

Notes from the editor

Six months.

That is all the ALAS project has left to live. By mid-December all actions must be finished. It is not much time to conclude, but it seems highly improbable that the European Commission gives extension to any Ecos-Ouverture projects after that date.

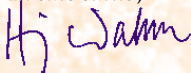
ALAS is a project with big ambitions and great expectations. It is clear that we would have needed more time to carry out the full programme than the few months we finally got (remember that the Launching Conference took place in March 2001).

ALAS is an important project with essential targets: the preservation of traditional salinas through a better marketing of the salt, a more skilled ecological management of salinas, the establishment of salt-museums, etc. These objectives do not only concern the four partner sites and it is therefore time to open up and think about the "After-ALAS".

The Final conference will take place in Lesvos (see page 12) and it will hopefully be a forum for all people concerned by the future of salinas: representatives from institutions and NGOs, from salt producing sites, decisions makers, experts on various themes related to salt. The Final conference is a place for people to meet, to learn more, to exchange ideas and information. One important outcome from this meeting will hopefully lead to new links between sites and salinas, to networks on different subjects related to salt. Think about this already today.

This fifth Newsletter has "Artisanal salinas" as central theme. I hope that you all will find some interesting reading and that you will continue to send me your spontaneous messages.

In sale salus,



editor

If you receive the Newsletter for the first time, we would be glad to put you on our mailing list (the subscription is free!). Just send a simple request: alas@otenet.gr

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ECOS-Ouverture is the European Commission's Programme for Co-operation between the regions and cities of the European Union and their counterparts in Central and Eastern Europe.

Janubio (Lanzarote, Canary Islands)

It was in spring 1995 that I visited the Canary Islands. Together with Alberto Luenco I had the opportunity to see several of the fascinating salinas on Lanzarote. Some were abandoned, like the beautiful Salina del Rio, others were working, but the big salina of Janubio was under careful restoration. (Photo)

A small team of enthusiasts, under the charismatic leadership of Cipriano Marin (vice general secretary of Insula), has since then managed to restore many more of the Canarian salinas.

This example shows that it is never too late to start if you really wish to get positive results when working for a sustainable development of a region!



Scattered along the European and Mediterranean coasts, from Bretagne to the Black Sea, lie the peculiar salina landscapes. Many of the salinas have more than 1 000 years of history. During the last 100 years almost all salinas have undergone main changes. The units have become bigger and the ownership has changed, the harvests are mechanized and mostly carried out only once per year. The salt has become a purely industrial product and has lost its former economical value.

But in some areas, especially on the Atlantic coast, in the Adriatic Sea and on Mediterranean islands, some salinas have resisted modernization and salt is produced in the same way as centuries ago, by hand and several times per salting season. These are the traditional - or shall we say artisanal? - salinas. This fifth issue of ALAS newsletter has therefore chosen to study some of these “stubborn” types of salinas.

What is an artisanal salina?

There is no “official” description of traditional salt and salinas, so here is a first attempt to make one. My colleague Renato Neves has introduced a new terminology when using “artisanal” salinas instead of “traditional”. Artisanal is not pure English (just as Renato and myself). It comes from the word *artisan*, which is English of French/Latin origin. It is a very nice word that describes somebody who does things manually, in a caring way, and still with professionalism. I like this term, *artisanal*, very much and will hereafter systematically use it, just as I use the term *salina* when speaking about salt-works and *salter* when speaking about salt-worker. Artisanal is like art. The salina is a piece of art. The salter is an artist. Salt is not only NaCl, it needs a bit of poetry.

Artisanal salinas are built up of small units. If we compare the artisanal salina in Pomorie with the industrial ones in both Pomorie and Burgas, I think the difference is quite obvious. If you compare Guerande and Figueira with Kalloni and Polichnitos - or with the huge salinas in Spain, Tunisia, Italy, Turkey and south France - you can just not confound the two systems.

Industrial salinas are big, with one owner (private, state or even multinationals). The workers are employed (often on a seasonal basis), whereas the artisanal salter often is his own. Industrial salinas



The artisanal salinas in Marsala (Sicily) just as the sun sets. Several wind-pumps have been restored and the landscape has thus been rehabilitated. One mill, used for grinding salt, now operates as museum. (May 1998)



The map shows where artisanal (with names!) and industrial - or a combination of the two - salinas can be found on the European coasts. The situation changes rapidly and some salinas - especially the industrial ones - may be closed down today.

produce huge amounts of salt (10.000 to over a million tons per year). Artisanal salinas require many salters, industrial salinas need less, but they use more machines.

Where can we find artisanal salinas?

Most European salinas have undergone major changes during the 20th century, especially in the Mediterranean where the weather conditions are very favourable for salt production (i.e. warm and dry summers). We will therefore find *artisanal* salinas where the environment is

The information is based on my own observations (“20 years of travelling in the world of salt”), the excellent cartography in “Salt in European History and Civilization” (Petanidou, Th. 1997) and the Michelin map “Salt in Europe” (ESPA 2000).

more difficult, where the summers are short and uncertain, where the salinity in the sea is lower, and on islands. As seen on the map, most surviving artisanal salinas are situated on the Atlantic coast, from Bretagne to Cadiz. Some few salinas in the Adriatic have maintained their artisanal character, the same counts for several islands and isolated sites in Lebanon and Bulgaria. A quite different type of salinas can be found on some islands and rocky coasts. They have a “primitive” way of working, generally just capturing the splash from the waves.

