An innovative approach to entrepreneurship in higher and secondary education: cultural routes and economy of experience – a case study

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Abstract: The aim of the present study is to present how social entrepreneurship can find its place in higher and secondary education by involving students, through experiential learning, in the creative development of solutions for sustainable development of an area with rich cultural heritage. To this end, the present study followed the qualitative research method and constitutes a case-study of the town of Orchomenus in Boeotia, Greece. This case-study is based on field-research at the important historical monuments of the area organised by the DIAZOMA Association and the Teacher Education Program of Athens University of Economics and Business. Proposals made by groups of the student-teachers were formed through the research method and aimed at exploiting the rich heritage of the area in favour of its financial and cultural development, and showed that students' ideas were diverse, following objective and realistic criteria that responded to the needs and prospects of Orchomenus town. The study is the first of its kind in Greece and abroad, as it introduces for the first time the way students can learn the notions of social entrepreneurship and cultural sustainability through field-research and the project method.

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1   Introduction

As Soini and Birkeland (2014) discuss, cultural sustainability pertains to sustainable development (known as 'sustainability'). More specifically, it concerns the preservation of culture, cultural beliefs, practices and heritage. In the context of cultural sustainability,

the effort to identify the future state of the cultures to be studied is also part of the process. Therefore, as Naveh (2007) also suggests, despite the fact that cultural values should be updated, at the same time, they need to be appropriately adapted so that they support the creation of mutually beneficial strategies for the people, their culture as well as the economy and landscapes (urban or rural).

In this research, the main instruments for the promotion of cultural sustainability are the instilment of the entrepreneurship notion, and more specifically the social entrepreneurship, into the students through the utilisation of concepts such as the cultural routes and the economy of experience.

A definition of cultural routes, as cited in Zabbini (2012) and given by the international scientific ICOMOS-CIIC Committee (2008) in its draft about international charter on cultural routes, states that it can be a route of communication of any type (land, water, etc.), which has physical limits and its own specific dynamic and historic functionality. It must derive from and express interactive movements of people as well as exchanges of goods and cultural values between peoples and places as well, over significant periods of time. In other words, it must have promoted a considerably extended over space and time cross-fertilisation of the engaged cultures.

As for the economy of experience, it is the most recent stage of the economy's evolution that is the next step in the 'progression of economic value'. The term experience economy was first introduced in an article by Pine and Gilmore (1998). They argue that experiences occur when companies deliberately treat services and goods as means to the end of engaging the customers in such a way that can create memorable events. The main trait of commodities and goods is that they are fungible and tangible, services are intangible, but experiences are memorable. In short, the experience of a product or service is a factor which constitutes the product itself (Pine and Gilmore, 1998).

The proposals of this research derive from the experiential work of prospect educators of the Teacher Education Program at Athens University of Economics and Business. They carried out projects, after the experiential stimuli they acquired at the city of Orchomenus in Boeotia, for the needs of the spring semester of the program. The objectives of the project were forecasts and proposals for the exploitation of the Archaeological Park to be presented. These proposals are meant to be in favour of the economy and the society of the region.

As for the structure of the study, some researches, which analyse issues related to this article's subject, are presented. The methodology of the study follows: that is the case study of Orchomenus with specific references to the field trip and the subsequent project method analysis. Next, the section regarding the results of the research shows how theory and practice coincide with the study of Orchomenus. Finally, a comparative analysis is made, ideas for future research are presented and conclusions are drawn.

2 Literature review

Culture is regarded as education, values, art, philosophy and tradition. An indicator of culture is the technology, and of course, the history of a place. In recent years, neglection of the cultural heritage by modern societies has been observed. According to Throsby (2008), cultural heritage is capital, inherited from one generation to the next. Therefore,

the issue of cultural sustainability arises. As an issue, encountered in many disciplines Soini and Birkeland (2014) and Hawkes (2001) claim that is the fourth pillar of sustainability. In order to enhancing cultural sustainability, significant changes need to be made, starting with education (Tibbs, 2011).

The new pedagogical concepts shift the burden from the one-sided adaptation of the textbook in an expanded educational process that adds weight to the use of alternative teaching instruments, with prominent interpretation and use of historical sources to become appropriated rather than sterile reproduction of knowledge through memorisation. A representative technique is the project-based learning.

