


1980



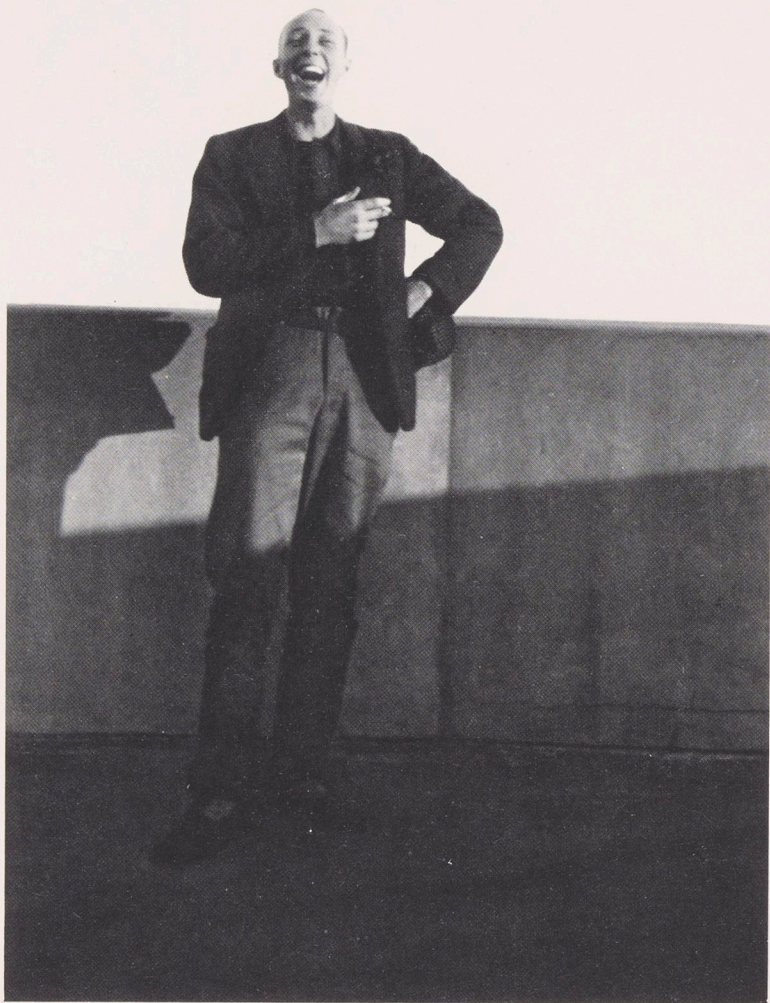
AUCKLAND CITY ART GALLERY

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LEN LYE
A Personal Mythology



Len Lye, Sydney 1925.
Photograph by Mary Brown.

LEN LYE

A Personal Mythology

Paintings

Steel-Motion Compositions

Films

BIB 185889

1980

Auckland City Art Gallery 1980

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ACKNOWLEDGEMENTS

The initial moves to organise this exhibition of Len Lye's paintings, films, and steel-motion compositions, began with an exchange of letters in 1978 between the artist and Ernest Smith who was director of this gallery at the time. On the resignation of Mr Smith in 1979, I inherited the responsibility of curating the exhibition and in November went to New York to visit Len Lye and his wife Ann to complete arrangements and gather material for this publication.

The warm friendship and boundless cooperation of Len and Ann Lye made my stay in New York truly fruitful and memorable. My periodic 'interrogations' of Len during this time, which are recorded on many metres of cassette tape, were born by him with extreme patience and good humour. I sincerely thank them both for their infinite hospitality and assistance and for their confidence in entrusting to us this valuable collection of paintings and sculpture.

Bix Lye and Yancy Lye Lindenbahn both lent batiks. The Art Gallery of New South Wales lent the marble *Head of Len Lye* by Rayner Hoff. The Govett-Brewster Art Gallery lent *Fountain*. The Len Lye Foundation, to which Len Lye has gifted the bulk of the works in this exhibition, has lent *Blade* and a number of films.

The preparation of this catalogue, which we hope will go a long way to promoting an appreciation of the genius of Len Lye and his unique productions, has involved the combined efforts of a great many people. We thank Roger Horrocks and Gerhard Brauer for their fine essays and Len Lye for his prose piece *Slow but Sure* and for allowing us to publish his notes on the large paintings. We are also indebted to those individuals and institutions who have let us reproduce works from their collections as are we to the various photographers who have given us permission to reproduce their photographs. We are grateful too for the involvement of the following: the Len Lye Foundation, Dick Bett, Wystan Curnow, Paul Fiondella, Roger Horrocks, Steve Jones, Hamish Keith, Anne Kirker, John Matthews, Douglas Newton, Ernest Smith and Ray Thorburn.

Shortly before this catalogue went to press we learnt the sad news of Len Lye's death at his home in New York.

On behalf of all the staff I can say that none of us has failed to be touched by the personality and imagination of Len Lye, whose unique character is stamped on every one of the works comprising this exhibition. We hope all who view it will be touched in the same way.

Andrew Bogle
Senior Curator
Auckland City Art Gallery

INTRODUCTION

In conversation Lye is incredibly articulate, but his tongue is always accompanied by agile gesture. He never stands still. Of average height, scalp shaven, eyes aglint, he is up and about on every third second. A wry remark is underscored by an elbow quirk. He is a walking example of his art. The crash and the beat and the bang-bang of his pieces are part and parcel of their movement. He is their beginning.

Douglas McAgy
1965

Film-maker, kinetic sculptor, painter, genetic theorist, experimental prose writer — these are some of the creative attributes of the genial, bald-headed, wispy-bearded, seventy-nine year old artist Len Lye. Born and raised in New Zealand, Lye has lived most of his life in London and, since 1944, New York, where he maintains a studio in Greenwich Village. As an artist, his reputation is greater internationally than in his home country. Although he deserves to be, he is as yet not nearly so well known to New Zealanders as Frances Hodgkins, our most celebrated modern expatriate artist. The tide of recognition, however, is finally turning. Three exhibitions of Lye's work in New Zealand public art galleries in the last four years — at the Govett-Brewster Art Gallery, New Plymouth in 1976, the National Art Gallery, Wellington in 1979 and now in Auckland — reflect and reinforce this growing recognition.

Lye's reputation stands primarily on his achievements as a film-maker and kinetic sculptor or, more specifically, a composer of steel-motion and practitioner of 'direct' film techniques whereby images are directly painted onto or scratched into celluloid without the aid of a camera. His output in these two fields has not been prolific — 'slow but sure' is one of his mottos — but the value of his achievements is nevertheless considerable as has been recognised by such eminent institutions as the Museum of Modern Art, which holds prints of all Lye's major films, the Art Institute of Chicago, the Albright-Knox Art Gallery and the Whitney Museum of American Art, all of which own examples of his kinetic sculpture.

Given the financial backing he has needed over the years, but rarely obtained, Lye's artistic output would inevitably have been greater. Animated film is a time consuming and necessarily expensive medium. Lye's first film, *Tusalava*, which was 10 minutes long, required more than 9,500 separate drawings. In spite of finance and a prize of \$5,000 at the 1958 Brussels World Fair for an even shorter film, *Free Radicals*, Lye found himself in debt over it. A little later, after 30 years of film-making, he decided to go on strike as a film-maker until an institution sponsored him, turning to kinetic sculpture instead.

Lye's first 'bounding steel' compositions, modest-sized versions of works he planned to build on an heroic scale, were originally exhibited in the auditorium of the Museum of Modern Art in 1961. One of the pieces, *Flip and Two Twisters*, was recently recreated as a compelling 13 metre semi-permanent installation (renamed *Trilogy*) at the Govett-Brewster Art Gallery which in future will also become the repository of the artist's collected archives and artworks. Regrettably, few of Lye's other kinetic works have been built on the scale he envisaged, again because of problems of 'coin' although the New Plymouth engineer, John Matthews, the builder of *Trilogy* and an avid admirer of Len Lye's art, is crusading to remedy the situation.

By turning to kinetic sculpture at the age of 57, Lye completed a creative cycle he began as a 15 year old studying art in evening classes at the Wellington Technical Institute under Linley Richardson. Encouraged by his teacher's precept that it is better for an artist to develop his own theory, right or wrong, than follow someone else's and, inspired by an episode of cloud watching from a Wellington hilltop early one morning, Lye decided to commit his life to an art of movement — not portraying but composing it. His first attempts produced some ungainly contraptions with pulleys, crank handles and revolving cut out shapes, something like the 'metamatics' Tinguely began to experiment with 20 years later. Lye felt his machines were inadequate, however, and later turned to film whose 'kinesthetic' potential seemed better suited to his intentions. "At that point I realized there was no film activity in New Zealand, so I would have to go where there was, so I went to Australia".

In Australia, he learnt the process of cartoon animation without getting to actually make a film, although he did experiment on film offcuts with the technique he later excelled at — painting directly onto film. He then spent a period of reflection in the South Seas Islands, "one of the best places in the world to sort things out", eventually settling for a year in Western Samoa where he lived amongst the villagers and absorbed the myths and imagery of the local culture. He was predisposed to tribal art, especially the less decorative forms, through books he had found in the public libraries of Auckland and Wellington.

In 1926 Lye arrived in London, almost penniless, after working his passage as a stoker on a boat from Australia and soon after was actively engaged as a painter and film-maker. The earliest of Lye's paintings and films exhibited here date from this time. His subsequent achievements in these two fields are discussed in the essays 'Len Lye's Paintings' and 'Len Lye's Films' in this catalogue.

Although Lye's kinetic sculpture is represented in this exhibition by three fine examples, the emphasis of both the exhibition and the didactic material of this catalogue is on his paintings and films, for several reasons. There has been more written about Lye's kinetic sculpture than any other aspect of his work and the two earlier Len Lye exhibitions in New Zealand were dominated by kinetic pieces.

Moreover, Lye's paintings have not previously been shown in New Zealand; the large paintings have never before been shown. New prints of a comprehensive selection of Lye's 'direct' films have been obtained for the exhibition, including two recent films *Free Radicals* and *Particles in Space* (revised versions of earlier films) which will receive their world premiere at the exhibition opening. Together, the paintings, films and kinetic works assembled here constitute the most comprehensive review of Lye's art yet presented for exhibition.

LEN LYE'S PAINTINGS

Myths are things which never happened but always are.

Salustius

Great art till now has always derived its fruitfulness from the myth, from the unconscious process of symbolization which continues through the ages and which, as the primordial manifestation of the human spirit, will continue to be the root of all creation in the future.

C.G. Jung

This exhibition is the first occasion that Lye's paintings have been shown in this country. For the many people who know only of his work in other media, the thirteen large unstretched canvases which are the focus of this exhibition will doubtless come as a surprise. This is understandable. Lye's considerable artistic reputation has not been built upon his paintings, although hopefully this exhibition will correct the record.

In the 1920s and 1930s, in London, Lye produced a number of paintings — batiks and oils — and copious doodles. At the time he was living on a small barge called 'The Ark' which was moored beside the Thames. He paid no rent but acted as a sort of care-taker of the barge, which was loaned to him by the artists Alan Herbert and Eric Kennington. Kennington also made his studio, which was beside the mooring, available to Lye. These were frugal times for the young artist. Occasionally he was given an order for a batik, each of which earned him five pounds, on which he was able to live for a month. Some of the batiks were designed as shawls and others as curtains. One called the 'Laura' shawl was acquired by Laura Riding and another called the 'Gertrude' shawl, now lost, was acquired by Gertrude Stein.

In 1927, the year after he arrived in London, Lye joined the *7 and 5 Society* of which Ben Nicholson was a leading light. This comprised, ostensibly, seven painters and five sculptors, with Lye joining as a painter rather than a sculptor. Frances Hodgkins, another New Zealand painter, was also a member. The iconography of Lye's early paintings — primeval landscapes inhabited by a range of curious, primitive life-forms and a pantheon of strange humanoid gods personifying various elements and natural phenomena — is distinctive, yet there has been comparatively little published on these works. His last exhibition with the *7 and 5 Society* was in 1934. In 1936 he participated in the historic International Surrealist Exhibition in London, with the painting *Snowbirds Making Snow*. Although he continued painting into the 1950s in America, this is the first time his paintings have been exhibited since the 1930s. In the early 1960s an attempt was made by the Metropolitan Museum of Art to organise an exhibition of Lye's batiks but this did not eventuate. Regrettably some of the early batiks and oils have been lost. Lye relates with amusement, that Robert Graves who owns *Galactic Core*, which is generally considered the finest of the batiks, refuses to lend the painting for



Alan Herbert's and Eric Kennington's barge "Ark", Lye's home in London from 1928 to 1932.

exhibition on the ground that it is holding up the wall of his house in Majorca.

In 1966 Lye began to re-assess the iconography of his early paintings and doodles in the light of some important current scientific theories about evolutionary factors such as solar flares, ultra-violet light, the electric charge potential of deep-sea bubbles, reversal of polarities of the earth's magnetic field, etcetera, which he felt his paintings illustrated.

"I started to collect this material in 1966 . . . This was the first time that I realised that some of my work may be a literal translation of genetic information which, of course, would be translated by the old or primitive brain at the back of my skull."¹

Lye has devoted much attention to assembling visual evidence, in the form of comparative slides, to illustrate his theory about art and the genes. He has also lectured on the subject to students of both science and art; for example, at the Animal Institute of Genetics in Edinburgh and the University of California, at Berkeley.

Then in 1977, almost twenty years after he had last painted, Lye picked up his brushes again and in eighteen months completed thirteen large, unstretched canvases, which are exhibited here for the first time. A fourteenth painting, *Galactic Core*, which was to have been larger than the others, was planned but has not yet been executed. Except for *Land and Sea* which is in oil, all the large canvases are acrylic and without exception are based on images produced in previous years. *Flora before Fauna*, for example, is closely related to a batik Lye painted in 1930 for Gwen Herbert, wife of Alan Herbert, a co-owner of Lye's barge in London; only the relative positions of the main elements of the composition and, of course, their scale have been altered in the new version. *Night and Day* is enlarged from an early ink sketch in red and black on grease-proof paper which Lye copied from a book on prehistoric cave paintings by Abbé Breuhl. *Ancestor* is based on a single lobed figure, isolated from a more complex painting in oil which he did in 1942 at Martha's Vineyard, called *Lagoon Pond* and *Witchetty Grub* derives from a still from his first animated film *Tusalava*.

The fidelity of the scaled up images to their sources, which in some cases are quite small, is explained by Lye's unusual way of working. First he made a slide of the original image and projected it onto a large hanging canvas. By manipulating the slide projector he was able to control the size and position of the figure or figures in the composition. With charcoal he then sketched in the details of the design, finally painting it in with flat colour. The event of these large paintings raises some obvious questions, such as: Why did Lye return to images he made as long as fifty years ago? Why the grand scale? and inevitably, what do the paintings represent?

The slide projection technique that Lye used to make the paintings corresponds closely with the cinematic enlargement of the hand-painted images in his 'direct' films. In both cases small, concentrated images — the original doodle for *Crustacean* is no bigger

than a thumb-nail and the sketch for *Helium* was made on an opened-out cigarette packet — are enlarged hundreds of times. Many of his kinetic works were originally conceived on a gigantic scale, Lye has a penchant for this, but at present they have only been realised as working models. "It's mainly coin, there's the technology to make them work now, but they are costly."² *Trilogy* (Govett-Brewster Art Gallery) is one of the happy exceptions.

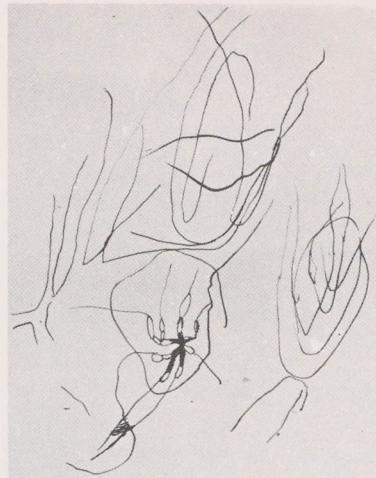
Lye has firm ideas about scale in art, based on the yardstick of the human figure and notions of empathy. He illustrates his point by way of such examples as a small ripple tickling a sandy shore compared with a twenty foot comber. We can empathise more easily with the latter because it relates better to our physical scale. Empathy does not increase proportionately to size; when things get too big we can feel dwarfed and overwhelmed. Delicate balance is required. In this connection Lye sees civic art — sculpture, murals, etcetera — as an appropriate link between man and colossal architecture. In his large paintings Lye's "totems of individuality", after a long gestation, have finally attained human proportions facilitating an empathy which was not so readily attained with doodles and small paintings. The sizes of the batiks he painted in London were also to some extent conditioned by financial as well as practical considerations. Apart from the fact that they were intended as shawls and curtains, the cost of materials imposed constraints. Lye was extremely poor,

"I was pretty desperate at times, I used to get by on eating two pennies of codfish head, which could be done up in different ways and could last two or even three days."³

Lye describes his evolution allegories as "fine art myth". The creatures which figure in his personal mythology — a three headed serpent, a kneeless God of Light, a fire devil, a personification of coral, the First Man, tree people, fern people, pond people, snow birds, a lobed fish, and 'planting-stick' figures — he describes as "totems of individuality".

According to him intuitive knowledge in human societies expresses itself through myth and ritual and art. In primitive cultures through the ages, artists have played a vital role in the perpetuation of certain genetic truths which are vital to man's survival, particularly with respect to his relationship to nature, through symbolism and allegory. It is a characteristic of myths that they personify powerful natural forces and events which have played an important role in shaping man's physical environment and evolutionary development. For Lye, myth is as vital to modern man as it was to his ancestors,

"the kind of myth that is going to make a one-world possible in terms of each of us feeling a relationship to one another and a unity in that relationship in our values and in relation to nature is a myth that we deduce out of our genetic information and general instructions, and my work shows a hint, a very vague hint, but nevertheless it's there, that there is such a possibility that artists with a particular temperamental leaning towards expression of



Ink doodle, circa 1930.



Aborigine Medicine Man.
Plate from Spencer and Gillen, *The Native Tribes of Central Australia*, London 1899.

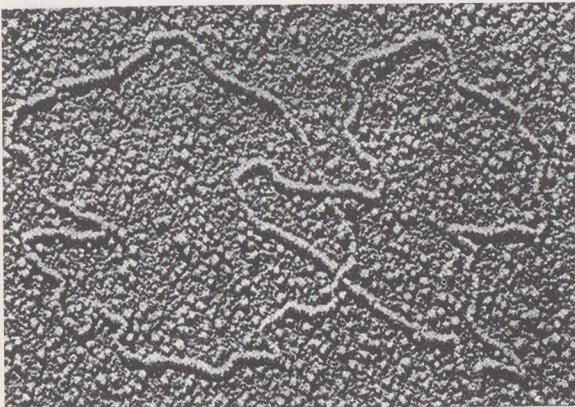
their very intensest feelings of self in terms of myth, can develop the old brain propensity for reading or transposing or divining the genetic truths that are in their own make-up and, when those truths are symbolised, the magic of the whole business will be conveyed and we'll have (access) to intense feelings that relate to everybody else and to nature."⁴

In this era of increasingly formal and self-referential abstract art, Lye's mythical evolutionary paintings seem displaced. At a time when artists are increasingly pre-occupied with problems of 'edge' and 'colour as form' and 'paintings as objects', Lye's paintings are, by contrast, of an iconic and narrative nature. Lye professes to be uninterested in composition and colour, maintaining that such things automatically look after themselves as he works, although with one painting, *Crustacean*, he spent some time deciding what colour to use to fill in the charcoal outlines of the 'blow-up' before finding the solution in a small two-toned crab shell on a beach. His position in relation to McLuhan's famous maxim, 'The medium is the message' is apparently diametrically opposed. He plays down the importance of medium.

"Now to talking ordinarily about such things as paint which is a means not even a medium — and I like means as being no trouble or even better being brilliant trouble in arrangement. But not too much as that's the thing that is likely to end in itself and not in the whatever of the arrangement as to God — by God for God yes no God."⁵

Lye's paintings proclaim his belief that art should identify profoundly with nature, with man's roots. Lye has made contact with these roots in two ways — by immersing himself in the imagery of certain tribal societies such as Australian Aboriginal, Pacific Island and African Bushman (even to the extent of sleeping with copies of such imagery under his pillow) and by coaxing his 'old brain' to divulge its genetic secrets. Sometimes it is difficult to determine whether his images are his own or copies from such sources, a problem he confesses to having experienced himself.

'Back to nature' has been a catch-cry of artists throughout the centuries — Leonardo, the Carracci, Claude Lorrain, the Pre-Raphaelites and Cézanne are a few who have reiterated this position. But man's perspective on nature is constantly changing. The advent of the optical microscope enabled our eyes to penetrate the surface of the natural world. The electron microscope now reveals worlds within worlds. Lye's paintings revolve around man's relationship to nature, expressed symbolically through myth, but the nature he depicts is a semi-microscopic world of uni-cellular life forms, microphages, antibodies, genes and chromosomes, protein molecules and helium atoms. 'Back to nature' in Lye's case also means back in time to a distant age when coelacanths and other primitive creatures inhabited the depths of the oceans (*Ancestor, Crustacean*); to a time when the earth was just cool enough for the atmosphere to condense and fall as rain (*Tree People, Raintree*); to a time when the most primitive of plant



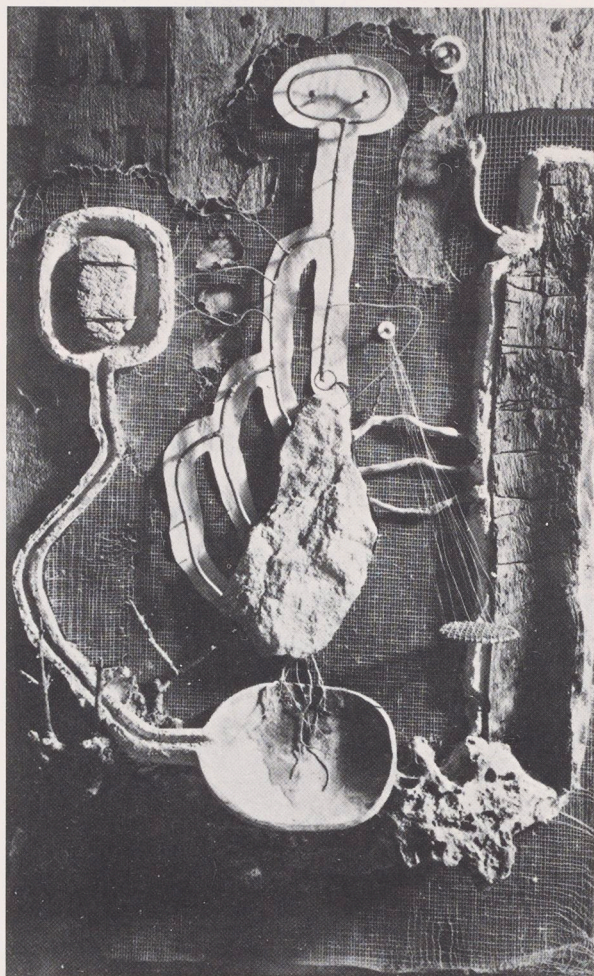
Electron microscope photograph of gene strands.

forms took hold in the earth (*Fire Devil leaving, Flora before Fauna, Fern People*). In *Land and Sea* we go back even further in time to when the surface of the earth was a turmoil of volcanoes and the first uni-cellular life-forms emerged. In *God of Light* (alias the 'Big Bang Man') we travel to the furthestmost conceivable reaches of time — the beginning of the universe.

