

## “Bread Mill: an Important Tool in a Tourism-Based Strategy for the Preservation of the Windmills Heritage”

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### Abstract

*The beauty of windmills in the hills of the region Oeste, in Portugal, is something more than a traditional icon in the landscape: it is witness of a traditional society, based on a rural way of life, still alive in the memories of older generations. This rich heritage is almost all abandoned, and its disappearance would represent an irreversible impoverishment of the regional culture. At the same time, there is a general consensus concerning the necessity of the preservation of the windmills heritage, given its significant identity value for the community and also its potential as tourist attraction. However, the preservation of the windmills heritage goes far beyond the preservation of material heritage, since the windmills are connected to a wide system of economic relations: flour production, bread in a wood oven and all related activities. In this paper we present a case study - an event called “Bread Mill” -, which was launched on annual basis, in order to put on the agenda a structured set of measures to promote the windmills at a regional level, by creating a new tourism product - the route of the windmills of the region Oeste - involving the local community, local authorities and tourist agents. In parallel with the description of this event, we will present a set of measures that must be taken, in order to give a new life to these beautiful windmills.*

**Keywords:** *creative tourism, cultural identity, authenticity, differentiation, rural tourism, sustainability, tourist routes.*

**Paper type:** *Scientific study*

## Introduction

The windmill is one of the most prominent symbols of the identity of Oeste region (oestina). Its historical significance is evident in the craftsmanship of the region where the windmills give shape to numerous decorative pieces. Also, some of the most representative institutions of the Oeste include the symbol in their logos. However, the valuable heritage of the windmills is continuously becoming less, because of its constant deterioration. Comparing the windmills heritage survey conducted in the latest 1980s (Pereira, 1990) with the survey conducted recently by us (Vitorino, 2012), it became visible that the state of degradation of the windmills has become worse, very significantly in the last two decades.

Facing this paradox - a legacy heritage that forms the basis of regional identity but that is doomed to abandonment - all efforts towards the windmills economic recovery and valorisation, will surely be a source of pride for the people of the region Oeste, which in this way, can be transmitted to future generations as one of the cultural symbols of an era of fertility based on agriculture.

Due to the high geographic concentration of windmills in the region of Oeste, and particularly in the county of Lourinhã, it is intended to define a sustainable model of tourism development based on the windmills heritage preservation, according to the natural conditions of the county, by reclassifying the windmill

network. The choice of the council scale is related to the need of demonstrating the applicability of the model, which can later be generalized to the entire region.

The issue this project is dealing with focuses on the region's windmills heritage, as regional asset value, by inserting it in a new context of economic relationships, and tourism, different from its original genesis. In other words, to prevent the constant degradation of the windmills, will be created a new economic order, by changing the mill production (milling the cereals) into anchors of the identity and heritage, in order to establish a new touristic and educational utility that, guarantees a new economic viability while contributing to the improvement of living conditions of the communities (Art. 5 of the Global Code of Ethics for Tourism).

A general observation of the European landscape focussing on windmills reveals numerous national federations and regional associations, particularly in Spain (Pérez-Martín et al., 2011; Rojas-Sola and Amezcua-Ogáyar, 2005) and Netherlands (Omar, 2007), who contrast to the situation in Portugal where only a few specific initiatives with mainly a simple local impact are attended engage an intense activity of research, preservation and promotion of windmills heritage. From this point of view, this work can be considered an incentive to develop this theme in Portugal, with reference to the situation in the Oeste.



With this study we aim to contribute to the collective effort of revitalizing the windmills of the Oeste, by elaborating a new strategy of cultural and tourist activities: the annual festive event "Bread Mill" associated with the launch of a windmills heritage route. This event aims not only to raise the awareness among local and regional actors to the importance of preserving this important heritage, but also demonstrate that the most consistent valuation of the windmills assets requires to consider not only its material component (Mills while material structures), but above all its intangible component: the traditions associated with a time when the mill had an important significance to the economic and cultural level. With this aim, we assume that the festive event "Bread Mill" should be the basis of a comprehensive strategy to recover the assets of the mills, which necessarily implies the recovery of ancient knowledge that is in danger of disappearing and whose epicentre is the threshing floor, the wood-burning oven, the bread, the miller and of course the mill itself.

### Tourism and Sustainability

The concept of sustainability has gained prominence with the Club of Rome in the 1970s (Meadows et al., 1972), with the initial concerns focused primarily on defining the limits to growth, to prevent the negative effects of unbridled development, mainly in the fields of environment and economy. In 1987, with the Brundtland Report "Our Common Future" was defined for the first time, the concept of Sustainable Development as a form of development that meets present needs without compromising the ability of future generations to meet their own needs. Currently, remain differences on this concept and, as Hall (2000) noted, the sustainable development aimed primarily joining the maintenance of the life quality for long-term preservation of resources, while avoiding the environmental degradation, the cultural rupture and social instability.

Accordingly, there has to be a concern for the sustainability of the natural environment where tourism develops. The natural and built heritage, environmental quality and culture of the receiving population should be preserved and valued. Therefore, the goal of sustainability is the conservation and the balance of ecosystems and the local cultural heritage, by keeping it attractive to visitors and simultaneously valuable for indigenous communities. Policies are necessary for the conservation and sustainable use of resources (material and cultural) so that they can be the legacies for future generations.

However, as Ferreira (2004) regards, the poor synchronization between policy and practice is one of the biggest obstacles to achieve the goals of sustainable development. Moreover, the existence of isolated infrastructure and tourist attractions, ready to use, doesn't ensure on its own, the long term future of a tourist destination. Rather, tourism only becomes sustainable if it is based on three pillars: (1) social and cultural development, (2) environmental and (3) economics. The social and cultural sustainability is based on the respect for the values and traditions of native communities and the maintenance of social equilibrium; environmental sustainability implies the protection of nature, biodiversity maintenance and

preservation of resources, in turn, the economic sustainability corresponds to the viability of businesses and long term jobs (WTO, 1998).

Sustainability in the tourism sector also involves the participation of various social actors (host communities, investors, companies, public authorities, owners) in the processes of decision at the level of policies for conservation and preservation of heritage material (natural and built), and level of cultural, economic and political.

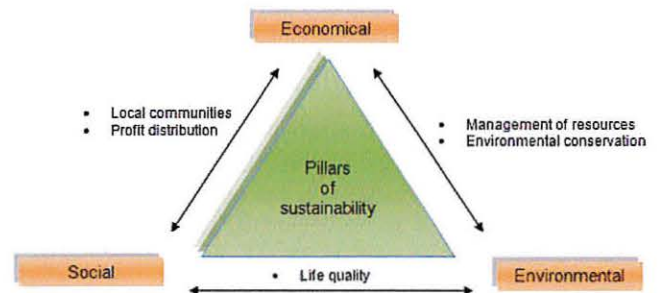


Figure 1 - The Pillars of Sustainability

Source: authors

Considering the three pillars of sustainability (Figure 1), the satisfaction of social needs means ensuring that people, now and in the future, may reach a satisfactory level of social and economic development and human and cultural achievement and at the same time, make the use of land resources reasonable, preserve the species, the cultural heritage and the natural habitats.