Project-based learning is a teaching method in which students can acquire knowledge and develop their skills through devoting an adequate period of time in order to investigate and engage with complex issues and challenges. Thomas (2000), who based on the definitions of the project-based learning, argues that "projects are complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over extended periods of time; and culminate in realistic products or presentations."

This approach is formed through five steps that have been introduced by Krajcik and Blumenfeld (2005); the first is the driving questions that guide the students and are given from the teacher (Blumenfeld et al., 1991; Krajcik et al., 2002).

The second step is the situated inquiry. In this step, students try to answer to the driving questions through a scientific approach in which they depend on evidence and theory to conclude to answers. Moreover, the next step is related to collaborations. In this context, both students and teachers have plenty of opportunities to cooperate with each other, to exchange views and of course to argue about the evidence and the theories they have collected through the second step (Brown and Campione, 1994).

The fourth step is the use of technology in the class. As Linn (1997) and Tinker (1997) have argued, the technology can help in various ways to make a class a place in which learners build their own knowledge. Learning technologies allow students to develop what they learned in the class into a wider scale and turn them into authoritative intellectual tools. Last but not least, the final stage is the creation of artefacts. In this context, the participants answer to the questions that they asked in the start through a variety of ways, such as from computer and physical models.

According to the findings of the diploma thesis survey of Voultsiou (2007), pupils react positively to the integration of technology in the educational process while there are many who have said that school became more attractive to them. In addition, the younger age of teachers is positively related to the adaptation of technology and innovation in general in most cases.

As for the cultural – historical track, where the article focuses, it can also be connected with learning, especially for the transmission of historical knowledge. Using museums as stated by Marcus et al. (2017) is a very effective strategy for working teachers. Museums as reported by Marstine (2006) are unique organisations. They are not neutral spaces but they tell objective stories that have been created by people. They should be treated and approached with the critical eye and the respect that every historical source accepts.

Human resources can create the foundation for pupils to have significant and experiential activities that are creative and meaningful both in the classroom environment

and in the museum environment. This provides opportunities for valuable links between school classrooms and museums (Sheppard, 2007).

2.1 Research questions

Hence, the research questions of this study are the following:

a   How does culture contribute to education?

b   Is learning through the country's culture and monuments effective?

c   What is the role of experience in this combination?

3 Research methodology

3.1 Methodology

The methodology applied to this research is the case study, in particular the case of field research at the city of Orchomenus where a study visit was held by the students, which led to the conducting of a project-based analysis with multiple proposals. The visit there was done with the purpose of stimulating students to assess the potential of the place and the ways in which they can connect it with education so that it develops socially and economically by providing corresponding knowledge through the monuments that most people ignore their existence there.

The case study was preferred to achieve a multifaceted study of the content of the research. It is considered a qualitative method which by definition does not allow the generalisation of results. However, the in-depth study of a particular case allows for the identification of important details that lead to a fuller understanding of the subject to be studied.

It is widely known that there are various ways to define the research method of case study. The most known is that of Yin (1984) and Kaplan (1986) which refers the case study as "a way to study in deep a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities (people, groups, or organizations)." There are many different ways to conduct a survey and each research strategy has both positive and negative aspects. It is generally accepted that there is no particular strategy that is better than the others and Benbasat (1984) mentions that the key to choose a suitable strategy must be the nature of the topic. Case study is generally suitable for problems that do not have many theoretical and research sources (Roethlisberger, 1997) and for more practical problems that the critical thinking is necessary (Bonoma, 1983). Also, the case study method is considered an important tool in many studies of social sciences, such as education (Gülseçen and Kubat, 2006).

The decision for the usage of the case study approach of survey was made for some specific reasons. First of all, a case study could play the role of a very helpful way through which every researcher answers fundamental questions in understanding the whole process that takes place, especially when the number of studies which have been carried out is limited. Furthermore, Benbasat et al. (1987) suggest that in a project with a strong theoretical-base and natural setting the method of case study is extremely useful.

The case study is a very interesting method of approaching a scientific research and the advantages of this method is what makes it beneficial for use in our case. First of all, the case study is a unique method of examining the gathered data, because there is not any experiment taking place (Yin, 1984). What actually happens is that the researcher observes the subject in her natural environment. Thus, the results of a case study represent a trend among all the population rather than a behaviour observed in an individual subject (Zaidah, 2003).

