GreenHeritage

The impact of Climate Change on the Intangible Cultural Heritage

Deliverable D4.1
GreenHeritage Blended Learning Curriculum

Version: V 1.0

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0.1	17/01/2024	Draft version	A. Bounia, K. Kotis D. Catapoti C. Matsoukas
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EXECUTIVE SUMMARY

This document presents the Blended Learning Curriculum developed for the GreenHeritage project.

The curriculum rationale and the main principles behind its design are first presented. The focus is on:

- key issues and trends;
- assessing needs based on previous experience;
- the unifying framework;
- the goal-setting approach;
- the principles for the selection of resources, and for the selection of assessment methodologies.

The four modules comprising the BLP are then presented in detail, following a dual approach:

- the online component is presented in detail,
- then workshop delivered in-person component is outlined in a similar manner.

The report concludes with a brief set of suggestions regarding the delivery and the next steps.

Introduction

1.1. Document organization

The present document is organized in the following sections:

Section 2. Rationale and Overview: Designing a curriculum of a Blended Learning Program (BLP) for Intangible Cultural Heritage and Climate Change

Section 3. Module 1: Intangible Cultural Heritage: Introduction and International Overview

Section 4. Module 2: Intangible Cultural Heritage and Climate Change I: and Threats and Protection. An environmental perspective

Section 5. Module 3: Intangible Cultural Heritage and Climate Change II: Challenges and Opportunities

Section 6. Module 4: ICT Tools for the Protection and Conservation of Intangible Cultural Heritage

Section 7. Conclusions and recommendations

Please note that in the present deliverable the description of the online component of Modules 1, 2, 3, 4 uses the same tables present in D4.2, too, to make self-consistent both deliverables (D4.1 and D4.2).

However, D4.1 is providing a complete description of the courses (blended learning), detailing both the on-line and out-line parts of the courses.

1.2. Reference Documents

Document name	Reference number
GreenHeritage – Annex 1: Description of Work	Grant Agreement nr. 101087596
GreenHeritage – Project Management Plan	Deliverable D1.2
GreenHeritage - Quality Assurance Plan	Deliverable D1.4
GreenHeritage - Primary and secondary data research findings	Deliverable D2.2
GreenHeritage, Development of methodology	Deliverable D2.3

1.3. Acronyms and Abbreviations

Acronym	Description
AI	Artificial Intelligence
AR/VR	Augmented Reality/Virtual Reality
BLP	Blended Learning Program
CC	Climate Change
ChatGPT	chat Generative Pre-Trained Transformer
CIDOC	International Committee fo Documentation
CMS	Content Management System
CRCT	Climate Resilient City Tool
CRM	Conceptual Reference Model
2D, 3D, 4D	2, 3, 4 Dimendional
ECTS	European Credit Transfer and Accumulation System
EDT	Emerging and Disruptive Technologies
EHEA	European Higher Education Area

ESG	Environmental Social and Governance
ET	Emerging Technology
EU	European Union
HEIs	Higher Education Institutions
HQA	Hellenic Quality Assurance
ICH	Intangible Cultural Heritage
ICT	Information and Communication Technology
IoT	Internet of Things
IPCC	Intergovernmental Panel on Climate Change
MCP	Micro-credentials Program
MOOC	Massive Open On-line Courses
NFTs	Non-Fungible Tokens
SSP	Shared Socio-economic Pathways
UNESCO	United Nations Educational, Scientific and Cultural Organization.
URL	Uniform Resource Locator
VLE	Virtual Learning Environment
WP	Work Package
XR	eXtended Reality

Section 2. Rationale and Overview: Designing a curriculum of a Blended Learning Program (BLP) for Intangible Cultural Heritage and Climate Change

"WP4 - Blended-learning & Micro-credentials" of the GreenHeritage project aims to deliver a blended learning program, which will introduce a hybrid educational approach while offering high-quality digital content and an overall learning experience for participants coming from the cultural heritage sector, but also for ICH bearers and the general public. GreenHeritage aims to create a contemporary, innovative, and transferable training tool for the upskilling of professionals in a sustainable way and, at the same time, to reach a broader audience than usually happens. Furthermore, the BLP curriculum aims to create synergies among learners and the GreenHeritage partners' organisations in a creative and innovative learning environment.

More specifically, BLP will be structured in 4 modules that will be delivered both online (online component) and via 4 workshops (transnational: Latvia, Italy, Greece, Spain) (workshop component).

Based on consortium discussions and collaborative work, and taking into consideration the Grant Agreement, the following modules are offered:

- **Module 1**: "Intangible Cultural Heritage: Introduction and International Overview".
- **Module 2**: "Intangible Cultural Heritage and Climate Change I: Threats and Protection. An environmental perspective".
- **Module 3**: "Intangible Cultural Heritage and Climate Change II: Challenges and Opportunities".
- **Module 4**: "ICT Tools for the Safeguarding of Intangible Cultural Heritage".

The BLP Curriculum development involves:
- Preparing a syllabus for each module and a study guide
- Developing lesson plans per module (Task 4.3)
- Creating content per lesson and learning resources (Task 4.3)
- Designing workshop activities (Task 4.3)
- Forming assessment and grading rubrics (Task 4.3)
- Planning the course calendar (Task 4.3)

The delivery of BLP will combine online and physical presence activities. The completion of the online component is a requirement for participation in the workshops in presence that will be held at four different locations, to facilitate participation from different European regions.

Information related to the start of the enrolment period will be disseminated via the GreenHeritage project channels and the partners' networks.

The platform created by GreenHeritage will be utilized for the online delivery.

Four (4) transnational workshops will be organized in total. Attending in person is expected to add to the learning and networking experience opportunities for in-depth learning and case studies assessment.

All modules will be taught during the Workshops, as per the curricula developed and presented in the following pages.

The teaching language for the online component of the BLP will be English. Regarding the workshops, the teaching language will be also English; however, depending on the composition of the cohort, it will be possible to supplement teaching using resources in local languages (Greek, Latvian, Italian and Spanish).

2.1 Overarching principles of the BLP

An education curriculum is commonly a document that outlines the main elements of an educational program. It usually consists of the following sections (or subsections):
- philosophy of the program;
- educational goals and objectives;
- learning outcomes of the program/module;
- evaluation methods and processes;
- content of the educational program.

GreenHeritage has been committed to deliver a BLP, which will capitalize on the research undertaken in WP2, will use the online platform designed and implemented within WP3, and make the most of all the skills that the partners of the consortium bring to the table regarding Intangible Cultural Heritage and Climate Change, as well as designing and delivering educational programming and resources.

Our proposed curriculum is consistent with:
- The learning styles of adults, and it requires no previous knowledge of the topics discussed.
- It is based on clear convictions coming from years of expert capacity and knowledge building.
- Aims to cover the needs of participants with different learning styles and needs.
- It is easy to follow by all partners, taking into consideration their experience and expertise.
- The research outcomes of WP2 (Deliverable D2.2: "The Impact of Climate Change on Intangible Cultural Heritage: Primary and Secondary Data Research Findings").

To develop the curriculum, the steps described in the following sub-sections were taken into consideration.

