AUSTRALIAN NETWORK FOR ART AND TECHNOLOGY'S REPORT ON THE FIRST

NATIONAL SUMMER SCHOOL IN CADCAM



FOR ARTISTS

9th JANUARY - 3rd FEBRUARY 1989

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Assisting the skilling of artists in the field of new technology has been one of ANAT's primary aims since the inception of the Art & Technology project in 1985. The report of the Art and Technology Pilot Project (ANAT, March '87) identified the severely limited opportunities for artists to acquire knowledge, skills and contacts in the field of high technology, thereby placing a fundamental limitation on the professional development of artists wishing to work within this area.

Underpinning ANAT's aim to assist the skilling of artists in the use of new forms of technology is the conviction that the larger community will benefit through artists' usage and development of high technology.

In addition to the development of new art practices and artworks, a range of other benefits will gradually accrue from the linkage between artists and new technology. Traditionally, Australian artists have operated within the margins of society, rather than within the economic and social mainstream. However, artists do have a critical role to play in the development of an innovative knowledge-based economy.

Countries such as Sweden, Denmark, Finland, Italy and Germany have long recognised the benefits resultant from artist/industry collaboration and have nurtured programs linking the two. Australia is only just beginning to appreciate the value of the creative contributions of its artists, and in particular, the economic potential inherent in the translation of intellectual property developed by artists, craftworkers and designers into commercial and exportable applications. (Donald Horne's recent paper Think - or Perish! published by the Commission for the Future in 1988 provides an excellent discussion of these points).

Through a wide range of mechanisms ANAT aims to assist artists to play a more central role in the development of a 'productive culture'. The National Summer School in CADCAM has been the first major educational initiative undertaken by ANAT to address some of the key issues in this arena and has been perceived by all those directly involved (ie, the ANAT organisers, ATEC managerial and tutorial staff, Open day guests, and, most importantly, the participants themselves) as being a highly successful and worthwhile pilot program.

It is anticipated that future educational and skilling programs will be an integral feature of ANAT's quinquennial plan.

It is strongly recommended that the potential arising from the knowledge and experience gained from the first National Summer School, along with the demonstrated interest from the field and broad-based media exposure generated through this project, be maximised through the planning and implementation of another one or two similarly structured national educational programs in 1989.

2. GOALS OF THE NATIONAL SUMMER SCHOOL IN CADCAM

The following are the stated aims and objectives of the National Summer School in CADCAM:

- to assist the professional development of Australian artists through the acquisition and development of new technology-based skills
- to facilitate 'technology transfer', enabling artists to
 - impart knowledge about CADCAM processes to other artists & interested parties
 - transfer information and skills acquired to other CADCAM systems
- . to create new links between artists and industry
- to introduce artists to a range of practical and theoretical issues associated with the use of new technology
- to promote the fruits of the National Summer School through a wide range of channels including mainstream and specialist media
- to exhibit the results of this and other ANAT-initiated programs in an international symposium/exposition planned for Australia in 1992
- to establish a model for future educational and skilling programs for artists in the area of new technology

3. NATIONAL SUMMER SCHOOL: PLANNING STAGES

3.1 THE HOST EDUCATIONAL INSTITUTION

The National Summer School in CADCAM was conceived as a unique learning environment for artists, craftworkers, designers and art educators to acquire and/or develop a range of skills in computer-aided design and manufacture.

Following advice from the Chair of ANAT, Dr Peter Ellyard, initial discussions were held in July '89 between ANAT and the Advanced Technology Education Centre (ATEC) at the Regency College of TAFE, to ascertain ATEC's interest in developing and hosting an intensive skilling program.

Planning for the proposed summer school commenced, following a positive response from ATEC. A series of informal meetings were held between ANAT's Executive Officer, Francesca da Rimini, and the enthusiastic and supportive ATEC Manager, Pat Tucker, to develop the conceptual basis of the summer school and to discuss the logistics of the proposed course.

