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Preserving & Promoting THE ISLAND HERITAGE





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Abbreviations and acronyms

Abbreviation	meaning
ASLA	American Society of Landscape Architects
BIP	“Bateaux d’intérêts patrimoniaux” – heritage boats
CMP	“Conservatoire méditerranéen partagé” – Mediterranean shared conservancy
COPAINS	“Collections patrimoine insertion” – Porquerolles island produce project
CPIE	“Centre permanent d’initiatives pour l’environnement” – environmental initiative centre
DGF	“Dotation globale de fonctionnement” – State funding of local government
EEE	Invasive exotic species
FFEM	“Fonds français pour l’environnement mondial” – French Facility for Global Environment
GLISPA	Global island partnership
Interreg	European inter-regional cooperation programme
ISO	International Standards Organization
ISOS	“Isole sostenibile” (Italian) – Sustainable islands
MedINA	Mediterranean institute for nature and Anthropros
MTES	Ministry of the energy and inclusive transition
SDG	Sustainable Development Goals
PLU	“Plan local d’urbanisme” – Town planning
PNPC	Port-Cros national park
PPP	Public-Private Partnership
SMILO	Small Island Organization
UNESCO	United Nations Education, Science, and Culture Organization
ZNIEFF	“Zone naturelle d’intérêts floristique et faunistique” – flora and fauna conservation area

DOCUMENT EXCERPT

In memory of Jean-Roger Mercier

White paper entitled “Conserver et valoriser le patrimoine insulaire” (“Preserving and promoting the island heritage”), Interreg France-Italy Maritime project 2014–2020 “ISOS” (CUP no.: I46J17000050007), 2020.

DRAFTING OF THE DOCUMENT

This White Paper has been developed as part of the project entitled “Isole Sostenibili: Network of islands in support of sustainable development and heritage preservation” (ISOS), with the backing of the Interreg France-Italy Maritime programme 2014–2020 (CUP no.: I46J17000050007), concurrently with the “Towards a zero impact island” White Paper. The preparation of these documents was coordinated by France’s Var department (project leader) along with the Conservatoire of the coast and the SMILO association and with the support of Laurent Boutot from the ORÉADE-BRÈCHE firm.

The documents set out to draw up an inventory of the requirements specific to small islands wishing to take the environmental and heritage-related concerns more into account in their management, and to make specific recommendations to policy makers, financial backers, businesses, researchers and local stakeholders (national, European and international) with a view to improving practices and trending towards the sustainability of their territories.

These white papers were devised following on from the thinking and work initiated in 2015 as part of the SMILO programme and of the ISOS project (technical workshops, good practice fact sheets, etc.). ISOS/SMILO island representatives had the opportunity to trade thoughts on recommendations for each of the target audiences at a dedicated work session during the annual SMILO conference in Porquerolles in 2019.

The French versions of the white papers have been translated into Italian and English.



INTRODUCTION





The ISOS project

The Isole Sostenibili (ISOS) project sets out to encourage integrated territorial approaches to the preservation of resources and the showcasing of the natural and cultural heritage of small islands. It is jointly funded with the Interreg France-Italy Maritime programme 2014–2020.

Small islands are singular territories whose heritage is unique. In the Mediterranean basin, they are now under threat, being exceedingly popular with tourists. More than any other territory, they are subjected to global changes (exceptional weather events, deterioration of landscapes and habitats, pollution, overexploitation, etc.). While they share common challenges at international level, they also share solutions: they are marvellous laboratories for technical and social innovations that deserve to be capitalized on, enhanced and shared.

The ISOS project thus intends to create a network of French and Italian pilot islands that undertake to preserve their richness on a lasting basis. These exchanges of experience will federate the various stakeholders involved in the protection of the islands around shared objectives and will guide them towards innovative solutions for managing resources (water, energy, waste), for preserving and promoting their natural heritage (landscapes and biodiversity) and cultural heritage (tangible and intangible).

Sustainable strategies for protecting these micro-territories to the benefit of their island populations will be jointly developed through

technical workshops, conferences, mobilization of experts in the field, peer-to-peer discussions, and local investments.

The ISOS project supports SMILO (Small Island Organization), a partner of GLISPA (Global Islands Partnership), a key player, more particularly in the “Small Islands” group, in negotiations following the implementation of the Paris Agreement on climate change. Foundations and other public funders are backing this Programme, such as the French Facility for Global Environment (FFEM), the Prince Albert II of Monaco Foundation, and the Ministry for the Ecological and Inclusive Transition of France (MTES).

The SMILO quality certification process

The “Petites îles durables” (Small Sustainable Islands) programme, initiated by the “Conservatoire du Littoral” (French Conservatoire of the coast) and now led by SMILO, aims to partner islands smaller than 150 square km towards sustainable management of their territory.

Centred around shared governance, the SMILO approach aims to guarantee the ecological and environmental state of an island, conducive to human development. It supports the integrated management of islands on issues such as water and sanitation, waste, energy, biodiversity, landscape, and heritage. Local processes and sustainable practices are recognized by awarding the international “Sustainable Island” label.

This approach is a process for improving the sustainable development of a territory. Each island applying for this label must complete the following steps:

- Set up shared governance structured around an Island Committee;
- Collectively carry out a territorial diagnosis of the island using methodology developed by SMILO;
- Draw up and jointly approve the island's strategic plan;
- On the basis of this strategic plan, implement operations for meeting these primary objectives in order to improve sustainability and obtain the Sustainable Island label;
- Actively contribute to the life of the SMILO international network.

Since 2018, several islands (including 4 ISOS pilot islands: **Porquerolles**, **Saint Honorat**, **Sainte Marguerite**, and **Tavolara**) have been awarded

Label in Progress recognition, as well as sector-specific prizes recognizing efforts made in matters of water, waste, energy, landscape, and biodiversity.



THE SMILO QUALITY CERTIFICATION PROCESS



Source : SMILO

MEMBERS OF THE SMILO ISLAND COMMITTEE

The Island Committee, the cornerstone of SMILO quality certification, brings together the island's key stakeholders and plans the sustainable development of their onshore and offshore environments based on a common and shared vision.

It is the **permanent body** that liaises with SMILO's secretariat.

The Committee members at the very least include:

- A representative of a local public institution;
- One or more representatives of the local communities;
- A representative of a locally-based association;
- A representative of the territory's managers and/or, where relevant, protected area managers
- A representative of the island's main economic sectors (farming, fishing, hotels and restaurants, handicrafts, etc.).

Source : SMILO



The SMILO strategic principles, which form a common basis for a shared vision of the future of island territories in the SMILO network, are translated into strategic as well as theme-based orientations¹.

The SMILO programme includes nano-islands and islands having a significant surface area, inhabited islands and islands that are relatively densely inhabited, state properties and private properties, farmland/pasture land and arid land, isolated islands or islands that are part of an archipelago,

etc. These considerable differences and this diversity are fundamental to the richness of the SMILO network.