Furthermore, the case study approach is a feasible way of examining a vast variety of data, because it can be used for both qualitative and quantitative data. In addition, the case study can examine not only actions in real life environments but also the reasons why the examining population prefers a specific approach over another. Specifically, the results of a case study have a wider scope than those of an experiment, because through the case study a researcher can examine complex decisions (Zaidah, 2003). Thus, the case study is directly related to realism and actual facts.

In the case of Orchomenus, an educational field trip was organised. This field trip included a cultural promenade, which is an integral part of the 'route' of Central Greece, entitled 'Route of the monuments of nature and culture of Central Greece'. This 'route' is designed by the region of Central Greece, the Ministry of Culture and by the DIAZOMA NGO. The stops of the promenade were at a series of historical/archaeological monuments with those of the Archaeological Park (i.e., the Hellenistic theatre, the Mycenaean Grave Monument – also known as the Minya's Treasure – and the Byzantine Church, known as Panagia Scripus) being the most essential ones.

What is more, the prospect educators made a holistic approach to the place in order to conceptualise the culture and the history that Orchomenus underlies. During the day, they visited more historical places such as the Spring of Graces (Harites), while they also came in contact with local people, they visited local businesses and they explored the city of Orchomenus.

After being divided into groups, the teacher-candidates studied the economic and social prospects of the place. Based on these prospects, they were expected to have conducted projects that constituted articulated proposals that could benefit the economic and social progress of the area, by the end of the academic year. The ideas were many and diverse, as the teams operated confidentially without discussing their way of thinking until each job was completed. Therefore, each idea was different and specific with arguments and business plans and also a SWOT analysis that showed the advantages as well as the weaknesses of each proposal.

3.2   Research aims

The research concerns the combination of cultural heritage and education; it helps to understand how experiences and historical events can be combined to make cultural learning more effective, and hence lead to cultural sustainability. Its implications can be found in the teaching of various social sciences and humanities, in secondary education as well as in higher education. Moreover, this study is part of a pioneering movement in the field of education for it invites young educators to have a contemporary look at the educational process, beyond the classroom, and brings together the cultural heritage, the teaching of entrepreneurship and innovative proposals that can boost Orchomenus' economic and social development. Students can also gain an interesting

knowledge-related experience, which seems to help them assimilate better and faster all the information they receive.

4   Findings – practical implications

Through the field research conducted in Orchomenus, extensive examinations (SWOT and PESTEL, among others) were carried out to identify all the particularities of the area, the emerging opportunities as well as the possible factors that may affect the implementation of the proposals. These proposals show wide variation, but have as a common theme innovation and social entrepreneurship, and they are grouped into five main categories, depending on their competitive advantage.

4.1   Additional cultural routes

The first category concerns the creation of new cultural routes inspired by the cultural route of Central Greece. In this category, there are two approaches, the first one aiming at creating an individual shorter route, which will focus on Orchomenus sites with environmental and historical interest. The stops of this route will be as follows:

- Mycenaean burial monument
- Hellenistic theatre
- The Church of Panagia Scripous
- Mycenaean Palace
- Acropolis of Gla
- Minyans' Canal.

An important feature of the route is that it can highlight the more general cultural specificity of the area, beyond the narrow limits of the park. At this point, another proposal is introduced, which concerns the use of a GPS-enhanced augmented reality (AR) application that will display to the user the ancient monuments, local stores and services. However, this type of proposals will be discussed in more detail below.

The second approach has a wider target area and aspires to link Orchomenus with the rest of Central Greece's ancient cities, such as Delphi. The name of this project would be 'From the sphinx to the cataclysm, a riddle is the path'. More specifically, the proposed stops of the route are Athens, Thebes, Orchomenus, Delphi, and Arachova and it aims to motivate the visitors to make an entertaining, but at the same time educational, excursion in Central Greece.

4.2   Events and educational tourism

The second category concerns the organisation of cultural events and the promotion of educational tourism. There is an ever-increasing demand from young people across Europe for new tourist experiences. More specifically, it is a great opportunity to cooperate with foreign universities in the context of educational tourism, which will lead to the creation of new jobs and promote the region. In order to achieve this, it is

necessary to use resources from educational institutions for mutual support and synergy with non-governmental organisations.

