



Territori della Cultura

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Special Issue

GreenHeritage.
The impact of
Climate Change
on the Intangible
Cultural Heritage



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From the intangible heritage to the new frontiers of culture

In the editorial of the previous issue, the 56th of Territori della Cultura, I drew the attention of our readers to an important initiative by the European University Centre for Cultural Heritage, the GreenHeritage project which deals with the issues relating to the impact of climate change on intangible cultural heritage. We dedicate this monothematic issue to it, in which our Editor-in-Chief Pietro Graziani intervenes with his own contribution and invites us to focus on the Paris Convention for the Protection of Intangible Heritage, the text of which is appropriately attached below.

Actually the Centre intends to make periodic updating through this online tool as the various phases of the project evolve. This journal, in fact, has always had among its objectives the circulation of ideas, the sharing of programs, the comparison between scientific and educational approach methodologies.

Meanwhile, the forthcoming 19th edition of Ravello Lab (24-26 October) promises to be full of content: "New frontiers of culture: artificial intelligence", which will benefit from prestigious participations. The partnership between Federculture, Fondazione Scuola beni e attività culturali and our Center is now well-tested and maintains an original and clear character for the initiative, each year capturing the most topical ideas and encouraging the reflection of public and private stakeholders that animate the Forum. This year's three in-depth panels will be dedicated, respectively, to Technology for culture, Culture and sustainability and Cultural work in the digital age.

The 2024 programme, mostly defined, is conveyed by the elegant and distinctive graphic communication line, designed by Vera Vachtova.

The Award "Patrimoni Viventi", promoted since 2018 by the Centre, is enriched this year by the sharing of the two other partners of Ravello Lab. In the appendix you will find the final ranking as well as the description of the winning projects.



The live streaming of the plenary sessions (24 and 26 October) will be held on the platform fad.fondazione scuolapatrimonio.it. The video recordings of the work of the three panels will subsequently be available on the CUEBC YouTube channel (<https://www.youtube.com/@centrouniversitarioeuropeo3471>).

Alfonso Andria

Dal patrimonio immateriale alle nuove frontiere della cultura

Nell'editoriale del numero precedente, il 56° di Territori della Cultura, ho richiamato l'attenzione dei nostri lettori su un nuovo cimento del Centro Universitario Europeo per i Beni Culturali il progetto "GreenHeritage", che approfondisce le tematiche relative all'incidenza dei cambiamenti climatici sul patrimonio immateriale.

Ad esso dedichiamo questo numero monotematico, nel quale il nostro Direttore responsabile Pietro Graziani interviene con un proprio contributo e invita ad approfondire la Convenzione di Parigi il cui testo opportunamente è di seguito riprodotto.

L'impegno che il Centro intende assumere è di un periodico aggiornamento attraverso questo strumento online a mano a mano che evolvono le varie fasi del progetto. La rivista, infatti, ha sempre avuto tra i propri obiettivi la circolazione di idee, la condivisione dei programmi, il confronto tra le metodologie di approccio scientifico e didattico.

Intanto si preannuncia densa di contenuti la XIX edizione di Ravello Lab (24-26 ottobre): "Nuove frontiere della Cultura: l'intelligenza artificiale", che si avvarrà di prestigiose partecipazioni. Il partnership tra Federculture, Fondazione Scuola dei beni e delle attività culturali e Centro di Ravello è ormai ben collaudato, mantiene per l'iniziativa una fisionomia originale e netta, ciascun

anno cogliendo gli spunti di maggiore attualità e favorendo la riflessione degli stakeholder pubblici e privati che animano i Colloqui Internazionali. I tre panel di approfondimento di quest'anno saranno dedicati, rispettivamente, alla Tecnologia per la cultura, Cultura e sostenibilità e Lavoro culturale nell'era digitale.

Il programma 2024, per massima parte definito, è veicolato dall'elegante e distintiva linea grafica di comunicazione, opera di Vera Vachtova.

Il Premio Patrimoni Viventi, nato tempo addietro da un'idea del Centro, si arricchisce da quest'anno della condivisione dei due altri partner di Ravello Lab. La graduatoria finale nonché la descrizione dei progetti vincitori sono pubblicate in appendice.

La diretta streaming delle sessioni plenarie (24 e 26 ottobre) si terrà sulla piattaforma di formazione a distanza fad.fondazionescuolapatrimonio.it. Le video-registrazioni dei lavori dei tre panel in programma il 25 ottobre saranno successivamente fruibili sul canale youtube del CUEBC (<https://www.youtube.com/@centrouniversitarioeuropeo3471>).

Buon lavoro a tutti!

Alfonso Andria



International Forum/Colloqui Internazionali

**RAVELLO
LAB**

XIX edizione
Ravello
24/26 ottobre 2024
Villa Rufolo

**Nuove frontiere della cultura:
L'INTELLIGENZA ARTIFICIALE**

↑
La tecnologia per la cultura
Cultura e sostenibilità
Il lavoro culturale nell'era digitale



The intangible cultural heritage

Twenty-one years ago, in 2003, the 32nd Session of the UNESCO General Conference took note of the perceived need to identify protective measures in the relationship between human activity and the environment. Thus, the Convention for the Protection of Intangible Heritage took shape in Paris, signed on 17 October 2003 and coming into force on 20 April 2006, then ratified by Italy with law 167 of 27 September 2007, published in the Official Gazette 238 of 12 October 2007.

Among its purposes, in addition to protection, particular importance is also attributed to respect and promotion of awareness processes, interaction with nature, the history of sustainable development with a focus on knowledge and practices on nature.

The project "Greenheritage. The impact of Climate change on the intangible cultural heritage" – to which this special issue of *Territori della Cultura* is dedicated – is therefore in full harmony with the aims of the Paris Convention of 17 October 2003 for the protection of intangible cultural heritage.

Greenheritage is a multidisciplinary project led by the National Research Council (CNR) and with the participation of ten organizations from five European countries, including the European University Center for Cultural Heritage of Ravello.

The impact of climate change on intangible cultural heritage is the project theme on which the multidisciplinary team is measuring itself through lines of research in close synergy with local administrators and educational operators as well as with civil society in its most varied forms. All this leads us to remember the juridical-institutional birth of the concept of intangible cultural heritage which is inserted into the methodological process for the management, conservation and protection of this extraordinary heritage with express reference to climate change and to a possible desired medium-long term action plan.

Pietro Graziani

Il patrimonio culturale immateriale

Ventuno anni orsono – siamo nel 2003 – la 32° Sessione della Conferenza generale dell'Unesco prese atto dell'avvertita esigenza di individuare misure protettive nel rapporto tra attività umana e ambiente. Prende così corpo a Parigi, la Convenzione per la Salvaguardia del patrimonio immateriale, sottoscritta il 17 ottobre 2003 ed entrata in vigore il 20 aprile 2006, ratificata poi dall'Italia con la legge 167 del 27 settembre 2007, pubblicata in Gazzetta Ufficiale 238 del 12 ottobre 2007.

Tra le finalità, oltre alla protezione, particolare importanza è attribuita anche al rispetto e alla promozione dei processi di sensibilizzazione, all'interazione con la natura, alla storia dello sviluppo sostenibile con un focus sui saperi e pratiche sulla natura.

Il Progetto "*Greenheritage. The impact of Climate change on the intangible cultural heritage*" – a cui è dedicato questo numero speciale di Territori della Cultura – si pone quindi in piena armonia con le finalità della Convenzione di Parigi del 17 Ottobre 2003 per la salvaguardia del patrimonio culturale immateriale.

Greenheritage è un progetto multidisciplinare che vede il Consiglio Nazionale delle Ricerche (CNR) come capofila e la partecipazione di dieci organizzazioni di cinque Paesi europei, tra cui il Centro Universitario Europeo per i Beni Culturali di Ravello.

L'impatto dei cambiamenti climatici sul patrimonio culturale immateriale è il tema progettuale sul quale il team multidisciplinare si sta misurando attraverso linee di ricerca in stretta sinergia con amministratori, operatori locali ed educativi nonché con la società civile nelle sue più varie articolazioni. Tutto questo ci porta a ricordare la nascita, giuridico-istituzionale, del concetto di patrimonio culturale immateriale che s'innesta nel processo metodologico per la gestione, conservazione e protezione di questo straordinario patrimonio con espresso riferimento ai cambiamenti climatici e ad un possibile auspicato piano d'azione di medio lungo periodo.

Pietro Graziani



**Convention for the Safeguarding of
the Intangible Cultural Heritage**

Convention for the Safeguarding of the Intangible Cultural Heritage

The General Conference of the United Nations Educational, Scientific and Cultural Organization hereinafter referred to as UNESCO, meeting in Paris, from 29 September to 17 October 2003, at its 32nd session,

Referring to existing international human rights instruments, in particular to the Universal Declaration on Human Rights of 1948, the International Covenant on Economic, Social and Cultural Rights of 1966, and the International Covenant on Civil and Political Rights of 1966,

Considering the importance of the intangible cultural heritage as a main-spring of cultural diversity and a guarantee of sustainable development, as underscored in the UNESCO Recommendation on the Safeguarding of Traditional Culture and Folklore of 1989, in the UNESCO Universal Declaration on Cultural Diversity of 2001, and in the Istanbul Declaration of 2002 adopted by the Third Round Table of Ministers of Culture,

Considering the deep-seated interdependence between the intangible cultural heritage and the tangible cultural and natural heritage,

Recognizing that the processes of globalization and social transformation, alongside the conditions they create for renewed dialogue among communities, also give rise, as does the phenomenon of intolerance, to grave threats of deterioration, disappearance and destruction of the intangible cultural heritage, in particular owing to a lack of resources for safeguarding such heritage,

Being aware of the universal will and the common concern to safeguard the intangible cultural heritage of humanity,

Recognizing that communities, in particular indigenous communities, groups and, in some cases, individuals, play an important role in the production, safeguarding, maintenance and re-creation of the intangible cultural heritage, thus helping to enrich cultural diversity and human creativity,

Noting the far-reaching impact of the activities of UNESCO in establishing normative instruments for the protection of the cultural heritage, in particular the Convention for the Protection of the World Cultural and Natural Heritage of 1972,

Noting further that no binding multilateral instrument as yet exists for the safeguarding of the intangible cultural heritage,

Considering that existing international agreements, recommendations and resolutions concerning the cultural and natural heritage need to be ef-

Convention for the Safeguarding of the Intangible Cultural Heritage

fectively enriched and supplemented by means of new provisions relating to the intangible cultural heritage,

Considering the need to build greater awareness, especially among the younger generations, of the importance of the intangible cultural heritage and of its safeguarding,

Considering that the international community should contribute, together with the States Parties to this Convention, to the safeguarding of such heritage in a spirit of cooperation and mutual assistance,

Recalling UNESCO's programmes relating to the intangible cultural heritage, in particular the Proclamation of Masterpieces of the Oral and Intangible Heritage of Humanity,

Considering the invaluable role of the intangible cultural heritage as a factor in bringing human beings closer together and ensuring exchange and understanding among them,

Adopts this Convention on this seventeenth day of October 2003.

I. General provisions

Article 1 – Purposes of the Convention

The purposes of this Convention are:

- (a) to safeguard the intangible cultural heritage;
- (b) to ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned;
- (c) to raise awareness at the local, national and international levels of the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof;
- (d) to provide for international cooperation and assistance.

Article 2 – Definitions

For the purposes of this Convention,

1. The "intangible cultural heritage" means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and hu-

Convention for the Safeguarding of the Intangible Cultural Heritage

man creativity. For the purposes of this Convention, consideration will be given solely to such intangible cultural heritage as is compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups and individuals, and of sustainable development.

2. The "intangible cultural heritage", as defined in paragraph 1 above, is manifested inter alia in the following domains:

(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;

(b) performing arts;

(c) social practices, rituals and festive events;

(d) knowledge and practices concerning nature and the universe;

(e) traditional craftsmanship.

3. "Safeguarding" means measures aimed at ensuring the viability of the intangible cultural heritage, including the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non-formal education, as well as the revitalization of the various aspects of such heritage.

4. "States Parties" means States which are bound by this Convention and among which this Convention is in force.

5. This Convention applies mutatis mutandis to the territories referred to in Article 33 which become Parties to this Convention in accordance with the conditions set out in that Article. To that extent the expression "States Parties" also refers to such territories.

Article 3 – Relationship to other international instruments

Nothing in this Convention may be interpreted as:

(a) altering the status or diminishing the level of protection under the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage of World Heritage properties with which an item of the intangible cultural heritage is directly associated; or

(b) affecting the rights and obligations of States Parties deriving from any international instrument relating to intellectual property rights or to the use of biological and ecological resources to which they are parties.

II. Organs of the Convention

Article 4 – General Assembly of States Parties

1. A General Assembly of the States Parties is hereby established, hereinafter referred to as "the General Assembly". The General Assembly is the sovereign body of this Convention.

2. The General Assembly shall meet in ordinary session every two years. It may meet in extraordinary session if it so decides or at the re-

quest either of the Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage or of at least one-third of the States Parties.

3. The General Assembly shall adopt its own Rules of Procedure.

Article 5 – Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage

1. An Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage, hereinafter referred to as “the Committee”, is hereby established within UNESCO. It shall be composed of representatives of 18 States Parties, elected by the States Parties meeting in General Assembly, once this Convention enters into force in accordance with Article 34.

2. The number of States Members of the Committee shall be increased to 24 once the number of the States Parties to the Convention reaches 50.

Article 6 – Election and terms of office of States Members of the Committee

1. The election of States Members of the Committee shall obey the principles of equitable geographical representation and rotation.

2. States Members of the Committee shall be elected for a term of four years by States Parties to the Convention meeting in General Assembly.

3. However, the term of office of half of the States Members of the Committee elected at the first election is limited to two years. These States shall be chosen by lot at the first election.

4. Every two years, the General Assembly shall renew half of the States Members of the Committee.

5. It shall also elect as many States Members of the Committee as required to fill vacancies.

6. A State Member of the Committee may not be elected for two consecutive terms.

7. States Members of the Committee shall choose as their representatives persons who are qualified in the various fields of the intangible cultural heritage.

Article 7 – Functions of the Committee

Without prejudice to other prerogatives granted to it by this Convention, the functions of the Committee shall be to:

(a) promote the objectives of the Convention, and to encourage and monitor the implementation thereof;

(b) provide guidance on best practices and make recommendations on measures for the safeguarding of the intangible cultural heritage;

- (c) prepare and submit to the General Assembly for approval a draft plan for the use of the resources of the Fund, in accordance with Article 25;
- (d) seek means of increasing its resources, and to take the necessary measures to this end, in accordance with Article 25;
- (e) prepare and submit to the General Assembly for approval operational directives for the implementation of this Convention;
- (f) examine, in accordance with Article 29, the reports submitted by States Parties, and to summarize them for the General Assembly;
- (g) examine requests submitted by States Parties, and to decide thereon, in accordance with objective selection criteria to be established by the Committee and approved by the General Assembly for:
- (i) inscription on the lists and proposals mentioned under Articles 16, 17 and 18;
- (ii) the granting of international assistance in accordance with Article 22.

Article 8 – Working methods of the Committee

1. The Committee shall be answerable to the General Assembly. It shall report to it on all its activities and decisions.
2. The Committee shall adopt its own Rules of Procedure by a two-thirds majority of its Members.
3. The Committee may establish, on a temporary basis, whatever ad hoc consultative bodies it deems necessary to carry out its task.
4. The Committee may invite to its meetings any public or private bodies, as well as private persons, with recognized competence in the various fields of the intangible cultural heritage, in order to consult them on specific matters.

Article 9 – Accreditation of advisory organizations

1. The Committee shall propose to the General Assembly the accreditation of non-governmental organizations with recognized competence in the field of the intangible cultural heritage to act in an advisory capacity to the Committee.
2. The Committee shall also propose to the General Assembly the criteria for and modalities of such accreditation.

Article 10 – The Secretariat

1. The Committee shall be assisted by the UNESCO Secretariat.
2. The Secretariat shall prepare the documentation of the General Assembly and of the Committee, as well as the draft agenda of their meetings, and shall ensure the implementation of their decisions.

III. Safeguarding of the intangible cultural heritage at the national level

Article 11 – Role of States Parties

Each State Party shall:

- (a) take the necessary measures to ensure the safeguarding of the intangible cultural heritage present in its territory;
- (b) among the safeguarding measures referred to in Article 2, paragraph 3, identify and define the various elements of the intangible cultural heritage present in its territory, with the participation of communities, groups and relevant non-governmental organizations.

Article 12 – Inventories

1. To ensure identification with a view to safeguarding, each State Party shall draw up, in a manner geared to its own situation, one or more inventories of the intangible cultural heritage present in its territory. These inventories shall be regularly updated.
2. When each State Party periodically submits its report to the Committee, in accordance with Article 29, it shall provide relevant information on such inventories.

Article 13 – Other measures for safeguarding

To ensure the safeguarding, development and promotion of the intangible cultural heritage present in its territory, each State Party shall endeavour to:

- (a) adopt a general policy aimed at promoting the function of the intangible cultural heritage in society, and at integrating the safeguarding of such heritage into planning programmes;
- (b) designate or establish one or more competent bodies for the safeguarding of the intangible cultural heritage present in its territory;
- (c) foster scientific, technical and artistic studies, as well as research methodologies, with a view to effective safeguarding of the intangible cultural heritage, in particular the intangible cultural heritage in danger;
- (d) adopt appropriate legal, technical, administrative and financial measures aimed at:
 - (i) fostering the creation or strengthening of institutions for training in the management of the intangible cultural heritage and the transmission of such heritage through forums and spaces intended for the performance or expression thereof;
 - (ii) ensuring access to the intangible cultural heritage while respecting customary practices governing access to specific aspects of such heritage;
 - (iii) establishing documentation institutions for the intangible cultural heritage and facilitating access to them.

Article 14 – Education, awareness-raising and capacity-building

Each State Party shall endeavour, by all appropriate means, to:

- (a) ensure recognition of, respect for, and enhancement of the intangible cultural heritage in society, in particular through:
 - (i) educational, awareness-raising and information programmes, aimed at the general public, in particular young people;
 - (ii) specific educational and training programmes within the communities and groups concerned;
 - (iii) capacity-building activities for the safeguarding of the intangible cultural heritage, in particular management and scientific research; and
 - (iv) non-formal means of transmitting knowledge;
- (b) keep the public informed of the dangers threatening such heritage, and of the activities carried out in pursuance of this Convention;
- (c) promote education for the protection of natural spaces and places of memory whose existence is necessary for expressing the intangible cultural heritage.

Article 15 – Participation of communities, groups and individuals

Within the framework of its safeguarding activities of the intangible cultural heritage, each State Party shall endeavour to ensure the widest possible participation of communities, groups and, where appropriate, individuals that create, maintain and transmit such heritage, and to involve them actively in its management.

IV. Safeguarding of the intangible cultural heritage at the international level**Article 16 – Representative List of the Intangible Cultural Heritage of Humanity**

1. In order to ensure better visibility of the intangible cultural heritage and awareness of its significance, and to encourage dialogue which respects cultural diversity, the Committee, upon the proposal of the States Parties concerned, shall establish, keep up to date and publish a Representative List of the Intangible Cultural Heritage of Humanity.
2. The Committee shall draw up and submit to the General Assembly for approval the criteria for the establishment, updating and publication of this Representative List.

Article 17 – List of Intangible Cultural Heritage in Need of Urgent Safeguarding

1. With a view to taking appropriate safeguarding measures, the Committee shall establish, keep up to date and publish a List of Intangible

Cultural Heritage in Need of Urgent Safeguarding, and shall inscribe such heritage on the List at the request of the State Party concerned.

2. The Committee shall draw up and submit to the General Assembly for approval the criteria for the establishment, updating and publication of this List.

3. In cases of extreme urgency – the objective criteria of which shall be approved by the General Assembly upon the proposal of the Committee – the Committee may inscribe an item of the heritage concerned on the List mentioned in paragraph 1, in consultation with the State Party concerned.

Article 18 – Programmes, projects and activities for the safeguarding of the intangible cultural heritage

1. On the basis of proposals submitted by States Parties, and in accordance with criteria to be defined by the Committee and approved by the General Assembly, the Committee shall periodically select and promote national, subregional and regional programmes, projects and activities for the safeguarding of the heritage which it considers best reflect the principles and objectives of this Convention, taking into account the special needs of developing countries.

2. To this end, it shall receive, examine and approve requests for international assistance from States Parties for the preparation of such proposals.

3. The Committee shall accompany the implementation of such projects, programmes and activities by disseminating best practices using means to be determined by it.

V. International cooperation and assistance

Article 19 – Cooperation

1. For the purposes of this Convention, international cooperation includes, inter alia, the exchange of information and experience, joint initiatives, and the establishment of a mechanism of assistance to States Parties in their efforts to safeguard the intangible cultural heritage.

2. Without prejudice to the provisions of their national legislation and customary law and practices, the States Parties recognize that the safeguarding of intangible cultural heritage is of general interest to humanity, and to that end undertake to cooperate at the bilateral, subregional, regional and international levels.

Article 20 – Purposes of international assistance

International assistance may be granted for the following purposes:

(a) the safeguarding of the heritage inscribed on the List of Intangible

- Cultural Heritage in Need of Urgent Safeguarding;
- (b) the preparation of inventories in the sense of Articles 11 and 12;
 - (c) support for programmes, projects and activities carried out at the national, subregional and regional levels aimed at the safeguarding of the intangible cultural heritage;
 - (d) any other purpose the Committee may deem necessary.

Article 21 – Forms of international assistance

The assistance granted by the Committee to a State Party shall be governed by the operational directives foreseen in Article 7 and by the agreement referred to in Article 24, and may take the following forms:

- (a) studies concerning various aspects of safeguarding;
- (b) the provision of experts and practitioners;
- (c) the training of all necessary staff;
- (d) the elaboration of standard-setting and other measures;
- (e) the creation and operation of infrastructures;
- (f) the supply of equipment and know-how;
- (g) other forms of financial and technical assistance, including, where appropriate, the granting of low-interest loans and donations.

Article 22 – Conditions governing international assistance

1. The Committee shall establish the procedure for examining requests for international assistance, and shall specify what information shall be included in the requests, such as the measures envisaged and the interventions required, together with an assessment of their cost.
2. In emergencies, requests for assistance shall be examined by the Committee as a matter of priority.
3. In order to reach a decision, the Committee shall undertake such studies and consultations as it deems necessary.

Article 23 – Requests for international assistance

1. Each State Party may submit to the Committee a request for international assistance for the safeguarding of the intangible cultural heritage present in its territory.
2. Such a request may also be jointly submitted by two or more States Parties.
3. The request shall include the information stipulated in Article 22, paragraph 1, together with the necessary documentation.

Article 24 – Role of beneficiary States Parties

1. In conformity with the provisions of this Convention, the international assistance granted shall be regulated by means of an agreement between the beneficiary State Party and the Committee.

2. As a general rule, the beneficiary State Party shall, within the limits of its resources, share the cost of the safeguarding measures for which international assistance is provided.
3. The beneficiary State Party shall submit to the Committee a report on the use made of the assistance provided for the safeguarding of the intangible cultural heritage.

VI. Intangible Cultural Heritage Fund

Article 25 – Nature and resources of the Fund

1. A “Fund for the Safeguarding of the Intangible Cultural Heritage”, hereinafter referred to as “the Fund”, is hereby established.
2. The Fund shall consist of funds-in-trust established in accordance with the Financial Regulations of UNESCO.
3. The resources of the Fund shall consist of:
 - (a) contributions made by States Parties;
 - (b) funds appropriated for this purpose by the General Conference of UNESCO;
 - (c) contributions, gifts or bequests which may be made by:
 - (i) other States;
 - (ii) organizations and programmes of the United Nations system, particularly the United Nations Development Programme, as well as other international organizations;
 - (iii) public or private bodies or individuals;
 - (d) any interest due on the resources of the Fund;
 - (e) funds raised through collections, and receipts from events organized for the benefit of the Fund;
 - (f) any other resources authorized by the Fund's regulations, to be drawn up by the Committee.
4. The use of resources by the Committee shall be decided on the basis of guidelines laid down by the General Assembly.
5. The Committee may accept contributions and other forms of assistance for general and specific purposes relating to specific projects, provided that those projects have been approved by the Committee.
6. No political, economic or other conditions which are incompatible with the objectives of this Convention may be attached to contributions made to the Fund.

Article 26 – Contributions of States Parties to the Fund

1. Without prejudice to any supplementary voluntary contribution, the States Parties to this Convention undertake to pay into the Fund, at least every two years, a contribution, the amount of which, in the form of a uniform percentage applicable to all States, shall be determined by the General Assembly. This decision of the General Assembly shall

be taken by a majority of the States Parties present and voting which have not made the declaration referred to in paragraph 2 of this Article. In no case shall the contribution of the State Party exceed 1% of its contribution to the regular budget of UNESCO.

2. However, each State referred to in Article 32 or in Article 33 of this Convention may declare, at the time of the deposit of its instruments of ratification, acceptance, approval or accession, that it shall not be bound by the provisions of paragraph 1 of this Article.

3. A State Party to this Convention which has made the declaration referred to in paragraph 2 of this Article shall endeavour to withdraw the said declaration by notifying the Director-General of UNESCO. However, the withdrawal of the declaration shall not take effect in regard to the contribution due by the State until the date on which the subsequent session of the General Assembly opens.

4. In order to enable the Committee to plan its operations effectively, the contributions of States Parties to this Convention which have made the declaration referred to in paragraph 2 of this Article shall be paid on a regular basis, at least every two years, and should be as close as possible to the contributions they would have owed if they had been bound by the provisions of paragraph 1 of this Article.

5. Any State Party to this Convention which is in arrears with the payment of its compulsory or voluntary contribution for the current year and the calendar year immediately preceding it shall not be eligible as a Member of the Committee; this provision shall not apply to the first election. The term of office of any such State which is already a Member of the Committee shall come to an end at the time of the elections provided for in Article 6 of this Convention.

Article 27 – Voluntary supplementary contributions to the Fund

States Parties wishing to provide voluntary contributions in addition to those foreseen under Article 26 shall inform the Committee, as soon as possible, so as to enable it to plan its operations accordingly.

Article 28 – International fund-raising campaigns

The States Parties shall, insofar as is possible, lend their support to international fund-raising campaigns organized for the benefit of the Fund under the auspices of UNESCO.

VII. Reports

Article 29 – Reports by the States Parties

The States Parties shall submit to the Committee, observing the forms and periodicity to be defined by the Committee, reports on the legis-

lative, regulatory and other measures taken for the implementation of this Convention.

Article 30 – Reports by the Committee

1. On the basis of its activities and the reports by States Parties referred to in Article 29, the Committee shall submit a report to the General Assembly at each of its sessions.
2. The report shall be brought to the attention of the General Conference of UNESCO.

VIII. Transitional clause

Article 31 – Relationship to the Proclamation of Masterpieces of the Oral and Intangible Heritage of Humanity

1. The Committee shall incorporate in the Representative List of the Intangible Cultural Heritage of Humanity the items proclaimed “Masterpieces of the Oral and Intangible Heritage of Humanity” before the entry into force of this Convention.
2. The incorporation of these items in the Representative List of the Intangible Cultural Heritage of Humanity shall in no way prejudice the criteria for future inscriptions decided upon in accordance with Article 16, paragraph 2.
3. No further Proclamation will be made after the entry into force of this Convention.

IX. Final clauses

Article 32 – Ratification, acceptance or approval

1. This Convention shall be subject to ratification, acceptance or approval by States Members of UNESCO in accordance with their respective constitutional procedures.
2. The instruments of ratification, acceptance or approval shall be deposited with the Director-General of UNESCO.

Article 33 – Accession

1. This Convention shall be open to accession by all States not Members of UNESCO that are invited by the General Conference of UNESCO to accede to it.
2. This Convention shall also be open to accession by territories which enjoy full internal self-government recognized as such by the United Nations, but have not attained full independence in accordance with

General Assembly resolution 1514 (XV), and which have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of such matters.

3. The instrument of accession shall be deposited with the Director-General of UNESCO.

Article 34 – Entry into force

This Convention shall enter into force three months after the date of the deposit of the thirtieth instrument of ratification, acceptance, approval or accession, but only with respect to those States that have deposited their respective instruments of ratification, acceptance, approval, or accession on or before that date. It shall enter into force with respect to any other State Party three months after the deposit of its instrument of ratification, acceptance, approval or accession.

Article 35 – Federal or non-unitary constitutional systems

The following provisions shall apply to States Parties which have a federal or non-unitary constitutional system:

(a) with regard to the provisions of this Convention, the implementation of which comes under the legal jurisdiction of the federal or central legislative power, the obligations of the federal or central government shall be the same as for those States Parties which are not federal States;

(b) with regard to the provisions of this Convention, the implementation of which comes under the jurisdiction of individual constituent States, countries, provinces or cantons which are not obliged by the constitutional system of the federation to take legislative measures, the federal government shall inform the competent authorities of such States, countries, provinces or cantons of the said provisions, with its recommendation for their adoption.

Article 36 – Denunciation

1. Each State Party may denounce this Convention.

2. The denunciation shall be notified by an instrument in writing, deposited with the Director-General of UNESCO.

3. The denunciation shall take effect twelve months after the receipt of the instrument of denunciation. It shall in no way affect the financial obligations of the denouncing State Party until the date on which the withdrawal takes effect.

Article 37 – Depositary functions

The Director-General of UNESCO, as the Depositary of this Convention, shall inform the States Members of the Organization, the States not

Members of the Organization referred to in Article 33, as well as the United Nations, of the deposit of all the instruments of ratification, acceptance, approval or accession provided for in Articles 32 and 33, and of the denunciations provided for in Article 36.

Article 38 – Amendments

1. A State Party may, by written communication addressed to the Director-General, propose amendments to this Convention. The Director-General shall circulate such communication to all States Parties. If, within six months from the date of the circulation of the communication, not less than one half of the States Parties reply favourably to the request, the Director-General shall present such proposal to the next session of the General Assembly for discussion and possible adoption.
2. Amendments shall be adopted by a two-thirds majority of States Parties present and voting.
3. Once adopted, amendments to this Convention shall be submitted for ratification, acceptance, approval or accession to the States Parties.
4. Amendments shall enter into force, but solely with respect to the States Parties that have ratified, accepted, approved or acceded to them, three months after the deposit of the instruments referred to in paragraph 3 of this Article by two-thirds of the States Parties. Thereafter, for each State Party that ratifies, accepts, approves or accedes to an amendment, the said amendment shall enter into force three months after the date of deposit by that State Party of its instrument of ratification, acceptance, approval or accession.
5. The procedure set out in paragraphs 3 and 4 shall not apply to amendments to Article 5 concerning the number of States Members of the Committee. These amendments shall enter into force at the time they are adopted.
6. A State which becomes a Party to this Convention after the entry into force of amendments in conformity with paragraph 4 of this Article shall, failing an expression of different intention, be considered:
 - (a) as a Party to this Convention as so amended; and
 - (b) as a Party to the unamended Convention in relation to any State Party not bound by the amendments.

Article 39 – Authoritative texts

This Convention has been drawn up in Arabic, Chinese, English, French, Russian and Spanish, the six texts being equally authoritative.

Article 40 – Registration

In conformity with Article 102 of the Charter of the United Nations, this Convention shall be registered with the Secretariat of the United Nations at the request of the Director-General of UNESCO. DONE at Paris, this third day of November 2003, in two authentic copies bearing the signature of the President of the 32nd session of the General Conference and of the Director-General of UNESCO. These two copies shall be deposited in the archives of UNESCO. Certified true copies shall be delivered to all the States referred to in Articles 32 and 33, as well as to the United Nations.



Centro Universitario Europeo
per i Beni Culturali

Ravello

GREENHERITAGE

The impact of climate change
on the intangible Cultural Heritage



The impact of Climate Change on Tangible and Intangible Cultural Heritage

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In this paper, some considerations on Climate Change (CC) effects on Cultural Heritage (CH), both in its material and immaterial components are presented. Moreover, initiatives for their protection through the activities of two European projects funded under HORIZON 2020 and HORIZON Europe are discussed.

1. Climate Change and Cultural Heritage

Climate change, also called global warming, refers to the rise in average surface temperatures on Earth. An overwhelming scientific consensus is concerned with the fact that climate change is due primarily to the human use of fossil fuels, which releases carbon dioxide and other greenhouse gases into the air. The gases trap heat within the atmosphere, which can have a range of effects on ecosystems, including rising sea levels, severe weather events, and droughts that render landscapes more susceptible to wildfires. [<https://www.un.org/en/climatechange/what-is-climate-change>; National Geographic <http://environment.nationalgeographic.com/environment/global-warming/gw-effects/>].

There is a broad-based agreement within the scientific community that climate change is real.

The primary cause of climate change is the burning of fossil fuels, such as oil and coal, which emit greenhouse gases into the atmosphere – primarily carbon dioxide. Other human activities, such as agricultural and deforestation, also contribute to the proliferation of greenhouse gases that cause climate change.

While some quantities of these gases are naturally occurring and represent critical factors in the Earth's temperature control system, the atmospheric concentration of CO₂ did not rise above

300 parts per million between the advent of human civilization roughly 10,000 years ago and 1900. Today it is at about 400 ppm, a level not reached in more than 400,000 years.

Even small increases in Earth's temperature caused by climate change can have severe effects. The earth's average temperature has gone up 0.7 °C (1.4° F) over the past century, and it is expected to rise as much as 6 °C (11.5° F) over the next. That might not seem like a lot, but the average temperature during the last Ice Age was about 2 °C or 4° F or lower than it is today.

Rising sea levels due to the melting of the polar ice caps (again, caused by climate change) contribute to greater storm damage. Warming ocean temperatures are associated with stronger and more frequent storms. Additional rainfall, particularly during severe weather events, leads to flooding and other damages. An increase in the incidence and severity of wildfires threatens habitats, homes, and lives. Heat waves contribute to human deaths and other consequences.

Other effects could happen later this century, if warming continues.

- Sea levels are expected to rise between 18 and 59 cm by the end of the century and continued melting at the poles could add between 10 to 20 cm.
- Hurricanes and other storms are likely to become stronger.
- Species that depend on one another may become unsynchronised. For example, plants could bloom before that their pollinating insects become active.
- Floods and droughts will become more frequent. Rainfall in Ethiopia, where droughts are already common, could decline by 10 percent over the next 50 years.
- Less fresh water will be available. If the Quelccaya ice cap in Peru continues to melt at its current rate, it will be gone by 2100 by leaving thousands of people who rely on it for drinking water and electricity without a source of either.
- Some diseases will spread such as malaria carried by mosquitoes.
- Ecosystems will change – some species will move farther north or become more successful; others won't be able to move and could become extinct. Wildlife research scientist Martyn Obbard has found that since the mid-1980s, with less ice on which to live and fish for food, polar bears have gotten considerably skinnier. Polar bear biologist Ian Stirling has found a similar pattern in Hudson Bay. He fears that if sea ice disappears, the polar bears will as well.