The yearly tourist figures given are a current average. This table clearly shows very significant differences between desert or quasi-desert islands—**Lavezzi, Asinara, Tavolara**—and those that are the equivalent of large villages—**San Pietro and Maddalena** (6,300 inhabitants). Also between islands with “average tourist attendance”—**Port-Cros, Capraia**—and islands with

¹ http://www.smilo-program.org/images/2-Label/principe_strat%C3%A9giques/A_PRINCIPES_STRATEGIQUES.pdf

SOME SOCIAL AND GEOGRAPHICAL CHARACTERISTICS OF ISOS TERRITORIES

Country/territory	Land area (km2)	Permanent inhabitants	Tourists/year
France			
Lavezzi	0,6	0	250 000
Sainte-Marguerite	2,1	15	300 000
Saint Honorat	0,4	20	105 000
Port-Cros	7	30	30 000
Porquerolles	12,5	200	1 000 000
Levant	9	80	55 000
Italie			
Asinara	51	1	80 000
Capraia	19,0	250	30 000
Palmaria	6,5	28	77 000
Maddalena	52,0	11 045	170 000
Tavolara	5	20	72 000

Sources: ISOS and Wikipedia (2019) - ISTAT (January 2020)

“very high tourist attendance”—**Porquerolles**, **Lavezzi** islands.

The islands' situations also vary in other ways: link with and distance from the continent, the influence of a neighbouring metropolis (such as Cannes, with its 74,000 permanent inhabitants, its festival and its high summer attendance).

Quality and sustainability

The ISOS project revolves around quality and sustainability.

The small islands covered by the ISOS project demonstrate their attractiveness to inhabitants

and tourists alike, which depends directly on the quality of their environment and heritage. In most cases they are territories people want to visit or even live in. Preserving the quality of these island systems must therefore remain a fundamental objective in order not to “kill the goose that lays the golden eggs”, notably due to overtourism.

Sustainability is the very purpose of this cross-border project, an ambitious purpose that demands a united front in the face of pressures and challenges that are gradually being compounded by climate disruption, with its effects on land and sea alike, and by human pollution of the Mediterranean.

This White Paper focuses on **island heritage**.



The notion of heritage

The notion of **common heritage** made its international stage entrance in the second part of the 20th century, notably in post-war Europe. At the core of the common heritage notion lies the need to preserve important heritage for **transmission to future generations**, so that they have access to this set of “assets” and are free to use them as they see fit (albeit not without constraints) . Starting in the 1960s, the notion of heritage was progressively expanded to include:

Starting in the 1960s, the notion of heritage was progressively expanded to include:

- Natural heritage: natural features, landscapes, national and regional nature parks, natural reserves, and such like.
- Tangible cultural heritage (elaborated below) and also intangible heritage in the form of ongoing traditions, the spoken word, entertainment arts, social practices and rituals, traditional craft know-how, etc.)
- Archaeological heritage: megalithic sites, Roman and Greek sites, underwater heritage, etc.
- Rural and agricultural heritage: irrigation canals, wash houses, baking ovens, dry stone walls, etc.
- Industrial, scientific, and technical heritage: buildings and industrial sites, historical mines, etc.
- Maritime and riverine heritage: sailing ships, lighthouses, port complexes, fortifications, lock gates, ancient bridges.

Source: ISOS technical workshop papers, Cannes – December, 2018

Striving for quality

How can we define quality in natural and constructed island heritage? This is an age-old question, but especially since world nations collaborated to produce and ratify the UNESCO “*Convention concerning the protection of the World Cultural and Natural Heritage*” on 16th November, 1972, almost 20 years before the Brundtland Commission fostered the sustainable development concept.

The notion of outstanding heritage worth protecting is defined in the scope of this Convention. UNESCO has adopted and applied a series of criteria² for the highly prized selection of a territory, product, or tradition as deserving of the “World Heritage” classification.



² See appendix

UNESCO “World Heritage” criteria most closely linked to the small island context

- To exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design
- To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
- To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates one or more significant stages in human history
- To be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of one or more cultures, or human interaction with the environment, especially when it has become vulnerable under the impact of irreversible change
- To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding local/regional significance
- To be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
- To contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation
- [...]

Source: UNESCO website – <https://whc.unesco.org/fr/criteria/>



On an academic and decision-making level, a lot of research has gone into the notion of quality in natural and constructed heritage. Australia, for example, describes tangible heritage in terms of “Place”. “Place has a broad scope and includes natural and cultural features. Place can be large or small: for example, a memorial, a tree, an individual building or group of buildings, the

location of a historic event, an urban area or town, a cultural landscape, a garden, an industrial plant, a shipwreck, a site with in-situ remains, a stone arrangement, a road or travel route, a community meeting place, a site with spiritual or religious connections.”

Sustainability and heritage

In its *“Declaration towards sustainable development of small islands”*, the SMILO programme starts off by highlighting its attention to heritage: *“As stakeholders involved in the management of small islands, we recognize the uniqueness and value of islands in terms of heritage (cultural, natural, historical, or landscape-related; tangible and intangible) and in their potential for the development of eco-friendly socio-economic activities.”* Later, it states *“We share a common vision recognizing the need to initiate and continue sustainable development in these territories that is compliant with the principles of the Rio +20 Declaration, the Aichi Biodiversity Targets and Island Biodiversity Program of Work, with integrated coastal zone management, as well as the Regional Seas Conventions, characterized by balanced management of the territory and the preservation and the promotion of the island heritage”*.

Sustainability is used here in its scientific and original meaning: the search for ways of developing that can meet the needs of current generations without jeopardizing the chances for future generations of satisfying theirs. Since this Brundtland definition, now more than thirty years old, a consensus has taken shape over the need to factor in social equity (*“leaving nobody behind”* as the UN puts it in their Agenda 2030), and to

further a flexible approach to this conservation of nature, notably enabling a minimum level of resource substitutability to be maintained. On an island, especially one that’s far enough from the mainland to make physical exchanges less frequent, sustainable development is quite simply what enables survival of the closed system that is the island itself.

The sustainability of actions undertaken in the small islands participating of the ISOS project is an ongoing concern, crossing all issues (not only heritage but also water-energy-waste).

Base layer: Essential management of the tourist load

This concern over determining tourist capacity and managing the load is a recurring theme in the analyses, conclusions, and recommendations of this White Paper. When poorly managed, tourism gradually leads to excesses that impair the quality of the spaces and assets that attracted these visitors in the first place. Therefore private and public stakeholders alike must keep an ongoing eye on the acceptable load capacity that can remain compatible with long term conservation. University studies and research now focus not only on the often complex scientific aspects of determining maximum tourist capacity but also





on translating these analytical work results with respect to public rights.

The 2008 Mediterranean protocol on the integrated coastal zone management (GIZC) marks the start of legal recognition of the load capacity notion. For the countries concerned and their governments, taking this notion into consideration helps check pressure on the coastal zone and set limits on it. This provides a new lever for public administration of coastal zone, in a voluntarist logic of managing coastal fringe transformation.

Although their destinies are closely linked, constructed and natural heritage are dealt with separately in the rest of this document, with their

own problems, issues and solution paths. Their common issues are then tackled before finally putting together conclusions and recommendations affecting both these categories of heritage.

This work is intended for various kinds of reader, each of whom is important in the process of improving how environment and heritage are taken account of in small islands: European and national policy makers, financial backers, researchers, businesses and innovative start-ups, and of course the islands' local stakeholders.



CONSTRUCTED HERITAGE





We start with general thoughts on the notion of quality applied to constructed heritage and with an exploration of the problems currently encountered in protecting this heritage. We then discuss this sector's main issues and look at some solutions that have been implemented.

The context

The quality of constructed heritage can be defined using two major considerations:

- Visual quality, assessed case by case and mainly based on aesthetic appeal, therefore inevitably introducing an arbitrary element
- The significance of the asset, a more objective characterization based on a set of criteria (historical meaning, appraisal by a recognized authority on the subject, etc.)

In all cases, defining the quality of constructed heritage calls for a multicriterial, multidisciplinary approach involving people from several horizons: historians, geographers, town planners, architects, landscape architects, human scientists, ordinary citizens, and others.

