

### Exhibition Sponsors

Installation assistance:  
Black Express Light and Sound



Film:  
Boatrace. The Digital Workshop



Printing:  
Contact Printing



Paper (Mediaprintsilksilk):  
CPI



### Intersections of Art & Science

7 June – 14 July 2001

Curators: Liz Ashburn & Nick Waterlow

### Acknowledgements

Many thanks to the following people and organisations for making this exhibition possible – firstly the participating artists and scientists for their inspiration – secondly our extremely generous sponsors: Black Express Light and Sound, Boatrace. The Digital Workshop, Contact Printing and CPI – and thirdly the UNSW COFA Ivan Dougherty Gallery staff and volunteers, especially Rilka Oakley for her role in the exhibition's management and curatorial process and Annabel Pegus for her research assistance. Special thanks to Jo Bosben, Elisabeth Burke and Robyn Williams.

Liz Ashburn & Nick Waterlow OAM

Catalogue Design: Sally Robinson

Publisher: Ivan Dougherty Gallery  
PO Box 259 Paddington NSW 2021

copyright © Ivan Dougherty Gallery and contributors 2001

ISBN 0 7334 1808 2

(Cover) David Malin *Star Trails around the South Celestial Pole* 1980 © Anglo-Australian Observatory



# INTERSECTIONS OF ART & SCIENCE

7 June – 14 July 2001

IVAN  
DOUGHERTY  
GALLERY

The University of New South Wales • College of Fine Arts  
Selwyn Street Paddington NSW 2021 Sydney Australia  
Monday to Friday 10 – 5 Saturday 1 – 5 closed public holidays  
Tel +612 9385 0726 Fax 9385 0603 Email idg@unsw.edu.au www.idg.cofa.unsw.edu.au

COFA  
UNSW



SUSAN ANDREWS  
ROBYN BACKEN  
RHETT BREWER  
JACQUELINE CLAYTON  
LIZ COATS  
MICHAELIE CRAWFORD  
LOUISE FOWLER-SMITH  
ELIZABETH GOWER  
CHRIS IRELAND  
ISOBEL JOHNSTON  
STEPHEN JONES  
KLARA KUCHTA  
JANET LAURENCE  
NOELENE LUCAS  
HARRIET MCKERN  
SUSAN MACKINNON  
DAVID MALIN  
MELINDA MENNING  
JIN-HO PARK  
PATRICIA PICCININI  
PHILIP SCHOFIELD  
JULIE TOLMIE  
JENNIFER TURPIN

## INTRODUCTION

**I**ntersections of Art & Science is an important event within the 5th International Congress and Exhibition of ISIS-Symmetry as it showcases the visual work of international and Australian artists and scientists. ISIS-Symmetry is an international body promoting the development of a methodology between art and science and their Congress will be held from July 8 to 14. Previous conferences were held in Budapest, Hungary in 1989; Hiroshima, Japan in 1992; Washington, DC, USA in 1995 and the most recent was in Haifa, Israel in 1998.

During the 1990 period the College of Fine Arts was active in holding a series of interdisciplinary national conferences between art and science. This exhibition is a vivid demonstration of some of the many ways that the possibilities for new intersections between art and science have been realised. It is the visual culmination of the exploration of interdisciplinarity, so as to facilitate the flow of ideas between the sciences and arts, in order to generate new understandings and methodologies.

Albert Einstein believed "The most beautiful experience we can have is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science."<sup>1</sup> His scientific career was a constant quest for the universal and immutable laws that govern the physical world. His theories spanned the fundamental questions of nature, from the very large to the very small, from the cosmos to sub-atomic particles. This exhibition does not pretend to mirror this extraordinary breadth but the mysterious and its extrapolation are at the heart of this project; artists engaging with science, scientists engaged with art.

*Cybernetic Serendipity*, curated in the 1960s by Jasia Reichardt when director of London's Institute of Contemporary Arts, was a ground breaking presentation of the new technologies and their possible relationship with the world of art, and Anna Munster refers in her essay to other such manifestations. This exhibition brings together a more disparate array of endeavours and it covers a great deal of ground; from pioneers in the field such as Joan Brassil to the younger generation of Patricia Piccinini, from painters Liz Coats, Louise Fowler-Smith and Rhett Brewer to David Malin's photographs of outer space and Melinda Menning's holograms, from the CD-Roms and computer driven imagery of Stephen Jones and Julie Tolmie to the installed works by Jacqueline Clayton and Janet Laurence, it also includes artists from other parts of the world such as Klara Kuchta and Jin-Ho Park. New technologies then will be in evidence, as will tried and true methodologies and each participant will, we trust, add to our knowledge and increase our understanding of these intertwined worlds.

