

IS THERE A MODEL FOR SUCCESSFUL PATRIMONIALIZATION PROCESSES? A TALE OF THREE SITES

¿EXISTE UN MODELO PARA LOS PROCESOS DE PATRIMONIALIZACIÓN EXITOSOS? UNA HISTORIA DE TRES SITIOS

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Summary

This article aims at understanding the patrimonialization processes of artisanal salinas in Europe and analyzes how they contribute to the preservation of their heritage and landscape. To this end, three successful cases have been analyzed: marais salants of Guérande (France); salinas of Sečovlje (Slovenia) and Læsø saltworks (Denmark). Information was retrieved from bibliography, field visits, personal interviews and group dynamics, which together have allowed to elaborate the narratives of the patrimonialization processes of each site. The comparison between them has led to the development of a conceptual management model, that will hopefully contribute to the sustainable use of similar sites.

Keywords: salinas, cultural landscapes, management model, sustainability.

Resumen

Este artículo pretende entender los procesos de patrimonialización de las salinas artesanales en Europa y analizar cómo contribuyen a la preservación de su patrimonio y paisaje. Para ello, se han analizado tres casos de éxito: las marais salants de Guérande (Francia); las salinas de Sečovlje (Eslovenia) y las salinas de Læsø (Dinamarca). Mediante la recogida de información bibliográfica, visitas de campo, entrevistas personales y dinámicas de grupo, se han elaborado las narrativas de los procesos de patrimonialización de cada enclave. La comparación entre ellos ha llevado al desarrollo de un modelo conceptual de gestión, que esperamos contribuya al uso sostenible de espacios similares.

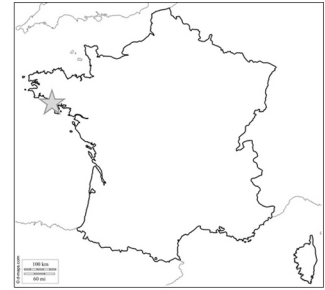
Palabras clave: salinas, paisajes culturales, modelo de gestión, sostenibilidad.

Introduction

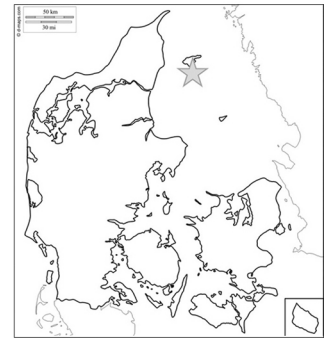
In the last century, artisanal salt making sites in Europe have suffered a progressive decline, as a result of profound socio-economic changes, that have affected productive activities in general (Hueso, 2017). This has limited their ability to compete in the mainstream salt market, which has ultimately led to the permanent abandonment of the salt making activity in most cases. In others, however, local stakeholders (environmentalists, cultural associations, scholars, public administrations, others) have been able to spark, push forward and even consolidate a patrimonialization process based on the sustainable use of the associated heritage and landscape values. To achieve this, many products and services associated with the production of high quality salt, as well as ecocultural tourism activities and salt-related museums, and the provision of health services from salt sub-products have been designed and offered (Hueso, 2015; 2017). These have contributed to maintain a multifunctional use of the site with a diversified socioeconomic activity with enough profitability, while respecting the natural values of the sites. In this process, the sites have therefore moved from a situation of managerial indifference or even abandonment, to a collective, highly motivated citizen-led effort to recover the heritage and natural values of the sites. At a certain point, as the complexity of the processes increased, this horizontal and generally altruistic approach, needed to evolve towards a new management environment led by professionals. In the end, these sites have thus progressed from the salt business to the business of salt-related heritage.

There are few cases of successful transition from a primary productive activity in decline, especially related to resource extraction such as salt making, to a service-based, multifunctional cultural landscape site (Conlin and Jolliffe, 2010; Pardo, 2010; Ruiz and Hernández, 2007). In this article, I would like to delve into three cases in which the recovery of salt heritage has been achieved soundly and the site is now thriving (again), after abandonment, external threats or an uncertain future, namely: The *Marais Salants* de Guérande, in France; the Læsø Saltworks in Denmark and the Sečovlje *Soline* in Slovenia (Figure 1). These cases can be considered success stories, with a consolidated patrimonialization process, which does not mean it has been completed, but that it is rather stable. The most interesting feature of their experience, however, is not fact that they have attained success, but the process of patrimonialization and recovery itself. Although there are similar cases elsewhere, none of them are as fully developed as these. The three sites selected offer a complete overview of the process and the reasons for this success can be tackled.

In this contribution, I would like to present the recent history of the patrimonialization of these sites and interpret the reasons for the success in the consolidation of these processes. Although the roadmap of each site has been different, some common patterns can be detected and extracted for the proposal of a model of sustainable management of saltscapes, which will be provided here too.



Marais salants de Guérande (France)



Læsø saltworks (Denmark)



Sečovljejske soline (Slovenia)

Figure 1. Aerial photographs of the study sites in the rest of Europe, with the approximate location on the map of each country (Source: own elaboration, with photos ©GoogleEarth).

Methodology

The methodology used for the research of the selected case studies is based on a combination of qualitative methods (bibliographic survey, field visits, focus groups and in-depth interviews). The combination of methods provides a simple and, yet, deep insight on the patrimonialization process of each site. It not only offers a picture of the current situation a given site is undergoing, but includes the recent history of the landscape and the community in relation to the site. This is very valuable information to understand how the current situation has been reached and how successes and failures have taken place. The idea behind this combined methodology is to obtain a set of information that gives an accurate picture on what is happening at site level, allowing at the same time a certain degree of comparison or categorization among them.

An important part of the work relied on the consultation of written literature. The written sources covered both scientific as non-scientific literature, as explained below. Obviously not all sites will offer the same quantity and diversity of literature. The search which has been, therefore, eclectic by nature (from systematic key word use in google scholar, google news and other portals; to cross references from any written document or oral referral). A great deal of the consulted literature was grey literature, which includes unpublished reports, plans and projects or internal documents and has usually been provided by non-profit organizations and authorities (Ander-Egg, 2003). Conference proceedings have also proven to be an essential source of information and potential informants. Since this work is oriented towards the current management of salinas and saltscapes, press clippings provided an insight in the successes and failures; the expectations and the final results of management practices (see also Roigé *et al.*, 1999).

