

# TICCIH

THE INTERNATIONAL COMMITTEE  
FOR THE CONSERVATION OF THE INDUSTRIAL HERITAGE

## 10th INTERNATIONAL CONFERENCE

TRANSACTIONS – JUNE 1997

# MARITIME TECHNOLOGIES



ATHENS 2000



## Tanning Plants on the Island of Samos and the Role of the Sea

This presentation aims to illustrate the relationship between the sea and the tanneries of Karlovasi on the island of Samos and to explore the prospects for their conservation.

Samos is a beautiful island located on the east of the Aegean Sea, very close to the coast of Asia Minor. Karlovasi is the second largest town of the island with 6000 inhabitants, situated on the north coast of Samos (figure 1). The town is composed of three distinctive parts Paleo Karlovasi, Meseo Karlovasi and Neo Karlovasi which includes the center of the town. The area around the port which is located near Paleo Karlovasi, has been recently developed with tourist activities (figure 5).

The development of tanning at Karlovasi occurred when Samos was a hegemony subject to the Ottoman Empire from 1834 until 1912, when the island was unified with Greece. The first information about tanners comes from the minutes of the elections of 1832, when a committee was elected to represent Samos).<sup>1</sup> Among those who signed the minutes was a tanner named Vliamos. Since 1850 the number of tanneries must have increased because we are finding mention about the profession of tanners in contracts and other public documents.<sup>2</sup> However the actual development of leather manufacture occurred after 1891 when Samos and the Ottoman Empire came to a trade agreement which was very advantageous for the Samian interests and made Samian leathers very competitive within the Ottoman Empire.<sup>3</sup> The growth of the Samian tanneries coincided with the decline of the tanneries on the island of Syros which was the most important tannery centre of the area at that time.<sup>4</sup>

Traditionally, the commercial activities were concentrated on the seafront zone of Karlovasi. The tanneries were also established there from the very beginning of their history and were grouped in a linear pattern from the

Karlovasitiko stream to the east. These buildings had a rectangular plan and were set up with the short side facing the coast so that they could all have access to the sea.

Today, most of the buildings which were built on the sea front have collapsed; they figure on the 1900 Revised Street Plan. The decline of tanning, especially after the Second World War, had an impact on the buildings. A large number of tanneries on the seafront became redundant and these buildings collapsed in a very short period of time.

The tanneries which were set up on the sea front required protection from the natural erosion from the sea. The tanners used to support the tanneries with blocks made of stone and hydraulic mortar. The blocks were placed in front of the buildings and were fixed with wooden sticks. These sticks were embedded in the bottom of the sea.

Today there are two distinct areas of tanneries; the one is near the Karlovasitiko stream and the other is on the east side of the bay (fig. 3, 4).

In general, the proximity of the tanneries to the sea facilitated the provision of water, the

1. A. Sevastakis, *Historic References on new Karlovasi, Samos 1796-1840*, Nicolaos Dimitrios Foundation, Athens 1995, p. 173 (in Greek).

2. Based on an interview with Alexis Sevastakis.

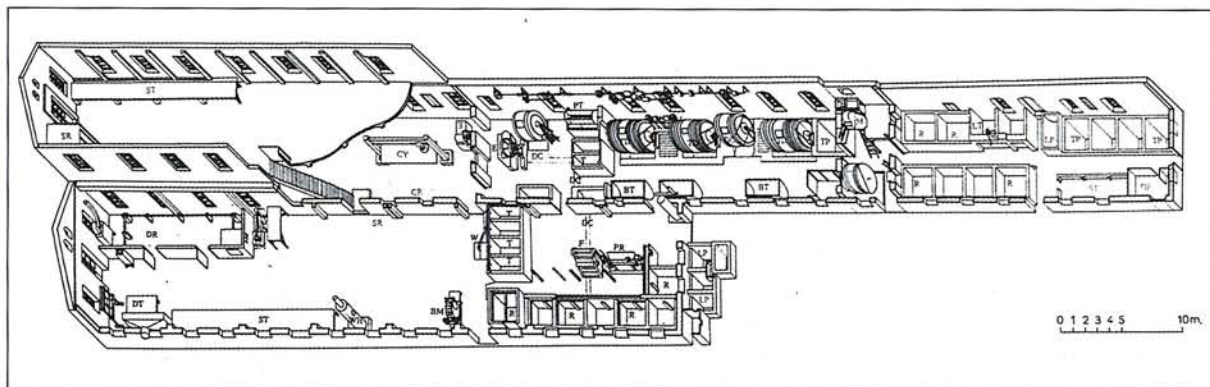
3. I. Vakirtzis, "The principedom of Alexandros Karatheodoris", *Almanac of Samos 1939*, Athens, Fraternity of Samos, p. 29-31 (in Greek).