The application of this concept in the tourism sector involves a great emphasis on regional territory planning. These processes should involve not only the government and the tourism industry, but also should be extended to all stakeholders, including the local community, and decisions should be guided by public interest (Hall, 2000). In the context of tourism planning, decision criteria should be based on performance indicators that go far beyond the number of visitors, including: environmental and ecological quality, social and cultural integrity, the conditions of the built heritage (archaeological, historical and existing structures), the natural and built aesthetic attractiveness, among other aspects that influence both the quality of life for residents and the quality of the visitor experience.

Tourism development should be based on endogenous resources of each territory and community, generating benefits for the local population to encourage the protection of sites, the quality of information to tourists about the place, and the adoption of best practices by all the involved agents. Safeguard policies and practices conducive to sustainable destination in the long term should also be considered.

In this context, and according to Ritchie and Crouch (2003), the sustainable tourism can be understood in three dimensions: (1) conservation of resources, (2) local development and (3) ethics: benefit sharing. But no less important is the necessary control for the development of tourism arises in harmony with the local environment (Ayala, 1995).

In general, but with a few exceptions, almost all sectors of the economy benefit from tourism and there should be aware-



ness that the sharing of benefits among the local community must be more equitable. Indeed, sustainable tourism is necessarily linked to the improved quality of life of the receiving communities (Ritchie and Crouch, 2003).

According to Vidal and Márquez (2007: 4), "it is necessary to combine strategies that balance the good service to tourists and the quality of life for residents. Because the real issue is that many territories around the world are focusing on tourism, this bet should positively contribute to the local sustainable development in economic, social, environmental and cultural domains."

### The Rurality

The expansion of the urbanization and industrialization led movements for preservation of rural society, in opposition to a development process that required the homogenisation of society as a mass as well as the degradation of certain cultural, social and environmental values. Therefore rurality currently is a kind of "moral and cultural reserve" (Chamboredon, 1980; Blanc, 1997).

This growing appreciation of the rural way of life can be viewed in two angles: first, the return of townspeople to rural areas, driven by nostalgia, and trying to recover a collective memory related to traditions and countryside values; on the other hand, the association of rurality with environment preservation and life quality (Amirou, 1995).

Currently, rurality no longer constitutes a denial of the modernization of global society, but rather a form of modernity lived through the discovery and appreciation of differences, of the authentic and genuine. The rural world is no more a symbolic value of the memory reserve of old times (Figueiredo, 2008). The cultural and environmental diversity of the rural areas, allows them a still unknown attractiveness, in contrast to the way of life in increasingly globalized and homogeneous modern urbanized societies. In this context, appreciation and preservation of differences becomes an imperative, constituting rural areas as islands of diversity and memory.

With the return of townspeople to rural areas, the rural world assumes significance in multidimensional space, where farming coexists with spaces for fun and leisure.

However, the exodus appears to be reciprocal, we are witnessing the movement of people from rural to urban centres and vice versa, according to Amirou (2007: 72): "while the villagers flock to cities, tourists rush in depopulated countryside in search of a universe made of steeples, village squares and "authentic" life. Thus, it is assumed implicitly that the rural exodus pushes the villager into the arms of the "temptations of the city", while tourism, particularly 'green' saves the soul of the townspeople."

### Identity and Authenticity

The effects of globalization turned the tourist destinations more homogenous, while bringing many tourists to saturation while seeing that everything becomes "more of the same." In this context, many tourists started to value differentiated products and destinations, which have something genuine and unique and where they can learn something different, enrich

themselves, and also relax from the stress caused by this increasingly hectic and uniformed world.

Each native community has an opportunity to react to homogeneity generated by globalization through the affirmation of their own cultural identity, as something that is genuine and authentic (MacCannell, 1976), and that is based on what the community has as specific and distinctive: its cultural heritage.

According to Castells (1999: 22 and 29): "the identity means, is the source of meaning and experience of a people. Concerning the social actors I understand why the process of identity construction of meaning based on a cultural attribute, or a set of interrelated cultural attributes, the which ones prevails on other sources of meaning". Also according to Castells (1999: 29), people resist the process of individualisation and atomisation, tending to cluster in community organizations, over time, generate a sense of belonging and, ultimately, in many cases, a cultural identity, communal.

In this context, cultural heritage, which in itself is an expression of collective memory and identity of a community, tends to be even more valuable as far as the distinctive increases its economic significance through its positioning as a tourist attraction. Recovery and heritage interpretation thus become crucial elements in creating tourism products to regional and local basis.

In fact, cultural tourism in rural areas becomes increasingly attractive to tourists seeking diverse experiences in contexts where the prevailing cultural authenticity stands in contact with nature (Droz and Mieville-Ott, 2005). The authenticity being the characteristic of what is genuine, original, unaltered or true, it is conveyed by the local population, through their customs and traditions, being concerned with the traditional culture of origin and the meaning of the true or unique (Sharp-ley and Stone, 2011).

In the framework of tourism, authenticity also relates to a type of motivation: the search for cultural, genuine and authentic experiences (Day, 2009b: 130), since, as MacCannell (1976) mentioned, tourism expresses the tourist's demand for authenticity.

According to MacCannell (1973, 1976), the modern tourist is committed to the pursuit of authenticity precisely because this has become a scarce in modern societies. The modern citizens of Oeste men are living an artificial reality, inauthentic, and tourism is a way that lets them seek authenticity somewhere else, in another culture and / or in another historical period.

The details of the countryside turned into something more versatile to the tourist. The environment, landscape, vernacular culture and the involvement of local communities allow the tourist to experience the authentic, genuine, and to develop relationships guided by simplicity and they sometimes get engaged in the farmer's everyday practices.

Therefore, in rural areas, the tourist attractiveness is largely based on the vitality and authenticity of lifestyles and traditions. The fact that the villages are no large resorts and still in possession of a genuine population, offers a favourable atmosphere. The vitality of the traditions is an important dimension of the tourism product that offers the possibility to discover an unusual heritage, for a quantity of reasons that could be seized by the visitor.



However, we must take into account that there exist two distinct points of view about the value of assets and about its authenticity: the point of view of the tourists and the local community. For tourists, the agricultural productivity doesn't matter; their interests are in the aspect of identity and the symbolic presence of agriculture. But for indigenous communities, the place where they live it is the foundation of their own existence, both material and spiritual, the heritage and landscape are elements of identification which are associated with feelings about owning the territory, but also economic assets that must ensure their material subsistence.

In our days, rural communities have the opportunity to assert their identity when they realize they are holding great potential for authentic tourism offer, with an increasing demand and they can gain from it, raising their self-esteem and providing unique and authentic experiences to the tourists.

The preservation of the rural environment in its authenticity should start at the level of the parish, for example, the archaeological remains, the shrines, chapels, holy places, churches, fountains, the pillories, mills, bridges. As Cardona (2009: 45) points out, these *reliquiae* are often the anchors the collective memory. And as symbolic references of past communities that should be studied, preserved, historical and ideologically framed, interpreted, allowing its spiritual and physical access.

## Case Study - the Lourinhã Windmills Heritage

### Characterization of the Lourinhã County

Lourinhã is the most northerly county in the district of Lisbon, and borders the district of Leiria. It is 63 km far from the capital (Lisbon) and is situated in the region of Oeste, being part of the Tourism Cluster of the Oeste. In the north, it borders the municipalities of Peniche and Óbidos, in the south the municipality of Torres Vedras, in the east the counties of Bombarral and Cadaval and in the west the Atlantic Ocean.