Understanding patrimonialization processes requires an appropriate identification of stakeholders. Stakeholders are not only decision makers, owners or managers of the site, but any person or organization that feels affected by whatever happens to this piece of heritage or landscape. Therefore, a key element in the methodology of this research were the interviews with key stakeholders in relation to past, ongoing as well as future plans and projects in the study sites involved. The main stakeholders identified were salt maker organizations and individuals; owners and managers of the sites; local and regional authorities (relevant for tourism, local development, heritage and nature conservation...); local NGOs and other non-profit organizations with interest in local culture, environment, heritage; local museums and tourism offices; scholars, scientists and other specialists; and local businesses associated to salt and salt-related products and services.

The interviews used to gather information have been semi-structured or open-ended, depending on the informant. The reasons to choose this format are threefold (Corbetta, 2007). Firstly, the situations tackled were very different between and even within sites, due to the diversity of stakeholders interviewed. Secondly, the information needed was rather complex and responses were expected to differ significantly, both in tone as in content. And, thirdly, the need to create a relaxed atmosphere, especially in group settings or with biased

stakeholders. The interview had several items to be kept in mind, but they did not follow a fixed order. A list of the themes to be tackled during an interview can be seen in Table 1.

The field visits were intended to observe first-hand the state of the salt making site and the surrounding landscape, to visit the businesses and other facilities associated to salt and to perform the interviews with local stakeholders.

To saltmakers	To managers/institutions
<ol style="list-style-type: none"> 1. How did your relationship to these salinas / saltworks start? When did that happen? Why? 2. What is your dearest memory of the salinas / saltworks? Why? 3. What is the hardest part of your work in the salinas / saltworks? 4. How do you see the salinas / saltworks today? Would you change anything? 5. How would you like them to be in the future? 6. What (else) do you think could be done here to preserve or improve the salinas / saltworks? 7. What do you need to achieve this? 8. How would you like to be involved in this process? 9. Do you think that a protection status is beneficial for the salinas / saltworks? Why (not)? 10. In this research we would like to offer the results to other salinas / saltworks. Would you like to offer advice to others? 11. Would you like to add anything? 	<ol style="list-style-type: none"> 1. How is your institution involved with the salinas / saltworks? Do you have any formal cooperation? Of what kind? How and when did it start? 2. Who initiated the recovery of the salinas / saltworks? Why? 3. What other stakeholders were involved in the process? 4. What plans and projects have been proposed for these salinas / saltworks? / For the municipality (affecting the salinas)? 5. Which of them have been successful and why? 6. Which of them have failed and why? 7. What are the strengths of the management model of these salinas / saltworks? 8. What challenges and difficulties have been faced in the management and how did you solve them? 9. What threats and challenges do you face now? 10. What do you think should be improved in the management? Or in other aspects? What do you need for that? 11. What take-home lessons have you learnt in the process? What would you change? 12. What are your plans for the future with respect to the salinas / saltworks? What do you need to achieve them? 13. Do you think having a protection status, quality labels and similar recognitions is/would be beneficial? Why (not)? 14. In this research, we would like to offer the results to other salinas / saltworks. Would you like to offer advice to others? 15. Would you like to add anything?

Table 1: List of themes to be tackled during the interviews (Source: Hueso, 2017).

Results

An overview of the three sites

Salt making is an important human activity that has taken place over millenia to obtain an essential substance (sodium chloride) for survival, food conservation and a wealth of other uses and applications. Characterizing and describing salt making techniques goes beyond the scope of this paper, but Table 2 offers a summary of the key features that describe the salt making sites discussed here. The table is based on the classification model proposed in Hueso (2015) and later improved by Carrasco (2017) and again by Hueso (2017). As can be seen, the three sites are rather similar from the points of view of the source of salt and the production technique and scale used.

Despite these morphological similarities, when looking into the patrimonialization process, the three case studies are very different from each other and will therefore be presented individually.

Although each patrimonialization process will be discussed individually, Table 3 offers an overview of the main features of each case, to allow comparison. The following aspects are considered: To start with, the cause of change from a thriving salt making site to a situation of decline or abandonment can also differ from one site to the other. The nature of ownership is relevant, too, because it determines the access to resources and the decision making capacity of the managers of the site. The driving force of the process itself is relevant, too, being sparked and steered either by civil society (social), by public authorities or organizations with governmental support (institutional) or by private, for-profit initiatives (corporate). The approach of the patrimonialization process can be bottom-up, when the action has been inspired by local stakeholders close to the salt makers, or top-down, when the process has been managed at some physical and psychological distance from the local actors. Finally, the main source of funding for the patrimonialization of the site is indicated.

Site	Geophysical features			Productive features			
	Location	Landscape	Hydrogeol. origin	Production method	Energy source	Scale	State of facilities
Guérande	Atlantic	Marsh	Seawater	Atlantic-style solar evaporation	Sun and wind	Artisanal	Active
Sečovlje	Mediterranean	Bay	Seawater	Mediterranean-style solar evaporation	Sun and wind	Artisanal	Active
Læsø	Atlantic	Marsh	Saline groundwater	Seething	Biomass	Artisanal	Active

Table 2: Description of case study sites (Source: Hueso, 2017).

Site	Cause of change	Owner / Manager	Driver	Approach	Main source of funding
Guérande	Threat of land use change	Private (Cooperative)	Social	Bottom up	Largely private
Læsø	Historical reconstruction	Private (SME)	Institutional	Bottom up	Private (initially public)
Sečovlje	Abandonment / Political change	Public (Large corporate)	Corporate	Top down	Largely private

Table 3: Main features of the three study sites (Source: Hueso, 2017).

Marais Salants de Guérande, Loire-Atlantique (France)

The *marais salants* (salt marshes) of Guérande (47°17' N, 2°27' W, 0 m a.s.l.) are located in the southern half of Brittany (France) between the mouths of the rivers Loire and Vilaine, facing the Atlantic Ocean. They form a very large wetland zone in western Loire-Atlantique and occupy a surface of 2,000 hectares. The Guérande salt marshes present abundant and diverse flora and fauna. The shallow water allows light to reach to bottom of the ponds, warm the clay and favour the development of plankton, which is the vital foundation of the food chain in the marshes. This large supply of food, combined with a mild climate, makes the Guérande site a favourite over-wintering and reproduction site for birds and over 280 species of migrating birds pass through every year (Février, 2009; Geslin *et al.*, 2002; Poisbeau-Hémery, 1980; Potard, 2009). The site is also rich in halophytes, with glasswort being most popular among gourmets.