All these salinas are witnesses of technologies that have functioned for cen-



The beauty of the Guerande salinas (Bretagne, France), seen from a small aeroplane. The area covers almost 2000 Ha, so the photo only shows a minor part. The landscape is like a mosaic with storage ponds, evaporation pools and crystallization pans spread out irregularly. Not all the area is in use, but the ambition to regain the lost surfaces exists, both among the 250 salters and the local authorities. (August 1996)



In some areas salinas have been dug out and transformed to fish farms with the help of enormous amounts of public subventions. The landscape has changed in an irrevocable way. (Figueira da Foz, June 2001, photo: Theodora Petanidou)

turies. The artisanal salinas need protection, because they belong to the common European heritage.

Due to ageing salters and especially to competition with industrially produced salt, many artisanal salinas have been abandoned even during the last decades. This is not a unique phenomenon for artisanal salinas because many industrial salinas have also been closed down. It is cheaper to produce salt in mines or through efficient vacuum evaporators - or to import sea-salt from Mexico, North Africa or Israel. This is the phenomenon of globalisation that hits also the European salinas.

And what about the artisanal salt?

Following the same reasoning, artisanal salt is salt made by artisans, salters, *paludiers*. It is gathered manually, without

modern machines, but with age-old tools, scrapes, spades, brushes... The salinas operate without the use of powerful pumps, but with the tide or with wind-driven pumps. Artisanal salt is made in salinas that work in a *traditional* way, as they worked maybe 100 or 1000 years ago. It is a part of the history of man. It should also be harvested several times in summer (every day in Guerande and Piran, weekly in Croatian Nin, once per month in Sicily - as it always has been done). One annual harvest with bulldozers (like in the modern salinas in the Mediterranean) can not be considered as an artisanal way of working.

Industrial salt (both from the sea and salt-mines) is very pure (more than 97% of NaCl). Artisanal salt contains minor salts and natural "impurities". The salt from

Guérande contains between 93 and 95 NaCl, the rest is magnesium, potassium and some other 90 essential minerals that our body needs. This is due to the fact that artisanal salt is sold unrefined, only dried in the sun, without additives. The artisanal salt has a high reputation among culinary cooks, because it has a superior, less bitter taste. Just like high quality kitchen needs good vegetables, fresh fish and well-produced meat, it also requires that pepper, salt and other condiments are of top quality.

Hjalmar Dahm



A different type of salinas can be found on islands and rocky coasts. They have a "primitive" way of working, generally capturing the splash from the waves. (Delimara point, Malta, September 1994)



An industrial salina par excellence in Margherita di Savoia, Italy. The weather conditions are unique and the salt is harvested in almost meter-thick layers only every 4 years. Like most industrial salinas it is of great interest for nature conservation as an important wetland for water birds. (August 2001)



The hyper saline lagoon in Torre Vieja has an old history and the harvesting methods have not been modified. The salt is deposited on the bottom and collected all year round. Although sold as sea-salt, most of the brine actually comes from salt springs 40 kilometres away from the sea. (March 2002)

The typology of traditional

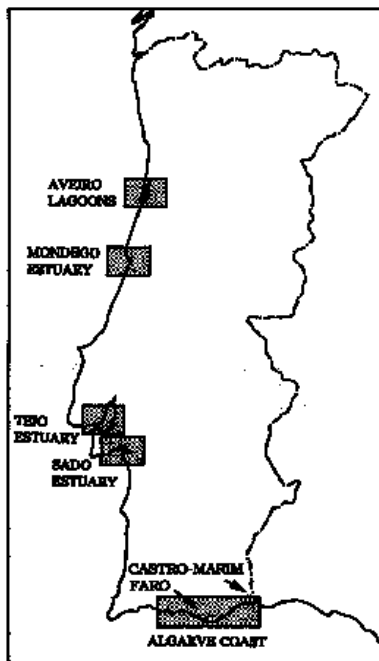
An artisanal salina is a part of our technological heritage. Through the centuries, man has developed and refined the techniques of salt making. This had lead to many different types, well adapted to the various local conditions. A salina on the island of Noirmoutier has quite a different structure compared to a salina in Sicily or in the North Adriatic.

There are so many fascinating things to learn about salinas, the names of the different pools, the use of the specific tools, how often the salt is harvested. So, when a salina is abandoned, when it is transformed into a fish farm, when a salter dies, then we lose a part of our history. For some of us, this loss

is a terrible blow.

Renato Neves has worked with the preservation of salinas for many years, as environmentalist at the National Institute for Nature Conservation (ICN) and now as an independent consultant. Here he shares his knowledge on the Portuguese salinas' ways of working and their different typology.

The situation for many artisanal salinas in Portugal is dramatic. Renato's article is therefore contributes to the awareness raising - before it is too late to save what remains. Because it is not too late, is it?



Renato Neves

Mae d'agua

Photos: Hjalmar Dahm

Geographical and historical frames

With approximately 1000 Km of coast - and an inland where mountains and low quality soils dominate - Portugal is a country that faces the Atlantic. Many activities are related to the sea, and salt exploitation has been among the important ones.

