



Tusalava film still 1929

## Len Lye: Animation

### How to use this resource

Teachers, please share all the images and as much written information as possible with your students. If you or your students have further questions or require additional information please contact the Gallery education team.

### The story of Len Lye

Len Lye is one of the most important New Zealand artists. He was multi-talented and made films, sculptures, paintings and photographs. He was born in Christchurch, New Zealand in 1901.

Young Leonard Charles Huia Lye was a very inquisitive child who came from a working class background; he was fascinated by light, sound and motion in its many forms. He observed movement much more carefully than most people and was very interested in the science behind movement in both nature and machines. When he was quite young he invented his own games and exercises, he was striving to sharpen his senses. He wanted to create new artistic ways to express what he saw, heard and experienced. For part of his childhood he lived at Cape Campbell Lighthouse at the north east tip of the South Island, his stepfather was the lighthouse keeper. Lye said "My brother and I slept under a roof of very good tin for rain. It sloped to the waves that pounded the rocky beach... The wind always whistled in the wires of the telegraph poles to the lighthouse..."

Lye filled many sketch books with his observations of the world and experimented with artistic ways to interpret motion through his own body. He investigated how traditional artists used drawing and painting to record movement but he wanted to take it further. The games and exercises he invented fed his search for new art forms that 'composed motion' in the same way that musician composes sound. When he was younger he sketched waves moving, then he thought, why not just make art that moves?

Later, he also talked about not just seeing how movement makes patterns but experiencing movement by imagining the feeling in his body.

When Lye left school he worked at different jobs and continued his art education after work at night school. He read overseas art magazines and was excited to find out other artists were making art experiments similar to his. Some of these artists called themselves Futurists. He loved their idea of "new forms". In his younger years Lye made a close studied Māori art. In the 1920s not many New Zealand artists of European descent were seriously interested in Māori and Pacific art, Lye found he could learn a lot from indigenous art forms. In the early 1920s he spent time living in Australia and in Samoa. He studied the dance rituals of Polynesia

and Australian Aborigines. In Australia he became involved with filmmaking which he saw as an excellent way to show his "art of motion". It was there that he began to teach himself how to make animated film.

Lye was determined to head to Europe to join in the new directions that art was taking, to learn and to contribute his own ideas. In order to pay for his ticket to London, Lye worked as a coal stoker on a ship. When he arrived in London he soon became part of the modern art scene.

### Why is Len Lye important in the history of film?

Lye's first completed film was the cartoon *Tusalava*, which he finished in London in 1929. He found the process of animation very time consuming. The film is black and white and silent. Colour in films was new at that time. When movies were invented (in the 1890s) they were all silent. Music was added by a piano being played at the front of the movie theatre and actors' voices were written in sub-titles. It was difficult to get the sound of the actors speaking to match up with the pictures of their mouths moving this is called synchronisation. People called the new films that had actors talking in them talkies. The first feature film presented as a talkie was *The Jazz Singer* released in October 1927. *Tusalava* is very different to these films. It is a silent but it had a music score which has been lost.

Lye experimented with scraps of film from the editing rooms where he worked. This led him to come up with exciting ways of making films that were quicker than traditional animation. This new approach to filmmaking involved stencilling with hand tools such as saws and scratching with a variety of tools including ancient Indian arrowheads and modern dental tools as well as painting onto each film frame to produce abstract animation. He didn't have enough money to hire a film camera but no camera was needed to make these 'direct' films.

Colour in films was very new and the colour patterns in his direct films were as brilliant and unexpected as those of modern painting. Lye enjoyed the sense of restless energy in hand painted shapes, which he saw as perfectly suited to the energy of jazz music or African drumming

To pay for his films Lye made his short films into advertisements for showing at the movies, some of these adverts were for the G.P.O. (General Post Office) Film Unit. In the short films *Rainbow Dance* and *Trade Tattoo* Lye experimented with new ways of adding colour such as Technicolor. This meant taking black and white footage and adding colour to it in a dazzling way so that it looked like a cubist painting or a collage by Matisse.