2.1.1   Key issues and trends

The first step in all curriculum development processes involves research activities providing an overview of the most recent developments and trends of the disciplines and innovations produced. This allows for a needs assessment as well as building the overarching approach to the course. In the case of GreenHeritage BLP, the recent issues and trends related to ICH, CC and ICT tools discourses were taken into consideration and were used in the development of the courses and modules curriculum. More specifically, findings of the research undertaken in WP2 and summarized in the Deliverable D2.2 of the GreenHeritage project were used to develop the content of the proposed modules. . The deliverable is based on primary data collection through a structured survey and semi-structured interviews as well as a review of public legal and policy documents, the study of mass media and the research literature available on this topic. It presented 14 case studies from different parts of Europe: from Denmark, Italy, France and Switzerland, Greece, Latvia, Netherlands, and Spain.

It provided an overview of current practices, as well as measures undertaken by the involved countries and/or the relevant communities. This content informed the modules content in different ways, and it forms the backbone of the education provided through this BLP.

2.1.2   Assessing needs and issues

In every curriculum development, assessing the needs and issues is part of the process that also depends on research and previous experiences. In this case, the GreenHeritage partners' experience was used to ascertain the perceptions, concerns and requirements coming from the stakeholders.

2.1.3   Unifying Framework

The BLP provides a unifying framework that justifies and gives direction to discipline-based instruction. Although this is an interdisciplinary course, based on contents and approaches coming from different disciplines (cultural heritage, ICT and environmental sciences), the scope is to create a curriculum that reflects the same key general concepts:

1) accuracy of information,

2) sound theoretical and methodological foundation,

3) sound and innovative, student-centred pedagogical practices,

4) clear and compelling justification for the selection of case studies and methodological approaches, clarity of content and delivery.

2.1.4 Goal Setting

Each goal/learning outcome has been broadly conceived to provide continuous growth. Every learning outcome is related to the philosophy and principles of the program, as well as the specific discipline. The goals are comprehensive enough to provide the basis for quality teaching. All goals are realistic and carefully time-related.

2.1.5 Selection of resources

All resources (such as bibliography, ICT tools, etc.) proposed in this curriculum are selected on the base of their relevance to the module's main ideas and the overall relation to the topic of the BLP. They aim to provide a multiplicity of perspectives while familiarizing participants with some basic and standard texts related to the content. Although the range of bibliography on topics related to CC is very extensive, and the same goes for the general bibliography on ICH, the focus was on those resources (articles, papers, books, ICT tools) that are most relevant to the specific GreenHeritage perspective combining ICH and CC).

2.1.6 Assessment

The selection of assessment methodologies is based on considerations about the discipline and the content of the module, as well as the course overall. It is both formative (i.e. it consists of small quizzes that are shared with the participants during the modules/course) and summative (i.e. evaluation takes place at the end of each module, to provide an opportunity for trainers and participants to review their understanding of the module). The assessment is not an end per se; it aims to aid students towards a critical alignment of curriculum, instruction and assessment.

2.2 Allocation of ECTS

The designing of the curriculum has taken into consideration the recommendations of the European Higher Education Area (EHEA) for making studies and courses more transparent (ECTS User's Guide 2015 - https://op.europa.eu/en/publication-detail/-/publication/da7467e6-8450-11e5-b8b7-01aa75ed71a1) regarding the allocation of ECTS (European Credit Transfer and Accumulation System).

The course in total will offer 5 ECTS. These will be allocated as follows:

Module 1: Online component: 1 ECTS
Module 2: Online component: 1 ECTS
Module 3: Online component: 1 ECTS
Module 4: Online component: 1 ECTS

Module 1: Workshop component: 0.25 ECTS
Module 2: Workshop component: 0.25 ECTS
Module 3: Workshop component: 0.25 ECTS
Module 4: Workshop component: 0.25 ECTS

The structure of the module is schematically presented in the figure below:

Online component	Workshop component
Module 1 = 1 ECTS	Module 1 = 0,25 ECTS
Module 2 = 1 ECTS	Module 2 = 0,25 ECTS
Module 3 = 1 ECTS	Module 3 = 0,25 ECTS
Module 4 = 1 ECTS	Module 4 = 0,25 ECTS
TOTAL = 4 ECTS	TOTAL = 1 ECTS
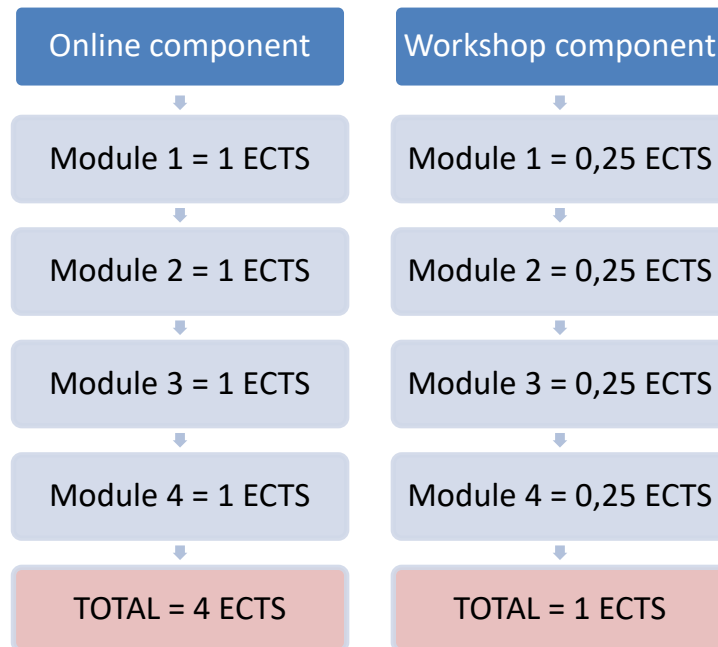
Therefore, the Online Component will allocate: 4 ECTS and the Workshop Component will allocate 1 ECTS.

All four modules will be taught during each workshop and a joint evaluation of the workshop material will be pursued.

Section 3. Module 1: Intangible Cultural Heritage. Introduction and International Overview

3.1 Online component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	**INTANGIBLE CULTURAL HERITAGE. INTRODUCTION AND INTERNATIONAL OVERVIEW**		
INDEPENDENT TEACHING ACTIVITIES		**TEACHING HOURS**	**CREDITS**
		25	1 ECTS
COURSE TYPE	Specialised general knowledge - online course (part of BLP) for 1/4 of the modules of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH".		
PREREQUISITES (IF APPLICABLE):	None		

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of this module, participants should be able to: • Articulate a clear definition of ICH. • Understand the significance and scope of ICH in cultural preservation. • Appreciate the diversity of ICH manifestations globally. • Recognize and provide examples of various forms of ICH. • Gain an understanding of the UNESCO framework for safeguarding ICH. • Analyze the legislative measures at the European and national levels for protecting ICH. • Understand the responsibilities and challenges faced by experts in preserving ICH. • Explore the role of communities in the safeguarding and transmission of ICH. • Engage in discussions about the ethical considerations surrounding the documentation, preservation, and dissemination of ICH. • Critically evaluate case studies illustrating successful and unsuccessful efforts in safeguarding ICH. • Develop cultural sensitivity and awareness, understanding the importance of respecting diverse cultural practices and traditions. • Reflect on the opportunities and challenges presented by the digital turn in the context of ICH.
GENERAL COMPETENCES
• Adapting to new situations • Decision-making • Respect for difference and multiculturalism

- Respect for the natural environment
- Showing social, professional, and ethical responsibility and sensitivity to gender issues
- Teamwork
- Working in an interdisciplinary environment
- Working in an international environment

(3) SYLLABUS

ICH is a "force bringing people together connecting them through their bodies to the past", as Marilena Alivizatou (2022) has very eloquently argued. This module aims to introduce students to the powerful dimensions of ICH and provides the necessary theoretical and methodological tools that will allow participants to discuss the topics and ideas related to the other modules of the Green Heritage programme. The module will be structured around three main areas: (a) evolving definitions of ICH and the legal and institutional frameworks supporting them; (b) the meaning of participation and its importance for the safeguarding and/or sustainability of ICH; (c) the "digital turn" and its role in ICH.