In his art, especially, but also in his conversation, Lye frequently harks back to the past, particularly his childhood, during which time a number of vivid experiences occurred which were major formative influences on his art. Several years ago, Lye decided to compile a number of such recollections in the form of anecdotes based on the *One Hundred Happy Moments* of two Chinese sages who decided to recall the happy moments of their lives while they sheltered on a mountain-side, during a rain storm. Lye recalls thirteen such moments which, in fact, are more profound than happy. One of these, called 'Flash', is a recollection of kicking an empty kerosene can under an apple tree in the backgarden of the house where he lived as a child and suddenly being wonderstruck by a flash of light on its gleaming metal surface. This early experience, to which Lye attaches great importance, undoubtedly prefigured his later pre-occupation with light and steel, as a composer of steel-motion sculpture. Another of Lye's 'happy moments' called 'Rabbits' prefigures the symbols of sacrifice and fecundity in the paintings *Raintree, Earth and Tree People*. The latter painting depicts clouds filled with blood raining on the earth and transforming plants into people, while *Raintree* and *Earth*, two allied images which hang one above the other, depict rain in the form of blood-red arrows falling from a tree shaped like a thigh bone and imbedding themselves in the brown tilth of *Earth*. Another small painting, *Red Clay* evokes similar connotations of blood and fertility. Amongst his collection of newspaper clippings of scientific reports is one entitled, 'Clay on shores of ancient seas viewed as key to origin of life' which describes a current scientific theory that clay played an important part in the formation of complex molecules such as amino acids which are the building blocks of life. The 'Rabbits' anecdote is related by Lye as follows:

"I used to go catching wild rabbits upon the clay bank of a grassy hill. You take a sharp stick and scoop out the rabbit burrow and block it up with stones, then dig out the other end of the burrow. And at certain times of the year you find young rabbits. Well I found some young rabbits and I took one for me and one for my brother. And then I went back home by the beach. Great walls of waves were coming in, onto the beach, from after the storm and I stood and watched the waves. The sun was sinking and it made a red path right to the beach. I felt the spray on my teeth and the wind in my hair as I stood. I took one baby rabbit out of my shirt by the ears and threw it high over the waves into the sun. I took the other and threw it too. What was it? The blood of the lamb?"⁶

Lye says the painting *Crustacean* was influenced by the times he spent



Earth Goddess 1931, assemblage.

around the rockpools of Cape Campbell where he lived as a child. Perhaps *Raintree*, *Earth* and *Tree People* were similarly influenced by the rabbits experience. For the former two paintings Lye has devised a "three-dimensional echo" involving taped sound effects, the manipulation of various props representing elements in the paintings and the recitation of an Aztec poem about sacrifice. The tableau is set in front of the two paintings. Two cylindrical white tubes symbolising thigh bones hang horizontally, one above the other, by a thread in front of the painting. Below on the floor, in front of the painting *Earth* is a mound of volcanic sand or tilth. To the accompaniment of a metallic rain sound (a recording of the steel rods of *Fountain*) the white cylinders slowly revolve. The Aztec poem is recited. A container of sharpened red dowels is emptied from above and the shafts fall and imbed themselves in the soil. The poem entitled *How is it they fall?* goes as follows:

*How is it they fall? How do they fall?
One harvests the holy fruit, the hearts
When they are ripe.*

*Look at them:
These fall, ah, our arrows!
These fall, ah, our arrows!*

In the magazine *Antaeus*, where Lye found the poem, are notes about it and the Mexican concept of sacrifice as the sustenance of the sun and the fusing of fire and water as vital to movement and life — symbolism which is convergent with the main features of Lye's 'Rabbits' anecdote.

For, whether it was first in the sense of time, life is, for all men, first of miracles in the sense of prime. This is a fact. Myth is the facts of the mind made manifest in a fiction of matter.

Maya Deren

Lye's mythology symbolises crucial, evolutionary values which, being of universal significance, commonly feature in the myths and rituals of disparate societies (especially tribal societies) and have done so through the ages, often in the form of archetypal motifs. Lye feels that primitive artists are often better able to express these values than their Western counterparts who have traditionally been more concerned with representing the forms of the outside world naturalistically than those of the inside world symbolically. Lye's paintings, like so much primitive art, rely on the potency of certain refined forms which trigger in the viewer a subconscious reflex — "twanging the chromosomes" as Lye puts it⁷. The background to Lye's imagery is a constant search for compelling abstract forms which are a means by which man can identify with his roots.

The early part of this century saw a great artistic reaction to a long tradition of illusionistic art: Expressionists, Dadaists and Surrealists all sought ways of expressing the interior world of the mind. Ludwig Kirchner, who had been profoundly affected by his first contact with African and Pacific Art at the Dresden Ethnological Museum in 1904,

greatly influenced a whole group of artists (*Die Brücke*) who took their inspiration from primitive art. Other artists, such as Brancusi, Dubuffet, Miro, Picasso and Ernst, were all strongly influenced in the early decades by African and Oceanic tribal art. Whereas Western art, since the Renaissance, has promoted a cult of individuality, tribal art is more an expression of a collective subconscious, the imagery of which is refined and strengthened over many generations. In Lye's opinion the Western artist:

"has the utter freedom to express whatever he likes in whatever way he chooses, so long as he doesn't murder people. Well in arriving at this ultimate of individuality we have overlooked the dependence of individuality on its sources and roots."⁸

It is now widely accepted by scientists that the genetic material of our living cells embodies the record of billions of years of evolution. Recapitulation in human embryology is strong evidence of this genetic memory.

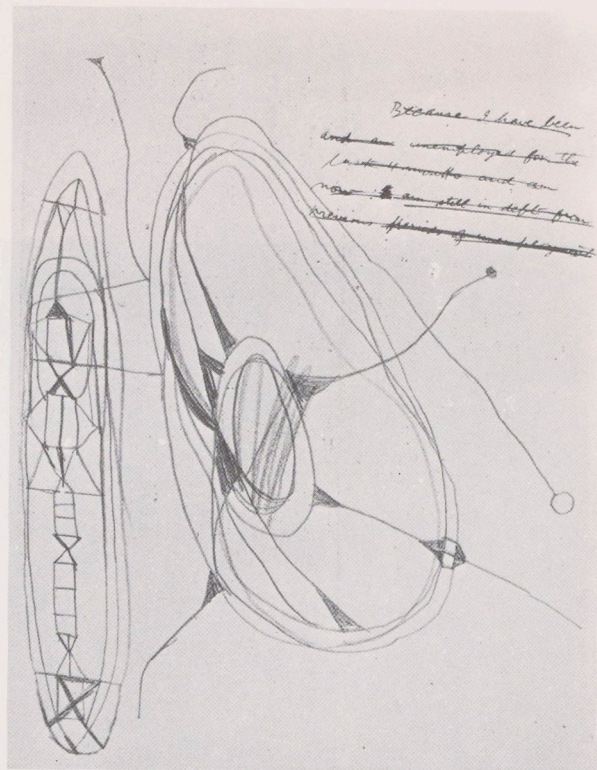
"In human intra-uterine development we run through stages very much like fish, reptiles and non-primate mammals before we become recognisably human. The fish stage even has gill slits which are absolutely useless for the embryo . . . but a necessity for human embryology: since gills were vital to our ancestors, we run through a gill stage before we become human."⁹

Interestingly, Lye seems to have subconsciously illustrated this phenomenon in an early batik, *Pond People*, depicting a primitive humanoid figure with a strange bulbous growth which he describes as a lung. While most of Lye's paintings began as doodles or eclectic sketches, *Pond People* evolved in a different way. First Lye pressed soft plasticine onto a sheet of unexposed photographic paper which he then exposed. After removing the plasticine and developing the paper, a black and white abstract image was revealed which was then open to interpretation. "On the right is a kind of . . . tadpole making black pearls — perhaps, and it is breathing through this great lung-like protuberance on its side."¹⁰

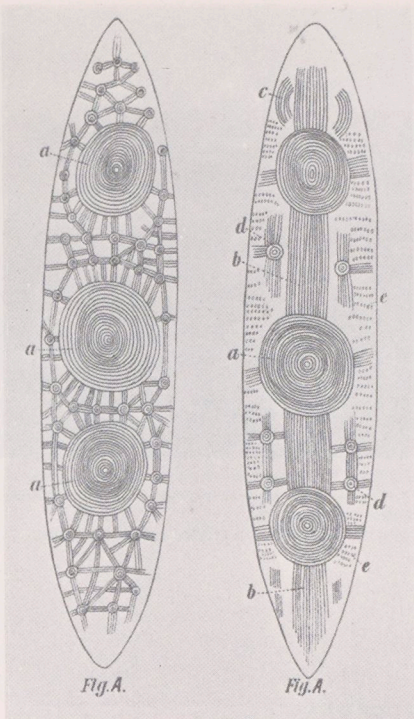
Artists have long availed themselves of undifferentiated patterns to excite their imaginations to invent new compositions. Leonardo prescribed staring at an old wall covered in dirt. The Surrealists used both patterns and automatic techniques (frottage, decalomania) to bypass the conscious mind and delve into the unconscious for subject matter. Although Lye participated in the 1936 London *International Surrealist Exhibition*, he emphatically disassociates his imagery from the dream-related imagery of the Surrealists.

"My work doesn't relate to dreams in any shape or form, not the unconscious. It's as if there's a little, old homonculus sitting up there in the brain chucking out the civilised and learned stuff, trying to dig down and read a few genes."¹¹

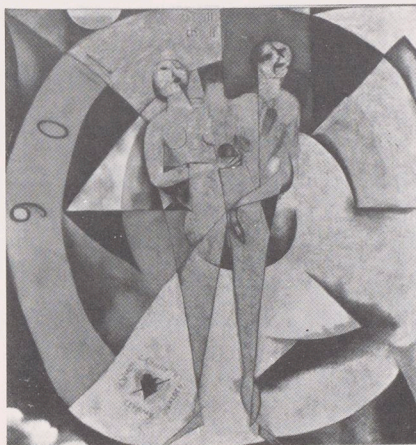
There are many interesting cases of past cultures gaining an intuitive and perhaps genetically based comprehension of natural phenomena which scientists with their empirical methods have only recently been



Pencil doodle, circa 1935.



Churinga nanja, or sacred sticks, of the Arunta Tribe.
Plate from Spencer and Gillen, *The Native Tribes of
Central Australia*, London 1899.



Marc Chagall *Hommage à Apollinaire*, 1911.
Collection: Van Abbemuseum, Eindhoven.

able to fathom. For example — and I choose this case because of its particular relevance to Lye's 'one world' philosophy — Chinese Taoists evolved a philosophy of time and change which presaged the main features of quantum physics, which has finally dispensed with the hallowed classical concepts of objectivity and determinism. The Taoist concept of matter as motion, a rhythmical oscillation pervading all things — rocks, air, plants, and all living creatures — in a complex web of relations, is now convergent with current atomic theory. The Taoists sought, through their unique perception of the physical world, an harmonious relationship with nature by psychologically inserting themselves into its rhythmical operations. In a letter to Eric Kennington, written in his inimitable prose style, and published in *No Trouble*, Lye succinctly alludes to the artist's role in this relationship with reference to an assemblage he was working on at the time in Deya, Majorca.

"Well then, take cement and arrange the rocks or whichever sufficiently or insistently to define its relationship to the human mind or, a better word, to God — and in saying God, I don't mean Jesus, but living gods or not even, I mean the material that is alive and free floating and causes gods or not even, and the only contact with that is the insight of a mind directed on to outside phenomena."¹²

In Lye's paintings and assemblages we find the symbolic expression of this quest for oneness with nature. *Raintree* and *Tree People*, for example, are pictorial allegories of man's evolution and his ties with nature portrayed with a poetic blend of animal, vegetable and climatic symbolism. In *Family Conference* we are presented with an "aboriginal nativity scene" of planting-stick figures symbolising gene studded chromosome strands — the mechanisms for transmitting biological characteristics wittily personified as a gang of characters. Since our word 'gene' derives from the Greek word 'genea' meaning 'family' the title of the painting can be translated as 'Genetic Conference'. The painting *God of Light* reconciles two extremes of evolution (the 'Big Bang' and 'Man') in a single figure. The two-toned androgynous figure enclosed by an arch-form in *Polynesian Connection* similarly embodies several polarities. Most obvious of these is the male/female polarity. Lye says the androgynous figure was influenced by a Maori lintel carving of a copulating couple and by Brancusi's stone carving *The Kiss*. In view of these diverse cultural influences, the central figure(s) can also stand for a communion of European and tribal art. And, finally, it can symbolise the duality of the human brain with its complementary hemispheres — the intuitive, visually-orientated right hemisphere and the rational, language-orientated left hemisphere. The latter reading is an appropriate metaphor for Lye's method of creating — spontaneous creation followed up by analysis and interpretation. Of his doodles, from which his paintings have sprung, he has said:

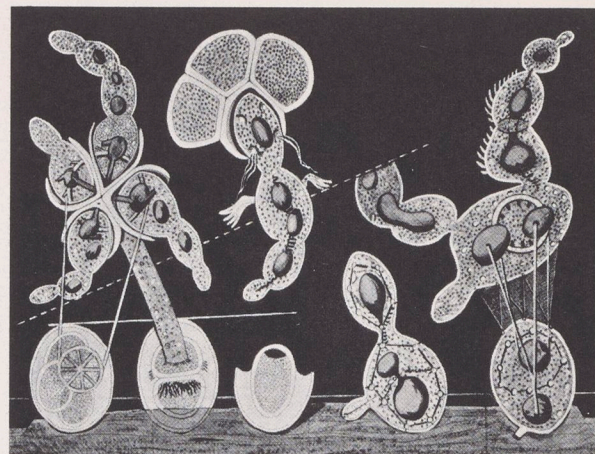
"You have to work on these things a long time, completely absorbed, and when it's all finished — that's the time to start analysing and identifying the various images in it."¹³

This two-stage process of creation and interpretation has re-occurred on a much wider time scale, with Lye's belated scientific interpretation, since the late sixties, of fine art mythological paintings he produced as much as forty years earlier. Lye's complete artistic oeuvre presents a fascinating interplay of polarities, such as night and day, land and sea, tension and relaxation, myth and science, in a ritualistic yin-yang saga. Even the pure, formal configurations of *Trilogy* — the "wriggling and wraggling"¹⁴ of the two suspended vertical foils of flexible steel and the writhing and quivering of the central loop have been described by Lye in terms of sexual polarities, in terms of spermatozoa and vulva.

For this exhibition Lye has prescribed a special "blinker" installation involving a convoluted wall space constructed of rigid screens forming alcoves, at the ends of which the paintings are displayed. This set-up forces the viewer to consider the paintings individually, rather than collectively as 'an exhibition'. In view of the jumps in style from painting to painting, this idea of isolating the paintings from one another is quite appropriate. Each painting is a world in itself, which stylistic differences emphasize. *Helium* is an expressionistic, calligraphic painting of subtle colouring. By contrast *Night and Day* is minimal in the formalism of its two semi-circular shapes. *Polynesian Connection* displays a restricted colour range and hard-edge formalism reminiscent of Maori kowhaiwhai (rafter painting). *Fire Devil Leaving* presents a diagrammatic view of plants seeding and sporing above the ground while, simultaneously, we can see beneath the soil penetrated by the roots and tubers of the same plants. The latter compositional device is suggestive of the geological and anatomical cross-sections which Max Ernst appropriated from illustrated textbooks for his collages.

Diverse ethnographic and stylistic influences, suffused with Lye's personal mythology, endow these paintings with a quality which vacillates in time and place — past, present and future and an assortment of geographical locations. Inevitably they reflect the artistic milieu of Europe in the 1920s and 1930s; Miro, Ernst, Masson, Brancusi, Klee, Picasso — affinities with these artists' works are apparent. The paintings also reflect Lye's fascination with tribal art from Australia, the Pacific Islands and Africa. Although rooted in the dark and distant past, the paintings have a prescient quality; they touch on areas of knowledge that science is belatedly probing. Perhaps they possess that ambience which Lye says makes art "the most lasting and intrinsic of all values that man can create."¹⁵

Andrew Bogle



Max Ernst *The gramineous bicycle garnished with bells the dappled fire damps and the echinoderms bending the spine to look for caresses 1920 or 1921, botanical chart altered with gouache.*

Collection: The Museum of Modern Art, New York.

REFERENCES

Quotation from C.G. Jung, *The Undiscovered Self* (1974), p. 110, courtesy of Routledge and Kegan Paul Limited.

- 1 Andrew Bogle interviews Len Lye — New York, November 1979.
- 2 Hamish Keith interviews Len Lye — Auckland, January 1969.
- 3 Ray Thorburn interviews Len Lye — New York, September 1974.
- 4 Bogle interview
- 5 Len Lye *No Trouble* Majorca 1930, p.25
- 6 Bogle interview
- 7 Bogle interview
- 8 Bogle interview
- 9 Carl Sagan *The Dragons of Eden* London 1977, p.58
- 10 Bogle interview
- 11 Bogle interview
- 12 *No Trouble* p.25
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- 15 Bogle interview

LEN LYE: The Science Behind "Old Brain" Art

The art of Len Lye is perhaps best characterized by saying that it can't be characterized. It fits uneasily into existing artistic traditions and indeed demands to be appreciated in a value context unique in fine art. Where most fine art combines aesthetic appeal with some

historico-cultural content, Lye's work, and particularly his paintings, requires that it be appreciated in an aesthetic-scientific context. The scientific aspects of this artist's creations are the focus of this article. To introduce this discussion of Len Lye's art it will be helpful to consider briefly the act of creating a piece of art. In general this procedure might be described as consisting of three phases: first, a preconscious emotive phase in which the images and feelings are initially conceived; second, a conscious cognitive phase in which these images and feelings are translated (according to the experiences, cultural environment and intention of the artist) into conceptualized structure and process; and third, a purely technical execution phase in which the conceptualized work is rendered tangible according to the technological and traditional limitations which constrain the use of media and tools, and limit the skill and techniques of the artist. While both of the latter phases limit the final form the work takes, the cognitive interpretation of material arising from the artist's preconscious repository of information is perhaps a greater constraint on the content and cultural context of art than are the obvious limitations encountered during actual execution. This then, is probably the fundamental cause of the phenomena of artistic traditions: The cultural stimuli affecting artists sharing the same space-time must tend to influence their work yielding, for the most part, similarities and differences (in both style and content) which can best be understood if seen against the framework of the overall cultural context influencing the cognitive phase of their creative activities. The evolution and succession of artistic traditions are thus assured.

What then would be the nature of art conceived and executed *without* the mediating filter of cognition? How would such art fit into the existing artistic traditions? A short answer, of course, is that for reasons outlined above, non-cognitive art is usually too individualistic to fit readily into the spectrum of artistic tradition. A longer answer is this article in which I will try to shed some light on some of the scientific aspects of Len Lye's art which place it in a unique and special artistic niche.

Len Lye, pioneer film-maker, renowned composer of steel-motion sculpture, philosopher and painter, decided early in his development as an artist to bypass the above-mentioned cognitive screens between inspiration and execution, and to train himself to capture directly, without interpretation, the artistic idea. How and why he did this can be explained by introducing a theoretical concept and a methodology.

The theoretical concept involves what Lye has termed the "old" and the "new" brain. These parts or attributes of the brain correspond directly to the first two phases of the creative act outlined above. The old brain gives rise to the pre-conscious images and inspirations, while the new brain imposes the cognitive filters which interpret the old brain's material in preparation for execution as a piece of art. Accordingly, the paintings created by Len Lye are based on images and ideas which were *not* passed through a conscious cultural filter in the artist's head.

One of the methods used by Lye to short-circuit some of the cognitive processes usually involved in creating fine art is called (by him) "doodling". After many years of self-discipline and practice Lye has learned the knack of allowing his old brain to activate his executive branch directly. By consciously blocking out interpretative thought processes the artist acquired the ability to receive and capture images and concepts directly from his unconscious, or old brain.

Thus far nothing too startling has been said. Lye suggests that we have an old brain which stores vast amounts of emotive imagery and memories, that we have a new brain which limits the expression of such imagery by filtering the stuff through a conscious culturo-psychological screen and that doodles can be generated which are ostensibly the result of allowing the old brain to activate the pencil hand directly, without first subjecting its product to the censoring and modifying interpretation of the new brain. But here we encounter what is indeed a very startling concept, one which Len Lye the philosopher proposes as a key aspect of art, myth, and human values: The old brain, he suggests, contains far more than the accumulated experience (memories) of an individual's lifetime, it is a repository for information potentially dating back into time immemorial, about forms and structures, processes and events, which range from the sub-atomic through the cellular to the cosmic. Lye further suggests that, with training, anyone can establish contact with their own old brain — indeed that all children already have this ability and 'learn' via the new brain to ignore it — and retrieve and portray images from realms beyond the sensory capacity of the individual.

Thus it is that Len Lye portrays in his films, kinetic sculpture and paintings, images and events which reflect powerful natural symbolism and rhythms. Cellular structures such as antibodies, viruses, glial cells, neuronal structures are readily identified, although in many instances they were drawn as doodles, well before they were discovered by science.

Some specific examples will illustrate this. In one instance a lobe-finned fish is depicted in a painting based on a doodle created twenty years prior to the artist's exposure to the discovery of the coelacanth. In another, the imagery shows a mythified version of the origin of plants following the cooling of the earth's crust. In many of his paintings and particularly in one of his films (*Tusalava*) Len Lye actually presciently anticipates *later* discoveries in the realms of blood

chemistry (the antibody-macrophage metamorphosis in *Tusulava*), deep-sea biology (small bubbles as conveyors of food for deep-sea protozoans), high-energy physics (horizontal lightning associated with a volcano), cell biology (the discovery in 1976 of the pin-wheel cell), and many others.

As it turns out, the idea that memories or experiences may have an existence independent of the 'remembering' individuals is not new to science. In biology, the dictum that 'ontogeny recapitulates phylogeny' refers to the fact that the evolutionary stages which an individual's ancestral line underwent are summarized in the embryonic development of the individual. On another level it is clear that certain kinds of socio-biological data (mating, migrating and offspring-related behaviours in particular) are next to impossible to explain without some recourse to information, accessible to the individual, based on supra-individual experience. In his book *The Living Stream*, the naturalist Sir Alister Hardy strongly makes a similar point.

But all this is still merely suggestive. There is now, however, very compelling evidence that memories, or their non-cognitive analogues, really do have an existence independent of the life-span of their (host?) brain. Planarium flatworms were first 'trained' to negotiate mazes and were then put through a blender and fed to other (untrained) flatworms. Controlled experiments showed that worms which ingested 'trained' tissue were better at negotiating the mazes than were those which had ingested untrained tissue. Similar results have been recorded in rat experiments. So it would appear possible that the structure of 'memories' might indeed be accumulated, via the genetic material, in an old brain.

When we couple this possibility with the notion that preconscious concepts and images need not necessarily be limited to those which we are capable of recording and recalling via our senses, we have a creative concept which Len Lye calls the direct recognition of information. One of the better known examples of this phenomenon is found in the history of science, when the scientist Kekule saw the circular structure of benzene as a snake devouring its tail while riding (and dozing) in a carriage. He had vainly tried to determine the structure of benzene and only when properly prepared and decognitized (dozing) did his old brain relinquish the information sought. Len Lye's doodles probably involve a similar sort of non-cognitive information retrieval.

