

Article

The Patrimonialization of Traditional Salinas in Europe, a Successful Transformation from a Productive to a Services-Based Activity

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Abstract: Traditional inland salinas in Spain and Portugal are often located in rural, isolated areas with low agricultural value, and very few have survived in coastal areas under high land use change pressure. Before the advent of efficient transportation networks, about 500 small inland and ca. 250 coastal saltworks existed there. During the 20th century, these sites were gradually abandoned in favor of industrial salt from mines or larger coastal salinas. Only a few were able to transform a productive activity into a multifunctional, services-oriented landscape. This contribution discusses the recovery and patrimonialization processes of nine inland salinas in Spain and Portugal protected as monuments, plus three other successful cases in Denmark, France, and Slovenia. With an indicator-based tool, the degree of patrimonialization of each site was quantified. In recent decades, these cultural landscapes have invested in gastronomy, wellness, tourism, and innovation, transforming a cultural landscape in decline into a living landscape for the future. The different stages in their patrimonialization process have been characterized, helping identify the hinges and tipping points at which a traditional productive activity in danger can evolve into a consolidated heritage-based successful initiative. Good practices have been detected and described. Potential pitfalls and challenges in patrimonialization were also identified, serving as early warning signs. Although focused on traditional salinas, the results of this study may help manage and preserve similar cultural landscapes in Europe. Some ideas for future management and research on productive cultural landscapes are provided.

Keywords: salt; cultural landscape; land abandonment; landscape multifunctionality; future landscape; local development



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1. Introduction: The Decline of Salt Making and Its Recovery at the Landscape Level

Salt making is an activity that is inextricably linked to human settlement since the Neolithic era. Humans need salt for survival and for many other purposes that have been developed over the centuries, notably food preservation. Wherever possible, people have tried to obtain salt from nature. In Europe alone, thousands of salt making sites have existed, whether by solar or forced evaporation of brine, mining techniques or simple gathering in natural salt flats. Such landscapes, where humans interact with nature to obtain salt, are also known as saltscapes [1]. Of those sites, most have disappeared for many reasons: better access to salt from areas with better quality and higher productivity, and hence lower cost; the replacement of some of its uses by modern technology (e.g., refrigeration), land use change, land abandonment, stricter regulations, and other socioeconomic and environmental causes [2]. Most surviving solar evaporation salinas, a few dozen in Europe, operate at industrial scale. Only some small-scale, artisanal, and traditional salinas still exist scattered across the continent, now producing top-quality salt and other by-products [3,4].

Managers of small-scale salt making sites have mostly understood that competing with industrial salt, a cheap and accessible commodity, is not possible. The economy of scale and the technology of production (mechanized vs. hand-harvested) makes artisanal salt expensive and scarce. There is also the common understanding that solar evaporation salt making is an activity that relies on a healthy environment, a resilient and biodiverse ecosystem, and a consolidated professional know-how, rendering these sites cultural landscapes with distinct values that merit protection and dissemination [5,6]. These values have gradually been acknowledged as tangible and intangible forms of heritage over the past decades, moving away from the traditional vision of monument-based heritage assets, resulting in a greater permeability of the institutions to admit new forms and scales of heritage [7,8]. In turn, nature protection has also moved from a paradigm of an island-based approach to biodiversity conservation to the inclusion of cultural manifestations in natural protected areas [9].

Cultural landscapes have traditionally been seen as static territories, in which human activity is expected to represent a by-gone era. Changes in the landscape were considered a threat to the values they hosted. A more modern definition of cultural landscapes by Mander [10], “multifunctional through their simultaneous support of habitat, productivity, regulatory, social and economic functions”, renders this idea obsolete. Today it is understood and accepted that these “heritagescapes” [11] evolve and represent living traditions and activities, and that they are compatible with the preservation of the cultural, natural, and human values the landscape hosts, featuring “complex land use mosaics and multi-layered historical sandwiches” [12]; see also [13,14]. Mander’s definition acknowledges the synergic and multifunctional character of landscape features, allowing them to serve multiple compatible purposes [15–17].

Within Europe, Spain stands out as a rich and diverse country with respect to its salt making heritage. Over 500 inland salt making sites have existed in the country, of which ca. 25 are actively producing salt today [18]. Of these, some have survived the socioeconomic and technological changes of the 20th century and continue operating as they have always done, whereas others have undergone a process of decline or even abandonment, only to revive as a heritage-based initiative, in which salt making is part of their offer. This is rather varied, ranging from occasional guided visits (e.g., during yearly events) to full-scale, diversified tourism products and services, including museums, shops, and connections to other local businesses. The latter have thus experienced a patrimonialization process, in which the productive activity has evolved into a multifunctional, heritage-based business model.

Patrimonialization can be defined as a process that transforms certain assets into heritage, “via the reshaping, reconstruction, elaboration, construction or restoration of buildings, landscapes, monuments, performances, forms of associating and values” [19], for which it will need the so-called authorization. This is usually granted by society at large, as Prats [20] states: “heritage is a selection made by society”. Greffe [21] agrees: “far from being received, the biggest part of heritage is chosen”. The activation of heritage can be triggered by stakeholders, opinion leaders or other social entities or individuals with influencing capacity. A good measure of the efficacy of this authorization is the support the site obtains from public administrations and other funders [4]. Although the activation of heritage does not need a specific purpose—it may simply stem from a feeling of belonging to the site—it commonly results in stimulating tourism [20] and strengthening the identity of the local community [22,23]. However, there is a risk that tourism-based activation processes generate a sense of detachment and loss of identity, which brings up the issue of authenticity: “Authenticity, in the end, is about being honest in the use of heritage and it only feels genuine when properly authorized” [4]; see also [24].

Indeed, far from being fossilized, saltscapes are a good example of living, resilient cultural landscapes that adapt to changing environments and socioeconomic frameworks. They provide multiple ecosystem services [25,26] and constitute a window to the past, with multiple tangible and intangible heritage assets and natural values that coexist in balance.

Salt making has taken place in them for centuries, even millennia. The local community often feels a strong bond to the place, as their ancestors have seen the site in operation or even worked at it. Being a tough occupation, salt making triggers strong emotions among those who have witnessed or suffered it and perceive the abandonment of the saltscape as a loss of identity. Recovering artisanal salt making requires a good ecological state of the site and the restoration of all but lost infrastructure and professional know-how. Given the complexity of this process, authenticity is key to preserving their functionality [27].

