

Aquatic Architecture: Adaptive Sustainable Design for the High Seas

Anna Jarvis*

School of Architecture, University of Waterloo, 7 Melville St S, Cambridge, N1S 2H4, Canada

Abstract

It has been projected by ocean management authorities that unless commercial fishing practices are greatly modified, global fish stocks will be severely depleted by 2048. This presentation is based on work currently being prepared for a Master's-level architecture thesis which looks at aquatic architecture in general, and explores the design of speculative ocean colonies which follow the North Atlantic Gyre for the development and management of high sea fisheries and energy farming in particular. Because such colonies would be very isolated from any other human communities for much of the time, it would be advantageous for them to be capable of being entirely self-sustaining. Although the colonies could subsist on their own power, water and food, they are being designed to generate a surplus of energy and protein, in the interest of diversifying the resources available to their inhabitants and reducing some of the pressure on wild fish stocks and non-renewable energy sources, trading fish and power with coastal nations as they travel around the gyre.

Keywords: adaptive speculative design; oceanic aquaculture; north atlantic gyre; floating laboratory; fish population research; fisheries management

* Anna Jarvis. Tel.: 1-416-556-1856; *messenger name:* anna.k.d.jarvis;
E-mail address: akdjarvi@uwaterloo.ca