Thanks to its natural and cultural values, the *marais salants* on the Guérande peninsula were awarded the *Label Paysage* in 1992, have been listed as a *Zone Naturelle d'Intérêt Écologique, Floristique and Faunistique* (ZNIEFF) (Site of Special Interest) by the French Government since 1991 and as a *Zone Importante pour la Conservation des Oiseaux* (ZICO) (Bird Protection Area) under the 1979 European directive on Birds. Since 1995, the salt marshes have been protected as wetlands of international importance under the Ramsar convention. Finally, the site forms part of the European Natura 2000 network and is candidate to Biosphere Reserve by UNESCO.

Salt has been harvested on the Guérande peninsula since the Iron Age. The first salt works to use the storage capacity of the estuary goes back to the 3rd century AD, shortly after the Roman conquest, and salt was probably obtained by *briquetage* (Buron, 1990; Ménanteau and Nedelec, 2007). The salinas brought prosperity to Guérande for many centuries, reaching a peak in the 14th century. After the loss of the trading monopoly of the Hanseatic League, the ports of Holland and Zeeland benefitted from the salt trade and the first trading routes in Europe were opened. The prosperity of the salt making activity in Guérande was strengthened by the exemption of the *gabelle* (salt tax) that the salt from Brittany enjoyed. Today, at least five salt works from the Carolingian period are still in

operation (Buron, 1999; Devals, 2004; Dominik *et al.*, 2012; Hocquet, 1986; Papy, 1931; Thomson 1999).

During the 17th and 18th centuries, the trade of salt in the region was intense, exporting the so called *sel de la Baie* all over Europe (Buron, 1999; 2006). The 19th century witnessed the greatest expansion of the salinas: In 1840, 2,353 salt makers operated in the area, a figure that dropped to 370 in 1934. The abolition of the *gabelle* elsewhere in France and changes in salt taxation negatively affected the salt trade in Guérande. This decline was most probably aggravated by the combined effect of more efficient transportation of goods by railway, the generalised use of refrigerators and the quality standards imposed by the growing chemical industry, which favoured salt obtained by industrial methods (Gallicé and Buron, 2010; Lemonnier, 1977a; Papy, 1931; Poisbeau-Hémery, 1980; Thomson, 1999).

The cooperatives of salt makers from different Atlantic salt marshes tried in vain to create a federation of salt producers, which should have defended their interests. Only the *paludiers* (salt makers) from Guérande managed to keep an organised activity against the invasion of salts from other regions or even abroad, although the cooperative itself was dissolved in 1960. In 1972 the *Groupement des Producteurs du Sel* de Guérande was created, with 212 members, which will have a relevant role in the protection of the site, as shall be seen (Buron, 1999; Lemonnier, 1977a; 1977b; Olivaux, 2006; Poisbeau-Hémery, 1980).

During these years, the tourism industry underwent a rapid growth and urbanisation of coastal areas for leisure purposes was the norm. The regional and central government elaborated an ambitious plan to develop the area. Although strong opposition was found and these plans were eventually dismissed, places like Pornichet, La Baule and Le Pouliguen became famous resorts and nearby towns such as Batz-sur-Mer, Le Croisic and Piriac did not escape this trend. Between 1950 and 1970, the salt marshes of the region went through great difficulties and the salt making activity was almost halted. In 1973, only 248 salt makers remained in the area (Buron 2000; Chambre d'Agriculture Loire-Atlantique, 2011; Lemonnier 1977b; Perraud, 2002; 2005).

In the early 70s, as said, the urban development plans encountered strong opposition from different social groups belonging to at least 17 different associations. The remaining salt makers in the area started to get organised, with the creation of the above cited *Groupement des Producteurs du Sel de Guérande*, a professional association, which later became the cooperative which now runs two thirds of the salinas. This period has been named the “awakening” of the inhabitants of the peninsula of Guérande (Gallicé and Buron, 2010; Lancien, 2010; Lemonnier, 1977; Olivaux, 2006; Perraud, 2002; 2005).

The decade of 1975 to 1985 was characterised by the reconstruction of the salt making activity and the recovery of the marshes. The main challenge was to find replacement for the ageing salt makers, as few young people wanted to take this profession. In this period, the salt making activity gained economic strength: in 1988, the *Groupement des Producteurs du Sel de Guérande* obtained the status of cooperative and in 1989, another association, APROSELA, was created to encourage the production of high quality salt in Guérande. Later, since 1995, in order to attract young salt makers, a certified training

programme exists in the area, in coordination with regional employment authorities and the cooperative (Chambre d'Agriculture Loire-Atlantique, 2011; Thompson, 1999).

Aside from the Cooperative, other salt selling companies —collectively known as *négoçiants*— exist in Guérande, among which *Tradysel*, *Les Artisans du Sel* or *Natursel*, which are selling salt made by independent salt makers, one third of the total number of salt makers in Guérande. They are represented by different entities (associations, unions), which defend their interests as a group. Other independent salt makers, ca. 20 of them, have their own direct sales channels on site, in local markets, at events, in restaurants, on line, etc. (Chambre d'Agriculture Loire-Atlantique, 2011; Delbos, 2006).

After 1995, the surface of marshes in use for the production of salt increased steadily, as the number of young salt makers grew. Of the 1176 hectares of salt marshes, 765 ha are in production; 247 ha are inactive but can still be recovered and 165 cannot be recovered any longer (Ménanteau and Nedelec, 2007). Today, the number of salt makers approaches 300, of which two-thirds belong to the cooperative and the rest are independent. In addition, the salt making activity generates 115 to 120 permanent jobs and ca. 300 seasonal jobs, whether at the cooperative, or in trade, as intermediaries or at direct sales points. The salinas as a whole produce around 16,000 tonnes of coarse salt (*sel gris*) each year and another 700 tonnes of fleur de sel, having obtained a revenue of 20 million Euro in 2015 (Chambre d'Agriculture Loire-Atlantique, 2011; G. Pitart, pers. comm). Both *paludiers* as residents are proud of their salt making, and especially stress the fact that it is being done by hand. Inspired by this, the strategy of salt making in Guérande is based on three axes: the site, the people and the product (Dahm, 2005; Olivaux, 2006; Perraud, 2002).

