

# IN SEARCH FOR AN ISLAND TO HOST AN ECOVILLAGE

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## Abstract

Creativity has come to be viewed as a source of competitive advantage in social life, emerging from a set of financial and social concerns affecting daily routine in our days. This research proposes the operation of an ecovillage, where responsible environmental behaviors will be enforced through “creative tourism”. Researchers show that creative tourism makes available to visitors the chance to develop their creative skills through active participation in learning experiences.

The proposed Ecovillage in Skyros Island, Greece, will be accessible to families who wish to spend their vacation time in environmentally inspired set ups and use the opportunity to personally contribute to environmental protection as well as expose their children to ways to actively object to environmental issues of concern. Also, it refers to groups of people who don't have to be physically at work, like digital nomads, who choose as living set up an environmental awareness type of community. Specifically this study attempts to assess all activities, educational and empirical, which will be offered to visitors/residents of an “ecovillage”. A complete search of related literature guides the tasks and services that would be offered to those spending their vacation time at the proposed ecovillage. In detail the participants would be active operators of the sustainable living structure and their needs will be based on the concepts of environmental conservation and protection in order to minimize the consequences that affect irreversibly nature and human life. Through their daily involvement at this chosen vacation format, environmental awareness will be accomplished in a successful manner. For the young ones the ecovillage will hold a daily environmental camp tailored to the needs of the participant children.

## Keywords

ecovillages; circular economy; creative tourism; environmental education

## 1. INTRODUCTION

Such factors as globalization of trade, accelerated environmental degradation, the rise of information technology, and the changes that have resulted from these, have radically altered our perception of space and place [Putnam, 2000]. The ecovillage movement is a worldwide phenomenon that has arisen in response to the effects of the modern lifestyle on both our social and ecological environments. The ecovillage, a term that came into common usage in the early 1990s, is a specific form of intentional community [Global Ecovillage Network, 2002]. “An ecovillage is an intentional or traditional community using local participatory processes to holistically integrate ecological, economic, social, and cultural dimensions of sustainability in order to regenerate social and natural environments”. At the core of an ecovillage lies the intention of its inhabitants to design their own pathway into the future [GEN, 2015].

The search for a sustainable lifestyle, combined with the reduction and the solution of environmental problems is a field of research of scientific community and an aim to be reached for governments and societies. The adoption of responsible environmental behavior of all stakeholders (society, individuals, organizations, governments, etc.) is one of the key solutions [Andriopoulos et al, 2017]. The ecovillage, with their principles and values, is an example of responsible environmental behavior, a remarkable issue for scientific research. At the same time there has been an increasing sense of the breakdown of community principles as modern life has become even more segmented. This has resulted in feelings of isolation and disconnectedness, and further withdrawal from traditional forms of political and social participation [Putnam, 2000].

## 1.1 What is an Ecovillage

Ecovillages aim at “helping our society to get closer to nature again and to develop new ways of living together on the land in a genuinely more sustainable way” [Kovasna, 2012]. Furthermore they are known for aspects as “ecological sustainability through such practices as generating solar energy, raising animals, and growing their own food” [Meijering, 2012]. These are done through the ecovillage promotion concept, which is seen as an innovation offering solutions to problems related to the distribution of resources, climate change, and the social life in the region. Ecovillages are presented as “an alternative to the individualistic, consumerist, and commoditized systems many cities represent” [Kovasna, 2012]. Besides ecological sustainability, the communities also strive for communal sustainability, which refers to sharing one’s life with other people and practicing a common ideology together [Meijering, 2012].

Based on a review of literature, there are ten basic features of the Ecovillages [Kanaley, 2000; Gaia Education, 2009; Kasper, 2008; Joseph & Bates, 2003; Sevier, 2008; Jackson, 2004; Jackson & Svensson, 2002], which are essential for a successful ecovillage application. One of the most familiar and straightforward ways of aligning people’s behavior with community goals is to establish rules. Every ecovillage has a specific set of policies that govern everyday life in its premises.