Session 1: Self-study and Lecture: Unveiling Intangible Heritage: An Introduction (Duration 3 hours)
This introductory session will start by asking students to read two articles on ICH so that they can participate in the lecture that will follow.
Session 2: Lecture: An insight into the legislative landscape of ICH (UNESCO/Global, European, and national) (Duration 3 hours)
The session will be delivered as a lecture and it will present the overall legislative and normative framework regarding ICH.
Session 3: Lecture: Decoding ICH Elements: Definitions and perspectives (Duration 2 hour)
Based on the previous two sessions, this one provides the definition of ICH and addresses issues of definitions and perspectives.
Session 4: Group Activity related to Session 3 (collaborative exercises aiming at deepening our understanding of ICH elements, sharing insights and perspectives within the group) (3 hours)
This session will invite participants to a group activity, to enable them to utilise and better understand the material presented in lecture format in previous sessions.
Session 5: Lecture: The "Experts'" Lens: Unveiling the role of *connoisseurs* (Duration 2 hours)
The role of the "connoisseurs" or "experts" is crucial in the discourse around ICH. This session will offer an overview of this debate.
Session 6: Group Activity related to Session 5 (group activities aiming at prompting reflection on the role and responsibilities of custodians of ICH) (3 hours)
Following on the previous session, this one will encourage reflection and group work regarding the idea of the custodians of ICH and the multi-layered approach required to understand and communicate it.
Session 7: Lecture: "Community" dynamics: Embracing diverse approaches (Duration 2 hours)
At the centre of this and the following session will be the idea of community and participation. Both terms are highly debated within contemporary discourses, disciplinary and interdisciplinary ones.

Session 8: Group Activity related to Session 6 (peer collaboration aiming at exploring the multifaceted nature of "community" and "bearers", with emphasis on their integral role in preserving and transmitting ICH) (3 hours).
This session will capitalise on the lecture delivered before and invite participants to workshop ideas regarding communities and bearers.
Session 9: Lecture: ICH and the «digital turn» (3 hours)
This session will bring to the discussion the idea of the digital and will explore how the "digital turn" is affecting the concept of ICH, its documentation, but also the communities involved.
Session 10: Self-reflection and evaluation (1 hour)
This session will summarise the course and offer participants the opportunity to reflect, and also to be evaluated.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be online (distance learning), synchronous and asynchronous		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform		
TEACHING METHODS	*Activity*		*Workload*
	Lectures		14
	Group Activities		9
	Self-study		2
	Total		*25*
STUDENT PERFORMANCE EVALUATION	The evaluation will be in English. It will be summative/conclusive and will consist of a form including multiple choice questions, as well as short open-ended questions.		

(5) SUGGESTED BIBLIOGRAPHY

Aikawa-Faure, N. (2009). From the proclamation of masterpieces to the convention for the safeguarding of intangible cultural heritage. In L. Smith & N. Akagawa (Eds.), *Key issues in cultural heritage. Intangible heritage*, 13–44. Routledge.

Blake, J. (2016). Development of UNESCO's 2003 convention: Creating a new heritage protection paradigm? In M. Stefano (Ed.), *The Routledge companion to intangible cultural heritage*, 11–21. Routledge.

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Kim, S., Whitford, M., & Arcodia, C. (2019). Development of intangible cultural heritage as a sustainable tourism resource: The intangible cultural heritage practitioners' perspectives. *Journal of Heritage Tourism* 153(3), 1–14.

Kirshenblatt-Gimblett, B. (2000). *Intangible Heritage as Metacultural Production*. United Kingdom: Blackwell Publishing.

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Pietrobruno, S. (2009). Cultural Research and Intangible Heritage: Culture Unbound. *Journal of Current Cultural Research* 1, 227-247.

3.2 Workshop Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	INTANGIBLE CULTURAL HERITAGE: INTRODUCTION AND OVERVIEW		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS	CREDITS
		6	0,25 ECTS
COURSE TYPE	Specialised general knowledge - workshop - part of BLP developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH".		
PREREQUISITES (IF APPLICABLE):	Online programme (MOOC) offered by GreenHeritage		

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of the course, participants will be able to: • Evaluate significant debates, problems, controversies, concepts, and theories pertinent to ICH. • Develop critical understanding and engagement with a range of ideas such as the importance of community engagement in the process of intangible heritage management. • Critically reflect on the relationship between ICH safeguarding and issues such as gender equality, cultural and social diversity, education, health, environmental and other risks, peacebuilding, and international communication. • Critically discuss issues of sustainability regarding ICH.
General Competences
• Adapting to new situations • Decision-making • Respect for difference and multiculturalism • Respect for the natural environment • Showing social, professional, and ethical responsibility and sensitivity to gender issues • Teamwork • Working in an interdisciplinary environment • Working in an international environment

(3) SYLLABUS

ICH offers multiple opportunities for participatory research, memory-work and cultural transmission. The Workshop will provide an opportunity for course participants to explore these elements further by moving beyond theory, into a more experiential learning approach that will allow them to think collectively and more critically regarding ICH and its safeguarding.

Session 1: Student-led debate: a critical discussion of concepts and definitions of transmission and safeguarding (1,5 hours)
This session will invite students to organize and run a debate regarding the concept and definition of safeguarding and transmission of ICH based on their previous readings and experiences during the online component of the course.
Session 2: Educational Visit: Visit the site in Lesvos/Latvia/Spain/Italy and discuss with ICH practitioners (duration 3 hours): Who are the communities? Why are they in the centre of ICH? Community participation.
This session aims to bring practice into the theory and connect the theoretical readings and debates participants are already familiar with, with actual ICH elements. Depending on the location of the workshop, participants will be invited to visit and meet practitioners to discuss with them ideas around communities and how they relate to ICH safeguarding and conservation.
Session 3: Workshop/Group Activity: Students will be grouped in teams and will be asked to review ICH case studies from their countries or regions of origin, using also the case studies that have been developed within the deliverables of GreenHeritage. What is the role of this ICH element? What is the relation to the respective communities? How is it safeguarded? What is its role in terms of promoting gender equality, sustainability, peace building, etc.? Each of the teams will present to the other teams. Discussion and conclusions. (2 hours)

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be in person.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	ICT will be used for the delivery of the lectures/teaching and communication with the students as well as for evaluation

TEACHING METHODS	Activity	Workload
	Student-led debate	1,5
	Educational visits	3
	Workshops	3
	Total	6,5

STUDENT PERFORMANCE EVALUATION	The evaluation will be in English. It will be summative/conclusive and will consist of a form including multiple choice questions, as well as short open-ended questions.