This study intends to offer an insight in the patrimonialization of traditional inland salinas in Spain and compare it with three case studies in the rest of Europe. In Spain, nine inland salinas that had been declared as a Good of Cultural Interest (BIC, in its Spanish acronym) as of 2019 were selected (see Figure 1 and Table 1), under the understating that, regardless of their state of conservation, this status was a first step in their path towards patrimonialization. In the rest of Europe, three case studies of successful patrimonialization were selected, namely the marais salants de Guérande, in Guérande, France; the Sečovlske soline in Sečovlje, Slovenia; and the Læsø salt syderi in the island of Læsø, Denmark (see Figure 1 and Table 1). Although similar successful cases exist in the continent, these stand out for being the site of reference and inspiration in western (Guérande), northern (Læsø) and southeastern Europe (Sečovlje), respectively, thereby covering a broad geographical scope. In addition, their individual histories as well as current management models (see Table 2) also provide a diversity of situations that have led to success though differing pathways, thereby serving as paradigms for a variety of cultural productive landscapes. The goal of this study is to deepen the understanding of the patrimonialization process of traditional salinas in Europe, to identify and characterize its main stages, indicating the main challenges in each one of them. The results are expected to help in understanding and supporting similar patrimonialization processes in other heritagescapes and cultural landscapes and preventing their abandonment or decay.

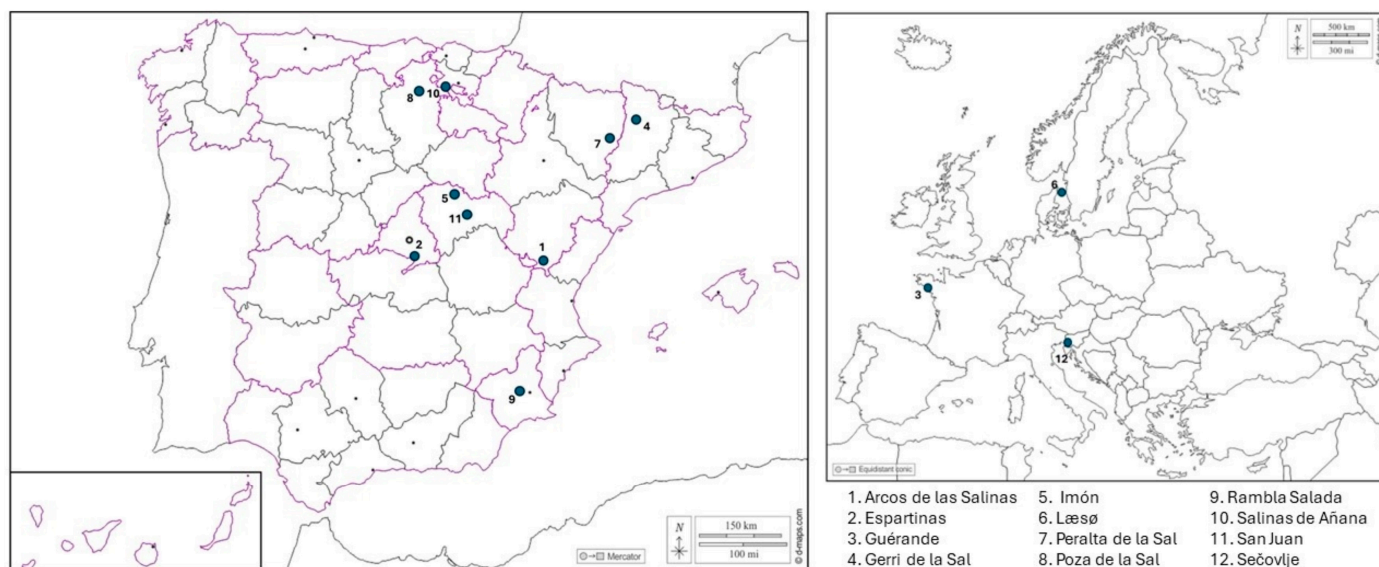


Figure 1. Map of the study sites in Spain (left) and the rest of Europe (right).

The novelty of this approach lies in the comparison of the twelve sites. Although all of them share traditional salt making as the core of the cultural landscape they host, there are significant differences between them in their property and management model, the socioeconomic background, and their core environmental and cultural values. Yet, clear patterns can be seen in their patrimonialization processes. By using an indicator-based tool, the patrimonialization stages can be quantified and analyzed more objectively. The tool can thus be transferred to similar cultural landscapes elsewhere and serve for management and conservation purposes in a broader context.

Table 1. Location and main values of the study sites.

Name	Location	Coordinates and Elevation	Protected Status *	Most Relevant Values **
Arcos de las Salinas	Teruel, Spain	40°00′11″ N 1°04′58″ W 1.056 m a.s.l.	C, G	Water infrastructure, pilgrimage site, dark skies (stargazing)
Gerri de la Sal	Lleida, Spain	42°19′36″ N 1°04′01″ E 599 m a.s.l.	C, G	Storage building, landscape
Guérande	Brittany, France	47°19′00″ N 2°27′21″ W 1 m a.s.l.	C, N	Nature (birds), craftsmanship, gastronomy
Espartinas	Madrid, Spain	40°07′10″ N 3°37′37″ W 524 m a.s.l.	C, N	Archeological remains
Imón	Guadalajara, Spain	41°09′38″ N 2°43′50″ W 926 m a.s.l.	C, N	Historical value, halophytes, gastronomy
Læsø	Nordjylland, Denmark	57°14′22″ N 10°59′24″ W 1 m a.s.l.		Archeological remains, craftsmanship, wellness
Peralta de la Sal	Huesca, Spain	41°59′40″ N 0°22′57″ E 561 m a.s.l.	C, G	Religious tourism, geological heritage
Poza de la Sal	Burgos, Spain	42°40′07″ N 3°30′07″ W 762 m a.s.l.	C, G	Geological heritage, craftsmanship
Rambla Salada	Murcia, Spain	38°07′35″ N 1°07′09″ W 112 m a.s.l.	C, N	Halophytes, birds, saline river
Salinas de Añana	Álava, Spain	42°48′07″ N 2°59′06″ W 596 m a.s.l.	C, N, G	Water infrastructure, archeological remains, craftsmanship
San Juan	Guadalajara, Spain	40°54′09″ N 2°19′48″ W 998 m a.s.l.	C, N, G	Landscape, craftsmanship, geological heritage, dark skies (stargazing)
Sečovlje	Primorska, Slovenia	45°29′39″ N 13°36′15″ E 0 m a.s.l.	N	Birds, craftsmanship, wellness

* Legally protected values: N = natural; C = cultural; G = geological; ** Values that are especially relevant of the site, aside from the natural and cultural heritage that contributed to their protection as monument and/or protected area.