Such communities have developed over time an astonishing array of internal democratic governance systems and low impact/high quality lifestyles. They have been proven to successfully empower, sustain and promote truly sustainable ways of living, both in rural and urban settings [GEN, 2015]. Together, they aim to build a world living within its own means, and a world at peace with itself. They know that innovation, creativity and the wise use of modern technology and resources, when combined with traditional heritage and wisdom, can massively contribute to addressing global issues of poverty and environmental destruction [GEN, 2015].

Some of the most important aspects of ecovillage planning involve identifying zones for agriculture, commerce, and high and low density building clusters [Kasper, 2008]. Clustering buildings (including workspaces, residences, and community buildings) is a way to minimize a community’s physical footprint, while maximizing privacy, opportunities for work, and social interaction. The human home, however, remains an important aspect of the physical environment, and one in which prospective residents and people curious about ecovillages seem to be most interested. One of the most striking features among all of the communities is the architectural diversity. The latter approach to construction focuses on minimizing site disturbance and waste, while maximizing energy efficiency. Characterized by their uses of high tech insulation, wall building techniques, window glass, and heating and cooling systems, “green homes” tend to resemble more conventional residences. Ecovillages are also thoughtfully organized to promote social interaction, another important means of reinforcing an alternative way of thinking [Kasper, 2008].

In a recent review of ecotourism research, Weaver and Lawton [2007] maintain that ecotourism satisfies three “core criteria” namely, (1) attractions should be predominantly nature-based, (2) visitor interactions with those attractions should be focused on learning or education, and (3)

experience and product management should follow principles and practices associated with ecological, socio-cultural and economic sustainability. In a similar fashion, Donohue and Needham [2006] identify six “key tenets” of ecotourism: (1) nature-based, (2) preservation/ conservation, (3) education, (4) sustainability, (5) distribution of benefits and (6) ethics/responsibility/awareness.

Opportunities for visitor participation in habitat restoration and other environmental conservation activities are also important [Walter, 2009]. Members of Global Ecovillage Network (GEN) have recently coined the phrase, “ecovillage tourism” to denote “a new type of green travel, whereby people visit ecological communities around the world to experience low-impact living and community”. GEN has formally designated some sites devoted to these activities as “living and learning centers”[GEN, 2015].

According to Kasper [2008] and Zeppel [2006], the principles that should govern Ecovillage based tourism are mainly characterized with the following features:

- They are sustainable settlements that integrate the tourism services into the activities necessary to reach their main goals.
- The agricultural activities are necessarily environmentally friendly.
- The tourism activities are considered to be an economic option to provide financial support and employment facilities for the villagers.
- Tourists can pay a certain accommodation fee, or contribute to the villagers by means of physical participation in the village works to substitute the accommodation fee.
- They can offer the customers with the accommodation, meal-drink and bed facilities as well as introduction and practical application of production activities, civil and garden works, harvesting, traditional handicrafts, preparation of specific regional foods, animal care and similar Ecovillage activities.

Furthermore, if the idea of well-being is to be introduced as the overarching objective in society, the more open-minded next generation of adults would be the easiest segment of the population to start with [Grinde, 2009]. As children gather together at kindergartens, schools and youth clubs, promoting a focus on well-being this may not just be beneficial to achieving a higher level of well-being, but also socio-economically efficient in reducing social costs and the economic waste of creating maladjusted citizens. Thus, caring for the development of children’s emotional wellbeing is an important cross-cutting issue for any national wellbeing strategy [Grinde, 2009]. Children’s contact with their parents in workplaces is more frequent than what can be expected in urban environments. Ecovillages, many times with car-free environments, encourage smaller children to move freely around in the settlement, from home to workplaces and other social venues.

## **1.2 Circular Economy and Ecovillages**

It is in this context, that a new approach to sustainability, the ‘Circular Economy’, is being examined. This economy is emerging as a possible strategy, that companies of all sizes might adopt in order to deal with the environmental challenges. However, as the circular economy concept is relatively new in its conceptualization and implementation, there may also be tensions and limitations inherent in its appropriation and application [Murray et al, 2015]. Greyson [2007] claims that Kenneth Boulding [1966] was the originator of the term when he wrote: “man must find his place in a cyclical ecological system which is capable of continuous reproduction of material form even though it cannot escape having inputs of energy”. More recently, Mathews and Tan [2011] suggested that “the goal of the eco-initiatives is to eventually establish a so-called circular economy, or what is otherwise known as a ‘closed-loop’ economy”, while Yang and Feng [2008] called the Circular Economy an “abbreviation of Closed Materials Cycle Economy or Resources Circulated Economy”.