The cultural proposals also include the exploitation of the ancient theatre in order to fulfil its initial purpose through open to public theatrical performances. Additionally, an annual festival is proposed. It will be open to cultural associations from across the country, to present numerous cultural events, theatre and dance activities. Moreover, a specially designed accommodation space for renting is suggested, while visitors can participate in recreational events, try local products and integrate into Greek reality.

Furthermore, organising school events in the area of the Archaeological Park will lead to the activation of the pupils and the interaction between them. Activities such as 'student guided students', 'myth creation festivals' and 'student performances' will provide them with insights while enhancing their creativity and inspiration. These actions will benefit the development of Orchomenus into a tourist destination.

4.3   Modern and digital technologies

The third category focuses on the use of new and digital technologies. This is inextricably linked to the implementation of the other proposals, especially those concerning the cultural routes, the gamification of the experience, and the accessibility of the site. The creation of various types of digital applications will be presented. These applications range from simple informational ones to applications of AR.

The point of an AR application is to create an appropriate presentation of the virtual and the real world which imprints on the user's mind and senses the impression that they coexist. In particular, it has been proposed to create an AR application which will operate inside and outside the area of the Archaeological Park and will interact with the visitor.

In many monuments of the same importance and antiquity, it is likely that the visitor (especially the less well-informed) will underestimate their value due to their present appearance. The purpose of the application is to deal with this very problem by offering tourists a special and original experience. Therefore, by using the app, the visitor can see through the screen of his device (mobile phone or tablet) in a direct and experiential way, how the monument was at that time in the past when it was still perfect and intact. It is a very promising strategy, successfully applied to monuments around the world (as to the Roman city of Carnuntum in Austria, even to the Parthenon of the Acropolis).

This provision also includes an AR application which will display to the user a great variety of places, apart from the Archaeological Park, such as the rest of the ancient monuments in the area. Maps, instructions, audio guides in different languages and notifications about local stores, restaurants, and several other places are meant to be integrated parts of this application, too. At last, this type of applications could be a key element in the development of the ideas concerning the gamification of the Orchomenus' experience, a category that will be analysed just below.

4.4   Gamification of the experience

These proposals aim to turn the visit to Orchomenus into an experiential, entertaining, and ultimately unique experience for every visitor. Gamification, is defined by Deterding et al. (2011) as "the use of game design elements in non-game contexts" for the purpose of efficient learning and enhancement user's experience and engagement. An important factor for the continuation and development of culture is the cultivation of historical

consciousness through education. If teaching took place within a natural and historical site in combination with knowledge games it is certain that history would be one of the children's favourite lessons.

Proposals of this type are mainly based on two ideas. The first is about the modern and popular concept of the 'Escape Room', where visitors discover the knowledge and history of each monument by solving puzzles and investigating. The idea is as follows: the user (tourists/students) will move to the site but also to the town of Orchomenus solving puzzles, receiving information about the archaeological monuments of the place and their history. During the escape, there will be actors instead of tour guides, performing certain roles related to the history of the place where the user is located. As part of the game, players are invited to get to know local mythology and the important history of the area over the centuries in a pleasant way.

The second idea is based on the Hidden Treasure Hunt, a well-known puzzle game. It will focus on the sights and points of interest around the city. It enables participants to explore the whole area and through their wandering to learn its history. Also, the myths that will be narrated at the beginning of the 'hunt', will introduce the visitors to the atmosphere of that era. This concept can be significantly enhanced by the utilisation of a similar to the previous one GPS-based AR application via which some hints, instructions and directions can be provided to the 'hunters-visitors'.

4.5 *Improving accessibility and infrastructure*

Finally, there are proposals for the improvement of infrastructure in Orchomenus and the accessibility of the Archaeological Park. It is important the visitors' needs to be fully recognised and satisfied. Achieving visitors' satisfaction requires the enhancement of the central square and the municipality in general. Such actions could be the redevelopment of a bioclimatic square (i.e., redevelopment based on the local climate, known as microclimate, and the provision of thermal and aesthetic efficiency, exploiting various renewable sources of energy and the natural phenomena of the climate), the creation of places of residence, the establishment of a museum, and the creation of a cultural centre.