**Liz Ashburn, Nick Waterlow**

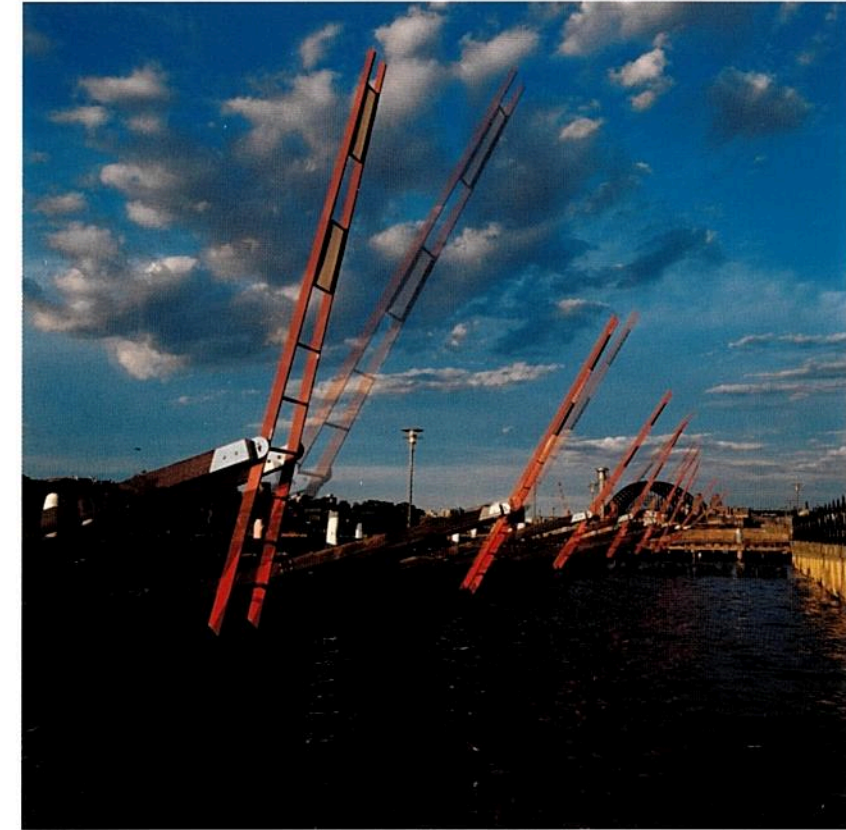
<sup>1</sup> *The World as I see it*, *Living Philosophies*, Simon and Schuster, New York, 1931, pp3-7

## SYMMETRY AND ITS DISSIMILARITIES

Every few years there is a flurry of activity around the new directions artists influenced by emerging scientific paradigms pursue. Exhibitions abound, conferences are organised, books published, and ongoing commitments to pursue collaborative research between the arts and sciences are made. And yet from within the art world, there remains the feeling that while aesthetics and practices may radically shift in relation to new sciences, science as both technology and epistemology, as a way of knowing and dealing with the world, continues to be little effected by artists' efforts. It is common, from within the humanities, to continue to conceive the discipline and practice of science as totalising, bound and impervious to the cultural currents that turbulently push and pull across the spectrum of the arts. And yet it is equally clear that under the weight of a rhetoric of interdisciplinarity infecting so many research areas in the last thirty years, science has developed a renewed interest in and respect for visualisation. Not just science but scientists are now popping up in the context of the gallery space, sometimes under the more sheltered auspices of institutions such as the Wellcome Institute in London but increasingly within the topography of new curatorial efforts that trace the contours of art-science intersections<sup>1</sup>.

Of course these guest appearances are not without their own history, particularly in the second half of the twentieth century. We can easily trace a path of collaborative relations between art, science and technology from the Art and Technology movement of the 1950s through to the 1970s, the influence of fractal and chaos imagery on selling popular science during the early 1980s to an entire Venice Biennale in 1986 all too simply titled 'Art and Science'<sup>2</sup>. What then could be considered different about the contemporary trajectory this relationship is forging? Can we say that the presence of the scientist as exhibitor within the gallery space finally restores a symmetry to the underlying skew of the relationship? This tilt has endorsed a model of art practice that liberally borrows and misappropriates serious scientific endeavour alongside a scientific disdain and distancing from the assumed subjective underpinnings of artists' vision. After labouring intensively against C. P. Snow's dissymmetry of 'two cultures', are artists and scientists now approaching a period of 'many cultures' in open exchange with each other?

Perhaps it would be a mistake to jump so quickly on the bandwagon of rhetoric formed too loosely around the metaphor of symmetry. Particularly at a time when the very tenets of equilibrium, balance, and self-sameness have been so thoroughly thrown open both by science and by cultural critique. This 'attack' on order has more popularly seeped into the public imaginary through concepts such as turbulence and complexity from the sciences, and through the unpacking of a language of assimilation and sameness by feminists, black, indigenous and Asian scholars. If we want to look at art and science in terms of intersecting concerns, modes of visualisation or even methods, that intersection cannot be premised upon a model of underlying unification. Symmetry may not be the most suitable paradigm for generating or talking about the growing transactions between art and science. Yet we can acknowledge the importance of the term in creating a *rhetoric* about how science infects art and art science. Speaking of symmetry and making use of its visual language might be seen as a kind of appropriative strategy by scientists and artists alike for harnessing the language of the scientific world and its still unshakeable propositions of order to explore a world increasingly populated by dissimilarities. By doing this scientists and artists seem to be engaging in what has become the global pastime of hybridisation.