Cultural Heritage (CH) is a complex matter, composed of tangible and intangible components, both important for a society's culture and very often closely interrelated. Tangible and intangible

CH often integrate and influence each other, and their correlation reflects the complexity and richness of human culture. Tangible cultural heritage refers to tangible goods such as buildings, monuments, artefacts, works of art and archaeological finds, while intangible cultural heritage concerns oral traditions, ritual practices, artistic expressions, knowledge and skills that have been handed down for generations. The correlation between the two types of cultural heritage is manifested through the relationship between the material object/asset and the intangible meaning it represents. For example, a historic building or monument could be considered important not only for its architectural beauty or history, but also for the symbolic or cultural significance it represents for the community. In addition, tangible and intangible cultural heritage often integrate and influence each other. For example, the ritual practice of a particular cultural group could be celebrated in a specific sacred building that has material importance for the community. Ultimately, tangible and intangible cultural heritage are both essential for preserving and promoting a society's cultural diversity and identity, and their correlation reflects the complexity and richness of human culture.

There is a growing awareness of the importance of safeguarding cultural heritage and the principal benefits of this action can be mentioned as:

- Maintain Cultural diversity
- Supporting the intercultural Dialog
- Encourage the Respect for the Differences
- Promote the Social and Economic Development

Cultural heritage is fragile by nature due to its intrinsic natural weathering and aging. Climate Change certainly represents a factor accelerating this weathering/aging and also capable of producing more serious devastations.

Climate Change can compromise both tangible and Intangible CH components.

Regarding tangible cultural heritage, such as historic buildings, monuments, archaeological sites and works of art, CC can cause direct damage, such as erosion, deterioration and destruction due to extreme weather phenomena such as floods, fires, droughts and storms. In addition, rising sea levels can endanger coastal sites and historic islands, while rising temperatures can accelerate the degradation of materials constituting assets and objects.

Regarding intangible cultural heritage, such as traditions, languages, cultural practices and ancestral knowledge, CC can affect the natural resources needed to maintain them, such as biodiversity, plants, animal species or compromising the sites where rituals take place. In addition, environmental changes can lead to migration and dispersion of communities that carry cul-

tural traditions and knowledge, risking losing them forever. It is important to deal with CC implications on CH and work for mitigation actions towards its safeguards.

2. European initiatives

The European Commission paid and is paying attention to these issues, funding projects and initiatives in this area. Here, two European projects dedicated to CH protection, both led by CNR, are presented.

2.1 Tangible CH: HERACLES project

The first one, HERACLES (Heritage Resilience Against Climate Change Events on Site, HORIZON 2020, Research and Innovation programme GA No. 700395), deals with **tangible CH**, built heritage, in particular (<https://www.heracles-project.eu/>). It addresses the impacts of climate change on cultural heritage with the aim to help communities and stakeholders in understanding and mitigating the risks that climate change poses to cultural sites, buildings, and landscapes. Key objectives of the HERACLES project typically include:

- *Assessment of Vulnerability*: Evaluating the vulnerability of cultural heritage sites and their surroundings to climate-related risks such as flooding, erosion, and extreme weather events.
- *Research and Innovation*: Contributing to research in the fields of climate science, heritage conservation, and social sciences to create a comprehensive understanding of the issues at hand.
- *Implementation of Solutions*: Testing and implementing innovative solutions for enhancing the resilience of heritage sites, which may include both technological and nature-based approaches.
- *Community Engagement*: Involving local communities and stakeholders in the decision-making process to ensure that strategies are relevant and effective.
- *Development of Best Practices*: Creating guidelines and best practices for the protection and resilience of heritage sites against climate change impacts.
- *Policy Recommendations*: Providing insights and recommendations for policymakers on how to incorporate climate resilience into heritage management practices.

The HERACLES project exemplifies a growing recognition of the need to preserve cultural heritage in the face of climate change, emphasizing the importance of sustainable practices and community involvement in heritage conservation efforts.

Demonstration of the effectiveness of HERACLES was carried out at challenging tests beds, in Italy and Greece.

The philosophy of the project was to pay attention not only to famous centres, but rather to consider smaller centres, still representative of the European essence, made up of alive towns, where people live and work in vital historical contexts

2.1.1 HERACLES testbeds

The Italian test bed is represented by the historical town of Gubbio. It wants to represent all the historical monumental towns in Italy and in Europe that were conceived and built in the past following criteria when the climate conditions were very different from nowadays, and that suffers at present the effects of climate changes, that would endanger their safeguard.

As well, in Greece (Crete), Knossos represents all the important archaeological sites that face many problems deriving from extreme phenomena due to climate change, and Koules fortress in Heraklion, is representing all the coastal monuments present in Europe that face the risk of hazards from climatic change, such as significant impact from the sea, as storms and increased sea level, for instance.

These two European countries and the identified sites are also affected by another common natural hazard, as the earthquake is. Unfortunately, tragic events occurred in central Italy in 2016 and 2017, along the Apennines mountains (where Gubbio is also located), evidenced the vulnerability of Cultural Heritage, but also its social and cultural implications and how it is important to defend it through a preventive maintenance and tailored interventions (on structures and materials, in particular). Consequently, the HERACLES contribution could be very important and useful in this direction, too, through new solutions and systems improving the resilience of a vulnerable heritage at risk.

Based on the end-users' requirements and on investigations made on-sites, it was clear from the beginning the importance of having available an integrated monitoring technologies approach and expertise. HERACLES, then, proposed the integration of wide-area surveillance (satellite) including assets and their surrounding territory, till the observation on-site of the single element of the asset.

This was/is an innovative & pioneering approach, still up-to date nowadays, due also to the difficulties of integrating very different data, coming from different sources and different in scale.

Demonstration activities at testbeds were carried out to evaluate the effectiveness of the HERACLES approach/system. It enables an assessment/awareness situation of the built environment and its surrounding area through information acquired by an integrated monitoring system, including full implementation of diagnosis, monitoring, remediation and crisis management services, through the integration of multi-source data. The method-

ologies and analysis have considered climatic change impact (at European, national and proper regional downscaling) for weather forecasting (with emphasis on extreme events occurrence, frequency and intensity) and the identification of the relationship between meteo-climatic parameters and environmental risks for CH, in a holistic approach of a coupled air-sea-land interaction. In this respect, HERACLES project is a good example of GLOCAL, thinking GLOBAL, but acting LOCAL.

Here, some activities carried on in Gubbio testbed are presented, since implications with their immaterial meaning will be presented and discussed later, in the part dedicated to Intangible Cultural Heritage (ICH), as well.

2.1.1.1 Italian testbed: Gubbio

As already said, Gubbio was considered the paradigm of the worldwide historical small towns due to its well-preserved status and its lively social life.

Probably, it is not a coincidence that in the period after the World War II, when it was becoming evident the importance of a correct developing of the historical centres, Italian town planners and administrators met in Gubbio where was created the "Gubbio Charter 1960" and the Italian National Association for the historic-artistic centres (ANCSA). The Gubbio Charter sets several criteria for intervening in the historic centres. Until then, the oldest parts of a city could be demolished and reconstructed. The historical centres, after Gubbio Charter, were considered as a whole. Its content was considered in the Venice Charter, 1964 (International charter for restoration) and in the European Charter of the Architectural Heritage adopted by the Council of Europe, 1975, too. According to the historian Leonardo Benevolo, the Gubbio Charter is the most important contribution that Italy has given to the European architecture of the twentieth century.

At a later stage, the "Gubbio Charter 1982" was established. It is important to emphasize the relevance and newness of the message in this document: *"... - reconsider, the revival of interest in and appreciation for CH (architectural, artistic, historical and traditional) as primary sources of enriching the quality of life in every country; - to develop education, scientific research and technology along these lines"*.

The choice of Gubbio is thus linked also to its ability to message and to propose itself as an educative place for environment defence and harmony of historical settlements against future aggressions and insensitivity, and to be able to represent a reference point for important human and societal issues.

The old town of Gubbio is positioned at the bottom of the Apennines hillside dominating the town from the Northeast side and representing a critical point for hydrogeological risks. The old

town is surrounded by town Walls, that, as appear nowadays, were built in approximately 1.500 years, through elevations, renovations and expansions. HERACLES activities were mainly directed to the mitigation of the hydrogeological risk of the monumental part of the town constituted by the High Town ("*Città Alta*") and the Town Walls which suffer from the increasing torrential rains and humidity characterizing the soil and the surrounding natural areas, and by the fact that this part is strictly connected with the Apennines Mountain chain. In addition, the old Town of Gubbio presents some important issues related to the materials [limestones, travertine, Sandstone (serena stone), plasters, binders] used for building and restoration. These materials suffer from increased deterioration due to climate change effects coupled with pollution, and present damaged parts that can lead to structural instability.

The Gubbio significant cultural heritage, has been affected in the years by a multi-risk scenario with a combined effect of the hydrogeological risk with other kinds of risks related to the pollution, fast temperature changes, seismic hazard, weathering and aging.

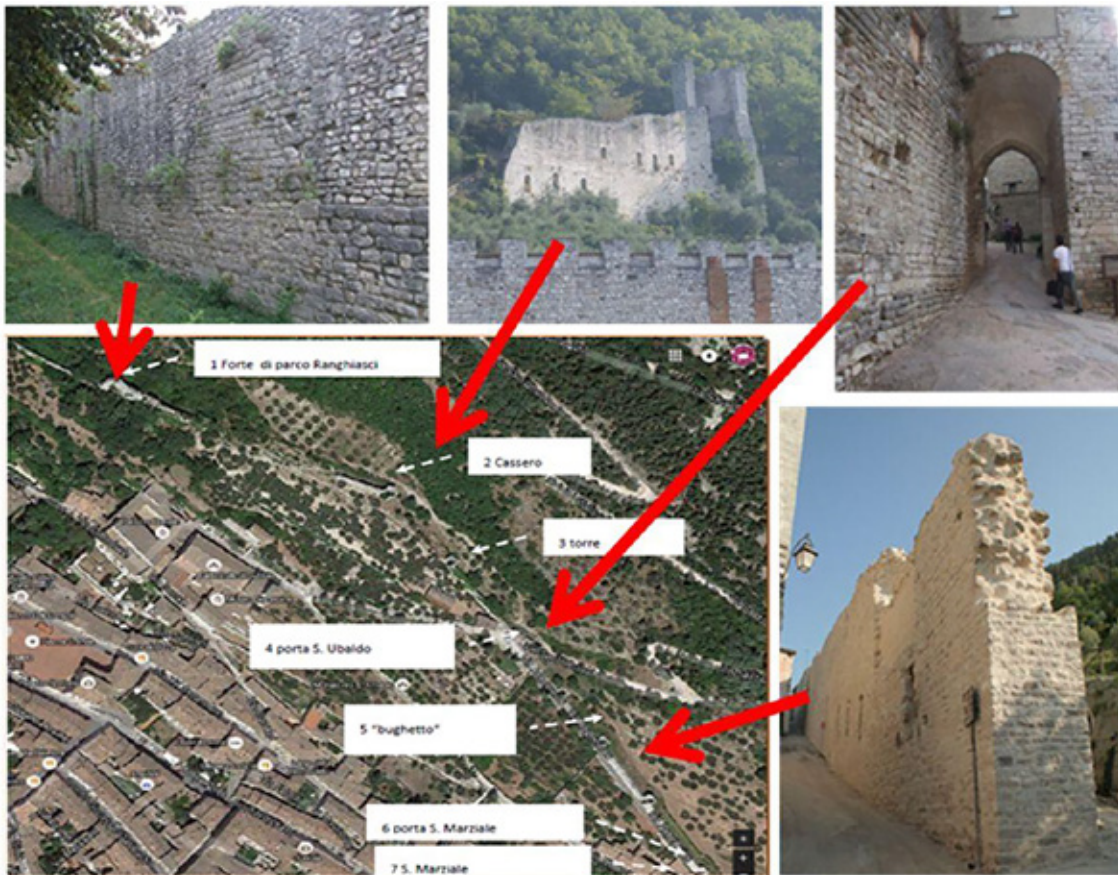
Extreme climate events, most in terms of heavy rain and its local effects, are causing possible structural instabilities for the overall historical area, as testified by the existing and progressive slow deformations and crack patterns affecting the ancient structures. The materials suffer from increased deterioration due to the combined effect of the climate change effects and pollution, which produces several damages and deterioration. In particular, limestone, one of the most used materials, is affected by a significant degradation of the surface, which, in the absence of plasters protection for the buildings structure, leads to the presence of black/dark patinas. These critical issues have been worsening in the last years due to a higher concentration of CO₂, associated with more intense rainfalls, producing acid rains, and causing stone detachments by dissolution of carbonates and blackening of the surfaces. In fact, the extreme rain events, more and more frequent in the last decades, led to an increase of moisture inside materials and mould formation on the ancient materials surfaces.

The test areas identified in Gubbio are the monumental part of the town, constituting the "High Town" with the medieval Walls. This upper area of the town is strictly connected with the Ingino Mountain and consequently suffers from the increased torrential rains and humidity, affecting the soil and the surrounding natural areas. In addition, the area is affected by several negative effects concerning the sediment transport, the storm-water runoff and the increase of the water level in the underground, which are the main factors affecting the structural behaviour of the Walls. Ac-

According to this scenario, the activities of the HERACLES project are directed at monitoring and mitigate the hydrogeological risk in that area.

In this sense, the medieval Walls and the Consoli Palace are well representative of the bad effects of the hydrogeological risk, possibly worsened by other hazards as the pollution and the seismic one, in terms of structural instability and materials deterioration.

a) Town walls



The town Walls represent a cycloptic structure formed over 1500 years and continuously modified through elevations, renovations, expansions, reinforcements, modifications and demolitions too. The last huge modification was made during the second half of XIX century, on the Marmorea door, one of the main doors of the town. This door was at the entrance of the city, in the lowest part of the main square (now *Piazza 40 Martiri*), in the Southwest side, where the road leading to Perugia begins. The "Marmorea" door was demolished together with 50 meters of the close ancient Walls to give a new architectonic view to the

people arriving in Gubbio. Other various interventions were made through the decades, mainly focusing on restoration.

Two of these interventions were made in the upper part of the Walls, closest to the mountain on whose slope the city has been built. These interventions were performed mainly to remove the thousands of cubic meters of soil carried there by rain, since it was intensifying the load on the Walls and increasing the aquifer water levels.

The part of the urban walls exposed to maximum risk is then located on the slopes of Ingino Mountain in the N/NE direction. The area nowadays is mostly interested in olive plantations, while in the past was also used by woodcutters and farmers. The area inside the Walls was used as military bastions (such as the "Cassero") until the XVI Century, after which it has been used mostly for farming uses. From historical information, i.e., pictures and paintings, it was possible to point out how the forestation, currently visible outside the walls, is very recent and has arisen only just after World War II. In fact, in the past, only a few trees and bushes were present and unable to stop sediments and surface flows.

During the last eight-ten centuries, several meters of ground material accumulated against the walls. The situation was only partially mitigated by the historic aqueduct, which had also the function of retaining the Walls. At present, the estimated soil accumulation, insisting on the Walls, is more than 5/6 meters and increases with a rate of around 50 cm / century.

As risk mitigation action, the water flow out through the Walls and the drainage of the gravel soil were ensured by means of on-purpose designed holes/channels in the structure. However, the ground material obstructed the channels. This caused an increase in the groundwater level and consequently the risk of the structural instability of the Walls.

Currently there are no landslides in place, but collapses of the Walls have occurred over the last centuries and last decades.

For what concerns climatic parameters, the following issues have been addressed:

Temperature changes: some diurnal, seasonal, extreme events (heat waves, snow loading) can lead to changes in freeze-thaw cycles and ice storms, and increase frost, so deterioration of facades due to thermal stress can occur. Damages inside the stone and the mortar are a direct consequence.

Wind: Wind-driven rain can penetrate moisture into porous materials weakening them; combined with ice can create cracks in stones and mortars, inducing structural instability.

Climate and pollution acting together: The main risks are related to the pH precipitation (acid rains) and changes in the deposition of pollutants. These can lead to stone erosion by dissolution of

carbonates and/or stone blackening, as described and shown in the following.

Limestone: the main structural material used for the older historical buildings is the limestone extracted from the quarries site in the neighbouring mountains. There are two types of limestone depending on the extraction period: the oldest, roughly before XV century, presents fewer problems. The second one, more recent (extracted after XV century) in the last years, presented a greater degradation of the surfaces and then black/ dark patinas occurred. These critical issues are due to a higher concentration of CO₂, associated with more intense rainfall and pollution. The dark patina or "black crusts" are related to the chemical degradation. The degradation effects of the outer surface are: loss of material (formation of hollows, differential degradation, erosion, gap, lacking, pitting); decay of the material cohesion (disintegration, pulverization); loss of continuity perpendicular or parallel to the outer surface (fracturing/cracking, peeling, warping, swelling, scaling); addition of foreign material (concretion, crust, surface deposit, efflorescence, scaling, stain, film); colour variations (discoloration and patina).

Mortars: another important problem is linked to the progressive degradation of the mortars that bind the masonry. The wall body-structure behaves/reacts properly as greater is the cohesion between mortar and stones. The mortar is particularly important in the final result of the masonry, and its quantity and quality are important variables. From a static point of view, the whole masonry is more resistant when the individual elements composing it are firmly joined together, so that the transmission forces from stone to stone takes place. The mortar between stones leads to a more uniform distribution through the joints, and if the mortar is deteriorated, the distribution of the stresses on the masonry surface will result heterogeneous (see Figures 2-3).



2

3

In conclusion, the Walls suffer mainly from torrential rains and humidity characterizing the soil surrounding the area and are closely connected with the mountain natural area. The heavy rain increases the push on the Walls in two ways: the first one is through the washout producing and transporting rubble, the second one through the increase of the aquifer level. All these conditions can adversely affect the statics of the Walls themselves.

In addition, the Walls of Gubbio exhibit several issues related to the materials degradation (limestones, travertine, sandstone-serena stone, plasters, binders) used for building and restoration. These materials suffer from increased deterioration due to climate change effects coupled with pollution. The structural material principally used is the limestone extracted from the quarries site in the neighbouring mountains in two different extraction periods. The oldest limestone was extracted prior to 1400 and does not exhibit significant criticalities. The second limestone type (extracted after XV century) is affected from a significant degradation with the formation of dark patina ("Black crusts") on the surfaces.

The CC affects structures stability also through material degradation phenomena, amplified by CC as can be seen in figures 4 and 5 where Gubbio Town Walls details are shown. In fact, CC is producing the disaggregation of the masonries external part, making accessible to the degradation also the inner part, producing at the end, the collapse of part of the masonries themselves.



4



5

Ad hoc materials (mortars in this case) with improved characteristics and performances can be designed and realized, offering tailored solutions to solve different issues. Another predominant issue is the gradual degradation of the mortar binding the walls and that makes spatially uniform the stresses through the joints between the stones. The degradation/reduction of the mortar entails the loss of homogeneous distribution of stresses on the surface of the stone and leads to heterogeneous stone-binder system behaviour.

The HERACLES activities for this scenario monitored the stability of the most critical part of the Walls and addressed the quality of the mortars used and their properties. Furthermore, mortars with improved characteristics were designed.

b) Consoli Palace



6

The Consoli Palace is the symbol of the city of Gubbio and the most representative and spectacular monument of the whole monumental town. It was built in 1338 with a daring pensile square ("*Piazza Grande*") in the heart of the four districts of the city. The building was erected on the slope of the mountain and the foundations were built on two levels.

From the structural point of view, it should be noted that the building has foundations placed at two different levels, due to the local topography. This aspect confers to the west side of the structure a remarkable height of about 60 meters. The difference in height of the two levels of the foundations is about 10 meters and this could lead to a first structural problem regarding differential displacements.

At present, the effects of the differential displacements are visible in the west wall and in the cross vaults of the loggia, in the form of activated local mechanisms and crack patterns. At the top of the structure, on the same side of the palace, a slender bell tower is located.

Several restorations were made after the 1982 and 1984 earthquakes and completed in the first half of the '90s. During these restorations, the façades were completely cleaned by accumulations of dirt. After only twenty years, however, smog, concretions and localized phenomena of black patina are again clearly visible. Dark patinas are widely visible and well highlighted by the presence of other adjacent stones that are not minimally blackened, even if experiencing the same environmental conditions.

For what concerns climatic parameters, the following issues have been addressed:

Atmospheric moisture changes and intense rainfall and flooding related: The atmospheric moisture change is a hazard affecting the palace, enhanced by the intense rainfall that leads to flooding, also. The masonry itself is affected, due to erosion of the mortar or cracking of the system stone/mortar. Furthermore, also in this case, two kinds of limestones were used in the construction. The oldest, roughly before XV century presents fewer problems. The second type (extracted after XV century) has been showing a greater degradation of the surfaces, and in the absence of the protection of plasters on the façade, formation of dark patina occurred in a period of time considerably shorter. Furthermore, the main risks are linked to the consequent variation of the aquifer level that could induce foundation settlement. The main critical aspect is highlighted in the south-west part, where an out-of-plane rocking mechanism is becoming evident by a widespread crack pattern. This aspect could be due to differential settlements of foundations caused by several reasons, also related to environmental actions and other natural hazards as the earthquake (a multi risk, domino effect could be considered (see HERACLES deliverable D1.3- "Definition of methodologies for climate change impact evaluation and risk and vulnerability analysis").

Temperature change: The most frequent events that are consequences of temperature change are diurnal, seasonal, extreme events (i.e. heat waves, snow loading), changes in freeze-thaw cycles and ice storms, and the frost increase. All these factors induce damages inside stone and/or mortars undergoing wet-frozen cycles inside material before drying. The physical erosive processes are:

- *Frost wedging/weathering:* when water comes in contact with masonry, it easily intrudes into the cavities of the material. When the temperature is lowered to the freezing point, the water in-

creases its volume due to the ice formation and will exert considerable pressure inside the hollows, causing intense stress in the material, which will be subjected to a prolonged deformation. The alternation of melting and solidification cycles, in time, results in a series of continuous stress in the stone/masonry. This is the frost wedging phenomenon, a slow, cyclical process, characteristic of the areas where the seasonal temperature range appears to be considerable (Moses 2014).

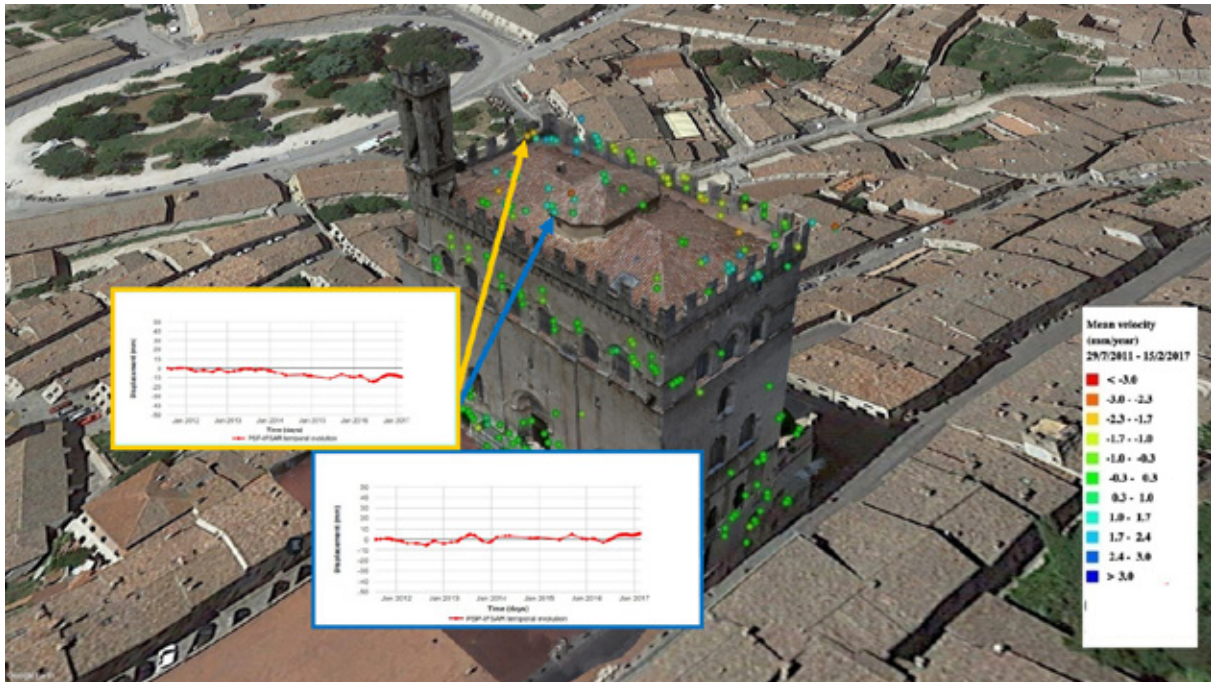
- *Thermoclastis* or *thermal stress weathering*: the low thermal capacity of the stone, when subjected to changes in temperature, causes stress in the material due to the succession (in short cycles) of expansion and contraction caused by the change of temperature. The increase in the temperature during the day, causes a thermal expansion of the rock, which corresponds to a contraction in colder hours. This continuous alternation causes a series of differential efforts that, especially in the external layers of the masonry, causes the formation of clastic material. The products of this erosion process are called "termoclasts". (Bonazza, 2009)

Wind: Wind make worse the rain erosive and penetrating effect. In fact, wind-driven rain can penetrate moisture into porous materials weakening them and combined with ice can create cracks in stones and mortars, inducing structural instability. Furthermore, the Consoli Palace has in some parts a high and slender structure (the bell tower, in particular), that is especially exposed and sensitive to the wind. Extreme wind produces stresses in the vibrational modes of the structure itself, that could induce structural problems. This is a constant and frequent stress, with an increasing iteration during the last years.

Climate and pollution acting together: The main risks are related to acid rains (pH precipitation) and changes in deposition of pollutants, just like the Town Walls situation. These can lead to stone erosion by dissolution of carbonates and/or stone blackening, as shown in the following (figure 7).



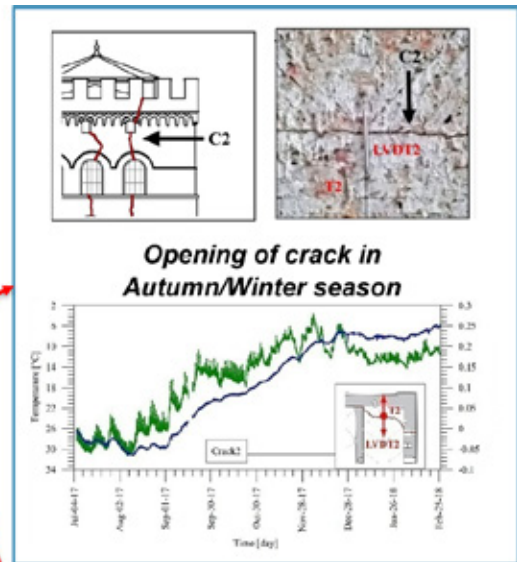
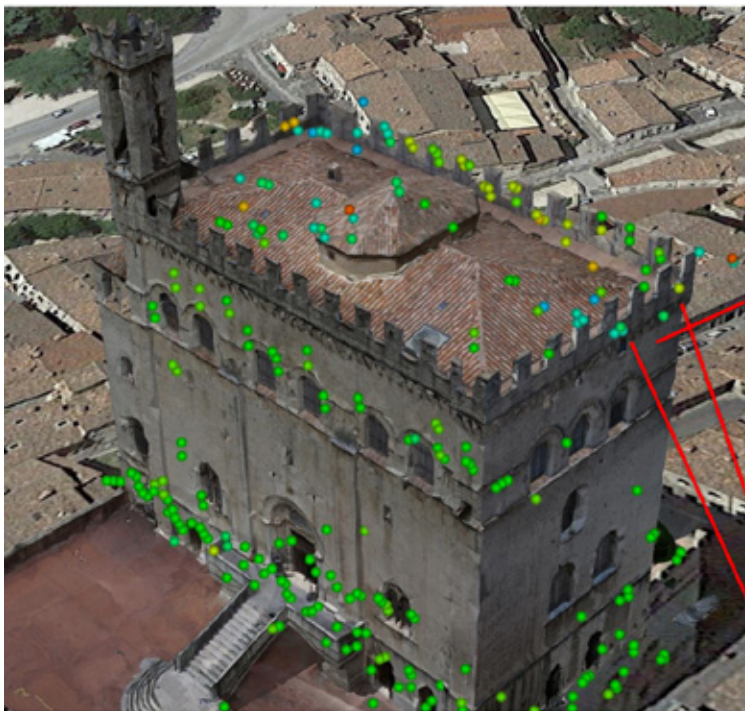
As an example of the integrated HERACLES approach, a part of the study carried out on Consoli Place is shown in the following.



8

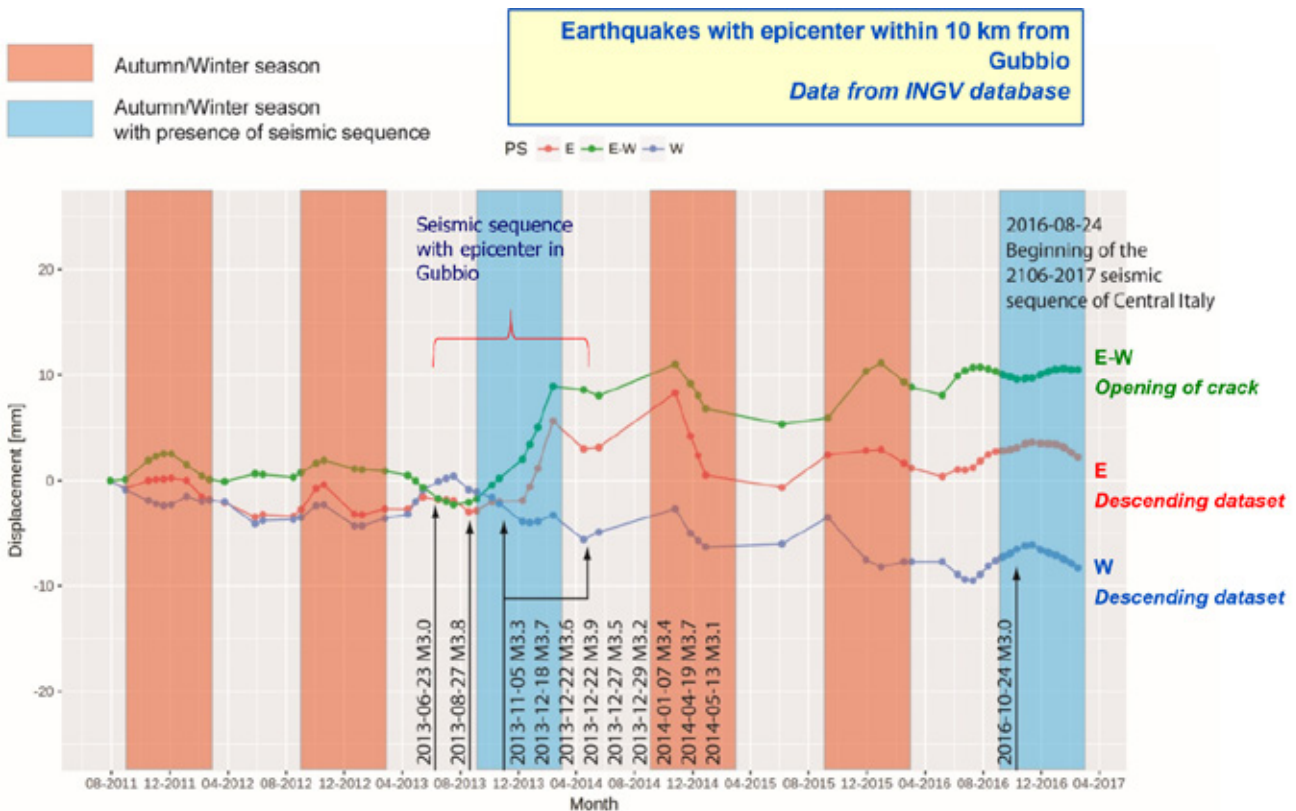
In figure 8 the result of the satellite observation in terms of maps of displacement in time, is reported. It provides timely and accurate geospatial information in terms of potential structural failures of historical structures/buildings, as well terrain deformation in the surrounding areas. The displacement measurements are given with millimetres accuracy. Figure 8 is a zoom showing the Consoli Palace itself, marked with points of different colours. Their colours are associated with displacements of different parts in a building, that can behave in different ways and with deformation in different directions. Zero deformation is represented by the green colour. Red and blue colours indicate the highest values of deformations going in opposite directions. Major criticalities are generally found when two parts of a building present opposite colours (red and blue), since it indicates very serious opposite behaviour in different parts of the same building that can lead to the collapse of the structure. In the case of Consoli Place, no major concerns were found.

Nevertheless, a crack was found on the NW façade (see figure 9). Following an integrated approach, this crack was monitored by applying also linear displacement sensors, to assess the potential influence of CC. The behaviour of the crack amplitude was correlated with the variation in temperature (daily and seasonally). It was found that the crack opens in winter due to the thermal coefficient of the stone, and the opposite happens in summer. It represents cyclic behaviour, not critical per se now.



W – West side of crack
E – East side of crack

Furthermore, based on historical data, it was possible to acquire info on the opening extent since 2011 (fig 10).



Following the green line, related to the crack opening, it can be seen that the seismic events, occurred in this area also during the HERACLES project lifetime, are acting as a risk multiplier, producing cascade effects. Due to these events, the opening of the cracks increased by a factor of 5, and there is no way to come back.

This is just an example of what can be observed, acquired, monitored and understood, to provide useful information that should be known by the decision makers responsible for the assets to plan mitigation actions.