Table 2. Main features of the different stages of the patrimonialization process: from the business of salt to the business of heritage. Source: [4].

	Before Patrimonialization	Patrimonialization Process	
		In Progress	Consolidated
Type of activity	Extractive	Mixed	Heritage
Scope of the activity	Site-specific	Site-specific	Local-regional
Type of landscape	Productive	Of ethnographical interest	Cultural
State of heritage	Abandoned/ in decline	Under recovery	Basically recovered, need maintenance
Main caretaker	Owner (individual or SME)	Local community or administration	Ad hoc institution (public or private)
Other stakeholders	Salt workers Public administration	Funding bodies	Workers Local community Visitors NGOs/academia Society in general

Table 2. *Cont.*

	Before Patrimonialization	Patrimonialization Process	
		In Progress	Consolidated
Funding	By owner	Mainly external, but scattered	High degree of self sufficiency
Products and services	Salt Brine Other minerals	Salt & sub-products Heritage Landscape	Salt, subproducts and halobionts (as a basis for food-wellness-tourism) Nature & culture
Visibility of the site	Business environment Local community	Specialists Authorities	Society in general
Main features of this stage	Decline Abandonment Activism	Activation of heritage elements Volunteerism	Professionalization Alienation?
Study sites	Imón Peralta de la Sal Arcos de las Salinas Espartinas	San Juan Rambla Salada Gerri de la Sal Poza de la Sal	Guérande Sečovlje Læsø Salinas de Añana

2. Materials and Methods

The study of the patrimonialization processes of traditional salinas in Europe is based on a combination of quantitative and qualitative methods. On the one hand, a set of quantitative indicators was developed to assess the degree of patrimonialization of the twelve salt making sites considered. To test the tool for efficacy, nine of the study sites were selected with an objective criterion that did not necessarily reflect a healthy patrimonialization process, namely their protection on paper. These nine sites were (former) inland salt making sites in Spain declared as BIC, the legal status that acknowledges their heritage character but only in theory, and it remained to be seen to what extent a real recovery process had been initiated. The other three sites, examples of successful patrimonialization processes, served as a reference to test the tool. Figure 1 shows the sites that have been tested with the indicator tool. The 25 indicators used in the study (see full details in [4]) tested both the intrinsic values of the site as well as its relation to the socioeconomic environment, with a possible value between 0 and 4 each, providing an overall result between 0 (lowest) and 100 (highest).

On the other hand, narratives of the study sites have been collected over the years 2002–2019 by means of bibliographic study and unstructured interviews with managers and owners of salt making sites, as well as other scholars, local public administrations, and museum curators. All sites had initiated some form of patrimonialization process, although with varying degrees of success. The interviews were conducted during field visits, which were also intended to observe, first-hand, the state of the salt making site and the surrounding landscape, to the businesses and other facilities associated with salt. These visits contributed to obtaining a valuable insight into the integration of the salina and its social and environmental contexts. This qualitative study provides a background for the indicators used to assess the patrimonialization processes that are hard to quantify with numeric variables and serve as a complementary source of information. Therefore, the indicators and the narratives combined provide a solid understanding of the type and degree of advancement in the patrimonialization process.

3. Results

3.1. The Stages of the Patrimonialization Process

After studying the narratives of the twelve salt making sites, despite their individual characteristics, patterns of patrimonialization have been detected, which can be divided into three broad categories (see Table 2, Figures 2 and 3), namely “Before patrimonialization”, “patrimonialization process in progress”, and “consolidated patrimonialization process”.

The first one indicates that the recognition of the heritage values of the site is very incipient if it exists at all. There is a marginal and fragile interest in its protection and recovery. The second shows a more widespread but still unstructured interest among stakeholders in the recovery and use of these values. In the third, the heritage values are professionally managed and used. Table 2 summarizes the key aspects of each patrimonialization stage.

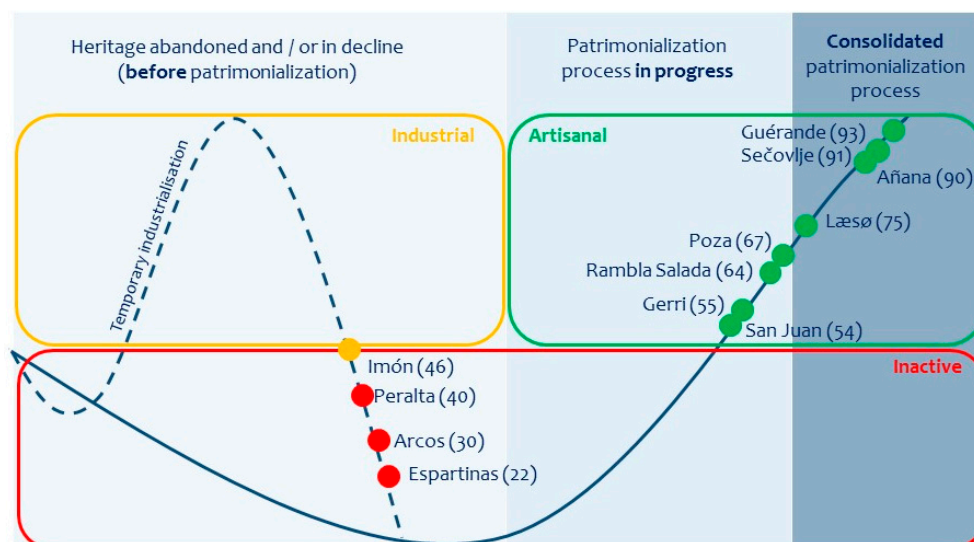


Figure 2. Patrimonialization processes of the study sites, with indicator scores between brackets. The vertical axis represents the degree of patrimonialization (score), whereas the horizontal axis represents time. Red dots are inactive salinas, yellow are salinas in decline that are trying to industrialize their activity and green are salinas active as productive and/or tourist sites. Source: [28].

