make them suitable for that particular use.

• **The local authorities’ willingness to cooperate.** This project was to a great extent based on the contribution and cooperation of the local authorities. Their willingness to participate and to cooperate with one another, as well as with the Region of Sterea Ellada and with the Regional Development Institute was essential for the success of the project.

### 4. THE MONUMENTS PRESENTED

The monuments that are presented in the RI-SE Centres for Heritage Interpretation are the following:
• The prehistoric (Mycenaean) vaulted tomb of Orchomenos, known since antiquity as “The Treasury of Minyas” (built in the 14th-13th century BC), in the small town of Orchomenos in Viotia.

• The ancient (around the 3rd-2nd century BC) megalithic building known as a “Dragon house” on top of the mountain Ochi, towering over the town of Karystos in Evia.

• The Frankish Castle of Lamia and the most important Frankish castles in Sterea Ellada (built during the period of Latin rule in Greece, 13th-14th century).

• The traditional stone bridges (17th century) that have been submerged by the artificial lake of Kremasta, near the village of Fragista in Evrytania.

• The Inn of Gravia, site of a well known battle of the Greek War of Independence (1821), in the small town of Gravia in Fokida.

It should be pointed out that in four out of five cases, the heritage interpretation centres were installed in venues located at a short or sometimes longer distance from the monuments themselves, providing visitors with the motivation to visit the actual monuments.

5. THE TECHNOLOGICAL SOLUTIONS EMPLOYED

Due to the variety of the heritage monuments presented, each installation has a different interface. The installation in Lamia dealing with the Frankish Castles for instance, includes a large projection screen, an interactive table-map of the Region and six game pieces representing the castles. Every time a “castle” is placed on its correct location on the map, the corresponding film related to that castle is projected on the screen.

Similar solutions are employed in Fragista, where the monuments referred to are stone bridges that have been submerged by the artificial lake of Kremasta. Here, the floor has been filled with pebbles, representing the bottom of the lake. A few larger pebbles, equipped with sensors, activate the projections. In Karystos the installation presents a building known as the “Dragon House”. Here, the sensors are incorporated in a large bench in the shape of the dragon’s footprint. Visitors can sit on the bench and activate the sensors in order to see the three different films.

In the case of Orchomenos, the degree of interactivity is quite low, but the presentation is still original and very impressive. Two curved projection screens are placed so as to imitate the shape of the Mycenaean tomb’s vault. The graphic reproduction of the tomb is projected on these screens, creating a three-dimensional environment for the viewers that stand in the middle of the room, placing them in a three-dimensional virtual environment. Similarly, in Gravia, the installation is not
interactive. However, the projection screens are placed within the reconstructed building of the historic Inn, where the battle took place. This helps in creating a very evocative atmosphere, especially for the Greek viewers, making the installation in Gravia one of the most successful in the project.

The creative **content** of the installations was also unique, tailored to the specific needs of each one of them. Different techniques were used for the production of the films, from animated cartoons to digitally enhanced video and original historic illustrations. An original musical score was produced for each installation and actors and actresses were employed to record the Greek and English language versions of the films.

### 6. ACTION PLAN

#### 6.1 Planning and Organization

- *Establishment of selection criteria – Initial selection – Visits and consultation with local authorities – Final selection of sites and municipalities.*
- *Strategy Study.*

The first stage involved the selection procedure, which included the establishment of formal selection criteria as well as an extensive consultation procedure with local authorities.

Once the archaeological / historic sites and the municipalities had been selected, the necessary Studies were carried out. The Strategy Study, included the Feasibility Study and the Content Study. The Feasibility Study dealt with planning and implementation issues of the project. The Content Study involved an extensive research of the relevant historic and archaeological literature in order to collect information regarding the selected heritage sites.

#### 6.2 Implementation

- *New Technologies Study.*
- *Development of the creative content (videos, animations, original music and illustrations etc).*
- *Design and development of the installations – Refurbishment of the venues.*
- *Operational Charter and signing of the contracts with the municipalities.*
- *Training seminar for the operators of the installations.*
- *Publicity Study, promotional activities.*
The information gathered was processed in the form of scripts for the films that would be projected in each of the installations. The New Technologies Study then proceeded to identify the technological solutions best suited for the presentation of each of the five scripts, as well as the necessary technological equipment.

Five different installations were designed, comprising the hardware and the interactive devices. The five venues were refurbished with the cooperation of the local authorities and in accordance with the specifications set out in the aforementioned Studies and then the hardware and interactive devices were installed.

During the same time period, a large team of artists, graphic designers, animators, directors, actors and composers were working, under the supervision of the Regional Development Institute project team, on the production of the creative content (films, animations, original music, illustrations). The scripts were also translated into English, so that the films would be produced in two versions. After completion, the resulting material was installed on-site and the final adjustments were made in the hardware and the interactive setup of each installation. The five Heritage Interpretation Centres were operational and ready to welcome the first visitors.