2.1.2 Conclusive remarks on HERACLES approach

The possibility to have a unique multi-facet vision of the status of Gubbio monuments was made possible by different levels of integration regarding the use of different technologies capable of capturing a large set of sensed quantities at different levels of temporal and spatial scales. In fact, the demonstration activities have shown the effectiveness and the significant potentialities of the HERACLES approach in going from the wide scale (EO Earth Observation) to the scale of the territory and site and then to the diagnostics of the single elements of the structures, as demonstrated at the Consoli Palace and Town Walls. All this process has been performed also following the HERACLES developed protocols, where the technologies and modelling are deployed according to a workflow designed on the basis of the specific requirements of the end-users. It also accounted for the economic sustainability of the monitoring of the town and of the structures for a short- and long-term prediction of the climatic conditions necessary to evaluate the structures degradation, in relation to CH resilience with respect to climate change events. The highlights of the demonstration activities are summarized in the following:

- The use of Synthetic Aperture Radar (SAR) technologies to have a global vision and multi-temporal information about the displacements of the Gubbio area, not only in the urban area but even in the surrounding territory. This allowed to gain information about possible risk factors but even to provide a detailed analysis of the single structure as for the Consoli Palace.
- The combined use of Unmanned Aerial Vehicles (UAV) based geometrical surveys with Terrestrial Laser Scanning (TLS) allows to have, for the first time at the test beds in Gubbio, a 3D geometrical modelling/rendering, which is one of the key elements for activating processes such as digital archiving, restoration, visualization, inspection and planning.
- The integrated use of technologies for structural monitoring of the Consoli Palace, where the classical civil engineering analysis observations/methods, such as Linear Variable Displace-

ment Transducer (LVDT) and accelerometers, able to provide information about the slow displacement and vibrations of the structure, were usefully complemented by Ground Penetrating Radar (GPR) monitoring at selected areas of the Palace affected by a significant cracking phenomenon.

- The use of several in-situ technologies for an integrated vision of the Town Walls, exploiting geophysical technologies, for the underground characterization in terms of stratigraphy, for structural assessment carried out by means of inclinometers applied directly on the walls and infrared thermography for the surface and shallower layers of the wall diagnostics.
- The use of a multi-scale integrated approach for the characterization of the meteorological and pollution conditions at Gubbio, with a "spatial" focus on the test beds. This has been made possible by using different technologies, ranging from multi spectral sensors (vision of the overall urban area) to local network of meteorological stations widespread in the town to new sensing tools as portable sensors able to collect temperature and relative humidity data at pedestrian routes.
- For Consoli Palace, also the monitoring of the indoor microclimate conditions was activated by correlating the indoor and the outdoor climatic conditions.
- A very significant effort was carried out for the surface/material characterization at both the two test beds, by using a very large suite of in-situ and ex-situ laboratory techniques. The choice of these techniques was done in a "smart" way to characterize and monitor the effect of degradation phenomena related to the climatic conditions.
- Finally, as a very important activity, it has to be underlined the modelling activity of Climate Change and extreme weather conditions and anthropogenic pressure (pollution) for evaluating the present and future impact on CH assets, that are particularly exposed to material degradation
- For the Gubbio test site, the surface recessions calculated are close to the background corrosion rate since the studied area is not situated in a heavily polluted zone. For CH assets situated in dense urban areas or close to industrial sites, the situation could however be very different. In these areas, maps of exceedance can point out the zones where the actual corrosion rates exceed the acceptable corrosion rates, indicating where damages to buildings and historical and cultural monuments are unacceptably high.
- The process and the correlation of the recovered data provide a clear view of the climatic and microclimatic events of the CH resources.

Generalising this approach and conclusions, it can be affirmed that from the integration of multirisk, multisource, and multiscale

data, it is possible to obtain useful information and solutions to be made available for end-users and managers of CH assets, responsible for their safeguard. To have in advance such a kind of information is clearly crucial to avoid or mitigate serious events produced by CC.

2.2 Intangible CH: GreenHeritage project

The safeguarding of **Intangible Cultural Heritage (ICH)** is of paramount importance, too, allowing to preserve cultures, knowledge and practices of communities across the world. UNESCO, through its Convention for the Safeguarding of Intangible Cultural Heritage, has identified the importance of safeguarding ICH as a means of protecting the diversity of cultural expressions and promoting mutual understanding between communities.

In this framework, the European project GreenHeritage (The impact of Climate Change on the Intangible Cultural Heritage) is a pioneering project because it certainly is among the first to address the effects of CC on ICH. It aims at developing a holistic, innovative and inclusive approach toward direct and indirect climate change (CC) impact on intangible cultural heritage (ICH), a topic which has received little or no attention at all (<https://greenheritage-project.eu/>). The project seeks innovative tools and methodologies able to promote adaptive and systemic approaches to better manage CC. It also aspires to function as an urgent reminder that climate change is present, affecting both directly and indirectly all aspects of Europe's cultural heritage, and as an urgent call to stir up collective action. GreenHeritage, led by CNR, is co-funded under HORIZON Europe, by the ERASMUS+ programme of the European Union for a duration of three years (12/2022 – 11/2025), GA N°101087596.

The objectives are the following:

- O1: Analysing the state of play at national and European levels regarding ICH and current CC threats.
- O2: Exploring the key role that ICH could have in sustainable and climate-resilient development and mapping existing adaptation practices across EU.
- O3: Developing a methodology, policy recommendations and a handbook for the management, preservation, and protection of ICH in the face of CC implications.
- O4: Adding the preservation and protection of ICH at the heart of the public debate as well as the national & EU policymaking.
- O5: Empowering awareness and active citizenship regarding environmental issues, sustainability and the importance of preserving tangible cultural heritage along with intangible cultural heritage.

- O6: Developing a culture of sustainability and innovation among researchers, practitioners and empowering them by providing a set of cutting-edge training resources building on skills intelligence, available in digital and open media.
- O7: Supporting the development and approach of micro-learning and digital based education by promoting effective use of digital learning practices and capabilities.

The project is implemented in 5 European countries (Belgium, Greece, Italy, Latvia and Spain).

The European dimension of the project is first and foremost in the relevance of the theme that is discussed, which is very important to be brought to the European level. In addition, the replicability and transferability of processes, methodology developed, and results obtained in the project were designed to be implemented and transferred from local to national and European levels. They are also not limited to the covered areas and to the considered case studies but have a general applicability that can be replicated at European level. Moreover, many procedures (quality assurance, private and open data policy, communication guidelines, among others) follow the European Union and Erasmus + guidelines.

The principal added values of the project can be the following: GreenHeritage focuses on a topic that has not been discussed so far but it is very relevant to the reality of Europe and beyond, such as the effect of CC on ICH. In this sense it is a pioneering project. In addition, it should be stressed that ICH is closely related to the identity of individual communities, which however, through comparison and mutual knowledge can act as a powerful glue to the multifaceted and rich European dimension. Mutual knowledge undoubtedly allows enrichment through diversity, along with the discovery of common feelings underlying practices and traditions that at first sight, may appear to be very different. These concepts and themes are conveyed through the project's training function, that is making available online courses dedicated to a wide and differentiated audience (students, experts, ICH bearers among others), to inform and solicit their awareness on the topic. With the strategies in place, a great involvement of citizens and communities as well as of stakeholders is observed. It can be considered as an added value towards the consciousness of the civil society on hot topics that clearly influence their life and on the importance of European Commission in supporting this kind of initiatives.

To develop a methodology for the management, preservation and protection of ICH in the face of CC based on a needs analysis in partner countries but also across the EU, 14 ICH case studies from all Europe were considered and studied. The final phase of their study concerns an analysis and discussion about crit-

icalities and issues for their safeguard and valorisation, during dedicated Policy Rond Tables (PRTs). They are organised in the framework of Policy dialogues and formulation of recommendation to policy makers and stakeholders.

To safeguard ICH, various measures have been taken by governments and organisations, such as developing inventories, documentation, and identification of elements of ICH. There are many existing national ICH inventories in Europe, as many countries have recognized the importance of safeguarding their intangible cultural heritage. In Italy, in addition to the national inventory, many regions and municipalities also have their own inventories of intangible cultural heritage, which reflect the diverse cultural expressions found throughout the country. These local inventories are often developed through a participatory process that involves local communities and stakeholders in identifying, documenting, and safeguarding elements of ICH that are specific to their region or municipality. Overall, the national and local inventories of intangible cultural heritage in Italy serve as critical tools for preserving and promoting the cultural diversity and richness of the country's heritage, as well as raising awareness of the importance of intangible cultural heritage for future generations.

In this paper three of the Italian ICH case studies are presented. The National Inventory of Intangible Cultural Heritage in Italy (*Inventario Nazionale delle Espressioni Culturali*) contains a diverse range of intangible cultural heritage elements that have been identified, documented, and safeguarded by the Italian Ministry of Cultural Heritage. The inventory includes a wide range of ICH elements, encompassing traditional practices, knowledge, and expressions that are central to Italian cultural identity. These elements have been identified and documented to raise awareness of their cultural significance, promote their safeguarding and protection, and ultimately foster respect for cultural diversity within Italy and beyond. The inventory's goal is to ensure that these elements are transmitted to future generations and maintained as a valuable and cherished aspect of Italy's cultural heritage.

2.2.1 GreenHeritage Italian Case Studies

The three Italian cases here presented, have been object of discussion during the PRT organized in April 2024 in Ravello by the European University Centre for CH (CUEBC) together with University of Salento and CNR.

2.2.1.1 Knowledge and traditional skills: the Art of dry-stone walls in Amalfi Coast

The first case study related to "Knowledge and Traditional Skills" is the Art of Dry-stone Walls in Amalfi Coast, already recognized as ICH by UNESCO.

It is based on a deep knowledge of the hydro-geological and natural characteristics of the ecosystem of the Amalfi coast, as the territory and its microclimate.

The dry-stone walls system allowed and allows cultivation in a difficult territory with no much land optimizing water regulation practices (figures 11-12).



11



12

The profound knowledge of the hydro-geological and natural characteristics of the ecosystems of the Amalfi coast, combined with its particular microclimate, has over the centuries become a consolidated heritage of the local community which, to encourage cultivation and water regulation practices, developed the dry stone wall technique (here called *macere*), creating a balance between human needs and nature that is conceptually and practically far more developed than the simple terracing technique. Climate Change is producing harmful effects on dry-stone walls.

- Abundant rains and long droughts affect the outcome of the harvests and influence the precarious balance of the dry-stone walls, causing them first to swell and then collapse, generating stone landslides downstream, in the absence of the traditional protection represented by the constant and widespread presence of farmers.
- The skills and knowledge underlying land management, traceable in technique, traditionally learned and handed down, are today threatened by the growing tendency to abandon agricultural work by the local population, a phenomenon which worsens the harmful effects of climate change.

In the following picture, dry-stone wall degradation (swelling & collapsing), is shown (figure 13).



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2.2.1.2 Rituals and traditional festivals: the *Madonna Avvocata* festival (Amalfi Coast)

In the wonderful land of Amalfi Coast, another ICH expression, a ritual strictly linked to the territory, and in some way related to the terraces, is the *Madonna Avvocata* festival. It consists of a pilgrimage which ascends from the villages downstream to the sanctuary on top of the hill, often along the water channels and the forest, followed by a procession to the summit and a festival, bringing together in a serene atmosphere of reconciliation, different actors, such as farmers, sailors and shepherds who could have divergent interest on the territory and its exploitation. Nevertheless, this event plays a positive social role, since it represents an opportunity to meet, sing and dance to the sound of *tammorras*, a traditional musical instrument (figures 14-15).



14



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This is one of the most heartfelt feasts and celebrations of the intangible heritage of the Amalfi Coast, which in the past has also played an important role in terms of raising awareness of the local community in relation to the maintenance and management of the site, including the system of dry-stone walls. In fact, implies knowledge of the territory geography, since it has to be

highlighted that through a trans-generational narrative connected to the spiritual event, the pilgrims discovered the characteristics of their territory, literally reading them on the root taking them to the Sanctuary (16).

Climate Change is directly influencing pilgrimages, processions, and the festival through the following:

- harmful effects of heavy rains which cause the paths to slip and slide
- severe droughts which deprives the springs and the large cistern near the church at the top of the mountain of water.

16



- climate change, combined with the abandonment of the fields, leads to a progressive collapse of the terraced system of dry-stone walls and “erases” the ancient paths in many places, effectively blocking the ascent to the mountain.

This entails the risk that pilgrims will no longer be able to climb to the Sanctuary of the Avvocata from the Maiori side, and thus effectively lose the vision and understanding of the main characteristics of the anthropized cultural landscape.

2.2.1.3 Rituals and traditional festivals: the *Feast of the Ceri of Gubbio (Umbria)*

Among all the valuable Italian ICH expressions concerning Ritual and Festivals, here is presented the Feast of the Ceri of Gubbio. Through its inclusion in the Italian National Inventory of Intangible Cultural Heritage, the *Festa dei Ceri* is recognized as an essential element of Italy's cultural heritage and is safeguarded for future generations to enjoy. The festival was chosen as one of the GreenHeritage Case Studies because it represents an emblematic and clear example of how the material and immaterial aspects of cultural heritage are closely related and live on from each other.

The *Festa dei Ceri* is a spectacular event that takes place annually on May 15th in Gubbio. It is one of the oldest and most popular ritual festivals in Italy, testified since 1160 but with pagan evidence dating back to the 3rd-1st century BC. The event consists of the transport in race of the three Ceri. They are old wooden artefacts 5 meters high, weighing almost 400 kilos, dedicated to saints linked to the historical city's guilds: Saint'Ubaldo patron saint of bricklayers, St George patron saint of tradesmen, St Anthony Abbot patron saint of farmers. The three saints' statues stand atop each *Cero* carried on the shoulders of a team of *ceraioli*. They carry the “ceri” through the town's streets and up to the Basilica of Sant'Ubaldo on Mount Ingino. The event culminates in a race up the mountain, which is a challenging and physically demanding feat (17-18).



17



18

The *Festa dei Ceri* is deeply ingrained in the history and identity of Gubbio, and the town's residents take great pride in this annual event. The event attracts thousands of visitors each year, and it is a celebration of the town's traditions, culture, and communal life. Therefore, Gubbio and its cultural heritage represent a case of exceptional interest, which creates a connection between the material and immaterial nature of cultural heritage. The importance and popularity of the event at a regional level are such that, since 1973, the three Ceri have been chosen to represent the symbol of the Umbria Region and consequently appear in its banner and in the official flag.

However, in Gubbio, it appears very clear that in recent decades the weather conditions have changed greatly, as observed and confirmed by HERACLES project activities, too. Temperatures in Gubbio from 2011 to 2021 show a clear linear growth. Likewise, a positive and worrying trend of increase in precipitation is observed.

Extreme climatic events could produce structural instabilities due to hydrogeological problems for the entire historical area, as evidenced by the existing slow and progressive deformations and cracking patterns affecting ancient structures. This could also cause damage to the streets where the race of the "Feast of the Ceri" takes place and landslides and chasms on the mountain route which represents the final part of the race, a material and ideal path towards the Basilica of the Patron Saint of the city (19-20).



19



20

Both parts of the festival that takes place in the Consoli Palace and on the mountain route along the Town Walls represent fundamental and very significant moments of the festival, which could not take place elsewhere. These tangible sites are those ones studied by HERACLES, which has made it possible to understand clearly the implications of climate change on these cultural sites.

Based on the previous study carried out with HERACLES project

and based on the fruitful discussions during the PRT in Ravello in the GreenHeritage project framework, the Climate Change effects on the Feast of the Ceri can be summarized as follows:

- Extreme climatic events could produce structural instabilities due to hydrogeological problems for the entire historical area, as evidenced by the existing slow and progressive deformations and cracking patterns affecting ancient structures.

This could also cause:

- damage to the streets and places where the race of the “Feast of the Ceri” takes place;
- landslides and chasms on the mountain route which represents the final part of the race, a material and ideal path towards the Basilica of the Patron Saint of the city (figure 21).



21

3. Conclusive remarks

The experiences gained within the two European projects presented, clearly indicate how important are the CC effects on both the CH components and why it is important the CH safeguard. The challenge that CC represents for CH implies mitigating the CC effect on Tangible and Intangible CH through actions that can be briefly summarized as follows:

- careful and integrated monitoring (territory and assets)
- Actions & policies
- Involvement of local communities in decision making

The preservation of Knowledge, Cultural Traditions and Cultural Heritage Assets is essential for long-term environmental and social sustainability. Together with the use of advanced technological tools, in monitoring and research it will be of crucial importance to involve the communities and society in this loop to deliver in the end the findings of these efforts as final recommendations on:

- risk mitigation strategies
- useful actions to generate awareness and proactivity among communities.

The role and function of Policy Round Table and Policy Briefs is crucial to reach communities and propose shared solutions. Local communities and practitioners are encouraged to participate in these safeguarding measures, as they are the primary custodians of knowledge and practices.

Another aspect to underline, is the importance of education and awareness-raising programs towards the CH safeguard. In fact, education provides knowledge and understanding of the significance of both CH components and promotes respect for cultural diversity and appropriate behaviours. Awareness-raising programs help to create a sense of ownership and responsibility for safeguarding CH, promote the transmission of knowledge and practices to future generations and attract investment in the culture sector.

Finally, the involvement of the international community can support the safeguarding of CH by providing technical assistance, capacity-building, and financial resources.



Acknowledgements

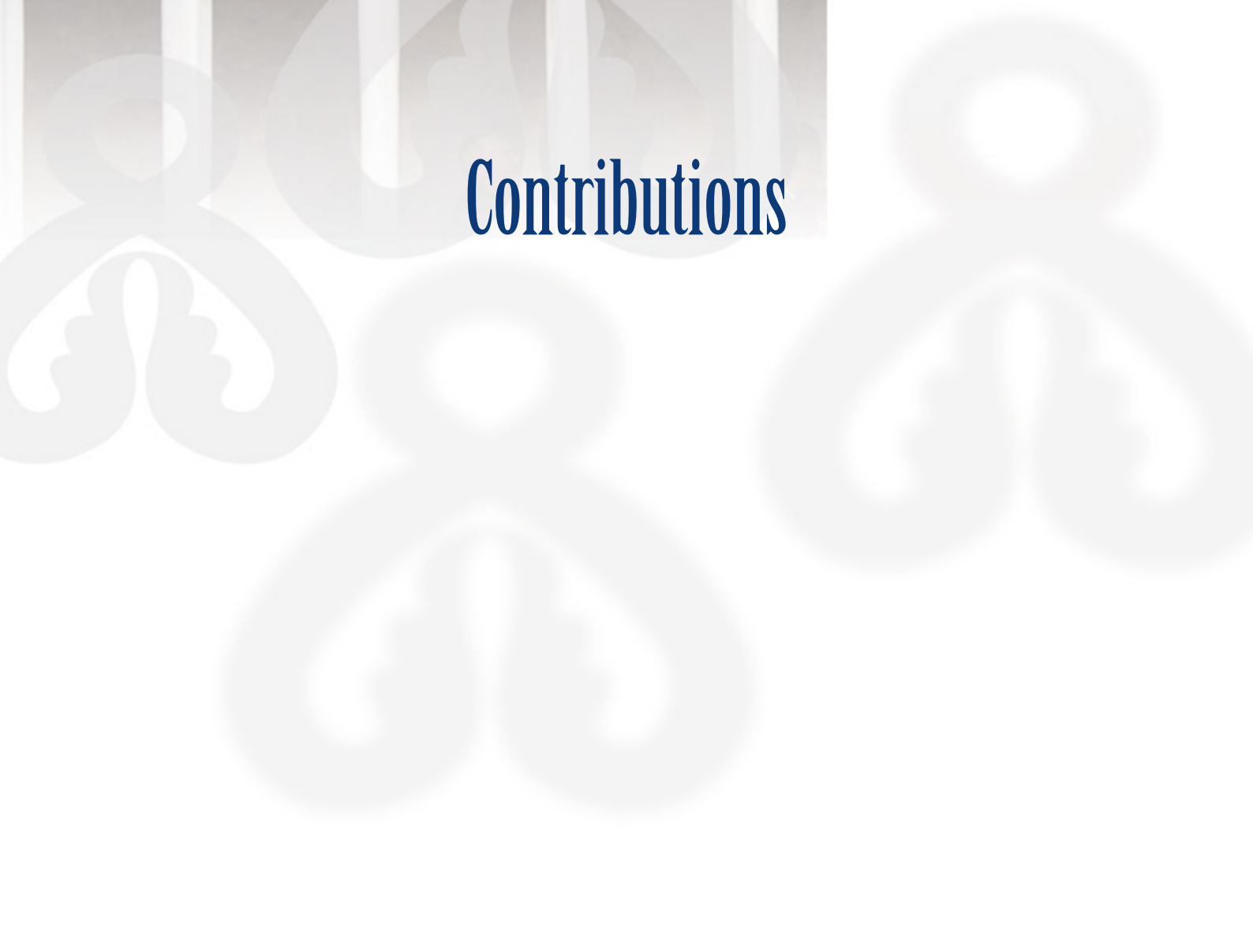
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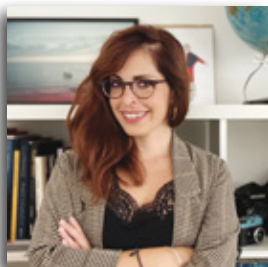
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Contributions





Climate Change and Intangible Cultural Heritage: Some Insights from Research and Territorial Planning



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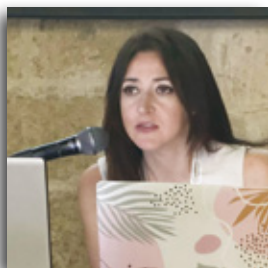
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Climate change represents one of the most urgent challenges of our time, with impacts that extend far beyond the environmental and economic spheres, encompassing instead the complex interplay of factors that influence the well-being of local communities and the very survival of the ecosystems they belong to. Acknowledging the cross-cutting nature of its implications constitutes the first essential step in the design and definition of risk management and mitigation strategies that can genuinely offer a viable response aligned with the complexity of the issue.

In this regard, the redefinition of policy priorities, particularly during the COVID-19 emergency, is merely the most visible result of an in-depth reflection on the opportunity to reconfigure production systems, consumption habits, and planning trajectories towards climate neutrality. Consequently, while the global political agenda focuses on mitigating climate change, local territories are called upon to define adaptation strategies to the effects that climate change, directly or indirectly, imposes on specific areas or regions. This involves utilizing the resilience capacity of their respective territorial systems (García, 2019).

This new perspective, as is evident, also concerns strategies for the protection and enhancement of cultural heritage. Cultural heritage, both tangible and intangible, forms a fundamental part of a territory's identity matrix. It is intrinsically tied to both the perceptual-symbolic and performative dimensions of local com-

munities, as it embodies their cultural history and creativity (Unesco, 2003), contributing to the socio-spatial context in which interactions and practices evolve (Aktürk, Lerski, 2021).

Extreme events such as floods, droughts, and fires—whose projected increase in the near future has already raised concerns within the Intergovernmental Panel on Climate Change — can have devastating effects on highly symbolic artefacts and places. This leads to the risk of the disappearance or compromise of material or intangible sediments that represent, for communities, irreplaceable aggregations of values, meanings, memories, and shared opportunities for common planning over time (Sabioni, Brimblecombe, Cassar, 2010).

Similarly, gradual changes (such as the progressive increase in average temperatures or fluctuations in humidity levels) underlie deterioration processes that can affect both tangible cultural heritage and their associated landscapes, as well as productive practices, traditions, and rituals. Without adequate responses from public and private actors and local communities as a whole, these processes can inexorably lead to deterritorialization (Kim, 2011).

Furthermore, while the effects of climate change on tangible cultural heritage appear self-evident and have been studied for some time (Sesana, Gagnon, Ciantelli, Cassar, Hughes, 2021), the relationship between climate change and intangible cultural heritage remains much less explored. Differentiating between these two domains is not a simple task: studying the preservation strategies of a historic building, for example, also involves reflecting on the recovery of skills and expertise related to traditional production and craftsmanship, which may be threatened, among other factors, by reduced availability of raw materials or by the increased vulnerability of such materials to unusual climatic conditions.

The complexity of the dualism between tangible and intangible cultural heritage, as well as the geographical significance of the issue, has been well highlighted by UNESCO, which states “Intangible cultural heritage can play an important role as a source of resilience, recovery, preparedness, and prevention measures to reduce vulnerability and exposure to risks associated with climate change and in the mitigation of carbon emissions. At the same time, the viability of intangible cultural heritage and its bearers, and the resources they require, are fundamentally at risk from climate change directly or from the multiplier effects of climate change on other conditions for viability.”

Building on this dualism, UNESCO, following the Operational Directives and the Committee's decisions (Decisions 15.COM 8, 16.COM 5. b, and 17.COM 13), has launched a series of efforts aimed at equipping stakeholders with appropriate tools to sup-



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port both the study of the phenomenon and the identification of territorially localized solutions, although framed within a global context. Among these initiatives, it is worth noting the vast bibliographic index freely accessible through UNESCO's official web channels, which, at the time of writing (August 2024), gathers nearly three thousand references to international research on the relationship between climate change and intangible cultural heritage. Without venturing into a bibliometric analysis of such a vast body of work—which would require more in-depth study—the point we wish to highlight in this brief reflection is the significant presence of many case studies, approximately 14% of the listed titles, that are strongly geographically defined. Even more interesting is the observation that most of these case studies pertain to inherently vulnerable territories, particularly coastal areas affected by rising sea levels, coastal erosion, storms, and extreme weather events; islands with limited carrying capacity; mountainous regions affected by glacial melting and landslides; agricultural areas threatened by drought and desertification; forest areas increasingly subject to devastating fires; and urban areas experiencing steadily rising temperatures¹.

This observation, in line with what has been stated in the introductory remarks of this contribution, allows us to deepen our reflection along two key lines:

1. Climate change is a challenge that pertains both to the global scale—especially regarding mitigation—and to the local-territorial scale—concerning adaptation and resilience strategies;
2. A holistic understanding of climate risk and territorial vulnerability is necessary, with the former referring to both direct and indirect manifestations, and the latter to the preconditions that determine the exposure of territories to catastrophic events, as well as their potential and actual damages.

¹ Content analysis conducted using the ChatGPT Content Analysis Pro plugin

It is precisely within this territorialized reading of climate change and climate risk, in which all the constitutive elements of a territory are involved, that the increasingly significant focus on intangible cultural heritage is contextualized, both as an object of protection and preservation (in terms of risk and vulnerability) and as a potential resilience mechanism (in terms of adaptation).

The scientific production highlighted by UNESCO is certainly not exhaustive, but we believe it can serve as an illustrative example of how the relationship between climate change and cultural heritage has reached a priority level in scientific debate as well as in the political agendas of national and international governmental institutions. In particular, it is possible to identify at least three perspectives through which to specifically and place-based explore the relationship between climate change and intangible cultural heritage.

One perspective is certainly represented by the opportunity to create a broad-spectrum catalogue of the elements constituting local intangible cultural heritage—an entity that is difficult to define—and to outline their respective risk profiles. A second perspective concerns the possibility that the persistence of specific traditional practices could serve as an indicator of the “health” of the territory. Lastly, a third perspective, probably the most promising one, is represented by the potential for intangible cultural heritage, through the promotion of targeted preservation and enhancement actions, to itself become a potential resilience mechanism, stimulating the recovery of sustainable land-use practices or the activation of new ones with similar characteristics.

From the International Regulatory Framework to the Italian Context

Among the international legal frameworks that have, over the past decades, paid attention to the impact of climate change on cultural heritage, the United Nations Framework Convention on Climate Change (UNFCCC) (1992) is certainly worth mentioning. It was the first global response to the challenge of climate change, focusing primarily on the reduction of greenhouse gas emissions, while leaving the intangible aspects of cultural heritage on the margins of both the debate and policies.

More recent instruments provided by the European Union for the preservation and regeneration of territories exhibiting a significant degree of vulnerability (structural, managerial, socio-economic, and/or environmental), vulnerabilities that have become even more evident and concerning as a result of the global climate change, include the work carried out under the Council Work Plan for Culture 2019-2022.

For the drafting of the Plan, an open coordination group was established, composed of experts from EU member states, which reflected on the relationship between cultural heritage and the European Green Deal. The group identified threats to cultural heritage arising from climate change, as well as the regulatory and legislative gaps that still render the problem vague and lacking in definition and detail (starting from the recognition of the absence of an explicit reference to cultural heritage in the Green Deal text) (<https://op.europa.eu/en/publication-detail/-/publication/4bfcf605-2741-11ed-8fa0-01aa75ed71a1/language-en/format-PDF/source-search>) (last access: Aug. 29, 2024).

The strategies and interventions defined in this context promote holistic, systemic, integrated, and participatory approaches (in line with the spirit of the Faro Convention [COE, 2005], which recognizes each individual's right to participate in the processes of enhancing cultural heritage related to cultural identities). These approaches ultimately aim to generate significant and lasting virtuous impacts across all sectors of sustainable development (economy, culture, society, and environment). Among these sectors, cultural heritage represents a transversal axis capable of producing, at multiple levels, new collective sensitivities and awareness. Additionally, it activates processes that affect every aspect of local development: from increasing social cohesion to enhancing the ability to attract investments (not only in the cultural sector); from the consequent increase in territorial competitiveness and attractiveness to the promotion of new forms of welfare, helping to counter dangerous regressive trends, such as the abandonment of economic activities and those related to land maintenance, depopulation, and marginalization, which particularly affect rural and inland areas. In this way, cultural heritage significantly becomes the core of the issue and its possible solution: both the object to be preserved and, at the same time, the lever for activating new processes of resilience, change, awareness, empowerment, and the development of visions, behaviors, practices, and skills in line with the sustainability objectives set by the European Green Deal.

Regarding our country in particular, it is quite easy to observe how it consists of an extremely varied mosaic of cultural histories, local traditions, landscape, and pedoclimatic frameworks; consequently, the profile of fragilities and vulnerabilities that emerge is equally varied. This is especially true for coastal and inland areas. Coastal erosion and rising sea levels are, in fact, a real emergency for our country, considering the approximately eight thousand kilometers of coastline, as well as the fact that, according to the Istituto Superiore per la Protezione e la Ricerca Ambientale (2023), 54 out of the 644 coastal municipalities nationwide report an erosion rate of over 50%. Similarly, to fully un-

derstand the magnitude of the problem, it is also useful to reflect on the specific condition of inland areas, where 23% of the Italian population resides (Openpolis, 2024). In these territories, it is evident how climate change, along with other social, economic, and cultural factors, contributes to generating a worrying trend of depopulation, depriving the territories of human and social capital, which impacts both the possibilities and the trajectories of local development, as well as the types of actions that are realistically feasible in terms of mitigating the effects of climate change, and in the protection and preservation of tangible and intangible cultural heritage.

In light of this, new regulatory instruments for managing territorial vulnerabilities have emerged. Consider, for instance, Decree No. 434/2023, dated December 21, 2023, by which the Ministry of the Environment and Energy Security approved the National Adaptation Plan for Climate Change. This plan aims to provide the country with a cross-sectoral operational framework that operates on multiple levels, including, as is obvious, the cultural heritage sector. However, once again, it does not explicitly address its intangible component.

The Challenges of Protecting Intangible Cultural Heritage in the Face of Climate Risk

In general, what emerges from the analysis of the regulatory frameworks addressing the risks posed by climate change to cultural heritage and outlining potential governance paths is the insufficient attention and detail specifically devoted to its intangible component. Although there are indeed references in various parts to traditional practices and customs (such as those related to fishing and agriculture), the emphasis remains on the eco-



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conomic value of these activities, while the social, cohesive, symbolic, and cultural dimensions are still largely marginal or even unexplored. This issue becomes even more problematic when considering that many of the territories with high vulnerability levels are also those richest in histories, rituals, celebrations, traditions, and practices (such as, for instance, rural areas).

In this sense, the hope is that, within the national framework, the National Recovery and Resilience Plan will represent an opportunity to identify specific safeguarding actions for intangible cultural heritage. Furthermore, this would align perfectly with the content, actions, and interventions provided for in Mission 1 “Digitalization, Innovation, Competitiveness, Culture, and Tourism” and in Investment 2.4 “Protection and Enhancement of Rural Architecture and Landscapes.” This issue has already been partly addressed by the measures for the regeneration of small villages (Investment 2.1, the so-called “Bando Borghi”), which has shown particular interest in the traditions, rituals, and celebrations of small historic Italian villages with fewer than 5,000 inhabitants.

However, it is important to emphasize that before calling for the necessary attention to intangible cultural heritage within national and international regulatory frameworks, it is essential to undertake widespread grassroots work to ensure that communities can recognize the invaluable potential for sustainable development in the intangible sediments of their own culture. Furthermore, communities must be enabled to imagine and practice how this can happen, and to develop the necessary skills to realize this process. Vidal and Dias (2017) describe this in terms of “endangerment sensibility,” referring to the varying degrees of awareness that communities develop about the possibility that a cultural sediment (tangible or intangible) may be damaged, severely compromised, or even destroyed due to the vulnerability of territories. This, in turn, fosters a widespread perception at all levels of the urgency of protection and preservation actions.

Only through this fundamental step—built on the daily construction of new perceptions, awareness, sensitivities, and new networks of knowledge and skills that communicate among themselves from the ground up—can effective and operational actions, strategies, and policies be conceived and implemented. For this reason, among the recommendations contained in the policy brief related to the GreenHeritage project – The Impact of Climate Change on Intangible Heritage – the result of synergistic work between professionals, research institutions, administrations, local stakeholders, and civil society that took part in the policy round table organized by the European University Centre for Cultural Heritage, held in Ravello on April 12-13, 2024 (Miggiano, 2024) – considerable attention is given to the involvement of local communities and stakeholders in decision-making

and management processes; the organization and planning of ad hoc initiatives for knowledge, awareness, and sustainable enhancement (at all levels); and the building of a relationship between communities and territory that remains consistent with the values it expresses (community spirit/identity), even in the face of climate change.

The crucial objective, therefore, remains to trigger a shift in the role of communities, which would transition from being “impotent and passive” actors to becoming “primary actors” (Eichler, 2020)—that is autonomous agents of change, capable of both directing their responses and actions and influencing global responses to climate monitoring, adaptation, and mitigation.

