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Preface

The first time I went to Japan, in May 2016, I didn’t know what to expect. To say the truth, I haven’t even thought about it, since I undertaken this trip to go to visit a person that it missed.
Once in Tokyo, I was immediately fascinated by the quantity of visual information that permeated in my head without truce, without wanting.
The City of the Future, I thought.
I understood that that environment made my mind more porous as nothing had never done before. I knew few or nothing about Japan since that moment, and Tokyo filled my imagination.

I had the certainty that I’d come back.

One day, skimming through the number 971 of the Domus magazine, I run into the article written by Julian Worral “Inujima Art House Project”.
A super small island in the Seto Inland Sea of Japan, whose local population would be destined to disappear in few years. A beautiful island littered with wild Nature and Art.
Introduction

This search investigates the role of the Contemporary Art in the Post-Industrial Period as a regeneration tool for areas affected by urban and social pathologies proper of the 21st Century.

Specifically, the case of Japan is here examined: a place in which coexist, in the most extreme way, cities of the past and cities of the future. In this context, Art is placed as a broker among these two parallel universes, trying to re-establish a connection between the Man of the Present, who lives in the City of the Future, and the Man of the Past, who still lives in the Nature. During the examination of these problems, the book refers to three small islands: Naoshima, Teshima and Inujima, located in the Seto Inland Sea of Japan. They shall provide some example models to understand how the combination of Art and Architecture has, within a few years, changed the destiny of these invisible archipelagos.

In the second part of the book, a deeper analysis about the case of Inujima is then carried out, and it is finally proposed a design method which offers some possible guidelines for the future development plan of this small island.
The role of Contemporary Art in Japan

The paradigm, that in the second half of the XXth century caused the destruction of the environment, has been analysed in order to focus on the proper value of Man and Nature. Indeed, starting from the concept that Man is an integral part of Nature, the latter must be preserved and valorised for a better condition of human life and hence the idea of developing projects aimed to focusing the collective interests in the centre of the relationship between Man and Land. During the last years, projects of public interest have played an important role in the development of Contemporary Art as an added value - not just economic - crucial to renew the cultural context of cities in the Post-Industrial Period.

The growing number of museums devoted to Contemporary Art is followed by the realization of four major international meetings, lately established:

since 2000 | Echigo-Tsumari Art Field | Niigara Prefecture launch of the Echigo-Tsumari Art Triennale.
since 2007 | Nakanojo | Gunma Prefecture launch of the Nakanojo Biennale.
since 2007 | Kobe | Hyogo Prefecture launch of the Kobe Biennale.
since 2010 | Seto Islands | Kagawa and Okayama Prefecture launch of the Setouchi Triennale.

Echigo-Tsumari Art Triennale
“The Triennale provides an opportunity to present projects and initiatives developed in the Echigo-Tsumari Art Field. These projects aim to reveal existing assets of the region using art as a catalyst, rediscover their values, communicate these to the world and find a way to revitalise the region."

Nakanojo Biennale
“Since 2007 Nakanojo Biennale has been encouraging cultural exchange between locals and artists, including international artists. Many artists have participated in traditional events or exchanged food cultures and I often hear they maintain a relationship as if they were family. Above all, I’m very happy the area has been so receptive and it seems like everyone is enjoying themselves. Foreign artists have also moved to Nakanojo and it is giving more opportunities for people who live in mountain villages to interact with different cultures. It teaches us how we don’t realise our unique local culture unless it’s seen from an others perspective. Thus international art cultural exchanges play an important role in learning about our own culture.”

Kobe Biennale
“After the Great Hanshin Awaji Earthquake of 1995, as the people of Kobe struggled to recover from the disaster, the city experienced first-hand how art and culture can heal our hearts and minds, encourage us, and remind us of the importance of showing kindness to others. In light of such history and experiences, Kobe made its Declaration of Culture Creation City on the 10th anniversary of the earthquake, and has since made it known to all that Kobe is committed to creative urban development that draws upon culture. Part of that effort has been the establishment of KOBE Biennale, a biennial celebration of Art Culture that aims to rally the capability of Art Culture from across Japan and overseas and use it not only to promote arts, but also to contribute to the enrichment and environment of Kobe.”

Setouchi Triennale
“The Setouchi Triennale began in 2010, with the theme of “Restoring the Sea”. The people of the Seto Inland Sea have lived in harmony with the beautiful nature of the islands, and the goal was to restore and bring back life to the area, and make this place a “sea of hope” for people all around the planet. [...] And by bringing art into the lives and culture of the islands, they shared the beauty of the Seto Inland Sea with the world, bringing many people together and connecting them.”

As we can see in the testimonies of the curators and of the main events concerning Contemporary Art, the common goal is to recreate the relationship between Man and Land through Art. Even though the universality of the purpose, each area in question has developed its own guidelines for inserting the interventions in close relation with the site.

I decided to focus on the theme of “Restoring the Sea”, that is the Setouchi Triennale, since it has different and additional problematic features, contrary to the inland areas. The main problem that resists to the bring people to the islands is intrinsic to the site itself, as their boundaries, as far as they are close to the land, are isolated to themselves (img. 1). Peter Sloterdijk defined it as a “splendid inaccessibility”, and he talked about isolation as “the principle of being selected. Only by virtue of being isolated, does the island become itself.”
An archipelago is nothing more than a system of “connected isolations”, as the architects group Morphosis argues. Therefore, visiting them does not happen by chance, the islands are not a place of passage but a specific stage/stop-over.

The first question to be asked is: How can a remote island become a place of interest, a place to go?