(5) SUGGESTED BIBLIOGRAPHY

Alivizatou, M. 2022. *Intangible Heritage and Participation: Encounters with Safeguarding Practices*, London and New York: Routledge.

Craith, M. N. 2008. "Intangible Cultural Heritages." *Anthropological Journal of European Cultures* 17 (1): 54–73. doi:10.3167/ajec.2008.01701004.

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Smith, L. and Akagawa, N. (eds) 2009. *Intangible Heritage*. Abingdon: Routledge.

Section 4. Module 2: Intangible Cultural Heritage and Climate Change I: Threats and Protection. An Environmental Perspective

4.1 Online Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	**ICH AND CLIMATE CHANGE I: THREATS AND PROTECTION. AN ENVIRONMENTAL PERSPECTIVE**

INDEPENDENT TEACHING ACTIVITIES	**TEACHING HOURS**	**CREDITS**
	25	1 ECTS

COURSE TYPE	Specialised general knowledge - online course (part of BLP) for 1/4 of the modules of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH".
PREREQUISITES (IF APPLICABLE):	None

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of the course, participants are expected to: • Be familiar with the basic greenhouse gases, their sources, and their influence on the climate. • Grasp the complexity of the climate system, its various time scales, and its natural vs. anthropogenic aspects. • Acquire science-grounded expectations of the future climate changes and challenges. • Recognize and examine risks in various sectors of natural, human, and managed systems. • Suggest adaptation options and detect maladaptation situations.
GENERAL COMPETENCES
 • Production of free, creative, and inductive thinking • Respect for difference and multiculturalism • Respect for the natural environment • Search for, analysis and synthesis of data and information, with the use of the necessary technology • Working in an interdisciplinary environment • Working in international environment • Working independently

(3) SYLLABUS

Climate change can affect ICH in both straightforward and subtle ways. This module aims to present a scientific overview of climate change scenarios, highlighting societal impacts and vulnerabilities deriving from extreme weather and slow-onset changes, and fostering understanding of available policy and planning responses to cope and adapt at different scales.

The online component of the module aims to lay the groundwork for the non-technical description of climate change, impacts, and adaptations. Even though it will touch upon political, financial and societal issues, its perspective comes mainly from the physical and environmental sciences.

Session 1: Lecture: Historical climate change. Agents of change (3 h)
In situ and remote sensing climate observations. Reconstructions of paleoclimate. Planetary energy balance and greenhouse effect.

Session 2: Self-study and reflection on Session 1 (1 h)
The students will study the Session 1 lecture notes and additional material.

Session 3: Lecture: Temporal horizon of the greenhouse effect (3 h)
Greenhouse gases and solar flux as forcing agents. Sources and sinks of greenhouse gases. Temporal scales.

Session 4: Self-study and reflection on Session 3 (1 h, 20 min)
The students will study the Session 3 lecture notes and additional material. They will reflect on the topics of Sessions 1 and 3 by taking a 20-minute quiz.

Session 5: Lecture: Socio-economic future scenarios (3 h)
Climate models and uncertainties. Can they replicate the past? What about the future? Shared socio-economic pathways (SSP).

Session 6: Self-study and reflection on Session 5 (1 h)
The students will study the Session 5 lecture notes and additional material.

Session 7: Lecture: Impacts, risks, and vulnerabilities, part 1 (3 h)
Historical climate change impacts. Hazard, vulnerability, exposure, and risk. Extreme weather and slow-onset events.

Session 8: Self-study and reflection on Session 7 (1 h, 20 min)
The students will study the Session 7 lecture notes and additional material. They will reflect on the topics of Sessions 5 and 7 by taking a 20-minute quiz.

Session 9: Lecture: Impacts, risks, and vulnerabilities, part 2 (3 h)
Sectoral impacts (water resources, agriculture, health, etc.) and vulnerable populations. International climate agreements.

Session 10: Self-study and reflection on Session 9 (1 h)
The students will study the Session 9 lecture notes and additional material.

Session 11: Lecture: Adaptation measures (3 h)
Adaptation measures. Current, future adaptation and its limits. Climate resilient development.

Session 12: Self-study and reflection on Session 11 (1 h, 20 min)
The students will study the Session 11 lecture notes and additional material. They will reflect on the topics of Sessions 9 and 11 by taking a 20-minute quiz.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be online (distance learning), synchronous and asynchronous
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform

TEACHING METHODS	Activity	Workload
	Lectures	6×3 h = 18 h
	Self-study	6×1 h = 6 h
	Reflection	3×20 min = 1 h
	Course (module) total	25 hrs

STUDENT PERFORMANCE EVALUATION	The evaluation will be in English and will consist of three quizzes that the participants will be asked to respond to. The evaluation approach will be formative (taking place during the module) and will consist of multiple-choice questions, as well as a few short open-ended questions.

(5) SUGGESTED BIBLIOGRAPHY AND RESOURCES

Public Documents

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Houghton J. (2015), *Global warming: The complete briefing*, 5th edition, Cambridge University

4.2 Workshop Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	ICH AND CLIMATE CHANGE I: THREATS AND PROTECTION. AN ENVIRONMENTAL PERSPECTIVE	
INDEPENDENT TEACHING ACTIVITIES	**TEACHING HOURS**	**CREDITS**
	6	0.25 ECTS
COURSE TYPE	Specialised general knowledge - workshop (part of BLP) of module developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH".	
PREREQUISITES (IF APPLICABLE):	Online programme (MOOC) offered by GreenHeritage	

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of the course, participants will have acquired hands-on experience on: • the effect that policies and measures have on greenhouse gas emissions and the resulting scenarios of global temperature increase, • handling regional data from climate model projections, • adaptation planning tools to tackle regional/city challenges.
GENERAL COMPETENCES
  • Production of free, creative, and inductive thinking • Respect for difference and multiculturalism • Respect for the natural environment • Search for, analysis and synthesis of data and information, with the use of the necessary technology • Teamwork • Working in an interdisciplinary environment • Working in an international environment

(3) SYLLABUS

Climate change can affect ICH in both straightforward and subtle ways. This module aims to present a scientific overview of climate change scenarios, highlighting societal impacts and vulnerabilities deriving from extreme weather and slow-onset changes, and fostering an understanding of available adaptation measures, planning tools and services, to cope and adapt at different scales.

The participants will have examined the scientific background of climate change, its causes, effects, uncertainties, complexity, temporal scale, and future projections, during the online course. This workshop aims to expand on this knowledge bringing the participants in contact with some of the most up-to-date tools and services in adaptation planning (e.g. the CLIMATE-ADAPT platform, COPERNICUS Climate Change Service, Climate Resilient City Tool) and future scenarios of climate quantities (e.g. the Interactive Atlas of the IPCC).

The participants will work in teams of 2-3 people. The delivery of this module consists of two two-hour workshop sessions:

Session 1: Computer-lab Workshop: Projections, threats, adaptation (2 h)
Hands-on learning of the projected threats, through the IPCC Interactive Atlas. It will be explored the global and regional projections focusing on the observed and projected climate hazards for various scenarios.