The attractiveness of constructed heritage can be judged by questioning tourists, the general population, the islanders, and also by work groups featuring a cross-section of the disciplines in question.

One characteristic peculiar to small islands is the place accorded to isolated buildings or small hamlets, up to small villages, which gives rise to very specific architectural and historical issues, notably in terms of vulnerability given their exposure to sometimes extreme weather conditions (rainfall and temperature swings, gales, storms, etc.).

A very important aspect of constructed island

heritage is that of access from the mainland, with certain islands lying just offshore while others involve considerable sea transport, giving rise to specific constraints in the importation of materials, notably for executing public works. When access to island territories is difficult, other factors must also be taken into account:

- High cost of supplies (inputs to the island ecosystem), as well the cost of evacuation and exportation (accidents and emergencies, town waste, shipment of farming produce)
- Risks involved in introducing exotic species
- Vulnerability to extreme weather, which can hinder or even prevent exchanges.

Main problems encountered in protecting and promoting constructed island heritage

Natural risks

On islands as anywhere else, natural risks (landslides, flooding, gales or even tornadoes, freak seas including tsunamis, coastal erosion, etc.) and other less natural events (fires) can have a direct impact on constructed heritage, ranging from a trivial upset to total destruction. This prejudice can prove very costly for society when it involves ancient heritage that requires architectural and manual techniques whose materials or knowledge are difficult to harness. Today's climate disruption only amplifies these risks, causing a greater frequency and cost of preventive and remedial work on constructed heritage. Island management must take account of recent statistics on the growing frequency and intensity

of extreme weather events, applying the principle of precaution.

Tourist volumes getting out of hand

Certain sites are victims of their own popularity. Striking examples of this can be seen in iconic locations like the Parthenon in Athens or the city of Venice, for whom the risks and damage caused by swarms of tourists make protection measures indispensable. But this kind of observation also applies to certain ISOS islands, which suffer from seasonal overtourism, much like **Porquerolles** marina in the summer.

Issues in the conservation of constructed heritage

A lack of knowledge in the techniques and practices of historical building construction

sometimes leads to the use of modern techniques and construction materials to repair and maintain ancient buildings. Awareness activities among local populations are called for to limit these practices before any lasting damage is caused to this heritage.

20th century edifices were often built with materials that age badly, especially in very humid climates. The issues involved in preserving existing buildings are more demanding than in new constructions and extensions. In the notion of constructed heritage, the “intangible” history of edifices and buildings plays a fundamental role. Several ISOS islands have a heritage related to defence of the country over the centuries, a good example being the military fortress on France’s island of **Sainte-Marguerite**.



The military constructed heritage of Sainte-Marguerite

Separated from Saint-Honorat by the narrow channel known as “Plateau du Milieu”, the island of **Sainte-Marguerite** (2.1 km² and 20 inhabitants) is a listed site protected by the joint action of Cannes town council and the French forestry commission, “Office National des Forêts” (ONF). It has a rich military constructed heritage across several sites: Fort Royal, fortifications, the Convention battery, German bunkers, ball-firing cannons. Fort Royal, built on ancient remains, is a bastion fortress dating from the 17th century. Revamped by Vauban, it became a state prison. Nowadays it houses a maritime museum, a youth hostel, and a centre for environmental initiatives (CPIE) that spreads awareness of the archipelago’s underwater biodiversity..

Source: ISOS technical workshop papers, Cannes – December, 2018

Main issues and future prospects

Three main issues have been identified for preserving constructed heritage:

- Reconciling social, architectural, and traditional approaches
- Rethinking the space, with improved urban and district planning and layout
- Maximizing resilience against climate disruption



ISSUE 1 Reconciling social, architectural, and traditional approaches

The reuse or repurposing of existing buildings should always be preferred to building new ones.

Social reinsertion can be linked to building construction, extension, maintenance, and repair, thereby creating jobs and activities in addition to

improving the constructed heritage. A particular aspect to be promoted in islands is the recovery and reuse of materials and the introduction of biosourced materials. Aid should also be provided to rediscover and update traditional construction techniques for integration with the landscape.



Building renovation programme on the island of San Pietro (Italy)

Several buildings have undergone renovation in keeping with the original character of the local environment (materials, techniques, characteristics):

- Former prison (1990s) that has proved ideal for conversion to a museum.
- Large stretches of the town's fortified walls.
- The San Vittorio tower where a multimedia museum has been installed.
- Alongside these, there have been several enhancement actions:
 - Walking paths.
 - Original outdoor area layouts: botanical gardens, open-air art galleries.
 - New single- or multi-functional uses for buildings: seasonal events, museums, exhibitions, etc.
 - Adherence to quality labels, compliance with exacting standards.

Source: ISOS technical workshop papers, Cannes – December, 2018



Reconciling traditional and modern approaches is a source of future solutions for the preservation of constructed heritage and is compatible with social insertion.



ISSUE 2

Rethinking the space, with improved urban and district planning and layout

The challenges in this subject are significant and notably involve:

- The management of urban sprawl and haphazard development risks in relation to biodiversity, landscape, and utility networks (water, electricity, etc.);
- The implementation of buffer zones between busy built-up areas and protected or sensitive natural areas, a solution requiring negotiation with owners and other property stakeholders;
- Planning permission for newbuild should be the exception rather than the rule and be conditional on assistance measures favouring renovation, reuse, and multipurposing.

Faced with these major necessities for protection of the common good, public authorities must shape up against some heavy pressure.

Another area requiring attention is the privileging of new **multipurpose uses for buildings**: seasonal events, museums, meeting places (such as the “third places” notion—a recent initiative defined as “places that create links”). There’s a lot of effort being spent on old buildings (which need a lot doing to them, notably as regards repurposing). Looking past the constraints, new buildings also need oversight and assistance, notably by setting multiple objectives for them as soon as they are intended for public use. They can become real shop windows for the ecological transition (see the “Towards a zero impact Island” White Paper on waste, water, and energy).

Good renovation **preserves the original**

character of villages and their constructed heritage, something tourists appreciate, as do tourist professionals who promote it as a marketing argument. But this must go hand-in-hand with a global approach (integrating materials, techniques, making sure the finished product represents a true rebirth of said heritage), and with deep thought on the purpose of renovated buildings (example: renovation of the San Vittorino tower on the Italian **island of San Pietro** to house a multimedia museum). Islander **know-how** can go to waste if proper attention is not given to its conservation. Its value shines through even more when its implementation embraces both landscape-integrated development and significant financial savings.

Legislation must be adapted to better suit island territories. Town planning regulations, which are sometimes irrelevant or difficult to implement on islands, in many cases need revising. Explicit exceptions to the rules need defining—adapted pragmatically and with proper control of their implications—for the urban development and planning phases of heritage areas, especially concerning the authorization of renewable energy production or energy efficiency installations (e.g., heat pumps). These regulations must indeed be reinforced, or at the very least better applied with respect to natural risks faced by the island’s constructed heritage: compliance with town planning rules in flood-risk areas, adoption of strict standards on the resistance of materials and structures to storms and even tornadoes, as well as to erosion in seaside locations.

Due to their scale and complexity, the required investments often exceed local funding capacities. In such cases the stakeholders must “see bigger” by seeking to raise funds, or seeking investment by sponsors, in order to achieve acceptable economic levels. The more stakeholders there are involved, the more practical it becomes **to raise funding** for projects. In addition to the budgetary spread defined among the territory’s stakeholders, the effort should involve requests for financial backing from financial backers (European Commission, European investment bank, foundations, private entities with a commercial outlook such as Google, etc.).