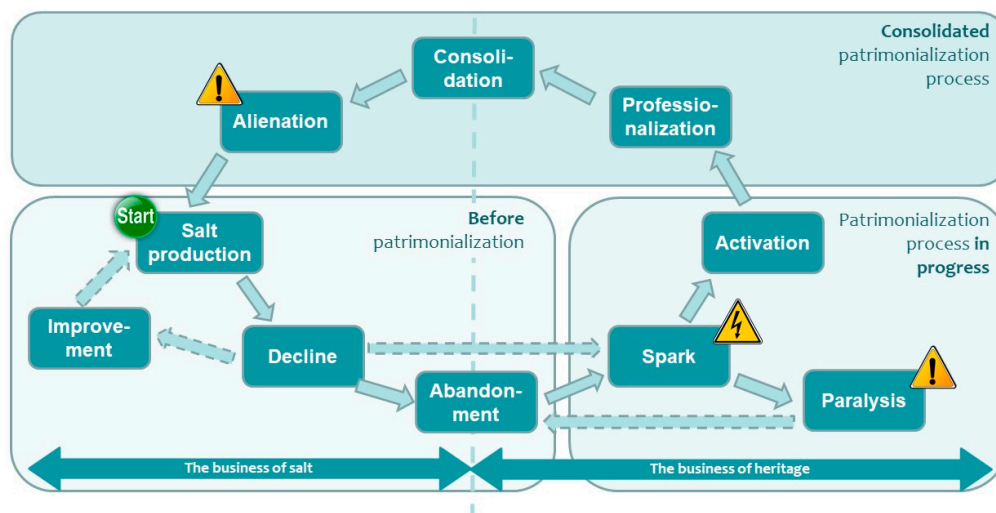


Figure 3. Stages and main events of the patrimonialization process of traditional salinas. The arrows represent the sequence of events (small, dark blue boxes); dotted arrows show an alternative course of events. Attention signs indicate key events. Salinas found left of the dotted line are engaged in the business of salt making, whereas those to the right of it are multifunctional sites in which both heritage and salt are their assets.

The progress from a situation of decline or abandonment to a consolidated recovery of heritage of the twelve study sites is represented in Figure 2. The vertical axis represents the degree of patrimonialization (expressed numerically with the score between brackets) and the horizontal axis represents time, although the duration of each process is different per site. The lines show the two usual pathways of patrimonialization identified, and the

dots indicate where each individual site was found at the time of writing, with their score indicated [4]. The solid line tells the story of traditional salinas that were in decline or in early stages of abandonment and were recovered as artisanal sites. The scale of operation has therefore not essentially changed, although the management model may have. The dotted line, on the other hand, shows traditional salinas in decline that tried to upgrade their scale of operation by mechanizing activities, deepening brine wells or enlarging the productive area, thereby trying to prevent the closure of the site. Sites drawn in red (Arcos, Espartinas, and Peralta) are those that, despite having a recognition of their heritage values, are now inactive or abandoned, whereas those in green are active and thriving (Añana, Gerri, Guérande, Læsø, San Juan, Sečovlje, Poza, and Rambla Salada). In yellow, one site (Imón) has been found to be partially active and partially abandoned, with doubts about its survival. The blue shaded background indicates the stage at which each site is found, which is further indicated with the compound indicator value. Salinas with a value below 50 are in the first stage (Arcos, Espartinas, Imón, and Peralta), before patrimonialization; those with a value between 50 and 75 are in the second stage, “patrimonialization in progress” (Gerri, San Juan, Poza, and Rambla Salada), and those with a value above 75 are in the third stage, “consolidated patrimonialization process” (Añana, Guérande, Læsø, and Sečovlje).

There seems to be a causal relationship between the intention to recover the activity by means of upscaling it and its faster decline, whereas artisanal salinas that have not changed the scale of operations appear to have had a smoother transition towards recovery. This, however, may be oversimplistic and it may be worth looking for patterns in the events that have occurred within and between stages of patrimonialization. Figure 3 shows a flow chart of events in the patrimonialization process of the study sites. Depending on where each site is found within this progression, it will have experienced more or less of these events.

3.2. Before Patrimonialization

When does a patrimonialization process start? Here, all case studies considered have undergone some form of patrimonialization, as their heritage values have been acknowledged and valued to a certain extent. In the case of the nine salinas in Spain, their protection as goods of cultural interest is a shared feature. However, this seems to have been a mere formality, as some sites were in an advanced state of decay (Arcos, Peralta, and Imón) or even ruin (Espartinas), regardless of their protection on paper. All of them thrived in the mid- to late 20th century but have not been able to make the transition from the primary sector (salt making) to the services sector (heritage-based tourism and gastronomy) for various reasons and have thus been forced to cease the activity. A major factor has been the competition with industrial salt from sites further afield that became notorious when the transportation networks facilitated access of coastal salt to the hinterland, previously catered to by small-sized, artisanal scale sites. Longer production seasons and mechanized processes made the small, previously well-located small sites redundant. The abandonment of rural areas in the mid-20th century further aggravated the situation in these isolated, agronomically poor areas.

A few traditional salt making sites remain active in Spain, selling salt and brine to local customers, mostly in Andalusia [18]. In their case, there has been no shift in production model, but simply business as usual. In some cases, this is a marginal activity that relies on ageing workers and therefore has little resilience. When workers retire, the site is abandoned. As indicated in previous work, “the stage of decline and subsequent abandonment can last anything from a few years to centuries. It is obvious that the shorter the period of abandonment, the easier and faster the recovery of heritage can be. In some cases, the abandonment has been so prolonged that recovery back to the original function of the site is no longer possible” [4].

Ownership of the site may also bear a relation to the difficulties experienced in their patrimonialization. The four salinas found in the “before patrimonialization” stage are owned by family-run companies or private individuals. The investment in industrializing

the activities and facilities did not result in their recovery, further reducing their capacity to restart the activity at a smaller scale. The decline was thus accelerated and the state of the facilities further deteriorated. This decay has also affected the landscape values of the site, as remains still exist of their short-lived industrial past, such as in Imón or Peralta. Añana, a site that also tried to increase profitability by enlarging the productive surface, is an exception. Restoring the integrity of this site required a massive economic, technical, and human effort that resulted in a positive outcome, as shall be seen. However, in most cases of gradual abandonment, “the owners have lost their capacity or willingness to invest time, effort, and resources into the site or may even not be traceable anymore” [4].

