# FIRST INTERNATIONAL SYMPOSIUM ON ELECTRONIC ART

September 27 - September 30, 1988

UTRECHT - THE HAGUE - ROTTERDAM - GRONINGEN
THE NETHERLANDS

#### PRELIMINARY PROGRAM

SCCA Foundation for Creative Computer Applications
CKMT Center for Art, Media and Technology
of the Utrecht Academy of Arts

#### **Table of Contents**

Welcome	4
Committees	5
Acknowledgements	6
Tentative Time-Table	7
General Information	15
Symposium	16
Tutorials and Hands-On-Sessions	17
Industrial Exhibition	17
Special Events	17
Competitions and Presentations	18
Omniversum	18



#### **KLM Official Carrier**

KLM Royal Dutch Airlines has been appointed Official Carrier for the Congress. KLM offices all over the world will meet your travel arrangement requirements.

For U.S. participants please call toll free 1-800-KLM-7777

#### Welcome

The Foundation for Creative Computer Applications (SCCA) and the Center for Art, Media & Technology of the Utrecht Academy of Arts would like to welcome participants to the First International Symposium on Electronic Art.

The Symposium brings together experts on all aspects of electronic applications to the arts in a scientific, creative and eductional forum for scientists, artists and other specialists in the field of the electronic arts. The four-day event will offer lectures and hands-on learning sessions by international experts on the current state of electronic art. Papers selected by the International Program Committee will be presented on the most recent developments in computer graphics, computer animation and computer music, image processing, video art, interactive electronic art, and computer poetry and literature. Special focus will be given to the integration of electronic art forms, the aesthetics of electronic art and applications of Artificial Intelligence.

Other Symposium events will include art and industrial exhibitions, competitions and evening performances. An international organization for Electronic Creativity will be founded during the Symposium.

The Organizing Committee plans a stimulating and challenging Symposium where scientists, technologists and artists can exchange expertise and ideas and come away with a broadened sense of the potential within their fields. Your participation is an integral part of the success of the program and we look forward to meeting you in Utrecht, September 27 - 30.

#### Secretariat

SCCA/FISEA P.O. Box 23330 3001 KJ Rotterdam The Netherlands Telephone (0)10 - 4 360 371 Fax: (0)10 - 4 360 346 Email UUCP: FISEA @ HKU Email AppleLink: HOL 0049

#### Committees

#### **Organizing Committee**

Ton Hokken (chairman) Johan den Biggelaar (chairman) Wim van der Plas (advisor)

#### **Program Committee**

Paul Berg	NL
Frederik van der Blij	NL
Wim Bijleveld	NL
Wim Crouwel	NL
Charles A. Csuri	US
Herbert W. Franke	FRG
Theo Hesper	NL
Robin G. King	CAN
John Lansdown	UK
Thomas E. Linehan	US
Tod Machover	US
Nadia Magnenat-Thalmann	CAN
Roger F. Malina	US
Jean-Claude Risset	FR
Itsuo Sakane	Jap
John Vince	UK
Iannis Xenakis	FR

#### Committee of Recommendation

D	***	C	egel
E.	van	oni	eget

- Director General

Science Policy

Ministry of Education

and Sciences

A.J. van der Staav

- Director, Social and

Cultural Planning

Bureau

M.W.M. Vos-van Gortel - Mayor of Utrecht

Photo page 10 - 11: Peter Voci Photo page 6 - 14: Mike King

#### Acknowledgements

The members of the Organizing Committee wish to express their gratitude to the following for their cooperation and support:
Anjerfonds Utrecht
Stichting voor Publieksvoorlichting over Wetenschap en Techniek (PWT)
Stichting Post Kunstvakonderwijs
Gemeente Utrecht / Provincie Utrecht
Ministry of Economic Affairs
Ministry of Welfare, Health and Culture Affairs
Computer Music Association
Eurographics
ISAST / Leonardo
Netherlands Universities Foundation for International
Cooperation (NUFFIC)



## Mike King

#### Tentative time-table

#### Tuesday, September 27, 1988

#### Time

09.00 - 18.00

Workshop on Networking in the Arts

Raymond Lauzzana

Hands-on-Session on LISP Peter Desain, Henk-Jan Honing

Hands-on-Session on Introductory Image Processing

J. MacCormick, Ad Wisman

Hands-on-Session on Advanced Image Processing Ted Young c.s.

Hands-on-Session on Interactive Composing George Lewis, Daniel Brandt

Hands-on-Session on Interactive Media to be invited

Hands-on-Session on FM Synthesis Ernst Bonis, D. Bristow

Hands-on-Session on Computer Poetry Piero Olmeda

Tutorial on Development of Musical Software for Personal Computers

David Zicarelli

All Hands-on-Sessions include a tutorial on the subject given

17.30 - 20.00 Informal Get-Together and opening of the Center for Art, Media and Technology

