

# OCCUPATION OF THE SEASHORE OF THE HISTORICAL CENTER OF THE MUNICIPALITY OF SÃO JOSÉ

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## **ABSTRACT:**

This paper approaches a research requested to the LabFSG of the UFSC by the Municipality of São José. The problem appeared from a community action of the neighborhood of the seashore of the historical center of the city (from the Antonieta to the Ada beach) against the municipality that resulted in the seizure of the construction of a highway, known as “*Beiramar Continental*”. The community action alleged that the construction of the highway would commit the quality of the water, besides provoking a damage of the cultural heritage. It fell to the research to prove the truthfulness or not of these allegations in order to allow the municipality to accomplish the works in order to improve the quality of the citizens' life, without harming them, without hurting the legislation or still, without blemishing the constructions and the historical monuments. The risings of the pertinent legislation began, in order to evaluate the legal situation concerning to, property right, access to the beach, “*terrenos de marinha*” (Brazilian coast lands that are between an parallel line 33 meters from the medium high tide of 1831 and the high tide of 1831), among others. The maps obtained in 1995, was evaluated as well as the group of aerial pictures that originated it. Besides these, it was collected images, corresponding to the area, of the years of 1938, 1956 and 1978. Through ground control points implanted, it was made the rectification of the images above obtaining as product ortophotos of each one of the years. It was also collected maps, which contains the determination of the medium high tide of 1831. As final product, ortophoto maps were generated (of each one of the dates previously mentioned) containing the themes: medium high tide of 1831 and the themes of the 1995's cartography. Simultaneously it grew a research with relationship to the historical characterization of the city's occupation, which during many years was trade point and passage of products between the plateau and the Island. Using Monitoring techniques it was possible to determine the situation of the occupation, where the historical damage had already happened, the water was committed, there are few public accesses to the beach, which were taken by private accesses and part of the occupation was accomplished through legal infraction, being like this the seizure most harmful to the citizens than the facilities construction.

## 1 INTRODUCTION

This paper approaches a research requested to the LabFSG of the UFSC by the Municipality of São José. The problem appeared from a community action of the neighborhood of the seashore of the historical center of the city (from the Antonieta to the Ada beach) against the municipality that resulted in the seizure of the construction of a highway, known as "Beiramar Continental".

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## 2 METHOD

Intending to accomplish the solicitation of the Municipal City Hall of São José, an expertise was developed in the seashore that includes to the historical center of that municipal district.

The expertise seeks the analysis of the following items:

- a) Identification of the high tide of 1831;
- b) Identification of the strip of navy lands;
- c) Identification of the current seashore;
- d) Identification landscape, urbanistic or environmental alterations;

Those, which were approached in popular action and lawsuit.

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## 3 MATERIAL

Besides inspects in loco, it was used for the accomplishment of the expertise the following analysis instruments:

- a) Aerial pictures of the area, of several years, as 1938, 1956 1978 and 1995;
- b) Restitution of the Photogrammetric surveying of 1995, accomplished in 1996;
- c) Restitution of the Photogrammetric surveying of 1996;

### 4.1 Monitoring

The monitoring is treated as an indispensable process to make a report that concerns the viability to execute an enterprise. The techniques used for the execution of the monitoring consisted of the interpretation of the temporary series of aerial pictures of the area of interest. The fast alteration that happens in the urban and rural areas turns necessary to verify the occupations conditions periodically.

The changes happen mainly in implanted divisions into lots, dismembered lots, expansion of divisions into lots and municipal districts (altering the urban panorama gradually and consequently the rural panoram), new constructions, changes in the roads system and other alterations that change the real estate cadastre.

According to KARNAUKHOVA, the acquisition of images through the techniques of Remote Sensing, represent the model of the surface, reflecting the real geographical situation in the moment of the acquisition of the image.

### 4.2 Photogrammetry

Considering the picture as essential source of information, it was born Photogrammetry, defined as the technique or the applied science that has for purpose to determine the form, the dimensions and the position of the objects contained in a picture, through measures made on the own photographic image. That definition is only based, in the character of measurements, however, the ability to interpret the picture is so important with relationship the one of measuring her. According to LOCH, Photogrammetry is the science and the technology of obtaining safe information regarding physical objects and of the environment, through registration processes, measurement and interpretation of photographic " images.

### 4.3 Photointerpretation

According the American Society of Photogrammetry as the act of to examine and to identify objects or situations in aerial pictures and other sensor, determining their meaning.

Photointerpretation can still be defined as " the forecast of what it can be seen in the image " (SUMMERSON). This can be explained when it cannot characterize an object directly in the image, needing to lean on in known data, to extract or to deduce what represents the object in subject.

### 4.4 Legislation

#### 4.4.1.1 Definitions

Strip of *Terrenos de Marinha*, according to the legislation, is a strip in a width of 33m, from any marine, or fluvial waters counted of the medium high tide of 1831 earth inside.