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From "an island of dreams for children" to the Setouchi Triennale

Timeline

1985 Showa 60 Tetsuhiko Fukutake, who wanted to create a place for children from all over the world, and Chikatsugu Miyake, mayor of Naoshima, who wanted to develop the island’s southern area into a cultural district, established the Fukutake Science & Culture Foundation.

1989 Heisei 1 opening of the Naoshima International Camping Ground, designed under the supervision of architect Tadao Ando.

1992 Heisei 4 opening of Benesse House, which functions both as a hotel and a museum, begins to conduct art activities under the name of “Naoshima Contemporary Art Museum”.

1996 Heisei 8 Benesse begins to commission artists to create site-specific artworks for permanent installation and display on Naoshima, both inside and outside of Benesse House.

1998 Heisei 10 launch of the Art House Project in Honmura (Naoshima), born from the ongoing site-specific artworks commissioning activities, it is initiated as an advanced attempt to blend contemporary art in the historical fabric.


2010 Heisei 22 launch of the Inujima Art House Project (first phase).


2013 Heisei 25 launch of the second term of the Inujima Art House Project.


The Beginning

In 1989, it began the first step of what would become a big conservation project for the Seto islands over the years. Tetsuhiko Fukutake, the founding president of Fukutake Publishing, well-liked by Chikatsugu Miyake, then Mayor of Naoshima, realized his dream of turning Naoshima into an island for the children of all over the world. With the collaboration of the architect Tadao Ando, he built the first artwork permanent installation on the island: the Naoshima International Camp. website benesse. After his death, his son Soichiro Fukutake, who used to follow his father during his visits to the island, understood the danger threatening the existence of the archipelago and its communities, with which he developed a close relationship, and at the same time the great potential that these small worlds could offer to the big one. The main problem that still lies in the area is the depopulation caused mainly by the voluntary departure of young islanders, attracted by the opportunities offered by big cities such as Tokyo, Kyoto, Osaka, where lifestyle is clearly different than the one in a small atoll. The main enemy keeps to be the modernization, which builds things by destroying others. S. Fukutake realized that it was necessary to modify this destructive process by making it constructive: “uses what exists to create what is to be”. Insular insight pp024-025

Despite the criticism of what is the principle of urbanism today, he positively recognizes the sense of freedom and variety of experiences that big cities can offer. Thanks to the medium of art and its translation of the contemporary society, it is possible to establish a connection between the metropolis and the small rural centers.

“People will rediscover positive qualities on both ends of the scale between city and country, young and old, men and women, residents and visitors” Insular insight pp 27.

Soichiro invests his financial capital in the safety of these small communities, fostering art and culture as additional wealth and keys of happiness. He calls this management concept as Public Capitalism. He used his company to establish the Fukutake Foundation with the aim of cultural and regional development, creating a mechanism to make a positive contribution to society.

“One of the reasons for holding the Setouchi International Art Festival 2010 is to cultivate this new type of relationship between culture and corporations and to promote ideas such as regional revitalization through art, the concept of public capitalism, and the creation of a utopia on earth.”insular insight pp28
Setouchi Triennale

The Setouchi Triennale, like the other events mentioned, exploited Art as a connection between Man and Nature, with the aim of *revitalize islands hit by aging, decreasing population and create new hope for the future*. This cultural event took place since 2010 in twelve islands (and mainland cities they belong to) belonging to the National Park of Seto Inland Sea, known for their beautiful landscape, but also for the scars left by the legacy of modernization and high growth.

“*Modernity in Japan means urbanization. Big cities such as Tokyo are an attractive space and are full of material things, but it is also a vortex of excessive desire and competition. People living in such a space make an effort in order to gain more happiness than others under the name of self-realization. Do mass production and mass marketing, excessive material wealth, entertainment, and information really make people happy?*”

A change to be lasting, must develop itself through a slow process, so that each phase can roots and gets balance before proceeding to the next step. This is what is happening in the case of the Seto Islands, few and small interventions, from time to time, add up without hurry to get to the final stage. The artists whom took part in the Triennale have generated new values and unique works that can only be expressed on this particular site.

“*Art promotes collaboration and connects people through its production and maintenance process. Artworks do not seem to have any social usability, requiring efforts, money, maintenance, and protection for their survival. In that sense, they are like babies requiring care. That is why art can connect people.***

The island is itself a magic place for everyone who make a first step on it. It gives a feeling of familiarity and hope because it seems so much a world a part that can look like a place where our memories can materialize. Those who go to discover these islands can easily find themselves alone within the uncontaminated nature, that occupies the largest percentage of the territory, and a moment after meeting small groups of people, tourists and locals in the same amount.

You are in a place where there is no overabundance of time and space.

People from all over the world took part to this event, making the islands more vibrant and the elder people communities lively.

“We are not able to find true happiness unless we are in a happy community. [...] The significance of the Triennale is to answer the fundamental questions – what is the true wealth? – and – what is the primary happiness?”

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9 Id., p. 024.
10 Id., pp. 018-019.
About Seto Inland Sea

Timeline

8,000 years ago Cenozeic Era, Quaternary Period, Holocene Epoch/ Jomon Period the Seto Inland Sea is formed.

Mid-18th C. Edo Period (Mid) the Seto Inland Sea becomes a base of intermediate trade for commercial crops from all over the country, which are transported to the area by coastal vessels.

1826 Edo Period (Late) German physician Philipp Franz von Siedbold praises the Seto Inland Sea for its Beautiful landscape.

