



Erasmus+



ASSOCIAZIONE
SESA VAL GRANDE
GEO PARK



ELYCÉE
Auvergne-Rhône-Alpes



ERASMUS + Project 2018-1-FI01-KA201-047206

Geoheritage and Climate Change for highlighting the professional perspective

Participating Organisation : Università degli Studi di Torino with project partners

FINAL Report

INTELLECTUAL OUTPUT 05: OUTREACH

Scientific paper - Special Issue of the Heritage scientific journal

Journal articles - European Geoparks Network Magazine

RESEARCHERS UniTO

MG – Marco GIARDINO - Researcher

LP – Luigi PEROTTI - Researcher

CV – Cristina VIANI – Researcher Fellow

FT – Federico TOGNETTO – Researcher Fellow

OTHER PARTNER RESEARCHERS FOR SHARE ACTIVITIES

IS – Ilaria Selvaggio – Associazione Supervulcano

And all the authors contributing to paper



Some activities of the UNITO partner are overlapped to the activities of the Cobianchi School and SesiaValgrande Geopark or carried out in collaboration among the Italian partners of the project and/or all the partners.

Link to the resource : www.geositlab.unito.it/geoclimhome_unito

This ERASMUS+ project allowed deeper understanding of climate change and recognition of its natural and human components, by environmental research and professional experiences within Geoparks. Activities were first addressed to explore the "secret" values of geoheritage for awareness on climate changes. Later, active/passive roles of humans towards the environment have been analysed, related to the UN sustainable development goals (SDGs). The recent COVID Pandemic issue also challenged the international partnership for dealing with the safety and sustainability of educational activities. These have been the basis for developing academic publications aimed at communicating the scientific importance of the GEOclimHOME-PRO in the assessment and management of climate change effects within UNESCO Geopark areas. Data collected during three years project by means of the collaboration with teachers, researchers and professionals enriched the scientific base analyzed and discussed in some papers prepared within the Geopark areas.

Thanks to the GEOclimHOME-PRO co-funding and the joint activities of exploration of the natural environment, landforms and processes of their relationships with human activities within Geopark areas were analysed and interpreted in order to offer scientific contents, data, images and maps. These have been intended as a base for further outreach activities with professionals, schools, local associations, stakeholders and the general public.

During the GEOclimHOME-PRO activities, in the territories of our project we celebrated the 20th anniversary year of the European Geopark Network, and 5 years on from the receipt of the UNESCO label for the geoparks. Therefore



we prepared a selection of geoheritage data and geotourism contents and solutions for enhanced professional perspectives of students visiting one of the most recently designated geoparks, admitted for membership in 2013: the Sesia Val Grande UNESCO Global Geopark (Western Italian Alps). Main aims of this intellectual output (published in 2020 on “Resources” international Journal) are: 1) to corroborate the use of fieldtrips and virtual tours as resources for educational activities and geotourism, and 2) to highlight the different approaches that were implemented for their valorization. (see attached file: Perotti, L.; Bollati, I.M.; Viani, C.; Zanoletti, E.; Caironi, V.; Pelfini, M.; Giardino, M. Fieldtrips and Virtual Tours as Geotourism Resources: Examples from the Sesia Val Grande UNESCO Global Geopark (NW Italy). (2020) Resources 9(6), 63; <https://doi.org/10.3390/resources9060063>) For enhanced field-based educational activities in the alpine environment of the Sesia Val Grande Geopark, a map of geomorphology and geosystem services have been created for the Indren-Cimalegna area (Monte Rosa massif – Western Italian Alps). This has been presented in 2021 as an intellectual output (published in Journal of Maps) for sustaining new strategies for preservation of geodiversity and geosystem services within vulnerable areas to climate change and human activities (see attached file: F. Tognetto, L. Perotti, C. Viani, N. Colombo & M. Giardino (2021) Geomorphology and geosystem services of the Indren-Cimalegna area (Monte Rosa massif – Western Italian Alps), Journal of Maps, 17:2, 161-172, DOI: [10.1080/17445647.2021.1898484](https://doi.org/10.1080/17445647.2021.1898484)).

At the same time, the establishment of a framework for collecting and sharing new data and comparing them in the field has been tested and discussed in an international context; this allowed comparison on teaching methodologies of high level, providing enough data to define effective procedures in the teaching /learning process in the high school age. This intellectual output is the final scientific publication submitted to the “Heritage” international Journal within the Special Issue "Geoheritage and Geodiversity: Conceptual Developments, Extended Geographical Focus, and Practical Implications" (Academic Editor: Dmitry A. Ruban; https://www.mdpi.com/journal/heritage/special_issues/geodiversity) in order to allow sharing the GEOclimHOME-PRO activities, the methodology used by the projects, the educational worksheets, so that they can be adapted and carried out in other territories (Article: ERASMUS+ strategic partnerships between UNESCO



Global Geoparks, schools and research institutions: a window of opportunity for geoheritage enhancement and geoscience education see attached file ([Giardino, M.; Justice, S.; Olsbo, R.; et Al. Erasmus+ Strategic Partnerships. Heritage 2022, 5](#)).

At the local level, articles on local newspapers spread the results of the project. A selection is presented within the Project database.

At the international level a paper from each Geopark territory (Rokua, Sesia Val Grande, Chablais UNESCO Global Geoparks) has been submitted on November 2021 to the European Geoparks Network (EGN) journal for contributing to the “Territory of Resilience” Special Issue (see attached file:). The magazine Geoparks’ illustrated the varied and imaginative responses to the Covid-19 pandemic demonstrate their potential to participate in the international cooperation essential for dealing with the environmental and economic effects of the global climate change crisis. Further contributions to the EUROPEAN GEOPARK NETWORK MAGAZINE and the Digital 9th International Conference on UNESCO Global Geoparks (December 12-16, 2021 - Jeju Island UNESCO Global Geopark - Republic of Korea) have been prepared as a specific contribution by the Erasmus+ team: “Travelling through a pandemic: the **GEOclimHOME - PRO** exchanges runned over the Covid-19 (see attached files: [“GGN2021 Travelling through a pandemic”](#) and [“ABSTRACT JEJU 20201 CONFERENCE”](#))

For preparing all publications, the leader of this task coordinated contributions from all the partners and "translated" contents into scientific papers by taking care of all the publication process, from submission, revision and acceptance.