Acrescidos de Marinha are those formed natural or artificially, inside of the sea or of the river, starting from the medium high tide line of 1831.

For all the effects of the legislation, the influence of the tides is characterized by the periodic oscillation of 5 (five) centimeters at least of the level of the waters, that happens in any time of the year.

Lands located ones in the continent, in the marine coast and in the margins of the rivers and ponds, up to where it makes to feel the influence of the tides;

Lands that outline the located islands in zone where she make to feel the influence of the tides.

Marginal lands are the ones that taken by the navigable currents, out of the reach of the tides, they are going until the distance of 15 (fifteen) meters measured horizontal counted from the medium line of the ordinary inundations.

#### **4.4.1.2 Legislation Aspects**

Those definitions are all under the same legislation, and should analyzed as follows:

Are Immobile goods of the Union, and should attend to all the country necessities, even concerning: Alienation of the immobile goods of the Union; Immobile goods of the Union; Council of lands of the Union; Declaration of the goods; Final and transitory dispositions - immobile Goods of the Union; Enunciation - Declaration of the goods; Justification of ownership of lands devolutas; Navy lands; Use of the immobile goods of the Union.

It is competence of the Service of the Patrimony of the Union (SPU) the determination of the position of the lines of the high tide medium of the year of 1831 and of the average of the ordinary inundations.

The determination will be made analyzing documents and maps of irrefutable authenticity related to the year, or when not obtained, to the time that most approaches of the year.

#### **4.5 Historic of the Culture and Occupation of São José**

The occupation of coastal towns of Portuguese colonization, always presented a common characteristic. The settlers settled in the bottom of bays, where they set up a harbor. In front of this harbor, there was always a square. Crossing this square, on top of a hill, they built a church with towers that could be sighted by the embarkations that entered for any point of the bay, so that this sought it served as direction for these embarkations. In the square of the Church, they built the House of Camera and Chain. Starting from this initial structure, the occupation began.

In agreement with FARIAS (1999)," (...) the occupation of the territory of São José by the first residents was made in a transitory way through the construction of ranches with an only piece almost done that entirely with the clubbes and vegetable fibers for the covering collected in the proximities. The man, his animals, tools and equipments solved like this their shelter problem. Later, this ' pattern' of clubbes and sticks would receive the mud covering, serving as support for the technique of the wattle and daub and sopapo. ' It has began then, the architecture that showed almost equal to the one of whole the rest of the colony, who saw one of them, saw all of them.

In the middle of the XVIII century (1748-1756), it arrived at the Island of Santa Catarina the immigration, motivated for the Portuguese Crown, that it intended to consolidate the Portuguese domain in the south of Brazil, moving away the threat of the Spanish occupation. In 1750, approximately 338 people settled in the front continent to the Island of Santa Catarina, close to a bay of easy navigation, founding the population of São José da Terra Firme.

The geographical characteristics were then very seemed to the ones found there now. They settled in the bottom of the bay, where the harbor guaranteed the communications,

the transport and the trade in embarkations of small load with Exile and other communities. Your inhabitants developed the farming of cassava subsistence, corn, bean, and sugar cane and also to linen and cotton, mainly in the area of Barreiros. The interior lands were, then, ignored, that would come to be to explored starting from 1787.

With the permanent fixation to the earth, the people sought more comfort in their residences, using comfortable differentials. The architecture then based on the slave work and your technological level can be characterized as primitive, using the mud basically, later bricks and still stone and whitewash.

The transformation of the district headquarters of São José in commercial and economical pole along the century XIX was partly due to the opening of the road to the plateau. The foundation of São Pedro of Alcântara, in 1829, for German and national colonists, consolidated the opening of the highway in direction to the plateau, and with them the commercial transactions between this area and the coast.

The highways and roads were defined for fences, with little or any construction. The streets only existed as union among groups of constructions, and these constructions defined your limits in width and length. The public roads rarely presented any paving type, and the sidewalks would only come to be to used later as middle of selection and improvement of traffic a long time.

The population expanded for the area, leaving close to of that area the sea, for roads that took to the rural properties and the other communities, making possible the people's circulation and goods and favoring the fixation along your itinerary.

The original square of the municipal district still comes without any urbanization in your interior space, just beautified. Your dimensions are of 6344 m<sup>2</sup>, with 52 m of width for 110 m of length in the sense sea - church.

The streets leave of the axis of the square in number of six, three in the north sense two in the south sense and one in the sense west, serving as vectors of the urban development of the headquarters of the municipal district. The originality and harmony of this urban structure were broken with the embankment and construction of the building of the city hall, that it started to impede the vision for the sea and your harbor, typical of the Portuguese historical populations, São José not fleeing to the rule.