The first known document related to the Portuguese salt activity dates back to 929 AD, before the formation of the nation, and it refers to the donation of one salina in Aveiro. However, already in the Roman period salt must have been intensively exploited, as there are abundant archaeological remains of fish salting settlements in many places of southern Portugal. There is also evidence that salt exploitation continued during the Moorish period.

The strong Atlantic influence of the Portuguese coastline, particularly in its Western seaboard, did not allow the installation of saltworks directly on the coast. During summer the presence of mist and strong maritime winds do not favour the evaporation. On the other hand, during winter the destructive power of a strong wave action, which often reaches well inland, does not allow permanent settlements along the coast. This means that all saltworks are located in estuaries or coastal lagoons where the tidal amplitude can exceed 4.5 m and where salt water is carried upstream, sometimes up to 30 Km from the mouth of the river.

In all places of the Portuguese coast

that have these geographical features there were salinas according to literature and toponymy. However, at the end of the 18th century existed those that we know at present: Aveiro, Figueira da Foz, Tejo, Sado and Algarve.

Typology of the Portuguese salinas

Different Portuguese salt regions adopted different design for their salinas, although the basic circumstances in all of them are similar:

- an average high-tide level of 3 to 3.5 m, with spring tides going as high as 4.8 m,
- an average salinity ranging from 20 to 3.50 Bé and prevailing NW winds in summer.

Although they are protected from the strong ocean erosion they are still affected by the erosion resulting from water circulation inside the estuarine systems, particularly during floods that coincide with spring tides. In some places and in special conditions the water flow can reach a speed of 20Km/h.

salinas in Portugal

As for the design of the Portuguese salinas we distinguish the following types:

I - Aveiro and Figueira da Foz

The type of salinas in these two areas is similar although they use different names to designate the parts of the salina. This typology was “exported” to Obidos (a coastal lagoon 70Km North of Lisbon where the salinas are no longer present) and to the Sado estuary, where it replaced the local typology in some salinas.

The example from *Figueira da Foz* is the salina named *Corredor da Cobra* (the Cobra’s Corridor), which was restored within the frame of the ALAS Project to work as a demonstration salina of the salt-museum (figure 1). Figure 2 shows a salina of “Aveiro typology”. The salinas generally have a regular layout except in the sectors of the seawater reservoirs. In *Figueira da Foz* these pools are exploited collectively. This means that one reservoir can provide water for several salinas, a situation that only occasionally occurs in other areas in Portugal.

The vast majority of these salinas are smaller than 10 ha, the water supply pools can occupy up to 50% of the total area and they are divided in 7 to 9 different compartments. In most of the salinas in Figueira the walls that separate the final compartments (*talhos*, *talhoes* and *sertoes*) as well as some of paths are covered with wood, an adaptation that was first used in the 1940’s and later became common use. In these two regions the salt extraction is completely manual, with salt being gathered every 2 or 3 days. The crystallising area is divided in small pans (*talhos*) which average 14x4m in Aveiro and 12x3.5m in Figueira.

This type of salinas is still active in Aveiro and in the Sado estuary,

Corredor da Cobra in winter 2000, before the ALAS restoration.



Fig 1
Figueira da Foz salina

- 1 - Viveiro
- 2 - Sapal
- 3 - Vasa
- 4 - Entrebanhos
- 5 - Cabeceiras
- 6 - Sertoes
- 7 - Talhoes (crystallization area)
- 8 - Talhos das praias do meio (crystallization area)
- 9 - Talhos das praias de baixo (crystallization area)

where the activity faces great difficulties, and finally in Figueira where 30 to 40 salinas are still operating.

Please note that the figures do not have the same scale.

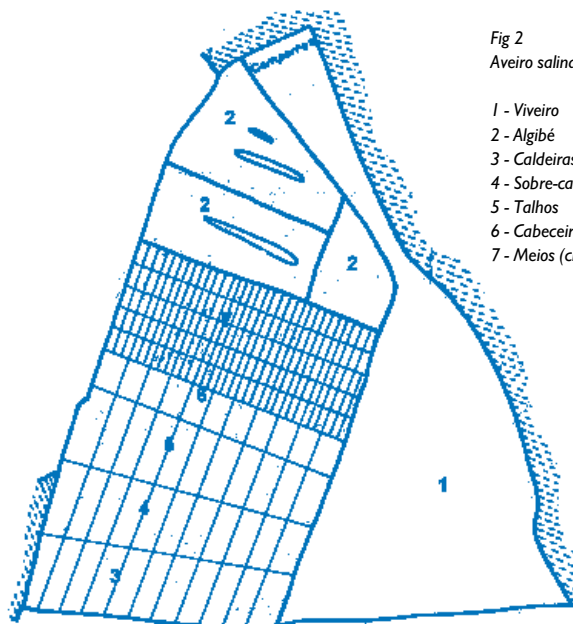


Fig 2
Aveiro salina

- 1 - Viveiro
- 2 - Algibé
- 3 - Caldeiras
- 4 - Sobre-cabeceiras
- 5 - Talhos
- 6 - Cabeceiras
- 7 - Meios (crystallization area)

2 - Tejo estuary

In the Tejo estuary there two different typologies known as *marinhas de cabeceiras* (2.1) and *marinhas de corredores* (2.2). A third type which mixes the two typologies is also recognised, *marinhas de corredores e cabeceiras* (2.3).