Session 2: Computer-lab Workshop: Socio-economic scenarios and effects by region (2 h)
Introduction of the Climate Adapt platform, including the Urban Adaptation Support Tool and Urban Adaptation Map Viewer. Participant teams will select regions or cities, climate hazards and set limits after discussions with the instructor, who will be available for guidance and consultation. Using a policy planning/decision support tool, the teams will propose adaptation measures tailored to the context and the ICH at stake.

Session 3: Group writing assignment (2h): The participants will be asked to write a short essay discussing the threats for a specific region of their choice and a suggestion for a set of policies/adaptation measures that may alleviate the threat. Each team will be able to select a region, climate hazards, and ICH resources along with their tangible assets. A special emphasis will be given to the regions and case studies developed during the GreenHeritage project.

(4) TEACHING and LEARNING METHODS–- EVALUATION

DELIVERY	The delivery will be in person
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform
TEACHING METHODS	<table><tr><td>*Activity*</td><td>*Workload*</td></tr><tr><td>Lectures</td><td>2×2 h = 4 h</td></tr><tr><td>Assignment</td><td>2 h</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td>Course total</td><td>6 h</td></tr></table>
STUDENT PERFORMANCE EVALUATION	The evaluation will be in English and will be summative. It will be performed through the group writing assignment for small teams of participants, in which each team is asked to discuss climate change threats and mitigation policies, as discussed in the session description.

(5) SUGGESTED BIBLIOGRAPHY

Public Documents

National Academy of Sciences, (2020), *Climate Change: Evidence and Causes: Update 2020*. Washington, DC: The National Academies Press. https://doi.org/10.17226/25733

IPCC, (2021): Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change,* Cambridge University Press, Cambridge, United Kingdom and New York, NY. https://doi.org/10.1017/9781009157896.001

IPCC, (2022): Summary for Policymakers. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK and New York. https://doi.org/10.1017/9781009325844.001

GreenHeritage, (2023), Deliverable D2.2: *Primary and secondary data research findings*

GreenHeritage, (2023), Deliverable D2.3: *Development of methodology*

Textbooks

Burroughs, William James, (2007), *Climate change: a multidisciplinary approach*, 2nd ed., Cambridge University Press

Dessler A. E., (2021), *Introduction to modern climate change*, 3rd edition, Cambridge University Press

Houghton J. (2015), *Global warming: The complete briefing*, 5th edition, Cambridge University

Suggested tools:

CLIMATE ADAPT Platform and planning tools, https://climate-adapt.eea.europa.eu/

Urban Adaptation Support Tool, https://climate-adapt.eea.europa.eu/en/metadata/tools/urban-adaptation-support-tool

URBAN ADAPTATION MAP VIEWER, https://climate-adapt.eea.europa.eu/en/knowledge/tools/urban-adaptation

Climate Resilient City Tool (CRCTool), https://reachout-cities.eu/post_type_toolkint/climate-resilient-city-tool/

Regilience self-assessment tool for maladaptation, https://regilience.eu/self-assessment-tool-for-maladaptation/

Section 5. Module 3: Intangible Cultural Heritage and Climate Change II: Challenges and Opportunities

5.1 Online Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	INTANGIBLE CULTURAL HERITAGE and CLIMATE CHANGE II: Challenges and Opportunities		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS	CREDITS
		25	1 ECTS
COURSE TYPE	Specialised general knowledge - online course (part of BLP) for 1/4 of the modules of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH".		
PREREQUISITES (IF APPLICABLE):	None		

(2) LEARNING OUTCOMES

LEARNING OUTCOMES

Upon completion of the course, participants will be able to:

- Critically discuss issues of sustainability regarding ICH.
- Discuss and evaluate different threats that CC poses on ICH.
- Discuss and debate different solutions that ICH might bring to CC concerns
- Critically reflect on the relationship between ICH safeguarding and environmental risks.
- Evaluate significant debates, problems, controversies, concepts, and theories pertinent to ICH and CC.

GENERAL COMPETENCES

- Adapting to new situations
- Decision-making
- Development of reading, comprehension and writing skills
- Respect for difference and multiculturalism
- Respect for the natural environment
- Showing social, professional, and ethical responsibility and sensitivity to gender issues
- Teamwork
- Working in an interdisciplinary environment
- Working in an international environment

(3) SYLLABUS

Global climate change and its adverse implications affect both tangible and intangible cultural heritage. Even though attention has already been given to the impact of CC on tangible cultural heritage, less, if any attention has been given to its impact on ICH. Green Heritage has conducted research activities on this impact and this module is going to bring together the outcomes of this research, together with research undertaken by other research institutions. The ultimate aim is to enhance participants' awareness of the threats ICH suffers due to climate change, but also the opportunities available for ICH to contribute with indigenous knowledge and expertise to the quest against the adversities of CC. The perspective of this module will complement the perspective of module 2 and will be a social sciences and humanities one.

Session 1: Lecture: Introduction: ICH and CC (3 hours)

Using specific examples from the research undertaken during the GreenHeritage WP2 research, this session will attempt an overarching presentation bringing together the concerns around tangible and intangible heritage and climate change in Europe and globally.

Session 2: Reading assignment: Students will study academic literature on sustainability and ICH and report back to the class (3 hours)

This reading assignment will ask participants to engage in the debates as these are presented in academic and popular literature and present their ideas to peers, building on a peer-to-peer knowledge exchange.

Session 3: Lecture: Threats that CC poses on ICH (Documentary, guided viewing, and discussion). (3 hours)

Starting from a documentary screening and guided viewing as a methodology, this session will attempt to encourage students to familiarise themselves with specific threats based on specific environments.

Session 4: Reading assignment: Students will study academic literature on threats imposed on ICH by CC and report back to the class (3 hours)

This reading assignment will ask participants to engage in the debates as these are presented in academic and popular literature and present their ideas to peers, building on a peer-to-peer knowledge exchange.

Session 5: Lecture on evaluation of significant debates, problems, controversies, concepts, and theories pertinent to ICH and CC. (2 hours)

This session aims to explore the intricate connections between ICH and CC, exploring the multifaceted implications, challenges, and opportunities this relationship presents. Through the exploration of diverse perspectives and the analysis of current research, this lecture will foster a deeper appreciation for the relationship between cultural heritage and environmental sustainability. Participants to the module/session will have the opportunity to engage in thought-provoking discussions, contributing to a heightened awareness of the complex issues at the nexus of cultural heritage preservation and the ongoing challenges posed by climate change.

Session 6: Writing assignment: Students are requested to reflect critically upon the relation between ICH and CC and produce a written essay based on the previous lectures and assignments (2 hours)

Session 7: Interactive workshop: CC and ICH – Threats: Case study 1 (2 hours)

This hands-on session is designed to immerse participants in a dynamic exploration of the threats posed to ICH by the impacts of climate change. Through the lens of a carefully curated case study (Case study 1), attendees will have the unique opportunity to delve in a deeply way into specific challenges faced by ICH in the face of environmental changes.

Session 8: Interactive workshop: CC and ICH – Opportunities: Case study 2 (2 hours)
This hands-on session is designed to immerse participants in a dynamic exploration of the threats posed to ICH by the impacts of climate change. Through the lens of a carefully curated case study (Case study 2), attendees will have the unique opportunity to delve deeply into specific challenges faced by ICH in the face of environmental changes.