3.2 FUNDING

Initial contact was made with various government funding agencies and educational institutions to determine the possibility of the attraction of funding for the summer school. In particular, recognizing the economic disadvantages experienced by many Australian artists, ANAT wished to attract funding to help subsidize the tuition fees set by ATEC. Agencies and institutions initially contacted included:

- . ACT Arts Bureau
- Australia Council (National Infrastructure Program)
- Canberra Institute of the Arts
- . City Art Institute (NSW)
- Darwin Institute of Technology (School of Fine Arts)
- NSW Office of the Ministry for the Arts
- Queensland Premier's Arts Department
- . SA Department for the Arts
- . SA Office of Training & Employment
- . SA School of Art
- Sydney College of the Arts
- . Tasmanian Arts Advisory Board
- Victorian Ministry for the Arts
- Western Australian Department for the Arts

Based on the advice received from the above organisations formal applications for financial assistance were lodged by ANAT with:

- City Art Institute (NSW)
- . Darwin Institute of Technology (School of Fine Arts)
- . SA Office of Training & Employment
- SA School of Art
- . Tasmanian Arts Advisory Board
- . Victorian Ministry for the Arts
- . Western Australian Department for the Arts

In addition, sponsorship approaches were made to three high technology companies which were in some way linked to the technological facilities at ATEC. These companies were:

- Digital Equipment Corporation (Aust) Pty Ltd
- . IBM (Aust) Pty Ltd
- . NEC (Aust) Pty Ltd

Funding totalling \$3000 was successfully attracted from the SA Office of Training & Employment and the Victorian Ministry for the Arts.

The ANAT Committee agreed to use \$2000 of ANAT's budget towards the ATEC tuition fees.

In addition, the Queensland Premier's Arts Department approved an application independently lodged by Brisbane-based artist, Virginia Barratt, for assistance with tuition and travel expenses. The QPAD also approved an application lodged by computer artist, Adam Wolter, for travel expenses to enable his participation as a guest tutor in a special computer animation workshop planned by ANAT as a satellite event to the summer school.

From ANAT's perspective, it was unfortunate that although both City Art Institute and the Darwin Institute of Technology had approved funding for one each of their lecturers to attend the summer school, in the final instance the unavailability of any staff members in January meant that this funding option was not able to be utilised.

With regard to corporate sponsorship for future events, it is recommended that information be gathered as early as possible in the project planning stages as to the optimum leadtime for an approach with each targeted company. Of the three companies approached, both DEC and IBM gave positive indications of their interest in being kept informed of future projects, and their interest in looking at associated sponsorship proposals. However, IBM (national headquarters) generally require a leadtime of between 6 and 12 months, and DEC (in South Australia) require a minimum of 6 weeks to decide on requests for low level funding (ie, under \$2000).

Please see Attachment B Request for Assistance

3.3 PRE-PUBLICITY FOR THE NATIONAL SUMMER SCHOOL

The National Summer School was advertised nationally in the Visual Arts pages of the Weekend Australian, calling for expressions of interest from individuals working across all media in computer-aided design and manufacture. Artists with, or without previous experience but a desire to learn, were encouraged to apply. In addition, a special ANAT mailout targeted over 250 artists, art organisations and educational institutions. Members of ANAT's National Referral Group were also involved in the dissemination of invitations for application.

The Summer School was also publicised in the following publications:

- . ANAT Bulletin (Vol 1 No. 2)
- . ARTLINK (Vol 8 No. 3)
- . GENESIS (Nov '89)
- NAVA newsletter
- THE AUSTRALIAN (Computers & High Technology Feature, Diary Listings)

Following a presentation by ANAT's Executive Officer at a seminar convened by the South Australian branch of ACADS (Association of Computer Aided Design) a number of expressions of interest from artists, graphic designers and photographers working in the private sector were registered.

In all, around 60 expressions of interest were registered with ANAT, and 24 written applications were received. In addition, over 30 artists from around Australia indicated their future interest in similar courses. In most instances, the January timeframe was a problem for these artists.

3.4 SELECTION OF PARTICIPANTS

Copies of applications for participation in the Summer School received in writing by ANAT were distributed to the ANAT Committee for perusal. A Committee meeting was held soon after for the selection of 12 participants.

