

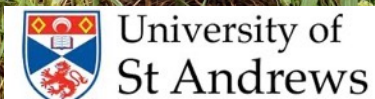
# Sjåberget settlement mound, Stave, Andøya

CULTCOAST



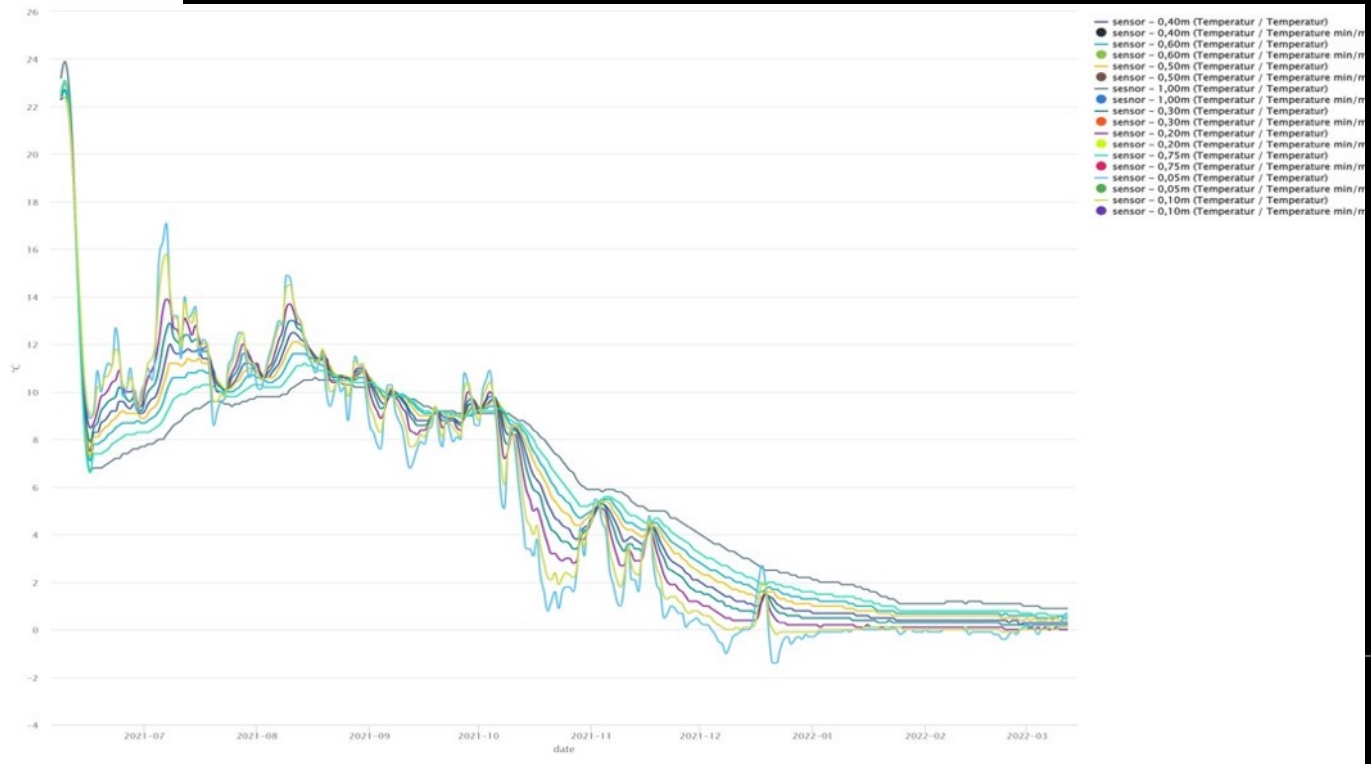
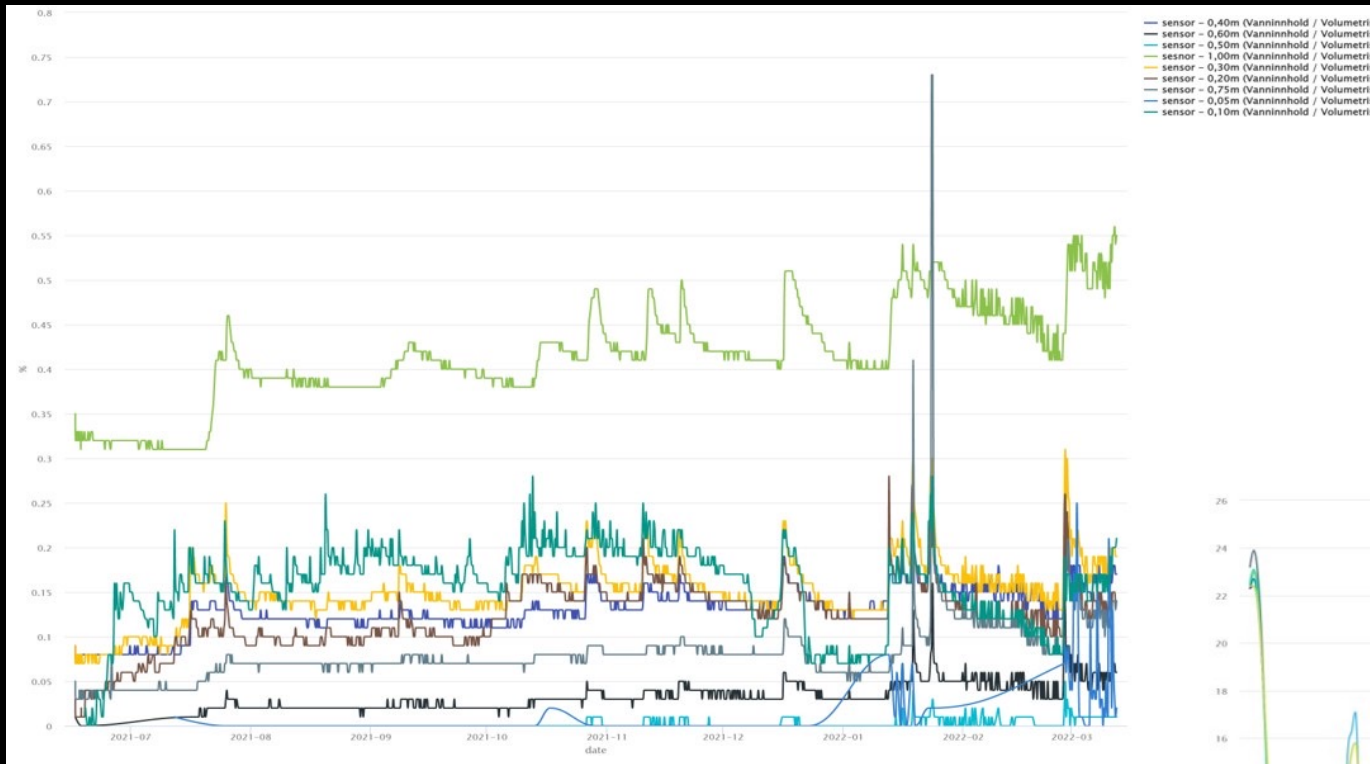
VVM/NIKU 2021