What truly initiates a patrimonialization process is a spark that ignites it, at social scale. Usually a small group or organization, aware of the heritage values of the site, starts disseminating them in an ever-growing circle of interested people. In the cases of Espartinas, Poza de la Sal, Peralta, and Rambla Salada, the trigger of the public interest was a local NGO focused on protecting the cultural values of the site, while in Guérande it was the salt makers themselves, with the support of environmentalists and Breton nationalist groups. In the case of Arcos, it was the heirs of the last salt master, who still own the site. Añana, San Juan, and Sečovlje initiated their patrimonialization process with strong support from public authorities. In Gerri, Imón, and Læsø the spark came from scholarly interest. The involvement of these stakeholders sometimes resulted in awarding the site the status of BIC or other protection status, but in most cases this recognition was granted much earlier by authorities or scholars without ties to the local community (e.g., Añana in 1984 or Imón in 1992), even before their abandonment.

Despite the existence of an entity that generates a spark and a legal protection measure (whether related or not), the patrimonialization process often stagnates. This has clearly been the case in Espartinas, Imón, and Peralta, with a private owner unwilling to cooperate with the stakeholders interested in recovering the values of the site (although in the cases of Imón and Peralta there are at the time of writing again negotiations open between them; pers. obs.). In Arcos de las Salinas, the situation has been the opposite: the public authorities do not wish to support the owners of the site, who are gradually gaining attention and support from the local community. In the four sites found at this stage, small steps are being taken to open them for visitors, albeit usually limited to special occasions such as the patron saint festivities in Arcos or Peralta; specialized field trips by a local NGO in Espartinas; or upon request in Imón. In the latter case, the reluctance of the owners means in practice that very few visits are allowed. It should be noted here that all sites—regardless of ownership—declared BIC in Spain should, by law, be open for visitors, at least occasionally.

If the spark does ignite, it is crucial to keep it aflame. The involvement of the local community, the attention from the press, the support of public authorities, and the aid from public and private funding are key to let the process grow. At this stage, the patrimonialization is still weak and fragile, and it can easily slip into decline or abandonment if the human, technical or financial resources fail. A case in point is the salinas of Imón, which have been in the spotlight repeated times, but never quite got off the ground, with the site now being almost in ruins. A more modest site in the same region and with similar political, social, and environmental conditions, San Juan, has secured critical support at the right time (mainly a state-funded comprehensive restoration of the site) and is now steadily progressing towards consolidation. One possible reason behind the specific difficulties Imón faces is its large size and monumentality, being one of the two biggest inland salinas in Spain [18]. Also stagnated despite talks with different stakeholders, Espartinas never secured resources, and Arcos and Peralta are only now (at the time of writing) starting modest recovery projects. Since these initiatives are led by local NGOs, run by volunteers, only time will tell if these sites are able to pass the threshold towards the next stage.

3.3. Patrimonialization Process in Progress

When stakeholders reach lasting agreements and the community feels a sense of identity and engagement, the process can be considered to have reached a new stage, patrimonialization in progress. There is still a certain degree of uncertainty in attaining success, but roles are more clearly distributed, and resources are gradually made available. The weakest link in the chain are the actual guardians of the site, as they are highly dependent on the willingness of volunteers or rely on short-term agreements with owners, authorities, or sponsors. There is, therefore, still a significant risk of paralyzing the progress or even slipping back into the previous stage. Gerri de la Sal is a case in point. In the 2010s, the site seemed to have hopes of recovery, with the support of local authorities and young salt makers willing to take over from the last salt maker, by then planning to retire. The presence of the monumental salt storage building, which hosts a modern Salt Museum (*Museu de la Sal*), and the inclusion of Gerri de la Sal in tourism packages gave the impression of a smooth path towards consolidation. However, the promised support never materialized and the young salt makers withdrew from the project. At the time of writing, the project is paralyzed, only appearing as a fossilized tourist attraction.

San Juan, on the other hand, has reached an agreement with the provincial authority to provide salt for winter road maintenance, which allows for paying the salaries of the salt makers. In the last few years, San Juan also produces high-quality food grade salt (including the famous *fleur de sel*) and is gradually introducing its product in top-end restaurants. Rambla Salada, on the other hand, has reached a stable situation, in which an NGO runs an environmental education program and produces a modest amount of salt with the help of volunteers. It seems to work well for all parties involved, although the site is partially abandoned and the salt cannot be sold to the public, for lack of the right permits. Poza also seems to have reached a stable situation, in which a local NGO runs the site, organizes a yearly salt festival, and invites the local community to produce their own salt. They have obtained permission from the authorities to sell food-grade salt, thereby increasing visibility for their site.

At this stage, the site is usually open to visitors and the organization in charge is usually keen on receiving them. Visits may be self-guided or organized, depending on the availability of (in-)formal staff members to receive them and the characteristics of the site. In some cases, there is even a visitor center or similar facility that increases visibility and satisfaction among visitors. In Gerri de la Sal and Rambla Salada, old salt storage buildings have been transformed for information and educational purposes. In Gerri, the building hosts a museum, whereas in Rambla Salada, there is a modest environmental education center. In Poza de la Sal, it is the old salt administration building, centrally located in the village, that serves as an interpretation center. San Juan has restored some buildings in the village, but none are specifically used for information about the salina, such as the salt storage building (now still used for that purpose), the chapel, now vacant, or communal bakery, which now serves as a multipurpose hall. To increase their income, all four salinas sell their salt, albeit at modest scale. At the time of writing, the salts from Poza and San Juan had authorization for sale, whereas those from Gerri and Rambla Salada did not. No other products are for sale on these sites. Gerri, in fact, had stopped producing salt at the end of the 2010s.

Sites in the process of recovery are learning to identify their own idiosyncrasy and are celebrating their own heritage, finding unique traits to highlight, and making good use of local resources. Peralta de la Sal, birthplace of Saint Joseph Calasanz, for instance, is collaborating with the Piarists, his order, to link salt and religion, a very powerful and symbolic connection indeed. In Arcos de las Salinas, one key pillar of local tourism is stargazing, thanks to the presence of the nearby Javalambre Astrophysical Observatory and the adjacent interpretation center Galáctica. The analogy between stars and salt grains is a strong visual image that may strengthen the uniqueness of the site. Stargazing can also be an interesting option for Saelices de la Sal and Imón, both located in the recently declared Starlight reserve “Guadalajara skies”. In the end, all sites tend to choose an array of

products and services to offer, but it is how they present them to the public and create links between them that make them unique. The recovery of salinas inspired in Guérande and later, Læsø, Sečovlje, and Añana was very much focused on the triad tourism–gastronomy–wellness. Today, these categories still exist in most patrimonialized salinas across Europe, but the products and services are better connected to local resources and culture, thereby making enough difference to create an identity of their own.