Lourinhã is strategically located in the heart of the region of Oeste. With an area of 146 Km<sup>2</sup>, it has a resident population of 25,735 inhabitants (Census, 2011), spread over 11 parishes, divided into two particular areas, an interior area that is characterized by rurality of the landscape, with an agricultural area that covers approximately 80% of its territory and distinguished by its colors and its harmony. On the other hand, it borders the shoreline along its 12 km of coastline with beautiful beaches, bays and coves, 3 small fishing ports (Paimogo, Porto de Barcas and Porto Dinheiro), and cliffs that have sights of excellence. The economy is divided up by the fishing industry, agriculture, trade and services.

Thanks to its relief, the county Lourinhã has a natural beauty, with numerous hills, with traditional windmills, and a cultural heritage of enormous wealth. Therefore, it makes sense to develop a specific strategy to take advantage of the remaining windmills in the county, integrating them into a "route of windmills" that combines the entire offer in creating a differentiated, tourism product as the Lourinhã "Route of Bread".

### The Windmills in Oeste and Lourinhã

The Windmills heritage in the Oeste region is mostly private, being largely abandoned and being in many cases, the subject of speculation, with a view to rehabilitation for a 2nd home. All this happens in a somewhat anarchic process, as the legislation is silent, which translates in most cases a distortion of the original architectural design, as seen in the photographs below.



Figures 2 and 3: Disqualification from the architectural design of windmills  
Source: Association Leaderoeste

According to data provided by the Association Leaderoeste, the survey carried out to 11 municipalities in the region in 2000, the number would be 846 windmills in the Oeste. But the speed in which the degradation occurs is worrying: some are being demolished, others are being integrated into homes, leaving virtually unrecognizable.

We were anxious to take into account how many windmills currently exist in the Oeste and contacted all the municipalities and the CIM Oeste<sup>1</sup>, but no one was able to provide accurate data, only estimates. Therefore, we decided to adopt as a reference the last record from 2004, which noted the existence of 693 windmills in the region of Oeste.

The reason for the existence of traditional windmills in this region depends on two important factors, firstly the orthography, an area full of hills that provided optimal conditions for the

<sup>1</sup> CIM Oeste - Intermunicipal Community of Oeste.



deployment of this type of grinding in the past and the existence of the ideal wind characteristics which are predominantly north wind. Lourinhã currently has 93 windmills, of which 25 are transformed into housings and 12 are in advanced decay. The remainder could still be recovered and be given a proper use, integrating aspects of cultural tourism, as we are going refer later.

According to Pereira (1990), in 1883 there were 66 windmills in the Lourinhã county. And, by the diffusion of the steam engine, the mills and millers constituted fundamental underpinnings of Grey life (Oliveira et al., 1983, p. 496). At the top of the hills, the windmills were very characteristic elements of the economic landscape and Portuguese technique.

### Objectives of the Project "the Mill Bread"

This project brings two strands together: research and intervention. This is a research / action that integrates various objectives, from the inventory of the state of windmills conservation in the Lourinhã County to a submission of a proposal for a tourist route. The annual "Bread Mill" is part of this project and seeks on the one hand to create an ideal context for understanding the behaviour and attitudes of the different social actors who are directly involved (for this purpose has been used the method of participant observation by using a questionnaire survey) and on the other hand, it serves as a vehicle to raise awareness of local decision-makers in relation to the importance of preservation and / or restoration of the windmills, assigning some new economic purposes.

#### General Objectives:

As part of this ambitious project it's intended to achieve the following general objects:

- To assess the interest in preserving the windmills heritage;
- Inventory, updating the Lourinhã county's windmills heritage, using its geo-referencing and photographic collection;
- Set goals of economic and social development with a sustainable character and strategic windmills touristic promotion;
- Understand how the evaluation and the perception of windmills heritage are made by the tourists;
- Present strategies for planning and developing a specific tourism product in a rural base;
- Develop guidelines for the use, the occupancy and the windmills upgrade, based on their preservation and respect for the built windmills heritage;
- Discuss the role of tourism in relation to the cultural heritage in order to promote sustainable development in rural areas;
- Define an integrated and participatory development strategy, the windmills cultural heritage is privileged and contribute to the improvement of the life quality of the involved populations.

#### Specific Objectives:

Among the specific objectives of this project the following are highlighted:

- contribute to the integrated offer of "Tourism Trekking", in order to its sustainable development";

- recover lost traditions, that once had been relevant, giving meaning and economic asset to the windmills, from an event - the "Bread Mill"→
- contribute towards the dynamics of windmills, striving to maintain its authenticity;
- encourage social dynamics grounded in the culture and identity of rural communities;
- propose the creation of a touristic route to the Lourinhã county, called "Route of Bread."

The intervention efforts on the scene e were closely associated with the festive event called "Bread Mill"→ and was conducted in an empirical study with resources to various methods of data collection: observation and inventory of windmills, the millers' interviews, questionnaire survey and participant observation.

This work was focused in Lourinhã County, and the first step was to build the inventory of the windmills heritage, its geographic location, identification and classification of tourist and cultural attractions as a reference for visits and to allow the performing the following tasks:

- a) record the number of recoverable windmills in the municipality of Lourinhã;
- b) identification of their owners and understand the history associated with them, and the reason that led to the degradation of the mills;
- c) Statement of asset value behind them;
- d) defining the best way to keep the windmills, through its touristic exploration.

According to the objectives will be established areas of the windmill concentration in terms of its heritage value. The resource classification with specific indicators led us to the selection of the most representative windmills in some parishes of this county, referenced as niche asset value (particularly in the parishes of Moita dos Ferreiros, Reguengo Grande, Atalaia and Moledo), which should be considered as territorial references in the definition of strategies to promote the windmills touristic heritage of the Oeste.

#### Hypotheses

This research project / action intend to test the following hypotheses:

H1: Tourists and visitors are receptive about the preservation and touristic promotion of the windmills in the region.

H2: There will be demand of this kind of cultural and historical heritage.

H3: The economic and socio-cultural factors influence the windmills preservation.

H4: It is possible to re-qualify the Lourinhã windmills, placing them at the service of a sustainable tourism strategy.

#### Data Collection

This research integrates several empirical studies conducted in parallel, each one with a different method and specific goals. The diversity of methods is due to the multidimensional



nature of the object of the study. On the one hand, we intend to assess the state of conservation of the material heritage and, on the other hand, it is intended to meet the social and cultural dynamics related with windmills phenomenon and cumulatively induce a dynamic set of social awareness and reposition of windmills assets through a festive event. The study took place between March 2011 and February 2012, and the following methods were applied:

- 1st. document analysis;
- 2nd. inventory of the state of the windmills;
- 3rd. comparative analysis of the evolution of windmills;
- 4th. participant observation using a festive event;
- 5th. Participants survey in the event;
- 6th. interviews with millers.

### Registration and Inventorying Windmills Heritage

After a documental analysis based on the subject in general and on the windmills in the Oeste, particularly Lourinhã county, we conducted a comprehensive survey of the state of conservation / degradation of traditional masonry windmills in the Lourinhã. We used the book "Lourinhã - the windmills of your county," published in 1990, and a survey conducted by Lead-roeste in 2000 as a starting point. It was intended to check the current state (in 2012) and the developments since the last two performed surveys.