Although they have a different design, the way they are exploited is the same, but very unlike from that of Figueira and Aveiro. The salt is extracted only 5 or 6 times in each season and in the past the bottom of the crystallisation area was covered with an algae layer, the *casco*, much in the same way as the *petola* in the Adriatic and Dalmatian salinas. The cultivation of this algae layer was abandoned in recent times. (For *petola*, please refer to ALAS Newsletter 4.)

Presently only one salina of the Tejo estuary is still active and working on regular basis.

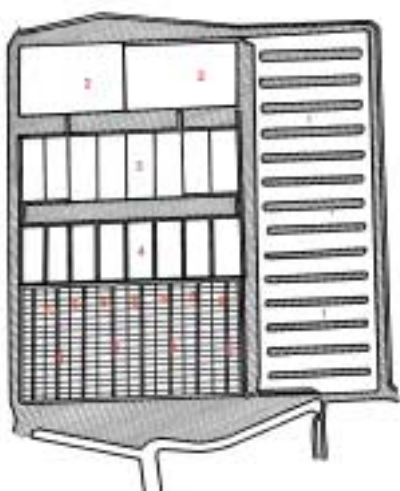


Fig 4
Tejo - Marinha de corredores

- 1 - Viveiro
- 2 - Reservas
- 3 - Terceiros-caldeiros
- 4 - Caldeiros de moirar
- 5 - Corredores
- 6 - Talhos (crystallization area)

2.1 Marinhas de cabeceiras (fig. 3)

This is probably the older typology of the Tejo salinas which was gradually replaced by the other two typologies, as its productivity was comparatively lower and it needed a more intensive labour force. The salinas of this type are usually very small, with an average area of less than 5 ha. Their shape is



An abandoned salina, type Marinhas de cabeceiras (June 1996).

Fig 3
Tejo - Marinha de cabeceiras

- 1 - Viveiro
- 2 - Caldeirao
- 3 - Entre-caldeira
- 4 - Governos de cabeceiras
- 5 - Cabeceiras
- 6 - Talhos



very irregular and includes up to 8 different compartment types. The crystallisation surface is divided in 5x4.5m talhos.

2.2 Marinhas de corredores (fig. 4)

The shape of these salinas is more regular than that of the previous type and their size is also larger in average, with some salinas exceeding 100 ha. The crystallisation surface is divided in large talhos, varying from one salina to the other, but that can reach 50x25 m in some of them. At present only one salina of this type is active.

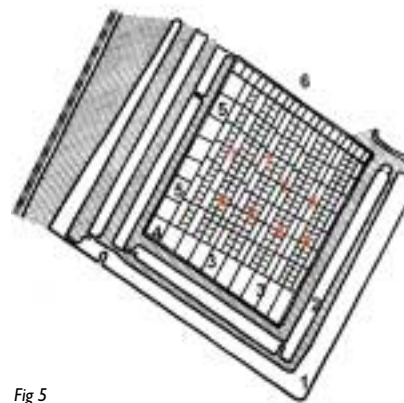


Fig 5
Tejo - Marinha de corredores e cabeceiras

- 1 - Pejo
- 2 - Caldeirao
- 3 - Caldeiras
- 4 - Caldeira de boiatos
- 5 - Boiatos
- 6 - Fusis
- 7 - Cabeceiras
- 8 - Talhos (crystallization area)

2.3 Marinhas de corredores e cabeceiras (fig. 5)

These salinas mix the characteristics of the two previous types. They are regular in shape and their size normally exceeds 10 ha. There are no active salinas of this type today.

References

- Lepierre, C. *A Industria do sal em Portugal*. Lisboa 1936
- Rufino, R. & Neves, R. "The effects on wader populations of the conversion of salinas into fish farms" in Finlayson, C.M., Hollis, G.E. and Davis, T.J. (eds). *Managing Mediterranean Wetlands and Their Birds*. Proc. Symp., Grado, Italy, 1991. IWRB Spec. Publ. No 20, Slimbridge, UK
- Inquerito a Industria do Sal em Portugal - Salgado de Alcochete, Comissao Reguladora dos Produtos Quimicos e Farmaceuticos, Lisboa 1954
- Inquerito a Industria do Sal em Portugal - Salgado de Setubal, Comissao Reguladora dos Produtos Quimicos e Farmaceuticos, Lisboa 1957
- Inquerito a Industria do Sal em Portugal - Salgado do Tejo, Comissao Reguladora dos Produtos Quimicos e Farmaceuticos, Lisboa 1958
- Inquerito a Industria do Sal em Portugal - Salgado do Algarve, Comissao Reguladora dos Produtos Quimicos e Farmaceuticos, Lisboa 1959

3 - Sado - Setubal (fig. 6)

The original *Sado salinas*, or more adequately the *Setubal typology salinas*, are very simple when compared with those of the other areas. They only have 4 different types of compartments and the crystallisation areas are divided in *peças*, usually measuring 12x15 m, but sometimes much larger than that. Salt is extracted every 25 to 40 days, allowing only for three extractions per season. The size of these salinas is very variable, most of them cover less than 10 ha, but a few can exceed 20 or 25 ha. Like in the Tejo estuary, an algae layer was cultivated in the crystallisation compartments of these salinas. Many of the salinas in the Sado estuary have been abandoned or destroyed the last years. Nowadays only 3 to 5 salinas work on a more or less regular basis. Since the 1940's, salters from Aveiro also came to work in the Sado estuary. They introduced the Aveiro typology (figure 2), so both types of salinas can be found in the area.