Jennifer Turpin and Michaelie Crawford *Tied To Tide* 1999 Pyrmont Point Park, Sydney  
photo: Ian Hobbs



Isobel Johnston *DNA Sequences #1* 2001 photo: Michel Brouet



Susan Andrews *Dark Cluster I* 2001  
photo: Michel Brouet



Jacqueline Clayton *Com/pact* 2001  
(detail)

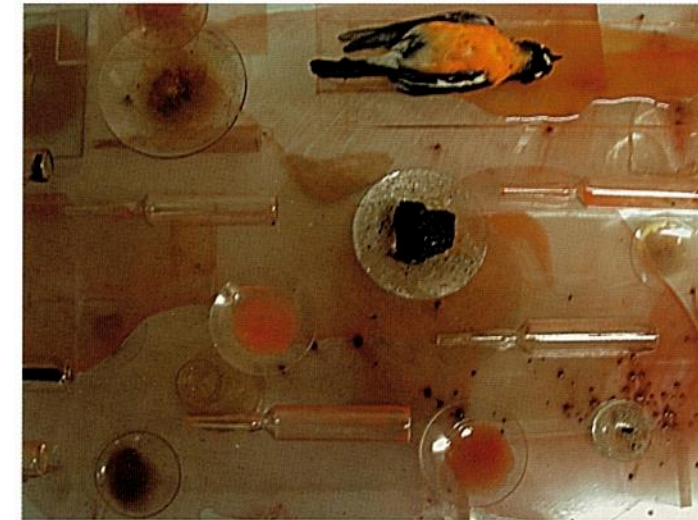


Liz Coats *Morphic Painting #7* 1997

Hybridity is a term that comes to us from a long history of agricultural science but it has proved potent for thinking through developments spurred on in part by the encroachment of new technologies. And perhaps it too will suffer the fate of other experiments in paradigm building and shifting such as collaboration, crossover and intersection to describe the mutations of art/science relations. But the concept of an art-science hybrid is potentially useful if we look at the way it produces the idea of new, localised reactions at the borders of the two areas rather than suggesting the existence of an underlying or fundamental unity. As the sociologist of science Bruno Latour suggests, hybrids do not operate as end products of two converging and conventional fields such as art and science<sup>3</sup>. Hybrids have a life of their own: a life whose very pathways produce the different and emerging parameters of those spheres.

That artists and scientists find their respective spheres impossible to extricate and subject to the infective advance of hybridisation is testified to by the recurring themes of disorder-order, chance and design, personal and impersonal, fluidity and structure that become the self-organising aspects of this show, *Intersections of Art & Science*. Where, for example, Elizabeth Gower gives us the beguilingly simple scientific question that names the series from which her collage on transparency works is taken, *Chance or Design*, the complexity of the patterns created and the intensity of making such work, quickly give away her aesthetic noncompliance with such an oppositional pairing. Repetition transports us into diversity and nonpatterning; none of the species or inorganic images is repeated. Instead it attests to a kind of desire deeply curled within the western scientific imaginary for the unfinished collection, the catalogue that must continue to be inventoried<sup>4</sup>. We can also question this desire from the point of view of a politics of representation; particularly the way in which codes also work to codify gender and bodies in certain ways. These questions are asked in Jacqueline Clayton's work *Com/pact* which looks at the conflation between botanical classification and the encoding of femininity.

This sense that hybridisation launches us into a shifting territory rather than a consolidating one is borne out particularly in the artists and scientists' struggle with both surface and structural topographies that offer no firm reliance on symmetry as an underpinning. Rhett Brewer and Liz Coats deploy an understanding of scientific and mathematical languages of visualisation; specifically geometry and fractal geometries. Coats draws the audience's eye down through the layers of transparency and opacity in her painting, acknowledging here a desire for perceptual stability. Yet all the while we are unsure of the ordering of these layers in paintings such as *"nature"*. The slight inconsistencies in patterning, like Gower's nonrepetition, encourage shifts up and down, inside and out and from symmetry to dissimilarity. This technique of layering to produce shifts towards the asymmetrical can also be seen in Jin-Ho Park's digital prints. Park, relies on lateral shifts between containment and displacement, building symmetries within symmetries that ultimately turn out to be dislodged. Brewer's fractured landscapes might perhaps align themselves more easily with the early wishes of chaos science and mathematics to seek a sign of cohesive patterning and order in a sea of randomness. And yet across his canvases and especially in *Scorpius* the fragmented lines and competing rhythms of the Islamic tiling tradition, abstraction and organicism tend to break the rule of repetition. And while we may be drawn to centre stage in Louise Fowler-Smith's work by the positioning and prominence of the lens, the mixed materiality of the work tends to push the eye back out towards the periphery.



Janet Laurence *Into Light / Trace Elements, The Fugitives* 2000-2001 (detail)



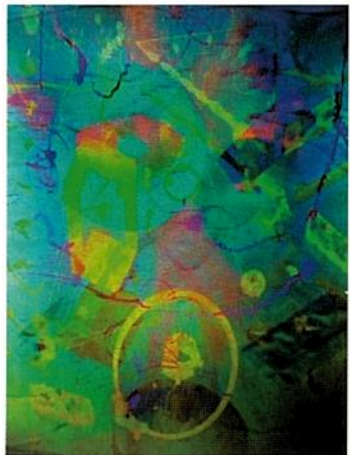
Elizabeth Gower *Chance or Design* 1996 (detail)

