

# TUNA: UNDERWATER NATURAL AND CULTURAL HERITAGE. THE *TUNÈA* CASE STUDY, A PROJECT FOR THE RE-CONNECTION BETWEEN COASTAL COMMUNITY AND MARINE ECOSYSTEM

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**Abstract** – Understanding how marine nature and coastal culture intersect, and how humans and non-humans have lived and live their interdependent relationship, is a basis for sustainable coastal development. Since ancient times, the resources coming from the sea have represented a primary source of wealth for coastal regions, but also an underwater cultural heritage, which has influenced the community's lifestyle and identity, as the landscape and architectural development of territories.

Among all, the one represented by tuna fish is particularly significant, and so it is the Carloforte *tonnara* case study, one of the last fixed tuna traps in the Mediterranean Sea, located on San Pietro Island, Sardinia, along the route of passage of the Eastern Atlantic Bluefin Tuna (*Thunnus thynnus*). During the decades the *tonnara* practice has strongly linked the history, the culture and the architecture of this little island to the submerged nature of its sea: since until about thirty years ago the life of Carloforte inhabitants was closely linked to the fishing activities, but the evolution of the fish market at a global scale has radically changed this relationship. Nowadays the private part of the buildings complex is still in part active, while the public one is abandoned, and the ancient connection between the community and its *tonnara* is now interrupted.

In 2021 the author of this contribution created *Tunèa*<sup>1</sup>, a trans-disciplinary, arts-based, research in action project developed in the frame of her PhD research at the University of Cagliari and within the U-BOOT Lab cultural association, which the author is co-founder. Aim of *Tunèa* is to study the dis-connection between Carloforte community and its *tonnara* through the activation of cultural actions that involve the community, the Municipality, the *tonnara* property and the *ciurma*<sup>2</sup>, together with a group of artists and researchers, in order to understand if it is possible to re-create the lost relationship and, eventually, in which forms.

## Introduction

Since the ancient times the resources coming from the sea have represented an important source of wealth for the coastal communities. Among all the one represented by

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<sup>1</sup> *Tunèa*, *tonnara* in Italian language, means tuna fishery in Tabarchino, the dialect spoken by the community of San Pietro Island. However, this term has several meanings: it identifies the system of nets used to capture bluefin tuna (*Thunnus thynnus*), but also the set of buildings where fish are processed and stored [1].

<sup>2</sup> Sea and ground staff of the tuna fishery, led in all preparation and fishing operations by the *Rais*, the crew chief.

tuna fish deeply influenced the community's lifestyle and identity, the landscape and the architecture, becoming, along time, a proper cultural heritage, strongly linking non-human underwater life to human territorial life. The depiction of some tuna fishes in the graffiti inside Grotta dei Genovesi in Levanzo testifies that the fishing of this species was practiced in Sicily already in Neolithic times; later on, the Phoenician navigation routes that followed the tuna routes to the extreme coastal regions of the Atlantic made men and fish somehow 'travel companions', linking the Mediterranean and Atlantic regions in a cultural continuum until the threshold of the Roman age and beyond [1].

In this context, the Carloforte case study is particularly significant.

Carloforte is a small village located on San Pietro Island, Sardinia. The history, the culture and the physical conformation of the architecture on this little island are strongly linked to the submerged nature of its sea [2]: San Pietro is in fact located along the route of passage of the Eastern Atlantic Bluefin Tuna (*Thunnus thynnus*), that at the beginning of each summer enters the Mediterranean to reproduce.

The Carloforte *tonnara*<sup>3</sup> is one of the last places in the Mediterranean Sea that still uses the fixed tuna trap, a traditional eco-sustainable fishing system which, by selecting only adult fishes, contributes to the repopulation of this endangered species. Until about thirty years ago, the life of Carloforte inhabitants was closely linked to the fishing activities, but then the evolution of the fish market has radically changed this relationship. In the last decades the Japanese demand, fueled by the worldwide boom in the consumption of quality sushi and sashimi, has pushed the turnover of bluefin tuna fishing on a global scale to a very high level: a large percentage of the catch is towed alive to Malta, where it is fattened and then exported to Japan. The processing of bluefin tuna on the island of San Pietro has therefore drastically reduced, and so are the ancillary works in which a large part of the population has been employed for more than two centuries doesn't exist anymore. And if the private part of the buildings complex of the tuna fishery is still in part active, the public one is abandoned, and the ancient connection between the community and its *tonnara* is now interrupted.

In 2021 the author of this contribution created *Tunèa*<sup>4</sup>, a trans-disciplinary, arts-based, research in action project developed in the frame of her PhD research at the University of Cagliari and within the U-BOOT Lab cultural association, which the author is co-founder.

