

Ursula Biemann

Acoustic Ocean, 2018

Grounded in a research-based practice, Biemann creates video essays and texts that address the interconnection of politics and the environment across local, global, and planetary contexts.

In her most recent work, *Acoustic Ocean*, Biemann combines scientific, personal, and phenomenological narratives in an exploration of oceanic depths and interspecies relations above and below the waterline of the Lofoten Islands, in Northern Norway. A piece of science-fiction poetry, this film intertwines new technological research with inherited knowledge, and the sounds of the submarine.

For the great majority of underwater beings, bioluminescent and sonic manifestations are the primary means of communicating, due to poor visibility in the deep sea. The multitude of creatures that dwell here range from microscopic forms with transparent bodies, luminous organs, glowing wing-like fins and whiskers, to gargantuan mammals that speak in echoes and rise for air every hour. The female aquanaut and human protagonist of *Acoustic Ocean* therefore places sensing instruments such as hydrophones and parabolic microphones along the shore in order to detect, and connect with, the visual and acoustic forms of expression exchanged between these diverse organisms.

The watery world holds memories of evolution that span various different timescales and are threatened by the possibility of dissolution, as its inhabitants' porous bodies are vulnerable to the increasing acidification of their habitat, and exist with an unknown future. A scientific work in part, *Acoustic Ocean* takes on a personal dimension when the aquanaut, performed by singer and environmental activist Sofia Jannok, recounts the uneven effects of a shifting climate on the indigenous Sami community of which she is part, and the reindeer on which their economic and cultural sovereignty rely.

Depicting a post-human figure inextricably linked to her research subject, *Acoustic Ocean* provides a central example by which to develop a more intuitive and less anthropocentric understanding of ecological interdependency.

Ursula Biemann, born 1955 in Zurich, lives and works worldwide.



Ursula Biemann, *Acoustic Ocean*, 2018, video installation, color, sound, 18 min.

The submarine immensity of the Atlantic Ocean is a layered three-dimensional space where countless species are interacting with one another.

Given the poor visibility in this penumbral liquid universe, the sonic dimension is the primary means of communication, navigation and survival.

Formed by a difference in water density, the horizontal layers of the ocean allow for distinct sound frequencies to travel.

In the mid-1940s, scientists discovered a deep sound channel where low-frequency sound travels great distances, the so-called SOFAR channel.

To locate enemy submarines operating in the deep channel, arrays of hydrophones were placed on the North Atlantic seabed, connected by cables to listening posts on shore.

The instruments also detected sounds whose sources were at first unknown, later found to be low-frequency blue and fin whale vocalisations.

Their acoustic range extends across the ocean floor, emitting vast environments.

For a long time, the submarine environment was thought to be a silent place until these spy technologies initiated a new understanding of the ocean as an acoustic and semiotic ecosphere.

Acoustic Ocean

The Aquanaut lays her acoustic instruments out in the hydrosphere, intercepting the vocal signals marine beings are sending through.

The hydrophones function as external organs, enabling her to deeply immerse herself in the aquatic habitat.

There, she adjusts the frequencies to capture the dense sonic signature of entire ecosystems.

Going from attentive to immersive, her sensing discloses a sea full of intentions.

Spreading her sensors out into the deep, she tunes into the transmissions of marine species.

Water chemistry disturbs the flow of sonic particles in these insomniac territories.

Although there is no boundary between two matters of water, sound is invariably pushed down into colder layers.

Only in the Arctic does everything surface.

Also the microscopic shell-forming lives of the sea butterfly show disruption here.

She calls these tiny chemical recorders of rising acid levels the Ocean's equivalent of the "Canary in the Coal Mine."

Their absence will silence the submarine springs.

She notes: The condition for history is the atmosphere, not the ground.

For weeks she has been scripting the seascape, seeding it with an auditory dimension that leaves space for a reply.

*You know, we have seen this for a long time now.
Even my Grandmother told us about it.
When she was young they suffered from hard winters.
A changing climate. Rain falling when it wasn't expected to.
In wintertime, the rain becomes ice on the snow.
And the reindeer cannot dig down to reach the lichen beneath.
And thus, before spring comes, many reindeer starve to death.
The reindeer that makes it through the winter is our guardian.
And we are its guardian.
The reindeer is the livelihood of my people, all of us.*

That night, a few whales gathered near the surface.

Their enlarged memory-chambers contained images from near-extinction.

They sent a canto of impermanence before diving back down into the deep.

Some have re-learned to flourish in this murderous sea.

Mind has its own technologies.