1872 Meiji Period Thomas Cook praises the Seto Inland Sea for its beautiful landscape on his first journey around the world.

1911 Meiji Period Kanau Konishi publishes his “Essay on the Seto Inland Sea”. In it he writes, “Westerners say the Seto Inland Sea is one of the most beautiful parks in the world and an earthly paradise”.

1934 Showa Era (Pre-war) Seto Inland Sea National Park is designated the first national park of Japan.


1976 Showa Period (Post-war) The association for the Environmental Conservation of the Seto Inland Sea is inaugurated in Kobe in Hyogo. Its goals are education and research.

History

The Seto Inland Sea is a stretch of sea that lies between three of the five major islands that make up the Japanese continent: Honshu, Kyushu and Shikoku. Located in the south-west of Japan, it hosts an archipelago of 727 islands, which only 160 are still inhabited. This massive group of islands appeared 8000 years ago, but was only after the Glacial Age (10000 years ago) that they were surrounded by the sea. Before that, they were still part of the Asian continent. Little by little, people came to live in these islands, creating unique small worlds in each one of them thanks to the deep traditions in their lifestyle culture. The regions facing this gulf are characterized by mild climate and lush vegetation. The enchanting beauty that characterizes the landscape of Seto Inland Sea has been known for centuries to give it the title of Japan’s first National Park. It has always been one of the main maritime nodes on the continent, promoting national and international trade within the Chinese mainland and the Korean peninsula by linking the Pacific Ocean to the Sea of Japan. It was also the main connection with the foreign cultures from the west continent. During the industrialization period, many archipelago islands became the home of numerous factories thanks to the abundance of natural raw materials that they had. All this led to an important and fast economic growth and the expense of the deterioration of the landscape until that time not yet safeguarded. For the most part, this impressive economic growth did not bring any benefits to the local inhabitants of the area, as the locally-based industries, in order to sustain the maintenance and construction costs necessary for the operations of large factories, were imposed on resident taxpayers to pay.

Since the late 1970s this area has become the subject of environmental conservation, many researches and interventions are still ongoing to clean up the still saturated sea of industrial pollution from 900’. The effects of modernization have contaminated the landscapes of the inland sea of industrial ruins and ghost villages, active only once thanks to the presence of industries. The rapid depopulation of the archipelago was nothing more than a prediction of what would happen in the next few decades on a larger scale.

Three island in particular present numerous scars left by the industrialization: Naoshima, Teshima and Inujima.

What distinguishes them from the rest of the archipelago is that they came to the eyes of someone who, looking beyond the destruction of their magnificent landscapes, still saw the beauty that once characterized them and, most importantly, the possibility of rebirth, thus becoming an experiment, a true small-scale world model of civilization.


“Paradise is always in a remote location, often surrounded by a large body of water or in a secluded corner of a continent. [...] This is not a traditional paradise hawked by travel agencies. Naoshima does not pretend to be either what life was “at the beginning” or to represent the “world to come”. [...] seems to whisper what the world could be.”

Nayan Chanda
Naoshima

Location: Naoshima Town, Kagawa County, Kagawa Prefecture
Area: 7.82 km²
Circumference: 27.8 km
Highest Point: 123 m (Mt. Jizo)
Number of Households: 1,491
Population: 3,277 people
0-14 Years: 359 people, Over 65 Years: 1,009 people

The data on the front page of each chapter is referred to: *Setouchi Triennale 2013*, Japan: Bijutsu Shuppan-Sha, 2014.
History

Naoshima is located in the southern part of the Seto Inland Sea. It is surrounded by many smaller islands. The total area of the largest atoll is 8.13 square kilometres and has a population of 3,274 inhabitants (data updated to January 2011). The name “Naoshima” literally means “island of sincerity” (nao = sincerity, shima = island). The legend tells that Sutoku, after the end of his Empire, travelled to the island during the trip to reach the exile site and praised the sincerity of its inhabitants. There are currently three groups of villages: Miyanoura, the main port on the island, Honmoura, located on the opposite side and Tsumoura, once known as an important fishing area. In 1916, it was built on the northern part of the island, a copper-smelter refinery on behalf of the Mitsubishi company. It was not long after many years that the natural landscape began to die due to pollution of chemical substances and the hills began to be bare of vegetation. The activity remained alive until after the Second World War, seeing an important increase in population, composed by more workers rather than local residents. Luckily, the southern slope of the island remained immaculate and is still preserved as part of the National Park. 13

View of the Village, Miyanoura area, Naoshima, March 2017.
Teshima

Location: Tonosho Town, Shozu County, Kagawa Prefecture
Area: 14.5km²
Circumference: 18.0km
Highest Point: 340m (Mt. Dan)
Number of Households: 498
Population: 1,018 people
0-14 Years: 80 people, Over 65 Years: 453 people
History

Teshima is located between the islands of Naoshima and Inujima, in the east side of Seto Inland Sea. It is the largest of the three islands mentioned, with an area of 14.5 square kilometres and has a population of 1,033 inhabitants (data updated to February 2011). Its name means “island of abundance” (te = abundant; shima = island), as it suggests at first glance its green landscape and rich in vegetation. It has been a major producer of rice for years and a rich fishing spot, as well as stone quarry. Compared to Naoshima and Inujima, Teshima was not used as a location for copper refineries, thanks to the strong imposition of the local community. However, from 1970 to 2000 it was used as an industrial waste dump and reclaim operations are still in progress.\textsuperscript{14}

Inujima

Location: Higashi Ward, Okayama City, Okayama Prefecture
Area: 0.54km²
Circumference: 3.6km
Highest Point: 36m
Number of Households: 35
Population: 50 people
0-14 Years: 0 people, Over 65 Years: 43 people
History