The construction in 1926 of Ponte Hercílio Luz, linking the Island of Santa Catarina to the Continent, put an end the phase in that São José had at your harbor great economical importance. The transformation of the means of marine transports for terrestrial transformed the city port in city highway that nothing retained of the circulation of goods, being alone point of passage.

## **5 CONCLUSIONS - RESULTS OF THE ANALYSIS**

### **5.1 Identification of the high tide of 1831;**

To identify of the high tide of 1831, we used the acquired material in the Service of Patrimony of the Union - SPU, organ legally qualified to determine it previously in agreement with the legislation mentioned (Figure 1). SPU supplied the map of the restitution accomplished in the year of 1996.

The gathered aerial images and the map of SPU were processed so that all could be related to the cadastral map of the municipality of 1996. What was possible to make a layer disposal of each one of the images to the restitution of the Line of the High tide of 1831, and, through these we could confirm

their location in the series of pictures. This way we could notice that, in elapsing of the years, there were alterations in the border such as added, embankments, etc.



Figure 1 – Part of the SPU map

## 5.2 Identification of the strip of navy lands

Strip of *Terrenos de Marinha*, according to the legislation, is strip in a width of 33m, from any marine, or fluvial waters counted of the medium high tide of 1831 earth inside. The *Terrenos de Marinhas* integrate the patrimony of the Union. Your location was determined from extracted information of the restitution of SPU.

## 5.3 Identification of the previous seashore related to the occupation

The present article has as objective to present the results of the analysis accomplished, which are exposed as proceed. When we analyze the Figure 2, we can still observe intact the structure of implantation of villas of Portuguese colonization, in the actual district of São José. It is easy to notice the presence of the Square of the Head office, of the church, of the House of Camera and Chain, of the Harbor, of the two streets in direction to the South, three streets in direction to

the North, a highway in direction to the West. This highway in direction to the West, linked the coast to the plateau, doing with that São José roots the point of means of transportation transition of goods and other commercial transactions.

Being the photographic registration of 1938 the oldest, it is starting from him that we identified the seafront previous to the most intense occupation of the border. If we observe the picture sincerely, sharply we can observe starting from the Square of the Head office; Church; Harbor; Two streets in direction to the South; Three streets in direction to the North; A highway in direction to the West; Less than a dozen of constructions. More extensive and continuous " strips of sand.

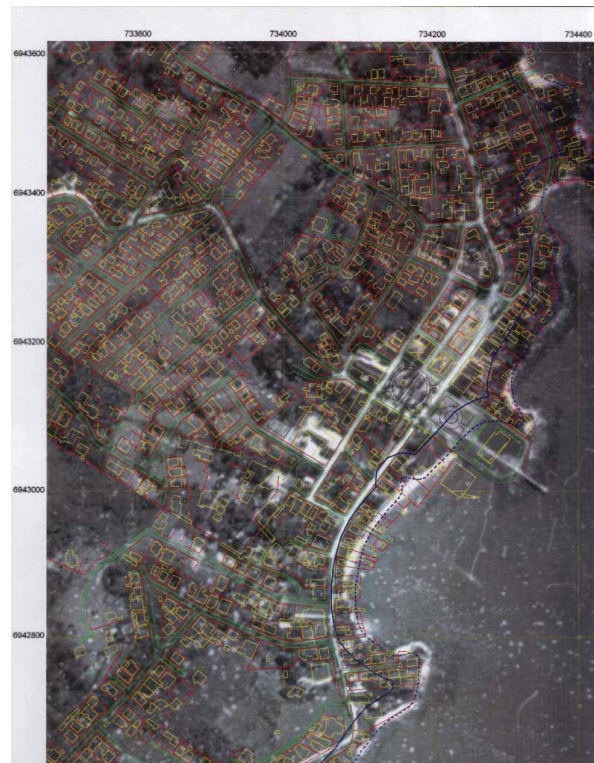


Figure 2 – Part of the ortophoto from 1938, adding the layer of the high tide and the cadastral layer

## 5.4 Identification of environmental alterations

The urban structure that comes sharply in the picture of 1938, square, head office, four constructions, etc, it had been broken with the embankment and construction of the current building of the city hall, that it started to block the vision for the sea and its harbor, typical of the Portuguese historical populations. At this point happens the degradation of the historical center, which only became worse through the years in function of the disordered occupation of the border. It can all be seen in the Figures 3 and 4.

