



Community-based monitoring and Citizen science in the Svalbard area

A workshop organised by the Nansen Environmental and Remote Sensing Center (NERSC) as part of the CAPARDUS H2020 project and Norwegian Institute for Cultural Heritage Research (NIKU) as part of the CULTCOAST project

Longyearbyen, Svalbard

06 – 09 August 2022

Online participation will be provided

Summary of CAPARDUS

CAPARDUS is a H2020 project with focus on developing guidelines, standards and best practices in research, resource exploitation and management, shipping, tourism and community planning in the Arctic. The project involves scientists, economic actors, local communities, managers and regulators. Workshops and dialogue meetings are used to discuss how the social-environmental systems are changing Arctic communities. The climate change and its consequences in the Arctic leads to new requirements for planning and decision-making based on scientific and economic data, assessments and predictions. A prerequisite for good planning is access to data and information of relevance to people living and working in the Arctic. Community-Based Monitoring (CBM) and Citizen Science (CS) initiatives are evolving across the Arctic, providing complementary data to the scientific observing systems. CBM/CS systems are initiated by people who need specific environmental and climate information to support management of resources, local decision-making and safety of human activities. Challenges for CBM and CS projects in the Arctic are mainly to (1) bring CBM/CS systems from *ad hoc* initiatives to sustainable observing systems, (2) provide data sharing, including links to scientific data systems, (3) make use of CBM/CS data in decision-making, and (4) establish sustained funding. These are topics to be discussed at the workshop. More information at <https://capardus.nersc.no/>.

Summary of CULTCOAST

CULTCOAST - Cultural Heritage Sites in Coastal Areas. Monitor, Manage and Preserve Sites and Landscapes under Climate Change and Development Pressure is a research project funded by the environmental research programme of the Research Council of Norway. Cultural heritage and cultural environments are highly valued environmental goods, but these values are under serious threat from multiple sources, including inadequate safeguarding, climate change and pressure on land areas. The CULTCOAST project aims to assess the possibilities for the long-term preservation of legally protected archaeological and built cultural heritage sites in the context of geo-hazards caused by changing climate conditions, and to suggest innovative tools for risk assessment, mapping, evaluating, prioritising, mitigation and sustainable management of heritage sites. The project investigates the individual and combined impacts of climate change induced geo-hazards and pressure from tourism and development. The CULTCOAST project focuses on (1) first, sustainable use and protection of coastal cultural heritage, cultural environments, and cultural landscapes; (2) secondly, on climate change induced geo-hazards; and (3) thirdly, how public management can safeguard cultural history values. The project has field work in several sites in Svalbard, which will be further presented in the workshop. More information at <https://www.niku.no/en/prosjekter/cultcoast/>

Workshop objectives

- Review status of Community-based monitoring and Citizen Science (CBM-CS) systems in Svalbard and other Arctic areas and identify issues in further development of the systems
- Plan and identify CBM-CS activities in support of cultural heritage research in Svalbard
- Review guidelines, practices, standards and regulation which are relevant for CBM-CS activities in Svalbard and Arctic in general
- Discuss how an Arctic Practice System should be designed to be a useful digital resource for people living and working in Svalbard.

Programme

Friday 5 August: Travel to Longyearbyen

Flights from Oslo airport at 0955 and 2145 by SAS and at 1610 by Norwegian.

Arrival at Longyearbyen airport. Check-in at UNIS Guest House.

Saturday 6 August 0900- 1700: Cultural heritage work in Svalbard and plans for citizen science involvement

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09:00 – 09:30	Welcome and introduction to the workshop: Stein Sandven and Lisbeth Iversen (NERSC) and Vibeke Vandrup Martens (NIKU)
09:30 – 10:00	Cultural heritage in Svalbard: Anne-Cathrine Flyen (NIKU)
10:00 – 10:30	Arctic heritage at risk (Vibeke Vandrup Martens, NIKU)
10:30 – 11:00	break
11:00 – 12:00	Scotland's Coastal Heritage at Risk and how citizen science has developed: Tom Dawson/Joanna Hambly, University of St. Andrews For those who wish to download the SCAPE Coastal Archaeology Recording App and have a look around it, here are the links to do so. <ul style="list-style-type: none">• Register as a user on the SCAPE website https://scapetrust.org/sites-at-risk/ .• then download the free SCAPE app - links here to the Android and iOS versions.
12:00 – 13:00	Lunch
13:00 – 13:45	Quality check of CS/CBM data from app, how are data managed, and how are data used: Joanna Hambly, University of St. Andrews
13:45 – 14:30	Norway's cultural heritage databases. Anders Olsson, Riksantikvaren/ Directorate for Cultural Heritage
14:30 – 15:00	break
15:00 – 16:00	CULTCOAST project and introduction to the excursion (Vibeke Vandrup Martens & Anne-Cathrine Flyen, NIKU)
16:00 – 17:00	Discussion
19:00	Dinner at Kroa restaurant (hosted)

Sunday 7 August 1000- 1600: – Excursion to Hiorthhamn by boat

We meet at Hurtigruten Svalbard (behind UNIS) at 1000 for floating suites and transport to the boats. Hiorthhamn is a coal mine site, with the second largest number of listed buildings at a heritage site in Svalbard. Some of the buildings are in different stages of disrepair, others are being renovated, and some are in use as modern holiday homes. At Hiorthhamn, we'll look at some of the more iconic parts of the site, and discuss the preservation challenges, from inadvertently caused damage to climate change induced geo-hazards. Wear good layers of warm and wind- and waterproof clothes and good shoes. Lunch will be provided. We are back in Longyearbyen at 1600.