We might note in passing that improvements to public building stock are often subsidized many times more than for private stock.

Creation and development of labels: the SMILO programme label is a prime example of assisting these territories in a virtuous process. Other labels, specific to segments of a territory, exist and can be enjoyed by small islands (e.g., the ISO 14000 series for hotel or other establishments). It is important for each island to engage in one or more processes that gain recognition for its excellence and sustainability.



The adoption of urban and district planning suited to the island context can involve several channels, notably conservation of the building’s original character, multipurpose use of the buildings (old and new alike), adaptation of regulations, harnessing of funds, and the island’s commitment to certification processes.





ISSUE 3

Maximizing resilience against climate disruption

Few people now deny that human activity is behind a derailment of the climate, which as well as global warming causes a long term increase in the frequency and scale of extreme weather events (drought, tornadoes, flooding, and more). A new awareness of the seriousness and rising trend toward climate disruption now pits policy makers against a series of challenges for preserving the heritage and strengthening the resilience of the environments in question. Renovation and construction techniques that minimize climatic impact need identifying and sorting, to be made a routine feature in the scheduling, progressing, and assessment programmes affecting small islands.

A study conducted by the **Maldives** housing and environment ministries has for example compiled an inventory of tangible and intangible solutions to better arm the archipelago against climate disruption.

The priority approach in building, extending, or restoring infrastructures is to optimize their choice of location and adopt construction and renovation standards that address concerns about higher physical resistance to ensure the architecture is resilient³.



When carrying out work on constructed heritage, it is important to privilege technical solutions that favour resilience against the consequences of climate change

³An example can be found in the guide to “Good Practices in Resilience-Based Architectural Designs” from the American National Institute of Building Sciences’ WBDG programme (<https://www.wbdg.org/resources/good-practices-resilience-based-arch-design>), or in the case of landscape development, the guide, case studies, and advice provided by the American Society of Landscape Architects (ASLA) (<https://www.asla.org/climateadvocacy.aspx> and <https://www.asla.org/resilientdesign.aspx>)



NATURAL ISLAND HERITAGE





The context

UNESCO didn't take long to recognize the need to conflate the conservation of natural heritage with that of cultural heritage, notably constructed, in a logic of complementarity. In most cases, the notion of natural heritage is tightly linked to biodiversity. Natural heritage concerns island ecosystems and landscapes.

The design of biodiversity "conservation" measures soon runs up against social and economic realities, especially on inhabited islands. International administrative bodies, development funders, everyone down to local planners and developers are now veering their efforts toward the relative notion of biodiversity "management".

In the case of island environments, biodiversity management is a major factor in sustainable development, notably in the context of climate

The Island resilience initiative

This initiative from the Global Islands Partnership (GLISPA) provides six pillars for reinforcing global agreements, with objectives of resilience and prevention to promote the future of islands and best practices, mostly at action and project level. The six pillars are community, energy, environment, equity, food, and water. They are there to reinforce ambitious projects and solutions that will be appropriated by local stakeholders and become a defacto laboratory for extended actions funded at a global level. The initiative also provides a platform for the implementation of bigger and more innovative impact control systems and national and regional intervention. The objective is to work with at least three Pacific islands and a small number of champions among other island regions to strengthen the capacity for public-private partnerships and the implementation of sustainable development goals (SDG) and local agreements, using the tested islands as their template, to:

- identify, support, and reinforce local public-private collaborations, partnerships that can serve as organizations focusing on changes to the system
- launch a framework for local implementation of SDG, one that includes a more long term process for setting higher level objectives; develop common measures to be followed on an online platform; develop a portfolio of projects for meeting 2030 objectives
- launch a process for developing new projects—the Island Resilience Solution Prize—to act as a catalyst for innovative investments in integrated island infrastructures that can be funded from such sources as the UN's Green Climate Fund and act as a crucible for public-private partnerships and innovative funding;
- launch a peer learning network coordinated by the Global Islands Partnership and Hawai'i Green Growth in the aim of supporting island organizations, the definition of high level objectives and commitments, and public-private partnerships.

Source: <http://www.glispa.org/>- <https://impact.glispa.org/stories/sl/p6zn-ev76>

⁴ A good example is the World Bank Group's "Biodiversity Conservation and Sustainable Management of Living Natural Resources" standards for private and public sector funding.

⁵ Major partner of the SMILO programme (with a formal agreement between the two bodies in 2019)

disruption and its consequences. Many human activities involving biosystems (agriculture, breeding, forestry) are examples in themselves of sustainability through diversity, in stark contrast to single-species activities. This observation applies even more to “natural” evolutions in ecosystems, whose biological diversity guarantees greater adaptability and sustainability of the environments in question. A major concept when setting conservation and sustainable development objectives in respect of the natural island heritage is that of resilience.

Last but not least, a definition “by example” of the quality of natural mainland heritage is provided by France’s regional nature parks (“Fédération des Parcs naturels régionaux”).

Good quality natural heritage contains:

- Iconic species of flora and fauna
- A broad variety of natural habitats: forests, moors, crops, herbaceous habitats, marine habitats, fresh water, marshland

- National and regional nature parks or restricted natural areas.

Natural heritage also embraces the production of ecosystem-related goods and services, as can be seen later in the document in examples of good practices in the islands.

Main issues and future prospects

Three main considerations to make for better management of the natural heritage:

- Knowing and preserving a good quality natural environment
- Sustainably managing natural resources
- Shifting current political practices toward sustainable, responsible tourism.



ISSUE 1 Knowing and preserving a good quality natural environment

Good management of natural areas and island resources is totally dependent on a manager’s thorough **knowledge** of these environments. This knowledge of the ecosystem needs regular expansion and updating, as does knowledge of social, cultural, economic, regulatory, and legislative phenomena. This diagnostic phase is needed in order to better manage these environments and identify actions to be implemented to control the pressures they are subjected to, e.g., overtourism. To do so, a suitable functional and scientific classification of the territory’s natural and developed environments is needed, for example:

- “Wild” environments (unmanaged)
- Forest areas (managed or unmanaged)

- Crop growing areas (annual, perennial, shrubs & trees, market gardens)
- Pasture lands (intensive/extensive)
- Small breeding units (bees, fish, poultry, etc.)
- Natural resource gathering areas

Due to their sensitivity, **good knowledge of island environments and their pressures** is required and the impact of the various activities and practices must be monitored: even a small change can disrupt the ecosystem. Knowledge of resources enables rules to be devised, along with the most effective management methods possible. In the example of farming activities, the