Both method and theory of Len Lye's art have important implications for science, fine art, and human social evolution. The possibility that scientific data at all levels or organization may be directly available via the human old brain is of staggering importance — although it will likely be some time before the scientific establishment is ready to entertain such an idea as part of its armamentarium. The notion that children may be born with access to old brain knowledge, which is subsequently lost due to an emphasis on logical and new brain thinking, could have a profound impact on both art education and

child development theory.

Finally, the faintest possibility that a universal source of knowledge and true understanding may be available to all men is of such deep significance for the survival of human values that Lye's work and philosophy must now be carried forward into other forums for debate.

Len Lye's creations may not fit easily into artistic tradition — but the compelling beauty of his works, the strange and exciting ideas behind their creation, and the profound implications of his visionary philosophy totally transcend traditional boundaries anyway, so that his art can really only be appreciated against a new aesthetic-scientific backdrop such as I have tried to outline briefly in this article. Without going into great detail, I have tried to elucidate those scientific aspects of Lye's work necessary for a fuller understanding of his art. As far as its aesthetic qualities are concerned, however, words are thoroughly inadequate and could not begin to describe the richness of the occasion in store for those who will experience the films, paintings and kinetic sculpture of Len Lye.

Gerhard W. Brauer, M.A.

LEN LYE'S FILMS

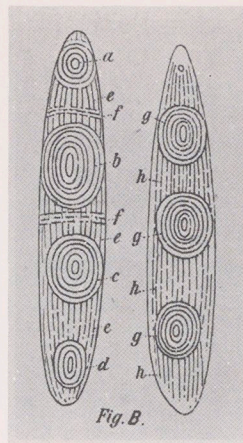
Len Lye is the director of fourteen films of an experimental type, ranging in length from one to nine minutes. There are also about half-a-dozen others which he now regards as 'clinkers' and would prefer to omit from his filmography; and a number of documentaries that Lye directed for the *March of Time* series or for the British Ministry of Information during the war. Even if we limit our attention to the fourteen short experimental films, we find a considerable body of work. Encountering the films for the first time, we may want to dismiss some of them as slight because of the popular dance music on the soundtrack (by groups such as 'The Leucona Cuban Boys') or the advertising slogans ('Cheaper Parcel Post — 3 lbs for 6d'). We may even find the range of visual styles bewildering and conclude that Lye is merely a dilettante, 'a rolling stone'¹, 'a colour playboy'². But a closer look reveals a set of consistent and serious interests underlying the variety of styles. A strong case can be made for considering Lye as an 'auteur', a film-maker who has risen above commercial pressures in developing an original aesthetic. To say that his art is serious is not to say that it is solemn — in fact, the witty and whimsical aspects of the films are a distinctive part of the aesthetic, a kind of 'wisdom wisecracking'³. If we go on to compare Lye's films with his painting, sculpture and writing, we shall find that the same coherent vision underlies the variety of styles and media; but in the present essay we have just time to look at some representative films and to outline the case to be made there for Lye as an original artist.

The idea that the revolution in modern art had still scarcely influenced the medium of film-making was very much in Lye's thoughts when he arrived in London in 1926. He was eager to grapple with the problem; but "I didn't quite know what kind of imagery to carry my (sense of) motion, whether it should be dots or stripes or whatever the form should be"⁴. In London he saw *The Cabinet of Dr Caligari* and a few films by Fischinger, Eggeling and Richter (German experimental film-makers of the 1920s). Lye respected their work as pioneer attempts to create 'fine art' film-making, but neither the Expressionism of *Caligari* nor the geometrical, abstract styles of the other film-makers provided him with the imagery he wanted. He was, however, attracted, as the Germans had been, by the medium of animation. This process of making drawings and then photographing them offered the artist complete freedom to experiment with 'dots or stripes' or any other patterns. But already animation had become dominated by the cartoon, the sort of funny little film with cute characters that slavishly followed the editing conventions of the live-action film. Walt Disney's attitude to the medium is suggested by his remark: 'I dreamt that one of my pictures ended up in an art house and I woke up shaking'⁵. Most of the artistic possibilities were still waiting to be tapped; but any experimenter had to contend with the considerable time and expense

involved, and the lack of an audience. Lye managed to talk the London Film Society into putting up some money, then spent two years making the drawings for *Tusalava*, a nine-minute silent film in black-and-white. He chronicled this period of his life in his book *No Trouble*⁶. He had watched animators at work in Sydney but had not previously done any animation himself. Later he felt that his lack of experience was reflected in the slow tempo of the film, and certainly *Tusalava* seems slow by comparison with the very high speed of his later films, but still it contains a number of interesting rhythms, particularly in the counterpoint between movements on the left and right sides of the screen. The creatures wriggle, undulate, spar and spin. Although his later films would be even more fluid, Lye pours a great deal of energy into keeping all these shapes moving and changing.

Tusalava was conceived as the first of a trilogy of films about 'the beginnings of organic life'⁷. Its central motif is the witchetty grub. 'To get the spirit of the imagery I... imagined I was myself an Australian Aboriginal who was making this animated ritual dance film'⁸. The witchetty grub is the totem of a tribe near Alice Springs which considers grubs to be the ancestors of men⁹. The cocoon-like shape in *Tusalava* (which Lye has described as a 'totem of individuality') can be seen evolving towards human form. Meanwhile it is menaced by a sharp-tongued creature that is 'a cross between an octopus and a spider'¹⁰. In view of the Samoan title of the film (which suggests that 'in the end everything is just the same'¹¹), it seems relevant to note that there is an octopus-like demon (or *aitu*) in Samoan mythology. But it is not possible to be too explicit about the sources of *Tusalava* since Lye was trying to tap the spirit rather than imitate the details of Aboriginal or Samoan art. He wanted to evoke creatures never seen before, having a mysterious life of their own. In *No Trouble* he describes the film both as a 'grub-dance' and as 'life among the microbes'. In recent years he has come to regard *Tusalava* as evidence for his genetic theory, as an intuitive vision of 'antibodies and microphages'.

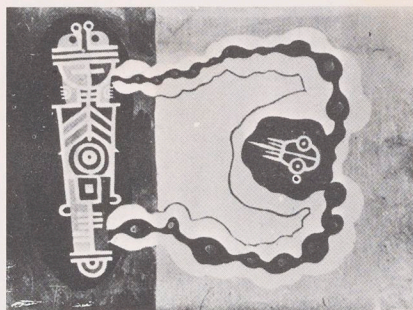
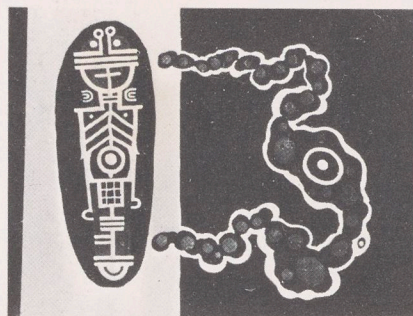
How is such a 'primitive' film to be related to modern art? The connection becomes clear if we retrace the steps by which Lye approached the modern. As a fifteen year old in 1916, he decided to devote his artistic talent to creating an art of movement. Besides making kinetic sculptures, he practised sketching movements of various kinds. He was interested not in conventional imagery but in developing his own forms of 'shorthand notation'; and he wanted to understand movement not only with the eyes but with the whole body. He was fascinated by the physical ways in which people respond to the movements they see, by shifting weight, tensing their muscles, etc. This study could have led him to become a dancer, but he was more interested in the 'projection' of kinetic body-feelings into other media such as film and sculpture. He was drawn to modern art by its enthusiasm for creating new forms — in Lye's terms, finding new imagery to 'carry' the kinetic feelings that could be discovered in



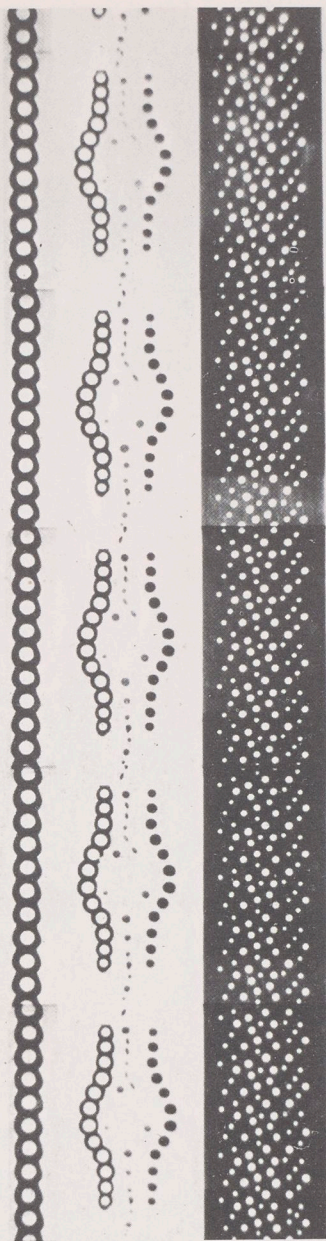
The Churinga nanja of the Itatirpa of the Yarumpa or Honey Ant totem.

- (a) represents the eye
- (b) represents the intestines
- (c) the painting in the stomach
- (d) the buttocks of the men

Plate from Spencer and Gillen, *The Native Tribes of Central Australia*, London 1899.



Sketches used during the animation of *Tusalava*.



Tusalava.

the body — instead of merely imitating familiar forms of nature. As a young man he searched local libraries (in New Zealand, then in Australia) for information about modern art. 'Futurist paintings and construction fired me on the subject of imagery'¹². He was even more excited to discover primitive art: 'I thought the primitive imagery . . . much more vital and more appealing than Western art'¹³. Many modern painters and sculptors have been 'fired' by tribal art, but it is not so easy to see why an artist with a special interest in motion should be attracted by this static imagery. An explanation may be found in Lye's special way of interpreting tribal art. He saw it as the work of people very much in touch with their own bodies, whose artistic 'distortions' were a way of expressing body feelings and other deep insights. Dancing was one form of tribal art that explicitly involved movement; and it was not an experimental film that persuaded Lye to become a film-maker, but Frank Hurley's popular documentary *Pearls and Savages* (1921) which recorded Papuan dance rituals. It is not surprising then, that Lye conceived of *Tusalava* as a 'ritual dance film'; and the two films he has just completed today, fifty years later, use tribal drum music for their sound tracks,

In *Tusalava* Lye combined tribal art and modern art in his own way. 'The drawings are flat with a two-dimensional movement. They are hard and definite'¹⁴. Apart from the hard edges and shallow space, Lye's organic and primitive images were strikingly different from the abstract, geometric styles favoured by Fischinger and other leading experimental film-makers of the period.

Tusalava was screened by the London Film Society in 1929, but this appears to have been its only public screening. Lye 'created hundreds of plans' for the other parts of the trilogy¹⁵ but he could not raise the necessary finance. Six years elapsed before his next film, *Colour Box*. An audience that views *Colour Box* immediately after *Tusalava* is likely to be startled by the difference of style. But during the six years Lye had continued to develop as a painter and had done a great deal of batik work, and in the course of this he had shifted away from 'hard and definite' images towards a freer, more calligraphic style. This freer style had little in common with the avant-garde art around him in London (which in the case of painters such as Ben Nicholson was becoming more geometric) but it had interesting affinities with the painterly wing of the European Surrealist movement, particularly the work of Joan Miró. The free-wheeling, doodled style of *Colour Box* reflects this development. It is not a complete change, however, since Lye had always had an interest in doodling, and although the influence of tribal art is no longer explicit in his films, he himself felt that there were strong affinities between that sort of art and the most creative types of doodling.

Colour Box is a 'direct' film, a film made without a camera by directly painting the celluloid. In recent years there has been some debate about who created the first 'direct' film, with critics putting forward the names of Arnaldo Ginna, Bruno Carra, Hans Stoltenberg, Henri

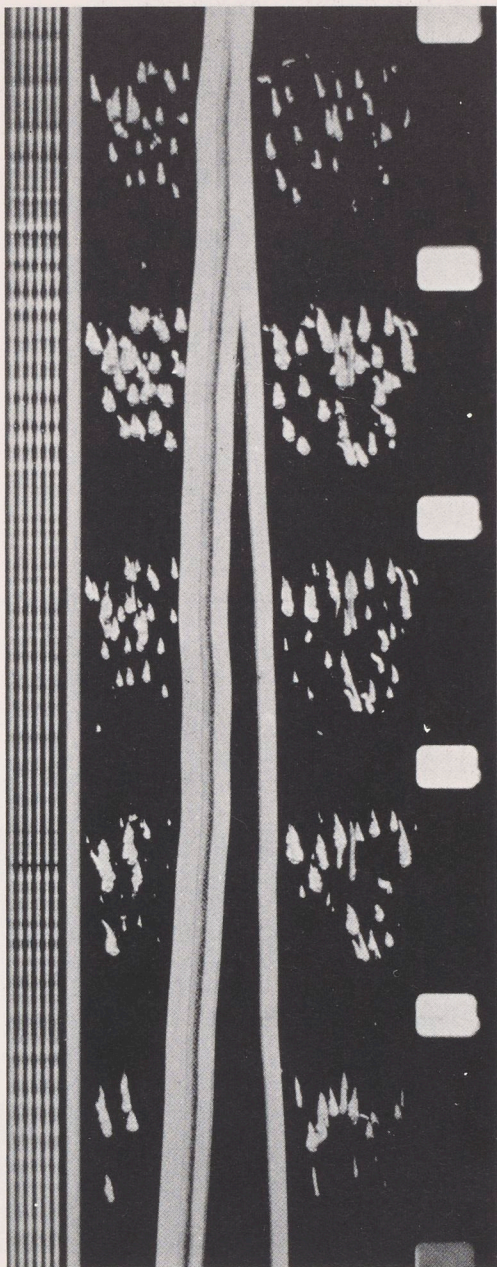
Stork and Man Ray¹⁶. Unfortunately several of the films that would settle the debate have been lost. Even if earlier examples are found, Lye should still be honoured as a key figure in the development of 'direct' film-making because he made his own separate discovery of the process; and in *Colour Box* and the films which followed (such as *Colour Flight*, *Swinging the Lambeth Walk* and *Musical Poster #1*) he developed it with so much imagination and thoroughness that once and for all he opened up this area of film-making for others to follow. His original discovery may have been a lucky accident — he could not afford to use a camera, but he could get free off-cuts of film to 'scratch and paint and mess around with'¹⁷. It was no accident, however, that he understood the possibilities, since the medium suited his artistic interests. The fact that images painted or scratched directly onto film are always a little unsteady makes them unsuitable for any artist working with precise, geometric forms. But Lye, who was interested in rapid doodling, saw this vibration or 'jitter' as something positive, as a form of energy. In *Colour Box* he no longer used lines to define the boundaries of objects, but freed them to wriggle and jump independently. This sort of film-making involves an element of chance, but the element can be closely controlled. On the whole, this is the most personal method of making a film since one person can shape it directly with his or her own hands, without requiring camera equipment or a team of assistants.

Colour Box would have reached as small an audience as *Tusalava* if Lye had not won the support of John Grierson, a resourceful producer who agreed to promote the film if lively music and a few advertising slogans were added. Fischinger had used this tactic to get his abstract films screened in German cinemas, and there was at least one English precedent¹⁸. "From then on," says Lye, "I got one or two films a year from the General Post Office (Grierson's film unit) which kept me going"¹⁹. He was not embarrassed about adding popular music because he felt that at its best, such music had the sort of body energy that classical music had too often neglected, the body energy that he admired in tribal dancing. Lye saw his visuals as "a vicarious form of dance" to the music²⁰. Today this sound track music sometimes seems almost trivial, but it serves as a starting-point for complex visuals "just as a rigid tune is the foundation on which a musician arranges, orchestrates and improvises"²¹. The advertising slogans are more difficult to accept, not just because the slogans are prosaic, but also because the need to have them stand out clearly from the back-ground conflicts with the fluid sense of space and imagery. Still, Lye did as much as he could with the words by constantly changing their colours and textures, moving them round the frame, inserting them in rhythmic bursts, etcetera.

"Each film I got from the G.P.O." says Lye, "I tried to interest myself in it by doing . . . something not previously done in film technique"²². In *Rainbow Dance* (1936) and *Trade Tattoo* (1937) he experimented with the new colour processes Gasparcolor and Technicolor. Although the



Colour Box.



Free Radicals.

results were very different from *Colour Box*, they reflected a similar interest in colour and a similar desire to be involved in all stages of the film process. Perhaps the main challenge that Lye set himself in these films was to take live-action material and to transform it so thoroughly (by manipulating the three colour matrices and making matte superimpositions) that the photographed footage lost its predictable qualities and gained some of the subtleties of modern art. He kept changing the images from representation to abstraction; and in terms of depth he gave these two films a complex, shallow space in which he played with the whole 'dimensional' range of visual imagery . . . 3, 2½, 2D²³.

The sharp-edged and tightly controlled images of *Trade Tattoo* are at the opposite end of the scale to the doodled, biomorphic images of Lye's earlier work, but this later film displays the same energy, humour and visual daring. He is particularly successful this time in combining words with images. The give-and-take between the music and the visuals is also very cunning; as in the case of *Colour Box*, it is the relationship based on counterpoint, not just accompaniment. *Trade Tattoo* is a far more edited film than *Colour Box*, but its use of jump-cuts and its complex matte work help to subvert the orthodox editing conventions. "I've always wanted to get out of the D.W. Griffith technique", Lye has said (in reference to the director who first clearly formulated those conventions). "To me, all film is D.W. Griffith"²⁴

In *Colour Cry* (1952) he displayed another method of defying Griffith and avoiding the camera. The 'shadowcast' process (pioneered in the 1920s by a few film-makers such as Man Ray) involves stretching out a length of film in the dark, placing on it a stencil or some stencil-like material, and a coloured gel, then momentarily exposing the film. By repeating the process with other stencils and gels it is possible to build up complex textures and colours. As in 'direct' film-making, there is an element of controlled chance. The shadow-cast imagery of *Colour Cry* has a 'look of blood cells, white blood cells, nerves, ganglions, tissue, marrow, skein, skeletal, etc.', which pleased Lye because he had not consciously planned these 'organic' associations²⁵.

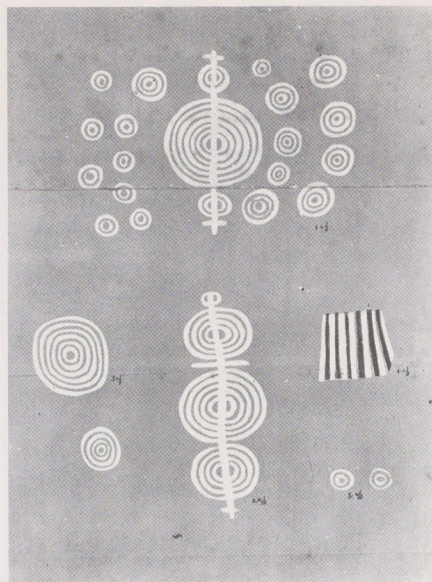
In *Free Radicals* (1958) he put aside his interest in colour and concentrated on a stark, black-and-white use of the 'direct' film method. He has described it as 'white ziggle-zag-splutter scratches on black 16mm film in quite doodling fashion'²⁶. The title, which refers to particles of energy, may suggest a change of interest from biology to physics, but in fact Lye's concern with movement has always been a celebration of energy, wherever he finds it, in plants, people, 'particles and planets' (as he wrote in 1930)²⁷. *Free Radicals* and the subsequent film *Particles in Space* (which grew out of the same material, originally named 'Anions' or negative ions) make this old pre-occupation with energy more explicit. Charles Olson's conception of art seems particularly relevant here: the artist transfers energy from wherever he gets it, by means of an energy that is peculiar to the medium of film, over to the viewer who taps that energy in his or her own way. *Free*

Radicals brings out the special energy of the medium very directly, since film is essentially a process of shaping light in darkness.

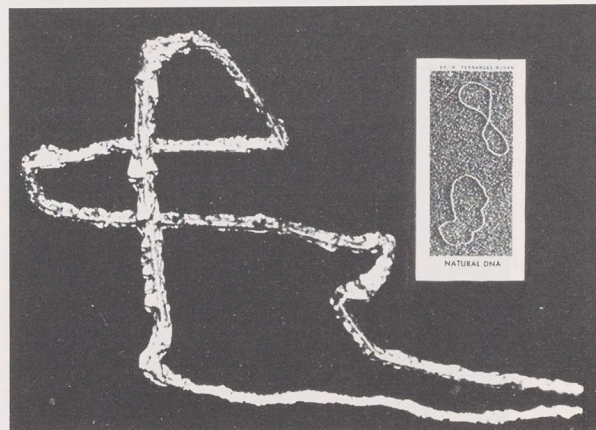
Just as energy takes many forms, *Free Radicals* can be understood in many ways. It makes us think, for example, about writing — not about particular messages but about the activity of writing itself. The film reflects Lye's interest in doodles and graffiti, and also the sophisticated use of word 'vibration' in his advertising films. Another process that the film evokes strongly is dancing, from a graceful gliding or spinning to an abrupt leaping. Dancing is a frequent association in Lye's 'direct' films where lines sway to music, not symbolising a dancer directly but creating a kinetic feeling that we can associate with body movement. Yet another process that the film suggests is lightning, the crackle of light energy in the night sky, relates to the thunder of drum music. Considered as forms of energy, the three processes of writing, dancing and lightning are not as different as they may have seemed.

Visually, *Free Radicals* has a great deal in common with Lye's earlier direct films — lattice patterns of blobby dots; sudden shifts from left to right or from horizontal to vertical, 'streamer' effects of lines drifting from one side to the other; flat images suddenly contouring and creating a shallow three-dimensional space; forms constantly changing, concertina-ing, spinning, turning inside out; and so on. But the later film is more austere and has a greater strength and maturity. Nevertheless, Lye was not entirely satisfied with the 1958 version and has since recomposed it. He has also just completed *Particles in Space* in which he focused on "a smaller, more compact zizz of energy than I'd ever got before on film".

The list of visual effects in the previous paragraph suggests some possible connections between Lye's films and his sculpture. Rather than open up that large topic further, however, I shall end with a few remarks about his recent paintings and genetic philosophy, which will bring this essay back to its starting-point, the film *Tusalava*. Lye's aesthetic interests have not basically changed in recent years but he has tried to formulate them in a more explicit way and to back them up with a solid body of theory. Artists who have experimented with doodled biomorphic imagery (such as Paul Klee) have often sensed a mysterious relationship between the inner and outer worlds. Lye talks of doodling in this way, as a method of descending to a level at which the distinction between nature and one's self seems to disappear and freer interchange can take place. He explains this by the fact that our bodies are literally part of nature, and the history of evolution is encoded within each of us. He believes that the artist who is able to get in touch with the primitive or unconscious part of the brain can gain access to this information about nature — about human evolution and the innermost workings of the body. Lye sees the break-through to this genetic level as a form of religious experience since it relates the individual to something larger than himself — nature and evolutionary values. His art has thus become more religious, which is not to say that it has become solemn or unworldly. His conception of the artist today



Churinga Ilkinia or sacred rock drawing of a group of the Honey Ant Totem in the Warramunga tribe. Plate from Spencer and Gillen, *The Native Tribes of Central Australia*, London 1899.