References

- Aktürk, G., Lerski, M. *Intangible cultural heritage: a benefit to climate-displaced and host communities*, in “Journal of Environmental Studies and Sciences”, 11, pp. 305–315, 2021.
- Eichler J., *Intangible cultural heritage, inequalities and participation: who decides on heritage?*, in “The International Journal of Human Rights”, 25(5), pp. 793–814, 2020.
- García, B. M., *Resilient cultural heritage for a future of climate change*, in “Journal of international affairs”, 73(1), pp. 101-120, 2019.
- Kim, H. E., *Changing climate, changing culture: adding the climate change dimension to the protection of intangible cultural heritage*, in “International Journal of Cultural Property”, 18(3), pp. 259-290, 2011.
- Miggiano P., *Green Heritage. Un policy brief per mitigare l'impatto dei cambiamenti climatici sul patrimonio culturale immateriale*, in “Territori della Cultura”, 56, pp. 38-45, 2024.
- Sabbioni C., Brimblecombe P., Cassar M., *The Atlas of Climate Change Impact on European Cultural Heritage*, School of Environmental Sciences Centre for Ocean and Atmospheric Sciences, 2010.
- Sesana E., Gagnon A.S., Ciantelli C., Cassar J., Hughes J.J., *Climate change impacts on cultural heritage: A literature review*, in WIREs Climate Change, 12, 4, 2021.
- Vidal F., Nélia D., *Endangerment, Biodiversity and Culture*, Routledge Environmental Humanities, 2017.



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The pictures show three moments of the round table held in Ravello in April 2024, namely: 1. Opening session; 2. a contribution by Fabio Pollice; 3. Performance by “I Discede”.



Adapting Intangible Cultural Heritage: Insights and Reflections from Policy and Research Innovations



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Introduction

Intangible Cultural Heritage (ICH) is a critical component of cultural diversity and sustainable development, encompassing the practices, expressions, knowledge, and skills passed down through generations. Unlike tangible cultural heritage, such as monuments, sites, or artifacts, ICH is dynamic, continually reshaped by the environment, history, and social structures, subject to a continuous evolution, interpretation and transmission.

The preservation and adaptation of ICH are essential not only for maintaining cultural identity but also for fostering resilience in the face of global challenges, particularly climate change.

Climate change poses unprecedented threats to communities worldwide, altering ecosystems, livelihoods, and cultural practices. For many communities, especially those in vulnerable regions, ICH is deeply intertwined with the natural environment and tangible assets. As climate change disrupts traditional weather patterns, biodiversity, and land use, it also threatens the survival of the cultural practices and knowledge systems that have evolved in harmony with these environments.

The interaction between climate change and cultural heritage has gained attention and momentum in recent years.

Nonetheless, a notable gap is emerging in understanding these interactions due to a disproportionate emphasis on built heritage and heritage sites in discussions about climate change and heritage policies (cf. European Commission, 2022; Morel et al., 2022; Crowley et al., 2021). This reveals a shortfall in achieving a comprehensive and balanced understanding of cultural heritage within risk assessments and discussions pertaining to losses and damages caused by climate change, and climate adaptation. The consequences of climate change on intangible cultural heritage, including indigenous and traditional knowledge and practices related to, for example, nature and the use of natural



resources, have so far been poorly researched and underestimated (Orlove et al., 2022; European Commission, 2022).

Beyond moral obligations to safeguard communities' shared heritage, tapping into traditional knowledge holders and embracing their resilience practices could substantially reinforce climate adaptation and mitigation efforts as much of living heritage holds the potential for imparting lessons from historical climate adaptation practices (Goswami, 2022).

This article draws on case studies on the latest policy and research innovations for adapting ICH to climate change impacts realized in the context of the EU-funded projects SD-WISHEES and Green Heritage¹ to reflect and provide crucial insights into how research and innovation (R&I) and ICH communities can safeguard their heritage while building resilience to environmental changes.

Impacts of climate change on ICH and adaptation options: empirical evidence from Green Heritage case studies

Climate change's effects extend beyond the physical realm to intangible aspects. For example, they disrupt access to traditional foods and longstanding cultural practices like rituals. Climate change can force the displacement of communities from their territories or alter those areas significantly, thereby triggering social and cultural losses (Morel et al., 2022). Such disruptions affect the ability to perform rituals or customary practices, affecting people's identity and sense of belonging, while alteration of specific landscapes resulting from environmental change or climate mitigation measures can result in changes in the sense of place (i.e., the cognitive and emotional experience of places) and in turn place identities and culture (Adger et al., 2013). In essence, due to the interplay between climate change and the social structures, the effects of climate change also put a community's way of life and knowledge at risk. The evidence gathered from European case studies in the Green Heritage project depicts a clear picture of how climate change can influence or potentially disrupt traditional practices and skills deeply intertwined with local ecosystems and weather patterns. Climate change has the potential to result in the depletion or scarcity of natural resources crucial for various traditions, impacting, among other aspects, traditional cuisines, and dietary habits. Additionally, climate change may disturb the timing and conditions of traditional cel-

¹ SD-WISHEES: Supporting and Developing Widening Strategies to tackle Hydroclimatic Extreme Events: impacts and Sustainable solutions for cultural heritage (<https://sd-wishees.irsa.cnr.it/>)
Green Heritage: The impact of Climate change on the Intangible Cultural Heritage (<https://greenheritageproject.eu/>)

celebrations closely associated with seasonal shifts. Events such as agricultural festivals or religious ceremonies that depend on specific weather and seasonal patterns may face disruptions. Furthermore, as climate change can reshape or threaten the cultural landscape through factors like desertification and heavy rainfalls it poses a threat to the continuity of practices dependent on these landscapes.

The relationship between climate change and ICH that emerges from the case studies (N=14) investigated in the Green Heritage project highlights how extreme climatic events and CC-related phenomena, can influence the habits, traditions, and the behaviors of entire communities. On the other hand, many of these cases showcase how ICH can play a key role and be valuable when adapting to climate change and mitigating its risk.

Here we provide a summary - drawn from Green Heritage deliverable D2.3 (Biddau, Galluccio & Trozzo, 2023) - of how changing climatic conditions are affecting such ICH elements (See Table 1) and the type of adaptation measures that have been proposed or implemented (see Table 2). For a detailed account of the case studies, please refer to Green Heritage deliverable D2.2 (Balcare et al., 2023).

Table 1. ICH Elements and Investigated Cases by Green Heritage, along with examples of climate hazards on ICH (drivers and associated Impacts). The numbering of case studies (CS) is codified according to GreenHeritage deliverable D2.2

ICH elements	ICH cases (ID)	Country(ies)	Climate-related hazards (drivers and impacts)
Traditional agriculture and customary practices of food production	Art of Valencian paella (CS14)	Spain	Increasing temperature may cause heat stress and water scarcity, shortening the growing season and yield variability in key ingredients (bean and rice)
	Traditional practice of wild edible plants in Crete (CS6)	Greece	Edible wild plants as a climate-resilient solution to increasing temperatures, heatwaves, and droughts
	Agricultural and dietary tradition of carob in Crete (CS4)	Greece	Carob as a climate-resilient solution to rising temperatures, unpredictable climates, and drought
	Wine culture in the Mosel wine-growing region (CS3)	Germany	Weather extreme phenomena (rainfall and heatwaves) causing droughts or changed freeze /thaw cycles alter soil composition and moisture and in turn the vine productivity, time of ripening and wine taste

Traditional practices of fishing, harvesting, and livestock	Lamprey fishing and preparation skills in Carnikava (CS11)	Latvia	Rising freshwater temperature and changed freeze/thaw cycle affect fish migration patterns and introduction of invasive species and in turn fishing timing and productivity
	Puffin harvesting and hunting (CS1)	Denmark	Increase in ocean temperature and biodiversity loss/decline in the availability of fish as a food source for puffins
	Livestock transhumance in the Cantabrian region (CS13)	Spain	Rising temperatures and changing seasonality cause prolonged droughts and desertification influencing the availability of pasture and the timing of livestock movement
Religious rituals and festive events	Celebrations of the Big Shoulder-borne Processional Structures in the historic cities of Nola, Sassari, Palmi, and Viterbo (CS10)	Italy	Extreme and unpredictable weather events (heatwaves and rainfalls) pose a threat to human safety (extreme heat affecting structure carriers) and tangible assets of outdoor performance (e.g., rain ruining wood and paper structures)
	Madonna Avvocata Festival in the Amalfi Coast (CS9)	Italy	Extreme and unpredictable weather events (heatwaves and rainfalls) pose a threat to human safety and tangible assets of outdoor performance (e.g., landslides altering pilgrimage infrastructure and pathway)
	Feast/Race of Ceri in Gubbio (CS8)	Italy	Extreme and unpredictable weather events (heatwaves and rainfalls) may negatively affect tangible assets or outdoor performance (e.g., heavy rain altering the route and decontextualizing the ritual), with the risk for the event celebration and an impact for its identitarian cultural and social meaning
Traditional craftsmanship shaping the cultural landscape and people-place relationships	The art and technique of dry-stone walls for terraced landscapes in Cinque Terre and Amalfi Coast (CS7)	Italy	Weather extremes (rainfall and heatwaves) cause droughts altering soil composition and moisture, causing damage to crops, and increasing the risks of wall failure, erosion and landslides
	Construction of Mandras (paddocks) on the island of Lemnos (CS5)	Greece	Rising temperatures have adverse effects on biodiversity, agricultural production, and labour
Traditional outdoor leisure practices related to knowledge concerning nature	Mountaineering practice in the Alps (Alpinism) (CS2)	Italy, France, and Switzerland	Rising temperatures and melting glaciers, along with unpredictable weather patterns and shifting seasons, contribute to heightened risks (ice/snow instability, rockfalls and landslides) making the practice risky or inaccessible
	Skating on natural ice (CS12)	Netherlands	Shifts in freeze/thaw cycles, coupled with rising temperatures, result in the thinning or complete loss of inland ice making the practice no longer viable or highly improbable

Table 2. Categorization of Key Types of Measures (KTM) and Sub Key Types of Measures (SUB KTM) for adaptation, including specifications/explanations and examples from ICH Cases Investigated in Green Heritage. The Categorization of KTM and SUB KTM is based on EEA (2022)²

KTM	SUB-KTM	SUB KTM specifications	Examples from ICH cases
Governance and institutional	<ol style="list-style-type: none"> 1. Policy instruments 2. Management and planning 3. Coordination, cooperation and networks 	<ul style="list-style-type: none"> • Creation/revision of policies, regulations, technical rules, or standards • Mainstreaming adaptation into other sectors/policies • Creation/revision of coordination formats or stakeholder networks 	<ul style="list-style-type: none"> • Revising regulation and product standards hindering adaptation in the agriculture sector (CS7, CS3) • Revising regulations governing hunting and fishing practices for sustainable resource management (CS11, CS1) • Community-led initiatives and partnerships for co-managing ICH or coordinating economic activities for mutual benefits (CS11, CS7) • Technical coordination table among local policymakers and various stakeholders to monitor, plan, and act to ensure the safe execution of the event (CS8)
Economic and finance	<ol style="list-style-type: none"> 1. Financing and incentive instruments 2. Insurance and risk-sharing instruments 	<ul style="list-style-type: none"> • Creation/revision of incentive mechanisms, funding schemes or contingency funds for emergencies 	<ul style="list-style-type: none"> • Funding schemes for the assessment and monitoring of the state of tangible assets (CS1, CS5) • Incentive schemes to support the ICH community and the provision of ICH ecosystem services for risk reduction (CS13, CS7)
Physical and technological	<ol style="list-style-type: none"> 1. Grey options 2. Technological options 	<ul style="list-style-type: none"> • Development, upgrade, or replacement/rehabilitation of physical infrastructure • Early warning systems, hazard/risk mapping, or services and process 	<ul style="list-style-type: none"> • Monitoring weather forecasts and site conditions to adapt schedules or practices (CS2) • Implementing climate-smart or precision agriculture to adapt to droughts (CS3) • Mapping land use practices and abandonment to tailor interventions (CS5, CS7)
Nature-based solutions and ecosystem-based approaches	<ol style="list-style-type: none"> 1. Green options 2. Blue options 	<ul style="list-style-type: none"> • Development or improvement of existing green or blue infrastructure • Natural or semi-natural use and management of land and marine areas 	<ul style="list-style-type: none"> • Use of constructive traditions as climate resilient solutions for enhancing soil fertility and reducing erosion (CS7) • Using resistant crops to adapt to both droughts and heavy rainfall (CS3) • Juvenile repopulation of species (CS11)
Knowledge and behavioural change	<ol style="list-style-type: none"> 1. Information & awareness raising 2. Capacity building and empowering 	<ul style="list-style-type: none"> • Research and innovation • Communication and dissemination • Decision support tools, databases, and knowledge-sharing platform • Identification and sharing of good practices • Knowledge transfer/training 	<ul style="list-style-type: none"> • Assessment and monitoring of the state of resources (CS14, CS7, CS12) • Digitization of ICH or R&I for retrofitting (CS7) • Communication and dissemination of scientific information to preserve resources (CS6, CS1) • Sharing of knowledge and good practices between regions sharing traditions (CS7, CS2)

² Grey options involve technological and engineering solutions to enhance adaptation. Green and blue options rely on the ecosystem-based approach and make use of services provided by natural ecosystems, respectively land and marine, to improve adaptation.

Case Studies on Climate Change Impacts and Innovations in Intangible Cultural Heritage

In this article, we briefly present three case studies derived from research carried out in GH and SDW pertaining R&I to adapt and safeguard ICH from climate change impacts. The three case studies reflect different aspects of ICH and how R&I is supporting their safeguarding and adaptation to derive insights and reflections on the role of policy and R&I. These include the art of drystone walling and the tradition of olive oil production in the Mediterranean region along with their cultural landscapes, and the rainfed agricultural practices in sub-Saharan Africa.

Case Study 1: TERRACESCAPE and STONEWALLSFORLIFE

TERRACESCAPE and STONEWALLSFORLIFE³ are two complementary initiatives funded under the LIFE Programme. Both projects were aimed at demonstrating the use of drystone terraces as green infrastructures resilient to climate change impacts in the Mediterranean region.

While TERRACESCAPE is focused on Andros Island in Greece, STONEWALLSFORLIFE operates primarily in the Cinque Terre National Park in Italy, addressing the challenges posed by extreme weather events, particularly rainfalls and associated hazards such as landslides. Terrace cultivation historically played a crucial role in supporting primary production on these territories and contribute to ecosystem services by enhancing rainwater percolation, reducing soil erosion, and promoting local biodiversity. Both projects recognize the deep connection between traditional land management practices and local cultural identities,



Agricultural terraces with dry-stone walls in the Cinque Terre National Park © Parco Nazionale delle Cinque Terre (Jacopo Grassi).



Aerial view of the Manarola Amphitheatre in the Cinque Terre National Park © Parco Nazionale delle Cinque Terre (Emanuele Raso).

³ STONEWALLSFORLIFE: Using Dry-Stone Walls as a Multi-purpose Climate Change Adaptation tool <https://www.stonewalls4life.eu/>
TERRACESCAPE: Employing Land Stewardship to Transform Terraced Landscapes into Green Infrastructures to Better Adapt to Climate Change <https://lifeterracescape.aegean.gr/en/>

and they seek to revitalize these practices and restore terraces to improve environmental and agricultural sustainability.

TERRACESCAPE preserved traditional practices by linking cultural heritage with economic opportunities. TERRACESCAPE successfully restored 100 hectares of ancient terraces on Andros Island, significantly revitalizing local agricultural practices and improving soil health. A comprehensive adaptation plan was developed, incorporating a GIS-supported Decision Support Tool (DST) to guide terrace restoration and management, including reuse and cultivation, implementing climate smart agricultural practices, and demonstrating their ecological and productivity function, as well as their role in limiting climatic change impacts in the entire island landscape. The tool assisted authorities and stakeholders in planning and monitoring restoration activities, optimizing land use, recultivation with climate-smart agriculture, and mitigating erosion risks. The project also engaged local communities through a series of educational workshops, which helped to increase awareness of sustainable agricultural practices and promoted the potential of terraced landscapes for sustainable tourism.

STONEWALLSFORLIFE is currently operating in Italy and focuses on the conservation and restoration of drystone terraces that are crucial for maintaining the landscape, the related agricultural tradition and preventing soil erosion in the Cinque Terre National Park (a World Heritage Site famous for its cultural landscape). Innovative restoration methods and materials were introduced and tested to improve stability and resilience such as enhancing water drainage and resistance to rainfall. A digital mapping tool was also designed to track the condition and maintenance needs of these structures. The project included a robust training program for ICH transmission, equipping communities and particularly disadvantaged people with the skills needed to carry



Dry-stone wall reconstruction and restoration in the Cinque Terre National Park © Parco Nazionale delle Cinque Terre (Emanuele Raso)

out effective restoration and maintenance of the walls. Collaboration among local governments, environmental groups, and community stakeholders was a cornerstone of the project, fostering a collective approach to managing these critical cultural and environmental assets and contributing to the transmission/safeguarding of the constructive tradition as well as creating new job opportunities for maintainers.

The methods and tools developed by STONEWALLSFORLIFE and TERRACESCAPE have been recognized for their potential to be replicated in other Mediterranean regions or Greek territories, further contributing to the preservation of the traditional practice.

Both projects benefited from strong community involvement, awareness and institutional support. TERRACESCAPE leveraged the cultural and tourism potential of the terraced landscapes, which provided additional motivation for conservation efforts. Similarly, STONEWALLSFORLIFE capitalized on the community awareness of climate risks, the territorial vulnerability, and the urgent need for wall conservation in the area that was affected by extreme weather events (a destructive rainstorm in 2011 caused landslides in neglected terraces and multiple damages and losses including some fatalities), which fostered community engagement and institutional action. The integration of modern technology, such as GIS and digital mapping tools, facilitated effective management and monitoring of restoration activities, as well as demonstrate their adaptation potential.

Despite the successes, the projects faced several challenges. TERRACESCAPE encountered difficulties in ensuring the long-term economic sustainability of the restored agricultural practices, as market conditions and farming practices evolve. STONEWALLSFORLIFE faced obstacles related to fragmented land ownership and regulatory hurdles, which complicated the implementation of restoration activities, requiring careful negotiation with multiple stakeholders and advocating for regulatory changes.

Both projects have laid a strong foundation for continued efforts in terrace restoration and wall conservation. TERRACESCAPE's outcomes are being integrated into the Greek National Recovery and Resilience Plan, ensuring that the project's experience and methodologies are sustained and expanded. STONEWALLSFORLIFE's approaches and tools have been integrated into the Cinque Terre National Park climate adaptation plan and are being considered for replication in other Mediterranean regions, with plans to further develop and refine the restoration techniques and community training programs. The projects' successes highlight the potential for traditional land management practices to contribute to climate resilience and sustainable development, thereby ensuring their safeguarding.

Case Study 2: Rainwatch⁴

The Rainwatch project, is a groundbreaking unfunded collaborative initiative led by Professor Rosalind Cornforth and Galiné Yanon from the Walker Institute (University of Reading, UK) and AfClix (Africa Climate Exchange). It focused on enhancing the resilience of rural communities dependent on rainfed agriculture in the Sahel region of Africa, a region highly vulnerable to climate variability and extreme weather events, which significantly impact agricultural productivity and food security. Rainwatch developed and implemented a real-time monitoring system to track rainfall patterns, a critical component for effective agricultural planning and drought management in this arid and semi-arid region.

This project addresses the lack of daily rainfall data in sub-Saharan Africa by improving access to practical climate information. It provides simple, understandable rainfall and temperature plots that benefit users, including farmers, scientists, and policymakers. The initiative serves as a low-cost, real-time monitoring system that tracks critical climate attributes and acts as an early warning system for droughts and floods.

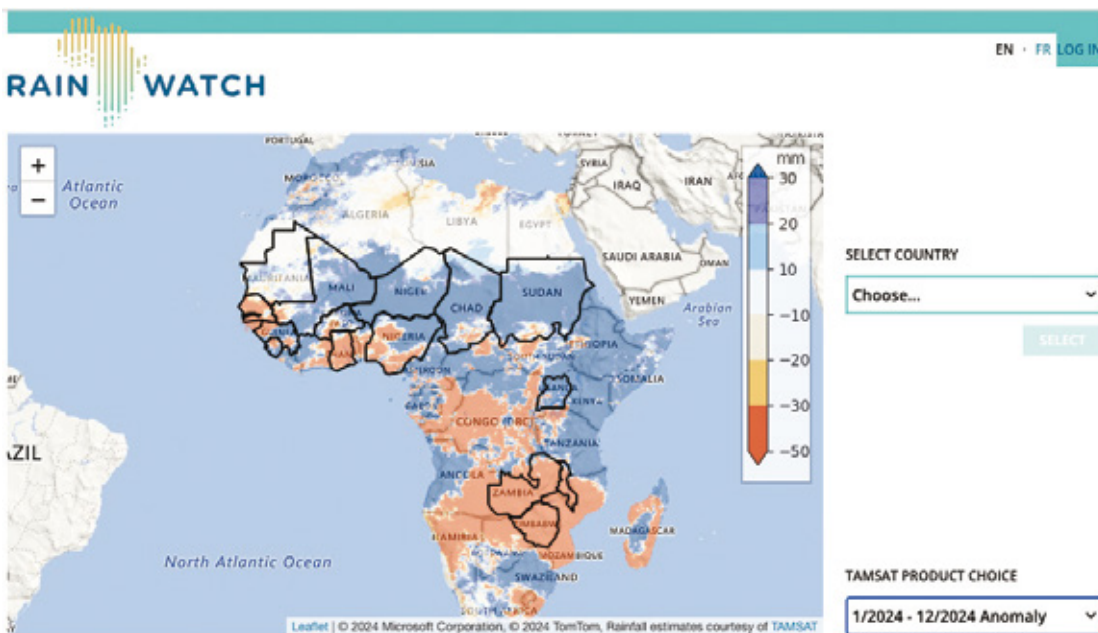


Figure 4. RainWatch Dashboard Interface. Source: <https://data.rainwatch-africa.org/>

⁴ <https://walker.reading.ac.uk/project/rainwatch/>
RAINWATCH: Providing real-time rainfall information for user communities in sub-Saharan Africa

Rain Watch prioritized intermediate technology solutions over complex dashboards, aiming for practicality and usability. Much of the design was informed by historical rainfall patterns and people's collective memories of past events. Rain Watch aimed to compare current rainfall data with historical records, particularly droughts and flooding events, to inform responses and actions.

The ability to monitor rainfall patterns in real-time has empowered local communities to adapt their agricultural practices to changing weather conditions, improving crop yields and reducing the risk of crop failures. The dissemination and exploitation of Rain Watch is being done by the individual National Meteorological Services and communicated directly with relevant institutions and individuals on the ground, facilitating the transfer of knowledge significant to local communities ensuring the practical applications.

The initiative built partnerships with decision-makers and meteorological services to ensure the integration of generated knowledge into institutional structures, refine the methodologies to establish clear links from research findings to tangible outcomes, enabling the translation of research into actionable storylines (adaptive pathways) working across various sectors and communities.

Rainwatch's data-driven approach has influenced local and national policies by providing evidence-based recommendations for climate adaptation strategies in the agricultural sector. The project's findings have been used to advocate for policy changes that support sustainable agricultural practices and improve resilience to climate extremes. This policy impact stresses the importance of integrating scientific data into decision-making processes to address climate challenges effectively.

Rainwatch's success was driven by strong partnerships with local governments, non-governmental organizations (NGOs), and international agencies. These collaborations ensured that the data reached relevant stakeholders. The use of National Meteorological Services for data dissemination was a key enabler, providing broad reach and accessibility. The project faced challenges related to the sustainability of the monitoring system beyond the project's lifespan. Ensuring that the network remains operational and continues to provide valuable data requires ongoing investment and maintenance.

The project has established a model for how real-time data can be used to support climate adaptation and improve agricultural resilience. Future efforts will focus on expanding the network, enhancing system capabilities, and addressing the sustainability challenges identified during the project.

Case Study 3: Sustainolive

Co-funded by the Horizon 2020 Framework Programme and the PRIMA programme, Sustainolive⁵ addresses the environmental challenges facing the olive oil sector in the Mediterranean basin. The olive oil sector is a backbone of socio-economic and cultural life of many European (Spain, Portugal, Italy, Greece) and African regions (Tunisia and Morocco) and a predominant landscape of these areas. This project aims to improve the sustainability of olive cultivation by addressing issues such as soil erosion, water overexploitation, and climate-related stress on olive trees. It promotes the implementation and uptake of innovative solutions set in management practices based on agroecological concepts and knowledge exchange with key actors in the sector. Through the introduction of innovative solutions integrated with agroecological traditional practices, Sustainolive seeks to ensure the long-term stability of olive oil production.



Typical olive grove cultural landscape. Source: Montes-Osuna & Mercado-Blanco (2020)

Sustainolive introduced a range of sustainable farming practices designed to mitigate environmental impacts and enhance soil and water management. These practices include composting, biodiversity conservation, and the adoption of water-efficient irrigation techniques. The project organized workshops and field demonstrations to showcase these practices and facilitate their adoption among farmers. Additionally, Sustainolive developed a suite of tools, including a carbon footprint calculator and a nutrient balance tool, to help farmers assess and improve their sustainability practices.

The project produced several key resources, including a handbook of protocols and a manual of good practices⁶. These resources

⁵ Sustainolive: Promoting the sustainability and adaptation of the olive grove sector
<https://sustainolive.eu/>

⁶ <https://sustainolive.eu/wp-content/uploads/2023/09/D1.4.-Handbook-of-protocols-and-methods-T1.2.pdf>
<https://sustainolive.eu/download/10945/>

provide practical guidance for implementing sustainable agricultural practices and improving environmental stewardship. The project also developed an app that enables farmers to communicate directly with experts and access information on best practices. Sustainolive facilitated extensive knowledge exchange among farmers, researchers, and policymakers, organizing webinars, training events, and other activities such as demonstrative events in the field with testimonials of farmers who adopted the measures, and developing recommendations to share insights and experiences related to sustainable olive cultivation. This knowledge dissemination and exchange has strengthened the capacity of stakeholders to address environmental challenges and implement effective adaptation strategies.



Figure 6. Field visit in an olive experimental farm in Italy. Source: Sustainolive Newsletter n°3.

Sustainolive's success was supported by strong collaboration between researchers, local stakeholders, and industry partners such as farmers and farmer cooperatives. The use of digital tools and platforms facilitated knowledge dissemination and engagement with farmers, especially during the COVID-19 pandemic when in-person meetings were restricted. The project's focus on practical, on-the-ground solutions helped to overcome resistance to change and promote the adoption of sustainable practices. The project faced several barriers, including regulatory constraints on agroecological practices and economic challenges related to transitioning to sustainable methods. The influence of chemical producers on farmer decision-making also posed a challenge, as it affected the willingness of some farmers to adopt alternative practices.

Conclusion: Insights and Reflections

This article has explored the interactions of climate change and ICH through case studies from Green Heritage, and how R&I is supporting the adaptation of intangible cultural heritage (ICH) with three case studies on R&I initiatives examined in the context of Green Heritage and SD-WISHEES projects. By examining how R&I is contributing to addressing the challenges posed by climate change to ICH several critical insights and reflections can be drawn. The experiences of the projects highlight the importance of addressing different types of enablers and barriers for effective safeguarding and adaptation of ICH and uptake of solutions. Enablers such as strong community involvement, institutional support, and the use of innovative tools have been critical to the success of these initiatives. However, the projects also faced significant barriers, including regulatory constraints, economic challenges, and fragmented governance. Overcoming these barriers requires coordinated efforts among policymakers, researchers, and local stakeholders to create supportive environments for the sustainable adaptation of ICH.

One of the primary insights from these case studies is the importance of integrating ICH considerations into climate adaptation policies and plans at different levels. The findings highlight that effective policy frameworks must go beyond the traditional focus on tangible heritage and built environments to include ICH, which is deeply intertwined with local ecosystems and traditional practices. Extreme weather events and slow-onset environmental changes can threaten traditional practices that are vital for community identity and cohesion. Policies that explicitly address these impacts and incorporate ICH concerns into climate adaptation strategies are essential for ensuring that cultural practices not only survive but thrive amidst environmental changes.

Addressing the risks and vulnerabilities associated with climate change often requires significant data, capacity, and background knowledge. Engaging stakeholders and end users in the design, development and dissemination of R&I outcomes can help overcome barriers related to data interpretation and technical adaptation. Supportive national policies and regulatory frameworks are crucial for facilitating the uptake of R&I outcomes.

The case studies reviewed reveal that innovative tools and methodologies developed through research can significantly enhance the adaptability of ICH. For example, the GIS-supported Decision Support Tool (DST) from TERRACESCAPE provides a sophisticated means to guide the restoration of traditional terraces, while the real-time rainfall monitoring system from Rainwatch

offers essential information for agricultural planning in vulnerable regions dependent on the tradition of rainfed agriculture. Sustainolive highlights the importance of agroecological practices integrating scientific advancements with traditional knowledge in composting and water-efficient irrigation techniques. These innovations illustrate how scientific advancements can often complement traditional knowledge and support traditional practices, providing communities with the means to adapt their cultural-dependent practices to changing climatic conditions effectively.

Another key insight is the active involvement of heritage communities and stakeholders in adaptation efforts. The case studies demonstrate that successful adaptation of ICH is heavily reliant on meaningfully engaging local communities in the process. The participation of community members ensures that adaptation measures are culturally appropriate and aligned with traditional practices. The involvement of end users and stakeholders in the R&I process is crucial for ensuring that the outcomes are both relevant and applicable considering their needs. Community and stakeholder-led approaches, as demonstrated by the projects, significantly enhance the utility and adoption of innovations and ensure the reinterpretation and transmission of ICH.

TERRACESCAPE and Sustainolive engagement with local farmers and STONEWALLSFORLIFE's collaboration with stakeholders underscore the value of community-driven initiatives in preserving and revitalizing traditional practices. For example, in the STONEWALLSFORLIFE project, training and engaging community members in the restoration of drystone walls not only ensured that the solutions were tailored to local conditions but also fostered a sense of ownership and commitment. Sustainolive's workshops and field demonstrations provided practical knowledge exchange, empowering farmers to adopt sustainable practices tailored to their specific needs.

Similarly, the Rainwatch project's real-time monitoring system was developed in close collaboration with local institutions, which ensured that the technology met user needs and facilitated its integration into agricultural practices. Co-creation throughout the R&I lifecycle, from initial design to implementation and dissemination, ensures that outputs are not only innovative but also fitting within existing institutional and community frameworks. Aligning R&I outputs with local needs and conditions is essential for maximizing adoption and sustainability. The Rainwatch project's real-time rainfall monitoring system, for example, was designed with the practical needs of Sahelian farmers in mind, ensuring that the R&I outcomes were user-friendly and integrable into existing agricultural practices.

In summary, the adaptation of intangible cultural heritage to cli-

mate change involves a multifaceted approach that integrates policy innovation, research advancements, and community engagement. The insights from Green Heritage and SD-WISHEES illustrate that while the challenges are substantial, the potential benefits are profound. By recognizing and harnessing the resilience embedded in cultural practices, we can enhance both the preservation of heritage and the capacity of communities to adapt to a changing climate. Moving forward, it is crucial to continue supporting research and policy initiatives that address the complexities of ICH and climate change, ensuring that cultural heritage remains a cornerstone of sustainable and resilient futures.

References

- Adger, W. N., Barnett, J., Brown, K., Marshall, N., & O'Brien, K. (2013). Cultural dimensions of climate change impacts and adaptation. *Nature climate change*, 3(2), 112-117.
- Balcare, K., Gailite, E., Grinvalde, R., Laime, S., & Vaivade, A. (2023). *Primary and secondary data research findings*. Deliverable D 2.2 GreenHeritage Project. Available at: https://greenheritage-project.eu/wp-content/uploads/2024/07/GreenHeritage_D2.2-v.2.0.pdf
- Biddau, F., Galluccio, G., & Trozzo, C. (2023). *Development of Methodology*. Deliverable 2.3 GreenHeritage Project. Available at: https://greenheritage-project.eu/wp-content/uploads/2024/07/GreenHeritage_D2.3-v.2.0.pdf
- Biddau, F., Galluccio, G., Mazzoni, A., Street, R., & Trozzo, C. (2024). *Understanding existing innovation pathways*. Deliverable 6.1 SD-WISHEES Project. Confidential Report.
- Crowley, K., Jackson, R., O'connell, S., Karunarthna, D., Anantasari, E., Retnowati, A., & Niemand, D. (2022). Cultural heritage and risk assessments: Gaps, challenges, and future research directions for the inclusion of heritage within climate change adaptation and disaster management. *Climate Resilience and Sustainability*, 1(3), e45.
- European Commission. (2022). *Strengthening Cultural Heritage Resilience for Climate change: Where the European Green Deal Meets Cultural Heritage*. Publications Office of the European Union.
- Goswami, R. (2022). Intangible cultural heritage, natural disasters and climate change. UNESCO MOOC Living Living Heritage and Sustainable Development. Module 6: Intangible cultural heritage for resilience, environmental sustainability and peacebuilding. Available at: <https://www.edx.org/learn/art/sdg-academy-living-heritage-and-sustainable-development>.
- Montes-Osuna, N., & Mercado-Blanco, J. (2020). Verticillium wilt of olive and its control: what did we learn during the last decade?. *Plants*, 9(6), 735.
- Morel, H., Megarry, W., Potts, A., Hosagrahar, J., Roberts, D., Arikan, Y., ... & Veillon, R. (2022). Global research and action agenda on culture, heritage and climate change. ICOMOS & ISCM CHC, Charenton-le-Pont, France & Paris, France.
- Orlove, B., Dawson, N., Sherpa, P., Adelekan, I., Alangui, W., Carmona, R., ... & Wilson, A. (2022). ICSM CHC White Paper I: Intangible cultural heritage, diverse knowledge systems and climate change. Contribution of Knowledge Systems Group I to the International Co-Sponsored Meeting on Culture, Heritage and Climate change. Discussion Paper. ICOMOS & ISCM CHC, Charenton-le-Pont, France & Paris, France.



Climate Change and its repercussions on the emblems of Spanish Heritage: An analysis of the “Camino de Santiago” and the “Paella Valenciana”

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1. Introduction

Have you ever wondered whether climate change might affect some of the cultural identity of any of our countries, or whether any of our traditions are at risk for that very reason?

This problem has not only altered natural ecosystems and global economies, but has also had a devastating impact on the tangible and intangible cultural heritage of states. In Spain, two icons deeply linked to its national identity, the “Camino de Santiago” (The Way of St. James) and the “Paella Valenciana”, are being affected by global warming and its multiple effects. The “Camino”, a pilgrimage route with centuries of history, and the gastronomic recipe, a globally recognised emblem, are facing environmental challenges that could modify their essential characteristics and

cultural value, thus affecting the idiosyncrasy of the country.