### Moving images to moving steel

Lye also began producing kinetic (moving) sculptures. Many of Len Lye's sculptures had motors in them, they were mainly made from stainless steel. The sculptures drew on the beauty and science of kinetic energy, magnetism and gravity. He was also a highly original painter and writer. In 1977 Len Lye returned to his homeland to have his first New Zealand exhibition of sculptures and films at the Govett-Brewster Art Gallery, New Plymouth. A strong bond developed between the artist and the Taranaki region. Shortly before his death in 1980, the Len Lye Foundation was set up, this group of people aim to look after the existing artworks and bring Lye's plans, such as the sculptures *Wind Wand* (on the waterfront in New Plymouth) and *Water Whirler* (on Wellington's waterfront) to life.

Links:

[Swinging the Lambeth walk](#)

[Particles in Space](#)

[Documentary on Len Lye](#)

## What are we going to do during our visit?

### Animation (Year 5+)

How did old school animation work? What makes Len Lye's movies so cool? During your visit we answer these questions and more. We watch some of Len Lye's movies to discover how image, movement and sound are combined to trick our brain. We'll analyse animation techniques and use zoetropes to create our own moving image. BYO your school video camera or cell phone to record your animations.



Zoetrope lesson

## Learning outcomes

### We are learning

- to analyse movement using Len Lye's art
- how 'direct' film animation works
- to invent our own abstract animation sequence

### Learning activities to do at school

- build your own zoetrope to play drawing animations
- make flick books
- use poi movements as inspiration for your animation
- use animation to grow a kowhaiwhai design
- compose a poem inspired by the movement of your animation
- invent a dance expressing patterns of motion from nature or machines
- YouTube examples of different types of animation
  - Road to Nowhere* by Talking Heads (pixilation)
  - Sledgehammer* by Peter Gabriel
- find out about other artists who focus on movement i.e. Alexander Calder, Oskar Fischinger
- ask a grandparent about going to the movies when they were young

## Find out about different types of animation.

There are different types of animation. They all rely on the science of persistence of vision.

Definition: "Persistence of Vision" is when the eye's retina retains an image for a split-second after the image was actually seen. This is important to animation as it creates the illusion of motion when we view images quickly one after another. We don't notice the little differences between the images because that persistence fills in the brief gap to make the motion seem seamless.

Animation did not start with cartoon movies, for many years before scientists experimented with persistence of vision. They invented different types of viewing devices, to investigate how it worked and to entertain and amaze audiences. Here is a list of some of these devices to research, and to try making yourself.

- flick or flipbook ,
- spinning card (Thaumatrope)
- animation wheel (Zoetrope)
- phenakistoscope

## What types of animation did Len Lye use in his films?

Len Lye used a range of animation techniques in his short films. In 1935 he created the first direct film screened to a general audience, an advertisement for the British General Post Office entitled *A Colour Box*. These days most animation is made using a computer but there are different ways to make animations by hand. Find out what each of these types of animation look like and how they are made. direct film animation - scratching, stencilling and painting onto each film frame.

- cut out animation
- plasticine animation (claymation)
- pixilation animation
- drawn image animation
- shadow puppet animation

## Why are sound and music important in film?

Len Lye used music in his films. Most of the time he started with music first then made his film to match its beat and feel How did Len Lye make the music and film images work together (synchronise)? Work with a partner to create a brief synchronised performance. One student is 'sound', the other 'image. Sound person say a word, the image person mouth it silently. After practicing face to face, go back to back to present to the class. How will you keep in time? Change your voice's speed or tone.

Find out some more facts about Len Lye by clicking on Len Lye on this web site or [www.lenlyefoundation.com](http://www.lenlyefoundation.com)

### Curriculum links

Arts: Visual arts (UC, DI, CI), Music (UC)

English: Viewing, Speaking and Presenting

Science: Physical World, Material World

Key Competencies – using language, symbols and texts, participating and contributing

### References

B Pollmüller and M Sercombe The Teachers Animation Toolkit Continuum, 2011 R Horrocks Script; Len Lye teaching notes , Dec 2001

Look again A teaching guide to using film and television with three to eleven year olds BFI Education (on-line resource)

## How does a class visit work?

Please refer to the Visitor Guidelines for Schools.

Programmes are designed so that each age group can benefit from a visit to the Govett–Brewster Art Gallery and Len Lye Centre.

IT'S FREE! There is no charge to schools for a visit to this exhibition.

Your visit to the Gallery will be led by either Chris Barry or Rebecca Fawkner-Egli:

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