Still from *Free Radicals* 1958 compared by Len Lye to the formation of the DNA molecule.

has a great deal in common with tribal art. The members of an Aboriginal clan shared a common myth about the beginnings of life. Lye seems to see modern genetic theory as an 'origin' story which the whole human race can share. In his recent paintings he has created images of mysterious totem figures, evolutionary ancestors, creatures from the Dreamtime. In painting them he seems to have been less concerned about formal artistic values than about producing images with an intriguing or numinous quality. The paintings are reminiscent of the witchetty grub 'origin' story in *Tusalava*, and indeed one of them takes an image directly from the film. Stylistically, the paintings seem to return to the 'hard and definite' style of the 1920s and early 1930s, except for a few such as *Rain Tree* which include freer brushwork reminiscent of the direct films.

To exhibit the paintings together with a selection of Lye's films highlights the wide range of imagery which his work encompasses. As I have tried to suggest, however, there is a consistent and serious set of interests underlying the variety. Lye has continued to seek new ways to express those interests, working out his own special synthesis of tribal art and modern art.

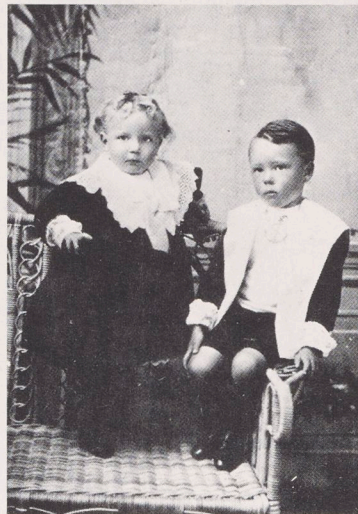
Roger Horrocks.

REFERENCES

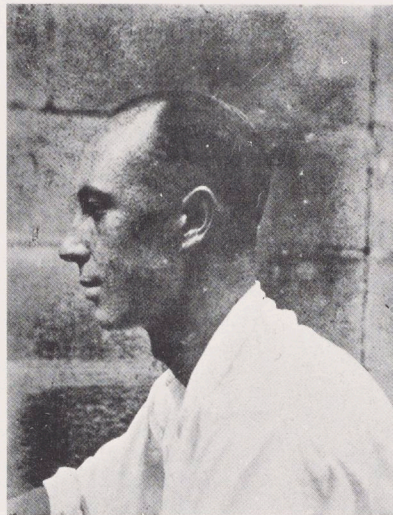
- 1 Ernest Anstey in *Experiment in the Film*, ed. Roger Manvell, London, Grey Walls Press, 1949, p.249.
- 2 Len Lye, quoted in *Film as Film: Formal Experiment in Film 1910-1975*, London, Hayward Gallery, 1979, p.54.
- 3 Len Lye, 'Song Time Stuff' *Life and Letters Today*, Vol. 18, No.11, (Spring 1938), p.78.
- 4 'Ray Thorburn Interviews Len Lye' *Art International*, April 1975, p.65
- 5 Quoted by Ralph Stephenson in *The Animated Film* London, Tantivy, 1973, p.47.
- 6 *No Trouble*, Majorca, Seizin Press, 1930. See extract in *Cantrills Filmnotes*, No.29-30 (February 1979), pp.41-42.
- 7 See *No Trouble* and Oswald Blakeston, 'Len Lye's Visuals' *Architectural Review*, July 1932.
- 8 Lye, quoted in Joseph Kennedy, 'Len Lye — Composer of Motion'; *Millimeter*, Vol. 5 No.2, 1977, p.18.
- 9 See Baldwin Spencer and F.J. Gillen, *The Native Tribes of Central Australia*, London, MacMillan, 1899, which I suspect may have been Lye's source.
- 10 From an interview with Wytan Curnow, to be published in *Art New Zealand*. See extract in *Cantrill's Filmnotes* No.29-30, (February 1979), pp.38-40.
- 11 Ivor Montagu, *Film World*, Baltimore, Penguin, 1964, p.260.
- 12 Letter to W. Curnow, September 1979.
- 13 Gretchen Weinberg, 'Interview with Len Lye', *Film Culture* No.29, (Summer 1963), p.41.
- 14 *No Trouble*, p.12.
- 15 Blakeston, op. cit.
- 16 See Malcolm Le Grice, *Abstract Film and Beyond*, London, Studio Vista, 1977, and William Mortiz's essay in *Film as Film: Formal Experiment in Film 1910-1975*, op. cit.
- 17 *Millimeter*, p.20.
- 18 See Deke Dusinberre, *The Other Avant-Gardes*, in *Film as Film: Formal Experiment in Film 1910-1975*, p.54
- 19 Weinberg, p.42.
- 20 *Dance Perspectives*, No.30, (Summer 1967), p.41.
- 21 Len Lye, 'Voice and Colour', *Life and Letters Today* Vol. 14, No.3, (Spring 1936), p.165
- 22 Weinberg, p.42.
- 23 *Dance Perspectives*, p.41.
- 24 'Len Lye Speaks at the Film-Makers' Cinematheque', *Film Culture*, No.44, (Spring 1967), p.50.
- 25 Letter to W. Curnow, September 1979.
- 26 'Why I Scratch' (unpublished manuscript).
- 27 *No Trouble*, p.27.

CHRONOLOGY

- 1901: Born 5 July, Christchurch, New Zealand
- 1915: Attended H. Linley Richardson's evening art classes at the Wellington Technical Institute.
- 1917: A developing interest in an art of motion led to the making of wooden constructions with moving parts.
- 1919: Studied briefly at the Canterbury College of Art, Christchurch, under Archibald Nicoll. Did commercial art work for the Christchurch Sun
- 1921: Left New Zealand for Sydney, Australia. Picked up animation techniques working for Garnet Agnew's film company which made screen advertisements. Saw Hurley's *Pearls and Savages*, a documentary on tribal life in Papua/New Guinea, which fired his interest in film-making.
- 1922: Returned to New Zealand.
- 1923-24: Visited various Pacific Islands and settled in Western Samoa.
- 1924: Returned to Sydney.
- 1925: Did labouring work in the Australian outback. In Sydney, met the sculptor Rayner Hoff, and Jack Ellit, later sound editor for several of Lye's London films.
- 1926-27: Worked his passage to London as a stoker on the liner *Euripedes*. Met Eric Kennington, Robert Graves, Laura Riding and Ben Nicholson. Lived on a barge on the Thames, lent by Kennington and A.P. Herbert (1927-1930). Was guest exhibitor with the *7 and 5 Society* (1927).
- 1928: Proposed by Nicholson, seconded by Christopher Wood, became a member of the *7 and 5 Society*. Exhibited sculpture and his first batik paintings. Regular exhibitor until 1934. Completed his first film (animated), *Tusalava*, which was shown at the London Film Society.
- 1929: London Film Society workshop with Richter and Eisenstein.
- 1930: *No Trouble*, a selection of his letters, published by the Seizin Press (Graves and Riding). Designed book covers for the Seizin and Hours Press (Paris) 1930-31.
- 1933: Began experiments in the 'direct' film technique of painting and scratching directly on film.



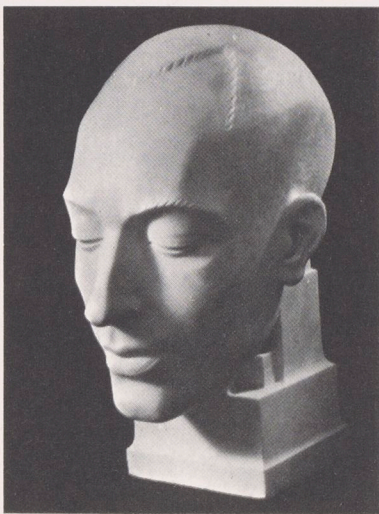
Len Lye (right) and his brother Philip, Lyttelton circa 1904-5.



Len Lye, Sydney 1925. Photograph by the brother of G. Rayner Hoff; a study for the sculptor's marble portrait of Lye.



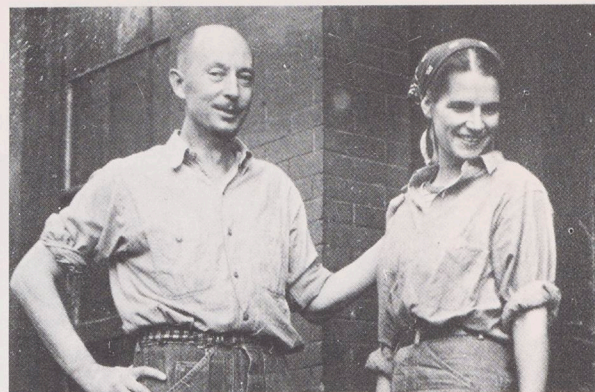
Len Lye, Jack Elliot and Celindine Kennington, London circa 1928-32.



G. Rayner Hoff *Len Lye*, circa 1925, marble.
Collection: Art Gallery of New South Wales.

- 1935: *Colour Box*, his first 'direct' film, released by John Grierson's G.P.O. Film Unit, the first of several Lye films sponsored by the Unit. It received a special award at the 1935 Brussels International Film Festival. First essay on film appeared in *Life and Letters Today*. Other essays and experimental prose published there, 1935-39.
- 1936: Participated in the London *International Surrealist* Exhibition.
- 1937: *Trade Tattoo* was released by the G.P.O. Film Unit.
- 1940: *Musical Poster # 1*, first of several films for the British Ministry of Information. Contributed to the British surrealist magazine *London Bulletin*.
- 1944: Appointed director for the *March of Time* news documentary film series. Completed nine films before the series ended in 1951. Emigrated to the United States. Worked on developing a theory of art, a concern which extended from 1936 until his death.
- 1951: Returned to experimental film-making, using shadowgraph techniques which led to *Color Cry* (1952) and scratching on black film leader which led to *Free Radicals* (1958). A selection of films shown at the Venice Film Festival.
- 1953: *Rhythm* won the New York Screen Directors Guild prize for a one minute TV commercial.
- 1958: *Free Radicals* completed. It won second prize at the 1958 Brussels World Fair International Film Competition. Went 'on strike' as a film-maker, citing the absence of financial support for experimental film-making. Took up kinetic sculpture.
- 1961: An evening of his 'Tangible Motion Sculpture' presented at the Museum of Modern Art. Included in a group show at the Leo Castelli Gallery. Included in major international kinetic art show at the Stedelijk Museum, Amsterdam.
- 1964: Included in 'On the Move', kinetic art at the Howard Wise Gallery, New York.
- 1965: Seven works featured in 'Kinetic and Optic Art Today' at the Albright-Knox Gallery, Buffalo. First one-man show at the Howard Wise Gallery, New York. One-man show at the Contemporary Art Center, Cincinnati. Films shown at the *Festival of the Avant-Garde*, Judson Hall, New York.
- 1966: Included in 'Directions in Kinetic Sculpture', University Museum, Berkeley, 'Sound Light Silence' at the Nelson Gallery — Atkins Museum, Kansas City, and the 68th American Exhibition at the Art Institute of Chicago. Lectured on film-making at New York University.

- 1967: Included in 'American Sculpture of the Sixties' at the Los Angeles County Museum, the 'Annual' at the Whitney Museum of American Art, New York, and constructed *Windwand* for the Toronto International Sculpture Symposium. With John Cage, Merce Cunningham, Jack Tworokov, Billy Kluver, Stan Van Der Beek, and Robert Creeley, took part in a New York State campus lecture tour. *Tusalava* shown at the World Retrospective Animation Festival, Montreal. Gave lecture at University of California, Berkeley.
- 1968: Gave lectures (with slides, tape and film) at the 2nd Buffalo Festival of the Arts Today, at the Animal Institute of Genetics, University of Edinburgh, and at the Cambridge Animation Festival 68, Cambridge, England, on connections between art and genetics. Revisited New Zealand for the first time 1968-69.
- 1969: Included in 'Kinesthetics', Howard Wise Gallery.
- 1975: Elected President of the Jury at the International Animation Festival, Annecy, France.
- 1976: Included in '200 years of American Sculpture' Whitney Museum.
- 1977: One-man show of sculpture and films at the Govett-Brewster Art Gallery, New Plymouth, New Zealand. Returned to oversee the installation of the exhibition. Resumed painting.
- 1978: Included in 'Dada and Surrealism Reviewed', Hayward Galleries, London
- 1979: Exhibition of films and sculpture at the National Art Gallery, Wellington, New Zealand.
- 1980: Establishment of the Len Lye Foundation.
May 15. Died at his home in Warwick, New York.



Len and Ann Lye, New York 1948.

CATALOGUE

The catalogue notes to the 1977 and 1978 paintings have been prepared by Len Lye.

All measurements in millimetres, height before width.

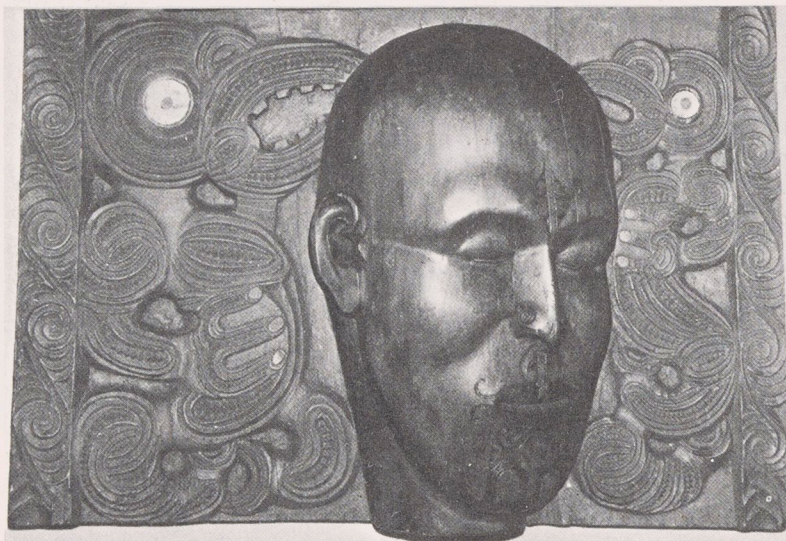
PAINTINGS

Polynesian Connection 1928-9

batik on linen 935 x 1412

On loan from Bix Lye

Earthy in colour — red ochre, indigo and pale ochre — like the Maori taniko cloaks, with a distinctly Polynesian flavour, this is a seminal work embodying a number of polarities (sexual, psychological and cultural) which are fundamental to Lye's art and philosophy. The lizard-like figure in the upper left compartment is reminiscent of manaia (contorted figure with face in profile) of Maori wood carving, while the oval shapes strung together, like beads on a string, bear a striking resemblance to some painted designs on Australian Aborigine wooden shields. Painted at the same time as Lye was working on *Tusalava*, his first animated film, this batik is closely related to the stencilled images of the film both in its compartmentalisation and formalism.



Maori carving (detail) from the National Museum, Wellington.
Photograph by Ron Brownson.



Pond People 1930

batik on silk 985 x 1450

On loan from Yancy Lye Lindenhahn

Pond People is considerably more fluid and assymetrical than *Polynesian Connection*. Nevertheless they are compositionally related, in their inner and outer compartments, dividing walls, and primary figure (in this case decidedly masculine) and surrounding fertility motifs. *Watershed* is stylistically connected with this present work. *Pond People* is based on a photogram Lye made by pressing plasticine onto unexposed photographic paper before exposing and developing it.

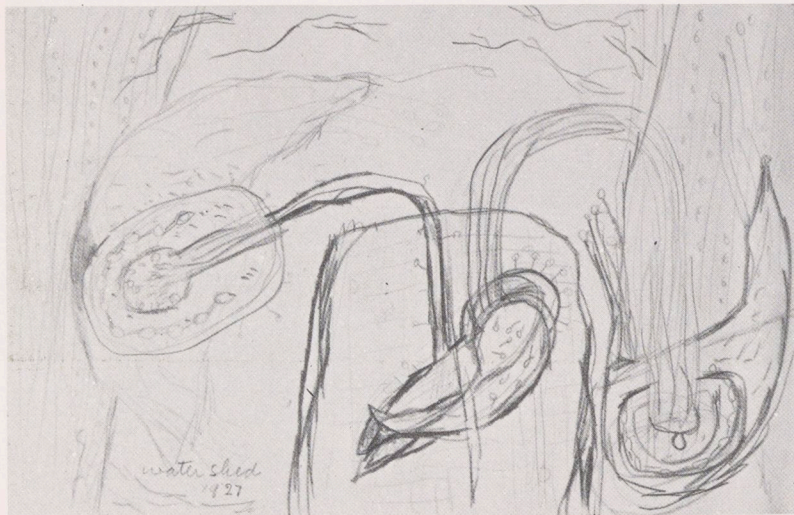


Watershed 1932
batik on silk 920 x 1432
On loan from Bix Lye

Lye's favourite painting and the only one that has so far eluded his interpretation — it teems with life symbols; vulva, spermatozoa, ovum, water. Fleshy pinks and watery blues and greens are the dominant colours. The recto has significantly faded over the years. However, because the dyes which have saturated the fine silk are comparatively fresh on the verso the batik has been reversed for exhibition. The catalogue illustration shows the richer colours of the verso, although the image has been righted by flipping the transparency.



Pencil doodle, circa 1930, symbolically illustrating the life cycle.



Pencil doodle, 1927, related to *Watershed*.

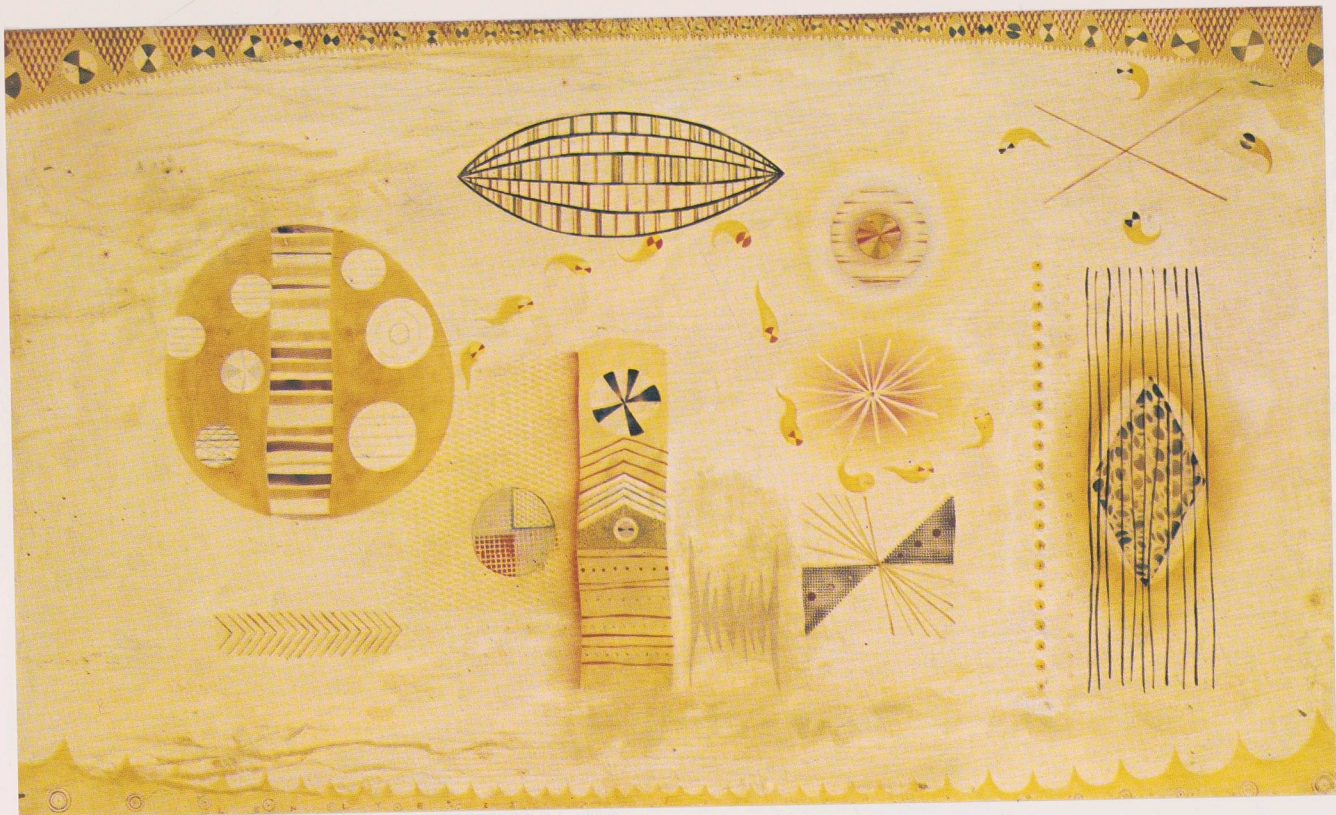


Ice Age 1936

sprayed lacquer on plywood 1271 x 762

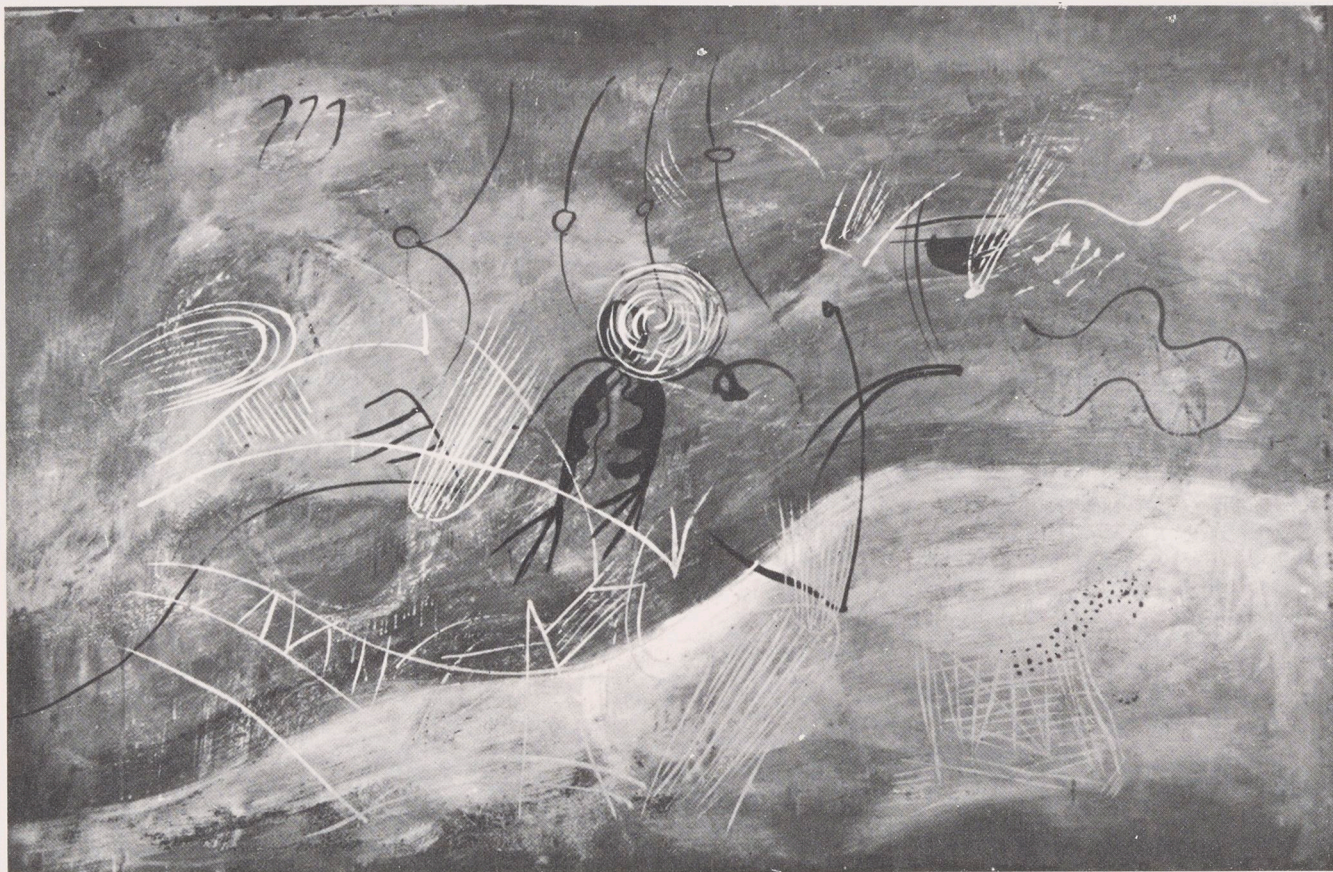
Inscriptions: As in the artic I sieve the sun with thoughts.