One of the keys to successfully transitioning from the previous stage, “before patrimonialization” to “patrimonialization in progress”, is using an entity to manage the site, providing the necessary staff and facilitating the obtaining of support and resources. Of the four sites found in the middle stage, “patrimonialization in progress”, the only one that did not manage to create a specific steering entity, Gerri de la Sal, is now paralyzed. The other three count on one such institution each: the Fundación Naturaleza y Desarrollo (Nature and Development Trust), in San Juan; the Asociación La Carraca (Association La Carraca), in Rambla Salada, and the Asociación de Amigos de las Salinas de Poza (Association of Friends of the Salinas of Poza), in Poza. The three of them are stable and even thriving; their fragility lies in the voluntary character of their work and high dependence on public support and funding.

3.4. Consolidated Patrimonialization Process

Two key aspects distinguish sites that are in progress from those that can be considered consolidated: one is the professional character of the institution in charge of the site, and the other is the long-term planning of its activities. The professionalization of the management means hiring skilled staff members for all the roles needed (salt making, but also management, administration, marketing, visitor information, etc.). NGOs do not usually have this level of expertise or cannot afford to hire them. The four sites in this stage have created ad hoc institutions: Fundación Valle Salado (Salt Valley Trust, a public–private, non-profit trust) in Salinas de Añana; the Soline Pridelava d.o.o. (a private, for-profit company) in Sečovlje; Læsø Salt A/S (a private, for-profit company) in Læsø; and the Cooperative Le Guérandais (a cooperative) in Guérande. Despite their diverse nature and ownership, the four are specifically focused on the salinas they represent. At this point, salt is being produced, packaged, and sold according to food-grade-quality legal standards, visits are offered upon payment or are at least well regulated, and the site is well signposted and is easily found in tourism packages or information centers in the area.

In all cases, these institutions also design the activities and expansion plans and establish synergies with other stakeholders via formal agreements. A good example is the Master Plan of the Valle Salado in Añana, a 20-year plan that allowed its recovery and consolidated the existence of the entity now in charge. The Læsø Saltworks belong to a marketing association, together with most other private companies in the island, which have designed a long-term common branding strategy for their products and services. Sečovlje is now run by a company that has different brands for their products—Pirankse soline for salt and food, Lepa Vida for wellness products—and follows the guidelines of the management plans of the protected natural area to which they belong. Guérande, on the other hand, is run by a cooperative of salt makers that has been able to establish official guidelines for the definition of *fleur du sel* across France and the organic standards for salt and coordinates a vocational training program for salt masters approved by the French government.

From the tourism point of view, visits are regulated and organized via dedicated websites or reservation systems and products are sold in adjacent shops owned by each organization. The sites run specific programs for visitors and offer specialized activities. In Añana, the site can only be seen with a guided tour, given the narrow space between productive areas. In Læsø, salt makers are given training in acting techniques, so that they can explain the site to visitors with some drama. Visitors do not pay to enter the site, but the experience is so well staged that they gladly buy salt and souvenirs at the shop at the end of their stay. In Sečovlje, visitors are free to move around the salinas within the marked paths;

there are several salt-related museums, small visitor centers, and self-guided itineraries in different locations. From this point of view, Guérande is also the best-developed example. It counts three salt-themed museums, offers tours on different salt-related topics (historical, botanical, ornithological, etc.), and has several shops in strategic locations.

Products for sale at these four sites are very diverse. There are different types of salt (regular salt, *fleur de sel*, salt with spices), with different types of packaging and sizes. Cosmetics and wellness products based on salt and mother lay are also sold, some manufactured on site (e.g., Sečovlje), and others, elsewhere (e.g., Læsø, Guérande). Salt-related kitchen gadgets and trinkets, such as grinders, shakers, pottery, and spoons, can also be found. Books, postcards, and leaflets are usually on display, too. Other items, such as children's toys, fridge magnets, and other memorabilia, are usually sold as well. In this sense, the largest diversity was found in Terre de Sel in Guérande. It is also worth mentioning that salt from Sečovlje, under the brand Piranske soline, is sold in a dedicated shop chain that can be found in seven different locations across Slovenia. Salt from Guérande can be found worldwide, while salt from Añana is sold in high-end culinary outlets in Spain and Læsø salt is popular in high-end supermarket chains in Scandinavia.

At this stage, the shift in mindset from the production of industrial-like salt to a diverse offer of heritage-based products and services has been completed. However, the consolidated patrimonialization process is far from being a dead end. It is a dynamic stage that requires the capacity to adapt to the ever-changing business environment and the shifting needs and demands of both customers and visitors. A rigid management style could affect the resilience of the site, while a management style too sensitive to global fashion trends may result in a loss of identity and sense of belonging of the community.

One of the risks of relying on dedicated, professional organizations to manage the salinas is the creation of an emotional distance with the original idea of recovering the heritage values of the site. This is especially the case when the focus lies on economic revenue only, rather than sustainability (i.e., caring not only for profit, but also for the local community and the landscape). In all four sites there were tensions around the perception of a growing distance from the original purpose of the project. In Añana, the local community felt set aside under the term of a highly technical manager, more focused on the reconstruction of the site than on the social implications it would have among residents. In Læsø, the management team did not have any background in salt or ties to the island; they were strong in economics but lacked the emotional attachment to the site. In Sečovlje, the history of the salina was complex, having transitioned from a state-owned (under communist regime) to a privately owned company in a very short time, which gave some issues with respect to the care of the natural and cultural values of the site. In Guérande, on the other hand, the problem lied with its popularity across the world. Critics were against the export of salt to remote countries, as they defended the principles behind proximity food production and did not find the food miles caused by the export of their salt coherent with these values. Across all four sites, the shops somehow served as a window to display these tensions: designer packaging with a stronger focus on logos than local materials, similar salted food types (chocolate, candy, cookies), soap bars, cosmetics, souvenirs, etc. There was a feeling of being a salt-themed park rather than a genuine heritage-based historical site (pers. obs.), questioning their authenticity. Tensions like these may generate alienation from the original purpose, which was the recovery of the natural, cultural, and human heritage of salt making, an alienation that may result in the loss of support from the local community, the public authorities, and even visitors. The salinas could become, again, an industrial-like salt making site, with the focus on profit, just like they were before patrimonialization.