In this context, we created a form with the purpose to collect all the examples that exist in each parish, as well as pictures of each of them and register their condition, as well the number of the windmills' millstones, registration of the integration into the landscape and the accessibility.

The survey showed us the number of windmills in each parish, its respective location and GPS coordinates, name (s) of the owner (s), by using four classification parameters:

- A - Windmills in ruins,
- B - Windmills with possibility of recovery,
- C - Windmills in good shape, but inactive,
- D - Windmills in activity,
- E - Windmills which meanwhile were transformed for various usage.

### Comparative Analysis of the Evolution of the Windmills Heritage

Intending to determine the state of evolution and / or degradation of windmills in the Lourinhã County, the data collected from surveys conducted in 1990 and 2000 were compared with data gathered in this study. The previous surveys were outdated since many windmills were registered as ruins and many have now been demolished.

### Participant Observation

As referred by Sousa and Baptista (2011: 88 - 89), the participant observation "aims to collect data (on actions, opinions or perspectives) to which an outside observer would not have

access. This qualitative research technique appropriate to the researcher intends to understand in a given milieu, an outstanding phenomenon, which will allow you to integrate the activities / experiences of people who live in it, thus performing the field work. In this type of observation, the investigator will experience the situations and collect them afterwards, according to his perspective / reading. The data recorded during the field work are a kind of narrative description. "

Thus, at this stage of field work, and as a way to gauge the interest of residents and visitors / tourists to preserve the windmills heritage, we took the practice of performing a festive event in two consecutive years<sup>2</sup> (June 19, 2011 and 1 July 2012), called "Mill Bread", a scenario that could be visited by the general public, cultural actors, local residents, visitors and tourists.

A basic assumption to perform this participant observation was the existence of at least one traditional windmill in activity and in good working order, and a number of other related conditions: a threshing floor, activation of the wood stove producing in it old-fashioned bread with flour ground at the mill, and a festive atmosphere with traditional Portuguese music (folklore). In these circumstances it is possible to effect a festive event demonstration of the touristic value and windmill heritage, while anchor of a sustainable tourism development, based on the vernacular values of rurality and on the contact of countryside practices.

The event was held in the Lourinhã County, in a parish called Atalaia (in Alto da Cabaceira - Travessa dos Moinhos) on 19 June 2011. Bilingual Posters were developed (Portuguese / English) and distributed by hotels in the Oeste. At the festival local, the scenario consisted of three windmills, two of them had rigorously been cleaned several weeks earlier, oiled, white-washed, checked the canopy, ropes and shells. Everything was checked in detail, in particular the security conditions for its full operation on that day. The threshing floor and utensils behind it had been prepared and all of them had been identified in order to check all conditions, including the donkey and the cart, as well as local handcrafts, related to the windmills art.

Three weeks before, had been made a door to door campaign in the parish, to find residents interested in participating as figurants, and there were many volunteers who have offered to actively participate in the event, carrying the flour from the windmill to the area of the bread confection, sift the flour to remove the bran, making the process of mixing, the baking, heat the wood oven, the process of bringing the bread to the oven, all in a festive atmosphere in the communion of tasting the Bread, with the presence of musical entertainment in interactivity with the audience. Corn bread with sardines, bread with figs, raisins, greaves, chorizo, among others, were made and shared in a festive atmosphere.

### Participants Survey of the Event

On the day of the event "Bread Mill" bilingual surveys were conducted with the use of a questionnaire, with closed answers in order to evaluate the interest of the event from visitors / tourists as well as the degree of importance they gave.

<sup>2</sup> Although we held the event in two years, the data presented in this article relate primarily to the 1st edition of the event: June 19, 2011. However, the 2nd edition fully confirmed the results obtained in the study conducted in the previous year.



Besides allowing profiling the visitor during the event (according to the variables "gender", "age", "nationality", "skills" and "professional activity"), the questionnaire included four Likert scales of 5 points (from 1 = "irrelevant" to 5 = "very important") for evaluation of the event, including:

- Assessment of the dynamics inherent to the threshing floor and the aggregated tools;
- Assessment of cultural heritage and history associated with the windmills;
- Evaluations of the traditional process of manufacturing the homemade bread (knead and bake in a wood oven);
- Evaluation of the characteristics and the type of musical entertainment;
- Importance of preservation and touristic promotion of windmills in the region;
- Importance of international promotion of the event and activities associated with the windmills.

### Interview with Millers in Activity

We also conducted four interviews with millers in activity. These interviews had three purposes:

- 1) understand how life was in the past and how the millers are currently trying to understand the real difficulties which they are facing today;
- 2) gather relevant information about the intangible cultural heritage, in particular the practices and customs of millers, and which of them should be preserved;
- 3) listen to the opinions of millers on what should be done to prevent them from abandoning the activity in the short term.

This investigation had a qualitative character, by using a structured, orderly and intensive type interview, it allowed the millers to express themselves with complete freedom, while expressing their points of view, so that we considered the infor-

mation rich in individual terms, but admitted that they do not reflect the views of all the groups of millers, however, they were considered important to the goals of this work.



Figure 4 - Interview with millers

### Results

#### *Registration and inventorying the windmills heritage*

Table 1 compares the data from surveys conducted in 1990 and 2000 with the results obtained by our field study, started in 2011 and completed in 2012.

The record made in 1990 had a total of 96 windmills in the municipality of Lourinhã and, interestingly, the study conducted in 2000 reported that there were 104 windmills<sup>3</sup>.

We realised that the study between 1990 and 2000, showed the number of windmills in operation decreased from 22 to 14, which means that eight millers left the activity. Also, the number of mills in ruins decreased, 36 became 25. In the evolution that occurred between 1990 and 2000 exist two parameters that are not comparable (windmills with the possibility of recovery and windmills in good shape, but not active), because the responsible author for the survey of 1990, grouped them in single parameters.

Chart1. Inventory of the Mills' status and comparative analysis of the evolution

Parish	1990 N = 96					2000 N = 104					2012 N = 93				
	Ruins	Recoverable	Good condition	Working	Transformed	Ruins	Recoverable	Good condition	Working	Transformed	Ruins	Recoverable	Good condition	Working	Transformed
Atalaia	0	2	(*)	5	0	0	2	1	4	0	0	4	0	2	1
Lourinhã	3	8	(*)	4	0	3	7	3	0	3	0	4	6	0	1
Marteleira	2	1	(*)	0	3	2	1	0	0	3	3	2	0	0	1
Miragaia	2	1	(*)	0	1	1	0	0	0	1	0	1	0	0	1
Moita dos Ferreiros	5	4	(*)	6	1	7	3	0	5	4	6	5	1	4	2

<sup>3</sup> Now, it is clarified that the number of windmills in fact didn't increase because there has been no anomalous situation that led to the construction of new windmills, we can only assume that the 1990 study had not been fully detailed and exhaustive. Further, the author admits the possibility of omissions.