The constraints of returning to order after acknowledging the implications of quantum theory's understanding of matter are critically explored in Chris Ireland's video installation *The wave equation*. Ireland can be seen as exemplary of the new localised territories I am suggesting are produced when, quite literally artist and scientist encounter each other. Trained in science and art, Ireland is able to occupy an important position, allowing aesthetics to critically investigate and insinuate itself into the methodology of science. Looking at the startling consequences of a mathematics that released a vision of infinite, complicit and libidinal matter on the world through its dispersion of substance into wave-like properties, she then questions the housing of these findings within the abstracted world of mathematical symbols. Symmetry itself, she suggests, can no longer operate between the reductive tones of abstraction and the complex distribution of matter, which like water, is everywhere at once. With the same questions in mind about the language of abstraction, Julie Tolmie presents mathematics with the necessity of the visual space and experience. Her complex interconnections between mathematic formulae and the visualisation of numerical space sit together suggesting the possibility of a virtual phenomenology of the mathetic universe. In stark contrast to this, Noelene Lucas' installation *Nothing*, reduces the symbolic logic of the digital code to its bare binary bones, in which literally nothing is affirmed. While Ireland and Tolmie's juxtapositions of symbolic languages and matter ask us to think about complexity on a macroecological scale, Schofield's collage works investigate the relation between the biographical and the biochemical. Using fragments of personal history, erased and then worked over by algorithmic formulae he suggests that biography can be thought of as at once local and abstract; a hybrid of personal and incorporeal codings. Drawing us back to histories, personal or collective, as the great leveller of all claims to universality made by code, Robyn Backen's luminous anodised aluminium and marbolo etchings spell out the death of one form of coding, the morse code, even as this makes room for another, the digital.

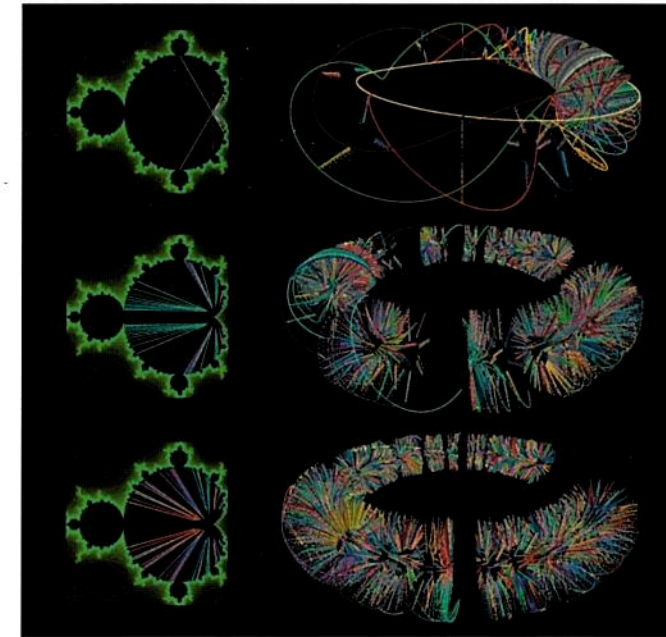
Backen's work transports us to the watery backdrop against which morse code became a communication device. Her pieces, Ireland's video and the documentation of Jennifer Turpin and Michaelie Crawford's site-specific water sculptures create a link to another set of concerns in this show that could be surmised as the elemental. Here light, air, water or earth can no longer be considered merely the objects of artistic manipulation or the field through which aesthetic perception occurs. Rather the elemental is the stuff through which we move and sustain experience and cannot simply become instrumentalised scientifically or aesthetically. This is a particularly apparent concern in Janet Laurence's vitrine *Into light/Trace Elements, The Fugitives*. The scientific attempt to transform the specificity of the elements into each other via alchemical processes exposes at once the clumsiness of its practices and the fragility of the materiality over which it maintains its tenuous regimes. Perhaps Klara Kuchta's light installations, encouraging an interface with regimes of luminosity below or above the threshold of daylight, restore some faith in the transformative qualities of technics. Or even the present/absent status of the dragonfly as shadow hologram in *Anima* by Melinda Menning. The hope of a more productive intersection between technics and the aesthetic is also borne out by documenting the work of Joan Brassil in Harriet McKern and Susan Mackinnon's film, *Somewhere between Light and Reflection*.



Klara Kuchta *Light Installation*  
Geneva, Paris 1997



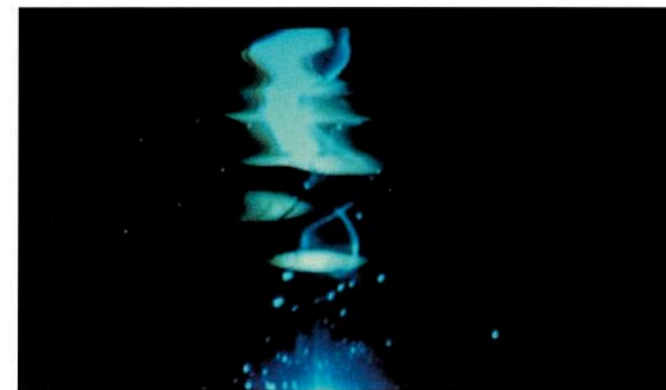
Melinda Menning *Untitled* 2000



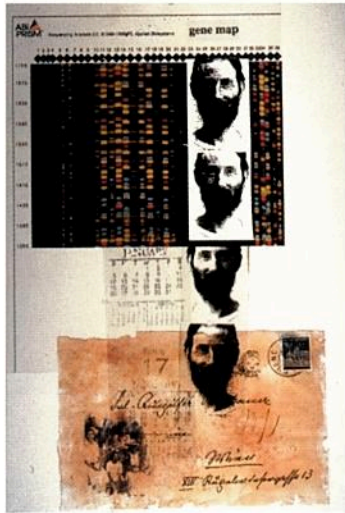
Julie Tolmie *Phase space à côté* 2000



Harriet McKern and Susan MacKinnon  
*Somewhere Between Light and Reflection* 1998