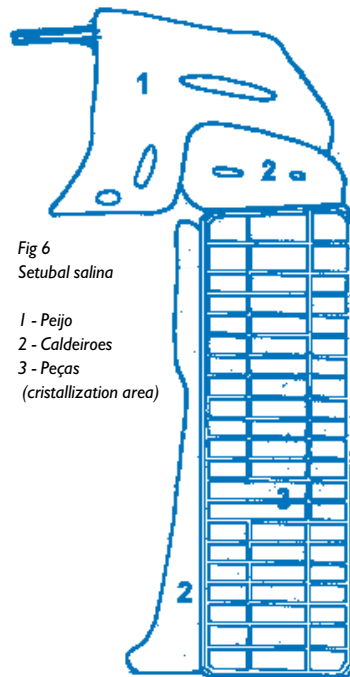


Fig 6
Setubal salina

- 1 - Peijo
- 2 - Caldeiros
- 3 - Peças (crystallization area)



A salina in the Sado estuary during spring preparation (June 1996).

4.2 Faro lagoon (fig. 8)

This typology was present over all the Algarve but the destruction and industrialisation has reduced its number considerably. Very few examples can still be found nowadays. In average this type of salina is larger than 10 ha and has four different types of compartments. Its crystallisation surface is divided in 9x5 m talhos. In Faro the salt is collected 3 to 5 times per season.

4 - Algarve

The Algarve is the Portuguese region with the best climatic conditions for salt extraction. Due to that it was here that large investments in recent years were made to modernise and industrialise traditional salinas. The traditional salinas of the Algarve can be separated into two main types, corresponding to two distinct areas.

4.1 Castro-Marim, Guadiana estuary (fig. 7)

Castro-Marim salinas are very simple, with only three different types of compartments, and usually very small with an area of 5 ha or less. The crystallisation surface is divided in 8x5 m talhos. Although during the 1960's many salinas were grouped in order to allow for industrialisation a small part remained almost untouched.

In the traditional salinas harvests were carried out only 2 to 3 times per year, but this method is today changing to more frequent harvests.

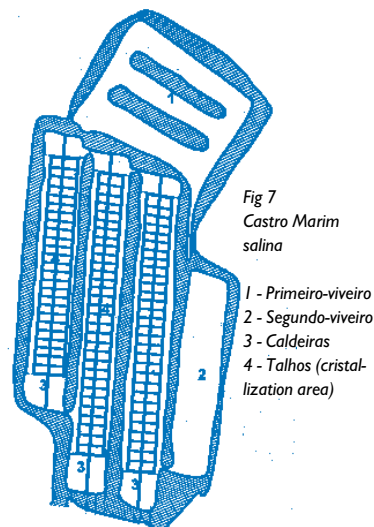
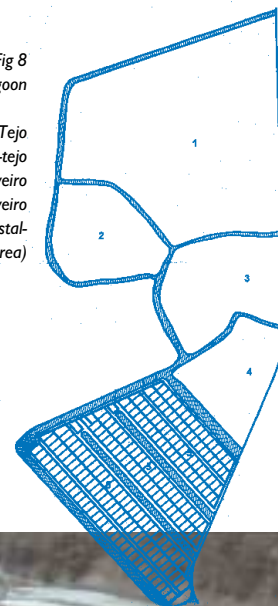


Fig 7
Castro Marim salina

- 1 - Primeiro-viveiro
- 2 - Segundo-viveiro
- 3 - Caldeiras
- 4 - Talhos (crystallization area)
- 5 - Talhos (crystallization area)

Fig 8
Faro lagoon

- 1 - Tejo
- 2 - Contra-tejo
- 3 - Primeiro-viveiro
- 4 - Segundo-viveiro
- 5 - Talhos (crystallization area)



Amadeu, salter in Castro-Marim (June 2001).

Through the ALAS project, Theodora Petanidou - together with her research team at the University of the Aegean (Mytilene, Lesvos) - has had the opportunity to closer study the techniques of salt making in Greece and the rich past of the country's salinas. Theodora is also the author of the book "Salt in European History and Civilization".

Typology of the Greek Salinas

Since the Greek Revolution (1821-1829) salt has been a major source of revenue for the newly formed Greek State, under the continuous jurisdiction and protection of the Greek Monopoly. The outstanding importance of salt as a commodity explains why Greek salinas have been under repeated reformation and upgrading in order to ameliorate and increase their production. In fact, the biggest efforts to restructure Greek salinas were undertaken in the beginning of the 20th century, under the guidance of José Santonja. During the first half of the century, this Spanish engineer had already reformed most of the traditional salinas in Greece, which resulted in that the information on the former structure of those salinas today is extremely poor. The large effort undertaken within the framework of the project ALAS, which is still in progress, indicates a rich past in typology of the Greek salinas employed under different dominions and periods.