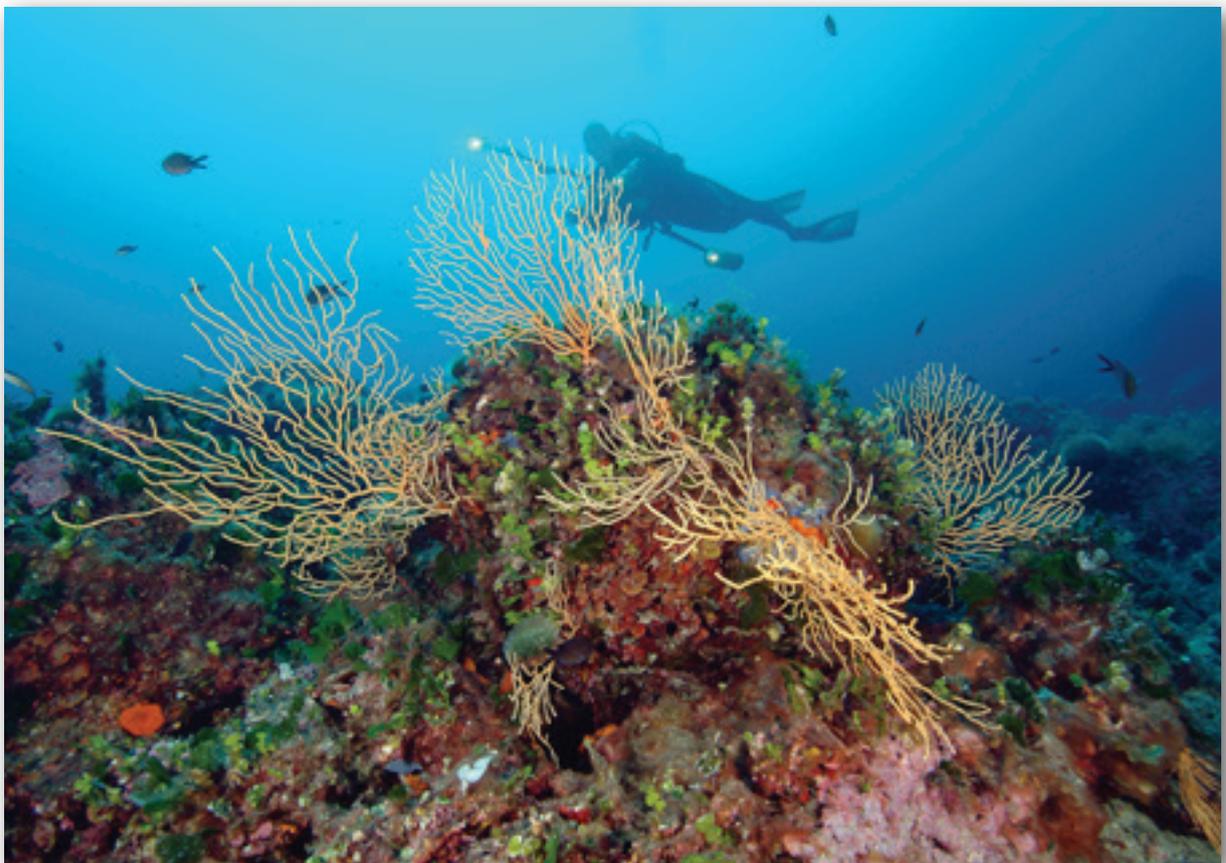
Île de Ré in France has drawn up an inventory of its natural heritage. Cross matching the issues of biodiversity and agriculture has enabled the definition of agricultural extension zones, coordination between farming development and environmental preservation, and identification of agricultural systems commensurate with the island's natural conditions. In a comparable approach, the main stakeholders on the island of Capraia in Italy moved to improve their knowledge and analyse the habitats and species of regional interest across 214 hectares of the island, enabling them to devise more targeted actions.

Among the pressures natural environments are subjected to, **invasive exotic species (IES)** play a big part. Small islands are rich terrains with a unique ecological heritage and are especially sensitive to any kind of disturbance from the outside. Each local stakeholder whose work directly involves the island (transportation of goods, materials, or people, reception, waste management, etc.) must take measures to avoid introducing any IES that could harm the ecological balance.

Managers must implement risk monitoring in respect of invasive species, along with preventive measures (raising awareness in domestic and professional use) and measures for dealing with an invasion.



Knowledge of natural environments and monitoring of pressures such as IES are essential to enlightened island management. These can be based on fundamental study and research and on planning and development projects.





ISSUE 2

Sustainably managing natural resources

Favouring approaches based on long running experience

Island landscapes are a mixture of tangible and intangible heritage. Their conservation is important as they can be the cornerstone of an island development programme that integrates and expands the economy, energy, waste disposal, and biodiversity dimensions.

Problems concerning the island landscape raise issues at the interface between biodiversity, farming heritage, local development, social aspects, and culture. Therefore before starting out on any project, island stakeholders must make sure the new installations and/or building extensions are a **good fit with the landscape** by conducting studies, maintaining visual continuity, and using local materials.

Privileging clean, sustainable local agriculture

Upholding good farming practices will avoid the closing off of rural areas by invasive vegetation. But technological choices in the field of agricultural development are also very important for the quality and sustainability of natural heritage, and all the more so in closed systems like islands. Organic farming and agroecology are favourable to biodiversity (pollinators, flying fauna). The same goes for green space management, in which the training of public maintenance staff in pesticide-free techniques and the use of local varieties needs developing. Regarding the revitalizing of varieties typical to the territory, there is an interesting example in the approach initiated by France's island of **Porquerolles** in 2018 for the promotion of local plant varieties, via the "Conservatoire Méditerranéen Partagé" (CMP) project.



Supporting sustainable local farming and fishing with a high value for the territory, together with traditional/ancestral operating techniques

The current awakening to the benefits of consuming “better and local” is an opportunity for small island territories. Recognition of “good” products from “good” lands is notably facilitated by brands and labels. Islands can intensify their actions in

this area by drawing inspiration from examples like France’s “Esprit Parc National” (national park spirit) branding.

The “Good Practice” insets below report on examples (on the **islands of Lanzarote** in Spain and **Capraia** in Italy) of preserving traditional activities involving natural resources, suitable for sustaining local agriculture and high value for the district.



The vineyard landscape of Lanzarote (Spain)

The objective is to develop viticulture on an arid volcanic island exposed to frequent winds. The system involves constructing low retaining walls conically to collect the scarce water, along with mineral mulching that reduces water evaporation and directs water run-off toward the vines. This technique has enabled value production from agriculture in arid landscapes, as well as water saving practices. The Geria vineyard, exclusive to Lanzarote, now has a high reputation and has entered into UNESCO world heritage.

Source: ISOS technical workshop papers, Cannes – December, 2018





Traditional agriculture on Capraia (Italy)

Since 1996, the island of **Capraia** (19 km²) has been part of the Tuscan Archipelago National Park, which features a Natural Reserve listed by UNESCO as a World Heritage site.

It is home to a great many plant species (14 categories of vegetation, 740 types of spontaneous flora, endemic species) and animal species: 5 seabird species, 13 mammal species, and 6 species of bat, together with invertebrates, reptiles, and amphibians.



It also boasts a rich farming tradition, whose development took off at the end of the 19th century with the installation of terraced slopes on which wines, oil, vegetables, etc. were produced. These terraces were later abandoned to nature until the 1990s, when several of them were restored. Nowadays there are a number of farming activities in place on the island (honey, tea, olives, vegetables, cheese, sheep and goats) that are part of an ecological initiative. They take place in a typical ecosystem, with organic farming methods and traditional production techniques.

This type of agriculture helps preserve the agrosystem. Clearing the abandoned farming areas eradicates invasive species. Hedges, rows, meres, dry stone walls, and other components of the farming landscape are preserved or restored. In addition, targeted actions are defined according to the state of the vegetation in each category (shrubs, trees, pasture), thanks to knowledge and analysis of the habitats and species of regional interest across 214 hectares of the island.

Source: ISOS technical workshop papers, Cannes – December, 2018

Socio-economic brief: employment support and networking

Natural resource management in the islands can take on a real social character. Local conditions are not always favourable to a level of economic activity that can sustain financial viability without state support (high costs, product sourcing and disposal difficulties, low micro-local demand, etc.).

Activities are therefore often run on a mix of direct business and social schemes, sometimes involving financially or legally fragile stakeholders, e.g., first-time job seekers or people in need of reinsertion.