Inujima is located on the northern side of the Gulf. Opposite to Teshima, it is the smaller island. It is in fact only 0.54 square kilometres with a circumference of 3.6. It is easily reachable in 5 minutes by ferry from Hoden Port. The legend says that the name of the island, literally “dog island” (inu = dog; jima / shima = island), was given by Sugawara-no-Michizane, poet and politician who, during the route to the exile, after a shipwreck, heard the yelps of a dog in the distance that leded him to the island. When he arrived there, he saw a large and high dog-shaped rock. Inujima was famous for centuries thanks to the massive extraction of granite of excellent quality, which was traded throughout Japan and employed in major projects including the Osaka Castle (1620) and Port (1899-1905). For a short but promiscuous period, from 1909 to 1916, the Sakamoto family established a copper refinery on the island, which led the population to a rapid growth reaching 3,000 inhabitants. After the rapid depreciation of copper the factory was closed and now the local population count only 50 people (data updated to December 2013), with an average age of 75 years old. Since now, the scars left by the massive industrialization are well visible on the island and represent an important historical monument.15

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Point of view, Inujima.
A vast stretch of vegetation separates from the towering chimneys in the distance.
Inujima Port

Inujima Seaside Gallery

Point of view, Inujima.
As far as industrial ruins are concerned, plants of an intense green begin to appear, fragmenting and hiding parts of them.
Turning left to the sea, the strong blue shade of the water.
Seto Inland Sea

Point of view, Inujima.

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Inujima Seirensho Art Museum
Yamanokami Shrine devoted to the God of stones, Inujima, March 2017.
Point of view, Inujima.
Tenmagu Temple

Neighborhood Center

Pond

Point of view, Inujima.
At the feet of the graveyard, Inujima, May 2017.
The old man with a pond full of carps in his hut, Inujima, May 2017.
Inujima Art House Project

A - Art House

Nakanotani Gazebo

S - Art House

Point of view, Inujima.
The Island of Inujima

Inujima is a small thiny island with jagged edge, with numerous inlets in which the sea erodes. Inside them, small bays are formed and protected by the wind. Two of the bays work as harbours. The access to the island is allowed by a ferry, that connects to the Hoden Port, in the near mainland, and to the islands of Teshima and Naoshima. The service is active only for few times a day and interrupts at 5.30pm. This allows the islanders to remain as isolated as they want to be.
The Case of Inujima

After a previous photographic investigation in order to sit the context, this chapter of the book contains a review about all the interventions that, in a chronologic order, have been done in the Island of Inujima.

The map in the adjacent page shows the main areas in which Inujima is distinguishable: The Copper Refinery, the Village, which contains the Art House Project explained at page 95, and the Stone Quarry.

All the ponds dotted around the island were once stone quarries too, now filled with water.
The Inujima Seirensho Art Museum was born thanks to the concept of Soichiro Fukutake “uses what exists to create what is to be” and the wish of the artist Yukinori Yanagi, who had the hunch that this scratched place must be preserved to “transmit a message to Japan from the ruins that resulted from Western-style modernization” by turning “the whole island into art”.

Yukinori, after a first boat trip around the island, was immediately captured by the chimney ruins, which rised above the sloped landscape. His first concept was the “Perspective from the sea” in order to “think about Japan from the sea”.

The goal of the project was the closely collaboration with the architect Hiroshi Sambuichi, who shared with Yukinori the standpoint of “reclamation”.

“to reclaim the dormant power of of the ruins”
“to reclaim the island’s nature and energy”
“to reclaim Japan’s spirit of independence and self-reliance”

The architecture of Inujima Seirensho Art Museum was conceived to integrate nature’s endless cycle and to form part of the earth’s details in symbiosis with the environment. Sambuichi used natural elements such as the sun, the air, the wind and the water, turning them into architectural elements, exploiting their kinetic energy to animate the building. In fact, it is naturally heated by the solar energy, cooled by the geothermal energy and enlightened by the sun.

The structure is composed by four main spaces, which play both a functional role, optimizing the energy efficiency, and a spatial role as containers for artworks. The Earth Gallery, a dynamic tunnel where the visitor is lead by the natural light (brought to the underground by a mirrors system) and an airflow, cool in the summer and warm in the winter. The Energy Hall, a semi cylindrical room bounded and shielded by a black semi circular wall. The Chimney Hall, a transparent and glazed room with the Inujima’s granite stone walls, connected with a chimney, within which the air is heated by the sun generating convective currents. The Sun Gallery, completely glazed, with Karami bricks for floor and walls. These bricks were made by molding slag resulting from the process of refining copper, originally used to build roofless storage facilities around the refinery. In this room the air is heated by absorbing the solar heat and thanks to the high ferrous component of the bricks, the ambient warm up easily but does not cool down easily.

The final result of the Seirensho Museum is a pattern of reused materials combined in order to create an eco friendly building which reduce at the minimum the impact on the environment.