Tourism-related companies also profit from the salt marshes, in collaboration with the cooperative and the museums. Three of them exist around the world of salt making in the neighbouring locations of Batz-sur-mer (*Musée des Marais Salants*), Guérande (*Terre de Sel*) and Saillé (*Maison des Paludiers*), together receiving more than 130,000 visitors (G. Buron, pers. comm).

Salt from Guérande has risen awareness on the role of salt in gastronomy. The *sel gris* was perhaps the first gourmet salt appearing in the international culinary market, followed later by other, well-established salts such as Maldon or Himalaya, the three being perhaps the best-known among the public. From the point of view of health, many scholars claim that unrefined salt such as the *sel gris* from Guérande is healthier, because it contains several micronutrients usually absent in refined salts, as they have been washed away in the process (Drake and Drake, 2010; Hueso, 2011).

In conclusion, the *marais salants* de Guérande are considered to epitomise the sustainable local development around artisanal salt making. It has become a paradigm of reference for most artisanal salt making areas in the world. From a dire situation of decline, which reached its deepest point in the 1970s, the salt harvested in Guérande has now worldwide fame as a top-quality product which is even imitated by industrial companies and many foreign salt making sites. The key to the success has been the strong social fabric built around the activity, with a well-balanced coordination between stakeholders. No doubt this

has been aided by the traditional French pride in their home produce: the *terroir*. In addition, the creation of an all-encompassing organization devoted to the protection of the product, plus the combination of sustainable uses of the land (eco-cultural tourism, gastronomy, health), has provided a diversified economy to the region.

Læsø Saltworks, Northern Jutland (Denmark)

The Læsø salt works (57°15' N, 11°2' W, 0 m a.s.l.) are located in the south-east of the island Læsø in northernmost Denmark. This essentially flat island is located in the Kattegat strait, between the eastern coast of northern Jutland and southwestern coasts of Sweden and Norway. It has an area of approx. 114 square kilometres and has 1,817 inhabitants, a number that has been decreasing by a rate of 35% in the past years (Christensen, 2008).

With a low population density and a predominantly rural lifestyle, visitors travel to Læsø in search of tranquillity, nature and outdoor life (Nordbø, 2001). The south is characterised by a landscape of tidal flats, salt meadows, heath moorland and small freshwater wetlands. It is largely uninhabited and hosts numerous birds and plants of conservation interest. This area is protected as a Natura 2000 site, namely South Læsø (Hansen, 1995). One of the projects for Læsø is to become protected as a marine national park, which is planned to cover an area of sea of 1,330 square kilometres, including the whole island. The present saltworks would receive the consideration of a cultural-historical landscape (Mørtensen and Olsen, 2005).

Læsø is one of the youngest landscapes of Denmark. The island emerged as a small triangular-shaped shoal in the Late Stone Age, ca. 5,000 years ago, with periodic flooding and re-emerging events until 700 BC. Ever since, Læsø is growing. In the last 50 years alone, this has led to distinct enlargement of emerged land especially in the southeast and west parts of the island, also known as *Rønnerne* or “the shoals”, emerged in the Middle Ages, where the present-day saltworks are located (Hansen, 1994; 2010; Jørgensen, 2002; Mørtensen and Olsen, 2005).

Salt making in Læsø took advantage of the specific geomorphological and climatic features of the island. The Rønnerne flatlands allow the formation of brine deposits from stagnating seawater that enter the area during spring tides, storms, etc. These deposits were formed in the intersections of the different *ronner*, which were in origin separated clay-bottomed islets with an elevation that never exceeds 3 m a.s.l. In addition, the climate is relatively dry, as compared to the rest of Denmark. It lies on the so-called “desert-belt”, which stretches from the Great Belt to the northern Kattegat, an area with half the average summer precipitation than the rest of the country. This favours the evaporation of brine in the shallow underground deposits. With these factors combined, the brine is six times more concentrated than seawater, saving large amounts of fuel and earning Læsø a strong competitive advantage (Hansen, 2001; Mørtensen and Olsen, 2005).

These confined pockets of brine were used for salt making throughout History. Archaeological research has shown that salt was obtained on this island in small seething huts, where the brine simmered in rectangular iron boilers (Christensen, 2005; Hansen, 1994;

1995; Johannsen, 1984; Jørgensen, 2002; Stoklund, 2007; Vellev, 2000; 2006). It is estimated that the island of Læsø was inhabited since the early 12th century, when the King donated the island to the Bishop of Viborg, and was quickly settled. Since the land was not very fertile for agriculture, it is believed that salt production was the main driver of this demographic explosion (Stoklund, 1985; 2007). It is speculated that salt making in Læsø started around 1150, but the first documented evidence of salt production dates to 1330 (Klitgaard, 1937; Stiesdal, 1949). Although the production of salt grew steadily, with a peak around 1500-1570, dips were registered around 1250 —during the Little Ice Age— and between 1400 and 1450. Remains of over 1,700 huts have been found scattered in the south of the island, dating from different periods of time and estimates of the total production of salt could have ranged from 650 to 2,000 tonnes per year during the peak period, the fifteenth century.

At the peak of production, around 1,200 people were employed directly in the salt making activity. Salt from Læsø was exported to the Danish provinces of southern Norway. However, the successful production of salt was halted by decree in 1652 (Hansen, 2010; Johannsen, 1984; Stoklund, 2007; Vellev, 2000; 2001). The reasons were both of economic and ecological order. On the one hand, the Læsø salt could not compete on price or quality with the sea salts from southwestern Europe, which were flooding the northern European markets. On the other hand, salt production had two major limiting factors: the availability of fuel and of that of shallow hypersaline groundwater and the reserves of timber and peat had been depleted (Øster Mortensen, 2013; Voss, 2011). Some authors also indicate climate change as a possible cause of the decline in salt making, which brought wetter and colder conditions after 1585, which in turn limited the amount of concentrated brine, while other argued overpopulation as a cause for the overexploitation of resources (Hansen, 2010; Stocklund, 1985; 2007).

Later, in the 1720s, a salt making “factories” were built in Kringelrøn and Færøn. Both were designed at a more industrial scale, but, given the chronic lack of fuel and the final failure of both projects, a few remaining seethers turned to solar evaporation in wooden boxes. This salt —as well as the concentrated brine— was for self-consumption and was typically used in the preservation of fish and meat (Klitgaard, 1937; Stoklund, 2009). This continued until 1850, when it finally was abandoned, as salt from abroad was readily available and much cheaper (Hansen, 1995; 2010; Johannsen, 1984; Klitgaard, 1937; Stoklund, 2007; Vellev, 2000; 2001).