Moledo	3	4	(*)	1	0	0	1	1	2	6	1	0	0	2	5
Reguengo Grande	10	0	(*)	4	4	4	6	3	1	3	1	5	1	2	8
Ribamar	2	1	(*)	0	0	1	0	0	1	1	0	2	0	1	0
S. Bartolomeu	4	2	(*)	2	0	5	0	2	1	6	0	2	2	0	7
Sta. Barbara	4	4	(*)	0	2	2	0	0	0	7	1	0	0	0	8
Vimeiro	1	0	(*)	0	0	0	0	1	0	0	0	0	0	0	1
<b>Total</b>	<b>36</b>	<b>27</b>	<b>0</b>	<b>22</b>	<b>11</b>	<b>25</b>	<b>20</b>	<b>11</b>	<b>14</b>	<b>34</b>	<b>12</b>	<b>25</b>	<b>10</b>	<b>11</b>	<b>35</b>

(\*) The author considered the windmills in good order, but not active and those who have the possibility to be recovered in the same parameter, so that we could not exactly know, why they were in good condition but inactive (Pereira, Mario Baptista, p.86, Lourinhã - the Windmills of your county, 1990).

Comparing the data gathered in 2000 and 2012 with data from our study, it becomes clear that in twelve years, the number of mills in operation decreased from 14 to 11.

In the last 12 years, 13 windmills in state of ruins have been demolished, and the windmills with the possibility of recovery increased from 20 to 25, due the reduction of the number of windmills in operation and degradation of some who in 2000 had been classified as being in a good status of conservation.

Concerning the transformed windmills, Pereira (1990: 86) only considered the windmills that had been transformed in residential homes and didn't specify any other use. Moreover, he referred 19 windmills that had been demolished these results were based on the records of the matrix building articles. Concluding the analysis of the windmills that had been transformed, we realised that actually 25 windmills had been adapted into private homes and others into tourism housings.

Thus, we can see that in 1990 11 windmills were transformed into housings, in 2000 it were already 22 and 12 years later 25. So the tendency is continuing to transform the windmills in residence homes as a way to make them economically sustainable. There are owners who use them as a second home, especially when they live in typically urban environments.

### Participant Observation in the Festive Event "Bread Mill"

The inaugural festive event "Mill Bread" was held on June 19, 2011, in Travessa dos Moinhos, in the parish of Atalaia, a mix of outdoor space and roof space, next to an infrastructure with wood stoves, a kitchen and an exhibition hall. Outside, are three traditional windmills and a threshing floor with all necessary utensils.

As observers / participants, we found a scenario of an authentic historical reconstruction, for which we have provided the leaders of the four cultural associations, sports and recreation, its associates and many others in the parish Atalaia. Many of the volunteers had practical knowledge regarding to the mixing and production of handmade bread in wood-fired ovens.

Participants / figurants, fully imbued with the activity, were a little anxious, but at the same time very committed to the tasks assigned to them. The adrenaline was notorious, especially in the women (bakers), having conversations between each other to figure out who would bring the flour from the

windmill carrying it over the head as they did in golden times and determine the people who would crumple. And so, different tasks were distributed, always respecting the wisdom of the more experienced participants, while showing a great spirit of a remarkable camaraderie, working with brio, showing that they were participating with great engagement, with pride in what they did and how they exhibited the costumes which represented older times.

Thanks to the observation, we found out that visitors and tourists were anxious and curious to see the process of kneading by hand. A complex and very hard process, starting with sieving the flour to take away the bran and pollard, after about 45 minutes in each stage of kneading, are produced on average of 16 loaves per batch. Women bent over the bowl of stoneware, kneaded the flour with the traditional yeast<sup>4</sup> a job with a lot of manual effort by saying a ritually praying: "In the name of the Father and of the Son and of the Holy Spirit, God will add God make thee virtue, and I did what I could."

Followed by the waiting time for baking the dough, covered with blankets in a dark place where there couldn't be variations in temperature. The process of heating the wood fired stove, it is not easy and has its secrets, and we found that not all wood is good to heat the oven properly. The "vides"<sup>5</sup> are great and provide a more uniform heat by heating the oven evenly and at the optimum temperature: when the roof of the oven gets tone "rosy".

Then the process of dividing the dough and bring the bread to the oven follows (bake corn bread, wheat bread, bread with sardines, bread with greaves, cooks with chorizo, among others). The event had approximately 90 employees, who were taking turns every five hours in the most arduous tasks, such as the mixing and kilns. Local people involved in the event were distributed as following: 48 women (bakers), distributed by 8 community ovens, 8 sellers of bread, 3 millers and 3 helpers, 4 men on the threshing floor who explained the tools inherent tasks practiced in threshing Cereal, 4 tavern, 8 cooks in mini confection of traditional dishes (octopus and whelks salad, roasted chorizo, among others), accompanied by freshly baked bread out of the oven.

In the adjoining room, a photo exhibition showing the mills and some artisans producing regional handicrafts linked to the

<sup>4</sup> sour dough, left from the previous week.

<sup>5</sup> Vides - tabs that are cut from the vines, pruning in season, tied in bundles and are stored in a drying process, excellent for heating furnaces.



windmills (hand paintings on miniature windmills, hand embroidered bags for bread transport, painted decorative tiles with windmills among multiple small decorative parts).

Also an important presence and source of attraction for the visitors / tourists, was the windmills master of the Cadaval County<sup>6</sup>. He made the point of being present to work and explain all the details of the gear that makes up the windmills. He brought a bench with very special characteristics, on which he works on various parts of hardwoods, such as: olive tree, rosewood, among others. Surrounded by sprockets, and "entrosas" and reels, tourists and visitors, mainly Dutch and Spaniards did not get tired to take photographs, while he was working, and another collaborator was translating, and they listened carefully and took pictures of the moments.

Outside, a participation of folkloric group "The Moleirinhas Seixal", with 16 dancers, 8 musicians and 2 female singers,

were interacting with the public, inviting them to participate in dancing and singing.

In the windmills, we have seen vanity and enthusiasm of the millers and their family, they received small groups and explained their life in the mills to the visitors, they are proud owners of windmills and worth of receiving so many admirers, who came there to listen their explanations, making them feeling like teachers for one day.

There were many visitors who were amazed with the traditional process of grinding and told us that it was the first time that they had been in a windmill. During the visits to the windmills we noticed that they certainly were the most photographed places and the setting to ask the questions they had for the millers. Several families came with their children, so they had the opportunity to see both the old process of grinding and the operation of the mill gear.



Figure - Festive Event "Bread Mill": Cooking in a wood oven (19/June/2011)

Throughout the day, there came many regional media. At the end of the day, they were glad that everything went well, for being invited, and for having the opportunity revive the old times which they thought forgotten and felt that the public and visitors / tourists appreciated the festival, by showing

interest in returning next year.

Once the event took place, the enormous reputation and success made that the members of the local community who were involved as figurants, expressed their desire to continue the event, making it an annual tradition.