The term linear economy was brought into popular use by those writing on the Circular Economy and related concepts [Murray et al, 2015]. The word circular has a second, inferred, descriptive meaning, which relates to the concept of the cycle. There are two cycles of particular importance here: the biogeochemical cycles and the idea of recycling of products. Recycling has been a significant part of sustainable practice for many years, and it is fundamental to the Circular Economy. The circular economy is ultimately linked to resource cycling. These ideas are further developed in industrial symbiosis, where firms use each other's waste as resources, and in the service economy, where work is done to slow down cycles of use, in order to delay waste output. The model character of the planned village consists of the comprehensive attempt to integrate all spheres of life (home life, work, provision, free time) as part of an ecological circular economy.

The Circular Economy represents the most recent attempt to conceptualize the integration of economic activity and environmental wellbeing in a sustainable way. These include an absence of the social dimension inherent in sustainable development that limits its ethical dimensions, and some unintended consequences. This leads us to propose a revised definition of the Circular Economy as “an economic model wherein planning, resourcing, procurement, production and reprocessing are designed and managed, as both process and output, to maximize ecosystem functioning and human well-being” [Murray et al, 2015].

### **1.3 Creative Tourism and Ecovillage**

At the same time, creativity has been seen as a source of competitive advantage in social life, evolving from a series of economic and social problems that affect daily routine nowadays. The cyclical economy, a necessary perception, comes to revitalize creativity by promoting new environmental actions. Researchers have been shown that creative tourism is “tourism which offers visitors the opportunity to develop their creative potential through active participation in learning experiences which are characteristic of the holiday destination where they are undertaken” [Richards & Raymond, 2000].

Lifestyle travel is a phenomenon that illustrates a de-differentiation of everyday life and tourist experiences, a process that Uriely [2005] identifies as characteristic of tourism in late modernity. In this consideration local people may become more environmentally aware because of their participation in ecotourism in the connection with the activities of visitors. Ecotourism guides also teach visitors about local plants, wildlife, forest, history and cultural attractions [Uriely, 2005]. Tourism brings together very diverse people and nationalities that influence the process of cultural development in a destination. This brings new ideas that combined with innovation can become a unique asset to the destination [OECD, 2014].