The decision of the selection of the 12 participants was based on the following criteria:

a balance of gender

. location - to ensure a national representation of participants

art forms - to ensure a wide representation

age/experience - to ensure a wide representation

 artists' capacity for networking and dissemination of knowledge gained from their participation in the Summer School

Please see Attatchment C LIST OF PARTICIPANTS

4. NATIONAL SUMMER SCHOOL COURSE

4.1 CONTENT & STRUCTURE

It was envisaged that after gaining basic skills in the use and general applications of a particular CADCAM program, the course participants would then be in a position to determine how these skills might be applied to their particular field of practice and areas of interest.

As computer-based learning is most effective when class sizes are small, a maximum of 12 places were available in the Summer School. Each student had their own NEC computer work station. ATEC had selected the CADDSMAN computer-aided design and manufacturing software program as an appropriate software system. Further, the CADDSMAN Bureau had an office on site, and arrangements were made for programmers to be available for trouble-shooting, 'bushfires' and general assistance.

To complement the core skills-based program, a number of satellite events were planned introduce participants to other new technologies and future-oriented issues through a computer animation workshop, visits to industrial and research facilities and various social events.

Special course notes were prepared by Pat Tucker of Regency College.

In retrospect, Pat Tucker has determined that more allowance needs to be made in the preparation of future training documents for visual learning.

Course notes used at Regency College for the Summer School are available for perusal at the offices of the Australian Network for Art & Technology.

4.2 PLANNED FORMAT

Week 1

A 40 hour introductory program focussing on an examination of the concepts underlying the creation of data. 'Hands-on' tutorials on a range of CADCAM systems will be an integral feature of the first week.

Weeks 2 & 3

A 10 day workshop program enabling participants to become more conversant with specific CADCAM systems.

Creation of designs, product programs and manufacturing specifications. Specialist seminars looking at issues relating to artists' use of new technologies and techniques.

Tour of Technology Park, Adelaide followed by a social event designed to bring artists and industry together.

An Open Day at ATEC featuring work-in-progress by the participants.

Week 4

A 5 day advanced workshop consolidating skills and refining software applications programs developed in the first 3 weeks.

Satellite Events

A series of satellite events were planned, including:

- tours to other research and commercial organisations housing high-tech facilities including Technology Park Adelaide.
- . a computer animation workshop
- introductions to industry representatives

5. NATIONAL SUMMER SCHOOL OPEN DAY - 26 January 1989

An Open Day for the National Summer School was held during the third week of the course. This event was planned primarily as a public relations exercise targeted at the high technology, government and education sectors. Key representatives from the arts community were also in attendance. Around forty guests were invited to the morning session and luncheon and the days proceedings were videoed.

The Open Day commenced at 11am and incorporated informal and formal presentations by participants of their work-in-progress. The presentations were followed by a tour of the ATEC site and manufacturing facilities, conducted by Pat Tucker.

An al fresco luncheon provided an opportunity for invited guests and course participants to mix informally and was followed by addresses by the Chair of ANAT and newly appointed Director of the Commission for the Future, Dr Peter Ellyard, and Co-ordinator of the Creative Australia Project, Dr Jane Gilmour. A lively dialogue ensued after each speech.

From 2pm, the Summer School was open to the general public. 200 invitations were extended to representatives from the high technology, government, education and arts sectors. Many of the luncheon guests stayed on throughout.

The Minister for State Development and Technology, Employment and Further Education, The Hon. Lynn Arnold, was in attendance during the afternoon session.

Publicity for this event appeared in THE TUESDAY AUSTRALIAN the following week. It was written by Summer School participant and freelance writer, Linda Wallace.

6. RECOMMENDATIONS

6.1

It is recommended there be longer lead time in planning for the purposes of:

-funding sources

-artists' availability

-liaison with host institution (4 months proved to be an adequate period)

6.2

Corporate Sponsorship leads.

It is recommended that DEC & IBM be pursued as first potential sponsors of a subsequent school.

DEC - particularly for a course to be held at Regency College because of the new DEC communication system currently being installed at that institution.

6.3

It is recommended that ANAT seek the involvement of the National Arts Industry Training Council (NAITC) and the South Australian Arts Industry Council (SAAITC).

Francesca da Rimini has met with Murray Brown, Executive Director, NAIT, and also talked with Dale Durie, Training Development Executive Officer, (SAAITC) - they are very interested in supporting training programs of this sort.