Aim of *Tunèa* is to study the dis-connection between Carloforte community and its *tonnara* through cultural actions that actively involve the community, the Municipality, the *tonnara* property, the *Rais* and its *ciurma*<sup>5</sup>, in order to understand if it is possible to re-create the lost relationship and, eventually, in which forms.

In October of the same year the project won the Creative Living Lab call, promoted by the General Direction for Contemporary Creativity of the Italian Ministry of Culture to support multidisciplinary social innovation projects, focused on the regeneration of proximity spaces within peripheral territorial areas, through the active involvement of local communities.

*Tunèa* it's a cultural-based territorial regeneration project, aimed at the gradual reopening of the *tonnara* to public use, through the active involvement of the community in

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<sup>3</sup> *Tonnara* in Italian language has several meanings: it identifies the system of nets used to capture bluefin tuna (*Thunnus Thynnus*), but also the set of buildings where fish are processed and stored [1].

<sup>4</sup> Tuna fishery in *tabarchino*, the dialect spoken by the community of San Pietro Island.

<sup>5</sup> The *ciurma* is the sea and ground staff of the tuna fishery, led in all preparation and fishing operations by the *Rais*, the crew chief.

all its phases. The project has the objective of getting the Carloforte inhabitants to develop a new vision on the possible future of the former tuna fishery spaces, designing new forms of connections to the identity cultural heritage represented by the Bluefin Tuna, with a renovated ecological approach.

### **Methods: the arts-based research in action approach and the re-opening of the *tonnara***

The *Tunèa* project started in 2021 on the personal initiative of the author of this contribution.<sup>6</sup>

The context in which the project is developed, Carloforte, is located on San Pietro island, Sardinia, a coastal zone characterized by a high level of complexity due to the interactions between global and local phenomena, in which social and cultural dynamics are influenced by pressing economic interests that affect the environment, exacerbating the Climate Change effects.

The method chosen to address this complexity is based on the *arts-based* research in action approach [3, 4], within the paradigm of the landscape planning. This method gave me the opportunity to involve artists and researchers coming from a wide range of different disciplines, in a transdisciplinary process that actively involved the coastal community and the stakeholders [5].

Starting in February 2021, the project was personally curated and developed involving Alessandro Toscano, photographer and visual artist, with the contribution of the landscape architect Mirko Melis and the maritime anthropologist and dancer Ambra Zambernardi, engaged in artistic residencies on the island. All the activities carried out by the researchers involved the Carloforte community in collecting historical and photographic material, written documents and oral storytelling. This phase was useful to discover and understand the local maritime culture linked to the tuna fishing tradition.

The results of this first phase were presented to the public in July through some actions which were themselves useful in triggering the later phases: thanks to the collaboration with the owners of the active tuna fishery, the workspaces were opened to the public for the first time to host guided tours, readings, a sound performance, and a talk between the artists and researchers involved in the project, together with the Carloforte inhabitants, the visitors and the *Rais* (the tuna fishery crew chief). Then two artist's notebooks were produced between August and October: the first contains the mock-up of a relational artwork for the involvement of the Carloforte community in a first action of reconnection to the tuna fishery, the second one a project for the creation of a tuna fishery herbarium, as a basis for the landscape recovery of the open areas around the *tonnara*.

In October Tunèa won the Creative Living Lab 3rd edition tender, promoted by the General Directorate for Contemporary Creativity - Italian Ministry of Culture, thanks to which it was possible to start the second phase of the project, dedicated to the reorganization

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<sup>6</sup> A clarification on the stylistic choice in the following narrative is necessary: for consistency with the methodological nature of the work done, the author considers it appropriate to use the first person. This choice, generally not recommended in the context of traditional research, is considered legitimate in the context of epistemological processes located within the research-action paradigm.

of some unused areas of the *tonnara* and to their reopening as cultural spaces, made accessible through activities that involved the community, the local administration and associations and the stakeholders. In this second phase the working group was expanded to include the architects Patrizia Di Monte and Fiorella Rizzo, and several artists, researchers and communication experts, which spent long periods on the island in order to continue the dialogue with the population, institutions and stakeholders through formal and informal meetings.

In April we organized three workshops dedicated to active involve the community:

- a visual storytelling workshop led by Alessandro Toscano, involving the village children in the construction of a story suspended between legend and reality linked to the maritime history of the island;
- a dance workshop led by the anthropologist and dancer Ambra Zambenardi dedicated to the creation of a choreography reinterpreting the gestures of tuna fishing tradition;
- a co-design workshop led by the architects Patrizia Di Monte and Fiorella Teresa Rizzo aimed to design temporary architectural solutions to be realized inside the tuna fishery open spaces re-using fishing materials.