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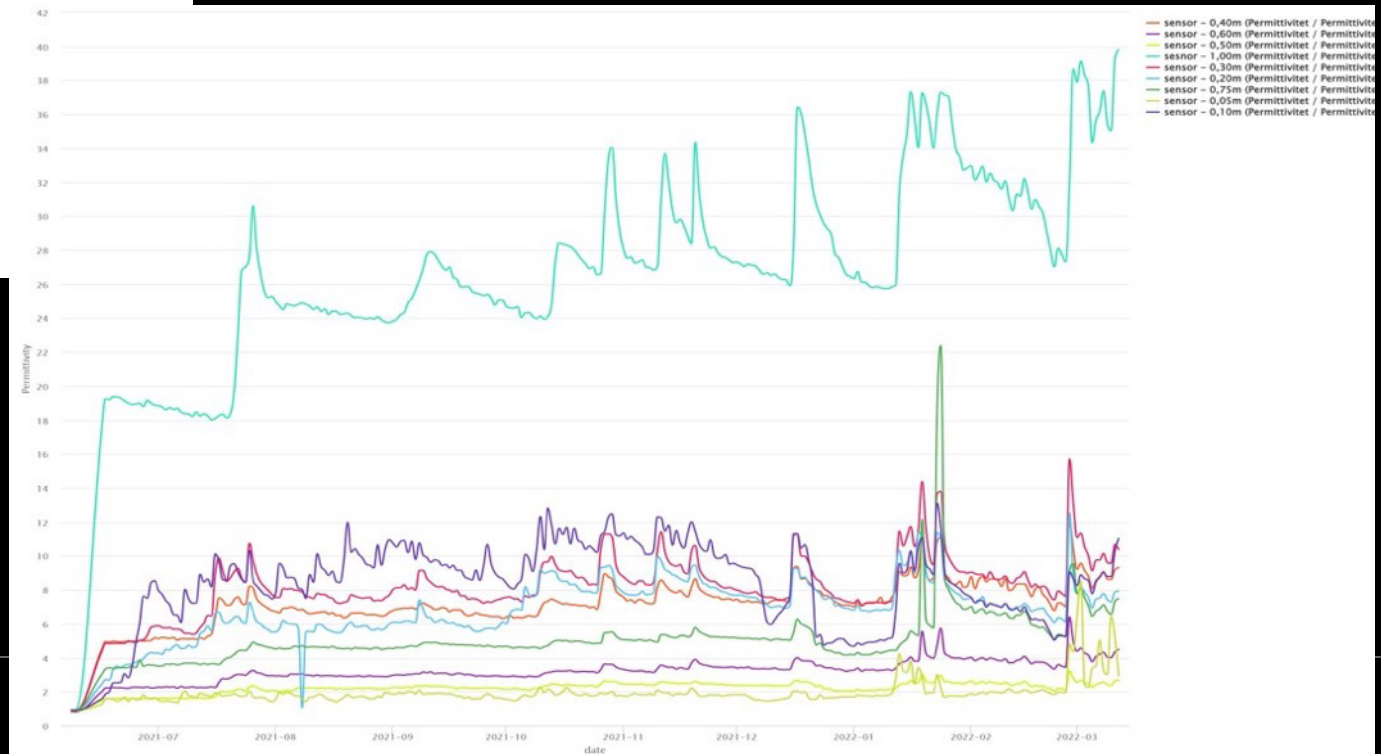
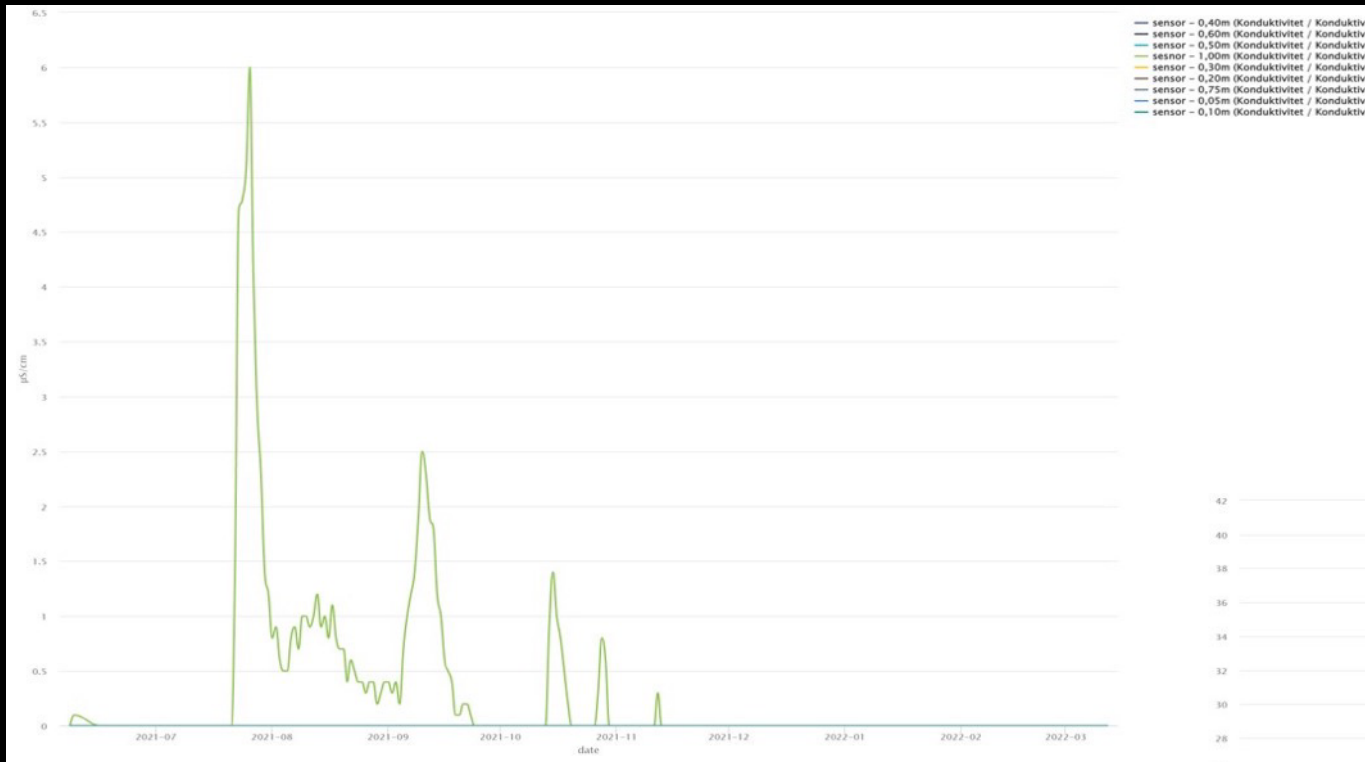