6.4

It is recommended that ANAT publicise its interest in developing future courses, and inform all TAFE's, CAE's, Universities, and educational bodies i.e. through the ARTS & EDUCATION publication.

6.5

It is recommended that ANAT obtain more detail of course content from the participating host institution, so that artists applying for participation can have access to more knowledge of the course and its' potential.

6.6

It is recommended that the process employed by ANAT for the selection of participants was an appropriate one, conducive to a broad representation of participants and artforms.

6.7

It is recommended that a 3-week course, with an optional 4th week, seemed to be an optimum length.

6.8

It is recommended that any special events, i.e., satellite events, be held in the second week of the course - this was suggested by the participants and Pat Tucker, course lecturer, for the purpose of minimal distraction.

6.9

It is recommended that events such as the Open Day, be arranged in a week of the course where there are no other satellite activities arranged, so that the participants have 2 or 3 uninterrupted days to prepare for the Open Day.

6.10

It is recommended that consideration be given to the notion of a certain percentage of participants being selected from the commercial or industrial sectors.

This would provide advantage with links to these sectors, promotion of ANAT's activities to a broader base of people, and provide opportunity for ANAT to offer something to these sectors.

6.11

It is recommended that there is more money allowed in budget for discs, and other miscellaneous expenses.

6.12

It is recommended that ANAT continue discussions with Paul Brown, Director of the Computer Image Program, Swinburne Institute of Technology -

re: 5 day intensive course based around the SUPERNOVA computer video image generator.

LIST OF ATTACHMENTS

Attachment A: SUMMARY OF INCOME & EXPENDITURE

Attachment B: REQUEST FOR ASSISTANCE

Attachment C: APPLICATIONS OF SUCCESSFUL PARTICIPANTS

Attachment D: ARTISTS' REPORTS

Attachment E: MEDIA COVERAGE

Attachment F: OPEN DAY PRESS RELEASE & INVITATION

Attachment G: CERTIFICATE OF PARTICIPATION

INCOME

OFFICE OF EMPLOYMENT & TRAINING	\$2,000
VICTORIAN MINISTRY FOR THE ARTS	\$1,000
QUEENSLAND PREMIERS DIVISION OF CULTURAL ACTIVITIES	\$ 500
AUSTRALIAN NETWORK FOR ART & TECHNOLOGY	\$2,000
ARTIST REGISTRATION FEES	\$ 360
ARTIST TUITION FEES	\$1,800
TOTAL INCOME:	\$7,660

National Summer School

EXPENDITURE

ATEC TUITION FEES			\$7	00.000
POSTAGE			\$	19.15
ADVERTISING			\$	52.00
DESIGN & PRINTING			\$	141.85
CATERING/PUBLIC RELATIONS		50.	\$	730.00
GUEST TUTOR FEE			\$	150.00
DOCUMENTATION			\$	127.55
MATERIALS			\$	56.80
MISCELLANEOUS			\$	18.30
TOTAL EXPENDITURE			\$8	,295.65

REQUEST FOR ASSISTANCE

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Attachment B

Australian Network for Art and Technology (ANAT)

Request for Assistance

Project: to co-ordinate a National Summer School for artists & art educators in computer-aided design & computer-aided manufacture (CADCAM) through the Advanced Technology Education Centre, Regency College of TAFE, in Adelaide in January 1989.

Agencies being approached:

- ACT Arts Bureau
- . Darwin Institute of Technology (School of Fine Arts)
- . NSW Office of the Ministry for the Arts
- Queensland Division of Cultural Affairs
- . SA Department for the Arts
- . SA Office of Training & Employment
- . SA School of Art
- . Tasmanian Department for the Arts
- Victorian Ministry for the Arts
- . Western Australian Department for the Arts

1. Background

The Australian Network for Art and Technology (ANAT) is a new national interdisciplinary arts organisation, funded by the Australia Council, with a primary aim to promote, foster and develop the interaction between the arts, sciences and technology. (Please see Attachment A, Background).

The devolution of the Australia Council's Artists & New Technology Program to ANAT in 1988 has provided the art and technology field with an identifiable discrete organisational base, a base built upon the primary research undertaken by the Art & Technology Pilot Project 1985-87.

ANAT is the only arts organisation in Australia entirely devoted to advancing this field.