In 1943 the first scientific expedition to the island took place, during which the remains of a salt seething hut were excavated (Stiesdal, 1949). In 1957 and 1972 further archaeological excavations were carried out, but it was not until 1990 when systematic studies were done on the remains of these huts (Mørtensen and Olsen, 2005; Stoklund, 2007; Vellev, 2000; 2006). From the results of the excavations in 1990, the local government —with the technical support of Aarhus University, among others— decided to rebuild a salt seething hut, in order to recover the old artisanal salt making site and to contribute to the

archaeological knowledge by recreating the salt making process (Mørtensen and Olsen, 2005; Tanvig, 2007; Vellev, 2000; 2006).

In the absence of first-hand information on many technical and construction details, the promoters of the project had to seek inspiration in salt seething facilities such as Halle and Lüneburg in Germany or in Wieliczka, Poland (Stoklund, 2007; Vellev, 2000; 2006). The new seething huts finally opened on the 5th of June 1991 and they were soon able to show the first modern “harvest” of salt to the public. Already during the first season, 4,000 bags of 200 grams were sold. The quality of the salt has improved significantly over the years. Today, the salt is sold at ca. 100 euros per kilo. In the last years, some 70 tonnes of salt were produced annually, and the total turnover being 800,000 Euro. Læsø salt can be found at 300 outlets throughout Denmark, plus two in Sweden and Norway and about one hundred restaurants in Scandinavia use this salt (Steffensen, 2001, Poul Christensen and Olav Juul Larsen, former mayor of Læsø, pers. comm.).

The reasons they argue in favour of this salt is that it represents a piece of Denmark’s history, as a defence of the old traditions as opposed to product standardization and culinary globalization, while being a healthy quality product. Despite all these reasons, the managers of the salt making site have not sought to benefit from quality labels and protected geographical indications, as they wish to keep their independence (Poul Christensen, saltmaster, pers. comm.).

One of the strongest economic sectors in Læsø is tourism. Around 120.00 tourists arrive to the island every year, half of which visit the saltworks. These were never conceived as a museum, even though its main revenues come from tourism. Visits are free of charge, because the site is considered a living place of production, in full operation. The visit is about having an “experience”, to which a product is incorporated (Christensen, 2005; Læsø Turistinformation, 2008).

With respect to the impact on the overall economic activity of the island, there are several local companies providing services to the saltworks, packaging and processing the salt. But perhaps the single most relevant business associated to salt is the thalassotherapy centre *Læsø Kur*, which opened in 2008 and offers treatment for skin diseases, mainly psoriasis (Weinreich *et al.*, 2014). Patients visiting the thalassotherapy centre *Læsø Kur* have also induced the strengthening or even creation of new visitor services, such as restaurants, art galleries and traditional handicrafts. The number of services in the island exceeds by far the expectation for a community of its size (Læsø Turistinformation, 2008; Tanvig, 2007).

In conclusion, the saltworks of Læsø owe their success to being a unique, place-bound local development project, that cannot be replicated elsewhere. The success of Læsø salt relies on the strong story it tells, plus the result of a combination of local governance, local learning, stakeholder cooperation and return of the profit into the local community (Tanvig, 2007). The saltworks have created a tight social fabric in the island, not only creating a fair amount of jobs and business-related wealth, but especially generating a solid sense of pride and belonging.

Sečovlje Salinas, Piran (Slovenia)

The Sečovlje¹ salt pans (45°29' N, 13°36'E, 0 m a.s.l.) are located in the upper Adriatic, on the southernmost tip of the 46 km stretch of coast in Slovenian Istria, at the border with the Republic of Croatia. The salinas belong to the municipality of Piran and are named after one of its settlements. The salinas of Sečovlje had over 2,000 crystallization basins in the 16th century and over 4,000 in 1801. They consist of two parts: Its northern section, where salt is still being actively produced, is known as Lera. The southern section, Fontanigge, also known as “the mediaeval salinas”, is separated from Lera by the Grande-Drnica channel. These salinas are inactive and used occasionally for demonstration purposes.

The Sečovlje salt pans are today the largest coastal marsh wetlands in the country (650 hectares, of which 552 ha are water and 98 ha, land surface). In 1993, the salinas became the first Slovene wetland inscribed on the list of internationally important marshes under the auspices of the Ramsar convention. In 2001, the Government of the Republic of Slovenia declared the Sečovlje Salina Natural Park and the adjacent Museum of Salt-making has been protected as a cultural monument of national importance. The area in and around the salinas of Piran hosts about 30 terrestrial halophyte species (Geister, 2004). But the salinas are best known for their bird fauna, with over 270 species present. The salinas are an important breeding, wintering and stopover site for migratory birds (Sovinc, 2012). The salinas of Sečovlje with its sister site Strunjan, plus their related cultural heritage (e.g. the town of Piran) are being considered for the preparation of a candidature as a UNESCO World Heritage site (Faganel and Trnavčević, 2012; Gačnik, 2012).

The first reference to salt making in the region is the donation of the salt pans of the Brioni islands, in today's Croatia, to the bishop of Poreč in 543 AD. During the Middle Ages, salt was being harvested in Trieste, Muggia, Koper, Izola, Piran and Vrsar. The peak of production was reached in the 16th century. Because of the relevance of the salt making activity and trade in the region, it was said that “the town of Piran grew on salt” (Žagar *et al.*, 2006). However, different factors made the salt making activity fluctuate. The tensions between the Venetians and the Austrians in Istria, caused the systematic destruction of salt pans in Istria by the Venetians. Also, in 1557 the plague broke out in Piran and salt making came almost to a halt. A few decades later, as a result of Austro-Venetian wars and the increased production of salt in the Austrian mines, the trade of Adriatic salt declined. In addition, the weather dependence and the complex functioning of the lagoons made it easier to import salt from other Mediterranean salinas. Hence, in the 18th century, large amounts of salt accumulated in the pans and warehouses, and salters were forced to dump part of it in the sea. The salinas were further deteriorated by the regular floods of the Drangonja river (Apollonio, 2005; Bonin, 1995; 2001; 2009; Darovec, 2001; Erceg, 1994; Geister, 2004; Žagar, 1995).