In sharp contrast to the bright, expressionistic batiks, this is a restrained and delicate painting executed throughout by spraying pigment powder in a lacquer medium through stencils, a technique Lye had previously used in some of his animated films. In 1969, after reading a New York Times scientific report on polar climatic changes effected by sunspot activity, Lye identified the "Kleeish gang of images" as evolutionary symbols of refrigeration.



Snow Birds Making Snow 1936
oil on hardboard 943 x 1448 (sight)

An exceptionally exuberant yet refined painting strongly reminiscent of prehistoric cave drawings, both in the rock colours of its background and in its elegant linear forms. Shortly after arriving in London in 1926 Lye spent time copying the cave paintings reproduced in displays at the Victoria and Albert Museum. Both this painting and the stylistically related painting *Helium* contain intimations of the dynamic calligraphy of Lye's direct film *Free Radicals*.



Fern People 1946

oil on plywood 925 x 1426

Inscriptions: Here is the two-some balance of organic growth
male-female and female-male. Like Cow dung is foodwaste for
soil and dried damped on soil gets penicillen (*sic*) a bottle or two
So these two first Fern people were and arranged frond-growth
and fern-going spring-tension in stems. The rest of the scene
against wall rock is to do coitt-pollen and so on, for plant
intestinal evolution mandrakes in NZ.

Painted shortly before *Lagoon Pond*, which it closely resembles in its
convoluted forms, *Fern People* shows the unmistakable influence of
Maori art; especially in its curvilinear designs, some of which recall the
Maori koru, a bulb-like motif shaped like the top of an uncurling fern
frond.



Lagoon Pond 1947

oil on cardboard 432 x 688

On loan from Ann Lye

Inscriptions: "Lagoon Life" or lagoon pond

Originally called *Martha's Vineyard* (where it was painted) this work depicts a personification of coral in the centre with a primitive amphibious fish to the right. The lobed creature, which Lye belatedly identified as a coelacanth, was later transformed into the large painting *Ancestor*. Lye describes this and other small paintings as 'oil doodles'.



Tree People 1947
oil on cardboard 471 x 560

Near the top of the painting is "a cloud of blood and the blood is raining down on trees and the trees are turning into people — they're losing their roots . . . the kind of three-headed centipede down below on the right is the first intimation of some kind of insect or snake around in this Garden of Eden". The trees here relate closely to the primary form in *Raintree*.



Red Clay 1948

oil on card, laid on plywood 472 x 559

"The red clay is really a red clay bank . . . with the sun shining very intensely at it, and it's being soaked — this clay — in ultraviolet light. On the right . . . is a watershed, a reservoir of water. Even in this little tiddly-wink painting I am putting an imprint of something that does relate to evolutionary values . . . symbolically kind of illustrated." Lye's interpretation was prompted by a scientific report in the New York Times (October 1977) headed 'Clay on shores of ancient seas viewed as key to origin of life' which describes how about four billion years ago tidal pools, acted on by lightning or ultraviolet radiation, produced organic compounds from which the first living things were eventually formed.



God of Light (The Big Bang Man) 1977
acrylic on canvas 2111 x 2193

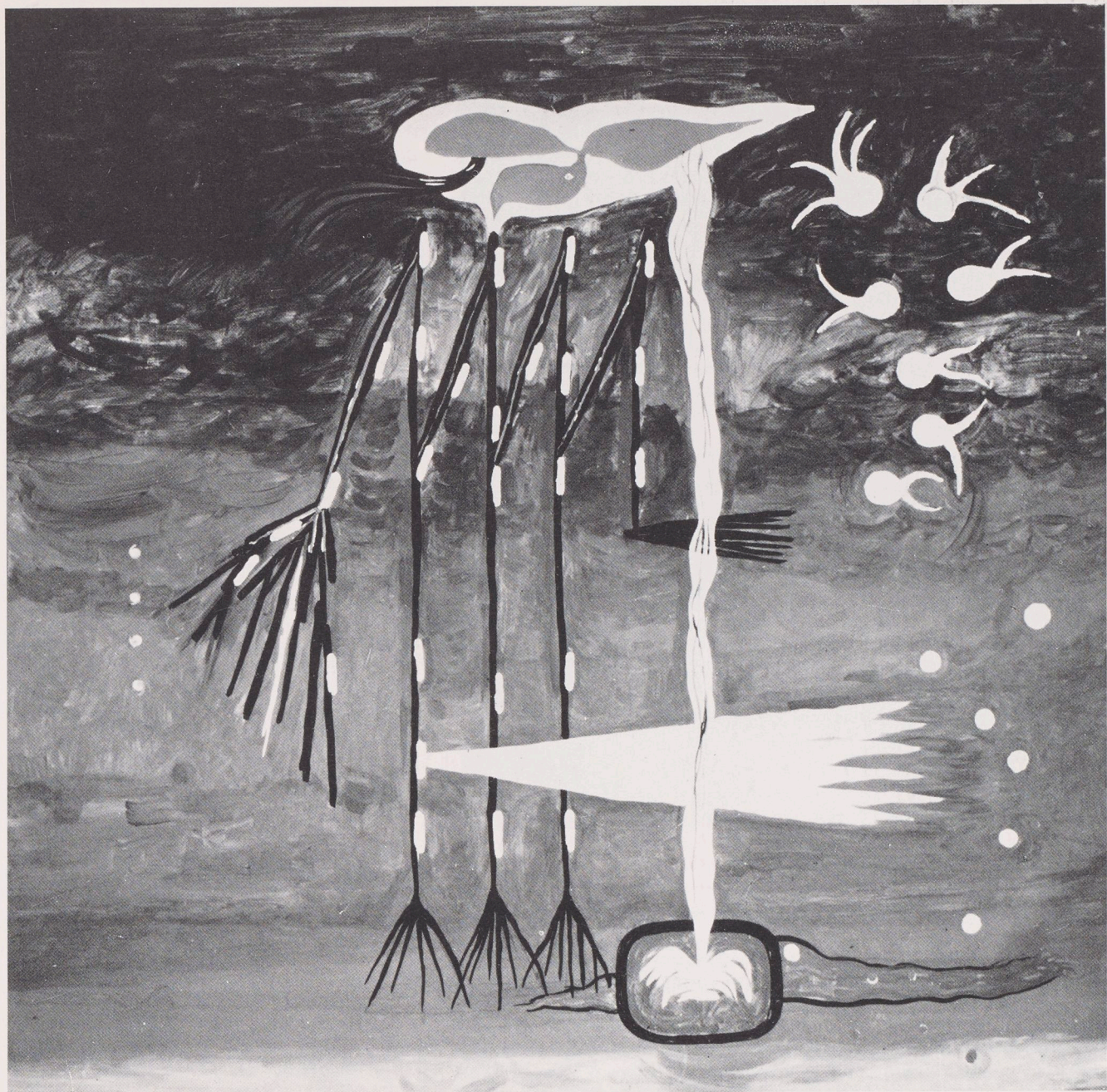
This blow up of a pencil doodle was taken from an opaque watercolour which was exhibited at the *7 and 5 Society's* group show in 1933. It was then called *Cagn, who made things*. Cagn is the name of an African Bushman god. In keeping with my unconscious symbolizing of energy I came to call the figure *God of Light*, when I came to blow him up from a photograph to 7 feet by 7 feet in 1977. I still have the 1933 doodle, but not the watercolour sketch photographed. The God of Light is stirring colours with an eye swizzle stick. He might even be stirring the explosive for the Big Bang.



Cagn 1933, pencil doodle.



Cagn who made things – like light and chlorophyll 1933, gouache.



Land and Sea 1977

oil on canvas 2743 x 1829

Without being aware of what was happening I believe I had been training the old, or early evolutionary, part of my brain to tap different layers of genetic information in biology and physics. This, I thought was evident in prescient illustrations of energy, molecules, pinwheel cells, and so on.

My belief is based on the factual aspect of details in my paintings, in this case the bits and pieces of prescient information illustrated in the composition of *Land and Sea*.

Deep Sea Bubbles

In 1964 four marine biologists working out of Woodshole, Mass., discovered how come tiny protozoans survived at tremendous ocean depths where no organic food obtained. Puzzle: from where did the protozoan get their eats? Solution: directly from energy generated on the surface of deep sea bubbles. Something seemed familiar; I got out my painting and if I could goseepimple I'd have goseepimpled.

Sure enough, the painting could serve as a literal representation of minute bubbles and electrical charges "that gathered on bubbles deep in the sea", as the report said. It seems that trillions of miniscule bubbles are trapped in the ocean depths after storms; I had depicted small bubbles crowning an oval figure rising out of the sea.

Complex Molecule

The scientists figured that such energy-forming mechanisms could, over the millions of years become self-replicating, so: life. My painting showed the cross-section of an oval-shaped sea creature with concentric ovals. It could readily serve as an illustration of a 'complex molecule'.

Energy Particles

The large 'bubble' molecule shows electrical energy signs running around its concentric oval interstices, all zig-zag.

Lightning

Scientists discovered that the earth's energy alone accounted for the horizontal lightning from a volcano rising up out of the sea to form the island of Surtsey, off the coast of Iceland. Again, I looked up my painting. The central feature of its composition was, I saw, horizontal lightning. Its zig-zag stroke joined the oval-shaped sea protagonist figure to a cave-shaped protagonist of the land.

Magnetic Poles

My early sketches for the painting's composition showed two circular forms with arms of rays. I retained these forms throughout all the stages of the composition and called them 'electric cores'. Some forty years later I read that the two changing magnetic fields of the earth had a marked effect on early evolutionary life — some species becoming extinct, others, mutated.

I felt I was right in retaining my two 'electric cores' but that I would

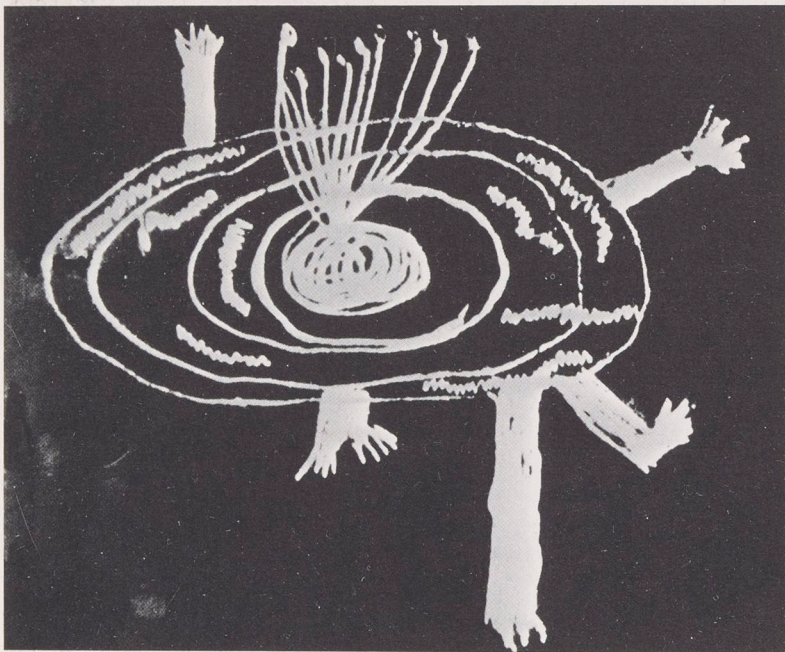


Lightning in Surtsey volcano.
Photograph S. Jonasson — Science Magazine.

have been more correct if I had called them magnetic fields, or poles. By the way, the poles change from negative to positive every 100,000 years or so. When one is over the other they cease to serve as the earth's shield from ultraviolet rays. These affect the genes.

Pinwheel Cell

A pinwheel cell was discovered for the first time in a human organism by Dr Russel Sherwin, I believe in 1976. He thought it was a regression to an early stage of cellular development. It seemed familiar but when I



Pencil doodle (negative) relating to *Land and Sea*.

tried to match it up with my oval sea-shape it didn't match. It didn't match because the pinwheel cell had a wall that spiralled out from the centre while my sea form was a set of concentric ovals without spirals of any sort. I went back to my original doodle; sure enough its walls spiralled out from the center, and both spirals unwound in the same direction.

Throughout my 'old' brain's collaboration with my 'new', I have never allowed my new to hurry my old. In keeping with this principle it took about ten years for me to relate the existence of a supposed vestigial pinwheel type of cell to the old brain information in *Land and Sea*.

It occurs to me that vestigial cells left over from evolution, such as the pinwheel cell or, for that matter, the radio particles left over from the Big Bang which permeate the universe and, for that matter again, which are no doubt prevalent in our organic organisation of energy and, therefore, come into the old brain's evaluations.

It was the great naturalist Luther Burbank who was said to have said, "The whole story of man's evolution is contained within man himself". The story starts with the Big Bang. I believe that with the right temperamental conditions of self-replication the *whole* story can be divined by the old brain and transposed into modes of communication, such as, mathematics, art, behaviour; its truths felt in art, its facts unravelled by science.



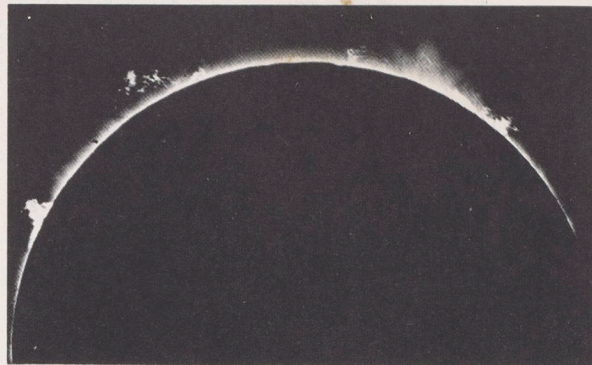
Electron microscope photograph of a pinwheeling cell.



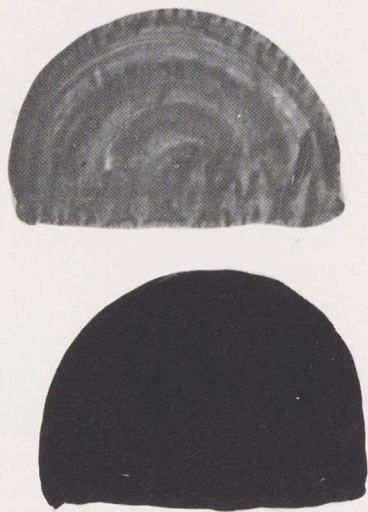
Day and Night 1978

acrylic on linen 2138 x 2419

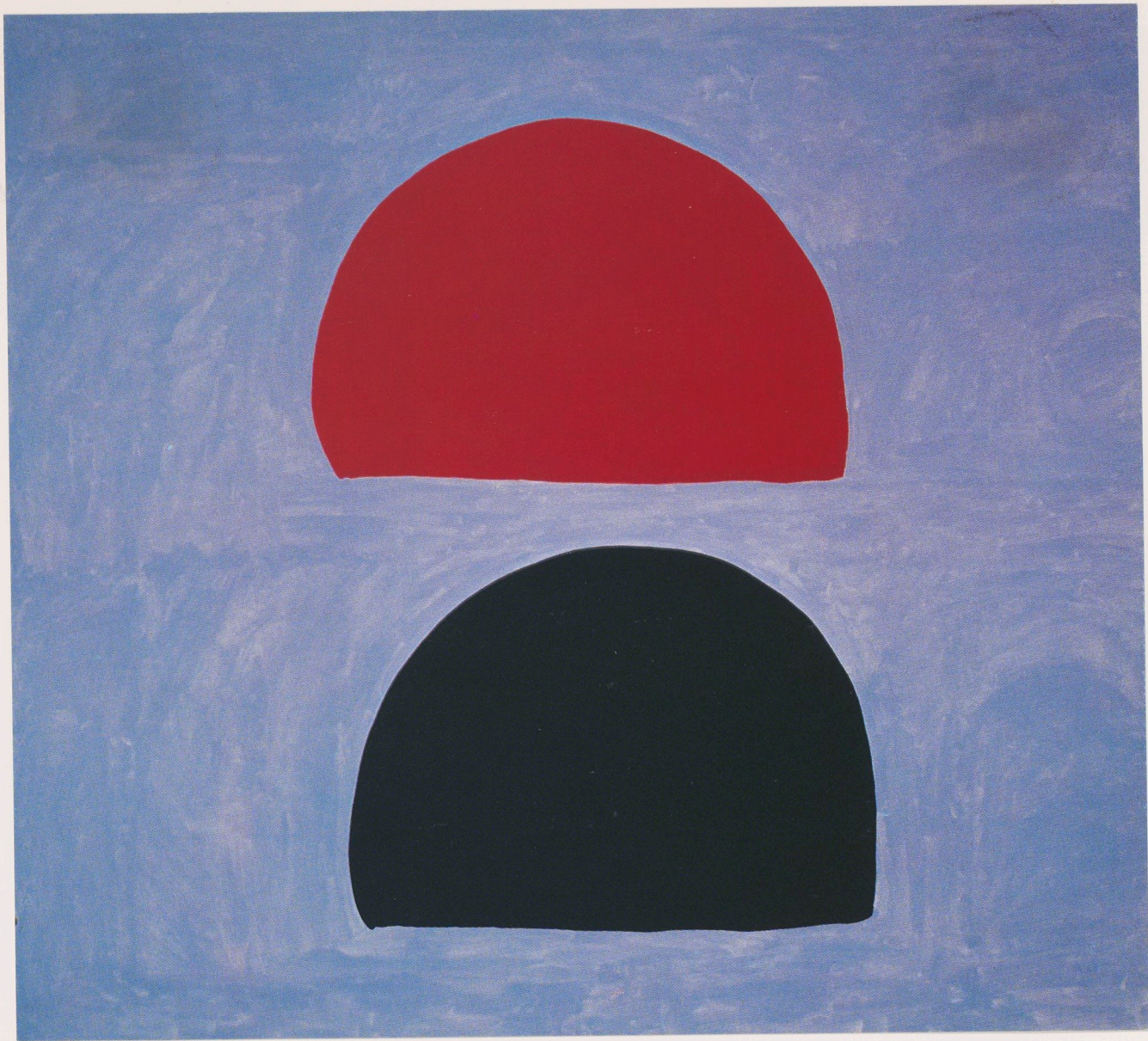
I saw these two mound shapes one above the other in a big book on cave paintings (I think by Abbé Breuhl). Over forty years later I saw some reproductions of an eclipse of the sun shown as a half-round. I was reminded of the cave painter's half-rounds, and at last I got it: The cave painter was pinning down time. He had painted his top half-circle in red — that was day. The bottom half-circle was black — that was night. And that's conceptual magic — an old brain from prehistory communicating with one in the present, that is, if mine is really on the ball. To find out, a bit of carbon dating of the cave's pigment to show whether or not the cave lay in the path of the sun's eclipse at the time would help.



Telescope photograph of an eclipse of the sun.



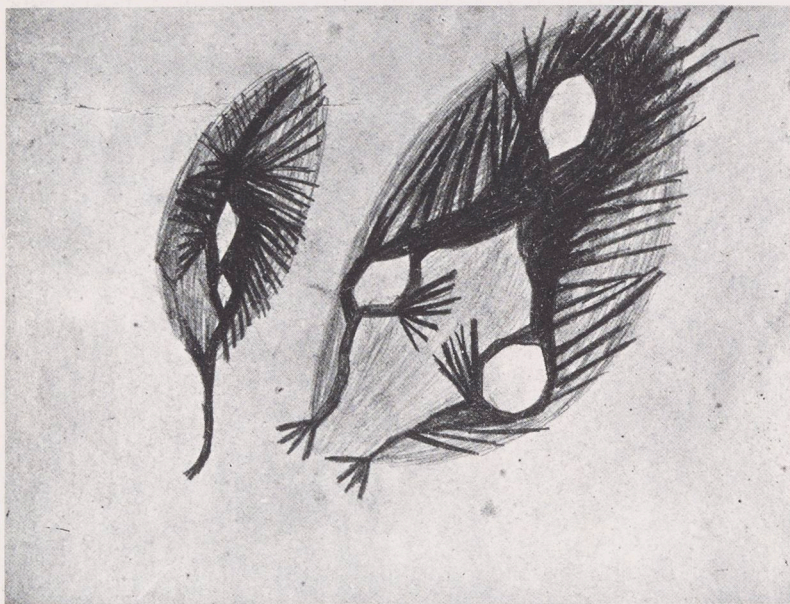
Ink sketch, circa 1930 (after a cave painting), related to *Day and Night*.