Industrial slags of the smelter factory, Inujima, March 2017.
Panoramic view of a pond and chimney stacks, Inujima, March 2017.
Inujima Art House Project

It is about a long-term project, which is slowly turning the island into an open-air environmental artwork, thanks to the joint collaboration between Yuko Hasegawa, chief curator of Tokyo’s Museum of Contemporary Art and the architect Sejima Kazuyo (SANAA). Starting from 2010, several small architectural interventions were done, scattered all over the island. Sometimes they blend in between old houses, using traditional construction techniques, recycled materials from crumbling houses. Sometimes they wish arise, in contrast but not in conflict with the surrounding environment, made up by light, transparent, neutral-coloured materials. Sejima called it a “transparent museum”. 19

“I want to make a new environment where the new intervention is not uniform and takes on a variety of shapes while appearing and blending in with the existing scenery, art, and the lives of the people of Inujima.” 20

1st Phase | 2010

F-Art House

This building occupies the area of an old house in the proximities of a shrine devoted to the God of stones. It has been dismantled and part of the material reused in the new construction (beams and pillars).

S-Art House

This work develops itself in a linear way forming a small gallery, or better, a big transparent curvilinear reliquary, container of works of art that will have the old surrounding houses as background.

I-Art House

Apparently similar to a traditional house for the shape and materials, this small building reveals itself a machine to look at the landscape. Observing from the outside, a big glazed panel reflects the surrounding environment on the façade. Going inside the house, it forms a frame that frames the village.

Nakanotani Gazebo

In comparison to the previous works, this installation has not been thought as a container for artworks, but as a place where take a rest and contemplate the landscape. A dome that reflects the sky and spreads the echo of the underlying noises, four chairs to rest.

2nd Phase | 2013

A-Art House

As the S-Art House, also this work introduces itself as a big, circular shaped transparent reliquary with a small entry breaking the circle. A stool in the central point that invites the visitor to sit and to observe a work of art at 360°.

C-Art House

This gallery is located on a gentle slope. It is built by recycling all the salvageable wood took from a two-centuries old building which stood on the site before.

Former site of a stonecutter’s house

How the given-name suggests, this work takes place where a stone mason lived. The ruins arranged to mark the pillars were taken from other dismantled houses scattered around the island. The perimeter is highlighted by painted lines. 21, 22

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The Inujima Life Garden is one of the last interventions planned for the island. In comparison to the artistic projects, the latter detaches in a different direction: it was not born as container for work of art but rather as new activity for the inhabitants of the island and visitors. It was born from the collaboration between architect Sejima Kazuyo (SANAA) and flower and landscape designer Akaruiheya. The botanical garden has been conceived to reflect the environment of the island and the life-style of its residents. It appears at the same time a place where local people can relax and play open air activities, tied up to the direct connection with the land, that belongs to their daily life. At the same time the space has been conceived to host occasional events, like workshops and laboratories, open to everyone, for experiencing every kind of feeling that the plants could offer, from the observation of their life cycle, to the olfactory, visual and gustatory experience.

The surrounding project area (about 4,500 square metres) counts ten spaces, of which four of them were realized when I first visited Inujima, on March 2017. The Greenhouse, which is the core of the project, a long shaped glazed structure that forms a tight green corridor. You can take a rest by sitting under the white curtain canopy. The Flower Garden, the open air environment with a wide variety of plants. A biogeofilter and biotope, which will be used in the future to provide green energy. The super small Café Stall, which sells typical food products such as juices and sweets. 23

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In the second part of the book, what I want to propose is the idea of a project that inserts itself inside the process of revitalization of Inujima. Currently a third design phase is in progress and concerns the addition of primary services for the community and for the visitors.

As first step, I developed an urban analysis, labeling and quantifying every single building on the island (img. at pag. 120). What has immediately emerged is the disproportion between the number of residential buildings and the quantity of services. It must be said that, to effect a correct analysis of the urban fabric of Inujima, is important to keep in mind the fact that the built has been developed according to an industrial model of a city, therefore apparently without a precise order or, at least, without clarity or legibility of the cityscape.

The buildings grown up as mushrooms in the gold period of the island, setting themselves wherever they found a place inside the morphological fabric. Nevertheless the condition of industrial island only interested Inujima for a brief decade, which was enough to marking in irreversible way its landscape.

From the first Twenty years of the ‘900, as already said in the previous chapters, the inhabitants of the island, mostly workers in absence of job, began a mass migration toward the Big Cities, leaving their home and their families without come back. This phenomenon has provoked a series of chain reactions: starting from the depopulation, which was followed by the consequent decadence of the abandoned buildings (both private houses and facilities) that after sometime become precarious ruins which were subsequently dismantled and replaced by urban voids, which have contributed to the fragmentation of the urban fabric.

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Inujima Masterplan, Buildings Analysis.

120
Design | Preliminary Analysis

Masterplan | Buildings Analysis

Inhabitant's house
Empty house
Accommodation
Cafe/Restaurant
Shrine/Temple
Art House Project - 1st phase
Art House Project - 2nd phase
Inujima Life Garden
Doghouse Project
Inujima Seaside Gallery
Neighbourhood Center
Kayak house
Port
Inujima Purification Center
Camping
Hospital
Post Office
Shop
Seirensho Art Museum

Residential
Commercial
Industrial
Accommodation
Sport
Food service
Art & Culture
Community service

Abacus of the Buildings.
Following the identifying of the weakness points of the area in a Masterplan scale, a deeper analysis of the “as built” has been carried out, showing then two principal categories of problem list that have contributed to the fragmentation of the territory: the **Abandoned Houses** and the **Urban Voids**.

As previously quoted, the urban fabric of Inujima is already born fragmented by itself, not having followed an urban development that answered to a specific Development Plan. For this reason also, the urban function of the village was not aimed to create an autonomous society but to host and entertain the families of the workers that were employed in the near copper refinery.

As documented by the following pictures, the existing buildings on the island are in traditional style, both in the shape and in the materials which they are composed.

