

An Evaluation of Fish Oil as a Low Environmental Impact Paint Binder System

A Review of North American Fish Oil Production and Use

Anna Veilleux

University of Pennsylvania
M.S. in Historic Preservation with
concentration in Architectural Conservation

Advisor: Andrew Fearon

Association for North American
Graduate Programs in Conservation
Queen's University, April 23-25, 2025



Research Question

**Is it feasible to reintegrate fish oil
as a paint binder into present day
cultural heritage practices?**





Feasibility Categories

1

Physical Feasibility

2

Environmental Feasibility

3

Cultural Feasibility

Argument for Physical Feasibility

Fish oil has a long history of performance as a:

- 1 Hydrophobic
- 2 Rust Inhibiting
- 3 Durable

film forming paint binder.



Argument for Environmental Feasibility

Fish oil is a natural product that:

- 1 Emits low VOCs**
- 2 Can be sustainably sourced**



Argument for Cultural Feasibility

Case studies showed that fish oil production and use influenced:

- 1 Urban planning
- 2 Architecture design
- 3 Material culture
- 4 Community traditions



A photograph of a coastal village, likely in Newfoundland and Labrador, featuring several red wooden houses with white trim. The houses are situated on a grassy hill overlooking a harbor. In the background, a small town is visible across the water, and a boat is docked in the harbor. The sky is overcast.

Thank You

veilleux@design.upenn.edu

Tilting, Newfoundland and Labrador (Heritage NL)