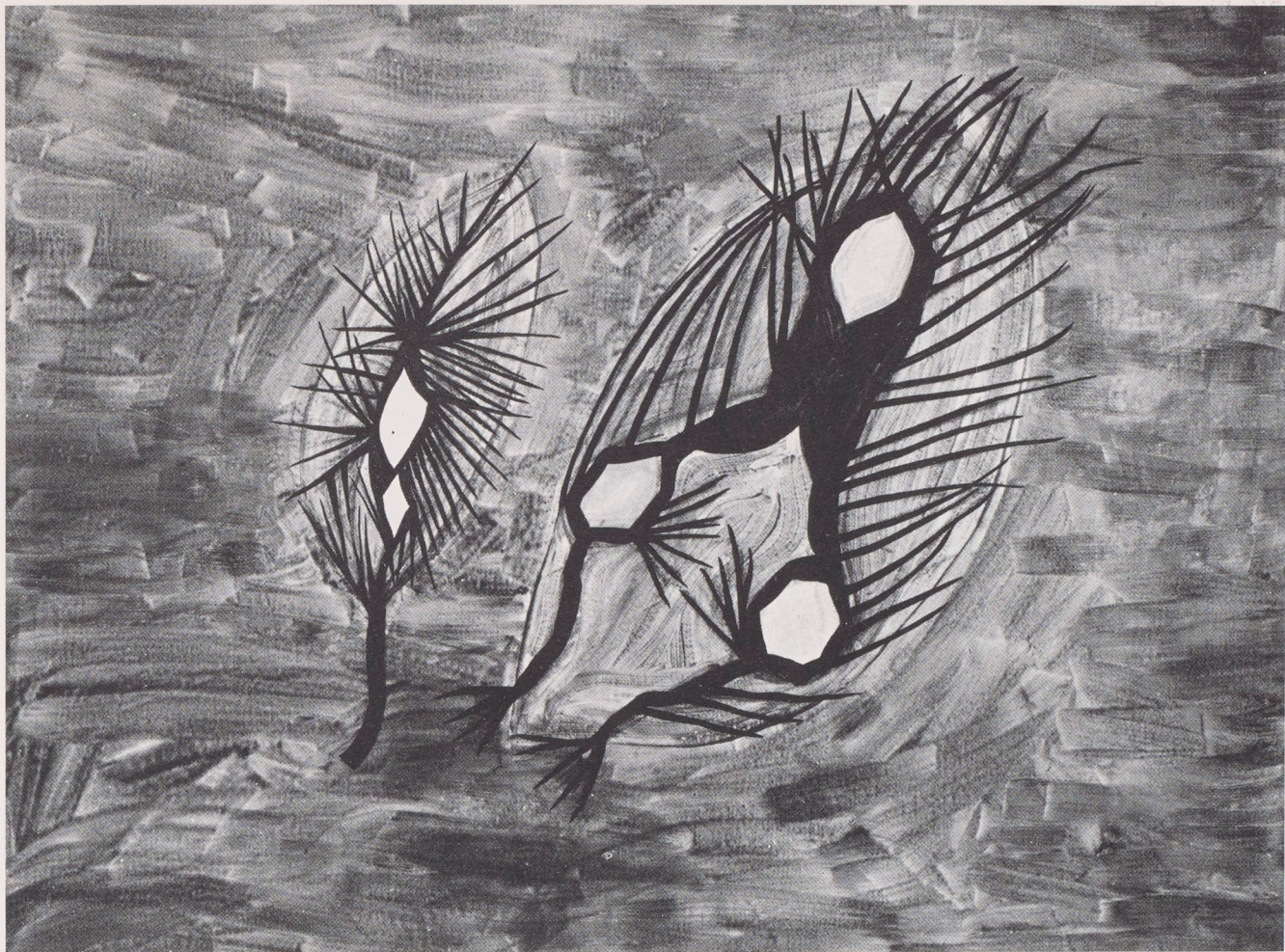
Rift Fish 1978

acrylic on canvas 1858 x 2461

I first thought of these two images as sea creatures that twitched their spikes and scared sharks. I imagined that the Ocean Island Papuaans caught them to lash to their war canoes, so, I thought of them as shark killers, but they didn't really look as fierce as all that. Then I got the idea from their yellow 'windows' that they came up out of deep sea rifts to replenish their store of energy by gathering sunlight. Like the Loch Ness monster, they're very rarely seen; but there they are.



Pencil doodle, circa 1930, related to *Rift Fish*.



Rain Tree 1978

acrylic on canvas 2756 x 1851

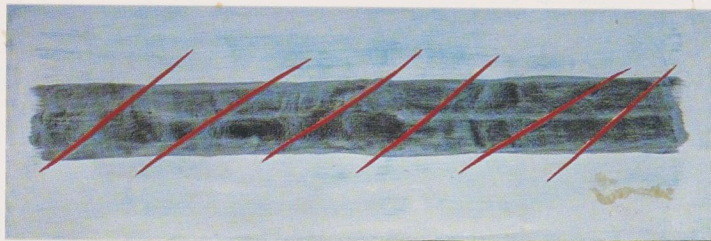
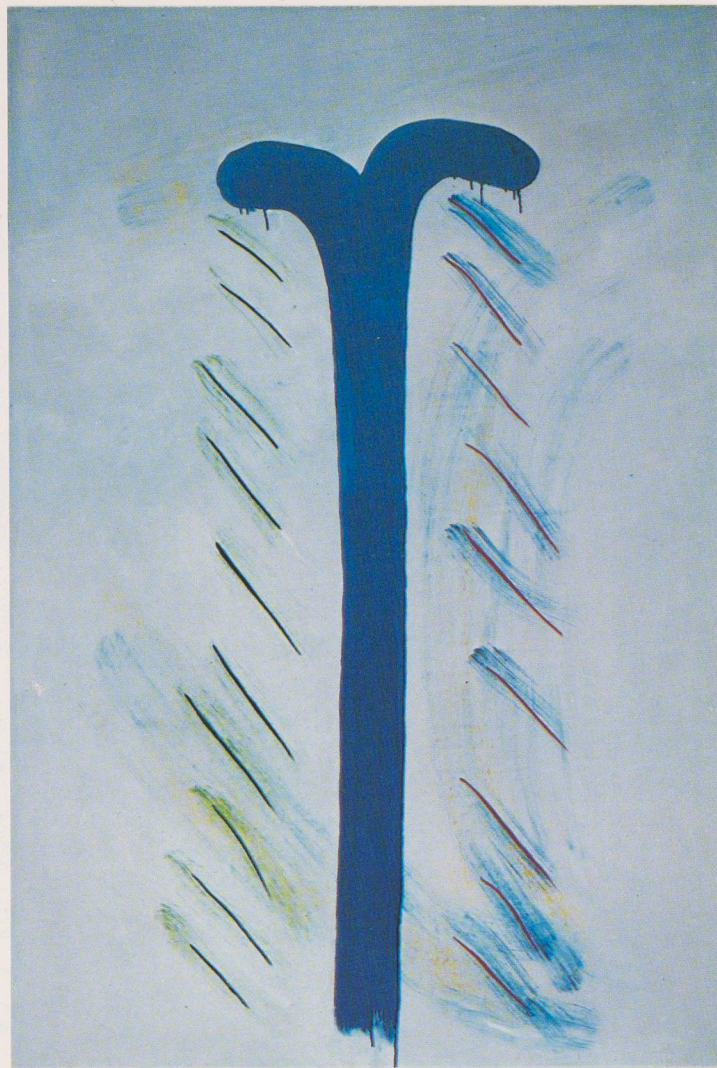
This tall tree floats in the sky above the earth . . . The image is copied from a small oil on thick cardboard. The acrylic was done in 1978, I did the art in 1954, or so, the oil in New York City, the acrylic in Puerto Rico.

Earth 1978

acrylic on canvas 628 x 1851

" . . . it is a rendering of earth and particles of energy and the particles of energy are going in the opposite direction from (*to*) the particles of energy coming from *Rain Tree* just to signify that it can go both ways if necessary . . . the cosmic forces of life and energy going through the earth from on high."

Interview with Len Lye, Ray Thorburn May 3, 1979.



Ancestor 1978

acrylic on canvas 2844 x 2166

I painted this fish from a doodle when I lived on the shore of Lagoon Pond at Martha's Vineyard. Some twenty years later I read about a fish called a coelacanth, thought to be the ancestor of land animals. The most notable feature of this change from sea to land came about when the lobes of the coelacanth's fins turned into its limbs. I looked up my Lagoon Pond fish and got a kick when I saw its lobes and how they were emphasised over the size of its body.



Helium 1978

acrylic on canvas 2185 x 3370

This is a blow-up of graffiti I copied from a wall of the Stamford Brook tube station in Chiswick. I copied it exactly on an empty cigarette packet I picked up nearby. I did a big 3 foot by 6 foot oil of the sketch of my pack in 1938. It was accidentally destroyed but I had had it photographed. *Helium* is too decided as an abstract pictograph to be thought of as simply graffiti. It tells me of particles speeding through space. Whenever I read reports on the nature of helium I think of the doodle I found. I think the pictograph is an 'old' brain way of saying something about energy and that whoever pinned it down on a wall had the same sort of old brain language that I too, once in a while, can speak.



Flora before Fauna 1978
acrylic on canvas 2160 x 2998

This . . . is an adaptation of symbols on fugi (*sic*) silk curtains done for Lady Gwen Herbert in the twenties in London. The plant figures in the acrylic are learning to take either root or wing. They do this without the help of animals or insects of any sort. They know a bit about it because . . . their far-back ancestors were sea kelp.



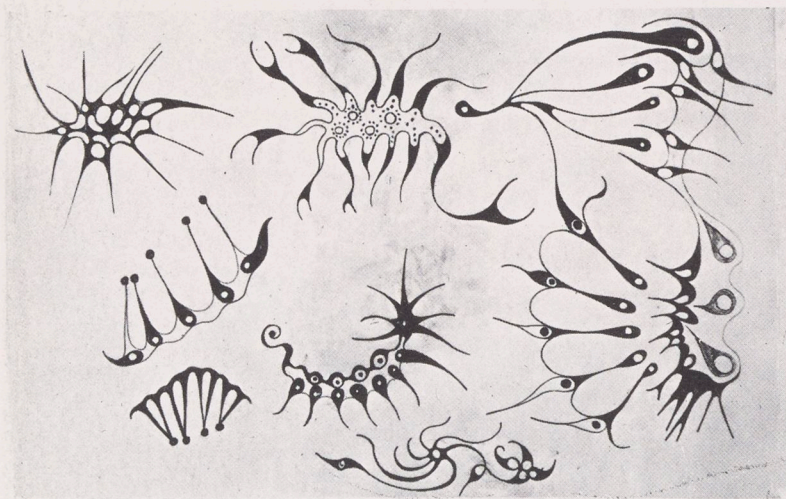
Flora before Fauna 1930, batik on silk.



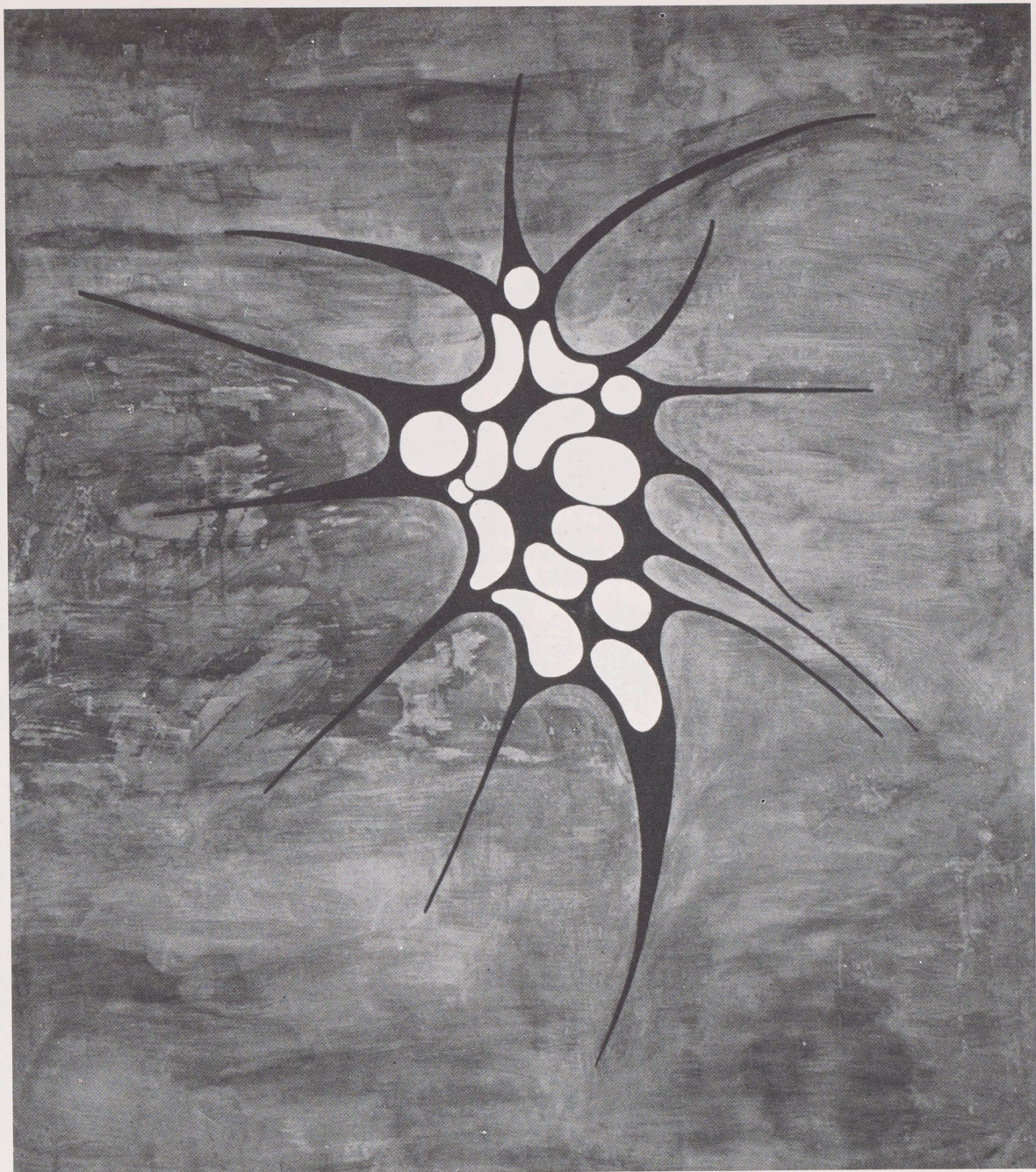
Crustacean 1978

acrylic on canvas 2167 x 1982

This . . . is a blow up from a 1 inch pencil doodle. I mulled over starting the painting for weeks, not sure of what color to paint it. The color problem was decided when I found a small empty crab shell with spikes and an all-over russet pattern. While painting it I remembered that the earth's magnetic poles had affected early species of crustaceans but that the one I was painting had ancestors who had got by.



Pencil doodle, circa 1930. The figure top left gave rise to *Crustacean*.



Witchetty Grub 1978

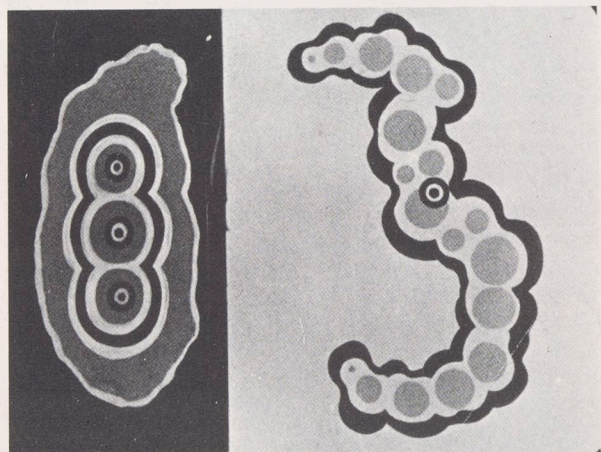
acrylic on canvas 2160 x 2235

A main figure in my cartoon film *Tusalava* was based on what I'd read about the Australian witchetty grub; but I'd never seen one. In my film my version of a witchetty slowly changed into a monster, a sort of cross between a big spider and an octopus; and the monster attacked what I conceived to be a totem of Individuality.

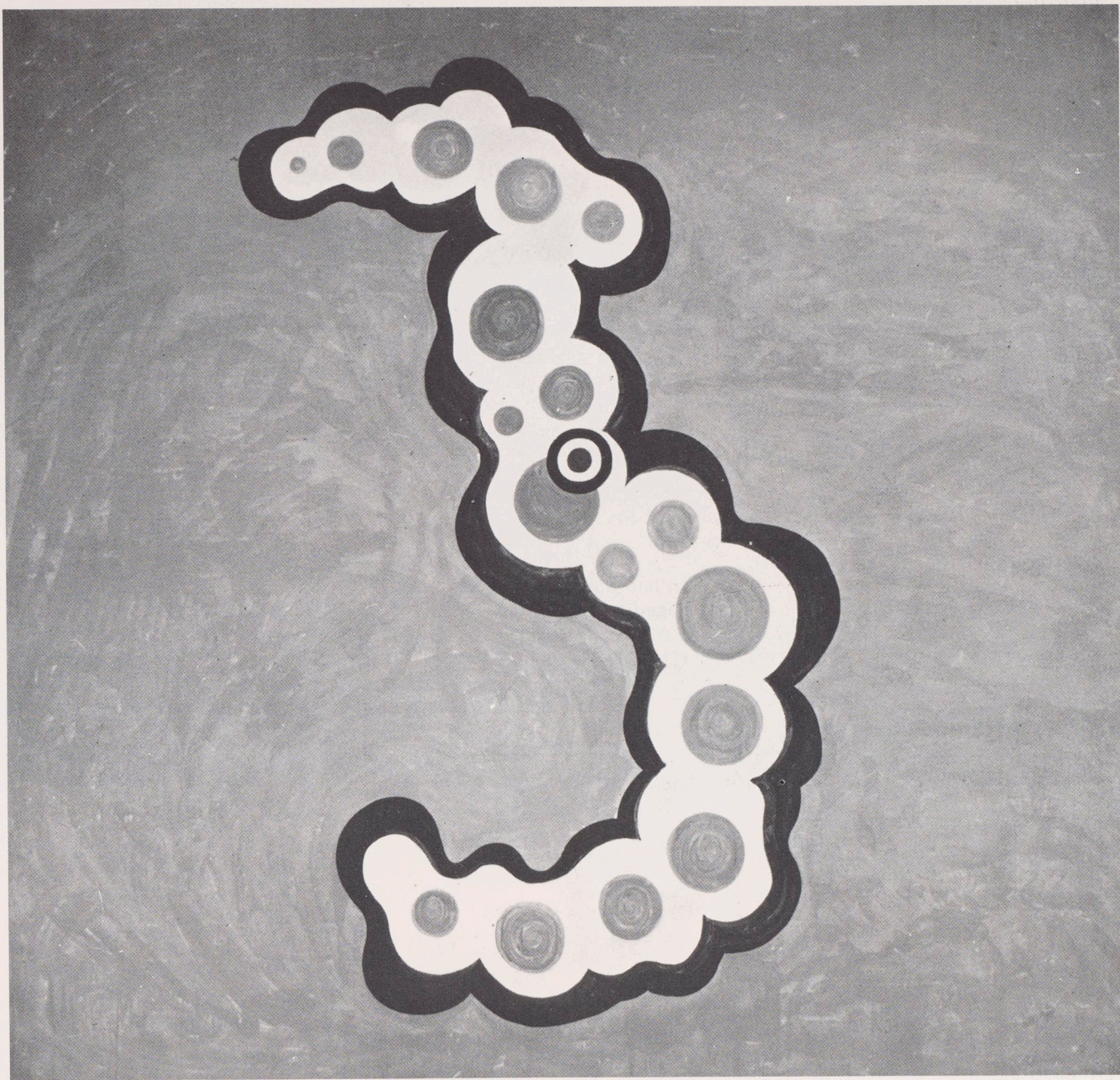
The first hint that *Tusalava* has some sort of factual prescience came when a film man who was producing a scientific film on macrophages said my 'monster' was literally the spitting image of a 'phage'. They attach themselves to the wall of a cell, pierce it with a hollow needle-sharp tongue, and inject their own genetic juices into it. I learnt all this some twenty years after doing the film.

Later, in the sixties, a *Life* article portrayed an antibody blocking a virus from entering a cell. In appearance the antibody was a replica of a still of my witchetty — another bull's eye for my old brain's divinings, except: To me, it didn't make sense that, in my film, good guy Antibody would turn into bad guy 'Phage. My old brain had slipped up on that one, or so I thought. But wait! Came the seventies and I read in the morning paper that antibodies can sometimes have an immunisation problem. Instead of protecting the body the antibody can line up with the macrophage and attack the body. This, the scientific study revealed, could bring on the dread disease of multiple sclerosis.

Tusalava took two years to make; my old brain had plenty of time to mull over its own unconscious divinings of tragedy. It's a case of, I hope, fine art myth being inadvertently backed up by science — a sort of genetically informed model of sociobiological import.



Sketch used during the animation of *Tusalava*.

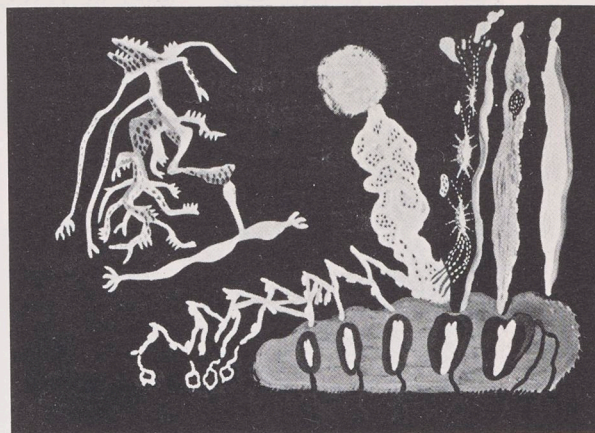


Fire Devil, Leaving 1978
acrylic on canvas 2140 x 3110

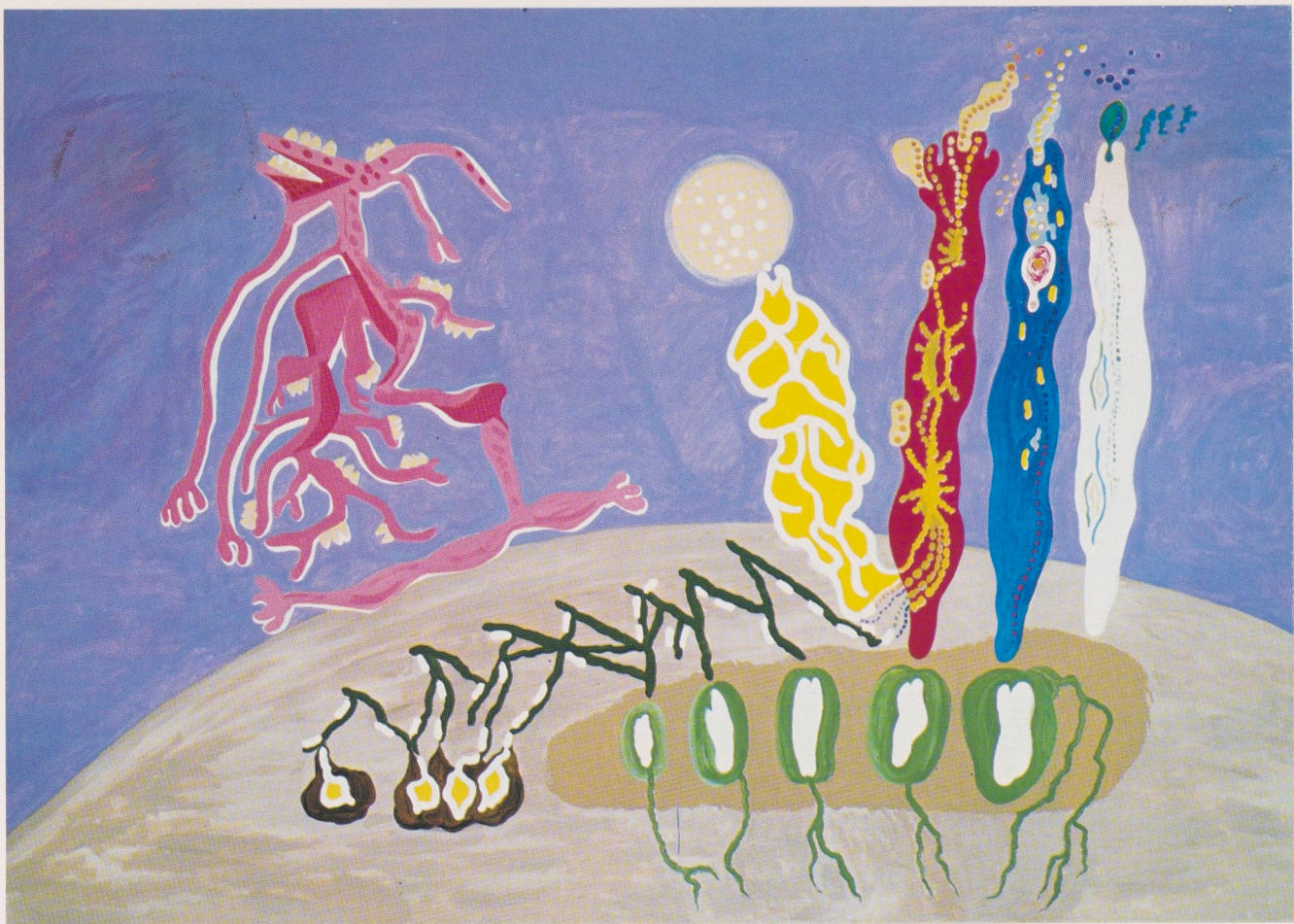
This was, as an opaque watercolour, also exhibited with the *7 and 5 Society*. It is in the artist's possession. It was shown under the title, *Earth Cools, Plants Arrive, and Fire Devil Departs*. (colors are faded). The many sketches for the protagonist devil figure illustrate the length of time it can take to arrive at a satisfying dramatic and aesthetic image. I had a nag in my head not to let the devil escape me but to put salt on his tail. He had to be a figure that would personify the earth's molten crust. I sketched many wild looking figures over many months, sometimes wondering why I was persevering. *Fire Devil, Leaving* has symbols of the earth's evolutionary values: marble teeth growing in the forming earth; planting-sticks arriving with their earth minerals; pollen discharged into the air, and so on.



