

## From the collection



Joyce Campbell, *Mindanao*, 2002, photograph.

Often using photographic processes to make her installations of images, Joyce Campbell has long been concerned with representing scientific knowledge in her art.

While resident in Los Angeles in 2002, she made a series of images titled *Marianas* and *Mindanao*, referring to the submarine trenches situated in the north-west Pacific. Whereas the name *Marianas* derives from Queen Mariana of Austria, widow of Philip IV, as a reminder of the area's seventeenth century Spanish colonists, *Mindanao* comes from Maguindanaons, the largest Sultanate historically.

Both trenches are known as abyssal zones. Sunlight cannot penetrate beyond 150 metres so Campbell uses a black background in *Mindanao 1* to conjure the darkness on the sea floor, at a depth of 11,000 metres. Across the Stygian black, a curtain of white light appears like writing, suggesting floating jellyfish, anemones and other fluid sea creatures. Even at the unimaginable depth of these trenches there is an abundance of

life, with thousands of species of uniquely designed invertebrates and fish found, many of them characterised by their longevity and tendency not to migrate. Rather than evolving and adapting, these denizens of the deep have remained unchanged for millions of years, and are studied for the revelations about the origins of life on the planet.

Developmental biology, or morphogenesis – the process that causes an organism to develop its shape – is Joyce Campbell's subject here. She describes how she set about re-creating organic change using inorganic materials to conjure the idea of slow development as complex form emerges out of simple material conditions.

"I conducted a simple set of experiments using colloidal silver in suspension in order to produce biomorphic images floating in a black space. Colloidal silver is formed when a 27 volt current is passed through a silver electrode suspended in water. It is antiseptic and an antibacterial agent. The works are shot on an 8x10 inch camera, and I took multiple exposures and hand printed

Ilfochrome photographs in which the growth of the form was represented in consecutive stages."

This chemical process is also an allusion to life at depth. While plants and other organisms on the planet's surface convert water, minerals and carbon dioxide into nutrients by gathering light in their pigments through the process of photosynthesis, the plants and microorganisms of the deep use a process called chemosynthesis to convert the chemically rich discharge of hydrothermal vents into food. Campbell's mural-sized print contradicts the microscopic scale of her subject.

Campbell's work continues to draw attention to the inherent beauty in natural systems. Part of the New Zealand Artists to Antarctica programme in 2006, she used the opportunity to make daguerreotypes of ice forms. These works are on exhibition at the Gus Fisher Gallery until 20 June as part of the 6th Annual Auckland Festival of Photography.

Linda Tyler