Session 9: Student-led seminar: Risk and Opportunities in Intangible Heritage National Lists: how to evaluate and conduct research? (2 hours)
Students will take the lead in dissecting methodologies for evaluation and research, probing into the delicate balance required to assess the significance of intangible cultural elements within a national context. The goal is not only to understand the challenges inherent in this process but also to identify opportunities for innovative approaches that contribute to effective safeguarding.

Session 10: Writing assignment: Summary and evaluation (2 hours)
Participants are tasked with synthesizing key information from the extant bibliography, but beyond mere summarization, the assignment extends into the realm of evaluation, challenging participants to engage critically with the content. This involves assessing the strengths and weaknesses of the material, identifying any biases or gaps in information, and offering well-founded opinions on the overall effectiveness and significance of different sources, analytical theories, and methodologies.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be online (distance learning), synchronous and asynchronous
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform
TEACHING METHODS	*(see table below)*

Activity	Workload
Lectures	8
Reading Assignment	6
Writing Assignment	4
Interactive workshops	4
Student-led seminar	2
Total	25

STUDENT PERFORMANCE EVALUATION	The evaluation will be in English. It will be summative/conclusive and will consist of a short essay written by the students during sessions 6 and 10, as presented above. The essay will be submitted online.

(5) SUGGESTED BIBLIOGRAPHY AND RESOURCES

Akagawa Natsuko and Laurajane Smith (eds). (2019) *Safeguarding Intangible Heritage: Practices and Politics* (New York: Routledge).

Chechi, Alessandro. (2014) 'The Cultural Dimension of Climate Change: Some Remarks on the Interface between Cultural Heritage and Climate Change Law', in Sabine von Schorlemer and Sylvia Maus (eds.), Climate Change as a Threat to Peace, (Peter Lang AG), pp. 161–97.

Dembedza, W.P., Chopera, P., Mapara, J. and L. Macheka. (2022) Impact of climate change-induced natural disasters on intangible cultural heritage related to food: a review, *Journal of Ethnic Foods* 9:32.

GreenHeritage, (2023), Deliverable D2.2: Primary and secondary data research findings

Hee-Eun Kim. (2011) 'Changing Climate, Changing Culture: Adding the Climate Change Dimension to the Protection of Intangible Cultural Heritage', 18 *International Journal of Cultural Property*, pp. 259–90.

Higgins, Noelle. (2021) 'Indigenous Expertise as cultural expertise in the World Heritage Protective Framework', 11 *Nordic Journal of Law and Social Research*, pp. 75–102.

Higgins, Noelle. (2022). "Changing Climate; Changing Life—Climate Change and Indigenous Intangible Cultural Heritage" *Laws* 11, no. 3: 47.

Maus Sylvia. (2014) 'Hand in hand against climate change: cultural human rights and the protection of cultural heritage', 27(4) *Cambridge Review of International Affairs*, pp. 699–716.

Pearson Jasmine, Guy Jackson and Karen E McNamara. (2021) 'Climate-driven losses to Indigenous and local knowledge and cultural heritage', 1 *The Anthropocene Review*, pp. 1–24.

Seekamp, E. and E. Jo. (2020) 'Resilience and transformation of heritage sites to accommodate for loss and learning in a changing climate', *Climatic Change* 162:41–55.

Ethnographic documentary festivals focusing on ICT and CC

- https://www.theflorentine.net/2023/11/06/the-world-in-florence/
- https://www.climatecrisisff.co.uk/
- https://filmfreeway.com/planetinfocus
- https://taosenvironmentalfilmfestival.com/
- https://www.ethnofest.gr/

5.2. Workshop Component

COURSE OUTLINE

(6) GENERAL

COURSE TITLE	INTANGIBLE CULTURAL HERITAGE and CLIMATE CHANGE II: CHALLENGES AND OPPORTUNITIES		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS	CREDITS
		6	0,25 ECTS
COURSE TYPE	Specialised general knowledge - workshop (part of BLP) of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH"		
PREREQUISITES (IF APPLICABLE):	Online programme (MOOC) offered by GreenHeritage		

(7) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of this module component students are expected to: • Have acquired a good understanding of the threats and opportunities offered by CC for ICH. • Be able to evaluate significant debates, problems, controversies, concepts, and theories pertinent to ICH and CC. • Can critically reflect on the relationship between ICH safeguarding and environmental risks. Discuss and evaluate different threats that CC poses on ICH. • Develop critical understanding and engagement with a range of ideas such as the importance of indigenous knowledge for building resilience and preventing climate-related disasters. • Critically discuss issues of sustainability regarding ICH.
GENERAL COMPETENCES
 • Adapting to new situations. • Decision-making. • Respect for difference and multiculturalism. • Respect for the natural environment. • Showing social, professional, and ethical responsibility and sensitivity to gender issues. • Teamwork. • Working in an interdisciplinary environment. • Working in an international environment.

(8) SYLLABUS

The workshop part of this module will be structured around interactive workshops that aim to support participants in putting all ideas together and engaging in creative thinking around the topic of ICH and CC.
Session 1: Lecture: Overview: Intangible Cultural Heritage and Climate Change / CC, and Risk Assessment on ICH/ CC and Opportunities from Indigenous Knowledge (2 hours)
Session 2: Interactive workshop: CC and ICH - Threats: Case study 1 (2 hours)
Session 3: Interactive workshop: CC and ICH – Opportunities: Case study 3 (2 hours)

(9) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be in person
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	ICT will be used for the delivery of the lectures/teaching and communication with the students as well as for evaluation

TEACHING METHODS	*Activity*	*Workload*
	Lectures	2
	Interactive workshops	4
	Total	*6*

STUDENT PERFORMANCE EVALUATION	The evaluation will be in English. It will be summative/conclusive and will consist of a form including multiple choice questions, as well as short open-ended questions.

(10) SUGGESTED BIBLIOGRAPHY

Deliverables from Green Heritage Research in WP2, in particular: GreenHeritage, (2023), Deliverable D2.2: Primary and secondary data research findings

McGhie, H. A. (2022). *Action for Climate Empowerment, a guide for galleries, libraries, archives and museums*. Curating Tomorrow, UK. Available at www.curatingtomorrow.co.uk

Mínguez García Bárbara (Fall 2019/Winter 2020) "Resilient cultural heritage for a future of climate change", *Journal of International* Affairs, Vol. 73, No. 1, pp. 101-120.

Pearson, J., Jackson, G. and McNamara, K.E. (2021) "Climate-driven losses to indigenous and local knowledge and cultural heritage", *The Anthropocene Review*, pp. 1-24.

Stefano, M.L. and Davis, P. (eds). (2017). *The Routledge Companion to Intangible Cultural Heritage*, London and New York: Routledge.