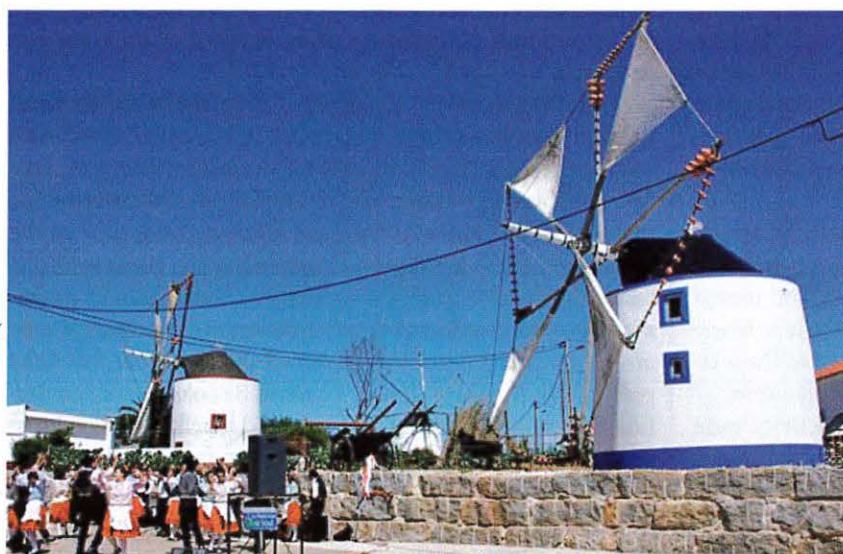


Figure - Scenario of Event "Mill Bread" (19/June/2011)

Source: author

<sup>6</sup> Master of mills Miguel Noble - Art Workshop in the Wind - Municipality of Cadaval.



### Survey for the Participants at the Event "Bread Mill" on June 19, 2011

There has been made an interview with the event participants "Bread Mill", with a sample of 95 respondents, with the following characteristics:

Table 2. Sample of participants in the event "Mill Bread"

	%		%
Nationality	8.4	Sex	
Portuguese	91.6	Male	45.0
foreigners		Female	55.0
Age		Qualifications	
Up to 20 years	3,2	Basic Education	27.0
From 21 to 30 years	16,8	Secondary Education or Technics	37.0
From 31 to 40 years	25,3	Graduation	21.0
From 41 to 65 Years	42,1	Further Graduation	15.0
More than 66 years	12,6		

Table 3 presents the answers of the respondents about the evaluation questions of the event, as well as issues of importance to the region's windmills heritage.

Table 3: Importance of preservation of the mills and the event "Bread Mill"

	Rating (%)*					Average
	1	2	3	4	5	
Dynamics inherent to the threshing floor and its utensils	0.0	1.1	7.4	35.8	55.8	4,46
Cultural and historical heritage associated with windmills	0.0	2.1	5.3	18.9	73.7	4,64
The traditional process of manufacturing the homemade bread	0.0	0.0	4.2	22.1	73.7	4,69
Characteristics and typology of musical entertainment	0.0	1.1	5.3	35.8	51.6	4,47
Preservation / tourist promotion of windmills in the region	0.0	0.0	3.2	12.6	84.2	4,81
Interest on the projected event "Mill Bread"	0.0	1.1	4.2	17.9	76.8	4,70

\* From 1 = "irrelevant" to 5 = "very important"

Asked about the interest of cultural heritage and history associated with the windmills, 73.7% said "very important" and 18.9% as "relevant", which is very significant. Regarding to the evaluation of the traditional process of making bread (homemade) with manual kneading and baking in a wood oven, 73.7% considered it "very important" and 22% "important", only 4% answered "somewhat important." According to that we assume that many visitors never had the opportunity to see the ritual of mixing live and in traditional ways as well as the entire process of heating wood stoves and bring bread to the oven. Regarding to the characteristics and types of animation, traditional music (folk), 51.6% was attributed the evaluation "very important" and 35.8% as "relevant" (the event was animated by traditional music: folklore).

When asked what degree of importance should be attached to the preservation and touristic promotion of windmills in the region, 84.2% reported about it as "very important", 13% "relevant" and 3% "somewhat important." None of the respondents indicated it as "not relevant" or "irrelevant", which shows the

importance given to the preservation and promotion of windmills heritage, from which we can conclude that there is a consensus on the importance and interest in the preservation and promotion of this heritage asset. Finally, we asked about the interest in designing the event and the activities associated with the mills, which earned the rating of "very important" by 77% of respondents, against 18% who responded "relevant."

The validity of these data can be questioned since the sample consists of participants in the event, it could be natural to assign a highly favourable note to the event, and therefore the opinion of people who knew about the event but decided not to come should also be taken into account. Facing this criticism, we only can argue that it was evident that the event was spontaneously adherent, as well as the continuity of the event, that was soon affirmed by the success of its first edition.

### Analysis of Interviews with Millers

Initially the interviews were realized with four millers, we tried to see how life was in the past and how the millers live



today, in order to realize the real difficulties, which they are facing these days. After getting an idea of the millers' lives, we conducted the interview, in order to get a deeper understanding of important intangible heritage, which only living witnesses can devote. We realized that the whole process of putting a windmill in activity is not an easy task and requires knowledge of mechanics. A lot of interventions are required to get a mill in activity, as for example gears and pulley systems, large wood devices with various types of wood, each with its own hardness.

This is a family-oriented economic activity, which over the years has been passed from the parents to the children, who at an early age started helping with milder tasks in the mill and, practiced subsistence farming when there was no wind.

In the 40s, 50s and 60s this was a profitable economic activity, but with the appearance of industrial mills, the sales became less and the millers' business almost disappeared. The evolution of society also influenced their lives, the millers' children started to study and took other professional ways.

As the older generations passed away, the younger generations didn't keep the tradition of making bread at home but the millers continue to affirm that to the quality of the flour mill is much better, because the flour, which is used today is mixed with rice flour to make it cheaper.

Currently, working mills attract many people who are interested in visiting the mills, talk with millers and make photographic records, but not to buy flour. The interviews revealed numerous activities associated with them, and they are a life lesson. When the millers today are asked if there would be anything else they would consider to do besides the grinding activity, they would clearly state that while they will be living, the windmills will be in operation. But taking in account the average age of millers, we realize that they will have another decade or two of life, and then the windmills will be waiting for the weather to consume them.

- Looking for the numerous windmills transformed into 2nd housings, and other housing systems in rural areas, it becomes clear that most of the interested people would turn them into rental housings. In fact, we had the opportunity to visit some examples of windmills that were adapted into housing and recognized that are an authentic "pampering" integrated into the landscape of the countryside.

## Proposal for a Route - "Bread Mill"

After the diagnostic study, in which we discovered that there is a latent desire in the population to mend efforts to restore and preserve the windmills heritage, both in its material component (the buildings) and in its intangible component (traditions associated with bread made in handmade wood fired oven), we believe that the solution for the problem is the creation of a cultural tourist route that might be aggregated to the existing supply and to the idea of preservation and enhancement of economic mills that are still in operation.

For this purpose we adopt the methodology proposed by Barreto (2001), which includes a set of eight stages, from preliminary studies to implementation and monitoring of the project.

From 2000 to 2005, the Association Leader Oeste and the Community Intermunicipal do Oeste, made efforts to establish a Route of Windmills in the region. In essence, it was intended to preserve two windmills in each county. However, this intention never turned into an action.

In order to no longer delay the preservation of the Windmills legacy in the region, it is proposed to create a micro route of windmills in the county of Lourinhã called "Mill Bread". A route, created with the intention to turn the windmills into a touristic service that is going to be very original in its conception, by joining together the variety of tourism products in the municipality of Lourinhã in order to make it richer and to diversify the offer, not forgetting the intention of a possible integration of the route of Mills on a regional level.