The salinas operating today in Greece are all coastal, where sea brine is evaporated by solar heat and wind. The salt is harvested for domestic and industrial use. The substrate is in most of the cases clay (lagoons), whereas there are some few extraordinary salinas on cliffs. What is also very important is the degree of human intervention, as most of the salinas are fully mechanized (large industrial salinas) vs. the ones on rocky substrates still harvested by



Mechanized harvest on the salina of Kalloni (Lesvos) late one evening in October 1999. Photo: Hjalmar Dahm

hand (*primitive or artisanal salinas*). In detail, the salinas operating today in Greece can be distinguished in the following categories:

1. Fully mechanized huge industrial salinas functioning with the system **of continuous crystallization (successive evaporation basins)**, with almost no manual operation. Normally known as **saltworks**, they are extremely large and productive, hence economically profitable (high productivity and chemical purity as to NaCl), of national importance, valuable wetlands that are interesting from the nature conservation viewpoint. Today there are seven saltworks in the whole country: Messo-longhi-Aspri, Kitros, Kalloni, Polichnitos, Messi, Nea Kessani, Aggelochori.

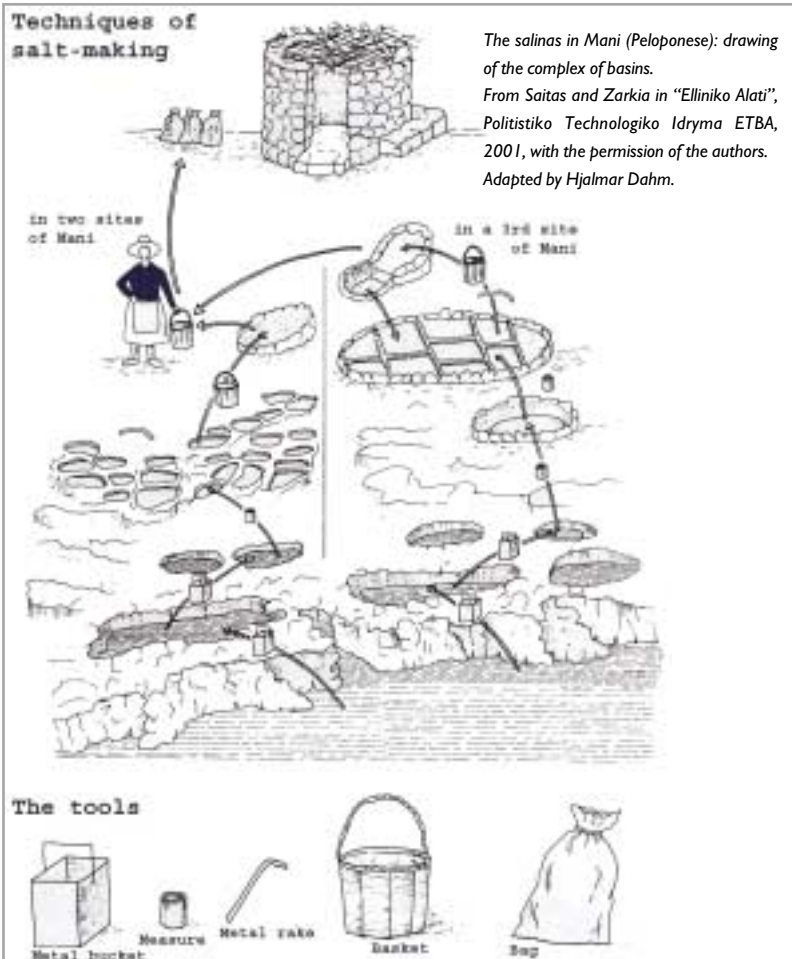
2. Semi-mechanized saltworks, being in all features similar to the pre-

vious group, where salt harvest is carried out manually by humans. Messo-longhi-Tourlis is the only salina of this group left in operation today.

3. Very small-scale salinas mainly carved on the coastal rocks, of a simple basin or comprising a complex of basins (**primitive or artisanal salinas**). These manually working salinas, either abandoned or poorly working nowadays, never appear in the national statistics and official data. However, they have been always important for the local economy, whereas today are also considered having a significant historical and ethnological value. The few salinas operated by equally few people, are those in Kythera and in the peninsula of Mani. The latter are of particular importance not only from the ethnological point of view, but also as far as know-how is concerned. They employ a diversity of types and com-



A salt-woman harvesting salt from a trough on the coast of Telendos islet (Kalymnos island in the Dodecanese. Photo: Hjalmar Dahm, August 2000.



The salinas in Mani (Peloponnesus): drawing of the complex of basins.
From Saitas and Zarkia in "Elliniko Alati", Politistiko Technologiko Idryma ETBA, 2001, with the permission of the authors.
Adapted by Hjalmar Dahm.

plex of basins carved in the troughs on the rocks and the brine is transferred manually from pool to pool until it reaches saturation and salt precipitates (system of **periodical crystallization**, see drawing).

Still there are many dormant salinas, formerly listed under the above-mentioned 2nd category, which have been abandoned with time, some of them having already lost their salt-production and ecological value. Besides, there are many small salinas of a simple lagoon-type which have been used in the past for salt making to cover the local needs, all of them abandoned nowadays.