4. C. Agriantoni, *The beginning of industrialization in Greece in the 19th Century*, Athens 1986, p. 268 (in Greek).



1. Map of Samos. Source: K. Papaioannou, "Samos", in D. Filipidis (ed.), *Greek Traditional Architecture*, Melissa, Athens 1983, p. 102.





2. Axonometric sectional diagram of D. Talabekos tannery.

M: Bark grinding mill, BM: Buffing machine, CR: Changing room, DT: Dying table, CY: Cylinder, DC: Drainage channel, DR: Drying room, F: Fleshing machine, BT: Half barrel tank, WB: Hot water boiler, I: Iron, LP: Lime pit, P: Mechanic Press, SM: Staking machine, SR: Storage, TD: Tanning drum, TP: Tanning pit, T: Tank (*liba*), OC: Oiling-cleaning drum, OF: Office, E: Oil engine, PT: Paddle tank, RA: Rapid, R: Rockets, ST: Scouring table, LT: Tanning liquor preparation pit, WH: Water heater, W: Well.

discharge of the waste tanning liquid and the transportation of leather and tanning materials.

The process of converting a skin into leather is composed of three stages: the preliminary operations, the tanning and the finishing (currying). During the first years of tanning, the tanneries depended at a great extent on the sea. The preliminary stage started at the seafront. The dry raw hides were placed into the sea to absorb water. The skins were tied with thin ropes on chains which were fixed on piles embedded in the bottom of the sea. They used to leave the skins in the sea for as long as it was necessary for the hides to become wet and soft.

Tanning required a large quantity of water during all stages of the process. The proximity with the sea facilitated the discharge of the tanning liquors. Inside the tannery there are channels which convey the waste liquors from the tanks and the drums to a main channel, either outside or inside the building (figure 2). The tanneries which were on the sea front released the waste liquors directly to the sea. For the tanneries located near the west stream, liquors were let to the sea from a main channel that hold the discharged tanning liquors from all the tanneries of the area.

The neighbouring of the tanneries with the sea was important not only for the process but also for the transportation. The trade of leather was carried out through the seaway. Sailing boats were drawn on the beach to be unloaded and then loaded with goods.

A turning point in the trade of the area was the prevalence of the steam ships, especially in the last quarter of the 19th century when the sailing ships were abandoned.<sup>5</sup> The gradual decline of sailing ships forced the locals in

1867<sup>6</sup> to acquire buoys in order to facilitate the approach of steamers to the bay. A few years later, in 1883, the construction of the port was decided but the work was not finished before the end of the century.<sup>7</sup>

The goods were carried to the port with horse drawn coaches (*arabas*) which could carry up to two tones of weight. At the beginning of the 20th century a horse drawn wagon was installed by an entrepreneur named Hatzidakis. This equipment was second hand and brought probably from Smyrna.<sup>8</sup>

The rail was a part of an ambitious plan for the construction of a railway on the island. The plan was proposed to the governor of Samos in 1890 but it was rejected because it was inapplicable given the current economic and political situation.<sup>9</sup> In 1897 the issue of the rail was put forward again and a plan was made for that purpose.<sup>10</sup> The lines were traced along the seafront road from the port to the store-house of flammable materials, which is about 4 kilometers to the east of the port. There was also a second line from the sea to Neo Karlovasi. That was a oneway line, doubled only at the crossing in front of the customs office. At the east end of the line there was a provision for future extension to the town of Samos.

The horse drawn rail operated in 1902 and the lines were set up according to the 1897 plan. There were two routes: one with horse drawn wagons connecting the port with the store-houses and especially the tanneries which were located on the east side of the bay. And the other with passengers carriages connecting the port with Neo Karlovasi. Wagons and carriages were kept in three detached buildings near the harbor. All three had a rectangular plan, the middle one was

5. C. Agriantoni, *op. cit.*, p 92.

6. Law SO, 21 January 1867 (Archives of Samos).

7. Law 284, 1 August 1883 (Archives of Samos).

8. Information given by the tanner Nikitas Andrianopoulos.

9. I. Vakirtzis, *op. cit.*, p 29-31.

10. Laws: 1079, 14 May 1902; 1033 1 May 1902; 947, 1 December 1899; and 903, 4 September 1898.



used as a stable, the one to the west was a general store room, and the third one to the east was for storing the carriages. The ruins of eight pillars, forming part of a shed used for protecting the wagons, can be found in front of the last building.

Karlovasi grew up as a tannery town and tanneries have left their stamp on the townscape. It is obvious that the elements that make the story of the tanneries are to be found not only in the area where tanneries are located but also all over the town.

The decline of the local economy is the main reason for the deterioration of the buildings. Future plans for the revival of traditional economic activities on the sea side zone no longer seem to be feasible. Tourism has been recently developed at Karlovasi. The existing tourist activities look away from the industrial past, and are very often opposed to the traditional leather manufacture.

In this context it is clear that the key issue for the future of the tanning district is whether the conservation of the tanneries can become part of the development of tourism or not.

