Ukrainian Cultural Heritage Potential Impact Summary (09 May 2022)

Cultural Heritage Monitoring Lab (CHML) & Smithsonian Cultural Rescue Initiative (SCRI)

INTRODUCTION: The CHML and SCRI are monitoring over 28,000 cultural heritage sites in Ukraine. This effort began in April 2021 and employs a combination of remote sensing, open-source research, and satellite imagery tasking to gather evidence of cultural heritage damage. This report provides a summary of potential impacts to cultural heritage sites following the Russian invasion of Ukraine on 24 February 2022. Unlike our previous Potential Impact Summary of 06 April 2022 (Basset et al. 2022), this report includes libraries and archives, which raises the total overall inventory of sites to 28,299 (from 26,816).

RESULTS FOR 24 FEBRUARY TO 09 MAY 2022:
Since the beginning of the Russian invasion, the CHML and SCRI team has identified 458 instances of potential impacts to cultural heritage sites. Across the country, memorial and places of worship have sustained the highest rates of potential impacts. Overall percentages of potential impacts are highest in or near the cities of Mariupol and Kharkiv.

CLASSIFICATION: The term “potential impact” is used to designate a cultural heritage site with possible damage. Sites are classified as “potential impacts” when they are determined to have a moderate to high probability of having sustained damage, as assessed through remote sensing analysis. While a number of impacts have been confirmed by this project and other international efforts, including the Ukrainian Ministry of Culture and Information Policy, UNESCO, and UNITAR, this report details the greater scope of potential impacts to cultural heritage sites throughout Ukraine since 24 February.
Although geospatial technology can help to identify sites that may have suffered damage, positive confirmation involves the use of several additional methods, including (1) on-the-ground assessment, (2) satellite imagery analysis, and (3) verifiable reporting from credible media sources. The possibility of confirming impacts to cultural heritage sites using satellite imagery analysis is largely determined by the extent and visibility of the damage. Conflict-related damage to such sites ranges from underlying structural weakening to complete destruction. Many potential impacts are not visible through geospatial technology and may not be detectable for months or years. As a result, the use of additional methods are required to determine the extent and context of damage.

The CHML and SCRI team is closely following news reporting of site damage and collaborating with local partners to conduct structural assessments, specialist inspections, collections assessments, and other long-term evaluation efforts.

BACKGROUND: The Cultural Heritage Monitoring Lab (CHML) is a collaborative effort between the Virginia Museum of Natural History (VMNH) and the Smithsonian Cultural Rescue Initiative (SCRI). Consistent with their contributions toward applied efforts in global heritage preservation, the CHML and SCRI are actively producing the necessary datasets for large-scale collaborative research among preservation researchers. These data allow professionals and academics to not only see when and how destructive impacts to cultural heritage occur, but also ask the fundamental "why" questions by utilizing these global data along with other available datasets on conflict processes.

This report was produced by the Cultural Heritage Monitoring Lab (CHML) at the Virginia Museum of Natural History (VMNH) and the Smithsonian Cultural Rescue Initiative (SCRI). This monitoring effort uses cultural heritage inventory data developed by CHML and SCRI under the Cultural Heritage Site List (CHSL) data standards developed by the Penn Cultural Heritage Center (PennCHC) at the University of Pennsylvania Museum with National Science Foundation Grant #1439549 (see Daniels & Golden 2018). Visit https://www.vmnh.net/research-collections/chml for more information on the CHML, https://culturalrescue.si.edu/ for more information on the SCRI, and https://www.penn.museum/sites/chc/ for more information on the PennCHC.