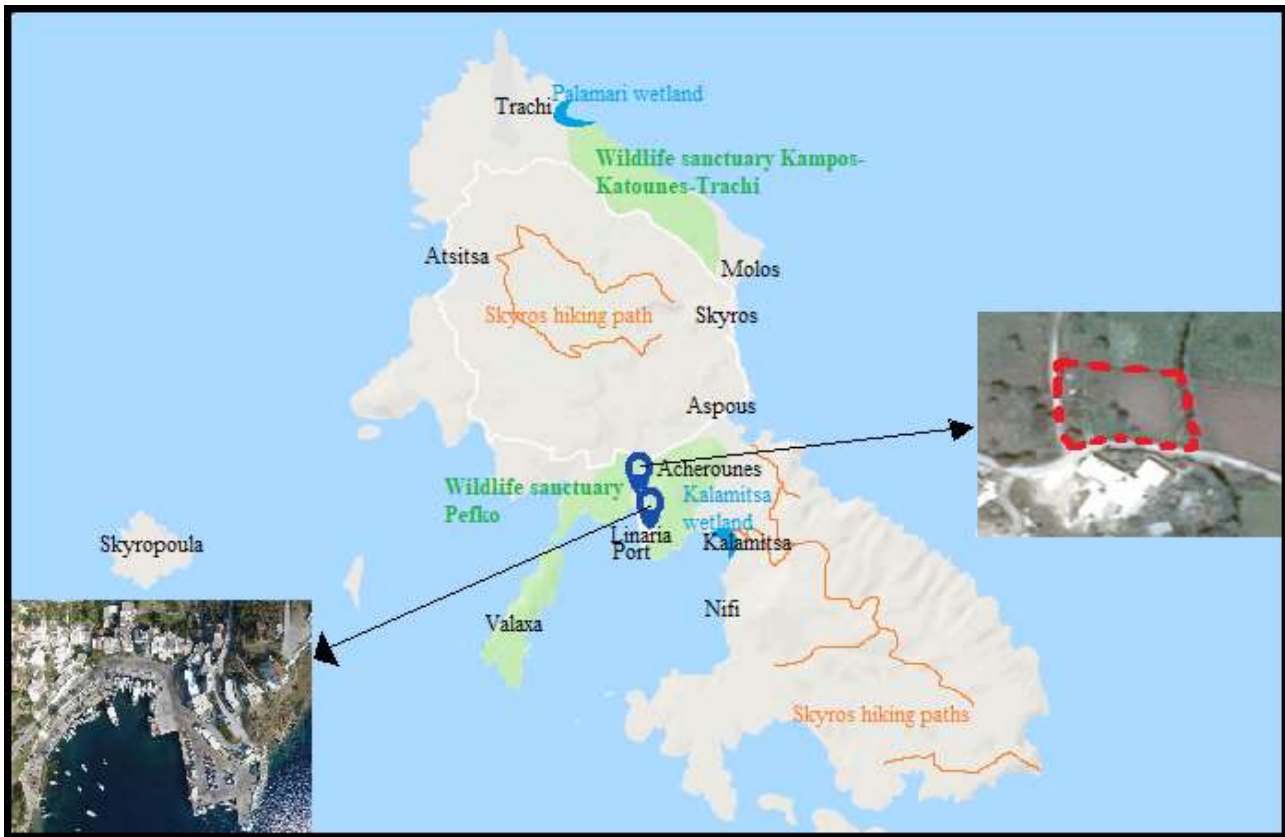
## **2. PROPOSING A CASE STUDY OF AN ECOVILLAGE**

Without any doubt the road to sustainable development goes through environmental protection and sustainable management of local natural resources [Andriopoulos et al, 2017]. The aim of this research is to propose a geographical location to establish an ecovillage, in which all the principles of an ecovillage will be established while adhering to the concepts of circular economy and creative tourism. The proposed location is in a Greek island, Skyros Island, with environmental infrastructures and influences, where our research center has set up a satellite unit.

### **2.1 Choosing the Right Location**

In Greece there are more than 2.500 islands, of which only 227 are inhabited [European Union, 2015]. In the heart of the Aegean Sea, Skyros Island is unique about its environmental

characteristics. The island of Skyros has been chosen as a study area, due to its remarkable characteristics [Andriopoulos et al., 2017]. This proposed Ecovillage Project at Skyros Island will be assessed. This project will be based on preset criteria and principles. The visitors will be accommodated in tents, in a specially designed area in Acherounes Village (Figure 1). The locals who until a few years ago lived in perfect harmony with the natural environment, can provide a great baseline, while at the same time they have the opportunity to find new pathways towards sustainable development, preserving this way the unique natural environment of the island [Andriopoulos et al., 2017]. So, the Skyros Ecovillage Project proposes the operation of an ecovillage where responsible environmental behavior will be imposed through "creative tourism". In other words, these two concepts, creative tourism and the circular economy in the context of ecovillage are the ones this research aims to incorporate.



**Figure 1:** Skyros Island: Linaria Port and Location of Ecovillage Project (Source: Google maps)

Skyros Island (Figure 1) has well defined hiking paths and is known for a unique wildlife sanctuary. At its Port, named Linaria, the well-known “SKYROS Project” is involved with various environmental actions. The island’s morphology and biodiversity have raised interest from the scientific community. The Hellenic Ornithological Society organizes actions for the protection of rare birds on the island and many Universities have been coming to Skyros to perform specific ecological research. In 2015, the University of the Aegean initiated the collaboration with the Skyros Port Authority on running an environmental campaign under the brand name “SKYROS Project”.