4. Discussion

4.1. Patrimonialization of Saltscapes Elsewhere

Despite the differences in historical background, location, and technical features of the twelve salinas discussed, their patrimonialization processes share features that may be

useful to address heritage management and conservation issues in similar sites elsewhere and even other cultural landscapes in the region. Having said this, providing inspiration does not mean that other sites should mimic processes undergone by others. The salinas of Guérande are no doubt the beacon for most other artisanal solar evaporation salinas in Europe and beyond. After fifty years of patrimonialization, they are a thriving ecocultural site with a solid economic activity around salt and tourism. They have reached a sound balance between enhancing the natural, cultural, and human values of the site and keeping tensions at bay. Quite a few of the other case studies described here have had Guérande in mind when they underwent their own processes. In Spain, that beacon would now be the Salado valley in Añana, again now a strong heritage-based tourism and culinary asset. The other eight inland case studies follow its process closely. To date, many inland and some coastal sites are now trying to attain the same success. In the authors' experience running the IPASAL Network since 2002, owners of abandoned sites across the country still hope for a similar recovery process for their salinas. Similarly, in the Balkan region, Sečovlje is the example to follow. Salinas in Croatia (Nin, Ston, Pag) or Montenegro (Ulcinj) hope to achieve a similar degree of development in their recovery. In Scandinavia, the success of Læsø has been followed by the birth of several seething sites in Norway (e.g., Havssnø, Arctic Salt) or Iceland (e.g., Norður Sea Salt, Saltverk), although, to be fair, Maldon Salt in the UK has also been a key source of inspiration for these and other similar initiatives, mainly in the UK and USA.

What emerging artisanal salt making sites perhaps need to keep in mind is that each patrimonialization process is unique and cannot be copied from a template. The stages described are a general pattern of events, and they do not necessarily occur with the same intensity, speed or duration, nor are the stakeholders involved the same in each case. Also, the socioeconomic and political conditions vary from one region to the other and with time, and so does the availability of resources. In addition, once the first salina in a given area has been successfully recovered and thrives, the others need to compete with it and usually have difficulties obtaining public support and funding.

Some sites elsewhere in Europe have undergone independent patrimonialization processes, without the need of previous paradigms, rather going alongside them. One example is the Ria de Aveiro, in the Vouga estuary in Portugal. Two separate actions by the University of Aveiro in the Santiago da Fonte site and by the municipality in the Marina da Troncalhada site have triggered the recovery of other productive units in the area. There is now a vast offer of products by small independent producers, such as gourmet salts, cosmetics, and even baths and massages. Since 2005, a salt fair is being celebrated, where local salt producers can showcase their products and synergies are built with local hospitality businesses [29–33]. Another example is the Bay of Cádiz in the southern tip of Spain, an area that used to host numerous smaller salinas. At the end of the 20th century, most of them were abandoned or transformed into aquaculture farms. A couple of industrial salinas survived, but now several artisanal salt makers are again operating in the area, creating ties with high-end restaurants (e.g., Michelin-starred Aponiente in El Puerto de Santa María) or research institutions such as the University of Cádiz [34–39].

In both cases, Aveiro and Cádiz, the size and territorial complexity of the sites have been the trigger for their abandonment, a few decades back, but also a catalyst for their recovery in recent years. The diversity of stakeholders involved has helped small initiatives to find a niche market, thrive, and showcase results at small scale, but with the capacity to inspire others. Public authorities have more resources in these densely populated coastal areas, the sociodemographic structure includes younger people, with the training and capacity for entrepreneurship, and a higher diversity of NGOs supports initiatives from many different perspectives (cultural, historical, environmental, etc.). The traditional character of these salinas has facilitated the existence of lesser, independent productive units, without the need to recover the whole area at once, which would probably have been an impossible feat.

Andalusia also hosts two remarkable examples of recovery. The Salinas del Alemán in Isla Cristina, Huelva, are a small coastal site that belonged to a salt maker who abandoned the activity upon retirement. His daughter Manuela Santana, once freed from child-rearing duties, decided to reopen them. She specialized in the production of *fleur de sel* and the use of magnesium salts for skin treatments. Hers was a solitary path, trodden with few resources and a high degree of skepticism around her, but has now earned numerous awards. Also in Andalusia are the “Roman” salinas of Iptuci, an inland site in the Los Alcornocales Natural Park. They barely managed to survive, when the regional development decided to provide funds to recover several inland salinas across the region. However, the funds were only granted to this one, which we significantly retrofitted to a new artisanal site that celebrates its Roman historical roots.

Another recent female-led initiative is the salinas of Bocangrejo in Gran Canaria, a small coastal site off the trodden tourist paths in the island. Nadia Martina, married to a salt maker, decided to recover the site for salt production and has focused on high-quality salt. Her success has been meteoric, having won the Agrocanarias official salt contest ever since its inception in 2018. Again, this effort was and is privately run. Other examples are Salinas de Oro, in Navarra, south of the Pyrenees, run by the Gironés brothers. They were able to transform a traditional site that barely survived into a business that exports eco-branded *fleur de sel* to France and hosts a massive salt-themed festival every summer. The salina of Vilanova in Lleida, Catalonia, is run by volunteers, in a similar fashion to Poza de la Sal or Rambla Salada, but without any protection status that would help obtain certain resources. More thorough recovery processes, thanks to European and national funds, have helped transform sites in significant decay such as Odén, also in Catalonia, and Naval, some kilometers to the west, in Huesca, Aragón. Both are now producing salt and offering brine baths to visitors. Both are managed by companies commissioned by the local authorities, owners of the site.

There are also sites that are still surviving without much change. Small in size and lacking infrastructure are the primitive solar evaporation salinas found on rocky shores throughout the Mediterranean and in the Canary Islands, where the salt is formed in natural hollows in the cliffs and hand-harvested on the spot. The patrimonialization of these sites should focus mostly on the intangible aspects such as professional know-how, harvesting technique, and salt-related traditions and rituals. Examples of these locations are Croatia, Malta, Mani (Greece), and several small sites in the Canary Islands [3,40]. In 2023, the regional government of the Canaries celebrated its annual Agrocanarias Salt contest in the islet of La Graciosa, home to several primitive salinas.