Section 6: Module 4: ICT Tools for Safeguarding Intangible Cultural Heritage

6.1 Online Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	ICT TOOLS FOR THE SAFEGUARDING ICH		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS	CREDITS
		25	1 ECTS
COURSE TYPE	*Specialised general knowledge* - online course (part of BLP) for 1/4 of the modules of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH"		
PREREQUISITES (IF APPLICABLE):	Basic skills in ICT		

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of the course, students are expected to: • Understand and identify the Information and Communication Technologies (ICT) available for intangible cultural heritage (ICH), and especially the technologies available for safeguarding it. • Understand the use of these technologies for: a) ICH content management; b) ICH information, promotion and raising of awareness of dangers e.g., climate change (CC); c) ICH education and training. • Understand and identify the Emerging Technologies (ET) of ICT, and how they are used in several aspects of the ICH.
GENERAL COMPETENCES
• Autonomous work and teamwork • Critical thinking exercise • Production of free, creative, and inductive thinking • Search, analysis and synthesis of data and information, using the necessary technologies. • Transmission and transfer of know-how to other environments • Work in an interdisciplinary and international environment

(3) SYLLABUS

ICT can play an important role in the safeguarding of intangible cultural heritage, by providing a means of digitizing, documenting, storing, sharing, and accessing cultural

heritage resources. Furthermore, ICT can provide the means/tools for informing and raising awareness of the dangers and the impact of disasters caused by the CC. The ICTs that are involved in this domain are organized into three pillars: a) ICT for ICH content management; b) ICT for ICH dangers' information, promotion and raising of awareness; c) ICT for ICH education and training.

More specifically, the module will deliver content related to ICT methods and tools that are available today. In addition to the provided lectures (3 hours per lecture), students will be asked to study a set of online documents provided (1 hour per session). Finally, each session will be assessed online with a set of questions (10 min quiz).

Session 1: Lecture: Introduction to ICT for CH (part A) (3 hours)
- ICT for CH (tangible and intangible): safeguarding
- Content digitization (e.g., 2D/3D/4D modelling of cultural/historical maps, storytelling recording, video recording)
- Content organization/structure, documentation, metadata, openness, interoperability, privacy, ownership (e.g., database technology, cultural metadata, repositories/aggregators, Europeana, CIDOC-CRM)

Session 2: Self-study and reflection on Session 1 (1 h, 10 min)
The students will study the Session 1 lecture notes and additional material. They will reflect on the topics of Session 1by taking a 10 min quiz.

Session 3: Lecture: Introduction to ICT for CH (part B) (3 hours)
- Content dissemination and promotion (e.g., mobile apps, Web apps, AR/VR apps, games)
- CC awareness and information on ICH impact (e.g., mobile app raising awareness of the impact of CC on ICH)

Session 4: Self-study and reflection on Session 3 (1 h, 10 min)
The students will study the Session 3 lecture notes and additional material. They will reflect on the topics of Session 3 by taking a 10-minute quiz.

Session 5: Lecture: Introduction to the Web technology for ICH (part A) (3 hours)
- Web and CH (tangible and intangible): safeguarding
- Web-based content management systems CMS (e.g., Omeka, D-Space) and digital libraries/aggregators (e.g., SearchCulture, OpenGlam, *Wikimedia Commons*, Europeana) for ICH content preservation, aggregation, open content
- Web crowdsourcing for collaborative content creation (e.g., HistoryPin)
- Map-based storytelling (e.g., StoryMapJs)

Session 6: Self-study and reflection on Session 5 (1 h, 10 min)
The students will study the Session 5 lecture notes and additional material. They will reflect on the topics of Session 5 by taking a 10-minute quiz.

Session 7: Lecture: Introduction to the Web technology for ICH (part B) (3 hours)
- Social media (e.g., to raise awareness of ICH and engage communities in its preservation)
- Blockchain technology (provides decentralized and secure systems for storing and sharing cultural artefacts and information - NFTs) and Metaverse e.g., project *Monuverse*.

Session 8: Self-study and reflection on Session 7 (1 h, 10 min)
The students will study the Session 7 lecture notes and additional material. They will reflect on the topics of Session 7 by taking a 10-minute quiz.

Session 9: Lecture: Introduction to ET for ICH (part A) (3 hours)
- IoT for CH (tangible and intangible): safeguarding
- XR and virtual tours for CH (e.g., virtual museums)

Session 10: Self-study and reflection on Session 9 (1 h, 10 min)

The students will study the Session 9 lecture notes and additional material. They will reflect on the topics of Session 9 by taking a 10-minute quiz.

Session 11: Lecture: Introduction to ET for ICH (part B) (3 hours)

- AI for CH (a) tools for the analysis and recognition of various aspects of ICH, such as music, dance, and oral traditions e.g., Machine learning algorithms that can be used to automatically transcribe and translate audio recordings of endangered languages, as well as to analyze and preserve other aspects of ICH) (b) AI chatbots for informing and educating people on CC and its impact in ICH,
- Generative AI for CH (e.g., Bing and DALL-E to create images for ICH such as a dry stone wall and its traditional profession, or use ChatGPT to generate a text description of an imaginary picture of dry stone wall build tradition).

Session 12: Self-study and reflection on Session 11 (1 h, 10 min)

The students will study the Session 11 lecture notes and additional material. They will reflect on the topics of Session 11 by taking a 10 min quiz.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be online (distance learning), synchronous and asynchronous
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform

TEACHING METHODS	*Activity*	*Workload*
	Lectures	6 X 3 hours = 18 hours
	Self-Study	6 X 1 hour = 6 hours
	Reflexion	6 X 10 min = 1 hour
	Course (module) total	25 hours

STUDENT PERFORMANCE EVALUATION	The evaluation will be in English and will consist of six quizzes that the participants will be asked to respond to. The evaluation approach will be formative (i.e., taking place during the module) and will consist of multiple-choice questions, as well as few short open-ended questions.

(5) SUGGESTED BIBLIOGRAPHY AND RESOURCES

Bibliography:

Alivizatou-Barakou Marilena, Alexandros Kitsikidis, Filareti Tsalakanidou, Kosmas Dimitropoulos, Chantas Giannis, et al. (2017) «Intangible Cultural Heritage and New Technologies: Challenges and Opportunities for Cultural Preservation and Development». In M. Ioannides et al. (eds.). *Mixed Reality and Gamification for Cultural Heritage*, Springer International Publishing, pp.129-158, 978-3-319-49606-1. 10.1007/978-3-319-49607-8_5. hal-0219480.

Antonaci, A., Bravi, P., Dagnino, F., Lutzu, M., Ott, M., Pilosu, S., & Pozzi, F. (2013). Exploring the "Intangible" through ICT. In *ICERI2013 Proceedings* (pp. 3962-3970). IATED.

Brizard, Tamara Willem Derde, Neil Silberman, (2023) "Basic Guidelines for Cultural Heritage Professionals in the Use of Information Technologies", How can ICT support cultural heritage? URL: https://www.enamecenter.org/files/documents/Know-how%20book%20on%20Cultural%20Heritage%20and%20ICT.pdf, last accessed 30 Oct. 2023.