Rising temperatures, rainfall variability and the intensification of extreme weather phenomena have modified the landscapes that make up the Compostela route, altering the experience of pilgrims, putting at risk the historical monuments that mark the route and modifying some of the traditions of its inhabitants. On the other hand, climate change is af-



Camino de Santiago, by Gumer Bueno (FSMLR).

fecting the fundamental ingredients of Paella, such as rice from the “Albufera” in Valencia and the “garrofón”, a variety of bean, which threatens the authenticity of this traditional dish.

This article explores how the climate crisis is affecting these two pillars of Spanish cultural heritage. First, it will analyse some of the screening initiatives being taken, such as the **European project “Green Heritage”** and the **Basic Plan for Adaptation to Climate Change on the French Camino de Santiago**, and how these actions are trying to mitigate environmental impacts and protect these traditions for future generations.

2. Actions for the Protection of Cultural Heritage

2.1. Green Heritage project

One of the initiatives investigating the relationship between climate change and, in this case, intangible cultural heritage is the Green Heritage project. An initiative co-funded by the European Union, through the Erasmus+ programme, it is being carried out in 5 European countries (Belgium, Greece, Italy, Latvia and Spain). It aims to develop a holistic, innovative and inclusive approach to the direct and indirect impact of climate change on intangible cultural heritage. To this end, it seeks innovative tools and methodologies capable of promoting adaptive and systemic approaches to better manage climate variation. Green Heritage aims to be a key catalyst in the implementation of policies and actions to protect cultural heritage in the face of climate change. One of its main actions is the holding of national **policy roundtables** in each of the five participating countries, which are instrumental in raising awareness of the challenges facing intangible cultural heritage and in developing innovative solutions. In particular, the roundtable held in Spain (Aguilar de Campoo, Palencia) in November 2023 brought together 29 experts from different sectors to discuss the relationship between climate change and cultural heritage. This meeting resulted in **25 recommendations**, which are included in the **Green Heritage Policy Brief**.

This document includes specific guidelines for the protection of food customs, such as the Paella Valenciana, as well as broader recommendations for the preservation of intangible cultural heritage, including



GreenHeritage's Spanish Policy Brief.

some guidelines that can be perfectly applicable to different issues affecting different manifestations present in the Camino de Santiago. Recommendations include the **promotion of interdisciplinary research** on the impact of climate change on cultural traditions, the creation of **economic incentives** for farmers who adopt sustainable practices, and the incorporation of considerations on this issue in heritage protection laws.

2.2. Basic Plan for Adaptation to Climate Change on the French Camino de Santiago

The "Association of Municipalities of the Camino de Santiago" (Asociación de Municipios del Camino de Santiago - AMCS), a Spanish non-profit organisation that represents and gives a joint voice to 114 municipalities along the traditional pilgrimage route commonly known as the **French Way of St. James**, has launched in 2024 the Basic Plan for Adaptation to Climate Change on the French Camino de Santiago. A document that seeks **three objectives**:

1. To know the basic concepts currently used in addressing climate change and its framing in the achievement of Sustainable Development Objectives.
2. To understand that landscape transformations determine the pilgrim's experience.
3. Facilitate the municipalities of the "AMCS" to make decisions within the scope of their competencies when carrying out actions in the face of climate change.

This report is another example of how concrete steps are being taken to protect cultural and natural heritage from the climate. The plan, developed by environmental, tourism and heritage experts, addresses both environmental concerns and the needs of pilgrims and local communities.



Basic Plan for Adaptation to Climate Change on the French Camino de Santiago.

It includes a series of **adaptation measures**, such as reforestation of areas affected by fires, the construction of more resilient infrastructure and the creation of alternative routes for pilgrims in the event of extreme weather conditions. It also promotes biodiversity conservation along the trail by restoring natural habitats and protecting endangered species.

The plan encourages the active participation of **local communities** in the protection of the Jacobean route, highlighting the importance of **collaborative management** involving all relevant stakeholders, from pilgrims to farmers and policy makers.

3. Camino de Santiago: Visible Impacts of Climate Change

The Compostela route is traveled every year by a multitude of pilgrims, it has been a space where history, culture and faith have converged for over a thousand years. Throughout the centuries, from the Middle Ages to the present day, the different routes have preserved and transmitted customs, rites, dances and stories that are part of its intangible cultural legacy. Many of the elements declared **Intangible Cultural Heritage** by **UNESCO** are present within the Camino. However, the effects of climate change are altering the landscapes, infrastructures and traditions that are part of this emblematic route. The Ministry of Culture of the Kingdom of Spain, at the beginning of 2024, has opened the file for the **declaration of the traditional Jacobean welcome** as a Representative Manifestation of the Intangible Cultural Heritage. This recognition focuses on safeguarding the fraternal system of hospitality that characterizes the pilgrimage, an essential element of the Jacobean phenomenon that has endured since the Middle Ages. Jacobean hospitality, with its austere and voluntary character, is one of the most fragile values of the Camino, threatened not only by commercialization, but also by the impacts of climate change that affect the environment and the spiritual experience of pilgrims.

3.1. Changes in landscapes and biodiversity

One of the most obvious effects of climate change on the Compostela route is the rise in temperatures and the increasing frequency of extreme weather phenomena, such as heat waves, storms and forest fires. These events are not only degrading the natural landscapes, but are also jeopardising the safety of pilgrims and altering the spiritual experience that has characterised this route for centuries. In the same way, some traditions or ways of life that develop in this territory are disappearing or are being modified by these same circumstances.

Forest fires, in particular, have devastated large forested areas



Forest landscape on the Camino de Santiago, by Gumer Bueno (FSMLR).

along the route. **Reforestation** of these areas has become an urgent task, as the fires have not only destroyed the vegetation, but also altered the local biodiversity. The forests along the route are vital not only for the aesthetic experience of pilgrims, but also for the ecological balance of the region. The disappearance of these ecosystems not only affects native species, but also accelerates the process of **soil erosion**, another problem that has been exacerbated by torrential rains associated with climate change.

Basic Plan for Adaptation to Climate Change on the French Camino de Santiago has identified erosion as one of the main threats to the Camino's infrastructure. Increasingly heavy rainfall is wearing away certain sections of the route, some of which are impassable for long periods of time. This phenomenon not only alters the route, but also puts at risk historical monuments that were not designed to withstand extreme weather conditions. In addition to erosion and fires, biodiversity loss is a critical challenge. Areas of the Camino that were once home to rich fauna and flora are suffering due to the loss of natural habitats. The disappearance of endemic species and the invasion of non-native species, which thrive in warmer climatic conditions, is altering local ecosystems and changing the ecological dynamics of the Jacobean route.

3.2. Impact on the pilgrim experience

Climate change not only affects the physical environment of the Camino de Santiago, but also the pilgrim's experience. The heat waves that have become more common in recent years have



Pilgrims on the Camino de Santiago, by Gumer Bueno (FSMLR).

made the pilgrimage more difficult and even dangerous. Travelers who are not used to extreme temperatures are at risk of heat stroke, dehydration and physical exhaustion. These episodes of extreme heat are not only affecting the health of walkers, but are also altering the very perception of the experience.

In the previous point we pointed out the problem of forest fires as the source of significant deforestation, which has also forced the authorities to close entire sections of the route during the driest months. This has interrupted the continuity of the route for many pilgrims, who are forced to change their route or even abandon their journey. Fires not only pose an immediate threat to walkers and local communities, but also have a lasting impact on the infrastructure of the Camino, such as shelters, monasteries and historic bridges.

Water scarcity is another problem that is affecting the traveler experience. In many rural areas, small villages that rely on water from natural springs are experiencing restrictions due to reduced rainfall. This limits the ability of albergues to provide basic services, such as drinking water, which in turn impacts on the traditional hospitality that characterises the Camino de Santiago.

In this context, local administrations are taking measures to mitigate the effects of climate change and ensure the safety and well-being of pilgrims. **Early warning systems** are being implemented to warn of dangerous weather conditions, as well as alternative routes to avoid areas most affected by extreme events.

3.3. Adaptations and solutions

Basic Plan for Adaptation to Climate Change on the French Camino de Santiago, implemented in response to these challenges, aims to protect landscapes, infrastructure and the pilgrimage experience from climate change. This plan includes a series of measures that address both environmental concerns and the needs of walkers and local communities.

Key strategies of the plan include **reforestation** of fire-affected areas, building more resilient infrastructure such as bridges and shelters, and creating drainage systems that prevent soil erosion. In addition, the plan promotes biodiversity conservation along the road by restoring natural habitats and protecting endangered species.

Green Heritage's Spanish Policy Brief includes the promotion of **sustainable tourism** that reduces pressure on natural resources, the **development of policies for the conservation of cultural landscapes** that protect areas of cultural and ecological value, as well as investment in more environmentally friendly infrastructure. In addition, it calls for cooperation between local communities, policy makers and international organisations to develop joint strategies to mitigate climate impacts.

4. Paella Valenciana: Changes in Traditional Ingredients

Paella, one of the most iconic dishes of Spanish gastronomy, faces serious threats due to climate change. Declared an Intangible Cultural Heritage in 2021, this recipe has become a symbol not only of Valencian cuisine, but also of social cohesion and tradition. However, this problem is putting the essential ingre-



Paella, by malubeng (Royalty free and free to use image).

dients of this dish at risk, which could alter its authenticity and, ultimately, its cultural value.

4.1. Albufera rice under threat

Rice is the main ingredient and is traditionally grown in the wetlands of the “Albufera de Valencia”, a delicate ecosystem that is being severely affected by climate change. The **salinization** of water and soil, caused by rising sea levels and the reduction in the flow of the Júcar and Turia rivers, is affecting farmers' ability to grow rice in this region. The **availability of fresh water**, which is essential for planting, is decreasing due to reduced rainfall and inefficient management of water resources.

The **shortening of the rice growing season** is another direct effect of climate change. Higher temperatures and longer summers are reducing its ripening time, affecting both the quantity and quality of harvests. In addition, **rising temperatures** are affecting the amount of starch it contains, which directly influences its texture and flavour. This alters one of the key elements of the famous dish, whose traditional recipe depends on the quality of the rice. Paella, as well as being an emblematic dish, is deeply linked to the cultural and economic identity of the Valencian Community. Rice production in the Albufera is not only a key factor in the local economy, but also defines the landscape and ecosystem of the region. However, **competition from imported rice** and the effects of climate change are threatening this age-old tradition. If immediate action is not taken, the cultivation of this cereal in the territory could become unsustainable in the coming decades, which would have a devastating impact on the cultural identity and gastronomy of the region.



Rice field in Albufera (Valencia), by Txus71 (Royalty free and free to use image).

4.2. The “garrofón” and its difficult future

The “garrofón”, a variety of large bean that is essential in the traditional Paella recipe, is also at risk. Farmers have reported that this food has lost more than 75% of its cultivation area in recent years, mainly due to competition with other countries and the effects of climate change, which is severely affecting this crop, which requires specific climatic conditions to thrive.

Scientists and local associations have stated that it is one of the most vulnerable ingredients in the recipe. As temperatures rise and water availability decreases, farmers are struggling to maintain this traditional crop. If measures are not taken to adapt to the new climatic challenges, the “garrofón” could disappear completely from the Valencian fields, irreversibly altering the original Paella recipe.

In addition, climate change has led to an increase in the frequency of **pests and diseases** affecting “garrofón”. Farmers are finding it increasingly difficult to combat these threats, which are exacerbated by extreme weather conditions. Rising temperatures and erratic rainfall have created an environment conducive to the proliferation of pests that affect both the quality and quantity of their production.

4.3. Adaptations and solutions in Valencian agriculture

In response to these challenges, local authorities and farmers have begun to implement adaptation measures to protect the cultivation of key Paella ingredients. Among the strategies proposed is **research into new varieties of rice and “garrofón”** that are more resistant to extreme weather conditions. In addition, more sustainable agricultural practices are being adopted, such as reducing the use of pesticides and fertilisers, and optimising irrigation systems to cope with water shortages.



Garden produce, by Gumer Bueno (FSMLR).

Green Heritage's Spanish Policy Brief also focuses on the protection of Paella in the face of climate change. This document includes a series of guidelines for policy makers to adapt their agricultural and environmental policies to the new climatic realities. Among the proposals are the promotion of sustainable agricultural practices that adapt to phenological changes, reducing the use of pesticides and promoting crop genetic diversity, raising public awareness of the importance of preserving traditional ingredients, and developing strategies for marine conservation and sustainable water management.

Economic incentives have been proposed for farmers who adopt sustainable practices, such as the use of more efficient irrigation techniques or crop diversification. These measures will not only help mitigate the effects of climate change, but will also contribute to preserving the authenticity of the recipe, a gastronomic heritage that is part of Spain's cultural identity.

5. Cultural Implications and the Future of Spanish Heritage

The impact of climate change on the Camino de Santiago and Paella Valenciana is a reminder of how this phenomenon is affecting all facets of life, including the cultural traditions that have defined the identity of nations for centuries. In Spain, this problem is not only putting landscapes and ingredients at risk, but also the cultural practices that form part of the country's social fabric.

5.1. Changes needed for cultural preservation

The preservation of cultural heritage against climate change requires a comprehensive approach that combines effective public policies, technological innovation and the active participation of local communities. In the case of the Jacobean route, this involves not only the restoration of landscapes and infrastructure, but also the adaptation of **tourism practices**, the promotion of sustainable tourism that minimises the impact on natural resources, and the protection of local communities' traditions and cultural practices.

Regarding Paella, the key to its preservation lies in supporting local farmers and implementing agricultural policies that promote more sustainable practices. Climate variation is already affecting water availability and soil quality, so it is crucial that policies are adapted to address these challenges and ensure that the key ingredients of the recipe can continue to be grown locally.

Paella is not only a meal; it is a representation of social and family cohesion. The need to protect this tradition is essential not only from a food point of view, but also because of its importance as an element of cultural identity.



Green Heritage Policy Roundtable, by FSMLR.

Green Heritage's Spanish Policy Brief emphasises the importance of a collaborative approach between local, national and European governments to address the specific problems facing intangible cultural heritage in the face of climate change. This document, which was developed after extensive consultations with heritage experts, scientists and policy makers, highlights the need to create **flexible legal frameworks** that allow for the protection of both cultural and natural heritage.

5.2. Future proposals

Looking ahead, it is crucial that projects such as Green Heritage and actions such as the Basic Plan for Adaptation to Climate Change continue to develop and expand to address the new challenges that climate change poses to cultural heritage. **Collaboration between governments, international organisations and civil society** will be essential to ensure cultural sustainability in this context.



MAPA ARTÍSTICO DE LOS PAISAJES DEL CAMINO DE SANTIAGO FRANCÉS
Elaboración propia a partir del Atlas de los Paisajes de España

The Policy Brief suggests that partnerships that promote the conservation of intangible cultural heritage in relation to climate change should be encouraged. These organisations can play a key role in promoting public policies that support local communities, ensuring that they can preserve their cultural identity in the face of climate impacts.

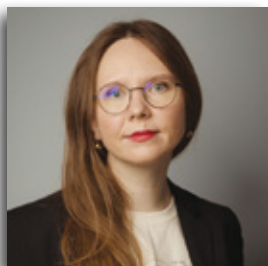
At the global level, it is essential that governments work together to implement economic incentives to encourage sustainable agriculture, particularly in the case of Paella and other traditional foods that are directly threatened by climate change. The implementation of these policies is fundamental to ensure that Spain's traditional agriculture and cultural landscapes remain viable in the long term.

6. Conclusions

The detailed analysis of the effects of climate change on Spain's intangible cultural heritage, with a specific focus on the Camino de Santiago and Paella Valenciana, reveals the urgent need for comprehensive and sustained intervention. These elements are not only tangible symbols of Spanish culture, but also bear intangible values that are part of the national identity. However, this problem is exerting unprecedented pressure, endangering both the physical landscapes and the traditional practices associated with them. We have worked on these two examples, widely recognised in Spain, as a representative sample of the country's cultural heritage. However, there are many other examples, in both tangible and intangible heritage, that are also under threat, demonstrating how climate change can profoundly alter a nation's distinctiveness.

There is not only a threat to natural ecosystems, but also to intangible cultural heritage, which defines the identity and social cohesion of communities. The traditions, customs and knowledge associated with the Camino de Santiago and Paella Valenciana are intrinsically connected to their natural environments, making them vulnerable to climate impacts. Without effective adaptive measures, we risk losing not only the landscapes, but also the experiences and values they represent.

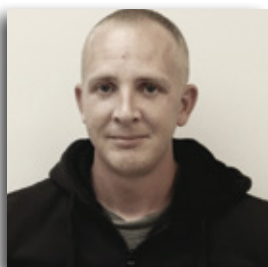
Responding to climate change must therefore be a priority for both cultural and environmental policies. The preservation of intangible values that are part of cultural heritage requires a comprehensive approach that considers environmental, social and economic dimensions. Through international cooperation and local commitment, it is possible to develop effective strategies to ensure the sustainability of these cultural treasures, allowing future generations to continue to enjoy them.



Climate Change Awareness in the Areas of Intangible Cultural Heritage Safeguarding



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In the project “GreenHeritage. The Impact of Climate Change on the Intangible Cultural Heritage” consortium, Institute of Literature, Folklore and Art of the University of Latvia (ILFA, in Latvian: *Latvijas Universitātes Literatūras, folkloras un mākslas institūts*) participate as experts on intangible cultural heritage (ICH). The authors of this article work as researchers at two ILFA's departments, the Archives of Latvian Folklore and the Department of Arts. Observing and exploring the interlinkages between intangible cultural heritage and climate change (CC) was new and challenging for us. However, after an intense and exciting period of research, which involved both studying academic literature in various fields and consulting professionals from environmental science, geography, climatology, ichthyology and other disciplines, we can humbly say that we have gained new knowledge and a little more understanding. With this publication, based on our project research, we want to share some of our findings not only with the project partners but the wider community of “Territori della Cultura” readers.

The main responsibility of the ILFA team was the implementation of the GreenHeritage Work Package 2, “Needs analysis & development of GreenHeritage Methodology”, which took place in 2023 and was carried out in close cooperation with the other partner institutions. Given the task of needs analysis (T2.1), D2.1 “Research Protocol” was first established. It served as the guiding document for further research and presented the core methodological tools to be used for the needs analysis and mapping exercises, including detailed practical instructions. The task was coordinated by ILFA and carried out in cooperation with other project partners, National Research Council (Italy, CNR), Foundation Euro-Mediterranean Centre on Climate Change (Italy, CMCC), European University Centre for Cultural Heritage (Italy, CUEBC), Foundation of Historical Heritage of Santa María la Real (Spain, FSMLR), and University of the Aegean (Greece, UAEGE-

AN). The ILFA research team took stock of different definitions of ICH at national (Greece, Italy, Latvia and Spain) and EU levels and provided a common definition, they coordinated and did research capturing data in partner countries and across EU regarding types of threats linked to climate change and provided causal links or probabilities of causation between climate change and ICH degradation.

To accomplish the needs analysis task, ILFA developed a suitable primary and secondary data retrieval methodology as well as approaches to data analysis. The data were retrieved via a structured online survey and semi-structured interviews, analysis of UNESCO lists and national ICH inventories, public legal and policy documents, studies of research literature and mass media monitoring. The comprehensive and complex data analysis was carried out in 14 case studies. Those were vivid examples of ICH and CC encounters in each of the partner countries, Greece, Italy, Latvian and Spain. ICH of Greece was represented in three case studies: CS4 "Agricultural and Dietary Tradition of Carob in Crete" (UAEGEAN); CS5 "Mandras (Paddocks) of Lemnos" (UAEGEAN); CS6 "Traditional Practices of Wild Edible Plants in Crete" (UAEGEAN). Italian partners carried out altogether four case studies: CS7 "Art of Dry-stone Walling, Knowledge and Techniques in Cinque Terre and Amalfi Coast" (CUEBC and CMCC); CS8 "Festival of the Ceri / Race of the Ceri- Gubbio" (CNR); CS9 "Madonna Avvocata Festival" (Amalfi Coast, CUEBC); CS10 "Network of Big Shoulder-borne Processional Structures" (CUEBC). There were two case studies from Spain: CS13 "Transhumance in the Cantabrian or Northern Third of Spain" (FSMLR); CS14 "Valencian Paella, "the Art of Uniting and Sharing"" (FSMLR). Latvia was represented by CS11 "Lamprey Fishing and Preparation Skills in Carnikava" (ILFA). To get a better understanding of ICH situation regarding CC in other European countries and regions, four additional case studies were carried out by ILFA: CS1 "Puffin Harvesting and Hunting" (Denmark); CS2 "Alpinism" (France, Italy, Switzerland); CS3 "Wine Culture in Germany"; CS12 "Skating on Natural Ice" (Netherlands). All case studies are represented on the Green Heritage Interactive Map available at: <https://map.greenheritage-project.eu/> The Latvian case study is further elaborated in a separate research article, "Perspectives on Climate Change Impact on Intangible Cultural Heritage: The Case of Traditional Lamprey Fishing" in the special issue of "Anthropological Journal of European Cultures".¹

¹ Laimē S., Balcare K., Gailīte E., Grīnvalde R., Vaivade A. Perspectives on Climate Change Impact on Intangible Cultural Heritage: The Case of Traditional Lamprey Fishing. *Anthropological Journal of European Cultures*, Volume 33, No. 1 (2024): 26-36. Available at: https://www.berghahnjournals.com/view/journals/ajec/33/1/ajec330104.xml?fbclid=IwZxh0bgNhZW0CMTAAAR0Vvsj4HBZVV1WxPdVZPvTqPU6en4UVdBF3FYzzE60-iEKLosWVrfAhloeg_aem_GJAVU4heE4jox7tBv5dd8g

The ILFA deliverable D2.2 “Primary and secondary data research findings” presented the output of the complex study of the primary and secondary data, thus providing a comprehensive overview of the overall situation. The current publication takes a closer look at the data collection methodology and the research findings from (1) the structured survey; (2) the international UNESCO lists of ICH; (3) national inventories of ICH; (4) periodic reporting under UNESCO's 2003 Convention.

Structured Survey

One of the data collection methods carried out by ILFA was the structured online survey “The Impact of Climate Change on the Intangible Cultural Heritage”. Its objective was to get an overview of CC effects on ICH in the EU territory. More particularly, the goal was to identify the general trends in the impact of specific CC types on ICH.

During the survey, representatives of UNESCO National Commissions and other national ICH organizations of the EU member states were asked to comment on the impact of CC on the ICH in their countries. The survey sought to ascertain the attitudes of the bearers of tradition, local communities, ICH institutions, municipalities, and the national government towards CC as well as the measures taken to improve the situation.

The survey consisted of the introductory part and consent and was continued with the following questions and queries:

1. How does CC affect the local ICH currently?
2. How will CC affect the local ICH in the future?
3. Considering the following CC impacts (rising temperatures, droughts, melting snow and glaciers, rising sea levels, biodiversity loss, etc.), which traditions (ICH forms) are affected and how?
4. How do the different stakeholders perceive the problem? Have the CC problems been noticed by the ICH bearers and practitioners?
5. Have the CC problems been noticed by local communities?
6. Have the CC problems been noticed by officials responsible for the ICH safeguarding?
7. Have the CC problems been noticed by others (e.g., journalists, researchers)?
8. Have any solutions been proposed (e.g., through practical actions, planning documents) at community level?
9. Have any solutions been proposed (e.g., through practical actions, legislation, planning documents) at municipal (local authority) level?

10. Have any solutions been proposed (e.g., through practical actions, legislation, planning documents) at regional level?
11. Have any solutions been proposed (e.g., through practical actions, legislation, planning documents) at national level?
12. Data collected during the GreenHeritage project will be visualized in an interactive map. If you refer to a specific tradition affected by climate change, please, provide the geographical coordinates or address that best describes the geographical distribution of the tradition (it can be either the entire country or a specific region, municipality, city, village, etc.).

Additional requests were to provide titles and links to the respective legal acts and policy documents; relevant WEB links or other useful resources on the subject; publications on the subject; additional comments on the subject; information on the contributor's role in relation to the ICH element, institution, position and contact details.

The online survey on the impact of CC risks on intangible cultural heritage, prepared by the research team, consisted of 12 thematic questions, eliciting the views of stakeholders and specific national ICH nominations.

The questionnaire was sent individually to representatives of the 27 Member States of the European Union: firstly, to the representative of the national inventory focal point that had prepared the country's periodic report on the implementation of the UNESCO 2003 Convention; secondly, to the National Commission for UNESCO of each EU Member State. The first invitation to complete the questionnaire was sent on 22 May 2023. For those contacts who did not complete the questionnaire within the deadline, a second invitation was sent on 19 June 2023, and, in some cases, a third invitation was sent to the experts individually responsible for the ICH field in a particular country.



Fig. 1. Traditional irrigation in Austria, by Herbert Haulbauer, unesco.at



Fig. 2. The Bellringers of Patsch in Austria, by Hermann Schmiderer, unesco.at

By 4 August 2023, 14 respondents from different fields representing 10 EU countries had completed the survey, including Austria, Bulgaria, Croatia, Greece, Italy, Ireland (3 respondents), Latvia, Lithuania (2 respondents), Spain and Sweden. Representative of Belgium responded individually that she did not see an impact of CC on ICH and, therefore, will not complete the survey. The lack of responses from representatives of other EU countries may indicate a lack of relevance of the topic in specific countries or a lack of competence to describe the impact of CC on ICH.

Most respondents indicated that ICH was not yet being addressed at national level in terms of CC impacts. In cases where the impact of CC on ICH has been identified, those who expressed concern were the tradition bearers themselves. This was most evident in northern Europe in the case of Sweden and in southern Europe in the case of Spain. In Spain, for example, ICH is even proposed by the tradition-keepers as a solution to CC, where, for instance, the use of a timber-rafting approach to reduce CO2 emissions is encouraged.



Fig. 3. Alpinistic knowledge of mountain and ski guides in Austria, by Johannes Mair Alpsolt, unesco.at

Fig. 4. Avalanche risk management in Austria, by Friedrich Juen, unesco.org

The examples of ICH offered by the survey respondents concerned traditions that involve contact with nature (boating, bird catching, outdoor activities in designated CC-affected areas) or where the raw material is found in nature (wooden crafts, pottery, fishing). Altogether 14 respondents provided 33 ICH national examples as potential case studies for further research about CC risks for sustainability of these traditions.

Respondents mostly mentioned CC risks such as extreme weather conditions (heavy rainfalls, strong winds, high temperatures, etc.), floods, drought, sudden change in temperatures, lack of ice, thaw cycles, ground erosion.

The CC theme appeared in strategic documents at national level, but in general, without being linked to specific ICH themes. Exceptions were those cases, such as the Sami in the North, who also promoted the topic at the political level. In official public discourse, for example in Bulgaria and Croatia, the CC theme also appeared in the context of cultural her-

itage, but mostly as a possibility for the future, not as a present situation.

When describing journalists' interest in the impact of CC on ICH, respondents pointed out that the topic of CC is frequently covered by the media, with calls to action, but without direct link to the ICH future. However, international media rather than local media mostly covered the impact of CC on ICH traditions.

When identifying the perceptions of different influencers on the impact of CC on ICH, respondents mentioned academia (especially anthropologists) as the most knowledgeable audience, but such perceptions were said not yet to be present in society at large.

The national examples of ICH proposed by the survey respondents for further research were the following:

1. Alpine transhumance in Austria
2. Alpinistic knowledge of mountain and ski guides in Austria
3. "Odlatzbia Oröwen" in Austria
4. Traditional Irrigation in Austria
5. The Bellringers of Patsch in Austria
6. Local Healing Knowledge in the Pinzgau Region in Austria
7. Avalanche Risk Management in Austria
8. Traditional fishing in Bulgaria
9. Mat weaving from aquatic plant in Bulgaria
10. Traditional clay pottery in Bulgaria
11. Mediterranean Diet in Croatia
12. Heroic vines Valdobbiadene in Italy
13. Floral decorations for the Feast of Corpus Christi in Italy
14. Transhumance in Italy
15. Holly Wells in County Clare in Ireland
16. Hawking Falconry in Ireland
17. Boyne Currach in Ireland
18. Timber-rafting on Gauja river in Latvia
19. Cross crafting and it's symbolism in Lithuania
20. Hollow tree beekeeping tradition, Varėna region, Musteika village, in Lithuania
21. Verbos Easter palms, Vilnius region, Čekoniškės village, in Lithuania
22. Fishing smelts and vendance by rotating bobos, Molėtai region, Mindūnai village, in Lithuania
23. Mushroom picking, Dzūkija National Park, Varėna region, in Lithuania
24. Smelt fishing, Lūšiai laike, Ignalinos region, in Lithuania
25. Ice knocking fishery of smelts, Curonian Spit, in Lithuania
26. Mediterranean Diet in Spain
27. Patios de Córdoba, Córdoba, Andalucía
28. Timber-rafting in Spain
29. Dry stone wall building in Spain

30. Irrigators' tribunals, Mediterranean Coast
31. Esparto grass culture, South of Spain
32. Lime-making in Morón de la Frontera, Sevilla-Andalucía
33. Reindeer Herding in Sweden

These suggestions from the survey responses provide rich pointers for further research in the field of ICH and CC encounters. Hopefully, more in-depth research will emerge and thus continue to contribute to new knowledge.

UNESCO Lists of Intangible Cultural Heritage

With the aim to identify CC and related risks in nominations on UNESCO Lists of ICH and the Register of good safeguarding practices (<https://ich.unesco.org/en/lists>), a corpus of full texts of the nominations representing EU Member States on UNESCO Lists of ICH and the Register of good safeguarding practices, published on UNESCO official webpage <https://ich.unesco.org> were browsed and searched. Specifically, the search for mentions of the word "climate" and the phrases "climate change", "climatic conditions", "climate risks" was done. Additionally, the interactive tool of UNESCO "Dive into ICH" was used, which demonstrated the thematic interconnectedness between all the elements inscribed and their relation to nature or to threats, including CC.

In total, five ICH elements from the EU Member States were identified whose descriptions presented CC risks. These elements are Truffle hunting and extraction in Italy, traditional knowledge and practice (Italy, inscribed in 2021), Transhumance, the seasonal driving of livestock along migratory routes in the Mediterranean and in the Alps (Austria, Greece, Italy, inscribed in 2019), Art of dry stone walling, knowledge and techniques (Croatia, Cyprus, France, Greece, Italy, Slovenia, Spain, Switzerland, inscribed in 2018), Craft of the miller operating windmills and watermills (the Netherlands, inscribed in 2017) and Traditional agricultural practice of cultivating the 'vite ad alberello' (head-trained bush vines) of the community of Pantelleria (Italy, inscribed in 2014). Four elements are related to Italy: in two cases those are individual nominations but in another two – multinational nominations with other European countries, representing the same threats among tradition bearers in several EU countries. Although CC is mentioned in the UNESCO lists, it is not addressed in detail. Traditional skills and practices can be useful in maintaining modern economies, farming and reducing today's undesirable environmental impacts (Craft of the miller operating windmills and watermills; Transhumance, the seasonal driving of livestock along migratory routes in the Mediterranean and in the Alps; Art of dry stone walling, knowledge and techniques).



Fig. 5. Mediterranean diet in Croatia, by Brch, realcroatia.com



Fig. 6. "Odlatzbia Oröwen" in Austria, by Verein Elsbeer Reich, unesco.at



Fig. 7. Mushroom picking, Dzūkija National Park, Varėna region, in Lithuania, by Elina Gailite.

The interactive tool of UNESCO "Dive into ICH" did not identify any EU Member States cases in relation to environmental degradation, including CC as one of the threats of ICH. All such cases, in total six, including Cultural practices and expressions linked to the 'M'Bolon', a traditional musical percussion instrument (Mali, inscribed in 2021), Carolinian wayfinding and canoe making (Micronesia, inscribed in 2021), Traditional knowledge and techniques associated with Pasto Varnish mopa-mopa of Putumayo and Nariño (Colombia, inscribed in 2020), Coaxing ritual for camels (Mongolia, inscribed in 2015), Secret society of the Kôrêdugaw, the rite of wisdom in Mali (Mali, inscribed in 2011), Sanké mon, collective fishing rite of the Sanké (Mali, inscribed in 2009), were identified outside Europe – in Africa, South America, East Asia and Oceania.

National Inventories of Intangible Cultural Heritage

To identify CC and related risks in the national inventories of ICH of the 27 EU Member States, all the national inventories were analysed. Every inscription on national lists published on ICH focal point webpages was searched for mentions of the word "climate" and the combinations



Fig. 8. Cross crafting and its symbolism in Lithuania, by Aliaksei Lepik, unsplash.com



Fig. 9. Hawking Falconry in Ireland, by Ray Harrington, unsplash.com



Fig. 10. Timber-rafting on Gauja River in Latvia—preparation of the raft, by Annija Ence, nematerialakultura.lv

of words “climate change”, “climatic conditions”, “climate risks”. If descriptions of the elements on the list were not available in English, the search was carried out by translating the words and word combinations into the language of the country concerned. Altogether, 11 of the 27 national inventories do not mention climate change in the ICH element descriptions. Climate keywords appear most in the element descriptions of Germany, Italy, the Netherlands, Estonia. Climate keywords in the context of climate risks appear most frequently in traditions related to food culture, such as plant growing (Mediterranean Diet in Italy and in Spain), animal husbandry (Transhumant livestock farming in Greece), fishing (Snap net fishing in Ireland; Lamprey fishing and preparation skills in Carnikava in Latvia), where certain conditions are also necessary for the preparation of specific examples of national gastronomy, such as wind for drying fish, meat or cheese (Traditional production of Pag cheese in Croatia). For several traditions, humidity is presented as a risk, both for food crops such as cereals (Knowledge about traditional seed cultivation and seed production in Austria) and wine culture (Wine culture in Germany), and for traditional building practices using local natural materials (Construction of a stone garden in Kihnu island in Estonia; Dry stone construction in Ireland). Climate change risks are also reflected in the descriptions of traditions directly related to snow and ice, including mountaineering (Alpinistic knowledge and skills of the mountain & ski guides in Austria; Mountain carrying in Slovakia), playing in snow (Playing in snow in Finland), ice-skating (Skating on natural ice in Netherlands). Climate is often mentioned in descriptions of traditions where it has a direct link to the practice of the tradition itself, e. g. cold seasons for knitting traditions (Knitting large shawls in Saaremaa in Estonia; Making patterned, double-knit mittens in Mazsalaca in Latvia).

In general, climate risks are more likely to be reflected in ICH practices related to highlands or islands and to farming practices.