The Authority of Linaria Port has implemented a new sustainable agenda, since 2010. In a short time the port of Skyros, Linaria Port, has succeeded to attract tremendous publicity and has been recorded as the fuller and friendliest public port of Greece [Antonopoulos et al., 2015], with the arrivals reaching an increase of 975%. Linaria Port serves as an interactive lab. University students, locals and visitors are trained to become the decision makers for environmental issues taking initiatives on environmental planning and management of the specific port area. This state of art educational approach has secured the success of SKYROS Project [Antonopoulos et al. 2017a]. The above Project is a paradigmatic cooperation of two public sectors, the Research Center of

Environmental Communication and Education of the Department of Environment of University of the Aegean with the Skyros Port Authority. The enthusiastic students through their daily environmental investment in the area led the way to a permanently established remote training site that invests into environmental research and education practices [Antonopoulos et al, 2017b]. Worthwhile accomplishments include the establishment of the tourism observatory and a marine one, both located at Linaria Port of Skyros Island. Also a free of charge kids' camp was established at the same port.

## 2.2 Design the Appropriate Environmental Activities

Without any doubt the road to sustainable development goes through environmental protection and sustainable management of local natural resources. Skyros Island due to its unique environmental characteristics is considered to be the ideal place for such activities, in which families will be come together.

Skyros is one of the richest Islands in biodiversity of Aegean Sea with special ecological importance. Especially the southern part of the island, Mount Kohilas, the surrounding islands and the remaining wetlands of the island are important regions for birds especially migratory while have been recorded important species of bats in the area. Also, the island is the natural habitat of "*Equuscaballus skyriano*". It's an old breed of semi-savage horses, with roots in the Classic period, or even the Prehistoric period, the origin of which can be lost in the depths of the Geological centuries. The unique, world-wide, small horse of the breed of *Equus caballus* lives in the natural environment of Skyros, in the area of the "Mountain" which is in the south-east part of the island [Andriopoulos et al., 2017]. There are farms, where the visitors are able to work in and care or feed these endangered species.

The southern part of Skyros is a unique area of biodiversity observation for the visitors. There are safety pathways, where families will be able to walk in the area around Mount Kohilas (the highest mountain on the island with 792m altitude), which is included in the European Natura 2000 network and where the Bantam breed Skyros horse (race *Equus caballus*), one of the rare breeds horses in the world, is living today. In this area there are many kinds of rare and endemic plants, some of which have been included in the Red Book of Rare and Threatened Species of Greek Flora. In the same area there are maple clusters, an important habitat for local biodiversity unique in the Aegean region, especially for birds that nest and shelter there. In the Island, is also living a native kind of lizard, while the Mediterranean seal *Monachus monachus* is frequently found in caves of the island. Finally, there are several important species of flora and a significant number of endemic and endangered plant species [Andriopoulos et al., 2017].

The accommodation, in Acherounes Village will be provided by the SKYROS Project. There, while the kids staying in will participate in environmental actions designed for the young ones, the adults will be involved in a variety of environmental activities. These will include but not limited to getting their hands dirty in collecting trash, growing organic food, recycling and reusing materials and the conservation of energy. Skyros Ecovillage Project would provide a shining example of sustainable development approach.

This Ecovillage Project attempts to assess all activities, educational and empirical, which will be offered to visitors/residents at Skyros Island. A complete search of related literature guides the tasks and services that would be offered to those spending their vacation time at the proposed ecovillage. In detail the participants would be active operators of the sustainable living structure and their needs will be based on the concepts of environmental conservation and protection in order to minimize the consequences that affect irreversibly nature and human life. Through their daily involvement at this chosen vacation format, environmental awareness will be accomplished in a successful manner.

Outdoor environments can enhance mental health of participating students, contribute to students' intellectual and emotional development, support their environmental awareness and can give them

opportunities to play and get involved in creative activities as well as connect directly with nature [Plaka & Skanavis, 2016]. Children who participated in Ecovillage Project have the opportunity to join in Daily Environmental Camp in Linaria port, an action of Skyros Project. Since 2015, the Environmental Camp for children offers to the local community's children and the visitors a high quality educational program tailored to the participants' interests, being inspired by the familiar port surrounding. The objectives of the summer environmental camp at Skyros Island are focusing on the dissemination of environmental education to children and to the promotion of their responsible environmental behavior through practicing theory in real time conditions and hands on experience in an outdoors set up [Skanavis & Kounani 2017]. A research group of SKYROS Project, specifically handling educational approaches for the young, has created this well-prepared educational program [Skanavis et al., 2018], based on the North American Association for Environmental Educators' (NAAEE) Guidelines for Excellence [NAAEE, 2017] and the basic principles of Environmental Education [UNESCO, 1978].