# Andøya monitoring point –water content and temperature



# Andøya monitoring point –conductivity and permittivity





# Identification of threats:

## Fungal decay

- Predicted climate change effects will make conditions for fungal growth more favourable, anticipating increased degradation processes.
- Most historic structures are wooden
- Wooden posts are vulnerable to fungal decay
- Wood lying on the ground is severely degraded





# Arctic heritage at risk – erosion, textile and bone



Photo: Likneset [Corpse Headlands], ERM/NIKU

# Arctic heritage at risk – textile and bone



Photos: Excavation 1980ies, at Likneset [Corpse Headlands], the Governor of Svalbard



# Arctic heritage at risk – textile and bone II






Photos: Excavation 2000s, at Likneset, the Governor of Svalbard

# Tools for cultural heritage management



## Threshold levels

[https://www.researchgate.net/publication/309391613\\_Preserving\\_Rural\\_Settlement\\_Sites\\_in\\_Norway\\_Investigations\\_of\\_Archaeological\\_Deposits\\_in\\_a\\_Changing\\_Climate](https://www.researchgate.net/publication/309391613_Preserving_Rural_Settlement_Sites_in_Norway_Investigations_of_Archaeological_Deposits_in_a_Changing_Climate)

	% change of soil moisture (R. Hughes, EAA 2005)	% change of surface damage (Martens 2016)	°C change of temperature (Martens 2016)	% change of decay rate (Martens 2016)	% loss/ damage to site caused by continued use (Martens 2016)	% loss/ damage to site caused by new use/ development (Martens 2016)
	11-	11-	2-	21-	21-	11-
	6-10	6-10	1-1.9	11-20	11-20	6-10
	0-5	0-5	0-0.9	0-10	0-10	0-5

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Preservation scale  
NS9451:2009

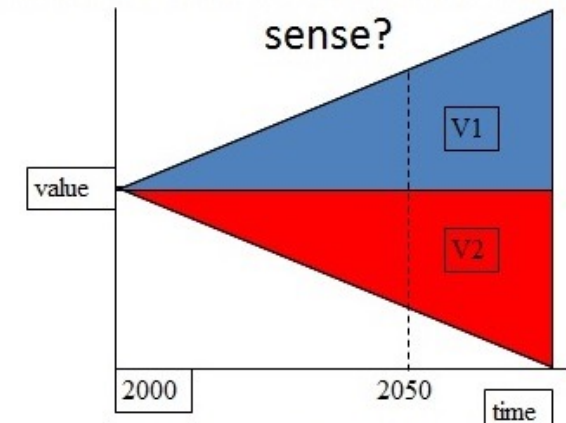
1= lousy  
2= poor  
3= medium  
4= good  
5= excellent

## Threat evaluations

GIS position	Monument type	ID	Lived on	Distance to populated area	Monitored	Possible threats	Threshold levels	Possible mitigation actions
Free text/ numbers field	Dropdown menu from national CH database	Number from database	Y/N field	Free text/ numbers field	Y/N field	Dropdown menu of fields below + free text	Dropdown menu (see Table 16)	Free text field
						use (continued)		
						development/ new use		
						infrastructure		
						erosion/ surface		
						temperature change (air/ soil)		
						precipitation change (less/ more, other)	©VVM	

## Site valuation

*In situ* Preservation: Does it make sense?



$V_1 > V_2$  preservation is the best option

$V_1 < V_2$  irreversible loss of information: excavation is the best option

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