Regarding the accessibility of the Archaeological Park, the proposals mainly concern the creation of an interactive maquette of the park, resulting from the use of high-resolution scanning technologies, and will contain audio messages which will be activated by palpation (AMBAVis, 2016). The creation Braille-based information plates are also proposed, thus making the area more accessible to people with mobility problems. Furthermore, infrastructure that will provide people on wheelchairs with unobstructed access to the area is considered necessary. These actions will assist Orchomenus in becoming an attractive place for all types of tourism and will also contribute significantly to the implementation of all the above-mentioned proposals.

5 Discussion of the results

Comparing the studies that have been made on the issue of combining education with culture and the perceived need for experiential learning, it seems that the case of Orchomenus is an everyday example that represents many areas and towns, even beyond Greece.

In recent years, there is much debate about the experiential learning and its implementation. Dewey (1938) said that students learn better through their active participation in the learning process. Moreover, it is widely known that students, who actively participate to the learning process, use their skills wisely and learn mentally, emotionally, sensitively and also physically (Hooper-Greenhill, 1999). Educational tourism is indeed a method of experiential learning that engages the students in an immediate way. Moreover, at the CECA (2010) Conference, it was stated that museums and archaeological sites can contribute to social changes that will lead to a more democratic world to a great extent, while Brinia et al. (2019) also agree that experiential learning through cultural promenades can be quite effective when it comes to instilling cultural values in the new generation. Therefore, it seems that edu-tourism is a special form of tourism with great dynamics.

Globally, historically unused monuments can contribute as alternative teaching tools to education rather than being forgotten and neglected. Max Dvořák 1916 (in Zlatko, 2016) acknowledged the pedagogical dimension of the monuments, something that was also found by the research teams of students at the Teacher Education Program of Athens University of Economics and Business. Dvořák supports the preservation of cultural heritage in favour of the spiritual interest of society. This is a fact that was considered important in this research, which tried to take the combination of education and culture one step further.

Furthermore, Sheppard (2007) focused on the valuable links which can be created between school classrooms and museums. In this study it is supported that these links can be created not only with museums but also with any monument and historical place which can be a part of experiential learning. An ancient theatre, for instance, could easily lay the foundations for plays, among other activities, to take place again in order to offer knowledge through role playing. Similar conclusions are also drawn by Scheie and Brinia (2017) who argue that it is necessary for a student to acquire round knowledge and format their personality with as many elements as possible, while this kind of methodology can nurture teamwork, communication and interpersonal skills as well as the development of critical though.

There are numerous ways in which educational tourism can positively affect the Greek society. First of all, Mohammad and Alsaleh (2013) claimed that it is vital that the tourism science is taught in higher education. That is because educational tourism would develop a competition in the touristic market and business which could benefit every country. This need becomes more obvious, as the majority of universities have developed curricula that are related to tourism and hospitality, thus increasing the demand in this market (Kim et al., 2008). Therefore, a similar to the present study module which would concern the development of a cultural site, could be introduced in the curriculum of several tourism science programs in the form of a workshop. It is also worth mentioning that Baron et al. (2014) advocate in favour of this kind of approaches since they claim that pre-service history teachers can benefit from the inclusion of historic site-based laboratories as a regular feature of their preparation programs.

The idea of alternative tourism in parallel with educational purposes was supported by teams through business plans that included the costs and the process of implementing the students' ideas. Thus, in addition to strengthening the economy, further social, educational, and ultimately, cultural development could be achieved. The knowledge that is hidden in places such as Orchomenus could find a way out in order to show the value

of supporting the place, and consequently, offering a more complete picture of the story to the visitors.

Regarding the applications of AR in education, Bacca et al. (2014), through their extensive meta-analysis, have pointed out several advantages of the AR in education ranging from learning gains and motivation to interaction and collaboration. They also argue that it can be very effective when it comes to student engagement and positive attitudes. Moreover, numerous studies such as those of Liu and Chu (2010), Di Serio et al. (2013) and Chang et al. (2014), among others, have highlighted its significant utility to increase student motivation and engagement in the learning process. These findings are quite supporting for the effectiveness of the proposals in this study regarding the implementation of AR technology. When it comes to educational benefits, the aims of the proposals are, mainly, the increase of student engagement and the improvement of their attitude since low engagement and not positive attitude towards cultural heritage is the most common problems when students come across with ancient monuments.