Untitled pencil doodle, circa 1930, related to *Fire Devil Leaving*.

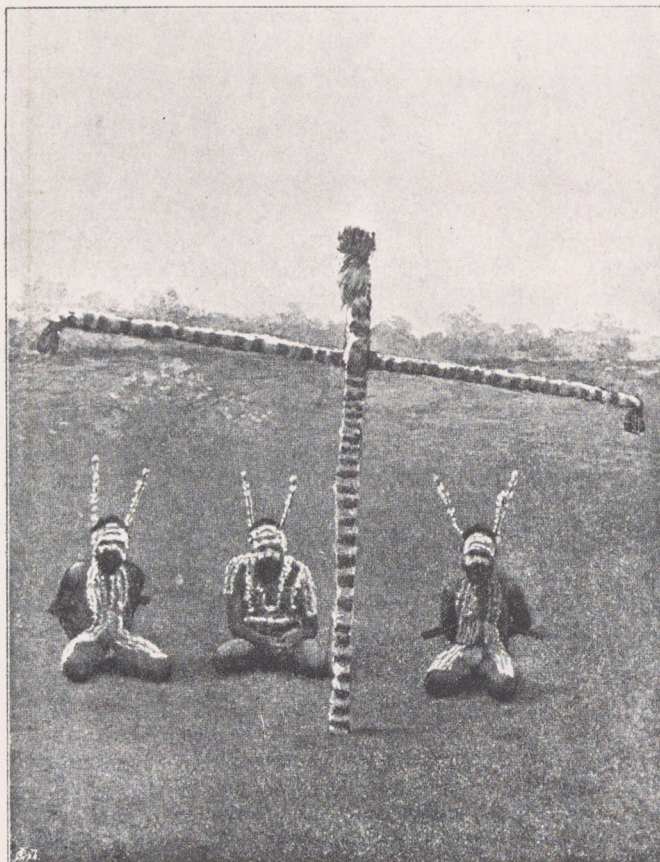


Earth Cools, Plants Arrive, and Fire Devil Departs 1934, gouache.



Family Conference 1978
acrylic on canvas 2105 x 2890

... a blow up from an opaque watercolour, 1½ by 2 feet, in the collection of John Aldridge of Essex, England. It was exhibited under the title of *Family* in 1933 at a 7 and 5 Society group show in London. It shows a group of cane and palm type flora of some special genus or other. They are discussing a new offspring; it shows animal characteristics by the way it sits around and plays; they must feed it. They realise it may be an entirely new species, a mobile mutation.



Iruntarinia Ceremony of the Unjiamba (Hakea tree) Totem of Urthipita, showing the Umbalinyara Cross.
Plate from Spencer and Gillen, *The Native Tribes of Central Australia*, London 1899.



Polynesian Connection January 13 1979
acrylic on canvas 1849 x 2952

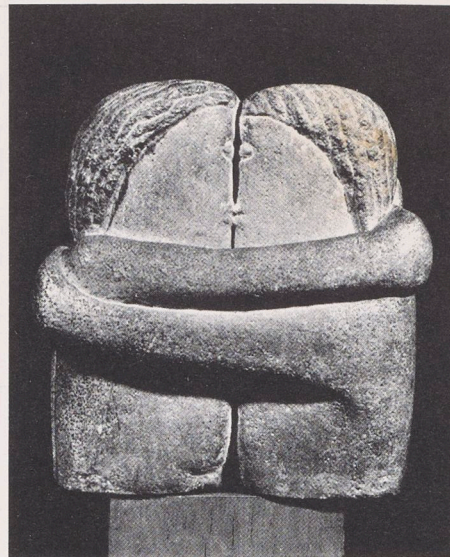
The main influence on the painting's composition was the New Zealand maori carving once seen on the gable of a Maori pa, or house. It shows the female sitting astride the male's thighs. My composition is a sort of jig-saw of this position. It also reminds me of Freudian symbolism: there is a central archway; a passionate male-female binding; I also see that the design is influenced by Brancusi's marble, *The Kiss*. Whereas I portray a tight-like-that embrace, Brancusi portrays his embrace in an utopian 'babes in the woods' hold-me-tight manner. My current thinking about the nature of the genetic information which the artist unconsciously gets into his art allows me to analyse the painting on a sociobiological level rather than a Freudian one. To me, the painting symbolises the male-female sex polarity, or female-male, as the sex case may be. This polarity exists in the bi-sexual nature of individuality.

The guiding purpose in our cells is self-replication, i.e., to produce and maintain a life span of individuality. The female can so obviously produce evidence of this out of her own flesh and blood. The male can't. But he can replicate the creative essence of his unique self in the arts. The comparative values he unconsciously feels between his masculinity and his femininity is that the feminine is inferior. He transfers his sense of bodily insufficiency to the female. He treats her not as an equal but as a body with no brains at all. His error has retarded the course of social evolution.

My painting does not, of course, spell out the ramifications of these speculations. They are made to indicate that its symbolism relates to both natural and social evolutionary values.

Auxillary symbols in the painting imply either anxiety or harmony, for example, zig-zag spikes run around the right-hand side of the central arch; they are covered on the left; a gargoyle creature, top right, seems to devour its mate; a cross between a newt and a microbe is seen, left; sharp needles protrude from a chain, right; the one on the left is smooth. These are stress and harmony signals.

The chronology of the imagery goes as follows: 1924, carved a small marble piece of a two-in-one figure; 1929, wax dye-resist painting on linen, 3 foot by 5 foot; 1979, acrylic on canvas, 6 foot by 9 foot.



Constantin Brancusi, *The Kiss* 1908, stonecarving.
Collection: Muzeul de Arta Craiova.



Maori wood carvings. The carving on the left is in the Otago Museum Collection.
Photograph: Alexander Turnbull Library.



STEEL-MOTION COMPOSITIONS

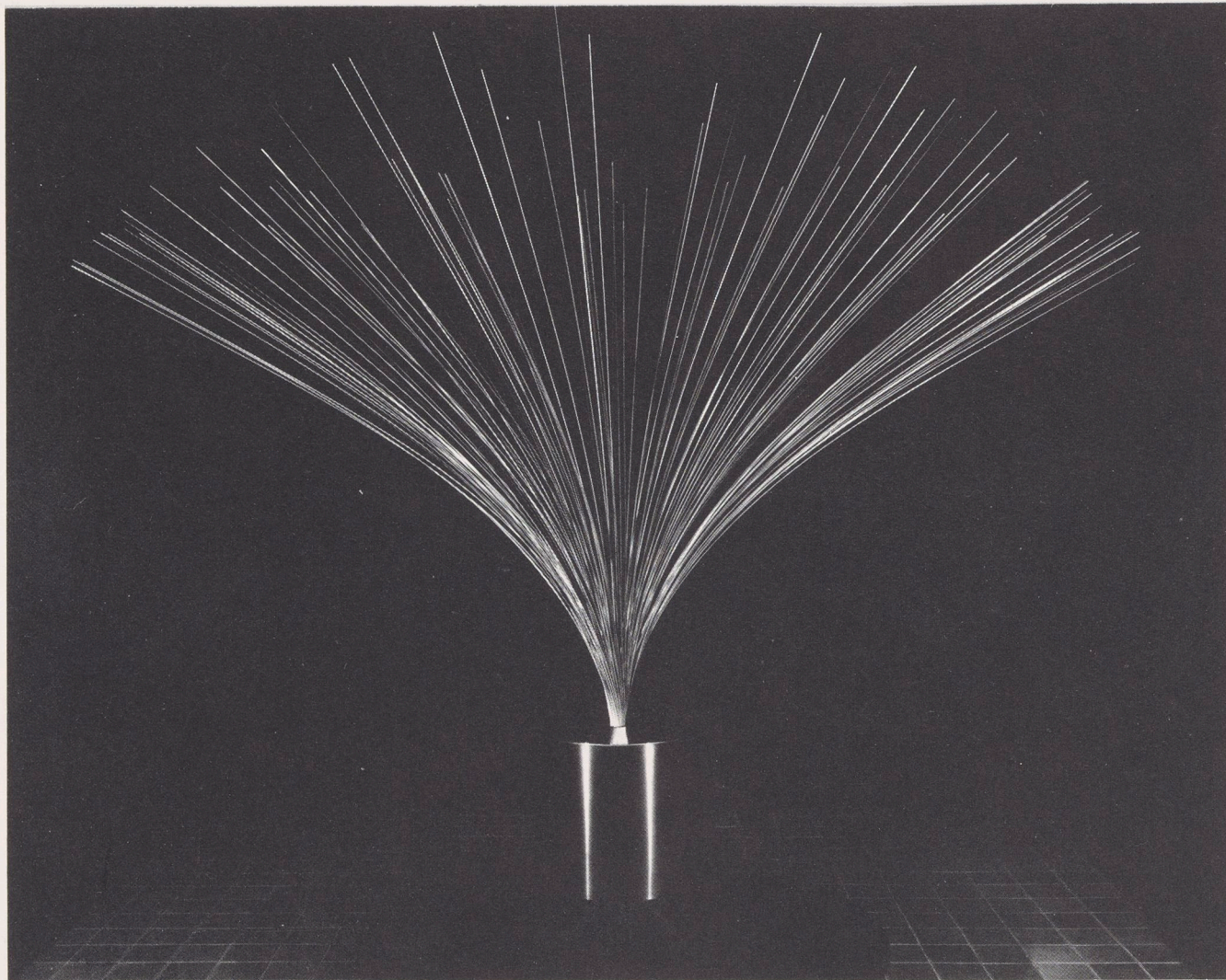
Fountain circa 1963 — 1976

stainless steel on formica and chipboard base, motorised

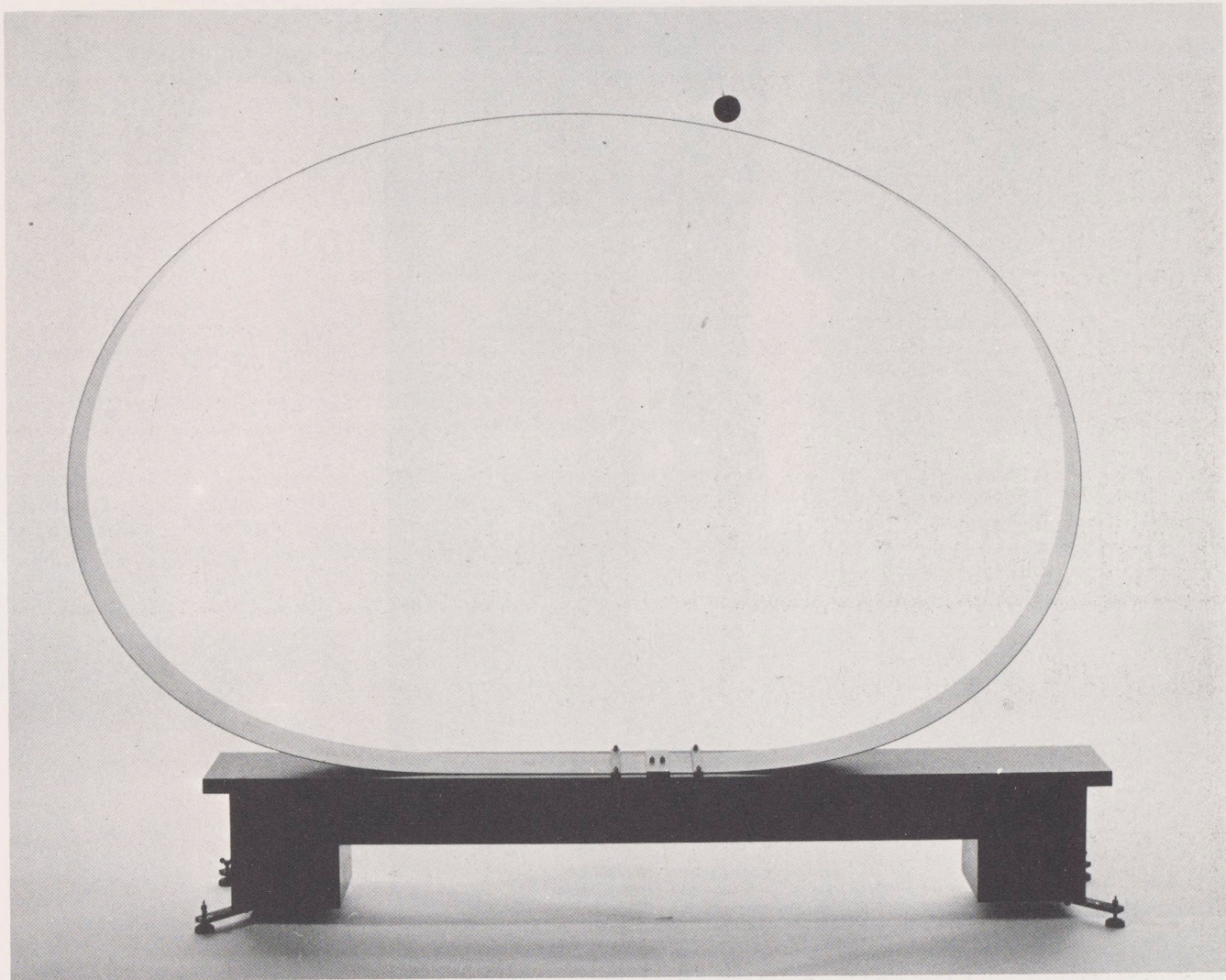
4600 height, 910 diameter

Lent by Govett-Brewster Art Gallery

Photograph by Trevor Ulyatt.



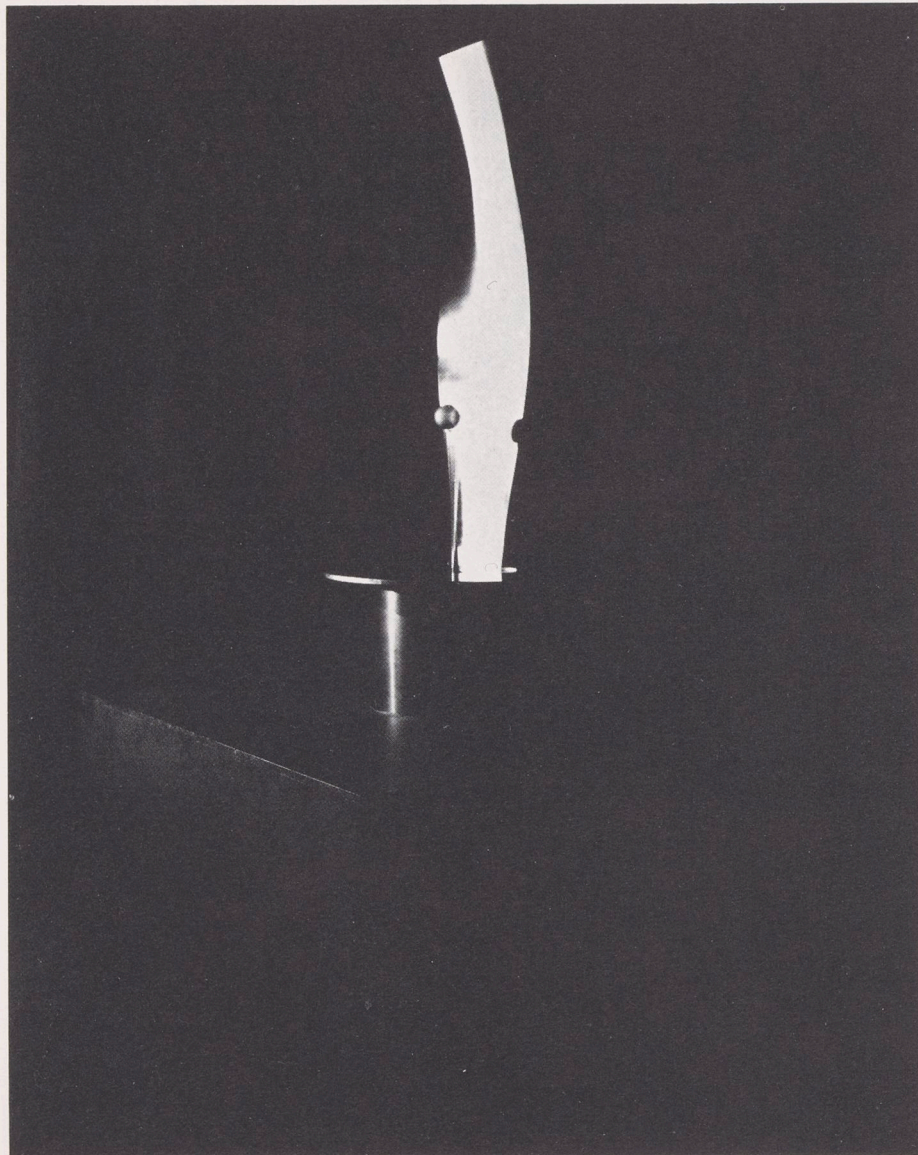
Universe 1963 — 1976
steel on wood and formica base (containing electromagnets)
2090 x 2700, 280 depth
Lent by the Len Lye Foundation



Blade 1962 — 1976

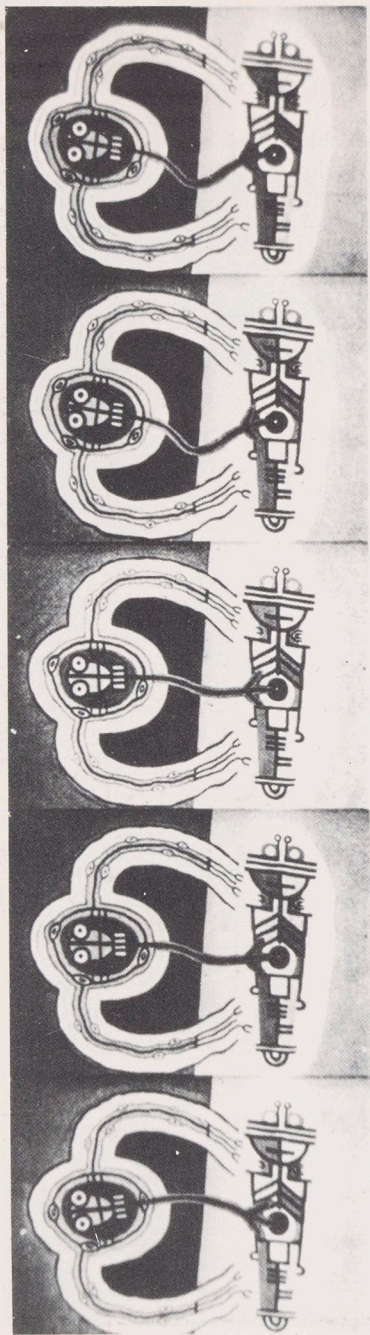
sprung steel on formica and chipboard base, cork hammer, motorised
2060 height, 910 diameter
Lent by the Len Lye Foundation

Photograph by Trevor Ulyatt.