The wood is mainly used for the structural elements: beams, pillars, roof. The straw, mixed with the earth, is externally employed for the buffering walls between pillars. The bamboo forms a woven supporting structure where the mixture of earth and straw can “hangs on”, or it works as sun-shield element for the openings.

The dimensions of the plots are very small, around five meters by three meters, headed to host a family nucleus only. Most of the houses have just one floor, while the tall buildings reach a maximum elevation of two-stories, around a six meters height. Many of the existing buildings facades are treated by the carbonized wood technique, developed on the neighbouring island of Naoshima. By burning the superficial layer of the wood, the underlying fibers are forced to react, making the inside layer immune to the attack of bugs and to the damages owed by the atmospheric agents caused by the proximity of the sea.

As it is well known, in the Japanese culture the employment of the materials used for the buildings construction follows and determines the duration of the lifespan, at the end of which it usually follows the demolition and the reconstruction ex-novo. It is about a maximum limit of twenty years for wooden buildings and thirty years for those in concrete. By Making an approximate calculation we can estimate that the possible age for the abandoned ruins could be, by now, around forty years old. It is exactly the double in-comparison to the custom. That is why, in absence of maintenance, many of them have been dismantled because of the dangerousness of collapse on the adjacent houses, still inhabited.

Here is explained the existence of many numerous Urban Voids in the fabric. Some of them have been reused from the neighbours as extension of their houses, by turning into orchards, gardens, gazebos. For the law, not being owners of the ground granted only the construction of temporary structures without foundations.

In other cases the voids have been such shaved to the ground or infested by weeds, giving rise to a “no man’s land”, which breaks the neighbourhood.
Inujima, March 2017.

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Invisibility

Fragmentation

Illegibility

Lack
Taking a step backwards, reassuming what has been said in the previous chapters, we go to analyse which have been, and which are, the Weakness Points about the case of Inujima. They can be denominated and defined as it follows.

1. **Invisibility**
The first problem that affected the Island of Inujima concerns the no-identity or, for better saying, the Loss of Identity. In the past it was known for the quality of the granite extracted by its stone quarries. Subsequently, for the golden period reached during the industrial age, with the copper refinery. At the end of this activity the island came little by little abandoned.

Invisible therefore, seems to me the most appropriate term to describe an existing place, once known but now unknown, not ignored, since to ignore it needs to recognize before, but just forgotten.

Thinking about the concept of Identity, in a more abstract way, it can be said that it is tightly tied to the one of the Meaning, which it can be defined as a component itself. This last represents a subjective point of view for the observer, since it concerns the kind of emotional relationship that is created between the observed object and the observer subject. We can conclude affirming that Identity implicates the Recognition and the Meaning the Memory, therefore, without these elements, an object results Invisible.

2. **Fragmentation**
Observing the totality of the island from above (*img. At pag. 120*), the first thing that is noticed is the discontinuity of the elements of the built environment. Holding to hand the abacus related to the map (*img. At pag. 121*), it is possible to see the absence of the various elements repetition, which introduce themselves to the observer as unique pieces.

Therefore, the spatial relationship between them and the observer is missing.

"The Map, whether exact or not, must be good enough to get one home. It must be sufficiently clear and well integrated to be economical of mental effort: the map must be readable." 25

This fragmentation is also well visible at the micro-urban scale, through *no man’s lands* lying around in the village.

3. **Illegibility**
To explain this concept, I would start with its opposite, which is *Legibility (pp2)*. Taking up what Kevin Lynch said, a map is legible when its elements are *easily recognizable and organized inside a coherent pattern* 26. As previously explain, the island planning is developed according to an industrial model, without an apparent order but according to the principle of individual functionality. Every building responds to its own function in autonomous way, also if belonging to a totality.

4. **Lack**
Finally, referring again to the buildings abacus (*img. At pag. 121*), the disproportion between residential sphere and community facilities sphere is evident. Clearly a hospital, a postal office and a pair of restaurants can be enough for a population of fifty people but, if the future aim is to make Inujima a populated place again, the quantity is not enough.

Just think about the number of tourists that every year, and particularly during the festival, go to visit the island (*img. At pag. 141*).

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26 id., p. 3.
Solutions

For each one of Inujima’s Weakness Points, some possible solutions have been identified. Firstly through abstract concepts, ideally opposed to the previous points, proposing themselves as logic answers, then physically translated into design elements.

*Invisibility* is therefore countervailable with *Identity*, by giving back to the island a recognizable and memorable image through a *memorable experience*, in this case the Art. This point is the first one which have been concretely faced through the (re)creation of a point of interest. Inujima is not one anymore a granite quarry, neither a copper refinery. It is an Open Air Museum where Art, Architecture and Nature melt together, forming a new harmonious and unique landscape.

The first step of the upgrading process has been finished. Even though the history of this island is still unknown to many, those who have hardly visited it, will hardly forget it.

The following steps have been hypothesized in order to insert themselves in a as much as natural way, into the ongoing process.

Once fixed the purpose to approach in a determined place, is important that it respects the attended expectations. Based on what described in the previous paragraph, and on my personal experience as visitor of Inujima, the lack of the context recognition induces firstly positive feelings, such as curiosity, mystery, wonder, discovery, also the pleasure to get lost. Subsequently these feelings turned into anxiety and sense of loss, due to the lack of orientation and reference points. In today’s world is almost impossible to get really lost in a place, Inujima, as smaller as it is, it is one of these places. *We can understand therefore, how much the sense of direction is connected to the sense of comfort.*

There it is possible to find an answer to the problem of *Fragmentation, Legibility* and *Lack*: to aggregate all the elements inside a pattern. This allows to create a spatial relationship among the different types, not more fragmented and autonomous but connected and interdependent. Not only by going to reorganize the existing elements but to complete a model of *Pattern of Growth*, which contains a variety of necessary elements to answer to the expectations initially mentioned.