Theodora Petanidou
Department of Geography
University of the Aegean

Salt making requires knowledge, skill and ... muscles. The skills were traditionally passed on from father to son (or often from grandfather to grandson). Today things have changed and the salter is either a specialized worker in an industrial salina or a "free" salt farmer in an artisanal salina. Both require specific knowledge and training.

Flavio Bonin, director of the Maritime Museum of Piran (and himself son of a salter), has studied the question.

Training of salters

In the past, learning in salt making was passed on from generation to generation. Formal education level of salters was low; they usually had only basic primary education or at the most some kind of technical school. However, the main part of the "craft knowledge" was lost during the transition from traditional to industrial salinas. With the technological changes and with introduction of machinery, different technological skills were asked from the salters.

The mining school in Velenje

In former Yugoslavia, salters from Piran initially attended school classes in Ulcinj, Montenegro. The courses had both theoretical and practical parts. When the mining school in Velenje (NE Slovenia) was established, a special programme for salters was introduced. This school programme overlapped with the one for miners, although there were some specific differences concerning machinery, mining and practical training. Schoolteachers used to come to the Secovlje salt pans where they organized complementary courses for the students. Here the salters also passed the practical examinations. As the salinas in big extent were abandoned, the interest for training of salters fell and the practical examinations do not exist anymore.

However, the Mining school is prepared to reopen courses in the Secovlje salinas, if the interest in this old tradition revives. The Director has proposed two school programs: an ordinary (regular technical secondary school programme) and a specific programme for adults. The latter is meant for already employed salters or people who wish to work in salinas. The programme will be organized as a two years study from April to September with

an emphasis on practical work (1920 hours). 240 hours will be theoretical (society, the natural environment and technology).

What has been done in Piran?

In Piran, the Maritime Museum began to train high-school and graduate students who assist in our museum's presentation of the salinas. We chose three main directions for appropriate training:

1. As a first priority the Museum trained a salter who manages the museum's presentations. We started with this programme in 2001, by getting an employee through the ALAS project. Our apprentice is a graduate student from the Transport faculty of the Ljubljana University. Besides having a good knowledge of salt production, he will now study the history connected to traditional salt production, related geography, sciences and coastal area characteristics. It is his duty to educate schoolchildren, students and visitors to the salt museum. He also supervises the work of the salters that work in the museum's salt pans.

2. From 1999 we have been organizing, together with a voluntary work organization, *Service Civil International*, a 14-day international work camp. Participants are students from different European countries. The camps contain both practical work in the salt pans and learning more about historical, cultural and scientific interests of the coastal area. This experience emerged as a very successful way of working. More information can be obtained from Primoz Pipan: ppipan@hotmail.com or <http://www.sciint.org/>



The trainee (right) is guided by a professional salter in the Guérande salinas. Here they are cleaning the pools in early spring.

Specific training for salters does not seem to exist anywhere in Europe, except for the traditional salinas on the French Atlantic coast (Guérande, Noirmoutier and Ile de Re). Here the school for salters opened already in 1980 and is today organized by the *Chambre of Agriculture* in collaboration with the professionals. The programme is divided in 1200 hours of theory (economy, ecology, and technology) and 1014 hours of practical work. The trainee is remunerated during the course and can later obtain financial aid when starting up his or her activity. The success of this course has led to a total regeneration of the salinas and the average age of the salters is now around 30 years.

More information: Claudine Busson, Service formation, Rue de la Geraudiere, F-44939 Nantes cedex 9, France.

The training school that was to be set up in Figueira da Foz under the ALAS project failed, because there was no local interest due to the difficult financial situation in the salinas.

3. Lately there have been frequent requests by schools to enable their students to participate in practical training in the salt pans. With the aim of providing them with a wide field of knowledge we worked out a common programme with several institutions: Pedagogical Faculty, Regional Institute for the Protection of Cultural heritage, Regional Institute for the Protection of Nature and Marine Biological Institute of Piran. In 2001 we had a group of 7 students from the Faculty of Ethnology.

Flavio Bonin

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In the editor's bookshelves

Through the years I have collected hundreds of books and other printed material on salt and salinas. The photo shows a small selection of publications in different languages:

Les chemins du sel, G. Dunoyer de Segonzac, Decouvertes Gallimard, Paris 1991

Salt in European History and Civilization, Theodora Petanidou, Hellenic Saltworks SA, Athens 1997

Hommes du Sel, Gildas Buron, Skol Breizh, Morlaix 2000

La Salina di Cervia (partly hidden), Gruppo Culturale Civiltà Salinara, Cervia 1997

Om Salt, Hjalmar Dahm, Natur och Kultur, Stockholm 2000

Glossario, Diamantino Dias, Camara Municipal, Aveiro 1996

Une histoire du sel, J-F Bergier, Presses Universitaires de France, 1982

Nature and Workmanship, Directed by Cipriano Marin, Insula, Paris 1997

El Jardín de la Sal, A. Luenco - C. Marin, Ecotopia Ed., Santa Cruz de Tenerife 1994

Saltproduktion, Jens Vellerv, Hikuin, Højbjerg 1993

In the centre of the photo lies the latest book by Jean-Claude Hocquet, ***Hommes et Paysages du Sel*** (Actes Sud, Arles 2001). Together with his colleagues Antonio Malpica Cuello and Olivier Weller, the well-known historian has made a "different" book. Through 15 chapters and subchapters, 200 photos, he invites us into the world of salt. We discover the rites of the Papouasie, the Spanish inland salinas, visit the German salt-mines and graduation towers, admire the beauty of the Maltese salt gardens and feel the burning sun in the salt lagoons in Ghana. The book is built on the iconography and the legends under the photos constitute the main text.