It is well known that tourism is increasingly segmented and that tourists are becoming more selective in seeking new experiences and destinations and authentic differentiators. It is also agreed that the idea of the rural world has factors of attractiveness to visitors / tourists who live in urban areas. In this context, the mills are increasingly demanded for housing in rural areas. So it makes sense to try to leverage all the mills that no longer have the requirements to be recovered, adapting them to touristic spaces for living, since they respect the original architectural design. However, this should not be the only way for preserving the windmills legacy in the region. The adaptation of mills strategically located in areas of great landscape value to serve as local accommodation (or units of tourism in rural areas), should be seen as only one of several options in a general strategy for the recovery of this legacy. Thus, the windmills, which would be turned into housing units, would become part of the future route by becoming tourist accommodations. This would diversify the offer and promote the heritage.

### Steps for planning tourism based on cultural heritage

Steps	Description	Comments
Preliminary study	Field study and literature review for possible historical attractions	
Choice / demarcation of the zone	Identification of the area where the attractions are located (city, region, district, street)	
Diagnostic study	Check the quantity and quality assessment of the potential attractions. Verification of the quantity and quality of roads and / or streets or other ways to access the attractive.	Indispensable assistance of experts (historians, architects, etc.)



Setting objectives and targets	Definition of the results to be obtained with planning, in social, economic, educational and touristic terms	Reflective step
Choice of intervention alternatives	Developing a proposal for intervention in attractive tourist product broader (screenplay historic revitalization of neighbourhoods or buildings, staging the past etc.) and setting deadlines.	Very creative step
Implementation	Preliminary budgeting and looking for their own financial resources or investors. Meetings with members of the affected community (authorities of culture and tourism, neighbours, homeowners, etc...) To find the best way to benefit from all the motion	Respect, above all, the interests and desires of the involved community
Implantation	Scaling the possibilities of approaching the public with attractions. Checking the shape and condition in order to obtain an angle for comfortable viewing monuments and works of art without compromising their integrity. Verification of premises, furniture, fashion movement in reused buildings. Studying the history, the architectural styles in art schools, etc...	Step of much study. Check the bibliographic sources and experts
Implementation and control	Assessment of the use of the equipment according to plan and adjust details to improve both experience and social benefits	

Source: Barreto (2001). Turismo e Legado Cultural – As possibilidades do planeamento. São Paulo, Papirus.

The vast heritage legacy of the windmills should be preserved, maintained and, in some cases, adapted. The use and reuse of windmills should happen in parallel with the recovery of the inherent intangible heritage (as ethnographic traditions and expressions of rural communities that were in the production of flour and wood fired oven, one of the foundations of its own existence, etc ...). Preserving the windmills legacy in its two dimensions (material and immaterial) should therefore be a central element of the strategy of creating the route, which will operate as a kind of catalyst for the endogenous factors of touristic attractiveness and infrastructure supporting the interpretation of the historical heritage and be a kind of affirmation of the search of identity of those places, helping to maintain the brand identity of the Oeste.

The active windmills should be able to continue the production of flour, and it is necessary to make agreements with bakeries units, to ensure the absorption of flour from the mills by producing bread with the brand "Mill Bread". Products, which are branded as "Mill Bread" will be distributed and sold by bakeries in the usual places. And given their differentiating characteristics (flour locally produced with ancestral methods and without mixture of other ingredients), these products would be sold at a higher price, but the quality is worth it. Therefore, it seems that the windmills could be economically sustainable and would also be a positive factor for tourist attraction and local promotion. Moreover, the route would provide partnerships between local actors, making them more sympathetic, showing the more authentic character, genuine and unique in the region and helping to project this character in the source markets.

For financial support, the Leaderoeste Association, headquartered in Cadaval through the Community Initiative Programme LEADER<sup>7</sup>, has support lines and since the early 90s, the association has been supporting the recovery of windmills, as well as several projects related to culture, including actions

for safeguarding and enhancement of the built heritage, construction and rehabilitation of cultural facilities, events, entertainment and cultural promotion.

It is important to note that to achieve its goals of conservation, maintenance and disclosure, the revitalization of heritage needs to be anchored in a tourist formula. This would be a touristic formula, which by its multiplier effects could eventually bring socio-economic dividends to the region where the project is located. Therefore, it is imperative that this tourist formula is created within the local specificity and with the agreement of the local population that lives with this heritage (Gonçalves, 2009: 102).

A thematic route seems to be a widely advantageous solution. On the one hand, it serves as a motivator for owners of windmills and millers, on the other hand, the windmills become more relevant as a touristic attraction. Moreover, as a contributing factor to the sustainability of livelihoods of local populations, the route may serve as an instrument for the dissemination and promotion of other resources in the county, and those would be associated to them.



Double indication plate

The implementation of this route should include heritage interpretation systems, in terms of traditions, history, food and wine, arts and crafts, landscape and coastline of the county, showing the high historical and cultural value, revealing at the same time dynamic tourist council. In order to this, you need the consensus of stakeholders, by seeking for consultation strategies and join efforts for the recovery of this heritage, making it an integral part of the plans to promote the county.

Since the existing windmills are at different levels of conservation (or degradation), giving each of them a final concept,

<sup>7</sup> Share Development of Rural Economy.



will depend on several factors, mainly their conservation status, its location and accessibility should be taken into account, always considering that the main objective is making them more attractive.

Due to the state of degradation of some windmills and the isolation of others that are deployed within private properties, it would be impossible to include all of them in the route. The recovery of the mills in order to create better conditions to integrate them in the route, together with any complementary activities including animation, offers the tourist / visitor a rewarding cultural experience letting them know and experience the best that the county of Lourinhã has to offer.

The route should include a coordinated system of in terms of infrastructure and touristic information signs, which would allow a proper orientation during the discovery of the windmills, including illustrative elements regarding the conservation and preservation of the environment.

The use of windmills as part of the route for cultural tourism with all its charm seems to be admired by tourists and visitors, because of their diverse characteristics. Taking into account the presented aspects, we suggest a route that includes: a route for cars, pedestrians and bicycles.



The Car Route, is for everyone who has to travel by car to get to more distant points;

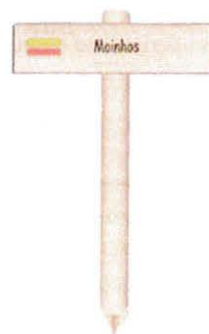
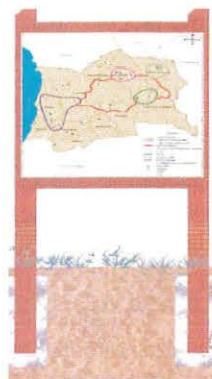


The cycling route, for all visitors who wish to visit the mills through more restricted paths by bike;



Pedestrian Route, adequate for all those who want to visit the mills in contact with nature, by taking a walk. It would be advised to visit the four clusters of windmills (Atalaia with 3 windmills, Moledo with 4, Reguengo Grande with 7 and Pinhão in Moita de Ferreiros with 5 mills).