Social insertion and heritage on the island of Porquerolles in the Port-Cros National Park (France)

Since 2014 on the island of **Porquerolles**, the COPAINS (Collections Patrimoine Insertion) project has been combining conservation with economy. It organizes training in arboriculture and agroecology for people who have lost touch with employment (insertion project), getting them involved in the maintenance and renewal of **Porquerolles** fruit tree varieties. .

2018 results:

- 2 teams of 6 to 8 employees in reinsertion mode, with 48% returning to full employment
- Varieties conserved and all the plots undergoing conversion to organic farming
- Products sold via short-circuit distribution

Alongside this, since March, 2018, is the CMP (Mediterranean shared conservancy), a group comprising public and private stakeholders, notably in research, training, and civil society. It facilitates the networking, coordination, support, and promotion of projects and stakeholders in the conservation of genetic diversity (notably in arboriculture) and of varieties typical of each territory. One example of their projects is the adaptation of olive trees to climate change.

Source: Papers, Cannes





Conservation and socio-economic value gains from the traditional “Mandras” on the island of Lemnos (Greece)

MedINA (Mediterranean Institute for Nature and Anthropos) has set itself the mission of reconciling cultural heritage with conservation and value realization from the natural heritage. It works on the island of Lemnos, renowned for its rich diversity of natural landscapes, its crop farming and pastures, and most notably its “mandras”. The mandra is an ancient farming technique whereby a multipurpose area is enclosed by a dry stone wall, inside which there is an animal shelter, a farmer’s cabin, and a barn. With pastures and cereal and pulse crops around its edges, it creates a cultural landscape of great ecological and cultural value. The progressive replacement of the mandra system by intensive farming methods is now threatening local biodiversity and natural resources. The Terra Lumnia project therefore sets out to place this interdependent agro-pastoral system at the core of a collective vision for sustainable development on the island of Lemnos.



It involves several steps:

- Documentation on the mandra practice and its impact on biodiversity and the quality of life
- Community and local producer awareness campaigns on the role of mandras in the conservation of natural resources and in economic development (tourism)
- Exchange of know-how between producers
- Reintroduction of local varieties and rehabilitation of pastures
- Biodiversity and soil conservation
- Actions for the improvement of business viability by increasing the merchant value of local produce (quality certification).

Source: ISOS technical workshop papers, Cannes – December, 2018



Sustainable natural resource management calls for the use of techniques that respect natural environments by using local varieties and for the support of farming that brings high added value to the territory. Such natural resource management can take on a real social character.



ISSUE 3

Shifting current practices and policies toward sustainable, responsible tourism

Note: Specific overtourism management aspects are dealt with in common issue No. 2 on p38.

Public education on the environment is essential to the preservation of natural heritage and must begin before the subject even boards the boat (specific signage at departure as well as arrival, information from tour operators organizing transport from the mainland, “ecogesture”

campaigns, etc.). Island managers must also adapt to new information channels like social networks to spread awareness among the public. This sensitization through communication is one of the measures taken on the **Lavezzi** archipelago in France to combat the negative effects of tourism on the environments (see inset below).



Management of tourist numbers in the islands of Lavezzi (France)

Several actions have been implemented on the **islands of Lavezzi** over the last few years aimed at minimizing the impact of tourism on the natural environments:

- Management and marking of pathways for channelling the flow of visitors
- Organization of mooring berths, with a ban on indiscriminate mooring
- Litter clean-up campaigns

Other interventions with the same objective are planned or in progress:

- Communication actions aimed at locals and tourists alike
- Creation of agreed quiet areas
- Decreased numbers of public footpaths
- Discouragement of outdoor defecation: study in progress for the installation of toilets

Source: ISOS technical workshop papers, Cannes – December, 2018



User-funding of natural environment protection measures is a tried and tested finance channel. There are several types of contribution that tourists can be asked to make for frequenting the natural environments and participating in their protection: direct payments to the community via reception and oversight institutions, voluntary donations (to recipient associations, entitling the donor to a tax break), local by-laws making payment compulsory.

Technological innovations

The example below (**island of Tavolara** in Italy) illustrates how technology can be used to better manage tourism, in this case management of pleasure craft moorings for better protection of the Posidonia Oceanica aquatic plant.



Mooring management app for the island of Tavolara

The island of Tavolara (Italy) is very active in the management of mooring berths. Regulations exist to prevent mooring over sensitive sea floors. The issue is how to enforce and control these regulations. A sustainable mooring system for protecting the underwater Posidonia plant has been implemented, with indicator buoys for commercial activities (diving), and the use of a mobile app (“Donia”) enabling pleasure boats to identify plant-free sea floors to ensure their mooring does not harm marine biodiversity.

Source: ISOS technical workshop papers, Cannes – December, 2018



A further example of innovation is the enhancement of heritage value by digitization of outstanding sites (constructed heritage, landscapes and seascapes) with an offer of virtual visits, which can help relieve tourist pressure. It can draw on

experiences like the digital architectural heritage portal developed by the Sardinia autonomous region of Italy in the scope of the ISOS project, which provides a huge database of heritage wealth.



Evolution toward responsible—therefore sustainable—tourism requires increasing action on awareness. This can also involve funding for the protection of natural environments by visitors and a dependence on technological innovations.



**THREE ISSUES COMMON
TO HERITAGE IN ITS ISLAND FORM**





Appropriate management of constructed and natural heritage means finding answers to three common issues or necessities:

- Managing the diversity of all the parties involved
- Implementing measures to control overtourism
- Harnessing funds on a larger scale and innovation in fund raising



COMMON ISSUE 1 Managing the diversity of all parties involved

Projects for the protection and promotion of island heritage are implemented by concerted agreement among multiple local stakeholders (local authorities, economic agents, owners, associations, inhabitants, and others). This corresponds, and quite legitimately so, to the demands of the SMILO programme, which requires the presence and permanent operation of an **island committee** mobilizing the life forces of social groups with interests in the sustainable development of each island seeking label recognition from this programme.

This approach was theorized in the 1970s under the concept of heritage management and “multi-player games”. At the time, the advent of very horizontal, cooperative style management structures was foreseen, the then-current notion having pragmatically left more room for initiative and leadership from representatives of the public sector.

Island committees today are to a large extent applying this approach thanks to composition and operating methods. These committees’ actions extend to the whole range of conservation and development actions in the territories concerned, not just to heritage management. When asked about the input from this type of organization in an island that has already seen a lot of management actions, a spokesman for the **island of Tavolara** (Italy) replied, *“Setting up an island committee has revealed to us an aspect of the island we hadn’t previously realized: management cannot be effective unless there is a good balance between conservation and socio-cultural dynamics. A network of partners comprising all stakeholders concerned by the island is essential for implementing management actions.”*



The setting-up of “island committee” type governance is a guarantee of better programming dynamics and of better appropriation and involvement of local stakeholders in management actions.



COMMON ISSUE 2

Implementing measures to control overtourism

We saw earlier the extent to which overtourism runs the risk of damaging the attractiveness and environment of small islands. Approaches combining education, planning & development, and financial dissuasion have been tested and can be extended to other isolated or island territories. In addition to specific measures for the protection of natural heritage, whose aim is to evolve toward the aforementioned responsible, sustainable tourism (through awareness, financial participation, and the use of innovations), there are four main levers for controlling overtourism:

- **Coordinated management of tourist streams** on the mainland-sea-island route, indispensable for regulating numbers. Such management relies on prior diagnosis and on regular, dedicated collaboration between the island and mainland authorities.
- **Incentive measures**, very often used by managers to channel the tourist attendance without routinely resorting to “prohibition” measures: orientation in favour of target periods, special paths, development of discovery trails

well away from the most sensitive areas, etc. On the French **island of Sainte-Marguerite**, for example, a navigation channel has been marked out to avoid the spread of mooring-related disturbance (Source: ISOS technical workshop papers, Cannes – December, 2018).