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Design | Inujima as a City

Workable Spaces

Once the driver lines for a possible development project are defined, the following steps concern the identification of the physical spaces inside which the project can be inserted.

Taking up the theme of the Urban Voids, they result as the most problematic areas, deprived of identity, into the built environment \(\text{img. 1}\). It comes therefore logical, to consider this spaces as white sheets on which to start to draw \(\text{img. 2}\). The turning of the so called no man’s lands in thematic places, it solves the problem of the Fragmentation, by stitching up the urban fabric, and of the Lack, by strengthening the quantity and the quality of the existing functions and going to add new ones.

All of this without going to touch the existing buildings, but as an appendix intervention.

Proposals

In the next pages two typologies of intervention will be proposed, following the guide lines and on the requirements previously detected.

The general concept is common to the solutions both, what changes is the scale of intervention.

The first one takes place into a micro-urban level, in a small context, provoking punctual repercussions at a district level.

The second, is extended into a masterplan scale, considering the island as a whole and in its complexity.
The first design proposal takes place inside a limited environment such as district level. The site of intervention has been selected as the one with a big complexity in terms of quantity and heterogeneity of the built environment. Firstly, an analysis of the typologies of existing buildings has been carried out. Starting from this basis, new complementary activities have been detected and placed into the area, in order to answer to the demands of a wider public composed by both the residents and the visitors, and by going to solve the problem of the Lack. Subsequently, the wish of aggregation is matured, in answer to the problem of the Fragmentation, by gathering the services and connecting them. Alongside, for the detection of the intervention site, it has been considered the previously defined Workable Spaces, spotted inside the area. Holding the idea to create a functional cluster, the Urban Voids have been selected as the more easily linkable, in order to form an area of suitable dimensions to entertain such type of intervention. Subsequently the site has been divided order to the spatial demands by every activity.

What results is a series of functions which as a thread, stitch up the urban fabric.

Drivers

Everyday Life

Functional Mixité

Interaction

Creating a new attractor
Providing new social amenities
Bringing people together

Permeability

Urban porosity
Hybrid building
Design | Buildings Analysis

As built | New facilities
Scale: Island

Fragmentation | Illegibility | Lack

Clustering | Order | Addiction
The second design proposal foresees a typology of intervention developed starting from a masterplan scale, to finally reach the district scale, as in the previous project. In this case Inujima has been considered in its totality, in order to maintain the coherence with what is its new identity as Island-Museum.

Also in this case the final purpose of the intervention was to answer to the three problems, not yet solved, of Fragmentation, Illegibility and Lack.

While the first design solution mostly contemplates to the resolution of the first and the last point of weakness, by departing to fill the lack of services to reach the stitching of the fragmented micro-urban fabric, in this case the concept touches in equitable way all the three points in exam, but in a different order.

"Like a piece of architecture, the city is a construction in space, but one of vast scale [...] City design is therefore a temporal art." 28

Drivers

Everyday Life

*Functional Mixité*

Interaction

- *Creating new attractors*
- *Providing new social amenities*
- *Bringing people together*

Permeability

- *Urban porosity*
- *Hybrid districts*

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Layout

A further reasoning has been done as first move, comparing Inujima to a hypothetical model of city. Also in this case starting from a bi-dimensional observation from above, by observing the map of the whole island, the first step was to establish an order of the elements in order to give clarity.

The principal characteristic of a city organization is the grid. A grid is a network of lines that intersect themselves: it is as an armour that is used to creating forms, to settle images, to organize the text. Such as writing on a sheet the lines drive the hand and the eye, equally it is possible to use horizontal and vertical lines, columns and borders to line up the objects the one to the others. The grid is an invisible structure that not only serves to have an efficient design of a layout construction, but also to give consistence to a project: in fact it allows to have a uniform structure. Through the grid we organize an empty and passive space defining the rhythm of the whole project.

The presence of the grid responds to the need to systematize to understand, to remember, to make the life less complex. That's why the grid is a fundamental tool in the city planning. It is important that the latter should be comprehensible for what wants to communicate, and to the user, so that he/she could find inside it what is looking for. The grid serves therefore to create:

Order

The grids are a tool used to organize the space. They allow to realize a visual hierarchy of information that serves as guide to the uses who find himself/herself in front of a lot of information.

Harmony

The grids give equilibrium and rhythm. 29

In the specific case of this project the invisible level of the grate is placed above the island in order to form some imaginary squares, inside which the rules of the Latin Square are in force: an n order Latin Square is a square grid of n-by-n boxes, in which different symbols are placed, that satisfies the following conditions:

1. There must be a symbol in every cell of the grid.

2. In every line and in every column, every symbol appears once only.

This squares subdivision determines, at a build environment level, the delineation of districts, shaped and sized according to the scale of the island. Each of them has the same dimensions and is circumscribed in an area around of 12,000² (120m x 120m).

“An environment which is ordered in precise and final detail may inhibit new patterns of activities.” 30


30 Lynch Kevin, *The Image of the City*, USA: MIT Press, 1959, p. 6
Once defined a legibility order, it is possible to start again by the analysis of the built environment and therefore from the function of the existing buildings. The followed procedure took up the services analysis, gathering them in nine principal categories of elements, quantified according to the grid rules:

- Private house: 2
- Guesthouse: 3
- Food service: 4
- Garden: 5
- Shop: 6
- Community Facilities: 7
- Art: 8
- Landmark: 9

Some of these types were already existing inside the built environment (n. 2-3-4-6-8), others, have been added (n. 1-5-9) with the intention to form a pattern of necessary elements for the design planning of an ideal district.