The final stages of implementation involved the drafting of an Operational Charter for the Heritage Interpretation Centres, which was subsequently adapted to the specific needs and requirements of each hosting municipality. A training seminar was organized by the Regional Development Institute for the persons appointed by each municipality to staff the Centres. Finally, the contracts were signed between the Regional Development Institute and the municipalities and the Heritage Interpretation Centres were put in operation.

A Publicity Study was drafted, setting out the necessary promotional activities. These included the design and placement of signage, the design and production of information leaflets in two languages (Greek and English), the briefing of the local, regional and national press and electronic media etc. Furthermore, the leaflets were sent, along with a letter, to all the major hotels and tourist agencies in Sterea Ellada and in Athens. The program was presented in many newspapers with national readership and on the Internet, on the Ministry of Culture webpage for cultural events, **www.cultureguide.gr**. and on the website that was created for this purpose ([http://www.ipa.panteion.gr/rise](http://www.ipa.panteion.gr/rise)).

We have to stress the fact that for the duration of the RI-SE program, the whole process was monitored by a *Steering Committee*, in which participated local and regional agents, i.e. Prefects, Mayors, Chairs of the local Chambers of Commerce and representatives from the Region’s Higher Education Institutions. Additionally, an open Conference was organized in order to obtain wide local consensus.
6.3 Evaluation

The indices by which the performance of the Centres is to be measured were already set out at the beginning of the program and included quantitative indices, such as the number of visitors to the Interpretation Centres, the number of visitors to the relevant archaeological / historic sites, the average duration of visits, the number of new jobs created and the number of travel agencies that have included the Centres in their programs and qualitative indices, such as publicity received on local, regional and national level, tourist satisfaction and the degree of active involvement by the local community (schools, cultural associations etc.).

The task of gathering the related data was undertaken by the five municipalities and is an ongoing process. A municipality that has been very active in this field is the Municipality of Gravia, which has so far provided sufficient data enabling us to judge the progress of the project. For this reason we chose to present this project separately as a “success story”.

7. THE RI-SE INSTALLATION IN GRAVIA

7.1 Background

The Municipality of Gravia is located in the mountainous area of central mainland Greece, in the northern part of the Prefecture of Fokida. Its population in the 2001 census was 3167 people living in eight municipal districts. Gravia is well known to the Greek public due to the famous battle of the Greek War of Independence that took place at the Inn of Gravia on May 8th, 1821.

7.2 The venue

The historic building of the Inn of Gravia does not survive today, except for the traces of its foundations. The Prefecture of Fokida undertook a project in 1999 for the complete reconstruction of the building on an adjacent location, using historic data and traditional building methods in order to ensure the authenticity of the reconstruction.

The reconstruction provided the municipality with an attractive and interesting infrastructure but without any historic interpretation or exhibits to enhance its educational value and its potential as a visitor attraction.

7.3 The RI-SE installation

The municipality decided to make use of the opportunities offered by the RI-SE program in order to promote local tourism by upgrading the visitor services provided at the reconstructed Inn and by giving accessible information to the
visitors. It was decided that the multimedia installation would refer to the historic event of the Battle of Gravia and that it would be established on the ground floor of the reconstructed building. The installation comprised three life-size screens, a projection system and a surround sound system. Nikos Panou, an acknowledged painter specializing in historic dress and weaponry undertook the task of illustrating the narration, which was further enhanced by an original musical score. The final result is an historically accurate and evocative slide show that provides visitors with information regarding the history of the building in an engaging and entertaining way.

7.4 Partners
The contribution of the local community and the local authorities started from the first day of the program and proved to be very valuable for its success. The local cultural association provided information regarding local history and the reconstruction of the building, as well as a very useful insight of its shortcomings and needs. The Mayor of Gravia was also actively involved throughout the implementation process, as were all municipal services (the Municipal Development Agency, the Municipal Technical Agency etc). The local community embraced the project which in turn served to enhance their sense of local pride.

7.5 Results
- **Wide publicity.** The RI-SE installation in Gravia has received enthusiastic publicity from the local, regional and national press and electronic media, including extensive presentations on the national television channels, ET1 and ET3.
- **Increased number of visitors.** According to data provided by the Municipality of Gravia, the installation has so far (February 2005 – April 2006) been visited by 20083 visitors. The highest number of visits was recorded in August 2005 (3307 visitors), August being the traditional vacation month. However, the data shows that the Inn attracts visitors throughout the year. The great majority (96,7%) of these visitors have been Greeks, which is expected due to the nature of the subject. Approximately 32% of all visitors were organized school groups and tourist groups en route to Delphi (see Table 1). Foreign visitors account only for 3,3% of the total number, 60% of which were organized groups. The low percentage of foreign visitors is expected to increase after the addition of more languages and the general upgrading of the venue which is under way by the Municipality (see below, Future Prospects). Compared to an average figure of less than 500 visitors p.a. before the implementation of the RI-SE program, the positive effects to tourist flow are evident.
- **Increased satisfaction of visitors.** Judging from the comments in the visitors’ book that is kept on site, the responses vary from positive to very enthusiastic,
especially by Greek visitors, who are more familiar with the subject and find it easier to relate to the story.