Chris Ireland *The Wave Equation* 2001



Philip Schofield *Cartography of the Gene #3* 2001

From this bio-human relation to the elemental we are thrown wildly outside the comfort zones of knowledge by David Malin's photographs of other worlds and nebulous systems. But rather than that imperial search for knowledge that seems to accompany imaging of space, pattern or stability only appear as emergent; strangely distant, matter keeps its silence. In a show that moves across so many intertwining art/science practices, the question of scale looms over the exhibition as a whole directing us towards some perhaps unintended distortions. While the galaxy seems infinitely untraceable, hemmed in by the gallery space, the microcosmic looms large in the paintings of Isobel Johnston and Susan Andrews. These cellular and nucleic renderings push not only the minute to centre stage but also the minutiae of scientific visualisation practices to the fore. These can be placed alongside the digital prints of Stephen Jones who produces a visuality of the cognitive and neurological sciences.

It is ultimately Patricia Piccinini's work that makes us uncomfortable with a formalist notion of art-science symmetry. Using the kind of seamless and impossible juxtapositions her digital photographic work achieves so well, Piccinini's images turn science back outwards from an introspective marvelling at its own equilibrium. It is out on the streetscapes of her photographs that the creations of biotechnology, like Piccinini's synthetic creature, can be seen not as rarefied solutions but as political and ethical dilemmas for contemporary life. Piccinini breaks the order of science down into sets of competing institutional and discursive practices that might offer panaceas to global starvation while simultaneously genetically reconstructing the ecology of the food-chain. The hybrids of scientific activity are just as likely to instil chaos and confusion as they are to guarantee results. In spite of the increased fascination with science and its potential for aestheticisation then, science cannot hope to remain orderly if it opens its borders to art in this way, for in doing so it is also intersecting with politics, ethics and the practices of life.

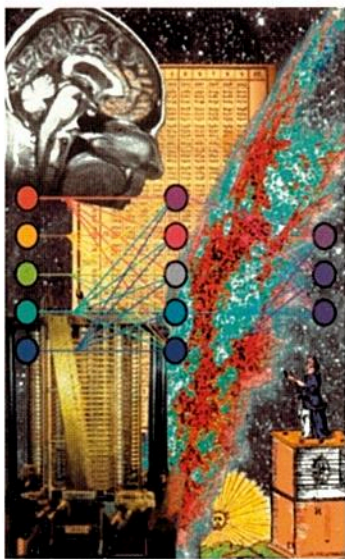
#### Anna Munster

<sup>1</sup> For example, the exhibition *Virus and Mutations*, held at the Aikenhead Centre of St Vincents Hospital as part of the Melbourne Festival Visual Arts program, 19-31 October, 1998. This exhibition included the visualisation work of anatomists, biologists, immunologists and cytographers alongside artists. A more recent example of these kinds of intersections is the conference to be held almost concurrently with this exhibition at the Massachusetts Institute of Technology, in America called *Image and Meaning: Envisioning and Communicating Science and Technology*, which looks at the meanings generated by various forms of scientific visualisation. See <http://web.mit.edu/i-m/intro.htm> (accessed 8/5/01)

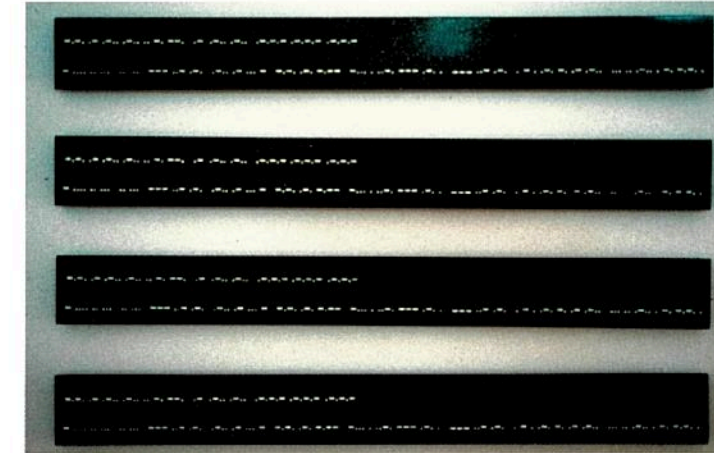
<sup>2</sup> See M. Calvesi, 'Art and science' *XLIII Esposizione Internazionale D'Arte: la Biennale di Venezia, General Catalogue*, Electa Editrice, Venice, 1986, pp.47-9. This introductory essay argues for a rather simple application of science to art both practically and in terms of the adoption of knowledge paradigms.

<sup>3</sup> B. Latour, *We have never been modern*, Harvard University Press, Cambridge, Massachusetts, 1993, pp.1-10.