How to order it: Actes Sud, BP 38, 13633 Arles cedex (France), 45 Euro.

If any of the other books interest you, please send an email to alas@otenet.gr and I can provide you with more details.

HJD



Report from the Annual Conference 16-19 May 2002

The ALAS Annual Conference took place in the medieval town of Piran on the Slovene coast of the Adriatic Sea. The local team made an exemplary organization for the participants that came from all sites with both a dense and

well-balanced programme. The presence of the Mayor and Vice-mayor, together with representatives from the Ministries of Environment and Culture, gave the meeting extra importance.

The conference took place in the town hall and debates, presentations and lectures came to pass during some intensive days. Theodora Petanidou, initiator of the project, retraced the origins of ALAS and expressed her fear that several of the tasks will not be fulfilled, both due to shortness of time and the partners' inadequate ambitions. Indeed, several interregional tasks (studies and publications) and many local actions are seriously delayed - or do not fulfill the set of rules required. During

the discussion that followed, it was nevertheless clear that the ambitions are still to do the best to carry out all tasks and actions contained within the programme. However, the participants got a good view on the *local actions* carried out by the team in Piran: Saturday afternoon was spent in the salinas where we saw the restoration of the salt-museum in the Fontanigge area, the re-establishment of several salt-pans in Lera, floating platforms with breeding terns and other concrete achievements that have been made thanks to ALAS.

During the conference, we could also inaugurate a new very richly documented and illustrated exhibition: "The salinas of Piran - yesterday, today and tomorrow". The Sunday excursion took us both to the Strunjan salinas and up into the karstic area.

Next time the four partners meet again will be at the Project Management Committee meeting in Pomorie in September. By then, we all expect that most interregional tasks will have been carried out.



Excursion to the salt-museum in Fontanigge, guided by the curator, Zora Zagar.

ALAS FINAL CONFERENCE

«Salt and salinas as natural resources and alternative poles of local development».

29 November - 1 December 2002.

Mytilene, island of Lesvos, Greece.

The aims of the Conference are to diffuse the results of the ALAS Project and make them known, as well as to summarize and reset the objectives of ALAS through the salt museums that are under creation in the four Project sites.

A major objective of the Conference is to organize networks of collaboration between interested institutions and individuals dealing with salt, salt production, management of salinas and salt museums. Such networks, to operate beyond the framework and auspices of the ALAS Project, can be those of Mediterranean salinas, of Salt Museums, of scientists and experts in salinas issues, of traditional salt producers etc.

INDICATIVE THEMATIC UNITS AND ISSUES

- Historical value of Mediterranean salinas
- Know-how of salt making until the beginning of the 20th century in the Mediterranean.
- Cultural, natural and educational value of salinas
- Creation and operation of salt museums
- Ecology, ecological management, environmental education in salinas
- Alternative forms of salinas exploitation and local development: salinas and tourism - salt gastronomy - salt and salinas as basis for local development
- Planning, general management and conservation of salinas

ORGANIZED BY:

Development Company of Lesvos Prefecture, AENAL

Department of Geography - University of the Aegean

Ministry of the Aegean

For more details:

alas@otenet.gr or www.alas.gr

PRELIMINARY PROGRAM

Friday 29/11/2002

Plenary session of the Conference: Presentation of the ALAS results - Keynote speakers

Saturday 30/11/2002

Four parallel workshops: Local development, Nature conservation, Cultural heritage, History and know-how of traditional salinas in Greece

Excursion to the salinas and the Salt Museum of Polichnitos

Sunday 1/12/2002

«What futures for the Mediterranean salinas?»: Presentation of the Conference results denoting those of the workshops - Keynote speakers of International Institutions - Conclusion of the Conference.

LANGUAGE

Official languages of the Conference are English and French. The workshop on the History and techniques in traditional salinas of Greece will be held in Greek.

ATTENDANCE

Scientists wishing to participate in the Conference are expected to duly fill in the inscription form (download from www.alas.gr) and send it to the Organization Committee.

Submissions (simple statements of attendance, as well as paper summaries) should be sent to the Organization Committee at the latest 5 July 2002 (sealed date on the document sent). Summaries can be in Greek or in English (200-300 words). Full papers will be submitted later, upon the approval of the summary and according to the instructions that will be sent to the authors.

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ALAS calendar for coming events

6-8 September 2002

Project Management
Committee in Pomorie

29 Nov - 1 Dec 2002

ALAS final conference
in Lesvos «Salt and Salinas as natural
resources and alternative
poles of local development»

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All photos in this issue: Hjalmar Dahm (if not indicated other).

Painting on page 1: Marios Flash (*Carcinus maenas*, a crab, is a common crustacean in all salinas.)

Direct email to ALAS: alas@otenet.gr

For local language Newsletters (translations), contact the local project manager.



Next ALAS Newsletter: September 2002

This will be a special issue on economic valorization of salt. Please send manuscripts before 1st of September.