- **Layout management** is a key lever for harmonizing the promotion and frequentation of heritage sites, notably by channelling visitors to clearly marked itineraries. Such developments must at all costs preserve the spirit of the sites.
- To improve the management of issues involved in receiving the public and caring for the environment, **regulatory measures** need to be redefined so that island stakeholders can better cope with visitor numbers. The updating of regulatory standards must be coupled with measures for enforcing this regulations and with police actions when transgressions are reported.



Sustainable tourism in the Galapagos

The Galapagos islands have striven to promote ecotourism, with the Galapagos national park at the forefront of its development. The local authorities have introduced seven major changes in the way islands manage tourism:



- Setting of capacity limits for each site and restricting the number of authorized visitors
- Scheduling of boat trips so that at no time can the areas be submerged by visitors
- Introduction of access fees for visitors to the national park
- Prohibition of unorganized exploration of the islands by tourists
- Development of educational opportunities for visitors and inhabitants
- Compulsory boating licences
- Establishment of urban development zones

Source: Galapagos Conservancy



Limitation on tourist numbers on the island of Porquerolles (France)

This procedure began with the following actions:

- Quantification and qualification of the tourist numbers,
- Study of conflicts of use
- Deliberation on the island's load capacity and the threshold at which the island sees a financial benefit.
- Several action levers have been identified:
 - Information lever: calendar of extreme frequentation days, information in the press, fire prevention, real time saturation dashboard, etc.
 - Incentive lever: attractive low season rental prices, off-day sea transport fares, compulsory reservation before visiting, etc.
 - Regulatory lever: forest closure during fire risk conditions, limits on the number of bicycles, etc.



Source: ISOS technical workshop papers, Cannes – December, 2018



Managing overtourism notably involves implementing coordination of visitor streams, incentive measures, specific arrangements, and regulatory and control measures.



COMMON ISSUE 3 Harnessing funds on a larger scale and innovation in fund raising

Among the requirements, it seems important to harness funding to support operational activities for the launch and initiation of a territorial impetus, whose funding is more difficult than material investments.

In relation to the funding question, another necessity, in the same spirit as the ISOS project's actions or those of SMILO, is to pass on the information, even more intensively, between managers of island territories on the results of projects financed by the various backers, dealing with island heritage management.

Apart from the obvious interests of spawning similar experiences in heritage protection matters, this type of exchange avoids having to chase new funding for requirements that have already been funded in the past.

In addition to requests for financial support to financial backers whose backing needs reinforcing, there are also several paths for diversification aimed at better mobilizing finances for the protection of island heritage, notably:

- Finance in the form of donations, which do not require very high joint funding but are linked to commitments
- Private patronage (foundations and other forms), particularly through the setting up of public-private partnerships, to offer local managers increased, sustainable, diversified funding of their sustainable development and protection actions for constructed and natural heritages in small islands, thus topping up public funding that could well decrease in the future. The installation of a “bank of completed initiatives” can help acquire sponsorship by illustrating the interest of supporting the initiative. Patronage can also take the form of technical solutions and skills in addition to more concrete support: buildings refurbishment materials, island transport, seeds or (controlled) species adapted to climate change, etc.
- Crowdfunding
- Strengthening of ties between research funding and island applications funding
- The implementation of special funds linked to the specific island character, analogous to the state funding of local government (DGF) seen in mountain localities in France, to cover extra costs caused by being off the mainland
- Public-private partnerships (PPPs) for funding concrete private sector actions, with the possibility of staggered repayment or of “rental” by the public structures.



- Managers need better access to the funding of operational activities and good information circulation concerning the results of island heritage protection projects financed by the various backers.
- There is substance for innovation in diversifying the funding of constructed and natural island heritage protection, with the mobilization of finances in particular from donations, patronage, crowdfunding, allocations, or public-private partnerships.



CONCLUSIONS





Reflection on a management whose sights are on quality and sustainability in the constructed and natural heritage of small islands goes way beyond the geographical boundaries of the ISOS project and interests all those who are keen to install sustainable development locally, on islands and mainlands alike. In less than three years of existence, the ISOS project has shown its ability to act directly as well influencing the action of multiple stakeholders involved in the territories it covers. The examples quoted in this White paper are from local analyses, initiatives, and experience, greatly helped by qualitatively and quantitatively strong oversight on the ISOS islands, across which many invariables can be observed:

- **The wealth of constructed and natural heritage is capital whose value is already being realized but which remains vulnerable.** It must remain a subject of constant concern and thorough monitoring and must enjoy a capacity for quick, powerful reaction
- **The management of tourist streams is of vital concern** to the heritage management of many islands. Tourism is unarguably an important source of business and consequently of funding for these districts. Moreover, it enables

this public to acquire knowledge and awareness of the rich heritage, a public that is more and more urban centric and disconnected from island realities. The difficulties stem not only from the number of such tourists but also their density during critical periods of the year, and also from the consequences of their behaviour. Uncivil behaviour (outdoor defecation, plant pillaging, “gratuitous” spoiling of natural sites or buildings) are just as rampant as ever and hard to control during intense frequentation periods. Good management of tourist streams means making a choice between more tourism and better tourism, with no guarantee that a “win-win” solution exists;

- Despite these very worrying developments, we find quantities and quality of **innovations, both tangible and intangible**, that should provide good inspiration for initiating virtuous development spirals on small islands, especially innovations like the following:
 - Technological innovations (digitization of the outstanding sites enabling “virtual” visits, acquisition of construction materials suited to coastal and island situations, etc.)

- Better information management (e.g., monitoring the number and frequency of tourists with a view to predictive, preventive management)
- Research into and return to stardom of traditional techniques, approaches, activities, uses
- Interest in the implementation of appropriate agro-pastoral techniques: organic farming, use of good plant or animal genetic stock, diversification of activities, etc.

To wrap things up, one of the fundamental outcomes of the SMILO programme, and also here the ISOS project, whose essence and contribution must be carried forward to future projects, is the institution and upkeep over time of consultation between private and public stakeholders and civil society through island committees.





PRIORITY RECOMMENDATIONS



The main recommendations on the topic of “Constructed and natural heritage” are made to four key target audiences:



Recommendations for the attention of European and national policy makers

1

Support the reinforcement of interactions between island territories, notably encouraging them to get involved in networks like SMILO, PIM, or GLISPA and directly contributing to these exchange platforms.

2

Promote concerted approaches between mainland areas close to islands and the actual islands (e.g., participation in joint projects and/or events, municipal or inter-town committees) to enable more effective development of natural synergies, to provide funding for actions being implemented by public institutions, and to enjoy a wider tax net.

3

Award ongoing additional means to services that must manage specific “island” aspects.

4

Revise those regulations that are a poor fit with island constraints or at least allow for a more flexible interpretation, notably concerning territorial and architectural planning but also in respect of protected areas, submersion areas, beaches, and nearby marine activities. Examples of desirable changes in regulations:

- Take account of specifics, vulnerability, and endemism in common standards and guidelines, which often fail to cater adequately for island specifics
- Make protection of the heritage compatible with the need to introduce small- and medium scale wind and solar energy plant and systems
- Include clauses aimed at improving the resilience of natural and anthropogenic systems on small islands, notably their resistance to climate disruption (alert mechanisms, standards for construction and upkeep of historical heritage, choice of construction and maintenance materials).
- Encourage the clarification of precedence in the regulations applying to each island (e.g., in France, Historical Sites Protection Act vs. Energy Transition Act)
- Encourage the updating of international agreements and outline directives that currently ignore recent developments and existing conceptual and functional contexts (e.g., directives on the habitat and birds in the conservation of nature).