Assuming that some of the redundant tanneries could easily be part of the tourist industry, once the unpleasant aspects of them have been removed, the question is if a working tannery can become a tourist attraction.

From the conservation point of view, it is desirable for firms to remain in their historic settings and be encouraged to welcome visitors. However, tanneries have some



3. Tanneries on the east side of Karlovasi.

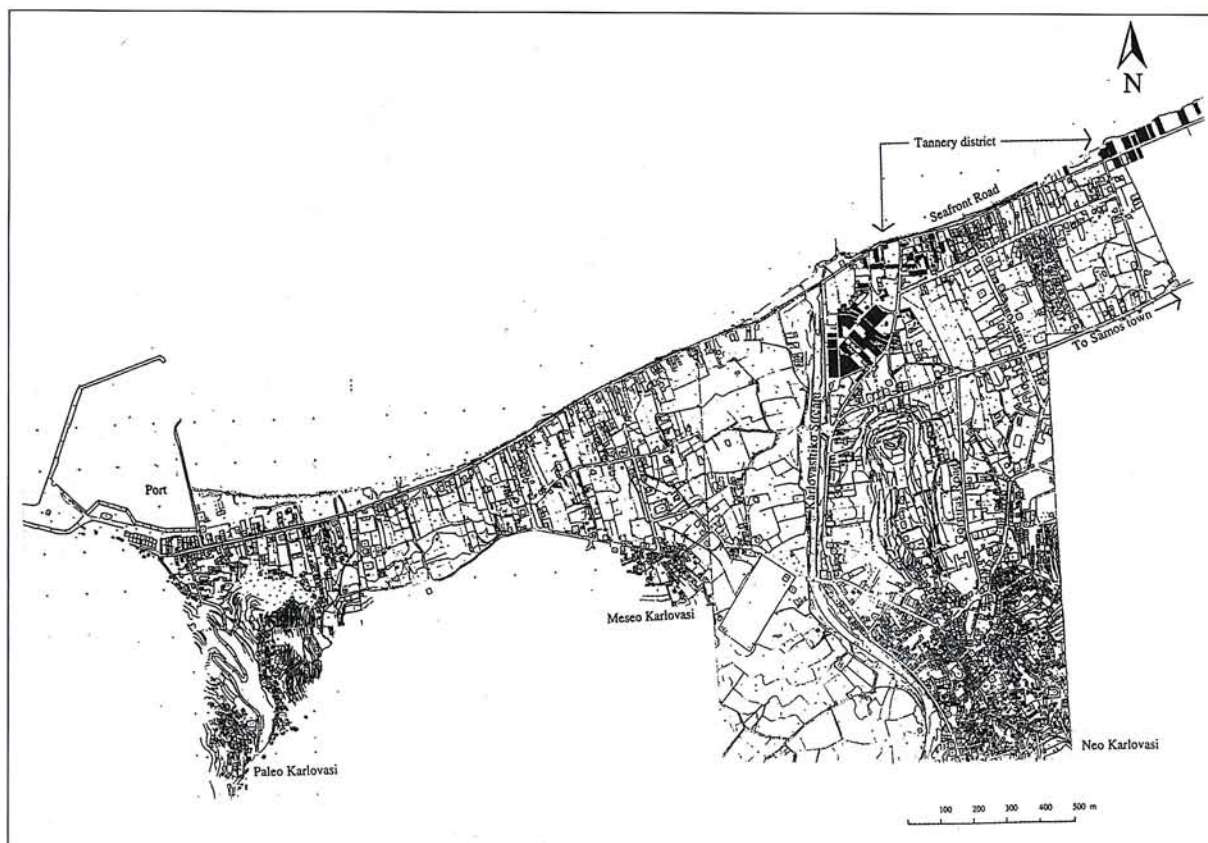
individualities which should be taken into consideration. First it should be ensured that tanneries are not noxious to the environment. Moreover, modern methods of tanning have almost eliminated the smell which was peculiar to the hand process. On the contrary the room where the finishing process takes place has a fragrant smell.

The conservation of the tannery district is important not only for preserving the history of Karlovasi but also for saving the character and the identity of the town. It is obvious that there is a long way to go before extensive conservation programs can be carried out. The first step should be the listing of the buildings which will safeguard their near future from a



4. Tanneries by the Karlovasitiko (west) stream).





5. Plan of Karlovasi.

possible distraction of the plant and unsympathetic alterations. The financing of minimum repair programs can be on selected buildings which would be an appropriate course of action and would buy time in order to prevent buildings from further deterioration.

In drawing the line of action for a long term conservation program, an identification of the importance of each building is

necessary, in order to decide the appropriate intervention. Heritage orientated conservation should be the first priority for the most important tanneries, in line with the tourist development of Karlovasi. This action should aim towards the preservation of the authenticity of the fabric and the plant and the interpretation of the history.