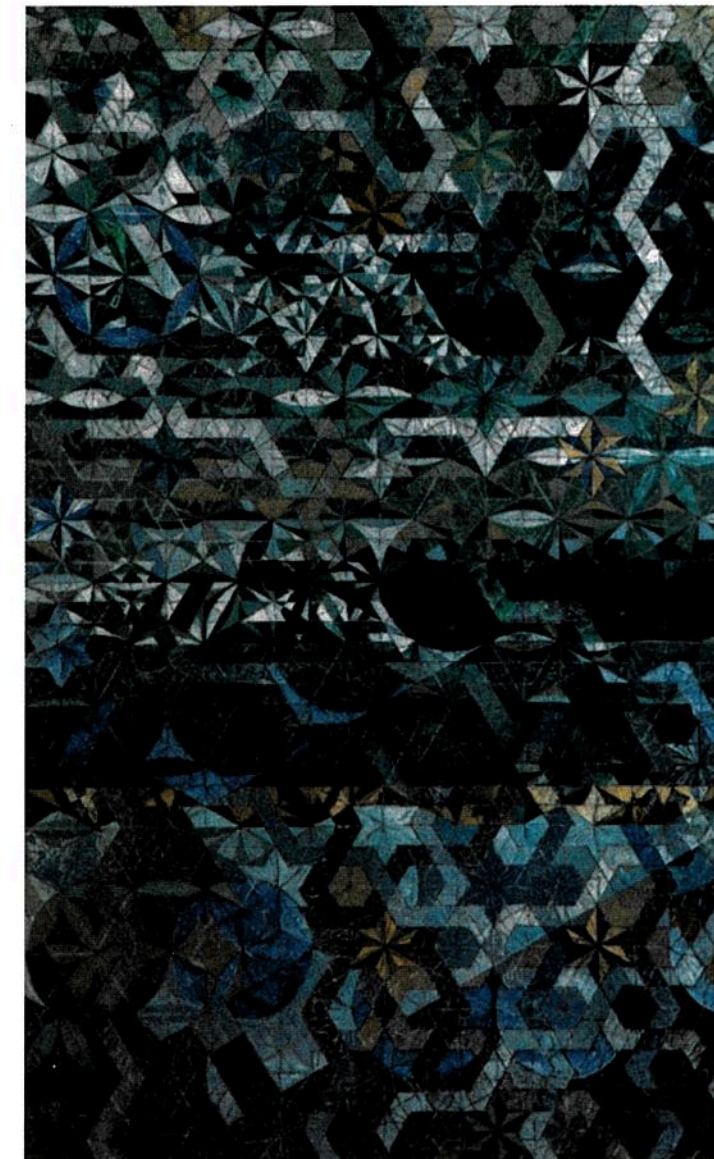
<sup>4</sup> See S. Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection*, Durham and London, Duke University Press, 1996, p.154. Stewart distinguishes between the collection proper, which can be completed, and the 'insane' collection which is always propelled towards another object.



Stephen Jones *Engines of Analysis* from the series *Self Portraits from the Inside* 1998



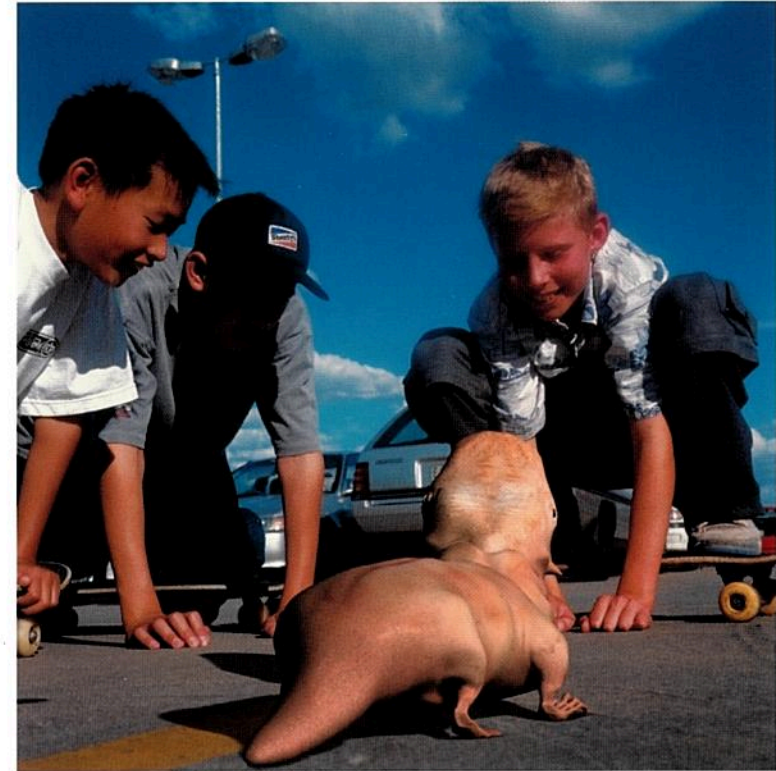
Robyn Backen *calling all ... this is the final cry before our eternal silence* 2001