5

Improve and give good effect to incentives (e.g., tax breaks) **and penalties.**

The adoption of concrete tax measures applicable to islands could for example lead to VAT reductions on the transport of materials to the islands or lower social security contributions, while providing tax breaks notably for the restoration of architectural and natural heritage. Other measures could include a tax increase on sea trips, with the extra receipts going to fund sustainable management projects and plans⁶.

6

Reinforce the protection of animal and plant species in the land and sea ecosystems.

Island biodiversity is especially vulnerable due to the limited expanse of the ecosystems and the risk of introducing harmful species. Changes are brought about by increasingly heavy visitor numbers and by disruption of the climate. Such protections should be routinely incorporated in planning documents and in the infrastructures that are created or renovated (e.g., bat nesting boxes). This reinforcement could notably involve **establishing the “priority habitat” notion within the framework of an “Island Habitat”** in the Appendix of the Habitats Directive, as recent research projects have recommended.



⁶ The tax instituted by the “Barnier” Act of 1995 has maritime transport passengers contributing to the protection of the protected areas, whether they land there or not (<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000025055944>).



Recommendations for the attention of financial backers

1

Release additional funding on a greater scale with innovative schemes

related to their source (Green climate fund, agricultural or urban-linked funds, patronage, crowdfunding), to their nature (donations, special allocations, public-private partnerships), or to their purpose (especially operational activities, which are not always considered fundable actions).

2

Pass on the information, even more intensively, **between managers**

of island territories on the results of projects financed by the various backers, dealing with island heritage management.



3

Continue providing financial support

to island networking initiatives (SMILO, PIM, GLISPA, etc.) by highlighting the concrete results, measured scientifically in terms of quality and sustainability of constructed and natural heritages. Conduct periodic assessments of these fundings and publish their results.

4

Favour an exchange of results from studies

and operations on pilot sites to help spawn their positive experiences and avoid having to chase new funding for requirements that have already been funded in the past.



Recommendations for the attention of researchers, businesses, associations, and innovative start-ups

- 1 Pursue and intensify research to better know and understand the island areas**, their resources, and their pressures (notably local and exotic species, the landscape, socio-economic issues, regulations, farming production, local and social development, local culture, etc.). Set up research programmes on tangible or intangible island heritage, involving researchers for quicker and more harmonious application of the research results. Circulate the results, notably on the social networks.
- 2 Support the launch of start-ups with innovative projects suited to the coastal and island habitat** (e.g., on materials specifically adapted to seaside conditions), inspired by the EU-initiated public-private partnership⁷.
- 3 Improve the dissemination of results and transfer** of knowledge to local stakeholders while providing better ongoing information to the various audiences.
- 4 Give high priority to concrete, sustainable actions** while privileging low cost, low upkeep technologies.
- 5 Straighten out research priorities for strategies and local needs.** Associate universities and students with research into innovations on the islands. Organize think tanks with the university spheres.
- 6 Get researchers working on the assessment of excess infrastructure costs linked to the energy transition** to better understand and better assimilate them (as an argument to backers) and bring these costs down whenever they are unjustified or avoidable.
- 7 Develop software applications** for receiving direct information on conservation issues and respectful behaviour (e.g., a mooring assistant) and also for gathering and broadcasting emergency information (fire risks, pollution, tsunamis, etc.).
- 8 Boost the sharing of experiences that use innovations** to provide a true test of their limits (sustainability, practicality, hardiness, etc.), and those using special know-how (e.g., ability to maintain technological equipment).

⁷ For example the HEROMAT research/innovation project enabling new materials to be developed, extending the time between restoration operations (with a consequent increase in the lifespan of the buildings and lower investment need for cleaning and protection).



Recommendations for the attention of the islands' local stakeholders

1

Pursue and intensify efforts in the educational field concerning the protection of constructed and natural heritage, for islanders and tourists alike. Support direct actions (improvement and harmonization of signage, enhancement of places of interest including accessibility, threat identification and control) as well as indirect actions in favour of awareness, training, education, etc.

Privilege encounters and the spoken word. Develop compulsory training for natural environment wardens. Provide on-site training to teams of "greeters" (volunteers for visits and promotion of the territory). Provide explanatory booklets on better preservation of the island heritage to accommodation rental agents. Use the teaching programmes of marine educational areas as a support, e.g., those of the **islands of Hyères and Lerins** in France.

2

Know tourist behaviour in order to better control it and avoid its impact on land and sea alike; **encourage self-responsibility among tourists**. Commend positive behaviour from tourists, and conversely, warn against and penalize every kind of negative behaviour. That's what happens, for example, in the case of the prohibited removal of stones from sensitive sites in Greece, or pebbles, seashells and plants from Italian and French beaches. Develop heritage awareness right from the point of landing (posters, TV screens, etc.). Define tourist capacities and ceilings for each island and allow prefects and council leaders to pass by-laws on the basis of measurable environmental criteria that are periodically revised.



3 **Routinely ensure that major consultations and decisions** concerning the islands in both the short and long term **involve a maximum number of local stakeholders** and that the local culture and knowledge play a full part in these consultations and decisions (e.g., by constituting an island committee).

4 **Favour and extend sustainable farming and fishing practices** on the islands, especially those involving “ecological” technologies. Assist farmers and breeders operating in the islands in obtaining accreditation labels and highlight their initiatives (Web sites, brochures). Incorporate good practices and authenticity labels. Spread knowledge of professional training in these types of farming, breeding, forestry and fishing activity among those already in practice or setting themselves up.



5 **Continue building resilience to climate** disruption into farming, breeding, and forestry programmes, notably by promoting ancestral varieties and activities after evaluating them (e.g., robust plant and animal varieties suited to the island environments). Enforce regulatory measures to protect against rising sea levels, especially preventive ones (compliance with seaside legal requirements).

6 **Identify** as early as possible any potential **wastage** or abandoning of **traditional activities and practices**, assess its effects, and implement requisite mechanisms to prevent it. Favour for example heritage boats (BIP)⁸.

7 **Continue positive developments** (e.g., plantations to reinforce soils against erosion, integral biological reserves), and in particular an **approach of the “Nature-based solutions” type**, while **tearing down buildings** that contravene regulations.

8 **Step up fire prevention** through better management of the issues involved, especially in areas where farming, forestry, or pastures have been abandoned, or on the edge of built-up areas.

9 **Make sure constructed and natural heritage receive similar amounts of attention** whatever the absolute value on a given island, notably by conflating them as UNESCO has done.

10 **Develop guides for the general public for preparation against disasters.** These guides can be linked to programmatic documents intended for professionals in the relevant sectors.

⁸ <https://www.patrimoine-maritime-fluvial.org/navires-du-patrimoine/demande-de-labellisation/>



**APPENDIX, ICONOGRAPHICAL &
BIBLIOGRAPHICAL RESOURCES**



APPENDIX

UNESCO “World heritage” selection criteria

Source: UNESCO website

- 1) **To represent** a masterpiece of human creative genius
- 2) **To exhibit** an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design
- 3) **To bear** a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
- 4) **To be** an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history
- 5) **To be** an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change
- 6) **To be** directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)
- 7) **To contain** superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- 8) **To be** outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
- 9) **To be** outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
- 10) **To contain** the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation



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PRESERVING
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THE ISLAND
HERITAGE



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