Apart from this, the implementation of modern technologies in Orchomenus also aims at the attraction of visitors, in general. As Kounavis et al. (2012) have stated, AR has been so far a technology that can provide visitors with personally customised services which include content tailored to their specific needs. Hence, one could mention that mobile AR applications allow users to explore the world around them by adding new layers to the perceived reality, thus resulting in a new experience that is dynamic and interactive. On top of that, the findings of Han et al. (2013) suggest that even though AR has already passed the phase of hype, the technology is just on the verge of its meaningful implementation in the industry of tourism. As a result, it seems reasonable to assume that these proposals can have a two-folded effect in education and tourism.

Coming to the gamification process, Landers (2014) and Kapp (2012) argue that gamification is applied on a variety of topics in order to motivate users and engage them with the learning object. Landers (2014) also claims that one of its most widespread application is in service marketing in order to influence, inspire and shape the customers' behaviours in the desired direction. It also appears in business and management.

Dicheva et al. (2015) have pointed out that gamification is an innovative method for the educational process, which is now emerging, but so far its application is limited to specific issues. Kapp (2012) also noted that in order to create a successful gamified educational project, the right combination of learning and gameplay is the key issue. Moreover, according to the pertinent literature analysis of Nah et al. (2014), there are eight game design elements which are used in educational and learning contexts which can be followed both for the Escape Room design and for the Hidden Treasure Hunt.

Finally, there are four categories of experience through which the visitors interact with the cultural heritage and learn: object-related experiences, personal experiences, social experiences and cognitive experiences (Bounia and Nikonanou, 2008). The findings of this specific research are related to most of these categories since they are designed to engage with the visitors in many different ways. For instance, the AR applications mainly belong to the object-related and personal experience categories, while the gamification-based proposals mainly belong to the other two categories. Thus, if one takes into account the way that visitors interact with their cultural heritage, the implementation of the proposals in this research could be even more effective.

6   Limitations of present study and suggestions for future research

The present paper was based on a case study followed by field research. This means that a specific case of an archaeological monument – the Archaeological Park of Orchomenus, Boeotia – was studied in-depth. It was a product of research regarding civilisation and education, focused on several articles about strategies in school, teaching through museums, the way technology affects education, but it was based only on this specific case. Thus, the conducted research was not a broad one with a variety of ancient monument cases included. Therefore, it would not be safe to generalise the results to the wider population and treat the proposals as universally effective.

Nonetheless, this study provides the appropriate background when it comes to the case study approach for the utilisation of cultural heritage in order to instil the entrepreneurial way of thinking to the students and enhance cultural sustainability. Hence, further research could be done concerning more sites of cultural heritage across the country or even sites in other countries with similar traits. Moreover, in following studies qualitative methodologies, such as interviews and extensive questionnaires, can also be used as well as quantitative approaches in order to provide some measurements that can help to the evaluation of the proposals.

7   Conclusions

As the results of the research show, the principles of learning through monuments, museums and the cultural heritage can be successfully applied to Orchomenus. The results of the ideas were targeted and tailored to the needs of the area and the work has been objective and realistic. The implications of the study concern, on the one hand, teaching methods and educational approaches that can be used for the promotion of the entrepreneurial way of thinking along with cultural sustainability. On the other hand, they concern the ways that local communities could utilise and reinvent their sites of cultural heritage in order to enhance their economic development and social progress.

Specifically, it has become quite evident that the cultural heritage of a place can be exploited in many and creative ways in order to promote educational purposes. The learning outcomes seem to be more effective than those of conventional teaching methods, thus the use of cultural heritage and monuments in the education of many subjects can be considered very promising.

Overall, with the adoption and implementation of the study's proposals, the Municipality of Orchomenus will be able to offer a multifaceted experience to the visitors. At the same time, it is appropriate to recognise Orchomenus' competitive advantage in order to effectively exploit its wealth. By offering to the people a holistic experience, Orchomenus will be among the tourists' choice, as a combination of many modern forms of tourism.

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