### **Results: the re-opening of the *tonnara* as a public space connecting coastal community and marine ecosystem**

In June 2022, after cleaning and securing some of the open spaces of the abandoned tuna fishery in cooperation with the municipality, we made them temporarily accessible to the community and visitors, transforming them into public spaces by carrying out some light interventions, results of the three workshops led in the previous months.

The principal interventions were three:

- *La Camera del Mare (The Sea Room)* a human-sized *camera obscura* created by Alessandro Toscano as the final point of the visual storytelling realized with the children: a site-specific art installation co-built together with some young people from Carloforte, inside which the visitors could immerse themselves in an upside-down vision marine ecosystem;
- a temporary structure for access to the area entitled *Sotto un cielo di reti (Under nets sky)*, a gallery suggesting the tuna fishes' feelings while entering in the *tonnara*, result of the co-design workshop curated by Patrizia di Monte with the tutorship of Fiorella Teresa Rizzo; yje installation was realised by a group of Isola workers and surmounted by fishing nets donated by the Rais, who led the net-laying operations;
- a participatory dance choreography entitled *Calar Tonnara – Studio#01*, realized by Ambra Zambenardi which animated the spaces for three days, involving visitors and the community in a shared choreography based on the gestures of fishermen, the movements of tuna and their relationship.

During the first weekend of June those creations were accompanied by talks, cinema, a music performance and guided tours of both the disused and active tuna fishery.

All the projects and activities had the same common objective: make possible to live again the *tonnara* as a public space, where coastal community could find new ways of connection to the marine ecosystem.

## Discussion and conclusion: the overturning of a vision

The initial idea of the project was to try to understand whether the disconnection created over the years between the community and the tuna fishery, intended both as a productive activity and as a physical place in which the community used to share collective activities, could be mended. For this reason, the working group's initial focus was on active tuna fisheries.

The adopted non-linear and trans-disciplinary method, represented by the approach of artistic research in action, made it possible to address the problem through the continuous hybridisation between different disciplinary approaches, while at the same time deepening knowledge on site with the active involvement of the community.

The researchers' artistic residencies carried out during the first phase of the project and the workshops implemented in the second phase revealed the possibility of mending the relationship between the community and the active tuna fishery through the reactivation of shared practices related to tuna fishing. In fact, reversing the course of local economic dynamics linked to tuna fishing and dependent on global market phenomena appears difficult to achieve in the short term.

The presence of the disused tuna fishery then became an opportunity.

Opening up the disused spaces of the abandoned tuna fishery as public spaces, even if only temporarily, and realising small projects within them that would invite visitors to turn their gaze upside down on the relationship between coastal culture and the marine ecosystem, represented a reversal of the point of view on the reflection that the Municipality of Carloforte is developing to identify new functions for the former tuna fishery.

The project actions are in fact intended to be preparatory to the elaboration of an innovative planning strategy, developed through a process of informal involvement of citizens and therefore capable of opening up unexpected scenarios.

This approach has emphasised several aspects of this project pathway:

- the possibility of the reuse of the coastal maritime heritage which, although it has lost its original function linked to the tuna industry, maintains its meaning of common good and material and immaterial cultural heritage, capable of transmitting the identity bearing still alive in the direct and indirect memory of the Carloforte community;
- the awareness that the reuse, even gradual, of the disused coastal maritime heritage can become an opportunity to open shared dialogues between communities, municipalities and stakeholders, useful to elaborate innovative project visions for the re-connection between coastal communities and marine ecosystems, with a view to sustainable development from an environmental, social and economic point of view.

## Acknowledgements

The project *Tunèa* was created by the author of this contribution in 2020 and has been developed since 2021 as a trans-disciplinary, *arts-based* research in action project, in the frame of her PhD research at the University of Cagliari and within the U-BOOT Lab cultural association, which the author is co-founder.

During the evolution of the project, the author involved various artists and researchers in its development. Among them, heartfelt thanks go to: Alessandro Toscano,

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## Figures



Figure 1 – Workshop inside the active *tonnara*; photo courtesy Francesco Rosso.



Figure 2 – Aerial view of the former *tonnara*; photo courtesy Francesco Rosso.



Figure 3 – The installation *Sotto un cielo di reti*; photo courtesy Francesco Rosso.



Figure 4 – The installation *La camera del mare*, photo courtesy Francesco Rosso





Figure 5 – The performance *Calar Tonnara Studio#01*, photo courtesy Francesco Rosso



Figure 6 – Talk inside the former *tonnara*, photo courtesy Francesco Rosso.