¹ Place names in this region may have a variety of written forms –they may be bilingual, may be written in the mother tongue of the author or have different historical versions. In this text, I use the English version, if it exists, or else the official language of the country where they are currently located.

The decline of the salt making activity in Piran was reverted under the Austrians, who invested in their recovery and the salinas were again fully active and doing well. At this time, the salt from Istria was distributed all over Europe (Bonin, 1995). However, this period of splendour did not last long. Most of the salinas in Trieste halted their activity already in the early 1800s, although these were still active at the beginning of the 20th century. In 1904 the Lera salt pans in Sečovlje underwent reconstruction and rationalisation and remained in operation until the 1960s, and only Strunjan and Lera in Sečovlje remained active thereafter (Apollonio, 2005; Benčič and Žagar, 2002a; 2002b; Bonin, 1995; 2009; Hocquet, 1982; Žagar, 1995).

The owners of the salt pans —over 280 at the end of the 19th century— rarely produced salt themselves; the vast majority of them were rich citizens, the municipality itself, cloisters or monasteries; and hired workers for that task. Those who did work on the salt pans or were hired, did so on a seasonal basis and came from Piran and its hinterland. The latter, known as salters or *capocultori*, leased the pans and cultivated them (Geister, 2004; Žagar, 1995). The salters in Piran combined salt making with other agricultural activities, thereby hoping for a dry and a wet summer at the same time (Žagar, 1995). In 1904, the state bought 525 salt fields and underwent several modernisation bouts. As a consequence, in the second half of the 20th century, the artisanal mode of salt making was all but lost (Brilly and Globevnik, 2003; Polajnar, 2008; Sovinc, 2011). The salinas were acquired in 1964 by the company *Začimba* (later to be renamed *Droga Portorož d.d.*), from Portorož, specialised in the trade of spices. The huge maintenance costs and relatively low production rate, forced the closure of the Fontanigge and Fazan sectors in 1967. Further studies to improve production in Lera and Strunjan were made, without much success. Given the prolonged ballast effect for its global business, in 1988, *Droga Portorož d.d.* created a daughter company, *SOLINE Pridelava d.o.o.* (Salt production Ltd.).

After the declaration of the Sečovlje Salina Nature Park, the Municipality of Piran suggested that *Droga Portorož d.d.* should manage both the Nature Park and the salt-production in this area. Thus, the Slovenian state ceded the production of salt to the company *SOLINE Pridelava soli d.o.o.* which became, in 2000, officially the manager of the Nature Park. Two years later, with the acquisition of *SOLINE Pridelava soli d.o.o.* by *Mobitel d.d.*, the largest Slovenian telephone company, the financial situation of the salinas improved significantly and a true recovery process could finally start. From this point on, the recovery of the salinas would lean on three axes: nature protection, cultural heritage dissemination and economic development around salt making, salt tourism and small complementary activities, including the health uses of brine, *fango* and salt itself (Deržek, 2002; Faganel and Trnavčević, 2012, see also URL: <http://www.soline.si>).

At the turn of the millenium, 593 hectares of salt making surface were recovered in Fontanigge (only for the provision of brine) and in Lera (for the whole salt making process, which accounted for 25 salt making fields). In 2002, 18 men were employed, who produced 100 tonnes of salt. A decade later, over 94 hired workers produce up to 5,000 tonnes of salt

and 30 tonnes of *fleur de sel* per year, maintain the water management infrastructures and take care of the natural habitats and visitor facilities.

Besides from the sales points on site (Lera, Fontanigge, local shops), *SOLINE Pridelava d.o.o.* has seven exclusive outlets in the main cities of Slovenia, sells its salt in about 50 retail stores all over the country and is exporting it to 17 other countries worldwide. The company also cooperates with well-known chefs to promote its salt. *SOLINE Pridelava d.o.o.* has developed two main brands, the old *Piranske Soline* (also labelled as *Solnce*), with the old logo of the salinas, which is used for all products related to traditional salt and food. The park also sells souvenirs such as the typical salters hats and sandals, salt cellars or other merchandising products (Faganel and Trnavčević, 2012; Gočnik, 2012).

The main and almost exclusive economic activity in the region of Piran is tourism. It is said that the benedictine monks of the nearby San Lorenzo monastery frequented the area already in the 13th century, to profit from the healthy seaside climates, seawater baths, saline muds and mother lay (Faganel and Trnavčević, 2012; Glavaš and Kovac, 2014; Pucer, 2005). Another key service is the Museum of Salt-Making, an open-air to preserve the old windmills and salters' houses (Benčič and Žagar, 2002; Žagar, 1995; Žagar *et al.*, 2006).

Following the tradition of wellness tourism in the region, in 2013, the company *SOLINE Pridelava d.o.o.* opened a thalassotherapy centre, to take advantage of the two subproducts of salt making with healing properties, namely the mud (also known as *fango* or *peloid*) and the mother lay or *acqua madre*. The complex was named *Lepa Vida*, which is also a brand for salt-related wellness and cosmetics.

In conclusion, the salinas of Sečovlje benefit from the coordinated action of the different managers of the site (owners, local and national authorities). In a relatively short span of time and in a climate of political volatility (the present Slovenian territory changed hands four times and underwent three wars within the 20th century), the salinas were recovered from a dwindling pre-industrial operation to a full scale artisanal activity. They have managed to create a common brand for their different products and services, with a coherent message of sustainability. Given the fact that this process has taken place smoothly in a complex region from the geopolitical point of view, just after the transition from a communist to a capitalist regime, only adds merit.