- **Increased number of customers in surrounding restaurants, cafeterias etc.** Although the average length of stay in Gravia is rather short, local shop owners have noticed an increase in the number of customers, especially in the restaurants and cafeterias in the area surrounding the Inn.

- **Future prospects.** Motivated by the success of the project, the Municipality of Gravia has decided to further expand the effort and has applied to the Sterea Ellada 3rd CSF Regional Operational Program for funding, in order to add more features to the Centre, like a third language (French or German) version of the film, an audio guide system for the rest of the reconstructed Inn of Gravia and some permanent exhibits. The plan also includes improvements to the infrastructure with the construction of a ticket booth and souvenir shop, the installation of an alarm system etc.

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*Table 1: Profile of visitors to the Inn of Gravia from February 2005 to April 2006 (data collected by the Municipality of Gravia).*
8. A FIRST APPRAISAL OF THE RI-SE PROGRAM: INNOVATIVE APPROACHES TO THE INTERPRETATION OF LESSER-KNOWN CULTURAL HERITAGE SITES IN GREECE

Although RI-SE is a pilot project, with limited budget and therefore modest aspirations, it constitutes a breakthrough in the interpretation of greek heritage monuments and sites. Through the five RI-SE installations an approach towards interpretation is introduced that is novel in Greece. The innovations can be summarized in the following points:

- **Local involvement.** The RI-SE project was realized by the Region of Sterea Ellada and by the five municipalities, demonstrating the potential of local actors to promote their cultural heritage, while at the same time enhancing local identity and sense of pride.

- **Introduction of new interpretation media.** The interpretation of cultural heritage in Greece was until recently limited to traditional media, such as pamphlets and signs. Several efforts to utilize new technologies in the field of cultural heritage have been made in the last few years, but they have all been based in Athens. The RI-SE project is the first attempt to introduce innovative interpretation methods and tools in smaller towns in the Region of Sterea Ellada.

- **A new approach to interpretation.** The innovative approach of the pilot applications does not only refer to the media it employs, but to its content as well. Each one of the five RI-SE installations takes the interpretation of cultural heritage one step forward from the traditional provision of archaeological and historic information which is the norm in most Greek archaeological sites. The content of the five Centres also includes information regarding the everyday life of the people who built and lived at the sites, folk tales regarding ancient monuments, first-person narrations of historic events etc.

- **An attempt to appeal to new audiences.** The RI-SE installations combine the use of new technologies with an interesting, interactive interface and an informal, easy to understand style of interpretation aiming to appeal to children and young people, as well as to the more traditional audiences, like tourist groups. However, great care was taken to make sure that the information presented would be scientifically accurate and of interest even to more specialized visitors, such as archaeology students. In this sense, the RI-SE project attempts to tackle the issue of addressing multiple audiences, with different backgrounds and agendas.
9. CONCLUDING REMARKS: SOME KEY ISSUES FOR THE DEVELOPMENT OF MULTIMEDIA HERITAGE INTERPRETATION CENTRES

An important aspect of the program is the degree of its ‘demonstration effect’ to other Greek regions. A large number of municipalities have already expressed an interest to utilize the know-how and the experience gained by the Region of Sterea Ellada in order to establish similar applications in other parts of the country.

Through the process of design, implementation and evaluation of the RI-SE program, some key issues have arisen that have to be taken into consideration by those Municipalities that have recognized cultural heritage assets as positive attributes for the development of cultural tourism and wish to proceed to the implementation of similar projects.

- **Type of monuments and sites.** In assessing the historic or archaeological resources of an area special attention should be given to monuments and sites that are not popular to the wide public, despite their historic or archaeological value. Cultural heritage resources should also be understood broadly, beyond the narrow concept of “antiquities”.

- **Size of municipalities.** The RI-SE experience proved that such projects are ideally implemented by small to medium sized municipalities that are in need of an economy-boosting innovation and that combine cultural heritage with a minimum infrastructure. Too large municipalities lack the motivation necessary to invest in the project, while too small municipalities present difficulties in providing a suitable venue, or even basic visitor services and can also be difficult to access, especially by larger tourist groups traveling by bus.

- **Participation of professional experts.** The experience from the RI-SE program has shown that the success of such projects depends greatly on the contribution of specialized professional experts from a variety of scientific and technical fields (archaeologists, IT experts, artists etc.). It is therefore important to point out that local communities wishing to implement similar projects should seek professional help and know-how.

- **Type of technology and content.** An evaluation of the Heritage Interpretation Centres developed through the RI-SE program showed that high-end, expensive multimedia solutions were not necessarily the most successful and appealing to the public. Low-tech presentations, like the one in Gravia, when executed well and with attention to detail can be equally, if not more, attractive to visitors. Generally speaking, the content needs to be interesting and easy to understand at the same time, in order to keep the visitors’ attention without being tiresome; it also needs to focus on authenticity and quality, even if it is not cutting-edge technology.
REFERENCES