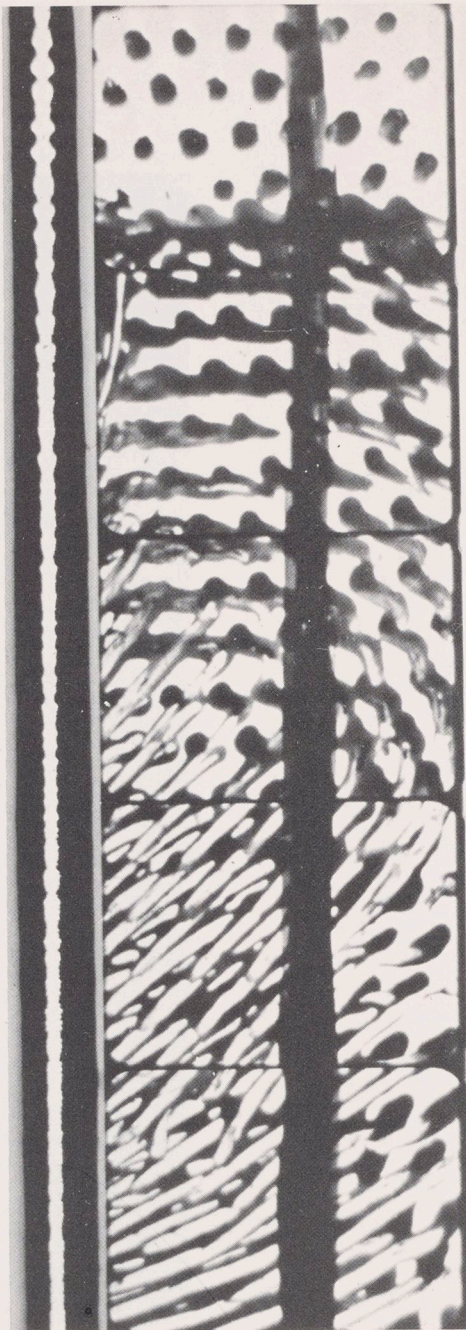
PRINCIPAL FILMS DIRECTED BY LEN LYE

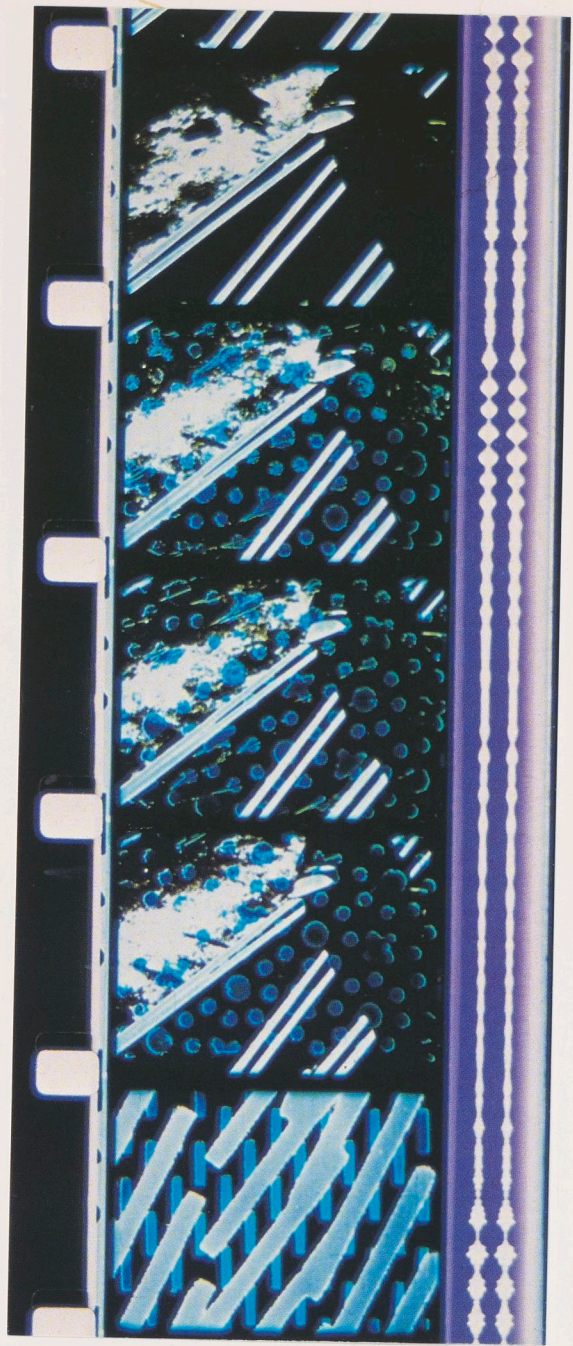
- | | |
|--|---|
| * <i>Tusalava</i> 1928 | 9 minutes, black and white
for the London Film Society |
| * <i>Colour Box</i> 1935 | 4 minutes, Dufaycolor
for the British Government Post Office
Unit |
| <i>Kaleidoscope</i> 1935 | 4 minutes, Dufaycolor
produced by Gerald Noxon and P.W.P.
Productions |
| <i>The Birth of the Robot</i>
1936 | 7 minutes, Gasparcolor
in collaboration with Humphrey
Jennings for Shell-Mex and BP Limited |
| * <i>Rainbow Dance</i> 1936 | 5 minutes, Gasparcolor
for the G.P.O. Film Unit |
| * <i>Trade Tattoo</i> 1937 | 5 minutes, Technicolor
for the G.P.O. Film Unit |
| <i>Colour Flight</i> 1937 | 4 minutes, Gasparcolor
for Imperial Airways |
| <i>N. by N.W.</i> 1937 | 7 minutes, black and white |
| * <i>Swinging the Lambeth
Walk</i> 1939 | 4 minutes, colour
for the British Ministry of Information |
| * <i>Musical Poster# I</i> 1940 | 3 minutes, Gasparcolor
for the British Government |
| <i>When the Pie was Opened</i>
1941 | 10 minutes, black and white
for the British Government |
| <i>Kill or be Killed</i> 1942 | 15 minutes, black and white
produced by the Realist Film Unit for the
British Ministry of Information |
| <i>Cameramen at War</i> 1943 | 17 minutes, black and white
produced by the Realist Film Unit for the
British Ministry of Information |
| * <i>Colour Cry</i> 1952 | 3 minutes, colour
produced by Ann Zeiss |
| * <i>Rhythm</i> 1953 | 1 minute, black and white
produced by Ann Zeiss |
| * <i>Free Radicals</i> 1958,
revised 1979 | 4 minutes, black and white |
| * <i>Particles in Space</i> 1979 | 4 minutes, black and white |
- *Films marked with an asterisk are included in this exhibition.



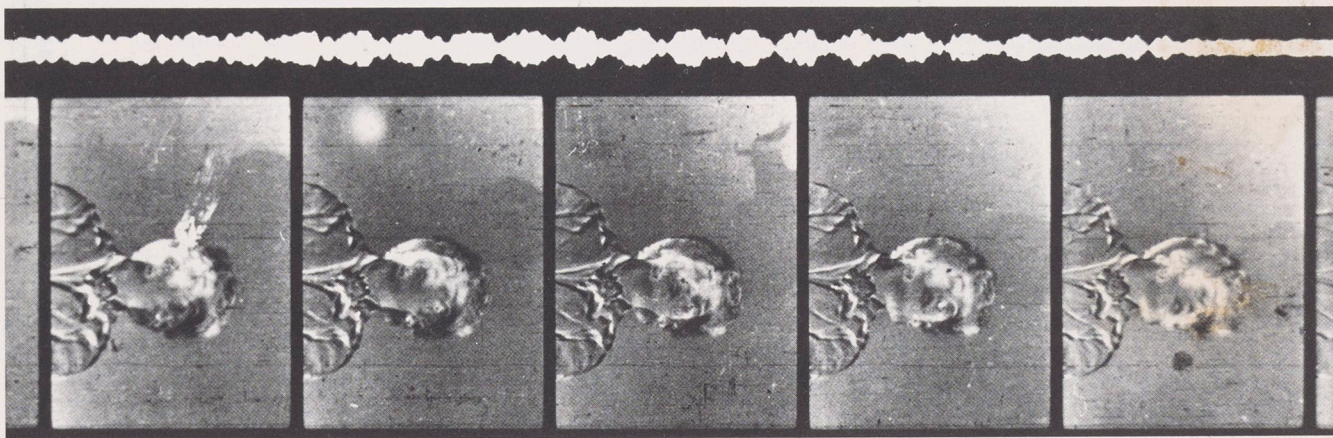
Tusitala 1928.
National Film Archive.

Colour Box 1935.



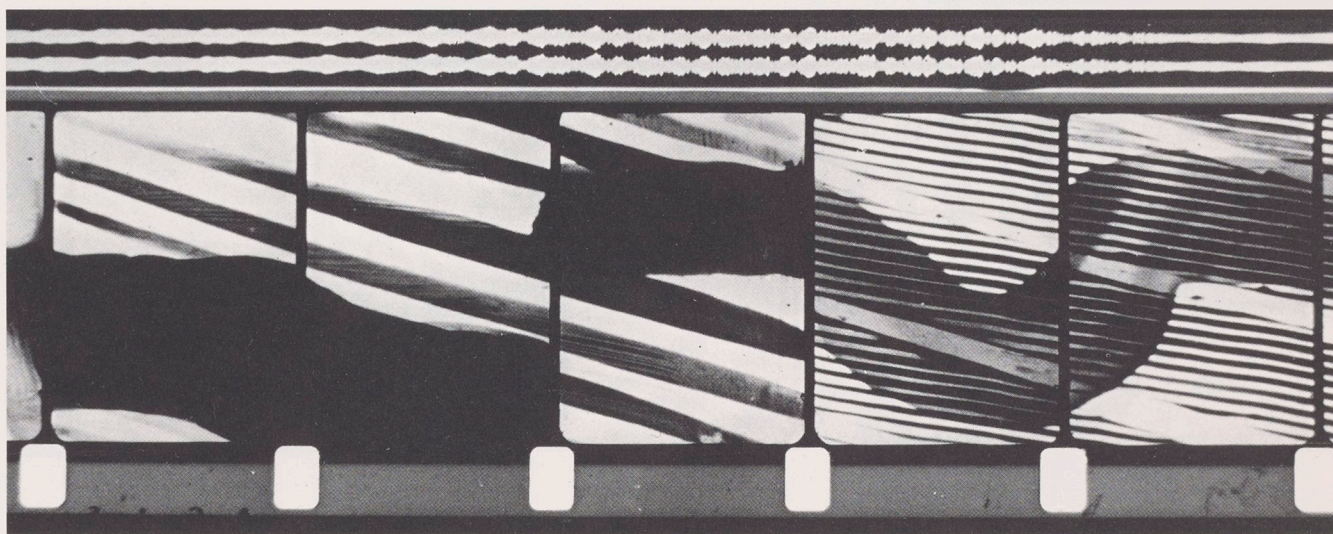


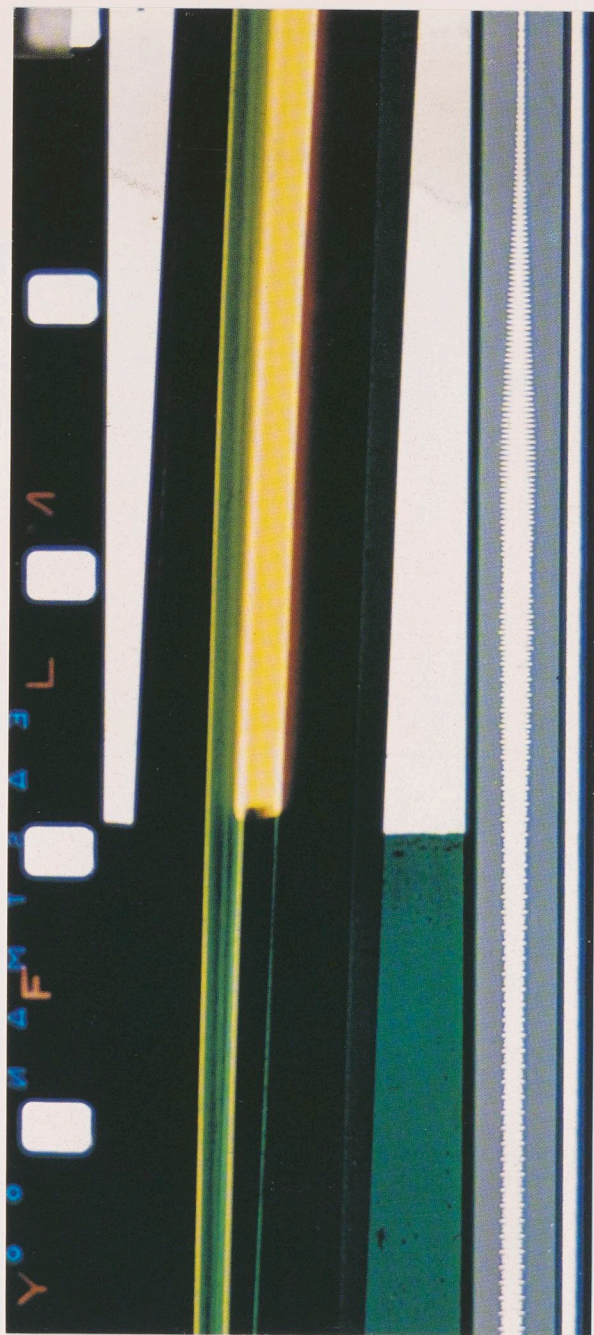
Trade Tattoo 1937



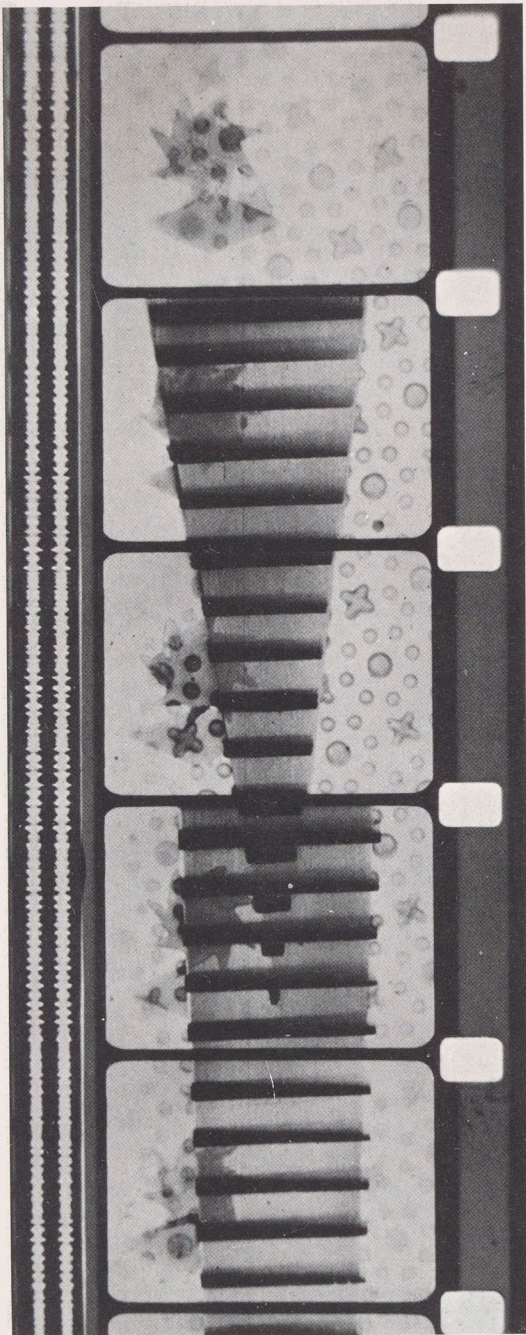
Rainbow Dance 1936.

Swinging the Lambeth Walk 1939.
National Film Archive.

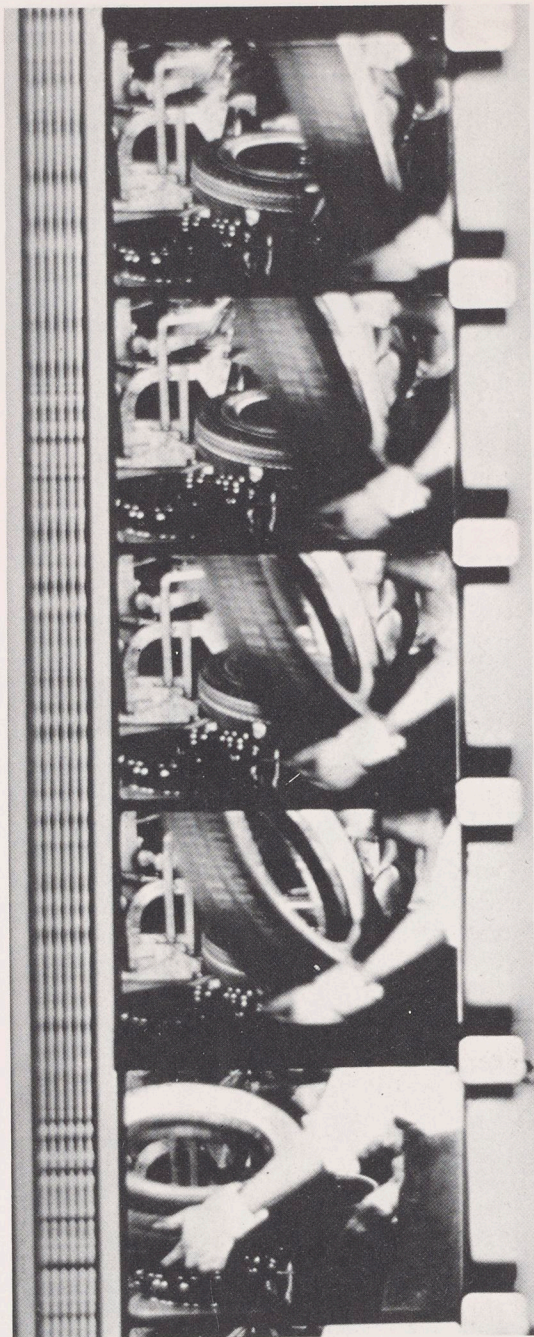




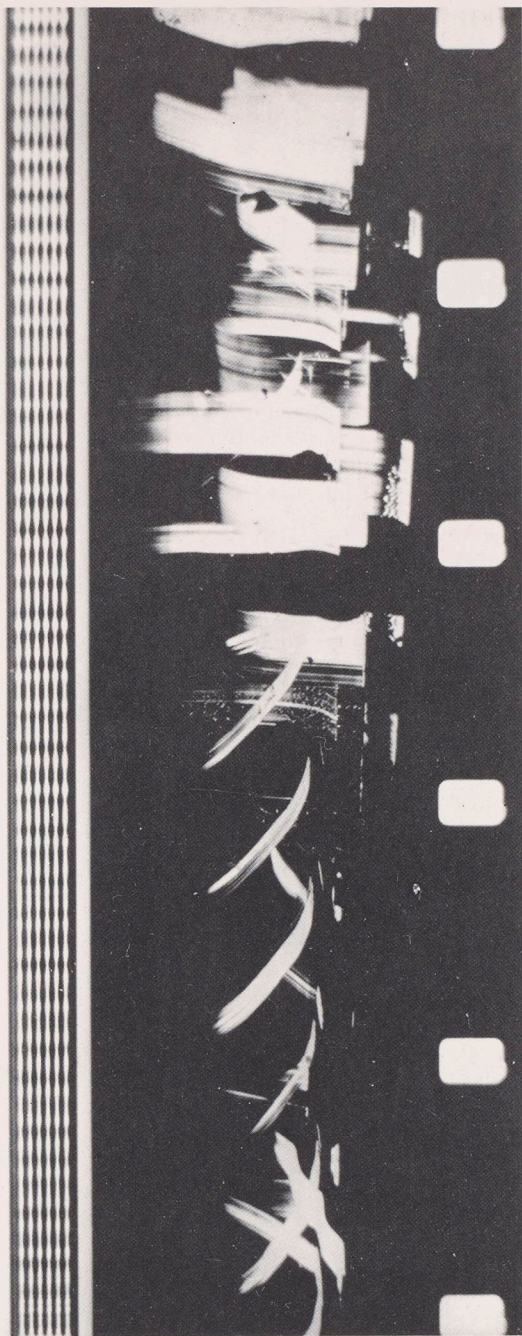
Color Cry 1952



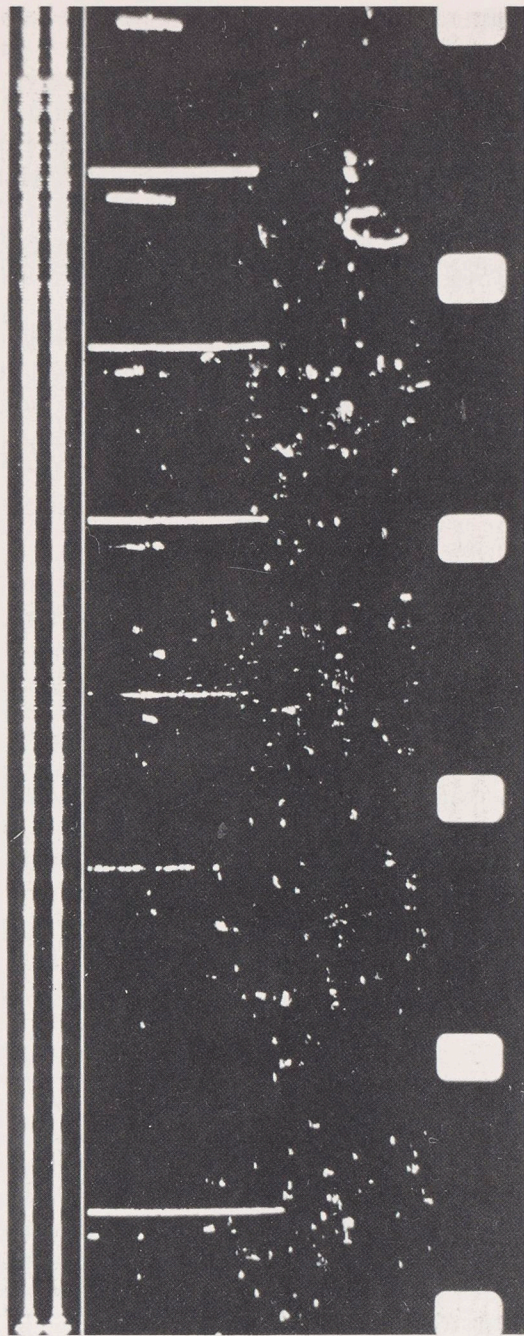
Musical Poster # 1 1940.
National Film Archive.



Rhythm 1953.



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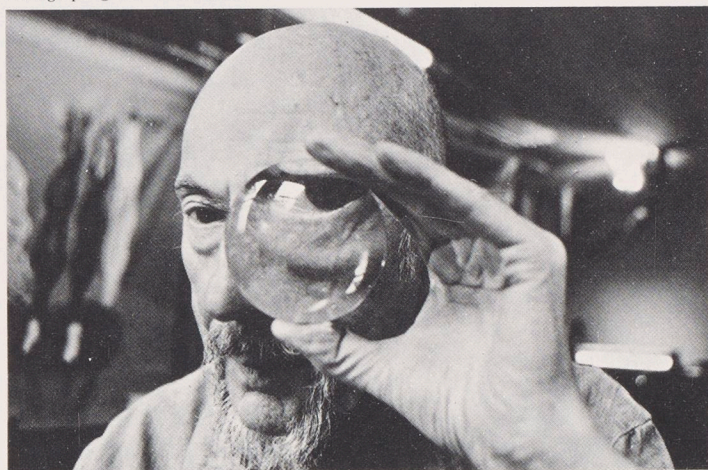
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Wystan Curnow and Roger Horrocks.

Photograph © Del Tredici 1980



Len Lye, New York, 1980.

SLOW BUT SURE

Dear Painting dear Kinetic steel and film, most of all dear Doodleleees
Daddles and Doddles, it is snize to have an old brain to diddle with
forth. Will you please . . .

I ask my peers of yesteryears nary to laud me . . . Why cause such is an
almost impingement on my already hidden bloat of an ego; as all artists
must bloat to bear the struggle-cross of their innate callings, yawlings,
bawlings.

Of what, why to hurl it off'n their chests nipples in the form of
doodles, not needles, there in the crook of the cross was a pot full of
honey my one of.

You know what: the story is to let the old brain wander its words . . .
out comes a lot of junk but now and then may come one beaut
arrangement well worth nudging it to feel like freedom. When messing
with metal out may come a fig of mote for motion. A sometime figure
of motion are you ready press the button. In utter beatitude, to
swoosh!

What I was talking about too was not to have an overload of lauding
one's ego a word that eggs me off not on but off, an un-swoosh as in
rhetoric that intimidates the young artist when I was.

How I wondered in my fanatic days of art start could I ever match up
with catch up to mighty men of Turner, Cézanne, Gauguin, and such
ilk of masters. How did they unlimber such wonders? Ilk like Nugent
Welch and Frances Hodgkins to gaze at pale violet hills of New Zealand
and squage at the abstracts of Hodgkins?

The mighty ilk were given halos that nearly had me giving up de ghost
up the ghost up the ghost. But it was my dumb stupid assagi-headed
ego that came to the rescue and prod plod me on with my own fanatical
ways of searching for the most primitive imagery known. I hardly
knew it except to do it.

Yes, a plod me on with an undying faith in my innermost ego egg a
staunch to hatch and a staunch to lean on throughout, until the thirty's
came and went and gone leaving behind a bit of stuff of film motion
figs as facts of aesthetic kinesthesia to you who, I mean stuff that had a
bit of joy in its crocus head through up out of the crust of my stringy
struggle as most artists apparently must but need not if the stuff is
there anyway.

My joy was without knowing what in a knotted intensity of whim
wham in my New Zealand imprint of Nature and great every since to
savour so happiness reigns supreme my lucky lads and lassies. The
greatest stanches on my earth were Rose Ann Cole to start with, Jane
Thompson to help the stuff's launchings, and Ann Zeiss by my side to
egg my ego on. They put the tick in my art's tock. None other. And
that's my story, plus, of course, my old brain and its doodles.

Len Lye
28 March 1980



Len Lye against his painting *King of Plants meets the First Man*.

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