

The Gironde Estuary and Pertuis Sea Marine Nature Park was created in 2015. It is vast (6,500 km²) and has three main entities: the Pertuis Sea, a coastal area sheltered by the islands and heavily influenced by the fresh water brought by the rivers, the great estuary of the Gironde, and the open sea with more oceanic influences.

There are many environmental and socio-economic issues. Located in the middle zone of the metropolitan Atlantic coasts, the Park shelters an important diversity of marine habitats. The sector is an international crossroads for migrating birds and fish. Coastal and maritime activities are very present: a thousand shellfish-farming companies benefit from the high local primary productivity, 400 fishing vessels work in the waters of the Park, 60 ports punctuate the coast, the pertuis are an exceptional body of water for sailing.

It is essential for the Park to make these issues understood and appropriated, the interactions between uses and biodiversity, the need to preserve the natural heritage. Giving meaning to the action of the Marine Nature Park is a major concern today.

One of the vectors identified is to show what is happening under the surface, the main purpose of the missions entrusted to the Park. The low coastal relief makes it difficult to apprehend the territory of the Park, local actors know the foreshore - areas uncovered by the sea at each low tide - better than the strictly maritime domain. In addition, the turbidity of the waters of this Atlantic sector, due to the sediments brought by the estuaries, makes it difficult to see and understand the underwater environment.

The Park team carries out technical and scientific work, in conjunction with many partners, to characterize the marine environment, water quality, biodiversity, activities and uses, work towards the adoption of practices compatible with preservation of marine biodiversity. It is now essential that this knowledge, this search for reconciliation, these actions, be better known and apprehended.

A work centered around underwater landscapes seems to be one of the ways to achieve this, in order to (re) reconcile the technical and the sensitive, to cross biological sciences and human sciences, to show the underwater ecological riches of the sector, to approach the marine environment on a spatial scale adapted to the understanding of activity-biodiversity interactions, to help the Park management council make decisions, to create a territory at sea. Landscape mediation, already tested in many territories, will thus be tested and adapted on underwater spaces and issues.

Thus, a thesis work on underwater landscapes is proposed, supported by the Marine Natural Park of the Gironde estuary and the Pertuis sea. The spatial entity retained for this work is the Sea of Pertuis and in particular the Pertuis d'Antioche. Indeed, the latter concentrates a diversity of situations and underwater landscapes: the Charente estuary, the islands of Ré, Oléron, Aix and Madame, open to the sea; sands, rocks, mudflats, special habitats such as eelgrass beds. The activities that take place there are also very representative of those practiced throughout the Park. The coast is relatively populated, two towns are present – La Rochelle and Rochefort – and the sector has a strong tourist appeal.

The choice of the Pertuis d'Antioche also reflects the fact that the Park plans to integrate into existing territorial dynamics. The Charente estuary is classified as a Grand Site de France, supported by the Rochefort Océan urban community. In addition, the Marine Nature Park, in partnership with the Conservatoire du littoral, the municipality of Île d'Aix and the Rochefort Océan urban community, will develop a site for the interpretation of the marine environment at Fort Liédot located at the island of Aix. A scenography, which aims to be very immersive, will be installed and open to the public in early 2024. The thesis work aims to feed, not exclusively, this scenographic project.

Two dimensions are therefore essential in this thesis project: the landscape as an awareness of the diversity of underwater flora and fauna, otherwise not very "visible", and the landscape as mediation in order to communicate and share the challenges of the natural environment. , in connection with the work of the Marine Nature Park

The main objectives pursued and works envisaged for this thesis are as follows:

- Access the perceptions that different actors have of the environment and the underwater landscape in order to test i/ whether the Park team can integrate these different modes of perception in its speeches and actions to be more impactful, ii/ whether these different perceptions, when they are pooled and are the subject of collective work, facilitate the emergence of a shared territorial vision around marine biodiversity: objective of landscape mediation
- Translate the interviews carried out into real stories, themselves translated in the form of drawings (sketches, block diagrams, etc.) to facilitate the sharing of the different perceptions of the seabed in interaction with uses: objective of knowledge and sharing of social representations.
- Beyond perceptions, represent in different forms the different landscape entities of the Pertuis d'Antioche for mediation purposes and to feed the interpretation site of the marine environment of the island of Aix: objective of communication and awareness

This work will be articulated with Gaëtan Jolly's current thesis at the University of Rennes2, on the underwater landscapes of the Iroise Sea. The two theses come together on the study of the perceptions of the underwater landscape by different groups of actors and inhabitants, which will allow a comparative study of the social representations of the underwater landscapes in the two regions. The two theses will also make it possible to test the scientific approach to the characterization of underwater landscapes in two very different contexts related to the turbidity of the water and the more or less "visible" nature of the underwater world. While the two theses both pursue preservation and management objectives, the one carried out in the Iroise Sea focuses more on the knowledge and recognition of landscape heritage within the meaning of the European Landscape Convention, while that which will be carried out in the Pertuis Sea aims more at an objective of interpretation of the marine environment via landscape representation.

Promotion of the work carried out is to be expected during the thesis, in particular in the form of scientific seminars.