Intangible Cultural Heritage

Following the task to identify CC and related risks in the UNESCO periodic reporting of intangible cultural heritage of the 27 EU Member States, the approach was to determine whether the UNESCO periodic reports of the EU Member States mention climate change risks, the reports of the 27 EU Member States were analysed by looking at reports for all available years. All country reports published on the UNESCO website were searched for mentions of "climate", "climate change" and other variations of "climate".

Nine country reports do not mention climate at all. Only the 2012 Spanish report mentions CC as a potential risk in the future to be considered. All other information is from the 2021 reports. It is evident that climate and its impact on ICH are receiving more attention in the northern and southern European countries (Sweden, Finland, Spain, Italy, Greece). Seven reports mention CC in general terms, as one of the aspects to be considered in the future that affect and will affect ICH.

Reports from Finland, Sweden, and Denmark (Sámi cultural space and the Arctic region, environment, and culture) show how regions and their cultures are changing because of CC. Heavy rainfall and flooding are among the threats affecting ICH in the regions, as mentioned in reports from Luxembourg and the Netherlands. However, there is no specific reference to particular ICH practices affected. One of the problems that emerges in the reports is the change in snow and ice thickness and the lack of stability (avalanche risk management, traditional hunting practices, dog sledges for travel and hunting in Austria; landslides, glacial melt, snow, and ice quality



Fig. 11. Public session of the Tribunal of Waters of Valencia's Watered Land, by Luis Pablo Martínez, unesco.org

Fig. 12. Lime-making in Morón de la Frontera, Sevilla-Andalucía, by Instituto Andaluz del Patrimonio Histórico, unesco.org



Fig. 13. Viticulture in Passopisciaro, Sicily, Italy, by Neil Weightman, [wikimedia.org](https://commons.wikimedia.org/wiki/File:Passopisciaro_Viticulture.jpg)

affecting the tradition of mountain climbing in Italy). Traditional livestock breeding and farming are on the list of endangered practices (transhumance in Greece and Spain; growing vines in Italy; traditional grassland irrigation in the Netherlands; reindeer husbandry in Sweden).

Traditions linked to food culture are also highlighted (traditional viticulture in Santorini in Greece, the truffle hunting and extraction in Italy; Mediterranean Diet in Italy and Cyprus; Sámi food system in Finland).

The reports also highlight the importance of education to further improve the CC mitigation. Both formal and informal education are important. Much has been done in this field in the context of avalanche risk management in Austria, both by training schoolchildren on what to do if caught in an avalanche and by promoting tree planting at municipal and national level to reduce avalanche risks. In Greenland and Sweden, museums and projects are also focusing on ICH in the face of CC. Seminars, symposia, boot camps are organised to highlight the broad importance of ICH (Greece, Italy, Spain, Ireland, and Sámi culture). The reports also show that ICH has been used to reduce the impacts of CC on nature and the environment, as traditional knowledge and practices offer many opportunities (in the Netherlands, Slovenia, Finland, Spain). There is little in the reports on legislation so far and in the near future, but some country reports provide information on climate policy frameworks that include cultural heritage (Greece, Slovenia, Finland).

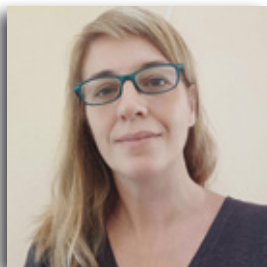


Fig. 14. Sámi people with a reindeer, by Jens and Marian, wikimedia.org

Our study covers the situation as it was in the summer of 2023. We would like to see this research to continue, because, unfortunately, the effects of climate change are continuing and even increasing, and it is not only material culture that is being affected, but also intangible cultural heritage. The Green Heritage project is a step towards raising awareness of the climate-related challenges that intangible cultural heritage communities and other stakeholders may increasingly face in the future.



Climate Change and Intangible Cultural Heritage: three examples from Greece



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Introduction

As one more summer goes by in Greece, individuals and communities count the scars of the effects of climate change: heat-waves and other extreme weather phenomena, like rare sea and lightning storms have left behind water shortages, burned forests, destroyed crops, and dislocated communities. The impact goes beyond those immediately affected and urges for new policies, mitigation and adaptation measures, changes in attitudes and understandings. (Fig 1) It is not only tangible assets that are affected by these phenomena, however. It is also the intangible parts of life, i.e., the ways people live and express themselves,



Fig. 1: Penteli after the forest fire-August 2024.
Source: Viveta Christouli.

their skills and knowledge, their communal practices, and beliefs. These are also shattered once their natural environment is destroyed, once this deep connection between people and their land is broken. The degradation of ecosystems, the decline in biodiversity resulting from climate change threaten traditional knowledge systems, environmental management practices and the social connections inherently tied to them. Put simply, all aforementioned factors pose serious threats to intangible cultural heritage (ICH).

While this realization is not a new one, it has certainly become more pronounced in recent years. In the wake of this development, within the scope of the EU funded project GreenHeritage (12/2022 – 11/2025)¹, several case studies were explored in order to gain a deeper understanding of the interconnection between climate change and the protection of ICH. In the case of Greece, we focused in particular in ICH that are associated with *food* and *subsistence*; this particular category of ICH encompasses a wide range of parameters: food traditions and customs, geographical indications, food production, processing and storage, dietary customs, culinary practices and consumption habits.

In this article we are going to focus on three case studies – all chosen based on their relation to food from the National Inventory of ICH in Greece²: (a) the “mandras” in Lemnos, an island in the northeastern part of the Aegean Sea; (b) traditional practices of wild edible plants and (c) the agricultural and dietary tradition of carob, both on the island of Crete. Based on data collected through primary research (interviews with practitioners), we will explore how CC affects ICH and the life of people, identifying areas of expertise that need to be taken into consideration in the planning of mitigation policies by local, national and international authorities.

The three case studies

Case study [1]: The “mandras” of Lemnos

The ICH of “mandras” (plural, singular “mandra” or “mantra”) or paddocks of Lemnos describes an organizational system of primary production, i.e. agriculture and livestock breeding (Fig. 2). It refers to a production system that brings together a series of environmental and cultural parameters, including biodiversity, climate, geology, traditional agricultural practices, and socio-economic structures. Around the “mandra” a whole system

¹ <https://greenheritage-project.eu/about/>

² <https://ayla.culture.gr>



Fig. 2: "Mandra" of Lemnos. Source: Alexandra Bounia. Fig. 3: A "mandra" from Lemnos. Source: Alexandra Bounia.

of buildings, pasture lands, agricultural productions and human relationships are structured, a system that supports mutual interaction allowing human survival for centuries (Fig 3).

The "mandra" is a complete production unit. It consists of a building with its auxiliary spaces and the agricultural and pasture land that surrounds it. Although it has as its reference point the buildings known as "mandra" and are recognized as important architectural monuments as well as a traditional methodology of building technique and knowledge, this ICH element extends far beyond the structures themselves: it refers to the core, spatially, financially, socially and symbolically of a holistic agricultural world, in other words a comprehensive system of primary organization. Its origins have been traced back to the Byzantine period and the system that it represents continues to this day, to support the life and the needs of its practitioners, i.e., the "kehaghias" (singular, plural "kehaghiades"). A "kehaghias" is a livestock breeder and farmer who apart from their main professional practice, keeps a small number of livestock and land that supports family income. The "kehaghias" may own the "mandra" (more common in modern times) or rent it (more common in the past). Therefore, the "mandra" is also the point where two social-economic groups of Lemnos are met: the "kehaghias" and the "boss" ("afentiko", singular), i.e. the owner of the land within which the "mandra" is located and which forms the "mandra". Having collected valuable experience from hundreds of years of practice, the "kehaghiades" apply a series of agricultural tech-

niques that allows them to maximize the benefit of using the land available to them and produce almost everything they need in order to survive. It is an impressive set of skills, knowledge and techniques that offers valuable examples of management of the land and its recourses. The buildings are usually located in the middle of the land, in a space that allows full visibility of the surrounding area, but also protection from the winds. This land is typically referred to as a "pair" meaning that it consists of plot that required a pair of oxen for its cultivation. The size of the land is not measured in hectares or any other modern units, but rather by its capacity to cater for two households, i.e., two families, that of the "kehaghias" and that of the owner of the land. It also consists of a flock of sheep and goats, the animals needed for plowing, and the possibility to provide enough to support taxation, export as well as the barter economy within the community of "kehaghiades". Each "pair" should have the cultivated land ("tsagiria" – plural) that were sown during the first rains of autumn and are also part of the pastureland during the period of animal bearing young, or bad weather conditions. The "pair" also consists of some mountain pasture plots which were called "moiradia" (plural).

As mentioned earlier, in the past, the "mandra" was given by the owner to a "kehaghias" to cultivate; the owner would get half of what the "mandra" would produce and often the "kehaghias" would be obliged to perform a series of other tasks for the owner (like taking care of their animals). Today, "mandras" are usually owned by the "kehaghias", or they are rented by them. Although the ownership situation has changed, the basic principles that the system of the "mandra" supports remain the same: the "mandra" still refers to a holistic management approach that consists of practical experience and traditional knowledge, symbolic and social relations that pass from one generation to the next; it creates a unique relationship between people and their land and support its sustainable use as part of a complex network of local social and economic relationships.

Case study [2]: Traditional Practices of Wild edible plants in Crete

The wild edible plants of Crete ("chorta"), the practices of collecting and processing them, the inventive yet simple way of preparing them, and their role in everyday life renders them into a rare intangible cultural asset (Fig 4). Wild plants, as an integral part of the Cretan dietary system, are a cultural and social asset that continuously permeates everyday life in Crete from prehistoric times to the present day. The consumption of wild plants in difficult times of war, scarcity, and deprivation ensured food and survival, while they are particularly preferred during long fast-

ing periods, hence their prominent role in monastic cuisine. The simplicity and moderation that characterize Cretan cuisine find expression in the nutritional utilization of wild plants. However, wild plants are also present on the festive table in Crete as the main dish combined with meat (e.g., wild greens with lamb). Gathering of wild plants, which was previously done by women of all ages, without excluding men, served as a learning process for younger generations to find edible wild plants, and even today it provides opportunities for social expression, as group outings to the countryside for this purpose are not uncommon. Additionally, the practice of "skouteliko," the exchange of small quantities of food among housewives, was also common in the case of wild plants. In general, the resourceful way in which Cretans use wild plants fulfills needs, balances social differences, and expresses collectivity.

Crete possesses a rich flora with approximately 1,800 known species and subspecies, of which more than 190 are endemic.



Fig. 4: An example of an edible wild plant from Crete. Source: National Inventory of ICH, Greece, <https://ayla.culture.gr/el/>

This plant diversity is due to its geographical location (isolation resulting in speciation) as well as the presence of different ecosystems, which in turn lead to the creation of various habitats with different microclimates (coastal zone, plains, semi-mountainous and mountainous zones, gorges, wetlands). Another characteristic related to Cretan flora is that many wild plants, both endemic and non-endemic, are edible (Fig. 5). The consumption of wild plants as main dishes, side dishes, or salads on a daily basis is a key characteristic of Cretan cuisine. Recent studies on the chemical composition and nutritional elements of several wild greens and vegetables consumed in Crete have



Fig. 5: An example of an edible wild plant from Crete, source: National Inventory of ICH, Greece, <https://ayla.culture.gr/el/>

demonstrated their significant nutritional value. The correlation between the exceptional health and longevity of Cretans and the nutritional components of wild greens and vegetables has been evidenced by numerous studies. In addition to vitamins, minerals, and carbohydrates, which are important nutrients known for their role in human health, wild greens and vegetables contain omega-3 fatty acids and numerous phytochemicals, products of the secondary metabolism of plants. Researchers have focused on these metabolites in recent years, as there is increasing evidence that these substances also influence human metabolism in a health-promoting manner.

Case study [3]: Agricultural and dietary tradition of carob in Crete

Carob trees have been cultivated in the Mediterranean since ancient times, usually in areas with mild and dry climates and poor soil (Fig. 6). Its value was recognized by the Greeks, who brought its cultivation from the Middle East (Syria, Palestine). In Crete, carob charcoal has been found in prehistoric (Late Minoan) layers. According to ancient sources, the tree grew in Syria, Ionia (where it was called "keronia"), Knidos, and Rhodes. According to some researchers, the tree was introduced during Roman times. It is believed to have reached Rome through Greece, as indicated by its Latin name, *Siliqua graeca* (Greek carob). Its scientific name, *Ceratonia siliqua*, comes from the ancient Greek word "keras" and the Latin word "siliqua," referring to the horn-shaped shape of the fruit. Dioscorides, a physician, pharmacologist, and botanist of the 1st century AD, named the fruit (pod and seeds) "keration" and the carob tree "keratea." According to Theophrastus,



Fig. 6: Carob tree, Crete. Source: National Inventory of ICH, Greece, <https://ayla.culture.gr/el/>

the Ionians of the 4th and 3rd centuries BC called it "keronia". The term "keration" is mentioned several times in the New Testament, especially in the parable of the Prodigal Son. Furthermore, the word "karati" in Greek jewelry-making is derived from the word "keration." The seeds of the carob tree have a stable weight ranging from 189 mg to 205 mg, which is why it was defined as the smallest unit of measurement for gold and precious stones (the modern "carat" has officially been defined as 200 mg). The Arabs, to whom the careful selection of carob varieties is attributed, spread it along the coasts of North Africa, Spain, and Portugal. Their contribution to the spread of carob is evident from the prevalence of the word "kharrub" throughout Europe and Greece, where it grows naturally in many island regions, especially in Crete.

With regard to the culinary use of carob in ancient times, although it was possibly cooked in Mesopotamia during the 2nd millennium BC and used by the Egyptians in the production of alcoholic beverages, there is no information about its use in the Greek territory. However, Dioscorides mentions the medicinal use of carob pods and "keratite wine." In a Cretan medical treatise from the 19th century, the seeds of carob trees and their therapeutic use are mentioned. Foreign travelers who visited Crete in the 19th century describe carobs as a food for both humans and animals. (Fig. 7) Carob also belongs to the family of "syrups," Byzantine beverages that evolved from the Ottomans. The drink made from carob syrup and cold water is still popular in Egypt, Lebanon, and Syria. In fact, during the Ottoman rule, it was African traders living in Crete who were the itinerant sellers of carob. Carob honey is



Fig. 7: Carob fruits from Crete, source: National Inventory of ICH, Greece, <https://ayla.culture.gr/el/>

prepared by boiling chopped and lightly pounded mature pods or pods and seeds. After boiling for a short time, they are left in water for twenty-four hours. Then they are strained, and the water is simmered until it reaches the desired density.

During the Second World War, Crete was a major exporter of carob pods, mainly to Northern Greece. A significant portion of the cargoes reaching the city of Thessaloniki were intended for the production of carob syrup.

Assessing the impact of CC to ICH: a threat and an opportunity

The Hellenic Ministry of Culture acknowledges the threats that CC poses to ICH elements, especially those related to stock-breeding and agriculture. It actively supports the work of various organizations aiming to raise awareness among bearers and scientists regarding these challenges. On the 15th of June 2022, the Hellenic Ministry of Culture and the Chinese Embassy organized a Symposium entitled “The 3rd Experts Forum on the Protection of ICH”. This event featured a series of keynotes and a round table discussion that brought forward many ideas regarding CC and its impact on ICH. Interestingly, the discussion highlighted that ICH is not only threatened by CC. As a rich and dynamic body of experiential knowledge, ICH could also serve as a valuable resource for adaptive measures and solutions, given that many ICH

elements are inherently adaptive, resilient and sustainable. Consequently, the Symposium strongly emphasized that ICH should be recognized by officials and authorities as an important medium for addressing challenges deriving from CC.

This twofold approach is evident from our research as well. In the case of the mandras of Lemnos, the main threats of CC, as per the interviewees contacted for this research, are posed by the following elements: increase of temperature; increase of rainfall and destructions related to flooding; loss of local biodiversity and import of foreign species of animals and plants that do not adapt well to the natural environment and require more resources than those available on the island (for instance, more water); uncontrollable increase of the wild rabbit population which in turn affects both cultivations and biodiversity.

The bearers and practitioners seem very aware of the need to act for the protection of their heritage from the effects of climate change and environmental threats in general. During our interviews, they conveyed a deep awareness of the threats and a strong sense of responsibility to respond to them. All informants had personal experience of how the rise of temperature affects both their crops and their ways of working. With rising temperatures, people can no longer work in the fields as long as they used to and it is impossible to be outside after 11.00 am. This not only affects working practices, but also influences the decision of younger generations to continue working in the fields, putting the safeguarding of their heritage at risk. Furthermore, rising temperatures accelerate maturation of the crops; early maturation also reduces the time available for traditional collaborative practices: in mandras, the "kehaghias" and his family would support other "kehaghiades" during the harvest season and then they would celebrate collectively with a big feast: today the crops mature so fast that the "kehaghiades" can no longer take turns in the collection of their crops as they used to. As a result, both collaboration and social relationships are affected, along with the celebrations associated with the harvest.

The yearly calendar is also affected by the temperature rise: many celebrations and religious practices of "kehaghiades" are related to the annual agricultural cycle: for instance, the religious celebration of Panagia Messochoritissa used to mark the new planting season at the beginning of the yearly cycle; however, due to CC the time of the celebration does not coincide any longer with the actual planting as the rise of temperature means that the planting has to happen later in the year than in the past. Consequently, the meaning and significance of religious celebrations is also reconfigured.

Furthermore, the rise of temperature affects the relation with water resources, which are crucial for sustaining a "mandra". Cur-

rently, rainfall has become less frequent, but when it does rain, it is often heavy. This affects local plants, which adapt better to lower water levels. Therefore, the excess in watering because of the heavy rainfall affects them in a negative way. On the other hand, new plants and animal species (like European species of sheep) are imported to the island, as they are more productive and therefore financially viable. However, as they are not suited to the climate of the island, these species require much more water and food to survive. To meet these needs and increase production, the owners of these new species of animals and plants are drilling deep wells, a fact which disrupts the balance of water resources and availability for the “kehaghiades” and the overall production cycle. Additionally, these practices lead to dryness of natural water reserves which in turn means that wild animals, like migratory birds, cannot find water that they need in order to continue their journeys.

The above may also be related to the uncontrolled growth of the population of wild rabbits; in the absence of natural predators, their numbers are increasing, and this affects both pastureland and cultivations.

On the other hand, in the case studies from Crete the emphasis seems to be elsewhere. Interestingly wild edible plants in Crete should not be characterized as a species at risk but rather as a solution to threats posed by CC. The wide occurrence and availability of edible wild plants in Crete is related to the island's rich topography. The rocky landscape forced local inhabitants to rely on nature for their food supply throughout the island's history. During the interviews, it was repeatedly stressed for instance, that during the Second World War, Crete did not “experience hunger” (as other parts of Greece) precisely because of the wide abundance of edible wild plants in the Cretan landscape.

Observing the annual cycle of vegetation in relation to the changing seasons, specific locations, and microclimate led local inhabitants (particularly older generations) to a deep experiential knowledge of the natural economy, the properties of a wide spectrum of edible plants as well as the specific conditions of their growth. Today, in the wake of concerns regarding CC, this experiential knowledge may act as an impetus for overcoming (i) climate warming and unpredictability, (ii) drought, and (iii) temperature rise. In other words, the use of wild edible plants may be an effective and sustainable strategy for counterbalancing/overcoming the effects of CC.

During the interviews, local inhabitants/farmers mentioned numerous varieties/types of wild plants, emphasizing mainly how they were consumed and/or cooked (raw, boiled, fried). When they were asked about the effect of CC to wild flora on the island, they mentioned that these plants are not affected by changes in

weather conditions and/or climate. It is indicative, they argued, that regardless of when rainfall occurred (“premature/out-of-season”, “unexpected” and/or “delayed”), soon after its occurrence, wild plants would make their appearance. For them, wild plants are therefore “constantly available”.

As in the case of wild edible plants, carobs may be related to CC not as a species at risk but rather as a solution to environmental restructuring. They are one of the most useful trees in the Mediterranean basin, representing resilience and self-sufficiency. They have deep roots and find their own way of natural irrigation. Carob helped the villages of Crete survive the famine during the German occupation. Rich in nutrients, it is considered a superfood and has a long shelf life without requiring special storage conditions. The carob tree, a plant that withstands drought, can also provide solutions for reforestation programs in coastal areas endangered by erosion and serve as a key factor in preserving the ecosystem. It can also be utilized in fire-prone zones due to its fire resistance. In fact, according to a recent announcement from the Greek authorities, the reforestation of the part of Attica that has been burned due to the forest fires in the summer of 2024 will consist of carob trees.

Conclusions and future directions

So far, all research on ICH increasingly underscores its inextricable link with the changes occurring in nature and the environment. The case studies reviewed in this article have highlighted a very interesting pattern: while some elements of intangible cultural heritage are indeed threatened by CC, other elements offer valuable solutions for mitigating these impacts. This article seeks to highlight the profound interconnectedness between ICH and CC, but also proposes a framework for identifying both the risks and opportunities that are emerging from this interplay. The ultimate aim is therefore to adopt a more holistic perspective on how ICH can be under threat but also contribute to addressing the challenges posed by CC.

Throughout our research and interviews, bearers/practitioners have expressed a need for additional support (financial and/or political), namely policies and measures that will (a) support their sustainability efforts and (b) raise awareness about local biodiversity and natural resource management.

Therefore, it is of crucial importance to integrate ICH into climate policy at local, national, and international levels, as well as the promotion of community-based adaptation strategies and approaches that could ensure that such strategies are culturally relevant and sustainable in the long term. Further research and

documentation are required in order to enhance awareness and mobilize resources for ICH preservation. Finally, education and public awareness programs are essential tools for fostering a greater appreciation of ICH safeguarding practices (particularly against CC) and for encouraging broader community engagement in safeguarding efforts.



Preserving the Past, Protecting the Future: The Green Heritage Interactive Map



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Introduction

This article details the development and outcomes of the Green Heritage interactive map, which was developed on the grounds of the project "The Impact of Climate Change on the Intangible Cultural Heritage-Green Heritage" which is co funded by the Erasmus+ Programme.

Green Heritage is a European project that aims to address the impact of climate change on intangible cultural heritage. One of the key results of the project, is an interactive map of endangered areas and regions in Europe, where cultural heritage has started to impact negatively on different types of intangible cultural heritage.

What is a map?

A map¹ is a visual representation of an area, typically drawn to scale and on a flat surface. It displays geographical features like boundaries, bodies of water, roads, and other points of interest. Maps help us understand spatial relationships and navigate the world around us.

What is an interactive map?

An interactive map is a digital map that allows users to actively engage with its content and features². Unlike traditional static maps, interactive maps offer a dynamic experience, enabling us-

¹ Encyclopædia Britannica. (2024). Map. Retrieved from <https://www.britannica.com/science/map>

ers to explore different levels of detail, from a broad overview to a close-up view, to move across the map to view different areas, to access additional information, such as pop-ups with text images, or videos to filter information based on specific criteria such as population density and/or income level and to generate reports and visualizations that help analyses and deeper understanding.

Interactive maps can be used for a variety of purposes, including:
navigation: finding directions or exploring new places.

data visualization: communicating complex information in a visually engaging way.

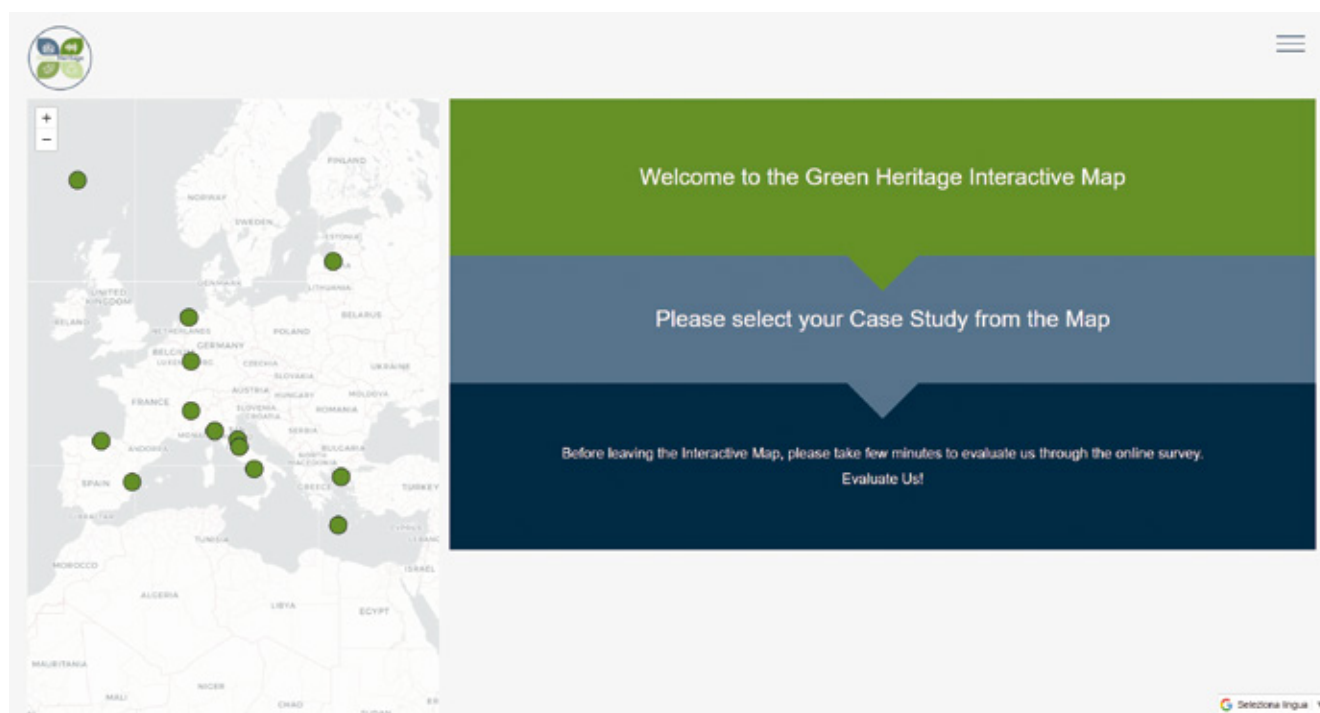
education: teaching geography, history, or other subjects.

marketing: promoting businesses or destinations.

Interactive maps are a powerful tool for understanding and interacting with the world and they become increasingly more popular since they enable the creator of such maps, to offer its users a better understanding for the world.

The purpose of the Green Heritage Interactive Map

The Green Heritage Interactive map operates as a tool to showcase examples of the most endangered areas and regions in Europe where climate change continues to impact various types of intangible cultural heritage.



The path towards developing the Green Heritage Interactive Map

On the process of developing the Green Heritage Interactive Map, a series of objectives were to be met.

These objectives included designing an interactive map with rich graphic elements that will allow, among other, zooming in and out, panning around, identifying specific features and querying underlying data such as by topic or a specific indicator.

The primary focus was on creating a pleasant User Experience Design (UX) and on the an equally pleasant User Interface Design (UI)³.

A successful interactive map should be informative, intuitive, and engaging for users with varying levels of technical expertise. To accomplish this, a user-centered design approach was employed, incorporating feedback from both consortium members and the project's target groups and stakeholders of the project. This feedback proved invaluable in shaping the map's features and functionality.

User Experience Design (UX)/ User Interface Design (UI) Design Considerations

The design of the Green Heritage interactive mpa emphasized simplicity and user-friendliness. A clear and uncluttered interface ensures that users could easily navigate the map and access information. The zoom and pan contribute to the smooth, responsive and seamless exploration.

The Green Heritage design follows a visually engaging and informative approach. An aesthetically pleasing and intuitive color palette, harmonizing with the project logo's colors ensure a user-friendly navigation experience. The accessibility of the interactive map and the user experience are further improved by the use of symbols of universal understanding.

The outcome is an interactive map that not only visualizes endangered areas and intangible cultural heritage elements but also functions as an educational and awareness-raising tool. The map encourages users to explore, discover, and understand the connection between climate change and cultural heritage, empowering them to champion preservation efforts in the face of environmental challenges.

³ Smartvel. (2023). Exploring the potential interactive route maps and exceptional UX. Retrieved from <https://www.smartvel.com/resources/blog/exploring-the-potential-interactive-route-maps-and-exceptional-ux#:~:text=Interactive%20maps%20are%20typically%20used,live%20map%2C%20which%20makes%20it>

A brief description of the case study

Tradition.

The wild edible plants of Crete ("yótona"), the practices of collecting and processing them, the inventive, yet simple, way of preparing them, and their role in everyday life and activities make them a rare ICH element. Wild plants, as an integral part of the Cretan dietary system, are a cultural and social asset that continuously permeates everyday life in Crete from prehistoric times to the present day. The consumption of wild plants in difficult times of war, scarcity, and deprivation ensured food and survival, while they are particularly preferred during long fasting periods, hence their prominent role in monastic cuisine. The simplicity and moderation that characterize Cretan cuisine find expression in the nutritional utilization of wild plants.

[Show More](#)

Climate change impact on case study

Wild edible plants in Crete should not be considered as species at risk but rather as a solution to CC. The wide occurrence and availability of edible wild plants in Crete is related to its rich topography. The rocky landscape forced local inhabitants to rely on nature for their food supply throughout the island's history. During the interviews, it was repeatedly stressed for instance, that during the Second World War, Crete did not "experience hunger" precisely because of the wide abundance of edible wild plants in the Cretan landscape.

Observing the annual cycle of vegetation in relation to the changing seasons, specific locations, and microclimate led local inhabitants (particularly older generations) to a deep experiential knowledge of the natural economy, the properties of a wide spectrum of edible plants, as well as the specific conditions of their growth.

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Attitudes and recognition of problems

ICH bearers and practitioners, local community

During the interviews, local inhabitants, and farmers mentioned numerous varieties/types of wild plants, emphasizing mainly how they were consumed and cooked (raw, boiled, fried).

When they were asked about the effect of CC on wild flora on the island, they mentioned that these plants are not affected by changes in weather conditions and climate. It is indicative, they argued, that regardless of when rainfall occurred ("premature/out-of-season", "unexpected" and/or "delayed"), soon after its occurrence, wild plants would make their appearance. For them wild plants are therefore "constantly available".

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Existing practices: solutions implemented, planned, or

Further reading and media links

[Research bibliography](#)

Selezione lingua

The content

The map features eight layers of data of existing practice to mitigating the effects of climate change on intangible cultural heritage altogether:

- (1) adaptation
- (2) intangible cultural heritage inventories
- (3) public awareness
- (4) community involvement
- (5) research and monitoring
- (6) sustainable resource management
- (7) national legislation
- (8) international cooperation.

The cases showcased in the interactive map are from:

- the Lamprey Fishing and Preparation Skills in Carnikava of Latvia
- the Puffin Harvesting and Hunting of Denmark
- the Skating on Natural Ice, from the Netherlands
- the Wine Culture of Germany
- the Transhumance in the Cantabrian or Northern Third of Spain and the Valencian Paella "The Art of Uniting and Sharing" of Spain
- alpinism, which is shared also with France and Switzerland of Italy
- the Art of Dry-stone Walling, Knowledge and Techniques in

- Cinque Terre National Park of Italy
- the Festival of the Ceri. Race of the Ceri-Gubbio of Italy
- the Network of Big Shoulder-borne Processional Structures of Italy
- the Madonna Avvocata Festival of Italy
- the Mandras (Paddocks) of Lemnos of Greece
- traditional Practices of Wild Edible Plants in Crete of Greece

A brief description of the case study



Tradition.

The wild edible plants of Crete ("χόπρα"), the practices of collecting and processing them, the inventive, yet simple, way of preparing them, and their role in everyday life and activities make them a rare ICH element. Wild plants, as an integral part of the Cretan dietary system, are a cultural and social asset that continuously permeates everyday life in Crete from prehistoric times to the present day. The consumption of wild plants in difficult times of war, scarcity, and deprivation ensured food and survival, while they are particularly preferred during long fasting periods, hence their prominent role in monastic cuisine. The simplicity and moderation that characterize Cretan cuisine find expression in the nutritional utilization of wild plants. However, wild plants are also present on the festive table in Crete, as the main dish combined with meat (e.g., wild greens with lamb). Gathering of wild plants, which was previously done by women of all ages, without excluding men, served as a learning process for younger generations to find edible wild plants, and even today, it provides opportunities for social expression, as group outings to the countryside for this purpose are not uncommon. Additionally, the practice of "skouteliko", the exchange of small quantities of food among housewives, was also common in the case of wild plants. In general, the resourceful way in which Cretans use wild plants fulfills needs, balances social differences, and expresses collectively.

Species. Crete possesses a rich flora with approximately 1,600 known species and subspecies, of which more than 190 are endemic. This plant diversity is due to its geographical location (isolation resulting in speciation) as well as the presence of different ecosystems, which in turn lead to the creation of various habitats with different microclimates (coastal zone, plains, semi-mountainous and mountainous zones, gorges, wetlands). Another characteristic related to Cretan flora is that many wild plants, both endemic and non-endemic, are edible. The consumption of wild plants as main dishes, side dishes, or salads on a daily basis, is a characteristic key of the Cretan cuisine. Recent studies on the chemical composition and nutritional elements of several wild greens and vegetables consumed in Crete have demonstrated their significant nutritional value. The correlation between the exceptional health and longevity of Cretans and the nutritional components of wild greens and vegetables has been evidenced by numerous studies. In addition to vitamins, minerals, and

carbohydrates, which are important nutrients known for their role in human health, wild greens and vegetables contain omega-3 fatty acids and numerous phytochemicals, products of the secondary metabolism of plants. Researchers have focused on these metabolites in recent years, as there is increasing evidence that these substances also influence human metabolism in a health-promoting manner.

Cretan diet consists predominantly of wild edible plants. More than 150 species of wild plants are included in the Cretan diet. These plants contain vitamins, dietary fibres, proteins, and are rich in antioxidants, trace elements, and components necessary for a balanced and healthy dietary pattern. However, equally important to the quantity, variety, and properties of wild plant species are the practices of recognition, collection, processing, preservation, preparation, and consumption of wild plants in Crete, as well as the social and cultural aspects associated with this process.

When users delve deeper into the map to explore the illustrated cases, a side window appears, presenting five segments organized as follows:

- a brief description of the case study
- climate change impact on case study
- attitudes and recognition of problems
- existing practices: solutions implemented, planned, or proposed
- further reading and media links

Conclusion

The Green Heritage interactive map marks a significant advancement in comprehending and tackling the complex relationship between climate change and intangible cultural heritage. By seamlessly merging user-friendly design with extensive data, the map becomes a tool that not only educates but also motivates action. The map's capacity to visualize the diverse and often nuanced ways climate change affects cultural practices, traditions, and knowledge empowers both experts and the general public to address this crucial issue.