Discussion

The three case studies in Europe have been selected for being places with a consolidated patrimonialization process and from which useful lessons can be drawn. In addition, the three cases have had very different starting points and have followed different roadmaps, but all have achieved a stable position in their process and now serve as models for others to follow. These initial differences are of social, historical, political and environmental nature and may only have salt making as a common feature, but the three sites have managed to put their salt on the map. A high quality, environmentally and socially conscious product and, last but not least, that tells a nice (hi-)story. A key issue in the patrimonialization of the three sites is the joint effort by stakeholders to achieve this

outcome. While in Guérande and Læsø certain individuals or representatives of civil society have been key to the process, in Sečovlje, it has been more driven by institutions, with a top-down approach. But in all cases, the combined effort of public administrations—at different hierarchical and sectorial levels—, civil society and academia has been the recipe for success. Another important factor has been the understanding of the socio-environmental context: The sites have moved from the business of salt making to the business of heritage. The renewed salt making activity has gained visibility among the public, thanks to the attention received by the media, which was inexistent when the production had a more industrial character. While salt remains the core of this new business, it is also the trigger of other products and services that provide coherence and depth to the site. To this end, the managers have established links with the local community and with the cultural and natural assets the territory provides. It is not only salt that matters, it is the context that provides the added value. Depending on the site, these complementary products and services may pose the stress on gastronomy, tourism, nature conservation or health and wellness. Gradually, evidence exists on the nutritional and health value of artisanal salt and its by products, which provide competitive support to the activity (e.g. Drake and Drake, 2011; Glavaš & Kovac, 2010; Hueso, 2011; Rodrigues *et al.*, 2011; Vella *et al.*, 2012). In any case, the three sites provide a combination of them all. Visitors enjoy a range of activities and services around salt while residents delve on the (renewed) identitarian value it offers. Together, these activities ensure a livelihood for the local community and allow to diversify efforts and risks. This approach requires a complex management system, in which dialogue and participation are key in the initial phases of the patrimonialization process, but also requires being able to delegate it in professional hands once the process has been consolidated. The case studies presented here show that a sustainable management of salt heritage and saltscapes is possible, but it is not devoid of threats and pitfalls. The main challenge in these cases is how to grow within the business of heritage without losing the ties to the roots of the process, to the underlying cause that eventually triggered it. But, at the same time, the key is how to remain resilient to changes, while being flexible enough to adapt to the shifting needs of the local community, of society in general and of the landscape itself (Hueso, 2015; 2017).

It is thus clear that there is no standard recipe for sustainable management of saltscapes, no “one-size-fits-all” solution. Cultural landscape scholars have identified the need to combine multifunctionality with profitability and environmentally sound management and demand the support from stakeholders, especially public administrations, and the flexibility of planning and legislation (Evaristo and Botequilha-Leitão, 2008; Mander *et al.*, 2007; Vos and Meekes, 1999). It is nevertheless possible to distill certain aspects that have contributed to a successful outcome in the three sites. These aspects are summarized in what is proposed here as “The five-step model for integrated salt heritage and saltscapes management” (Figure 2, see also Hueso, 2017), does not have the intention to become *the* final recipe, but rather a collection of ideas that should be considered when approaching the management of a multifunctional landscape such as saltscapes. It is a complex issue because

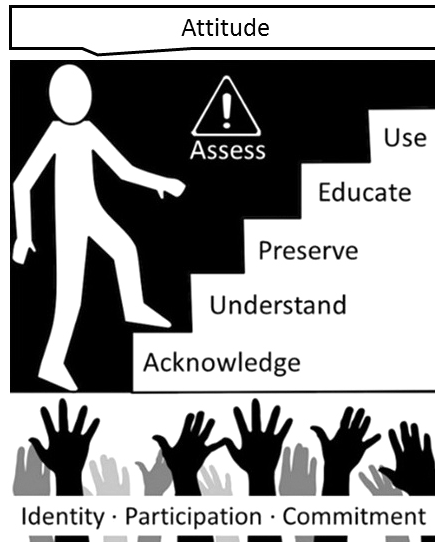


Figure 2: The five-step model of saltscape management (Source: Own elaboration).

it must consider several factors that are beyond our control, as the landscape is affected by other regulations, uses and market drivers outside the scope of salt-related functions and values. It is also difficult to generalize, because each site has its own historical background, stakeholder interests, local traditions and habitat structure. Therefore, the model of saltscape management proposed is intended only to serve as a blueprint for more detailed action in each site. The model is based on a sequence of five steps to be taken in chronological order. The steps are meant to be accumulative, that is, rather than being discrete stages of a process, they are a continuous progression towards improvement. Once a step has been taken (acknowledgement, understanding, preservation...) the effort to maintain them alive should continue, regardless of which step we are at.

These five steps are:

— To **acknowledge** the existence of the site and its general features. The acknowledgement of the values of the site may start very modestly, usually thanks to the efforts of a few individuals or organizations who attract the attention of a broader audience via dissemination events (presentation, conferences, publications, field trips...) or activism (demonstrations, reports to authorities, press releases, volunteer action...). At a first stage, the recognition of the values of the site, generally relies on intuition rather than evidence, and knowledge of the heritage values is still patchy. This step coincided with the very early stages of patrimonialization. It is a weak stage, requiring an important institutional effort and commitment to pass the threshold to the next.

— To **understand** the natural and cultural values of the site by means of research and inventory. At this stage, a coordinated effort to gain insight on the values of the site is required. It is important to identify the academic organizations, the experts and the institutions who will do the research, based on previous studies they may have done. Most probably, publications on the site's values already exist and some of these experts may have been involved in the previous step. However, a deep understanding of the values of a given site requires a holistic vision of the site, so that the linkages and influences between them are also understood. In saltscapes, where the natural and cultural assets are mutually dependent, this aspect is especially important. To this end, there should be a person or institution coordinating this effort of understanding the site. This step marks the transition between the early stages of patrimonialization.

— To **preserve** the values of the site, by the consolidation, rehabilitation or reconstruction of these values and by the implementation of protection measures. It is the first hands-on stage, in which a real intervention is done on the heritage of the site. This is of course a delicate step, which should be carefully planned and performed by a strong team of professionals, but considering the needs and vernacular knowledge of the local community and, especially, the (former) salt workers. These efforts are complex and a good coordination is essential. This is perhaps the steepest of the steps, because it requires not only a political commitment of the public administrations and other institutions, but also a strong financial investment. At this stage, ideally, an institution should be created *ad hoc* for the management of the site. This is the start of the transition towards a consolidated patrimonialization process.

— To **educate** stakeholders, decision makers, managers and the public in general about the values of the site by means of communication, dissemination and awareness raising actions. The objective of this stage is to offer the results of the previous ones. It can, to a certain extent, occur simultaneously. It is important here to adapt the message to the audience. Policy makers will need to understand the implications of their decisions on the heritage values, whereas managers should be aware of the legal and administrative framework they work in and the public may be interested in the different heritage values and uses, with varying degrees of depth and thematic specialization. Once the patrimonialization process is consolidated, these educational efforts are usually coordinated from the institution in charge of the management of the site. If this is the case, this institution should have a policy of transparency, public participation and cooperation with other organizations, to strengthen an image of coherence and joint effort among stakeholders.

