Using Satellite Imagery and Geospatial Information Technologies (GIT) to Support Cultural Property Protection (CPP) in Ukraine

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□□ :	Course
□□ :	L'viv, Ukraine
□□ :	13 1□ 2025 to 16 1□ 2025
□□ :	22 Hours
□□□□ :	Satellite Imagery and Analysis
□□ :	http://www.unosat.org
□□ :	US$0.00
□□□□ email:	unosat@unitar.org
□□ :	United Nations Educational, Scientific and Cultural Organization (UNESCO)

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To address the urgent need for the monitoring of properties of cultural or historic relevance, as defined under Article 1 of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict and its Two (1954 and 1999) Protocols, capacity-building trainings were organised under

the framework of the project "Monitoring of Cultural Heritage Sites via Satellite Imagery" (2024–2025)".

The Ministry of Culture and Information Policy of Ukraine requested assistance from UNESCO to provide capacity-building in data interpretation for extreme emergency cases. That request was in line with the recommendations from the Expert Meeting 'Heritage from Space for Peace' (UNESCO 2022). Those recommendations encouraged UNESCO to strengthen its existing framework in agreement with UNITAR/UNOSAT to enhance the execution of project agreements and provide capacity-building in data interpretation for extreme emergency cases.

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At the end of the training, participants should be able to retain:
1. Familiarity with datasets (including UNOSAT products) and data sources for satellite imagery.
2. Knowledge of the advantages and disadvantages of multispectral imagery and radar.
3. The ability to identify cultural heritage in imagery.
4. The ability to independently conduct damage assessments and produce maps.

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The course is designed to accommodate participants from a variety of backgrounds and professional experiences. The training was delivered in two languages English and Ukrainian, using the following software: QGIS, Google Earth and Google Earth Engine. Participants to register for Google Earth Engine two weeks prior to training.

Duration
This was a full-time, face-to-face training workshop designed with the following 6 modules divided over
4 days:
Module 1: Imagery and Data Sources
Module 2: Mapping and the use of GIS
Module 3: Google Earth and Google Earth Engine
Module 4: Analysis, Part 1 (remote sensing surveys, monitoring, and damage

assessment)
Module 5: Analysis, Part 2 (georeferencing and orthorectification)
Module 6: Practical exercise

There were one or two modules per day. Each course module comprised 2-4 sessions of
60-90 minutes each, adding up to a total of 18 sessions and approx. 22 hours total. Instructional

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To ensure active learning by all participants, interactive sessions were provided through the use of
MS PowerPoint presentations, group discussions, live demos, and maps with the purpose of achieving
learning objectives defined for this training workshop.

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Archaeologists and professionals specializing in natural heritage