Monday 8 August 0900- 1700: Projects involving community observations, citizen science and tourism, in Arctic areas,

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Community-based observations (CBM) and Citizen Science (CS) projects plays an increasingly important role in environmental and climate data collection. While CBM initiatives are mainly bottom-up initiatives in local communities the CS projects are often driven by scientists and can range from large global-scale projects (e.g. bird watching) to local initiatives on topics of importance in specific areas (e.g. snow avalanche observations) . Common for all CBM-CS projects is that they need to be highly relevant and appealing for the public to be successful.

09:00 – 09:20	Natural hazards and Emergency Prevention, Preparedness and Response in Greenland: Uffe Jakobsen, University of Greenland
09:20 – 09:40	Presentation of established CBM and CS projects through the Polar Citizen Science Collective and projects such as iNaturalist, eBird, and Happywhale: Michael Kjøie Poulsen, NORDECO
09:40 – 10:00	AECOs activities in Community-based observing and Citizen Science: Gyda Gudmundsdottir, AECO
10:00 – 10:20	Float Your Boat project – example of polar outreach activities involving school children: Hanne Sagen, NERSC
10:20 – 10:50	break
10:50 – 11:10	Latest results of CULTCOAST field work_ Cecilie Flyen, NIKU
11:10 – 11:30	FOSSIL, re-thinking the old power plant: Interviews and Focus Groups: Dina Brode-Roger, KU Leuven, Belgium
11:30 – 11:50	Co-creation of knowledge in planning and decision-making: Lisbeth Iversen, NERSC/AHO
12:00 – 13:00	Lunch
13:00 – 13:20	Hearts in the ice - extreme citizen science: Hilde Fålun Strøm
13:20 – 13:40	Benefits of Citizen Science for research in remote regions, Janne Søreide, UNIS
13:40 – 14:00	Tourism vs Science - friend or enemy? Ronny Brudvoll, Visit Svalbard
	Digital presentations
14:20 – 14:40	The irreversible - an appeal for action. Hedda Andersen, Guide/scientist, MS Fram (digital)

14:40 – 15:00	Arctic Nature Guide - educating guides for the future arctic tourism, Sigmund Andersen, ANG, (Arctic Nature Guide) (digital)
15:00 – 15:30	break
15:30 – 15:40	Tourism and science hand in hand: Karin Strand, CEO Hurtigruten (digital)
15:40 – 16:00	“The Norwegian Center against marine litter introduces the national Citizen science tools for mapping marine litter” Helga B Kristiansen and Maria Antonsen, MARFO. Online
16:00 – 16:20	Regenerativ tourism: the next step in sustainable tourism. -How can we develop guidelines, standards and best practices in research, resource improvement and management and community involved planning for cultural heritage tourism in the Arctic ? Per Gunnar Hettervik, Norges Vel.
16:40 – 17:00	Break
17:00 – 18:00	Round table discussion. Follow up work in breakout groups on Tuesday

Tuesday 9 August 0900- 1700: – Session on Arctic Practice System

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An Arctic Practices System (APS) is envisioned to be a sustained repository for practices related to environmental observations, resource exploitation and other activities in the Arctic. A ‘practice’ means a documentation in digital form of how things are done for example in observation of a specific ocean phenomenon. What an APS should do will be identified in dialogue with people living or working in the Arctic with knowledge about practices in their daily work.

09:00 – 09:30	The APS concept – introduction: Jay Pearlman
09:30 – 10:00	Demonstration of the Arctic Community in the Ocean Best Practice System: Pauline Simpson
10:00 – 10:15	Discussion on needs and desired functions for the APS: Jay Pearlman
10:15 – 10:30	Intro to Arctic Practices survey: Siri Jodha Khalsa. Paper version distributed; on-line access at https://www.surveymonkey.com/r/QNFYJVZ
10:30 – 11:00	break
11:00 – 11:30	Complete the APS requirement survey
11:30 – 12:00	<p>Introduction to the breakout session: Goals of breakouts on potential demonstration cases. Describe what is a use case of CBM and other actions. The goal is to identify 3 or more use cases for further consideration (each breakout group).</p> <p>Three questions:</p> <ol style="list-style-type: none"> (1) Identify use cases from what you are engaged in that are good demos (2) What practices (methods) are used in these use cases (do they exist) ? (3) What would be good to have in the APS for the use cases ?
12:00 – 13:00	Lunch

13:00 – 13:20	SIOS Knowledge Centre: Ilkka Matero, SIOS
13:30 – 15:00	Group work in breakout session
15:00 – 15:30	break
15:30 – 16:00	Co-creation of knowledge in planning and decision-making: Lisbeth Iversen, NERSC/AHO
16:00 – 17:00	Breakout reports, discussion of APS concepts
17:00 – 17:30	Wrap-up

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