ANAT's activities include:

- maintenance of a data base on artists & organisations involved with the use of new technology
- facilitation of artists' residencies in industry
- . national & international networking
- . information collection & dissemination
- initiation & co-ordination of special projects
- administering of a seeding fund for artists' projects
- promotion of Australian technology-based art, craft & design

ANAT's major special project in 1988 is the co-ordination of an Australian delegation to attend the First International Symposium on Electronic Art (FISEA) to be held in Utrecht, The Netherlands, Sept 26-30. Funding and sponsorship has been attracted from a range of sources to enable the participation of 7 leading new media practioners, theorists and publishers in this important event.

2. National Summer School in CADCAM

ANAT's first special project for 1989 is the co-ordination of a National Summer School in CADCAM (computer-aided design & manufacturing) for artists, craftworkers and designers.

This National Summer School will be held in Adelaide at the Advanced Technology Education Centre (ATEC), Regency College of TAFE, in January 1989.

The Summer School will provide a unique learning environment for artists, craftworkers, designers and art educators to acquire and/or develop a range of specialized computing skills relevant to their field of practice. As computer-based learning is most effective when class sizes are small, a maximum of 12 places will be available. Each student will have their own computer work station. To complement the core skills-based program, a number of satellite events will introduce participants to other new technologies and future-oriented issues through hands-on workshops, visits to industrial and research facilities and a series of panel discussions.

3. Rationale for National Summer School

ANAT has always maintained an interest in assisting the skilling of artists in the field of new technology. One of the findings of the report of the Art and Technology Pilot Project (March '87) was that there has been limited opportunity for artists to acquire both knowledge and skills in high technology. This lack places a very real limitation on the professional development of artists wishing to work within this field. The National Summer School represents the first major step by ANAT to begin to address this problem and is an important feature of ANAT's quinquennial plan.

Underpinning ANAT's aim to assist artists acquire skills in the use of new forms of technology is the belief that the larger community will benefit through artists' usage and development of high technology.

An obvious outcome is the creation of a new and challenging body of artworks.

Other benefits will accrue from the linkage between artists and new technology. Traditionally, Australian artists have operated within the margins of society, rather than within the economic and social mainstream. However, countries such as Sweden, Denmark, Finland, Italy and Germany have long recognised the benefits resultant from artist/industry collaboration and have nurtured programs linking the two. Australia is only just beginning to appreciate the value of the creative contributions of its artists, and in particular, the economic potential inherent in the translation of intellectual property developed by artists, craftworkers and designers into commercial and exportable applications. (See for example, Donald Horne's recent paper 'Think - or Perish! published by the Commission for the Future).

Artists have a critical role to play in the development of an innovative knowledge- based economy in Australia. Through a wide range of mechanisms, including educational initiatives such as the National Summer School, ANAT aims to assist artists to play a more central role in the development of a 'productive culture'.

4. Goals of the National Summer School

- to assist the professional development of Australian artists through the acquisition and development of new technology-based skills
- to facilitate 'technology transfer', enabling artists
 - to impart knowledge about CADCAM processes to other artists & interested parties
 - to transfer information and skills acquired to other CADCAM systems
- to create new links between artists and industry
- to introduce artists to a range of practical and theoretical issues associated with the use of new technology
- to promote the fruits of the National Summer School through a wide range of channels including mainstream and specialist media
- to exhibit the results of this and other ANAT-initiated programs in an international symposium/exposition planned for Australia in 1992
- to establish a model for future educational and skilling programs for artists in the area of new technology*

*Please note that future educational programs would not necessarily have to be located in South Australia, but could be run through any educational institution in Australia which had the appropriate technical facilities, expertise and of course, an interest in hosting intensive workshop courses, summer schools or skills-based programs aimed at artists. An investigation of future options would occur as a part of the review process following the first National Summer School.

5. Course details

Course details are still being finalised by ANAT in consultation with Regency College of TAFE and other participating bodies - the following information is currently available. Further details will be available in October '88.