From both the study sites as the cases discussed here, sites owned by public authorities seem to have better chances at attaining funds and managing complex rehabilitation processes. Family- or NGO-owned sites, on the other hand, proceed at a much slower pace. Apart from certain modest subsidies, the sites function autonomously and rely upon their own resources. The cases shown above shine, as compared to the hundreds of small, abandoned salinas that dot the Iberian Peninsula. The adequate identification of patrimonialization processes and their stages may be useful for both, in the first case, simply to keep on track and identify pitfalls and tensions, as those described above; in the second case, to help consolidate their hard-fought patrimonialization processes. In the third case, the abandoned sites, the knowledge of these stages may contribute to the protection of this endangered trade and its associated immaterial heritage.

4.2. Pending Challenges in the Patrimonialization of Saltscapes

Consolidated patrimonialization processes still face numerous challenges. Regarding authenticity and coherence, one important question to solve during the patrimonialization process, as early as possible, is the identity the site will have. A lack of clear identity and sense of belonging can deter a patrimonialization process or even reverse it (e.g., [41]). In certain cases, the new identity smoothly follows the tradition, such as the case of Guérande or Añana; in others it needs to be created anew, such as Sečovlje, where the site had

undergone many changes in the 20th century. In some others the past is too remote and needs a fresh start, such as Læsø. In the first stages, some decisions may feel far-fetched, such as the type of visitors it wants to attract or whether the salt is going to be exported. As the patrimonialization process progresses and milestones are reached, more complex questions will arise. Flexibility in the management is key to ensure adaptability and resilience. Bottom-up approaches (e.g., Poza de la Sal) seem therefore more sensible than top-down driven processes (e.g., Añana). The latter site learnt this lesson and changed the rigid zonation and uses originally established in its Master Plan into “flexible zonation”.

The main risk after consolidation is that of alienation. An example of this is the controversy around exporting traditional, hand-harvested salts produced in protected areas and with careful consideration of the environment and pride in local production. Sending these salts around the globe simply because they are a top culinary product seems to contradict the ethos behind their production, weakening its carbon-neutral character [42]. The authenticity and sense of belonging is difficult to attain when the salt is purchased far away from its location of origin, making customers unaware of the importance of protecting not only the product, but also the people and the landscape. This discussion is currently ongoing in Guérande or Læsø, where profit seekers clash with critics. In Añana, the transfer of use of the property from old salt makers to the Fundación Valle Salado, now in charge, involved selling part of the site to new owners, some of which lack ties to the region. This has been seen as a treason to its identity. On the other hand, too much emphasis on tourism to support the activity has an alienating effect on it. Visitors intruding in the productive areas (e.g., treading on salt in Guérande), salt makers becoming entertainers (e.g., dramatized visits in Læsø), or events risking affecting the integrity of the site (e.g., concerts and sports events in Añana) are common complaints among critics. In the nearby villages, even gentrification is starting to happen in some of the study sites, such as Añana or Guérande [43], further deepening the divide with the local communities.

Aside from the tensions that may arise around authenticity and coherence, of intrinsic nature, there are extrinsic conditions that are beyond the control of the managers of the site. Examples are the availability of resources, the fluctuating interest of the public or environmental change. One strong tool to support patrimonialization and increase resilience is cooperation between salt making sites. In the past two decades, dozens of EU-funded projects have supported the exchange of experiences, mutual learning, and common branding of saltscapes. Examples include the ALAS All About Salt with salinas from Portugal, Greece, Slovenia, and Bulgaria; the Interreg SEL Salt of the Atlantic and ECOSAL Atlantis with salinas from Portugal, Spain, France, and the UK; and Medartsal, representing sites from Spain, Italy, Lebanon, and Tunisia. These transnational projects offer mutual support, help weaker partners, and contribute to the creation of favorable policies and laws for salt-related heritage [4,44]. Examples are the declaration of salt as an agricultural product in France and Portugal, with specific regulations for hand-harvested salt and *fleur de sel*. Quality seals (e.g., Label Rouge, Slow Food), as well as the EU’s Protected Designations of Origin (PDO) and Protected Geographical Indications (PGI) are more frequently requested for these salts across Europe. The main pending challenge is the discussion around certain salts being considered “organic” according to EU legislation, which would give those declared as such a boost in competitiveness [45]. Other mechanisms such as networks, routes, partnerships and twinnings may be useful to facilitate cooperation and share resources and knowledge and to obtain results more efficiently [4,46].

4.3. Recommendations for Conservation, Policy Making, and Future Research

The results of this study show that cultural landscapes such as traditional salinas, far from being “a window into the past”, are dynamic and complex in nature. Authorities should avoid focusing on seeing these landscapes as fossilized heritagescapes and understand that human activity in them is essential to keep their heritage values alive. As markets evolve, the products and services offered by these landscapes need to adapt.

Flexibility is key to allowing sound and sustainable adaptations that respect the values of the site.

Also, the research shows that the protection of the natural and cultural heritage of such landscapes goes along a continuum, with a gradual increase in efforts resulting in a gradual efficiency in results. Small, bottom-up-led efforts and initiatives can lead to better conservation over time and should not be dismissed. A flexible, dynamic approach towards zonation, management, and use may help build resilience and increase opportunities for local development. To this end, mixed public–private partnerships seem to be a good working model, ensuring participation in the decision-making processes of all stakeholders involved.

Future research may focus on the mechanisms that ensure success in the dynamic conservation of cultural landscapes. While this study has shown and characterized the stages towards patrimonialization and the potential events that may halt or trigger it, identifying why the processes may stagnate or even reverse and how to prevent that is also essential. Given the fact that cultural landscapes exist and are threatened worldwide, it would also be relevant to study similar patrimonialization processes elsewhere in the world, understand the challenges they face in different socioeconomic and cultural contexts, and provide useful policy recommendations.

5. Conclusions

The transformation of salt making sites from their productive activity to a business model based on their heritage is a complex process that presents numerous challenges and potential pitfalls in its different stages. The early stages ‘before patrimonialization’ are fragile and risk failure in the form of accelerated decline or even abandonment, a situation that slightly improves after activation of the heritage, when patrimonialization is ‘in progress’. The third and last stage, ‘consolidated patrimonialization’, also faces difficulties. These are mainly associated to the dynamic nature of the heritage associated with cultural landscapes and the diversity of stakeholders involved. The main risk here is alienation from the values of the site and its community. To this end, dialogue between stakeholders and connection to similar sites is very helpful. Lessons can be learnt from similar sites, whether large coastal areas or smaller isolated salinas. The results of the study offer a general sequence of events in the recovery and valuation of saltscapes of different sizes and scales that rest on the stages of the patrimonialization process identified here and may be useful for the valuation of other heritagescapes or productive cultural landscapes across the world.

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