Through the Green Heritage project and the creation of this interactive map, the pressing need to protect intangible cultural heritage against environmental threats has been highlighted. By presenting successful instances of adaptation, mitigation, and community engagement, the map acts as a symbol of hope and a driver of change. It promotes collaboration, raises awareness, and provides individuals and communities with the necessary resources to safeguard their cultural identity and heritage for future generations.

As climate change continues to transform our world, the Green Heritage interactive map serves as a testament to human innovation and the enduring strength of cultural heritage. This tool will continue to evolve, adapt, and inspire others to join us in the vital work of protecting our shared cultural legacy in an ever-changing world.



APPENDICE

a Territori della Cultura n. 57 - Anno 2024

Premio Nazionale
per la Valorizzazione del Patrimonio Culturale
materiale ed immateriale

PATRIMONI VIVENTI

Edizione 2024



Centro Universitario Europeo
per i Beni Culturali



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PATRIMONI VIVENTI

Azioni innovative per la valorizzazione del patrimonio culturale materiale ed immateriale

Il Centro Universitario Europeo per i Beni Culturali, sin dalla sua costituzione (1983), ha prioritariamente orientato la propria attività alla valorizzazione del patrimonio culturale materiale ed immateriale, considerandolo una leva strategica ed irrinunciabile per lo sviluppo dei territori e la crescita della comunità. Il Centro nel tempo è divenuto luogo di confronto e di riflessione sulle concrete azioni di messa in valore delle risorse culturali con l'organizzazione in partnership con Federculture e Fondazione Scuola dei beni e delle attività culturali di "Ravello Lab - Colloqui internazionali", ha acquisito una crescente centralità nel dibattito europeo sul ruolo della cultura nello sviluppo dei territori dell'Unione.

Sulla base dell'esperienza sin qui maturata e nell'intento di promuovere la conoscenza e lo scambio delle buone prassi nella valorizzazione del patrimonio culturale, il Centro, su proposta del proprio Comitato Scientifico, nel 2018 ha deciso di porre in essere una ricognizione annuale delle iniziative di valorizzazione realizzate in Italia nel corso dell'anno precedente, selezionando e premiando le migliori anche al fine di diffonderne la conoscenza all'interno del comparto dei beni culturali e di indurre processi emulativi.

Criteri di valutazione

La commissione giudicatrice, costituita da 5 componenti del Comitato Scientifico del Centro – due dei quali stranieri – ha valutato le candidature pervenute secondo i criteri qui di seguito elencati:

- **Impatto territoriale** – valutazione degli effetti che l'intervento di valorizzazione ha prodotto sul territorio in cui è venuto a realizzarsi, avendo cura di analizzarne i benefici tanto per la comunità locale, quanto per altri fruitori.

- Rispetto dei principi dello sviluppo sostenibile – valutazione della sostenibilità dell'intervento di valorizzazione in termini di impatto ambientale; di accertamento del valore culturale della risorsa in coerenza con la matrice identitaria del territorio interessato; di ricadute diffuse per la comunità locale in relazione al miglioramento delle condizioni di fruibilità da parte dei residenti e delle categorie svantaggiate.
- Innovatività dell'intervento di valorizzazione – valutazione del livello di innovazione dell'intervento di valorizzazione nel panorama nazionale e internazionale.
- Coinvolgimento degli stakeholder e della comunità locale – valutazione del livello di coinvolgimento degli stakeholder e della comunità locale nella definizione e quindi nella realizzazione dell'intervento di valorizzazione.
- Economicità dell'intervento di valorizzazione – valutazione dell'economicità dell'intervento di valorizzazione, attraverso la comparazione costi/benefici.

1° Classificato sezione “Enti pubblici”

I bottai di Rocca Santo Stefano: un patrimonio culturale da riscoprire e valorizzare

Comune di Rocca Santo Stefano
<https://www.comune.roccasantostefano.rm.it/>

“I bottai di Rocca Santo Stefano. Un patrimonio culturale da riscoprire e valorizzare” è un progetto ideato e condotto dal 2021 dal comune di Rocca Santo Stefano (Rm), volto a riscoprire e valorizzare i saperi connessi al territorio, con un'attenzione particolare rivolta all'antico mestiere del bottaio attraverso il coinvolgimento diretto della comunità locale.

L'arte di costruire le botti infatti era assai diffusa nel piccolo borgo laziale almeno fino agli anni Ottanta del secolo scorso: intere famiglie del luogo traevano da questa attività il necessario sostentamento, attraverso la lavorazione del legno di castagno, assai diffuso nel territorio comunale. Rocca Santo Stefano infatti sorge su uno sperone di roccia calcarea a 664 mt slm ed è letteralmente circondato da boschi di querce, ornielli e soprattutto castagni, come il bosco Antera, porta meridionale d'accesso al paese, non a caso intitolata di recente “Porta del bottaio”.

Il progetto, condotto in collaborazione con le realtà associative locali, il centro sociale anziani APS e il Consiglio dei giovani è fortemente partecipativo. Oltre alla necessaria ricerca d'archivio (comunale e parrocchiale), utile ad individuare i nuclei familiari che praticavano il mestiere in questione, sono state raccolte testimonianze orali, sotto forma



La botte in costruzione alla Porta del Bottaio. Sullo sfondo Rocca Santo Stefano. (Comune di Rocca Santo Stefano).

di interviste semistrutturate in formato audio e video rivolte a chi a vario titolo è stato interessato nel tempo dal “sapere” oggetto di indagine. Intervistati privilegiati, gli unici due ex bottai presenti in paese, che hanno fornito testimonianze preziose sugli strumenti del mestiere e sulle tecniche di lavorazione del legno e di costruzione di botti, tini e bigonce, che venivano realizzati a Rocca Santo Stefano e venduti oltre che ai comuni limitrofi, ai Castelli romani e in tutto il territorio regionale.

Alla comunità locale è stato chiesto di partecipare attivamente al progetto, fornendo oltre alle testimonianze, vecchie fotografie, strumenti e documenti, utili a recuperare la memoria connessa all'arte nobile del bottaio. Grazie a tale opera di coinvolgimento sono state recuperate oltre 50 fotografie e un gran numero di botti e strumenti di lavoro che l'amministrazione comunale ha catalogato e intende ordinare in un museo/laboratorio dedicato, che possa prevedere oltre alla tradizionale esposizione di materiale anche attività dimostrative e laboratoriali, volte alla conoscenza degli strumenti e delle tecniche tradizionali legati alla lavorazione del legno. Il materiale in questione insieme ad alcune interviste e docufilm realizzati sono stati presentati il 17 agosto 2023 in occasione della manifestazione “La Botte della tradizione, memoria e riscoperta di sapienze antiche”, con l'obiettivo di condividere i risultati del progetto e rendere fruibile il materiale reperito.

L'evento ha previsto la presentazione di una video intervista e del docufilm: “La Botte della tradizione. Franco Dolfi costruisce una botte secondo le tecniche tradizionali”, realizzato dal comune in collaborazione con il Consiglio dei Giovani, in cui l'ex bottaio ultraottantenne, nonché consigliere comunale, costruisce una botte come faceva da giovane. In tal modo il pubblico ha potuto ripercorrere tutte le fasi di costruzione di una botte



Evento La Botte della tradizione. Memoria e riscoperta di sapienze antiche, 17 agosto 2023, Rocca Santo Stefano (Comune di Rocca Santo Stefano).

grazie all'ausilio di tanti volontari che hanno aiutato Franco, mettendo a disposizione la propria bottega, le proprie sapienze e il proprio tempo. È stata filmata e documentata ogni fase della lavorazione: dal taglio del legno nel bosco, alla realizzazione delle doghe, dei castelli di doghe, alla loro "piegatura" e assemblaggio fino alla costruzione. Nel filmato Franco descrive ogni fase della lavorazione e presenta nel dettaglio gli strumenti utilizza-

ti, spesso con il nome in dialetto locale: si tratta di un documento importante, che conserva una memoria preziosa, altrimenti destinata all'oblio. La videointervista trasmessa invece raccoglie la testimonianza di un'anziana donna del paese, Annamaria Ulpiani, moglie di un ex bottaio che ha fornito preziose informazioni sul ruolo della donna in bottega e nel bosco.

Al termine della proiezione è stata inaugurata la Botte della tradizione alla presenza di Franco, Annamaria, delle associazioni locali e della popolazione tutta. La Botte della Tradizione ha sancito poi l'apertura della mostra "I bottai di Rocca Santo Stefano", allestita nella piazza principale del paese, che raccoglie il materiale reperito (fotografie di bottai al lavoro, di "castelli di doghe", di taglio del bosco, documenti di vendita e trasporto, si strumenti di lavoro e vecchie botti, tini e bigonce). La mostra così come l'evento è stato particolarmente partecipato e apprezzato dalla popolazione che nutre nei confronti di tale mestiere una certa affezione: l'arte del bottaio ha supportato infatti intere famiglie per generazioni (da evidenze d'archivio risulta essere molto diffuso già agli inizi del XIX secolo), ma va sottolineato che l'evento ha

registrato anche la presenza di visitatori e turisti, che hanno apprezzato l'intento e la finalità del progetto tutt'ora in corso. Il pubblico esterno aveva infatti avuto modo di conoscere il progetto grazie ad una capillare attività di divulgazione svolta a partire dal 2022 e che ha visto la realizzazione, tra le altre cose di una brochure dedicata e di un docufilm, consultabile al link: <https://www.youtube.com/watch?v=JlStNDV-0dgU> in cui il sindaco e gli amministratori presentano il progetto e



La botte della tradizione nella piazza del paese (Comune di Rocca Santo Stefano).



Mostra I Bottai di Rocca Santo Stefano (Comune di Rocca Santo Stefano).



L'ex bottaio e consigliere Franco Dolfi lavora alla costruzione della botte della tradizione, 2023 (Comune di Rocca Santo Stefano).



Franco Dolfi al lavoro, 2023 (Comune di Rocca Santo Stefano).

gli ex bottai Franco Dolfi e Antonio Colanera raccontano la propria esperienza ed illustrano gli strumenti di lavoro. Il comune di Rocca Santo Stefano sta lavorando molto alla valorizzazione del patrimonio culturale tangibile e intangibile ponendo particolare attenzione ai saperi e alle arti tradizionali: non a caso sta realizzando un percorso d'arte dedicato a tale tematica: attraverso simposi di scultura realizzati in loco in collaborazione con l'Accademia delle Belle Arti di Roma sono state realizzate ed installate in paese 4 sculture in travertino romano dedicate ai mestieri tradizionali legati al territorio: una al contadino, una al pastore, una al boscaiolo e appunto una al bottaio: la scultura in questione sorge nei pressi del Bosco Antera, nell'ingresso sud del paese intitolato da questa amministrazione "Porta del Bottai". Si ritiene infatti che la riscoperta e la messa in valore del patrimonio naturale e culturale locale possa favorire la crescita del senso di appartenenza e la coesione sociale, utili alla gestione sostenibile del territorio e alla sua valorizzazione.

Inaugurazione della Botte della tradizione con gli anziani intervistati e con Franco, autore della botte, 17 agosto 2023 (Comune di Rocca Santo Stefano).



La mostra i Bottai di Rocca Santo Stefano allestita in piazza. La scultura dedicata al boscaiolo fa da sfondo (Comune di Rocca Santo Stefano).



Scultura in travertino romano Il Bottai, arte natura e tradizione, Porta del Bottai Rocca S. Stefano (Comune di Rocca S. Stefano).

1° Classificato sezione “Privati”

Kino Guarimba The Ukrainian Edition

La Guarimba International Film Festival
<https://www.laguarimba.com/>

Kino Guarimba si è svolta ad Amantea (CS) dal 10 al 22 settembre 2023. Il progetto si è svolto con il supporto economico della Commissione Europea – Rappresentanza in Italia.

50 partecipanti provenienti da tutto il mondo hanno formato una comunità di artisti, che in 12 giorni hanno dato vita a 30 cortometraggi ideati, girati e montati in un piccolo centro calabrese, coinvolgendo gli abitanti del posto e generando un impatto significativo sul territorio.

Per il secondo anno consecutivo, abbiamo dedicato la residenza al popolo ucraino, offrendo una borsa di studio a cinque partecipanti per supportarli durante l'invasione russa e sensibilizzare la nostra comunità alla situazione che il loro paese sta vivendo.

I partecipanti dell'Ottava Edizione

Per questa edizione del Kino Guarimba abbiamo formato un gruppo di 50 creativi tra attori, registi, tecnici, studenti e professionisti del settore audiovisivo, 31 donne e 19 uomini provenienti da 23 paesi diversi: Belgio, Canada, Cina, Cuba, Finlandia, Francia, Germania, Giappone, Inghilterra, Irlanda, Israele, Italia, Lituania, Lussemburgo, Messico, Paesi Bassi, Romania, Scozia, Spagna, Svezia, Stati Uniti, Ucraina, Ungheria.

Questa multiculturalità è stata presente anche nella squadra organizzativa, formata da professionisti calabresi, venezuelani, spagnoli e belgi.

Le borse di studio ai partecipanti ucraini

Quest'anno, grazie ad un contributo economico da parte della Commissione Europea – Rappresentanza in Italia, abbiamo potuto offrire cinque borse di studio a cinque artisti ucraini. Abbia-

mo iniziato questa pratica l'anno scorso, in occasione della sesta edizione della residenza, per dare supporto al popolo ucraino e affermare la nostra posizione contro ogni ideologia e azione intrapresa dalla Russia.

Tutti i beneficiari della borsa lavoravano o studiavano in Ucraina quando la guerra è iniziata, e le loro carriere professionali sono state influenzate fortemente dagli eventi nel loro paese. Alcuni di loro sono dovuti emigrare in altri paesi, e chi è rimasto in Ucraina ha avuto poche possibilità di lavorare in contesti internazionali e confrontarsi con altre culture.

L'obiettivo di quest'azione è di poter creare un terreno d'incontro e un posto sicuro per gli artisti ucraini, in cui potersi esprimere e confrontarsi con artisti da tutto il mondo.

Il programma

Nei primi quattro giorni, sono state organizzate attività di socializzazione e di formazione, organizzate e gestite dalla nostra squadra, per favorire la connessione personale, la generazione di idee e la creazione dei gruppi di lavoro. In questa fase, abbiamo incentivato i partecipanti a esplorare e conoscere la nostra cultura e il nostro territorio, attraverso visite guidate, pranzi e cene con prodotti tipici, e abbiamo dato loro le basi utili alla realizzazione di un corto in un breve lasso di tempo attraverso masterclass sulla produzione, sul suono, sul montaggio e sulla distribuzione.

Tra questi eventi di formazione, si è svolto il Casting Popolare della residenza, un momento importante di connessione tra il progetto e il territorio, dove la comunità internazionale e la co-



Welcome Dinner.



Speed dating.



Old Town Tour.

munità locale s'incontrano e si conoscono, per lavorare e creare insieme.

In questa edizione, si sono presentati 25 aspiranti attori dai 3 ai 69 anni, che si sono presentati ai registi, offrendosi per partecipare alle riprese. Abbiamo rivisto volti conosciuti, che hanno già preso parte alle precedenti edizioni, e incontrato nuovi aspiranti attori.

La proiezione finale

Il 21 settembre 2023, alle ore 21, abbiamo aperto il Terrenito al pubblico per proiettare tutti i film girati dai partecipanti durante la loro esperienza.

Professionisti e studenti del settore audiovisivo provenienti da tutto il mondo hanno condiviso la platea con gli attori locali che si sono messi in gioco, con gli amanteani e con i calabresi che hanno voluto rivedere la propria terra attraverso nuovi occhi.

La serata ha registrato più di 200 ingressi e ha rappresentato un momento di incontro culturale e comunitario molto importante. Abbiamo proiettato 30 cortometraggi, per una durata complessiva di 148 minuti. È stato molto toccante vedere come giovani artisti internazionali siano riusciti a raccontare tanti lati diversi della nostra piccola comunità, rivelando anche lati più nascosti e meno raccontati. Commedie, documentari, horror, video musicali, storie fantastiche, poemi visivi e drammi familiari sono stati i generi con cui Amantea è stata raccontata.

L'impatto del progetto

Il progetto Kino Guarimba si propone di generare un impatto positivo su diversi livelli: gli artisti internazionali coinvolti, la comu-

nità di Amantea che partecipa attivamente alle riprese e l'economia locale.

L'impatto educativo sui partecipanti

L'approccio educativo del Kino Guarimba si basa su principi pedagogici non formali come l'Apprendimento Cooperativo e l'Educazione Montessoriana. Questi principi favoriscono la condivisione, l'indipendenza e la ricerca di soluzioni creative ai problemi. Durante la residenza, abbiamo creato spazi di condivisione in cui i partecipanti si sono confrontati con le sfide che fanno parte del processo di apprendimento: differenze culturali, barriere cognitive e linguistiche, limitazioni di tempo e risorse. Le masterclass tenute quest'anno hanno fornito ai partecipanti conoscenze pratiche sulle basi della produzione cinematografica in un breve lasso di tempo. Abbiamo creato le condizioni affinché i partecipanti potessero apprendere rapidamente come



Master.



Casting.



Figlio mio.



Shooting Cimitero Amantea.

svolgere compiti specifici e utili alla produzione, come ad esempio la registrazione del suono in presa diretta.

La nostra residenza si basa sul metodo Kino, che incoraggia lo sviluppo non competitivo di diversi progetti, con squadre di lavoro che collaborano per raggiungere obiettivi comuni. Questo metodo mette l'accento sul processo piuttosto che sui risultati finali, eliminando l'ansia di produrre un prodotto finito e sottolineando l'importanza del lavoro di squadra e dell'apprendimento individuale. Il ruolo della nostra squadra si è limitato al coordinamento e alla logistica, senza sostituirci alla produzione e all'organizzazione delle riprese. In questo modo, abbiamo favorito l'autonomia e la responsabilizzazione dei partecipanti.

Dai questionari finali somministrati ai partecipanti, abbiamo ottenuto dati interessanti riguardo alla loro crescita educativa.

Per 11 di coloro che hanno girato un loro progetto è stato l'esordio alla regia, mentre in 27 (oltre la metà) hanno coperto un ruolo della produzione cinematografica che non avevano mai provato prima. La residenza ha dunque incentivato i partecipanti a scoprire la propria voce e mettersi in gioco senza la paura del fallimento, spingendoli a sperimentare e uscire dalla loro zona di sicurezza.

L'impatto sociale e culturale sulla comunità

Amantea diventa per 12 giorni un grande set cinematografico, coinvolgendo la comunità in modo partecipativo ed emancipante. La Residenza non si svolge come un evento elitario in cui i partecipanti vivono isolati dal contesto ospitante, ma li spinge ad esplorare persone, luoghi e storie della nostra comunità. Ciò porta alla creazione di relazioni profonde tra giovani artisti internazionali e gli abitanti di Amantea, che diventano attivamente coinvolti nella creazione dei cortometraggi. In 18 dei 30 progetti realizzati (il 60%), abbiamo coinvolto attori locali nel cast, che sono diventati protagonisti delle produzioni cinematografiche e hanno lavorato fianco a fianco con persone provenienti da paesi diversi con cui difficilmente entrerebbero in contatto. Non si sono limitati a recitare passivamente una sceneggiatura, ma hanno contribuito attivamente alla creazione delle storie e dei dialoghi, mettendo a disposizione le proprie case, ristoranti, bar e negozi.

Questi processi, difficili da quantificare, hanno un impatto significativo sul capitale sociale e culturale del territorio, ristabilendo una connessione tra cultura e popolazione e creando un senso di appartenenza e orgoglio nella comunità locale. Gli abitanti di Amantea hanno la possibilità di vedere la propria città e le proprie storie rappresentate sul grande schermo, dando visibilità e valore al loro patrimonio culturale.

*Shooting Amantea.**Final Screening.*

La crescita in termini di pubblico durante la proiezione finale e di partecipazione ai casting mostra come questo percorso si stia sviluppando all'interno delle vite degli amanteani. La città sta imparando a conoscere il progetto e a comprendere la sua importanza, partecipando attivamente e supportandolo.

L'impatto economico sul territorio

Kino Guarimba promuove pratiche di turismo sostenibile all'interno di Amantea, portando cinquanta registi e operatori cinematografici nella località nel mese di settembre e attivando un ciclo di consumo di prodotti alimentari, drink, souvenir e prodotti tipici, portando lavoro a bar, ristoranti, botteghe e locali, che hanno terminato la loro stagione attiva a fine agosto. Organizziamo visite guidate, pranzi di prodotti tipici e incontri sulla cultura calabrese con la cittadinanza, per creare consapevolezza, interesse e reciproco scambio tra la comunità internazionale e quella locale. Queste pratiche sono potenzialmente replicabili in altri contesti simili e sono sostenibili perché il "turista" porta qualcosa in cambio alla città, oltre che alla spesa economica: una visione nuova, un bagaglio culturale e un'opera artistica che racconta e promuove le bellezze e le unicità del territorio. I film prodotti durante la residenza dovevano includere almeno una scena in esterna, incentivando i registi a includere paesaggi naturali, litorali, scorci del centro storico, momenti della tradizione calabrese. Queste opere circoleranno tra festival e piattaforme internazionali, promuovendo le bellezze di Amantea in tutto il mondo e trasformando l'immagine della città come un centro di creatività e produzione audiovisiva.

1a Menzione speciale sezione “Enti pubblici”

META\MAR Metamorphose Cantiere Museale Partecipato

Regione Autonoma Valle d'Aosta
<https://www.regione.vda.it/>

Il META/MAR di Aosta rappresenta un'innovativa visione nel panorama museale italiano. Non si tratta semplicemente di un museo in fase di rinnovamento, ma di un vero e proprio “cantiere museale partecipato” che sta ridefinendo il concetto stesso di evoluzione culturale.

Tutto ha avuto inizio con una domanda: come possiamo coinvolgere attivamente la comunità nella trasformazione di un museo? La risposta è stata il META/MAR, un progetto che trasforma il processo di ammodernamento del Museo Archeologico Regionale in un'esperienza interattiva e coinvolgente per tutti.



Personalizzazione imbotte sale.



Comunicazione ingresso museo.



Personalizzazione sala ingresso e guida alla visita.



Corridoio di ingresso, personalizzazione.



Corridoio di ingresso, personalizzazione (lato entrata)

UN MUSEO IN DIVENIRE: dal 25 novembre 2023, il museo ha aperto le sue porte al pubblico con una veste completamente nuova. I visitatori sono accolti da pannelli informativi di un vivace giallo "cantiere", una segnaletica rinnovata e nuovi supporti di comunicazione che trasformano gli spazi espositivi in un laboratorio vivo di idee e riflessioni.

PARTECIPAZIONE E COINVOLGIMENTO: ciò che rende il META/MAR veramente unico è il suo approccio partecipativo. I visitatori non sono semplici spettatori, ma attori chiave nel processo di trasformazione. Sono invitati a interrogarsi sulla conservazione dei reperti, sulla storia del museo e sul suo futuro. Questa interazione diretta permette di raccogliere preziosi feedback e idee per il futuro del museo, attraverso questionari e flyer da compilare.

UN'ESPERIENZA MULTIDIMENSIONALE: il percorso museale offre quattro diverse prospettive, "sentiti romano", "sentiti archeologo", "sentiti museologo" e "viaggia lo spazio-tempo". Queste chiavi di lettura, unite al filo conduttore "sentiti mar", offrono ai visitatori un'esperienza ricca e stratificata, permettendo loro di esplorare il museo da angolazioni diverse e stimolanti.

UN TEAM MULTIDISCIPLINARE: dietro il META/MAR c'è un team di esperti guidato da Maria Cristina Ronc, responsabile scientifica del MAR. Museologi, archeologi, esperti di marketing e comunicazione, art director e designer hanno unito le loro competenze per creare questa esperienza unica. L'approccio multidisciplinare ha permesso di integrare diverse prospettive, arricchendo il progetto di sfumature e possibilità.

IL DESIGN THINKING AL SERVIZIO DELLA CULTURA: il progetto si basa sui principi del Design Thinking, un approccio che pone al centro i bisogni reali dei visitatori. L'obiettivo è quello di ascoltare e comprendere le esigenze del pubblico per modellare il futuro del museo in base a questi feedback e migliorare le installazioni fatte sulla base dei commenti dei visitatori in un processo di test, validazione, esecuzione.

VERSO IL FUTURO: il META/MAR non è solo un esperimento temporaneo. È il primo passo verso una trasformazione più ampia che vedrà il museo chiudere per poi riaprire, completamente rinnovato, offrendo alla città un regalo culturale di inestimabile valore.

Il META/MAR rappresenta un nuovo modo di concepire i musei e il loro rapporto con la comunità. È un progetto che guarda al futuro senza dimenticare il passato, che valorizza il patrimonio culturale attraverso l'innovazione e la partecipazione attiva. È un esempio di come la cultura possa essere un patrimonio vivo, in continua evoluzione, capace di coinvolgere e ispirare generazioni diverse.

Questo progetto non solo sta trasformando un museo, ma sta anche ridefinendo il ruolo delle istituzioni culturali nella società contemporanea. Il META/MAR è più di un museo: è un laboratorio di idee, un ponte tra passato e futuro, un patrimonio vivente che cresce e si evolve insieme alla sua comunità.



Pannello valutazione sala di uscita.



Identità visita museo "METAMAR".



Utilizzo gigantografie.



Personalizzazione divisione epoca/sale.



Comunicazione sale sottosuolo.

2a Menzione speciale sezione "Enti pubblici"

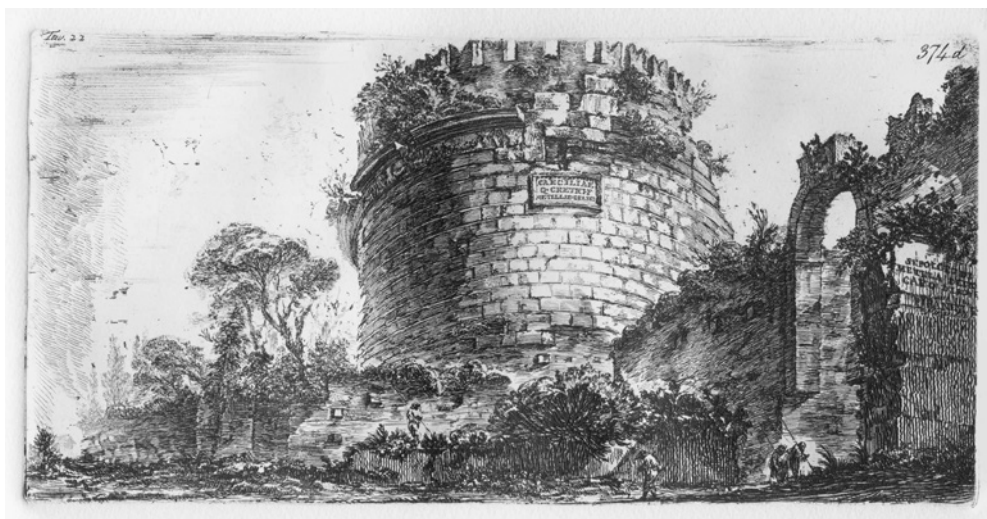
Regina Viarum. La Via Appia nella grafica tra '500 e '900

Istituto Centrale per la Grafica
<https://www.grafica.beniculturali.it/>

La mostra *Regina Viarum. La via Appia nella grafica tra Cinquecento e Novecento*, è stata dedicata alla celebre strada consolare in occasione della sua candidatura alla Lista del Patrimonio Mondiale dell'UNESCO proposta dal Ministero della Cultura nel gennaio del 2023 (l'inserimento nella WHL è stato deliberato dalla Commissione Unesco riunitasi a New Dehli il 27.07.2024). Sono state esposte 72 opere, selezionate grazie a una ricerca capillare nelle collezioni dell'Istituto Centrale per la Grafica, che raccontano attraverso disegni, incisioni, matrici, libri e fotografie la fortuna iconografica dell'Appia con opere di Giovan Battista



Frans Vervloet (Mechelen, 1795 - Venezia, 1872), *Le colonne di Brindisi*, disegno, Istituto centrale per la grafica.



Il Mausoleo di Cecilia Metella, stampa tratta dalla replica in resina della matrice originale in rame di Giovan Battista Piranesi (Venezia 1720 - Roma 1778).

sta Piranesi, Marteen Van Heemskerck, Etienne Du Perac, Walter Crane, Umberto Prencipe, Luigi Rossini, Felice Giani, Nicolas Didier Boguet, Philipp Hackert e molti altri artisti che hanno rivolto il proprio sguardo alla *Regina Viarum*.

I mausolei, le ville e i templi, resistenti o in rovina, che plasmano il paesaggio attraversato dalla Via Appia da Roma fino alle colonne di Brindisi, sono stati presentati di volta in volta per il loro valore archeologico, storico e culturale, testimoniando un interesse che travalicò i confini nazionali e che diede vita a una produzione grafica specifica diffusasi a partire dal XVI secolo fino a documentare il fenomeno del *Grand Tour* e le successive tangenze con l'obiettivo fotografico.

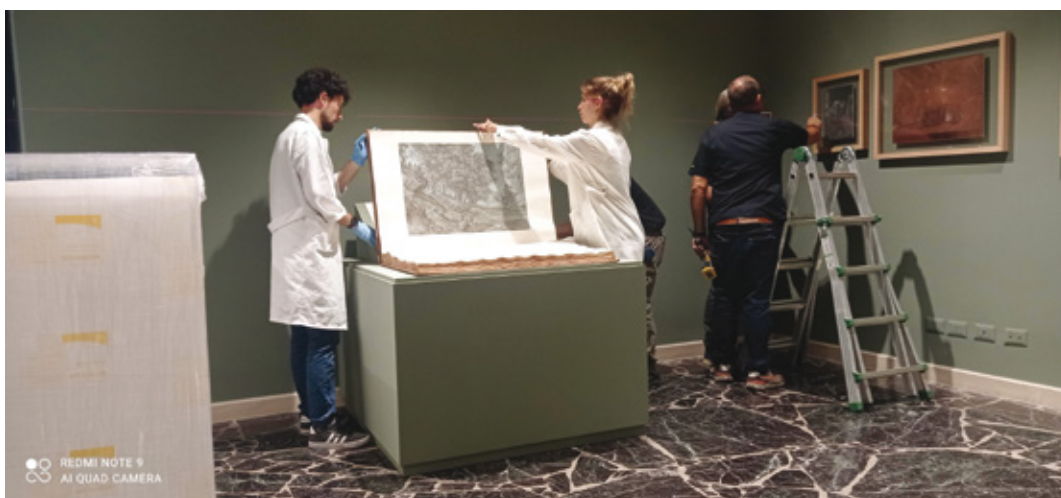
Disegni, incisioni e fotografie, esposti secondo un criterio prevalentemente cronologico, hanno mostrato una porzione del Paese che ancora oggi colpisce per le suggestioni derivate dalle bellezze naturali e monumentali. Nel catalogo della mostra, pubblicato in italiano e inglese, è presente, oltre ai contributi che analizzano aspetti iconografici, storici e tecnici, una sezione dedicata alla poesia con i versi, per la maggior parte inediti, che Domenico



Cartoline realizzate dagli studenti dell'Istituto Confalonieri-De Chirico di Roma durante il laboratorio d'incisione tenuto dai tecnici della Stamperia ICG.



Libro in formato leporello con le incisioni degli studenti dell'Istituto Confalonieri-De Chirico di Roma.



Fasi dell'allestimento della mostra Regina Viarum.



*Giornate Europee de Patrimonio 2023.
Serata dedicata alla poesia durante la mostra Regina Viarum,
lettura di Maria Clelia Cardona.*



Attività didattiche in mostra.

Adriano, Maria Clelia Cardona, Barbara Carle, Anna Cascella Luciani, Francesco D'Alessandro, Roberto Deidier, Elio Pecora, Giancarlo Pontiggia, Marco Vitale hanno composto per la 'Regina delle Strade'. Durante le Giornate Europee del Patrimonio 2023 si è tenuta nelle sale espositive della Calcografia una lettura poetica dedicata alla Via Appia con la presenza dei poeti che hanno offerto il loro contributo al catalogo.

Tra le numerose attività didattiche realizzate ha assunto particolare rilievo il laboratorio di incisione svolto con la classe V A, Tecnico Grafica e Comunicazione, dell'IIS Confalonieri-De Chirico. Il lavoro ha avuto lo scopo di coinvolgere la classe in un progetto più ampio di promozione della *Regina Viarum*, in accordo con gli obiettivi del Ministero della Cultura. Seguiti dal personale della Stamperia i ragazzi hanno realizzato, con le tecniche calcografiche dell'acquaforte e dell'acquatinta, una serie di immagini tratte da fotografie della via Appia Antica, entro i confini del Parco. Questi lavori sono stati poi stampati coi torchi dell'Istituto per realizzare una serie di cartoline raffiguranti il tratto romano della Via Appia Antica e un libro in formato leporello, all'interno del quale sono raccolte tutte le immagini realizzate, trasferendo le competenze acquisite sulle tecniche grafiche in prodotti concreti. I tecnici della Stamperia hanno inoltre prodotto una replica in resina della matrice di Giovan Battista Piranesi riprodotte il Mausoleo di Cecilia Metella, messa in vendita durante la mostra e ancora disponibile.

Al fine di documentare nel loro stato attuale i luoghi raffigurati nelle opere esposte, è stato incaricato un fotografo, già collaboratore del National Geographic, di effettuare delle riprese fotografiche lungo l'intero tracciato viario, da Roma a Brindisi. Tali

riprese hanno sottolineato anche alcuni aspetti legati allo sviluppo urbanistico e sociale delle aree d'interesse. Ai monumenti in rovina o restaurati, oppure recentemente rinvenuti, si sono affiancati scorci urbani di recente edificazione, campi coltivati, con le comunità che abitano questi territori.



Matteo Bastianelli, Rapolla, paesaggio con pale eoliche.



Matteo Bastianelli, Archeologi al lavoro nel sito del II secolo d.c. recentemente scoperto.



Matteo Bastianelli, Capua.