A characteristic day for the adults (Table 1) and for the children (Table 2) at the ecovillage includes:

**Table 1: A characteristic day for the adults at the ecovillage**

08.00 – 10.00	Daily workout and hiking in NATURA area, Daily workout and farming.
10.00 – 13.00	Participation in Summer Academy of Environmental Educators, in which they will educate to communicate the environmental protection message.
13.00 – 15.00	Break for lunch with organic food.
15.00 – 19.00	Training seminar for cleaner beaches, participation in environmentally friendly sea sports like scuba diving in beaches of Skyros Island, seminars on cultivation organic food, biodiversity observation.
19.00 – 20.00	Break for diner with organic food.
20.00 – 22.30	Outdoors cinema (environmental films and documentaries), outdoor mental activities

**Table 2: A characteristic day for the children at the ecovillage**

08.00 – 10.00	Daily workout and hiking in NATURA area, Daily workout and farming.
10.00 – 13.00	Participation in Daily Environmental Camp of Skyros Port, in which they will be educated to communicate the environmental protection message and will be environmental active future citizens. Topics: Biodiversity Conservation, Climate Change, Sea Pollution, Clean Water, etc.
13.00 – 15.00	Break for lunch with organic food.
15.00 – 19.00	Training seminar for cleaner beaches, participation in environmentally friendly sea sports like scuba diving in beaches of Skyros Island, seminars on cultivation organic food, biodiversity observation.
19.00 – 20.00	Break for diner with organic food.
20.00 – 22.30	Outdoors cinema (environmental films and documentaries), outdoor mental activities

### 3. DISCUSSION AND CONCLUSION

The Skyros Ecovillage Project is a proposal for establishing a vacationing site for those interested to actively participate in the environmental protection and sustainable living. This Project will be an action of Skyros Project, of Skyros Port Fund and University of the Aegean, as a prerequisite to be part of a economic funding. Then, this Ecovillage Project will serve as a meeting point for local families, members of scientific groups and visitors of the island interested in getting involved in environmental protection activities in real time conditions. The local community, which until a few years ago lived in perfect harmony with the natural environment, can provide in a great impulse in the preservation of the uniqueness of the natural environment of Skyros Island [Andriopoulos et al, 2017].

In a holistic approach, families who experience the ecovillage lifestyle will be communicating this experience to others who are in search for a new sustainable way of living. Contemporary tourists are more in demand of selecting their holiday destinations and activities. Therefore, “destinations are increasingly facing a challenge to develop new — place/product combinations which are competitive, unique and attractive for special interest or niche markets that want specific products and environmental experiences” [Fernandes, 2011]. This is especially important for small and distant destinations with poor tourism resources, because when applying creative thinking, an interesting tourism product can be developed in any environment [OECD, 2014].

The adoption of responsible environmental behavior of all stakeholders (individuals, organizations etc.) is one of the key solutions for all modern societies and governments. The ecovillages with their principles and values are examples of responsible environmental behavior, a remarkable issue for scientific research. The philosophy behind the understanding of life and society, through the four dimensions (social, ecological, spiritual, economic) which are basic principles-values of ecovillages, can form the fundamental core of responsible environmental behavior as a response to environmental problems and distortions of local communities [Andriopoulos et al, 2017].

The successful relationship with nature is not just a pleasant task, but it is an essential component of the human wellbeing general goal [Plaka & Skanavis, 2016]. It is of paramount importance to understand children’s perspectives, since the young ones both now and in the future will influence and be influenced by environmental issues in many ways [Skanavis & Manolas, 2015]. The concept is to begin at early childhood, the environmental awareness. We are suiting for a more open-minded generation of adults, who by participating in this Project, would use it as a tool to connecting people and also kids to a common vision. This is a way to promote a new sustainable lifestyle.

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