We believe that a route would motivate owners, and return them into life, the landscape would be more enjoyable, and it would be a way to motivate them in terms of the recovery, preservation and revitalization of the windmills. On the other hand, it would be a way to promote health through walking trails or bike lanes. Some accessible items would remain for the visitors and tourists, it would help to promote local culture, and to involve the community, and in some individual cases, some of the mills would be able to become economically sustainable.



Identification plate



Figure – Pedestrian  
Source: Municipality of Lourinhã

- A route to integrate periodic events linked to the windmills, as an identity reference to the gaze of tourists and visitors, consisting of mills in operation, with contiguous spaces for manufacture and sale of bread and flour.
- Windmills could be adapted for tourist information offices. Others could be adapted as shops that sell organic products, where could be sold mill bread.
- Windmills as a sale place for regional products (cheeses, sausages, wine ...)
- One windmill could be adapted to pass short films, windmills activity, geared towards tourists and also for study visits, or adapt a windmill into a weather station.



- A windmill museum, to show the valuable historical and cultural heritage associated with it, demo gear and its functionality, and a pedagogical factor for secondary school students and/or university, with a sample practical demonstrations of the systems of pulleys and levers.
- One windmill could be adapted into a craft workshop, in which craftsmen in form of associations could work, exhibit and sell local / regional handicraft in a rotation system.
- The creation of a Windmills Interpretive Centre - museum with cultural enhancement activities with the idea of preserving the local and regional memory, where short films with the habits, practices, values, customs, knowledge of the activity of the mills would be shown, that together with the still preserved material evidence, would allow a global interpretation of the cultural heritage of the rural villages of the Oeste, to motivate the search and provoke interest in the values of the local culture.

Moreover, the route would be enriched by providing a varied offer, beyond the diversity presented for the various windmills, such as other places and products that could be found along the way: water sources, centennial Farms, viewpoints, rural villages, visit to the Museum of Palaeontology (Dinosaurs), visit the Interpretation Centre of the Battle of Vimeiro, taste of Brandy DOC - Lourinhã, visit to the Planalto Cesaredas, rock formations and native plants - nature reserve.

A visit to the terrain peculiarity of the Reguengo Grande Village, and its unique characteristics, the village of Moledo, a route that could be complemented with its 12km of coast, split between beaches, bays, coves and cliffs of enormous natural beauty and places of outstanding natural viewpoints.

The windmills that are assumingly unsustainable given to the current situation could provide a new vision by becoming a place to visit and they could also be useful because of the consumption of visitors / tourists in the various museums, in the accommodations, in the gastronomy, the traditional festivals of religious nature and other types of events. Taking into account that this project is a combined product, which is inserted cultural and nature tourism, it is necessary to mention, that it could also be an important factor to combat the seasonality.

The route consists of a script of places to visit and since it would be well planned, it would strengthen the sense of unity within the diversity that is so characteristic in rural areas.

#### MARKINGS OF THE ROUTE

Right track



Wrong track



Turn left

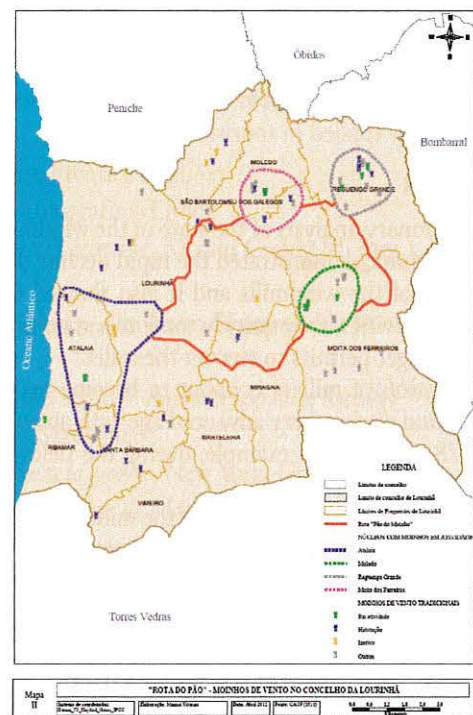


Turn right



Since the summers are usually cooler in the Oeste, predominantly the "oestina" (western) breeze in summer afternoons, sometimes forces tourists / visitors and vacationers to leave the beaches. The route of windmills could be promoted as an alternative to the beach providing them as cultural enrichment and in this case the tourists would not feel frustrated because of the weather.

We believe that the development of a route that includes the windmills that are best located for the purpose and also includes cultural activities in which tourists and visitors can participate would influence the tourist, and motivate him to contribute to the promotion of the local memory.



The proposed route of windmills, since, well outlined and supplemented, equipped with appropriate signage for the guidance of tourists, including the respective stations information associated with a promotional strategy, with promotion conducted in Tourism Fairs in agencies and tour operators, promoted on websites and in tourism offices in the form of brochures, including to the possibility of partnerships with hotels in the region, whose charges for the stay, would include a guided visit to the mills in operation, would be a viable and strategic factor for the revitalization of Lourinhã's windmills heritage.

#### Conclusions

As a result of this study, we believe that the interest in the preservation of the windmills' heritage has been demonstrated. In this sense, the geo-tagging and photographic collection of the windmills' heritage in the county of Lourinhã has been inventoried and updated.

We realized that socio-cultural and economic factors affect the preservation of the windmills. The millers evidenced the economic difficulties, and especially by their heirs, who neither showed interest in the activity, nor demonstrated concerns for its preservation or recovery, because it became an unprofitable economic activity today, registering the lack of initiative of the responsible entities order to make an effort to encourage the preservation of windmills heritage.



It seems possible that the alternative would be to re-qualify the Windmills in Lourinhã, placing them in a sustainable tourism strategy where they could work independently. In this sense, the planned and concerted management of a collective common heritage inserted in a windmills route, would practically demonstrate the traditional principle "the whole is different of the sum of its parts" and be more and better than that sum. It is a principle inherent to the holistic conceptions of reality, which led to systemic view of the complex phenomena, which generally is much applied in tourism.

### Final Thoughts

The evolutionary analysis of the state of the windmills in the county of Lourinhã, demonstrated the rapid decline due to the ineffectiveness of the windmills and it also showed that once they stop the activities, they quickly come to a state of degradation that no longer permits to recover the mills.

The generation of millers is about to become extinct. The millers we found are in a very advanced age with an average age of around 78 years. As an example, during the fieldwork, two millers passed away.

We realized that the descendants of the millers do not intend to continue the activity because it is not profitable. We also

recognized that the overwhelming majority is not motivated in the preservation and recovery of assets, alerting to the economic difficulties, citing the lack of support by the communities.

Taking this situation into account and considering the law that establishes the foundations of the political regime and the protection and enhancement of cultural heritage, allows local authorities to celebrate with private owners of cultural property, or other entities interested in the preservation and enhancement of cultural property or specialized companies, agreements that permit to pursue public interests in the area of cultural heritage for cultural and / or touristic purposes, it seems that something could be done in this direction. Based on this principle, and based on the survey of the windmills' heritage and after an approach to the millers, the local authority could develop guidelines for the use, the occupancy and the transformation of the windmills, based on their preservation and respect for the built windmills' heritage. Thus, the role of tourism in connection to cultural heritage would strengthen the promotion of sustainable development in rural areas. It would be a participatory and integrated development strategy, which would privilege the cultural heritage of the mills and would contribute to improve the quality of life of the involved populations.

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