1a Menzione speciale sezione “Privati”

Donne Patrimoni Viventi in Terra d’Otranto

**O.R.S. Osservatorio Ricerca Sociale.
Centro studi, politiche e ricerche sociali – APS**

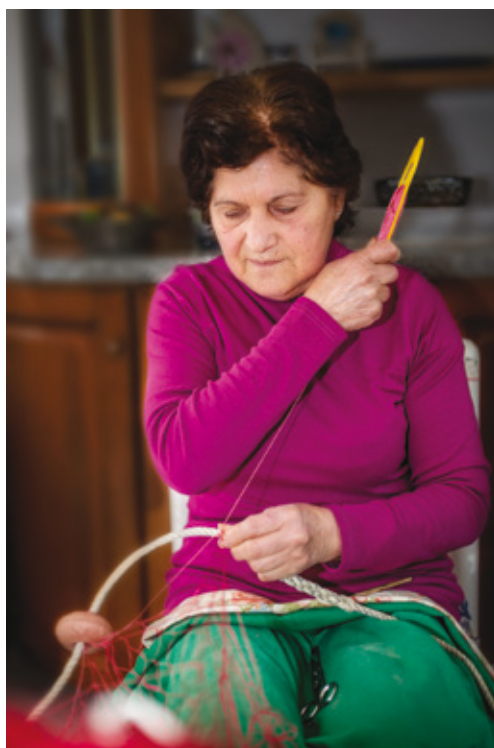
C'è una memoria che non può essere dimenticata perché rappresenta una delle più importanti pagine del Novecento salentino. Al centro della narrazione ci sono le donne di Terra d'Otranto che diventano protagoniste di una trama narrativa e artistica da conservare e tramandare alle future generazioni. Donne ultracentenarie che tratteggiano il loro passato e lo consegnano nelle mani dei più piccoli. Le storie di contadine, fornaie, massare, tessitrici, ricamatrici, tabacchine, insegnanti, imprenditrici sono state recuperate, raccontate e valorizzate attraverso approcci multidisciplinari, quali antropologia visuale, missioni etnografiche, raccolta di album di famiglia, cartoline e lettere, laboratori scolastici, viaggi esplorativi nei luoghi femminili e performing art, tecnologie immersive volti al recupero, salvaguardia, valorizzazione e diffusione di questo patrimonio culturale.



Ornella Ricchiuto, Ricercatrice in Antropologia Culturale, intervista Addolorata Cordella, tessitrice di Gagliano Del Capo, by Giorgio Montanaro.



Intervista a Maria Verardo. Spurtara di Acquarica Del Capo, by Giorgio Montanaro.



Intervista a Pina Schifano. Rammendatrice di reti da pesca di Castro, by Giorgio Montanaro.

Il cuore del progetto è proprio la tutela delle memorie orali da tramandare alle future generazioni affinché la vita di queste donne non si perda nell'oblio del tempo.

"Donne Patrimoni Viventi in Terra d'Otranto" è un progetto dell'Osservatorio Ricerca Sociale. Centro studi, politiche e ricerche sociali - APS presentato e finanziato a valere sulla manifestazione di interesse della Regione Puglia "Un viaggio nella Memoria" per la "Promozione e sostegno alle attività di valorizzazione dei luoghi della memoria del novecento e degli archivi storici della puglia", (Legge Regionale n. 10/2020).

Azioni progettuali

1. Ricerca antropologica e visuale: raccolta e registrazione audio-visiva e fotografica di n. 20 umane dimenticate storie di donne recuperandone, le espressioni facciali, mani, posture, fotografie di famiglia, lettere, cartoline, costumi e acconciature, ... La ricerca è culminata con "Panni de vinti", un evento pubblico caratterizzato da una mostra visuale, videomapping e un'opera di visual-art organizzato insieme all'Istituto Centrale per il Patrimonio Immateriale del Ministero della Cultura e da OpenLab



Intervista a Maria Serena Jazzetti. Insegnante di Tricase, by Giorgio Montanaro.



Intervista ad Apollonia Martella. Tessitrice di Tiggiano, by Ornella Ricchiuto.



Intervista a Maria Monte. Tessitrice di Presicce, by Giorgio Montanaro.

Company. L'opera visual-art s'intitola "Visioni Orali", orali e musicali: visioni da "ascoltare" in partitura, nelle loro più intime confessioni. Guardando i volti intensi delle testimoni nei magnifici scatti fotografici dell'installazione, si possono ascoltare, in tutta la loro musicalità, passi salienti di un "discorso femminile", salentino, sulla vita e sul mondo che adesso non c'è più.

Ascoltare le visioni di queste protagoniste, nel tessuto in contrappunto di una partitura per voci e pianoforte, è un'esperienza diversa dall'ascolto isolato di uno o più brani di memoria storica.

Anche perché, in partitura, il pianoforte è in costante dialogo con le voci, e parla anch'esso ritmando le emozioni. Il che significa che in questa composizione il pianoforte fa l'esatto contrario dell'accompagnamento. Il pianoforte è scuro e chiaro, come il chiaroscuro dei passi di questo racconto polifonico. E come scuri e chiari sono i timbri delle voci femminili, alcune più energetiche in dialetto spinto, altre più pacate verso l'italiano. E lo strumento suona appunto piano e forte, chiamandosi così, proprio come le voci, che parlano più piano o più forte, in base all'intensità delle vibrazioni di una memoria da mondo perduto.

La colonna sonora dell'installazione, basata sulle testimonianze orali raccolte da Ornella Ricchiuto e musicate da Francesco De Melis, è stata formalizzata da Fabrizio Barraco, che ne ha curato l'editing e il missaggio.

La linea del pianoforte, che alterna passi di "introspezione sospesa" ad una ninna nanna tonale, ispirata alla melodia del tarantismo, è stata eseguita in forma variata e improvvisata da Enrico Zanisi.

2. Educare al patrimonio culturale: realizzazione di due percorsi coinvolgendo fasce giovanili differenti. Il percorso "I costumi femminili del '900" ha previsto la raccolta e l'analisi di fotografie attraverso gli album di famiglia per recuperare gli abiti e le acconciature delle donne nei vari ambiti socio-culturali (casa, campagna, chiesa, fabbrica, feste patronali o altre occasioni cerimoniali, ...). 30 studenti sono stati accompagnati dalle insegnanti di Abbigliamento e Moda dell'Istituto d'Istruzione Secondaria Superiore "Don Tonino Bello" di Tricase. Dopo aver raccolto le testimonianze materiali (fotografie) e la documentazione d'archivio (p.e. filmati dell'Archivio Luce), hanno prodotto n. 5 abiti femminili da sposa del '900 nel periodo tra le due Guerre Mondiali e successivamente organizzato una sfilata conclusiva. Gli abiti sono esposti nel Museo Etnografico della Vita Popolare di Tricase e viaggeranno nei luoghi della memoria in Terra d'Otranto.

Il percorso "La cucina del '900" ha previsto la raccolta e digitalizzazione di ricette tradizionali, pratiche di conservazione e preparazione alimentari, canti dialettali e filastrocche su cibi, fotografie e filmati. Il percorso ha coinvolto 60 studenti dell'Istituto Comprensivo Statale di Minervino di Lecce e Castro nella raccolta di interviste a nonne, vicine di casa e mamme sul ruolo della donna in ambito domestico. A conclusione sono stati realizzati due eventi di restituzione della ricerca e artistici con il coinvolgimento anche delle famiglie.

Entrambi i percorsi miravano altresì all'educazione e sensibilizzazione delle nuove generazioni verso il recupero dell'identità di luoghi femminili della memoria per un migliore e maggiore radicamento al territorio.



Performing Art "Donne di terra e di mare". Regia Ippolito Chiarello. Tricase.



Educazione al patrimonio culturale. Evento conclusivo "La cucina del '900", ICS di Minervino di Lecce e Castro.



Educazione al Patrimonio Culturale_Sfilata di moda del '900. IISS Polo Professionale Don Tonino Bello di Tricase – indirizzo Abbigliamento e moda.

3. Viaggi esplorativi "Dal racconto la bellezza": è stata realizzata una residenza teatrale guidata dal regista e attore Ippolito Chiarello in cui sono state trasformate le storie di vita raccolte dall'Archivio Liquilab in copioni teatrali e creato lo spettacolo "Donne di terra e di mare" e una residenza di canto tradizionale a coro con brani legati alla protesta e al lavoro femminile curata dalla cantante Anna Cinzia Villani che ha portato alla realizzazione dello spettacolo "Donne, tessuti e vissuti".

Al termine delle residenze, sono state realizzate delle performing art nei luoghi della memoria del sud Salento.

4. Digitalizzazione del patrimonio culturale: il materiale raccolto è stato digitalizzato e inserito nell'archivio "Liquilab" con la possibilità di fruirlo presso il Museo Etnografico della Vita Popolare e "Liquilab e le Stanze della memoria".

Obiettivi

Obiettivi qualitativi:

- recupero, salvaguardia, valorizzazione e trasmissione del patrimonio culturale immateriale della storia popolare delle donne nel corso del '900 in Terra d'Otranto attraverso la ricerca antropologica e visuale;
- documentazione e digitalizzazione dei materiali audiovisivi reperiti da inserire e rendere fruibili nell'archivio "Liquilab" per consentire alle presenti e future generazioni di consultare il patrimonio orale raccolto;
- educare al patrimonio culturale, sensibilizzare e rendere consapevoli le giovani generazioni della cultura locale contrastando lo spopolamento dell'area del sud Salento, la perdita di memoria e identità;
- recuperare l'identità dei luoghi della memoria e il senso di radicamento al territorio.

Obiettivi quantitativi:

- raccolta e registrazione di n. 20 storie di vita di donne del sud Salento;
- produzione di n. 5 costumi da sposa tra gli anni '20 e '40 del '900 di donne salentine;
- realizzazione di n. 1 sfilata con i costumi salentini femminili del '900 prodotti dagli studenti dell'Istituto d'Istruzione Secondaria Superiore "Don Tonino Bello" di Tricase;
- realizzazione di n. 2 spettacoli sul ruolo delle donne in cucina del '900 prodotti dagli studenti dell'Istituto Comprensivo di Minervino di Lecce e Castro;
- n. 1 mostra visuale itinerante che racconta i volti, le storie di vita, le posture, i costumi, ecc... delle donne nel corso del '900;
- n. 1 evento di presentazione dei risultati della ricerca antropologica e visuale;
- n. 1 residenza etnoantropologica e artistica di teatro "Dal racconto la bellezza";
- n. 1 residenza etnoantropologica e artistica di canto a coro "Dal racconto la bellezza";
- n. 10 giovani coinvolti nella residenza teatrale e n. 10 persone di varie età;
- n. 10 giovani coinvolti nella residenza di canto a coro e n.10 persone di varie età;

- n. 30 studenti coinvolti nel percorso didattico "I costumi femminili del '900";
- n. 60 studenti coinvolti nel percorso didattico "La cucina del '900";
- n. 6 performing art in peculiari luoghi della memoria del sud Salento;
- n. 1 fondo archivistico dedicato al progetto "Donne Patrimoni Viventi in Terra d'Otranto", inserito all'interno dell'archivio "Liquilab";
- n. 1 evento finale del progetto.

Partner

- L'Istituto Centrale per il Patrimonio Immateriale del Ministero della Cultura si è occupato della valorizzazione e diffusione del patrimonio culturale raccolto dal progetto attraverso tecnologie immersive nell'evento "Panni de vinti", nonché su scala nazionale attraverso i propri canali.
- L'Istituto Centrale per il Catalogo e la Documentazione del Ministero della Cultura si è occupato della diffusione su scala nazionale attraverso i propri canali del patrimonio culturale recuperato durante il progetto e ha messo a disposizione il funzionario Responsabile della Fotografia per una consulenza scientifica della mostra fotografica.
- L'Istituto d'Istruzione Secondaria Superiore "Don Tonino Bello" di Tricase si è occupato del percorso "I costumi femminili del '900".
- L'Istituto Comprensivo di Minervino di Lecce e Castro si è occupato del percorso "La cucina del '900".
- Il Dipartimento di Scienze Umane e Sociali dell'Università del Salento ha avuto il ruolo di coordinamento scientifico della ricerca di antropologia visuale e pubblicazione dei risultati della ricerca nel Bollettino universitario.
- L'Associazione "Nasca Teatri di Terra" si è occupata della Residenza etnoantropologica e artistica di Teatro.
- L'Associazione "Core de Villani" si è occupata della Residenza etnoantropologica e artistica di Canto Tradizionale a coro.



Panni de Vinti. Evento di restituzione nel rione Puzzu di Tricase.

2a Menzione speciale sezione "Privati"

L'opera dei pupi siciliani: pianificazione strategica, trasmissione, valorizzazione

Associazione per la conservazione
delle tradizioni popolari-ETS (PA)
<https://www.museodellemarionette.it/>

Il progetto è stato promosso dall'Associazione per la conservazione delle tradizioni popolari-ETS di Palermo quale soggetto referente della Rete dell'Opera dei pupi e organismo competente per la salvaguardia del patrimonio immateriale (PCI) del territorio, con particolare riferimento all'Opera dei pupi siciliani, e accreditato a svolgere funzioni consultive per il Comitato Inter-governativo Unesco per il patrimonio culturale immateriale. Finanziato dal Ministero della Cultura-Ufficio Unesco, L.77/2006, l'intervento si pone in linea di continuità con il *Piano delle Misure di salvaguardia dell'Opera dei pupi siciliani* (PMS), primo in Italia e vincitore del premio "Europa Nostra del Consiglio d'Europa", che è stato redatto dall'Ente nel 2020, per conto e con il finanziamento del MiC-Ufficio Unesco, L. 77/06.

Se il PMS ha colmato la mancanza di un piano che individuasse le priorità d'intervento, a distanza di 3 anni, segnati da una forte crisi sanitaria e politica, era diventato necessario individuare specifiche modalità attuative anche per reperire le risorse pubbliche e private necessarie alla salvaguardia e valorizzazione dell'Opera dei pupi nel medio-lungo termine, oltre che le opportune forme di collegamento con programmi o strumenti normativi complementari.

È per tale ragione che nel 2022-23 è stato realizzato un secondo intervento che ha previsto un programma di azioni integrate volte a:

- a. pianificare le azioni di salvaguardia dell'Opera dei pupi per uno sviluppo sostenibile in conformità alle misure individuate PMS e per l'attuazione di un sistema di *governance* partecipata multi-livello dell'Elemento, ai sensi della Convenzione Une-



Museo internazionale delle marionette Antonio Pasqualino, sala dell'Opera dei pupi (Foto di Giacomo Bordonaro).

sco per la salvaguardia del patrimonio culturale immateriale del 2003 (CICH)

b. trasmettere, rivitalizzare, valorizzare, promuovere a livello internazionale l'Opera dei pupi siciliani.

A questi obiettivi sono corrisposte 4 azioni che possono essere riunite in due macro categorie: pianificazione strategica delle attività di salvaguardia e valorizzazione che guarda al medio-lungo termine; immediata attuazione di alcune misure, dall'altro. Il progetto ha incluso dunque, da un lato, l'elaborazione di un *Piano Strategico Particolareggiato delle misure di salvaguardia dell'Opera dei pupi* (PSP) da realizzarsi nel 2024-30 in un'ottica sistemica e strutturale. Dall'altro, ha visto realizzare alcune correlate attività di valorizzazione: spettacoli; attività educative; internazionalizzazione digitale e rafforzamento Rete.

Le azioni poste in essere sono dunque:

1. Redazione del *Piano Strategico Particolareggiato delle Misure di salvaguardia dell'Opera dei pupi siciliani* (PSP).

Un Comitato di redazione, supportato da consulenti tecnico-scientifici e con la partecipazione della comunità di pratica e patrimoniale, ha elaborato il PSP intrecciando attività di ricerca partecipata, raccolta ed elaborazione dati e attività di animazione e rafforzamento della Rete dell'Opera dei pupi volte a contribuire ad una *governance* partecipata multilivello (PMS, misura D.1) e, su questa base, redigere il PSP. Tali attività hanno incluso consultazioni con le compagnie, tavoli tematici inter-istituzionali di riflessione critica, monitoraggio e valutazione

2. Trasmissione del patrimonio attraverso cicli tradizionali di spettacoli e attività educative.

La prima e fondamentale attività di trasmissione dell'Elemento è la pratica performativa a cui si accompagnano le più recenti attività di sensibilizzazione e trasmissione attraverso l'educazione, nella grande varietà delle possibili forme e dei contesti, da quello scolastico a quello museale.

In rapporto alla prima, sono stati organizzati dei cicli tradizionali di spettacoli realizzati dalle compagnie aderenti alla Rete nei luoghi della memoria per contribuire al recupero e al sostegno della tradizionale programmazione degli spettacoli. In rapporto alla seconda, sono state realizzate attività educative per scolaresche per fornire strumenti di decodifica, garantire il riconoscimento e il rispetto dell'Elemento (art.14, lettera a, comma i, CICH), informare i giovani sulle sfide e i rischi cui è sottoposto e sensibilizzarli all'importanza di salvaguardarlo sia in quanto espressione della cultura del territorio sia in quanto valido strumento per uno sviluppo sostenibile fondato sulla pacifica convivenza tra i popoli.

3. Valorizzazione, promozione, comunicazione e diffusione

Al fine di contrastare la scarsa valorizzazione dell'Elemento sul mercato dei beni culturali (PMS, par. B.6.d.) sono state realizzate tre attività che intrecciando diffusione, valorizzazione e promozione, nuove tecnologie e comunicazione:

- due webinar per adolescenti, in collaborazione con l'Istituto Italiano di Cultura (IIC) di San Paolo, Brasile, hanno presentato l'Opera dei pupi nelle sue forme tradizionali e contemporanee. La presentazione di prodotti tecnologici ed artistici innovativi ha coinvolto attivamente i maestri pupari e i partecipanti nell'esplorazione di un patrimonio sempre vivo e costantemente ricreato dai suoi rappresentanti e dalla comunità;



Pupi di stile palermitano in scena (Foto di Giacomo Bordonaro).

Pupi di stile catanese in scena (Foto di Giacomo Bordonaro).

- il portale www.operadeipupi.it e il connesso Servizio di Prenotazione & Biglietteria *online* è stato implementato e riattivato per continuare a dare visibilità all'Elemento. Il portale si configura quale spazio virtuale di rappresentazione e documentazione dell'Opera dei pupi (art. 13 lett. d comma ii, CICH), che presenta nella sua interezza e varietà grazie a pagine autogestite dalle compagnie della Rete. Il portale diffonde anche programmi di spettacoli e offre un servizio di prenotazione;
- il piano di comunicazione, condiviso dai membri della Rete nonché da parte degli stakeholders.

4. Interazione tra Elementi Unesco

L'azione ha promosso un'interazione tra la comunità di pratica e patrimoniale e gli esperti del teatro dell'Opera dei pupi siciliani e quelli di due Elementi italiani iscritti nella Lista rappresentativa dell'Unesco che si contraddistinguono per una strategia di salvaguardia fondata sulla dimensione di rete. I due Elementi invitati sono stati: le Feste delle grandi Macchine a spalla italiane e l'Arte da corno dei suonatori di corno da caccia. L'obiettivo è stato quello di favorire uno scambio su procedure e modalità del lavoro in rete per un confronto e una comparazione dei metodi di salvaguardia del PCI.

In termini metodologici, l'intero progetto ha adottato un approccio partecipativo di rete che valorizza l'Opera dei pupi nella sua interezza, benché nel rispetto delle specifiche realtà aderenti, facendo leva sugli interessi e il bene comuni. Le compagnie sono state protagoniste di un processo di co-progettazione, comunicazione condivisa, confronto e dialogo. Partecipazione attiva e *engagement* sono stati sollecitati anche da parte dei portatori di interesse con cui la comunità di pratica ha dialogato: comunità scientifica (esperti di antropologia, economia del turismo, progettazione); rappresentanti istituzionali (es. F.J.López Morales, già direttore del Patrimonio Mondiale del Messico e direttore dell'Istituto Nacional Antropología y Historia; focal point per il PCI-Ufficio Unesco-MiC; assessori, organizzazioni operanti nel campo del PCI). Hanno partecipato altresì centinaia di alunni e docenti (all'estero in collaborazione con l'Istituto di Cultura di San Paolo) ma anche famiglie e pubblico generico.

In termini d'impatto diretto le attività progettuali hanno:

- accresciuto il dialogo tra praticanti e *stakeholders* e rafforzato la cooperazione all'interno della giovane Rete dei pupari e la sua capacità di *networking* interistituzionale per l'attuazione del PMS e di una *governance* sostenibile, partecipata e multi-livello;
- valorizzato l'Elemento al livello internazionale e accresciuto l'*engagement* della comunità patrimoniale supportando il delicato processo di trasmissione intergenerazionale anche gra-



Angelica, l'orca marina e Astolfo, pupi di Palermo, Museo internazionale delle marionette Antonio Pasqualino (Foto di Giacomo Bordonaro).

zie al coinvolgimento delle nuove generazioni e all'interazione con altri Elementi Unesco.

Indicatore principale di questo impatto è soprattutto l'elaborazione del PSP che costituisce un punto di partenza anche in rapporto all'impatto indiretto in quanto strumento tecnico-programmatico, condiviso a livello ministeriale, che è frutto del percorso partecipativo sopra descritto ma contiene anche un piano di azioni di salvaguardia e valorizzazione sistemiche e strutturali da intraprendere e/o avviare nel 2024-30, volte a tradurre in azioni concrete le misure del PMS e a raggiungere gli obiettivi generali e specifici individuati, da verificare con una serie di indicatori di monitoraggio afferenti all'Overall Results Framework per il PCI.

Un impatto, quello dell'intervento e del percorso di salvaguardia e valorizzazione delineato nel PSP che intercetta il tema della sostenibilità economica, ambientale e sociale. Come descritto nel paragrafo 5.6.3 dedicato alla sostenibilità, il PSP intreccia gli obiettivi interni con gli obiettivi (OB) dell'Agenda 2030. La *governance* partecipata, multilivello, inclusiva e trasparente assicura un processo decisionale fondato su principi di efficienza gestionale, responsabilità e trasparenza (OB16). Le misure previste aumentano la produttività economica e le opportunità di lavoro anche nei microcontesti in cui operano le compagnie diversificando attività e prodotti, ricorrendo a tecnologie e innovazione e promuovendo il turismo sostenibile. Altre misure connesse all'artigianato tradizionale (di educazione, protezione, preservazione) sostengono le attività produttive del territorio (OB8) garantendo un lavoro dignitoso e sostenibilità economica e favorendo l'oc-



Realizzazione di una mano di pupo di Palermo (Foto di Giacomo Bordonaro).

cupazione giovanile. Il *Protocollo di sostenibilità* previsto e le attività per l'accessibilità e inclusione supportano la parità di genere (OB5), riducono le disuguaglianze offrendo pari opportunità per tutti (OB10), promuovono un consumo e forme di produzione tradizionali sostenibili anche fondate sul riciclo (OB12) contrastando il cambiamento climatico (OB13).

3a Menzione speciale sezione "Privati"

Un patrimonio mondiale per tutti. Monumenti e aree archeologiche: spazi sociali attivi per la città contemporanea

Fondazione Brescia Musei
<https://www.bresciamusei.com/>

Nel centro storico della città, Brescia possiede una grande area museale e monumentale che è stata dichiarata patrimonio dell'UNESCO dal 2011 all'interno del sito seriale I Longobardi in Italia. I luoghi del potere (568-774 d. C.). Proprio in quest'area è iniziato, ormai 200 anni fa, il progetto di valorizzazione delle origini e del patrimonio storico-archeologico civico con lo scopo di trasmettere i valori che affondano nelle radici della storia della città. Venerdì 9 giugno 2023 si è aperto il Corridoio UNESCO, un progetto che propone una passeggiata lunga 2.500 anni di storia, capace di garantire a tutti i visitatori di rimanere immersi, visivamente e fisicamente, nelle architetture monumentali storiche dall'età romana, per poi viaggiare nell'Alto Medioevo e nel Rinascimento, fino alla contemporaneità.

Il progetto ha visto prima il collegamento fisico e poi sociale degli spazi corrispondenti all'area del sito UNESCO di Brescia, due siti museali sino a poco tempo fa visitabili separatamente: Brixia. Parco archeologico di Brescia romana e Museo di Santa Giulia, all'interno dei quali si distinguono numerosi monumenti in una stratificazione continua.

L'obiettivo del progetto è avvicinare le persone al sito archeologico e museale, trasformandolo in un luogo familiare, senza barriere di nessun tipo (architettoniche, culturali, sociali, cognitive) e nessun biglietto d'ingresso (per gli spazi esterni e comuni), andando incontro ai bisogni delle famiglie, dei giovani visitatori, degli an-



Brixia. Parco archeologico di Brescia romana.
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Photo Alberto Mancini.

ziani, dei pubblici fragili, delle scuole e dei gruppi. Il progetto è vocato all'accessibilità, alla partecipazione civica, all'interazione tra i cittadini, all'inclusione sociale, e alla diffusione di un forte senso di appartenenza. Tutte le attività che hanno luogo negli spazi del Corridoio Unesco si basano e s'ispirano infatti ai principi educativi, ai bisogni sociali e al desiderio di aggregazione.

Grazie a un percorso ricavato collegando passaggi e vicoli, unificati da un'unica pavimentazione accessibile, con pendenze facilmente percorribili per tutti, è possibile immergersi in una storia secolare che si dipana per un chilometro. Il percorso pe-



Accessibilità Teatro romano - Corridoio UNESCO
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Photo Giuseppe Mazzadi.



Varco di via Piamarta sul Chiostro di San Salvatore
- Corridoio UNESCO © Archivio Fotografico Musei
Civici di Brescia - Photo Alberto Mancini.



Portale del Chiostro di San Salvatore con il
loggiate ©Archivio Fotografico Civici Musei
di Brescia – Photo Tomás Quiroga.



Chiostro di San Salvatore ©Archivio Fotografico Civici Musei
di Brescia – Photo Tomás Quiroga.

donale, aperto liberamente e gratuitamente in orario museale, segue una sequenza che consente di toccare, da ovest verso est (area Capitolium), l'area dei templi, il teatro, un vicolo medievale, (area Santa Giulia) il Chiostro meridionale di San Salvatore, il Chiostro di Santa Maria in Solario, sino al Parco del Viridarium delle domus romane con le installazioni di arte contemporanea – il Terzo Paradiso di Michelangelo Pistoletto (2015), Untitled di Ariel Schlesinger (2019), Formiamo umanità (Vite operose) di Valerio Rocco Orlando (2023), Mondo d'acciaio di Emilio Isgrò (2023) – e un ampio parco. Con 102 alberi e 18 specie diverse, gli spazi esterni pari a 13.870 m² tra Parco archeologico e Museo di



Chiostro di San Salvatore - Corridoio UNESCO © Archivio Fotografico Musei Civici di Brescia - Photo Alberto Mancini.



Chiostro di Santa Maria in Solario - Corridoio UNESCO © Archivio Fotografico Musei Civici di Brescia - Photo Alberto Mancini.

Santa Giulia. Gli spazi esterni sono considerati parte integrante degli spazi museali e sono stati soggetti negli ultimi anni a operazioni di sistemazione, ma anche di contaminazione con l'arte e la società contemporanea.

Gli ampi spazi del Corridoio (area antistante il Capitolium, Teatro romano, Chiostro di San Salvatore, Chiostro di Santa Maria in Solario e Parco del Viridarium) possono essere considerati a tutti gli effetti nuove piazze pubbliche, inserite in un contesto monumentale e architettonico unico. Il Corridoio garanti-

sce inoltre un accesso privilegiato all'Auditorium di Santa Giulia, sede di numerosi eventi culturali pubblici. L'accessibilità all'intero Corridoio è supportata sia da mappe tattili sia da un'audioguida digitale Easyguide, a cui tutti i visitatori possono accedere gratuitamente e dove sono presenti anche percorsi in LIS.

Le differenti attività che si svolgono negli spazi del Corridoio Unesco hanno come obiettivo: generare un coinvolgimento attivo in termini di engagement, condivisione ed empowerment. Sono state attivate moltissime collaborazioni e partnership con associazioni, cooperative, università, istituti di ricerca e altri enti che contribuiscono alla realizzazione dei progetti, allo studio, alla valorizzazione e alla divulgazione del patrimonio. Gli ostacoli quali barriere sociali e distanza percepita dai cittadini bresciani dal loro patrimonio culturale sono stati superati dando ai cittadini stranieri/immigrati un ruolo centrale nella progettazione delle attività culturali, permettendo così un maggiore impegno con i membri delle comunità straniere che vivono a Brescia. La città conta 36.885 residenti stranieri, il 18% circa dei residenti totali della città.

In generale, le attività culturali ed educative sono state progettate rimanendo focalizzate sull'obiettivo finale comune dell'impegno della comunità e della valorizzazione del patrimonio. Tra i progetti già realizzati e in corso di realizzazione, in linea con l'idea alla base del Corridoio Unesco si possono citare:

- Il format espositivo **Palcoscenici Archeologici**, che mette in relazione l'arte contemporanea con il grande patrimonio archeologico romano di Brescia e ha visto la realizzazione di tre edizioni con mostre diffuse negli spazi del Parco archeologico e del Museo di Santa Giulia grazie al contributo degli artisti Francesco Vezzoli, Emilio Isgrò e Fabrizio Plessi.

- **Open Doors. Il museo partecipativo oggi**, un convegno che ha avuto luogo da maggio a novembre 2022, per cui hanno avuto luogo nove incontri con i più importanti esperti nella gestione e nella valorizzazione dei patrimoni culturali e delle culture contemporanee, italiani e internazionali, sul tema del museo partecipativo, ovvero sulle prospettive dei musei del futuro.

- **Vite Operose**, un progetto di arte contemporanea partecipata e diffusa, dedicato al tema del lavoro come elemento identitario e strumento d'integrazione. Formiamo Umanità è stato il risultato del progetto artistico di Valerio Rocco Orlando, a cura di Caroline Corbetta e commissionato da Guido Berlucchi. L'opera, accessibile gratuitamente al pubblico, è stata realizzata a partire da una serie di incontri dell'artista con un gruppo di mediatori artistico culturali del Gruppo FAI Ponte tra culture – Delegazione di Brescia. Nell'arco degli incontri è stato instaurato un dialogo volto ad indagare le forme di partecipazione sociale scaturite dall'e-



Accesso al Parco delle sculture del Viridarium ©Archivio Fotografico Civici Musei di Brescia – Photo Tomás Quiroga.



Parco delle sculture del Viridarium © Archivio Fotografico Musei Civici di Brescia - Photo Giuseppe Mazzadi.

sperienza di valorizzazione del patrimonio culturale e il ruolo del lavoro visto come strumento di definizione individuale e di integrazione sociale. Tra le riflessioni emerse, l'artista ha selezionato una frase emblematica, trascrivendola in una scultura di luce al neon, in edizione unica.

- **Mondo d'acciaio**, un enorme mappamondo in acciaio, il più grande mai realizzato da Emilio Isgrò, del diametro di quattro

metri e prodotto grazie al know-how ingegneristico di Feralpi Group: l'azienda specializzata negli acciai per l'edilizia ha collaborato con Brescia Musei e con Isgrò in tutte le fasi d'ideazione e realizzazione, fornendo all'artista siciliano il supporto tecnico e umano necessario all'esecuzione di quest'opera. Nell'installazione, che si trova presso il Parco delle sculture del Viridarium, Isgrò risparmia solo Brixia, che ha consolidato la centralità di Brescia e delle sue Istituzioni nella carta geografica della cultura internazionale.

- **Passeggiate UNESCO**, visite-passeggiate per ammirare e sentire raccontare i luoghi del Corridoio, dall'esterno del Capitolium e dell'antico Teatro romano, attraversando i suggestivi Chiostri e nel Parco delle sculture del Viridarium, in un viaggio dall'antico al contemporaneo. Protocollo n. FBM/1645 del 06/08/2024.

- **Camminando si fa il cammino**, uno spettacolo teatrale collettivo i cui protagonisti sono migranti di diversa provenienza, in collaborazione con Fabbrica Sociale del Teatro e Elefanti Volanti - S.C.S. Onlus, grazie al bando di Fondazione della Comunità Bresciana e al contributo di Confartigiano Imprese Brescia e Lombardia Orientale. Il Corridoio Unesco, idealmente cammino e percorso geografico storico e culturale, sarà lo spazio che esprime concetti fondamentali come l'universalità contenuta nel titolo stesso di Patrimonio dell'Umanità e il legame con la storia, non solo cittadina ma frutto di infinite e antiche migrazioni. Rendere i migranti protagonisti di questo spazio così identificativo significa riconoscere che la cittadinanza oggi è costituita da ceppi culturali molto variegati.

Il progetto Corridoio UNESCO promuove un livello più elevato di conservazione e valorizzazione: questa **nuova modalità di accesso al patrimonio culturale**, abbinata alla politica dei biglietti gratuiti per la maggior parte dei visitatori, ha aumentato significativamente il numero di ingressi ai siti culturali di Brescia e ampliato la composizione dei visitatori, permettendo così alla comunità di godere della monumentale esperienza del sito UNESCO come qualcosa di condiviso e partecipativo. Questo **senso di appartenenza** alimenta un ciclo virtuoso che vede un maggiore coinvolgimento dei cittadini più consapevoli del valore e dell'importanza di questo sito culturale, promuovendo così il suo patrimonio e la sua conservazione attraverso il rispetto e la cura. L'intera area è stata recuperata nel tempo con una **visione a lungo termine**, testimonianza della volontà sempre presente di restituire alla città e ai visitatori il loro patrimonio e eredità. Questa visione è sempre stata accompagnata da una **sensibilità contemporanea** alle esigenze della comunità, del territorio e del patrimonio.

Il recupero del **Teatro romano** ne è un esempio. Si tratta di un progetto ancora da realizzare, ma finalizzato al restauro dell'area, permettendo da un lato di indagare e continuare ad approfondire il patrimonio culturale bresciano e dall'altro di restituire un altro spazio alla comunità. Inoltre, il Teatro romano non sarà solo parte dell'itinerario museale, ma riacquisterà la sua funzionalità, ospitando spettacoli all'aperto e concerti, in linea con l'idea di spazio pubblico e attivo del progetto del Corridoio Unesco.




MARCO PETILLO

Architetto, già docente di Arte e Immagine, attivo nelle arti visive sin dagli anni settanta, sperimenta le sue emozioni in una ricerca continua nel fuso del segno e del colore su tela, incisioni, serigrafie, ceramiche e sculture nei modi più diversi di espressione.

La sua costante ricerca lo ha portato a una precisa identificazione e lo ha visto esporre, negli ultimi anni, in numerose Personali di grande spessore percorrendo le sue visioni aniche ricche di pathos e tensioni emotive.

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