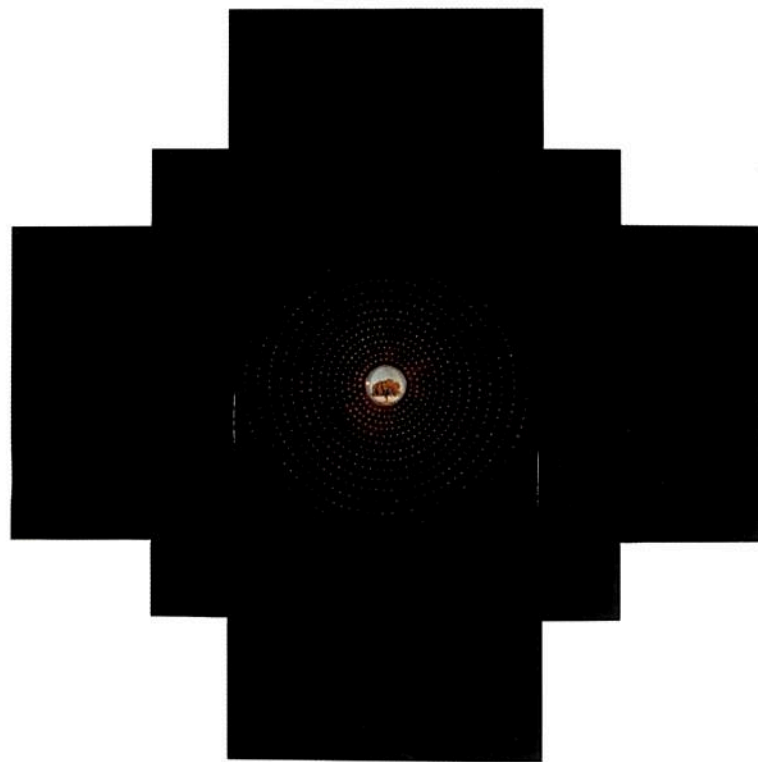
Rhett Brewer *Currarong* 2000



Jin-Ho Park *Symmetria I* 1996



Patricia Piccinini *Social Studies* 2000



Louise Fowler-Smith *The Hidden Seed* from the *In Memory of Trees* series 2001  
photo: Sue Blackburn



Noelene Lucas *Nothing* 2001

# LIST OF WORKS

## SUSAN ANDREWS

*Dark Cluster I* 2001  
acrylic, charcoal, graphite on  
architectural paper  
65 x 50 cm

*Dark Cluster II* 2001  
acrylic, charcoal, graphite on  
architectural paper  
65 x 50 cm

*Suspension I* 2001  
acrylic, graphite on architectural paper  
59.3 x 42 cm

*Suspension II* 2001  
acrylic, graphite on architectural paper  
59.3 x 42 cm

*Suspension III* 2001  
acrylic, graphite on architectural paper  
59.3 x 42 cm

*Suspension IV* 2001  
acrylic, graphite on architectural paper  
59.3 x 42 cm

## ROBYN BACKEN

*better three hours too soon than one  
minute too late* 2001  
(Shakespeare 1564-1616)  
anodised aluminium  
12 x 123 cm

*calling all ... this is the final cry before  
our eternal silence* 2001  
marbolo & luminescence  
12 x 111 cm

*famous for fifteen minutes* 2001  
(Andy Warhol 1927-1987)  
anodised aluminium  
12 x 70 cm

*I have nothing to declare but my genius*  
2001  
(Oscar Wilde 1854-1900)  
anodised aluminium  
12 x 110 cm

*parting is such sweet sorrow* 2001  
(Shakespeare 1564-1616)  
anodised aluminium  
12 x 80 cm

## RHETT BREWER

*Bundanon* 2000  
acrylic on canvas  
42 x 68 cm

*Currarong* 2000  
acrylic on canvas  
42 x 68 cm

*Scorpius* 2000  
acrylic on canvas  
42 x 68 cm

*Signata* 2000  
acrylic on canvas  
42 x 68 cm

*Drift I* 2001  
graphite pencils on watercolour paper  
75 x 95 cm

*Drift II* 2001  
graphite pencils on watercolour paper  
75 x 95 cm

## JACQUELINE CLAYTON

*Com/pact* 2001  
porcelain, carved face powder, modelling  
paste, found objects  
152 x 122 x 61 cm

## LIZ COATS

*Morphic Painting #7* 1997  
pigments & gesso on canvas  
76 x 76 cm

*"Nature" Painting #5* 1999  
pigments & gesso on canvas  
71 x 71 cm

*"Nature" Painting #6* 1999  
pigments & gesso on canvas on board  
59 x 59 cm

## LOUISE FOWLER-SMITH

*The Hidden Seed* from the *In Memory of  
Trees* series 2001  
oil & acrylic paint on board,  
photograph, optical lens & enamel on  
board  
120 x 120 cm

## ELIZABETH GOWER

*Chance or Design* 1996  
paper on drafting film  
240 x 100 cm each

## CHRIS IRELAND

*The Wave Equation* 2001  
video

## ISOBEL JOHNSTON

*DNA Sequences* 2001  
oil on canvas  
40.5 x 61 cm

*DNA Sequences* 2001  
oil on canvas  
23 x 46 cm

*DNA Sequences* 2001  
oil on canvas  
38 x 53 cm

*DNA Sequences #1* 2001  
oil on canvas  
91 x 137 cm

*DNA Sequences #1* 2001  
oil on canvas  
20.5 x 49.5 cm

*DNA Sequences #2* 2001  
oil on canvas  
32.5 x 49.5 cm

*DNA Sequences #2* 2001  
oil on canvas  
91 x 137 cm

*DNA Sequences #2* 2001  
oil on canvas  
45.5 x 61 cm

## STEPHEN JONES

*Doors of Perception* from the series *Self  
Portraits from the Inside* 1998  
ink jet print  
45 x 70 cm

