# Abstrakt

Alle ting bliver med tiden nedbrudt og vil forgå. Som konservator kan man ikke forhindre denne nedbrydning helt, men man kan sænke den betydningsfuldt. I dag er in situ-bevaring en af de fortrykkende metoder, hvor man lader genstande af kultur- og naturhistorisk betydning forblive i det miljø, der har bevaret dem i op til flere 1000 år. Dette er en fornuftig løsning, så længe miljøet bliver overvåget således, at de gode bevarelsesforhold, der sikrer genstandene, bliver opretholdt. Men jorden er i forandring; det betyder højere temperaturer, isen smelter og havene stiger. Hvordan vil dette påvirke de enestående bevaringsforhold der findes i Grønland? Man ved, at ilt og temperatur er to store nedbrydningsfaktorer. Hvad vil der ske, når temperaturen stiger, permafrosten trækker sig, det aktive lag bliver større og ilten får mere tilgang? Der er tidligere lavet iltmålinger på materiale, der indeholder organiske komponenter, i håb om at kunne måle den biologiske nedbrydning; men der er ikke før lavet på knoglemateriale. Analysemetoden vil derved blive undersøgt i denne afhandling i forhold til et nyt materiale.

## Emneord

Nedbrydning, knogle, iltmålinger, in situ-bevaring, Grønland, miljø, klima ændringer.

# Abstract

Over time, all things will perish and degrade. As a conservator, you cannot prevent this degradation completely, but you can slow it down considerably. Today, in situ conservation is widely used – it is when you leave items of cultural and natural history be in the environment that has preserved them for up to several thousands of years. This is a sensible solution as long as the environment is monitored in order for good conservation conditions to remain present. The Earth is changing as the temperature is rising, the poles are melting and the sea levels are going up. How will this affect the unique conservation conditions found in Greenland? It is well known that oxygen and temperature are two major degradation factors. What is going to happen once the temperature rises, the permafrost withdraws, the active layer becomes larger and the oxygen getting more leeway? There has previously been made oxygen measurements in material containing organic components, in hope of being able to measure the biological degradation. However, there has not been made any measurements in bone material. Therefore, the method used for oxygen analysis in bone material will be examined in this Master’s Thesis.

## Keywords

Degradation, bone, oxygen measurements, in situ-conservation, Greenland, environment, climate change.