— To **use** the site with intelligence, by designing sound products and services with sustainability criteria and compatible with each other. The use of heritage should meet conservation goals, as well as obtain a reasonable revenue for the maintenance of the

activities involved and achieve self-sufficiency. These uses should be compatible with each other and be tuned in with the needs and wishes of the local community and the managers of the site. A consensus among stakeholders should be reached to strike a balance between the use and exploitation of heritage assets; to define what is reasonable and what is not and to avoid overexploitation, abuse of power or banalization, among other risks. This stage takes place when the patrimonialization process is consolidated and an *ad hoc* institution has the mission to coordinate and manage these efforts. This does not mean the process has come to a halt; this stage is precisely the most dynamic one; where the site's managers fly solo and need to design and provide solutions to the constant challenges that arise.

So far, a linear description of the different, cumulative stages of the management model have been described. But this model needs to rest on solid foundations, which provide a stable, resilient setting and allow continuity despite the changes and challenges that will be faced in the future. Hence, the following aspects will make a relevant contribution to the sustainability of the model. These aspects are:

— **Identity**, as the foundations of any action that will take place at the site. A strong identity, whether already existing or induced by educational actions, will result in a high degree of self-consciousness, a strong sense of belonging and even pride of the local community. The sense of belonging is achieved when the public feels this from within, not necessarily induced by others. The identity delves on an emotional attachment to heritage sites or manifestations, perhaps strengthened by life events associated to them or just because they raise an emotional response. When this sense of pride is present, it will result in a strong motivation from inside out and bottom-up to maintain the sites values and valorize them. Identity is the most important driver for heritage recovery. In the end, it is the glue that makes any given asset (material or intangible, natural and anthropogenic...) become *heritage*. It provides the added value it needs to be acknowledged by a group of people and sparks the desire to protect, disseminate and use it. To make it a part of their livelihood and their community.

— **Participation**, as the tool to ensure motivation by local stakeholders. Some project managers understand participation as a one-sided provision of information (usually from managers to the public) or as a consultation (a non-binding request of opinion). However, full participation should provide power of decision to stakeholders. If true participation in the decision-making processes is achieved, it is easier to reach a consensus on leadership and execution of management measures and the motivation will last longer. A well-developed participation strategy empowers the local community to take decisions concerning their own heritage and their own livelihood associated to it. It is the task of the institutions in charge to ensure a full, balanced participation of stakeholders, in which all voices can be heard and considered.

— **Commitment**, as the guarantee of lasting results. The long-term commitment of managers and stakeholders will contribute to achieve self-sustainability and independence from external support. Those stakeholders with responsibility over the site should commit themselves to seek and provide the necessary human, technical and financial resources to guarantee a sustainable management of the site. In this respect, a public-private partnership has proven to be a healthy combination that fends off the vulnerability of private markets and the volatility of politics. The institutions in charge —preferably representing both the public and the private sectors— should ensure a long-term strategic planning and policy framework that provides stability and coherence to the project. Commitment also motivates participation and gives support to the identity of the place.

These three aspects, as can be seen, are mutually dependent. The sense of identity, mainly of the local community, grows from the seeds of participation. The institutional commitment to the site provides a safety net for this to happen. On the other hand, participation strengthens the feelings of a shared sense of belonging, which may act as a powerful tool to demand the commitment of others. And long-term commitment broadens the scope of identity beyond the local community, towards the public in general. Hence, the three aspects do not simply add up but generate synergies that constitute the solid foundation on which this model is based.

More difficult to add to a conceptual model, but perhaps equally relevant, are certain subjective factors that may make the difference in the outcome of a patrimonialization process and, even, the management of a consolidated site. Buzzwords such as teamwork, a proactive mindset and mutual confidence are key to the success of such a process. In the end, what these words describe is the **attitude** necessary to get —or keep— the process running. Teamwork unites the strengths of a group of stakeholders. A proactive mindset maintains the spirits high, regardless of the natural ups and downs of any process or project. And mutual confidence allows a certain degree of independence in decision making and action, making the process more flexible and agile. To put it simply, these features together constitute the fuel of the process.

Finally, the model should be evaluated periodically to **assess** its achievements and outcomes. An adequate quality control of the planning and management processes will allow a timely adaptation to changes and to modify course when needed. To this end, numerous assessment tools can be used (SWOT analysis, life cycle assessment, project cycle management, logical framework, indicators...). The Deming cycle, often used in quality management in corporate environments, has a simple but effective philosophy: *Plan – do – check* (i.e. assess) – *act*, a thread that can be followed endlessly in a spiral form, in the quest of continuous improvement. The assessment of a process also provides a quality and objectivity check, that goes beyond the personal ideas of managers or the circumstances of each moment in time. It also allows the comparison with others and the evolution of the process, as well as the timely identification of flaws and the needs of resources.

Conclusions

The keys to successful patrimonialization, according to the experience of the case studies, can be summed up in the model offered above. It is based on a logical and cumulative sequence of actions of increasing complexity (acknowledgement, understanding, preservation, education, use). The foundations on which the model rests are the combined synergic effect of identity, participation and commitment, as well as the continuous improvement provided by regular assessment. To fuel the process, attitude is key, which can be translated in a teamwork spirit, a proactive mindset and mutual confidence.

It can be concluded that the sustainable management of a heritage-based salt making site relies on the communion of three elements: the people, the product and the landscape. Or, in other words, cultural heritage, salt and nature. None of them can achieve the creation of such complex heritage values by itself. This is why salinas are unique landscapes with unique values that badly need attention. The patrimonialization of such sites is far from easy and abandonment or transformation is often preferred. Hopefully this article contributes to shed light on them and offers a hopeful message in the light of the sites studied.

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* **Acknowledgements:** This work is part of my doctoral dissertation and I am therefore greatly indebted to the insightful comments of my supervisors and the examination committee, professors X. Roigé, O. Beltran, J. Contreras, of the University of Barcelona; T. Petanidou, of the University of the Aegean and F. Martins, of the University of Aveiro. The informants at the three sites were key in providing references and understanding of the narratives of each case study. I herewith would like to thank them for their time and generosity in the field. Merci beaucoup, tusinde tak, hvala vam!

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