*Engines of Analysis* from the series *Self  
Portraits from the Inside* 1998  
ink jet print  
70 x 45 cm

*I - RSS Cogitans* from the series *Self  
Portraits from the Inside* 1998  
ink jet print  
45 x 70 cm

*Networks of the Mind* from the series  
*Self Portraits from the Inside* 1998  
ink jet print  
45 x 70 cm

*The Brain is the Substrate* from the series  
*Self Portraits from the Inside* 1998  
ink jet print  
45 x 70 cm

*The Gate of Consciousness* from the  
series *Self Portraits from the Inside* 1998  
ink jet print  
70 x 45 cm

*The Reading Machine* 1998  
wood, brass, steel, computer &  
computer monitor, lapiz lazuli, vinyl  
96 x 108 x 70 cm

## KLARA KUCHTA

*Interact* 2001  
light installation  
275 x 450 cm

## JANET LAURENCE

*Into Light / Trace Elements, The Fugitives*  
2000-2001  
glass, acrylic, bird-skins, salt, carbon,  
oil, wax, metallic & mineral pigments  
40 x 110 x 180 cm

## NOELENE LUCAS

*Nothing* 2001  
fluorescent lights  
200 x 125 cm

## HARRIET MCKERN & SUSAN MACKINNON

*Somewhere Between Light and  
Reflection* 1998  
video  
Duration: 26.5 mins  
Producer: Susan MacKinnon  
Writer/Director: Harriet McKern  
Editor: Reva Childs  
Cinematographer: Brigid Costello  
Sound Designer: Alicia Slusarski

## DAVID MALIN

*Star Trails around the South Celestial  
Pole* 1980  
photographic C print  
180 x 250 cm

*The Trifid Nebula* 1990  
photographic C print  
71 x 100 cm

*Corona Australis Reflection Nebula*  
1991  
photographic C print  
71 x 100 cm

*The Helix Nebula* 1992  
photographic C print  
71 x 100 cm

*The Vela Supernova Remnant* 1992  
photographic C print  
71 x 100 cm

*The Sombrero Galaxy* 1993  
photographic C print  
51 x 76 cm

## MELINDA MENNING

*Anima* 2000  
holography  
10.5 x 13 cm each

*Untitled* 2000  
holography  
30 x 40 cm

## JIN-HO PARK

*Symmetria I* 1996  
digital print  
40 x 40 cm

*Symmetria II* 1997  
digital print  
40 x 40 cm

## PATRICIA PICCININI

*Kick Flipollie* 2000  
digital C type photograph  
90 x 90 cm

*Last day of the Holidays* 2000  
digital C type photograph  
90 x 90 cm

*Social Studies* 2000  
digital C type photograph  
90 x 90 cm

*S02* 2000-2001  
digital C type photograph  
90 x 90 cm

## PHILIP SCHOFIELD

*Cartography of the cell #1* 2001  
mixed media  
57 x 38 cm

*Cartography of the cell #2* 2001  
mixed media  
57 x 38 cm

*Cartography of the cell #3* 2001  
mixed media  
57 x 38 cm

*Cartography of the cell #4* 2001  
mixed media  
57 x 38 cm

*Cartography of the Gene #1* 2001  
mixed media  
39 x 27 cm

*Cartography of the Gene #2* 2001  
mixed media  
39 x 27 cm

*Cartography of the Gene #3* 2001  
mixed media  
39 x 27 cm

*Cartography of the Gene #4* 2001  
mixed media  
39 x 27 cm

*Cartography of the Gene #5* 2001  
mixed media  
39 x 27 cm

*Cartography of Memory* 2001  
mixed media  
30 x 24.5 cm

*Gene 83* 2001  
mixed media  
30 x 24.5 cm

*Landscape of the cell #1* 2001  
mixed media  
30 x 24.5 cm

*Landscape of the cell #2* 2001  
mixed media  
30 x 24.5 cm

## JULIE TOLMIE

*Phase space à coté: rational numbers on  
stage* 2001  
digital image & animation

## JENNIFER TURPIN

*Shifting Ground* 1988  
Pier 2/3 Walsh Bay, Sydney  
wave & tidal powered kinetic sculpture  
photo size 39 x 49 cm  
photo: Heidrun Lohr

## JENNIFER TURPIN & MICHAELIE CRAWFORD

*Tank* 1998  
The Downing Centre (Mark Foys)  
Tunnel, Sydney  
photo size 39 x 49 cm  
photo: Ian Hobbs

*Tied To Tide* 1999  
Pyrmont Point Park, Sydney  
a floating kinetic, tidal, wave & wind  
activated artwork  
photo size 39 x 49 cm  
photo: Ian Hobbs

*Water Swing* 2000  
363 George Street, Sydney  
stainless steel & water  
photo size 39 x 49 cm  
photo: Patrick Bingham-Hall

*The Fluid Arts* 2001  
digital video  
with the assistance of House of  
Laudanum