Co-ordinating body:

Contact person:

Australian Network for Art & Technology Francesca da Rimini, Executive Officer

Phone:

08-231 9037

Host institution:

Advanced Technology Education Centre (ATEC), Regency College of TAFE in South Australia

Contact person:

Pat Tucker, Acting Manager, ATEC 08-348 4522/348 4444

Phone:

Timing:

January 1989 (3 weeks or 4 weeks) Cost of Tuition:

\$320/week per artist

This fee is set by the Advanced Technology Education Centre and covers the cost of tuition and computer facilities at ATEC.

Funding:

ANAT is endeavouring to assemble a package of funding to assist artists' participation in the National Summer School. Requests for assistance have been lodged with a range of State cultural, education and employment agencies to offset the travel and tuition costs for artists wishing to participate in the School.

ANAT will be providing a direct financial contribution to this project in addition to covering all administration, publicity and miscellaneous expenses.

Please note that while ANAT receives funding for its core operations from the Australia Council, ANAT must raise special project funding from a range of government and private sector sources.

Participants will be personally responsible for the following:

- National Summer School registration fee of \$60
- accomodation arrangements (ANAT may be able to provide some assistance with billets)
- daily travel to & from the Advanced Technology
 Education Centre
- any additional expenses incurred through their participation in the National Summer School (eg purchase of computer disks, software programs, art materials, personal documentation, etc)

Facilities:

Facilities at ATECinclude a range of micro-computers, IBM work stations (32 bit RTs running CATEA), a DEC VAX 3000, Qikdraw units, & various CADCAM software programs.

Access:

Participants will be provided with pin keys, allowing 24 hour/7 days a week access to the computer facilities at ATEC.

Requirements:

No initial experience in computing or CADCAM is required. However, artists with demonstrated experience could be given preference in some instances.

Proposed format:

Week 1

A 40 hour introductory program focussing on an examination of the concepts underlying the creation of data. 'Hands-on' tutorials on a range of CADCAM systems will be an integral feature of the first week.

Weeks 2 & 3

An 10 day workshop program enabling participants to become more conversant with specific CADCAM systems. Creation of designs and manufacturing specifications. Specialist seminars looking at issues relating to artists' use of new technologies and techniques. Tour of Technology Park Adelaide followed by a social event designed to bring artists and industry together.

Week 4

A 5 day advanced workshop consolidating skills and refining software applications programs developed in the first 3 weeks.

Satellite events:

A series of satellite events are planned including

- tours to other research and commercial organisations housing high-tech facilities including Technology Park Adelaide.
- a seminar on legal aspects of intellectual properties and patent legislation
- panel sessions featuring artists working with new technology discussing a range of practical & theoretical issues
- a workshop on electronic publishing utilizing APPLE MacIntosh computers at the Adelaide College of TAFE
- a workshop on the latest video technology presented by SONY
- a workshop on telecommunications, satellite technology & associated issues presented by AUSSAT
- . introductions to industry representatives
- . a social event linking artists & industry

Other Information:

The Advanced Technology Education Centre (ATEC) has developed electronic data interchange facilities which will enable workshop participants to transfer CADCAM programs designed during the course into dedicated programs compatible with computer systems they may have access to in their home states.

The National Summer School will be promoted through a wide range of channels and networks, including the national press, in Sept/Oct '88.

Following a call for expressions of interest in participation in the National Summer School, an ANAT sub-committee will select suitable participants. Applicants will be notified of the sub-committee's decision in November.

LIST OF PARTICIPANTS ATTACHMENT C

PARTICIPANTS

Hilary Archer/Wrigley (Vic) Art Educator; 2D Multimedia Artist

Virginia Barratt (Qld) Performance Artist

Richard Brecknock (SA) Sculptor & Fabric Artist

Peter Charuk (NSW) Art Educator; Photographer

Richard Grayson (SA) Performance Artist

Pamela Harris (SA) Multimedia Artist & Printmaker

Stephen Hennessey (Vic) Designer & Painter

Lloyd Kan (WA) Sculptor

Diane Mantzaris (Vic) Printmaker

Roger Noakes (SA) Sculptor

Linda Wallace (Vic) Video Artist

Ian White (WA) Jeweller & Leatherworker

*Please note that Lloyd Kan was unable to attend the Summer School.

Jennifer Oldfield (SA) Leatherworker

*Jennifer Oldfield was invited to participate in Lloyd Kan's place.

ARTISTS' REPORTS

Attachment D