



Len Lye's Kinetic Artworks

Brought to life through engineering analysis and design

New Zealand's most internationally renowned artist

Christchurch born, Len Lye (1901-1980) envisioned grand scale kinetic artworks that involved creating highly dynamic motion of giant pieces of reflective steel. Lye intended for these artworks to be created in the 21st century once the technology to do so became available.

The Mechanical Engineering department at UC have been an integral part with creating Len Lye's large scale artworks for more than 20 years and are now bringing to life the largest artwork that

Lye proposed called *Sun, Land, and Sea*. *Sun, Land, and Sea* involves sending undulating ripples down the back of seven *Sea Serpents* who are made of 50m long reflective steel sheets. The head of the main shivering serpent, the *God of the Sea*, is lifted 30m into the air where he shoots a 15m lightning bolt across the sky and through the *Cave Goddess*, a giant writhing metal loop, to strike the *Sun God*, a 3m diameter golden sphere.

The process of creating a giant Len Lye artwork begins with detailed engineering analysis of the motion in the artwork in order to accurately understand and conserve the artists' intentions. The

motion in Lye's artworks can be so unique that it often requires the creation of new complex models to describe the observed phenomena. The results of this analysis allow engineers to determine the maximum size at which the artwork can be built and design the machines that bring the artwork to life.

A small version of *Sun, Land, and Sea* called *Snake God and the Snake Goddess*, 10m long and complete with gods and lightning, is currently being built at UC and will be exhibited in Christchurch before becoming part of the Len Lye Collection housed at the Len Lye Centre in New Plymouth.

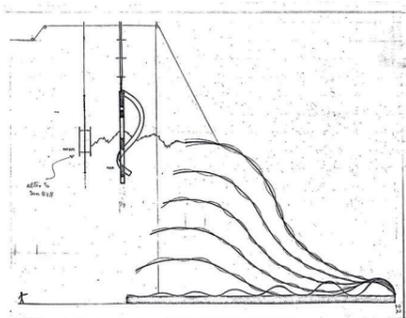
Contacts

Academic contact:

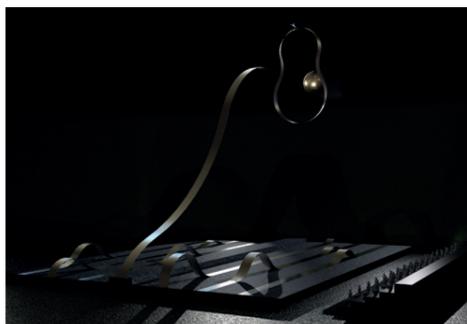
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Currently seeking Masters and PhD students to build Len Lye's giant kinetic artworks



Lye's original scale drawing of *Sun, Land, and Sea*



Render of the full size *Sun, Land, and Sea*



Testing *Snake God and the Snake Goddess* at UC

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