The term Pattern is used to describe, according to the context, a drawing, a model, a scheme, a repetitive structure and, in general, it can be used to point out the repetition of a certain sequence into a row data set, as in this case. 31

Such disposition is dictated therefore, firstly by a grid, that follows the conditions previously mentioned about the Latin Squares. The following step refers, in a hypothetical way, to the logic of the Sudoku (= single numbers): starting from the already existing “numbers” inside the squares, and therefore from the existing typologies, the “game” here is to complete each of them with those which are missing.

However, the Sudoku is not an arithmetic game. It is about logic. The fact that the schemes introduce some numbers is entirely unimportant in its resolution: it would be the same game if there were some letters, or colours, or symbols.

The final aim is to generate a series of districts with “physical characteristics” that “are thematic continuities which may consist of an endless variety of components”, by “developing pattern of elements, rather than the elements themselves – just as we remember melodies, not notes” 32

Each element, even if having a different shape, must have a distinctive characteristic which makes immediately communicable and readable its own function.

“The physical characteristics that determine districts are thematic continuities which may consist of an endless variety of components: texture, space, form, detail, symbol, building type, use, activity, inhabitants, degree of maintenance, topography.\(^33\)”

- or Colors.

Making a step-change in terms of project scale, closely to the district size, it is possible to see how the element typologies could be more detailed, distinguishing from each other not just by function, shape and color but also by dimension. This size is driven by the site specific characteristics.
There are thirteen districts on the island. All citizens are within two-thousand-steps of their nearest neighbour.

There is only one city on the island, or better, the island is conceived as a whole city itself.

Each district is divided in nine equal part, each one containing a thematic element.
Private houses are arranged as small clusters, facing on each other. Each house has a side which faces the street and a side which faces the garden.
Behind this houses there are gardens, in their turn surrounded by other houses.
Each district has a Guesthouse. The Guesthouses are similar to the private houses, but bigger.
In each district there is at least a restaurant, or a cafe', or a bar.
There are community facilities everywhere.
and shops, which sell every kind of goods. There is no need to leave the island, you can find everything you want.
In each district there is a “Container of Art”
and a Landmark, which characterises every district.
There are so many public spaces that the ownership is an outdated concept.
Drawing by the Author, inspired by the Utopiae insulae tabula in "More's De optimo reip. statv. deqve noua insula Utopia, libellus uere aureus, nec minus salutaris quam festivus". 1518 - 2018.
In 1516, the English Humanist Sir Thomas More wrote a fictional work about the imaginary Island of Utopia. The term comes from the Greek and literally means “Nowhere”.

“Utopia occupies a crescent-shaped island that curves in on itself, enclosing a large bay and protecting it from the ocean and wind. The bay functions as a huge harbour. Access to the bay is impeded by submerged rocks, the locations of which are known only to Utopians. The bay allows for easy internal shipping and travel, but makes any sort of external attack or unwanted contact unlikely. This allows the Utopians to remain as isolated as they want to be.”

The war is deeply hated in Utopia, since it is used only to defend the country, to fight enemies whose invade friends lands, or with the aim of liberate the people from the tyranny, since injuries to friends are more punished than proper.

There are fifty-four city-states on the island, and all are identical in languages, customs, and laws and similar in size, layout, and appearance.

All citizens are within one-day-walk of their nearest neighbour.

Each city is divided in four equal parts, with a market in the middle. Private houses are arranged in long lines and facing on each other. Behind these houses there are gardens, in their turn surrounded by other houses. Each house has a door facing the street and a door facing the garden. Each district has guesthouses, placed at the same distance between each other.

Utopia is a kingdom where the private property is abolished. Indeed, there are so many public spaces that the ownership is an outdated concept.

Conclusion

The aim of the work is to give an example of a “Perfect Society” through an “Ideal World”. This concept is not conceived as a real possibility for other nations to mimic, Utopia may be ideal such as this Image of Inujima, but in its real form there is the understanding that the ideal can never be attained and instead can only be used as a measuring stick.

“The utopia is like the horizon: I walk two steps towards it and it goes two steps away. I walk ten steps towards it and it goes ten steps away. The horizon is unreachable. And so what good is utopia? This: to keep walking.”

34 Geography and History of Utopia, http://www.sparknotes.com/philosophy/utopia/section7/, [19/02/2018]

35 “Utopia” di Tommaso Moro, https://doc.studenti.it/vedi_tutto/index.php?b=7e5a930c&pag=5, [19/02/2018]


Bibliography


*Islands, People and the Art Festival. The Case of Inujima, Teshima, and Naoshima*, in *Naoshima Note*, 2011, 1, p. 10.


Sitography


Chavez Amy, Can art bring people back to Japan’s depopulated islands?, 2015, https://www.japantimes.co.jp/community/2015/09/27/our-lives/can-art-bring-people-back-japans-depopulated-islands/#.WdjiHkxabde, [07/10/2017]


http://www.arch.chula.ac.th/nakhara/files/article/pXofpApoLuWed90750.pdf, [07/10/2017]

Katsutoshi Asai, Naoshima Isn’t the Only Art Island! We Recommend Touring Inujima Island on Foot!, 2015, https://setouchifinder.com/en/detail/646, [07/10/2017]


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