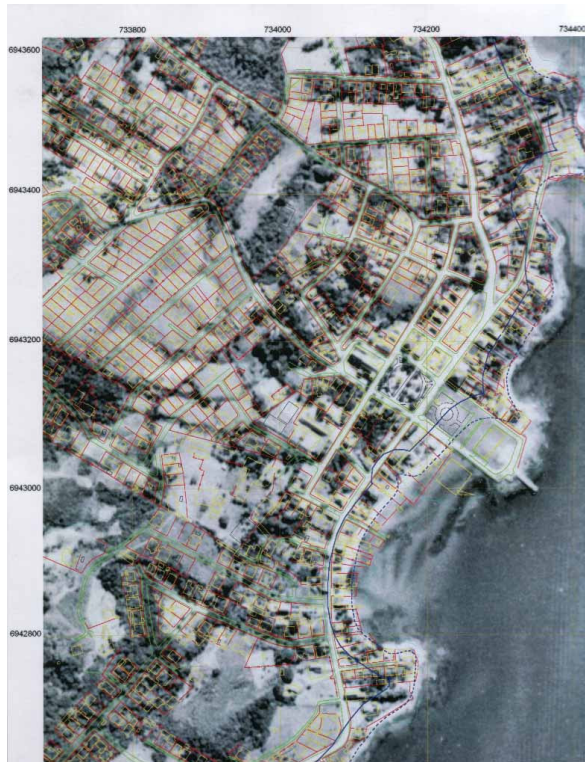


Figure 3 – Part of the ortophoto from 1957,adding the layer of the high tide and the cadastral layer

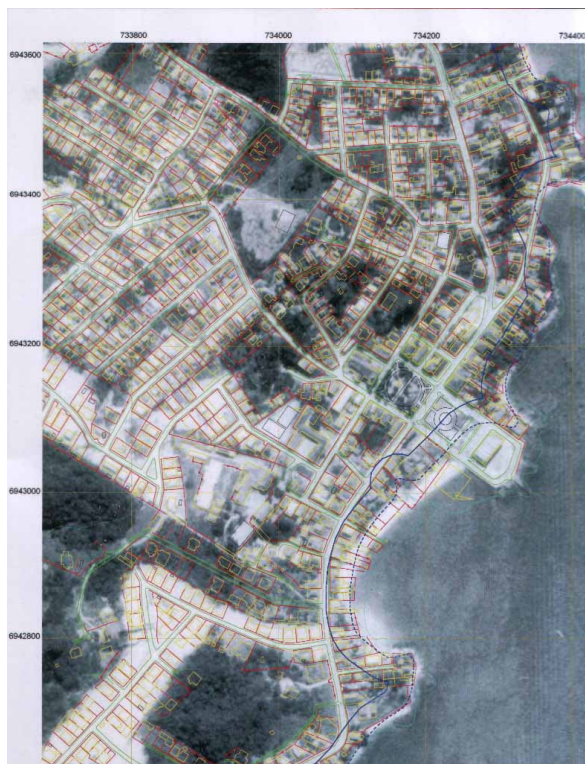


Figure 4 – Part of the ortophoto from 1978,adding the layer of the high tide and the cadastral layer

### 5.5 Identification of the current seafront

Your location can be determined starting from the most recent picture and of your restitution (Figure 5), accomplished by the company Aeroimagem requested by the Municipal City hall of São José. It also was determined by SPU (Figure 1)

Using Monitoring techniques it was possible to determine the situation of the occupation, where the historical damage had already happened, the water was committed, there are few public accesses to the beach, which were taken by private accesses and part of the occupation was accomplished through legal infraction, being like this the seizure most harmful to the citizens than the facilities construction.

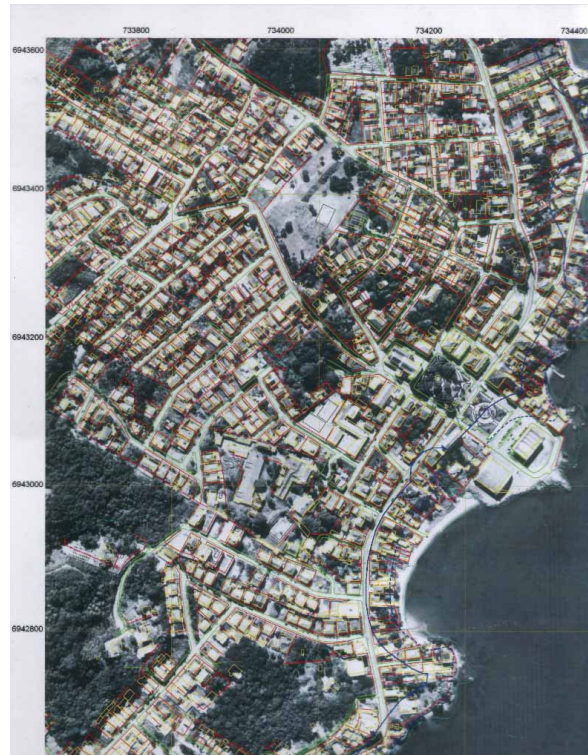


Figure 5 – Part of the ortophoto from 1995,adding the layer of the high tide and the cadastral layer

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