Grammalidis, N., Poulios, I. (2019). "ICT-Based Participatory Approaches for the Exploitation and Re-use of Intangible Cultural Heritage". In: Kavoura, A., Kefallonitis, E., Giovanis, A. (eds) *Strategic Innovative Marketing and Tourism*. Springer Proceedings in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-030-12453-3_25
UNESCO Culture sector, "The key to safeguarding intangible heritage?", URL: https://www.unesco.org/archives/multimedia/document-4735, podcast, accessed 30 Oct. 2023

Related scientific journals:
- Computing and Cultural Heritage, https://dl.acm.org/journal/jocch
- Heritage, https://www.mdpi.com/journal/heritage

Related scientific conferences:
Annual Conference on Cultural Heritage and New Technologies, https://chnt.at/

Cultures of AI, https://www.landesmuseum.de/en/conference-ai-2022

International Conference on Cultural Informatics, Communication & Media Studies, https://cicms2019.aegean.gr/

Europeana conference, https://pro.europeana.eu/page/conference

6.2 Workshop Component

COURSE OUTLINE

(1) GENERAL

COURSE TITLE	ICT TOOLS FOR SAFEGUARDING ICH		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS	CREDITS
		6	0.25 ECTS
COURSE TYPE	Specialised general knowledge - workshop (part of BLP) of MOOC developed under the GreenHeritage Erasmus+ project titled "The impact of CC on the ICH"		
PREREQUISITES (IF APPLICABLE):	- Basic skills in ICT - GreenHeritage ICT4ICH online course		

(2) LEARNING OUTCOMES

LEARNING OUTCOMES
Upon completion of the course, participants are expected to: • Identify, select, and apply Information and Communication Technologies (ICT) available for intangible cultural heritage (ICH), and especially the technologies available for safeguarding of it. • Identify, select, and apply applications/tools for cultural content management, promotion, dissemination, and preservation. • Identify, select, and apply applications/tools of Emerging Technologies (ET).
GENERAL COMPETENCES
• Autonomous and teamwork. • Critical thinking exercise. • Production of free, creative and inductive thinking. • Search, analysis and synthesis of data and information, using the necessary technologies. • Transmission and transfer of know-how to other environments. • Work in an interdisciplinary and international environment.

(3) SYLLABUS

This workshop will provide a practical approach to ICT methods and tools that are currently available for ICH safeguarding, and promotion. It is based on the knowledge gained in the related "GreenHeritage online course" (ICT4ICH), and includes a demonstration (by the instructor) and practice/hands-on experience (by the participants) on the following topics per session: **Session 1: Computer-lab workshop: demonstration of ICT tool (1,5 hours):**

Web-based cultural content and virtual tour creation/publication (360 tour embeddings from Momento360 or Kuula in Google Sites), Virtual Museum tour created (Google Slides).

Session 2: Computer-lab workshop: demonstration of tool (1,5 hours):
Map-based storytelling via Web-based crowdsourcing tool and collaborative content creation (HistoryPin, StoryMapJS).

Session 3: Practice/Hands-on Practice/Workshop (3 hours):
Participants will be asked to: Choose among (a), (b) or (c) options of team projects and implement in teams of 2-3 participants (teamwork). Upload a link (URL) of a Web-published project on VLE, along with a short (one paragraph) description, including participants' details.

> (a) Create and publish a one-page website using Google Sites under the topic "The Impact of CC to ICH", integrating multimedia content (found on the Web or generated by AI). Integrate at least 1 use case for safeguarding of ICH also using a photo or video embedding.
> (b) Create and publish a virtual tour on a cultural site (e.g., exhibition related to ICH) using Google Slides. The multimedia content found on the Web or generated by AI. may be reused.
> (c) Use HistoryPin or StoryMapJS tool to create and publish a project with stories or/and customs (e.g., from people under relocation) that need to be preserved due to the CC.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	The delivery will be in person
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	GreenHeritage VLE platform
TEACHING METHODS	<table><tr><td>*Activity*</td><td>*Workload*</td></tr><tr><td>Workshop</td><td>3 hours</td></tr><tr><td>Practice-based training</td><td>3 hours</td></tr><tr><td></td><td></td></tr><tr><td>Course total</td><td>6 hours</td></tr></table>
STUDENT PERFORMANCE EVALUATION	The evaluation will be in English. It will be summative/conclusive and will consist of a small project assigned to participants during the workshop.

(5) SUGGESTED BIBLIOGRAPHY

Bibliography:

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- Computing and Cultural Heritage, https://dl.acm.org/journal/jocch
- Heritage, https://www.mdpi.com/journal/heritage

Related scientific conferences:

- Annual Conference on Cultural Heritage and New Technologies, https://chnt.at/
- Cultures of AI, https://www.landesmuseum.de/en/conference-ai-2022
- International Conference on Cultural Informatics, Communication & Media Studies, https://cicms2019.aegean.gr/
- Europeana conference, https://pro.europeana.eu/page/conference

Section 7: Conclusions and Recommendations

7.1 Conclusions

A BLP combines innovative learning technologies with traditional learning methods. It provides very important advantages which can be summarised in the following:

a. lexibility for learners, in terms of scheduling and learning, allowing participants to adjust and complete the course as per the requirements of their other tasks and responsibilities.

For the proposed GreenHeritage BLP programme, the online part of the course aims exactly to provide this kind of flexibility to the target audiences that will come from different parts of Europe, but also from different stages of their careers and/or familiarisation with the topic of this course.

b. opportunities, to both instructors and learners to adjust and tailor the programme to the specific requirements that relate to their needs and special circumstances.

The proposed GreenHeritage BLP programme aims to provide flexibility, especially for the workshop, the in-person part of the programme, to adjust to the specific requirements of each location where the workshop will take place. In this way it is possible to emphasise the local context and the ICH elements, as well as the peculiar climate challenges. In all cases, however, the outcomes of WP2 will be used extensively to provide both research-related content for the modules and to customise the course to the specific research question and project.

c. BLPs provide opportunities for enhanced engagement, through the use of interactive and multimedia-rich content.

The proposed GreenHeritage BLP programme, provides a variety of resources (i.e., reading suggestions and ICT tools, all to be developed further in the next tasks and deliverables) as well as teaching methodologies to enhance participants' engagement with the course.

d. BLPs are cost-effective in comparison to in-person education, as they can reach large numbers of students with fewer physical resources. In addition, it is a more environment-friendly way of teaching and sharing resources and knowledge across a larger region, than travelling to different locations. The proposed GreenHeritage BLP programme aimes to combine this cost-effective approach with regional focus and immersion, through a combination of online and in situ learning opportunities.

e. About Skill development, apart from the main advantages and content of the programme itself, BLPs offer opportunities to develop digital literacy and self-directed learning skills, which are of extreme importance within contemporary societies.

The proposed GreenHeritage BLP programme focuses on the development of these skills and their central role incorporating them into the course learning outcomes.

To overcome some of the disadvantages of BLPs, the proposed GreenHeritage BLP has taken the following considerations into account:

a. Regarding technology requirements (which often create constraints for participants, due to connectivity issues or lack of access to available technology) the proposed program keeps technology requirements at a carefully balanced level and will use the GreenHeritage development platform.

b. Blended learning often requires higher levels of self-discipline and motivation from participants. The proposed program has considered this aspect when designing the modules and their contents and will strive to engage participants through multiple resources and methodologies.

c. To overcome the disadvantage of limited social interaction, which is a common constraint of online programs, this BLP has emphasized its workshop component. They will provide opportunities for social interaction, not only between participants and trainers, but also with bearers of ICH, as this is an integral part of the programme, as per the research undertaken under WP2.

7.2 Recommendations

- To support the delivery of the BLP program, it is crucial to be able to provide ongoing technical support and a platform that will be easy to use and accessible. This is a recommendation included in the GreenHeritage WP3 activities.

- The platform also allows to establish clear communication channels among participants and trainers, ensuring that all are clearly informed about the program.

- All parts of the course will need to be evaluated by the participants. Evaluation feedback will be used to improve the next steps of delivery.

Every effort will be made to ensure equity and access to materials and resources, to facilitate maximum benefit and participation by everyone, with no restrictions.