21.00 - 22.30 Performance Program

The Thundering Scream of Seraphim's Delight Reynold Weidenaar The Empty Chair - A multimedia

performance George Lewis

#### Wednesday, September 28, 1988

				Chairman: Peter Desain
Time	Plenary session Invited speakers			Panel on Programming for the Arts
09.00 - 09.45	Opening of the Symposium		15.30 - 16.00	Tea
09.45 - 10.30	Willem Dijkhuis title unknown	*	16.00 - 17.30	Plenary session Chairman: Frederik van
05.45 10.50	Harold Cohen			Invited speaker
10.30 - 11.00	Coffee	4		Computer Graphics and
11.00 - 12.30	Plenary session Chairman: Herbert W. Franke			Agents of Personal Evolu Robin G. King
	<b>Exploring new Tools for the Artist</b>			Parallel session Chairman: Frederik van d
	Establishing a Tonic Space with			Interactive Art: a Renai
	Digital Color Brian Evans			Using Computers in an A
	Fantasy Object Exploration with Micro-Computers Edward R. Pope			Practice: from Computer Drawings to Interactive Computer Art
	Computer Dance makers Peggy Brightman			Stephen Bell The Cultural Signigicano
	Sculptor - a 3D Computer Sculpting System			Interactive Art Stephen P. Wilson
	Mike R. King			Towards a new Media
12.30 - 14.00	Lunch			Technology Interactive V Environments
14.00 - 15.30	Parallel session Chairman: to be invited			Joel A. Slayton  Parallel session
	<b>Exploring new Tools for the Artist</b>			Chairman: Peter Desain
	Perspective and the Appearance of Natural Scenes Edwin H. Blake			Panel on Programming for the Arts
	Epigenetic Painting: Software as Genotype, a New Dimension of Art		20.00	Visit to the Omniversum Transportation is provide
	Roman Verostko	.4		
	Visualisation of Sculpture William Latham			
	The Staging of Leonardo's Last Supper Lillian F. Schwartz	6		
	The Making of a Film with Synthetic Actors Nadia Magnenat-Thalmann			

Chairman: Peter Desain

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12.30 - 14.00

14.00 - 15.30

#### Thursday, September 29, 1988

	Plenary session Chairman: to be invited
	Invited speakers
09.00 - 09.45	title unknown Paul Lansky
09.45 - 10.30	Aesthetic Issues in Computer Art Thomas E. Linehan
10.30 - 11.00	Coffee
11.00 - 12.30	Parallel session Chairman: John Lansdown
	<b>Aesthetic Issues and Computer Art</b>
	Interfacing Traditional Art Media with

Computer Imaging John Pearson

Joan Truckenbrod

André Jodoin

Language

An Electronic Arts Landscape: a new

Art, Time and Computer Animation

**Institutional Networking** Panel on Computer Graphics Education Lunch Parallel session Chairman: John Lansdown **Aesthetic Issues and Computer Art** Digital Simulation and Art Objects: the Unity of Representation Frank Dietrich Computational Art Anton Eliëns Finding a Context for the new Technology Edward R. Pope **Emergent Aesthetics** Nihai Nadin Parallel session Chairman: C. Kandall

Peter Voci

Parallel session Chairman: John Vince

**Institutional Networking** Panel on Computer Music Education 15.30 - 16.00 Tea 16.00 - 17.30 Parallel session Chairman: Paul Berg New Tools for the Composer Extended Musical Interface with the Human Nervous System: Assessment and Prospectus David Rosenboom Smalltalk-80 and Music Applications Stephen T. Pope Parallel session Chairman: Thomas E. Linehan **Institutional Networking** Panel on Research in Art and Technology 18.00 - 19.00 Official Reception 20.30 Performance Program Portable Music Daniel Brandt Duel Peter Desain and Henk Jan Honing Obeying the Laws of Physics Daniel Scheidt Music for Bass Clarinet and Tape Cort Lippe Hall of Mirrors Robert Rowe Cometose

> Robert Mulder, Kristi Allik Systems of Judgements David Rosenboom

#### Friday, September 30, 1988

	Plenary session Chairman: to be invited
	Invited speakers
09.00 - 09.45	The Electronic Bauhaus Jürgen Claus
09.45 - 10.30	Hyper Instruments Tod Machover
10.30 - 11.00	Coffee
11.00 - 12.30	Parallel session Chairman: Roger Malina
	Applying AI-Techniques to Art
	Discovery through Interaction Peter Beyls
	Logic and Time-based Art Practice Ernest Edmonds
	Some Issues in the Development of Computer Art as a Mathematical Art Form Richard Q. Wright
	Parallel session Chairman: Nadia Magnenat-Thalmann
	<b>Panel on Computer Animation</b>
12.30 - 14.00	Lunch
14.00 - 15.30	Parallel session Chairman: Kristi Allik
	Relating Image and Sound Visual Documentation of Structural Information: a Tool for Composition an Analysis in Electro-Acoustic music Tamas Ungvary

Perceptual Correspondences of Abstract Animation and Synthetic Sound Adriano Abbado

The Creation Station: An Approach to a Multimedia Workstation Henry S. Flurry

Image Modelling of the Musical Object Michel Naranjo

Parallel session

Chairman: Raymond Lauzzanna

Panel on Artificial Intelligence in the Arts

15.30 - 16.00

Tea

16.00 - 17.30

Plenary session

Chairman: to be invited

Invited speakers

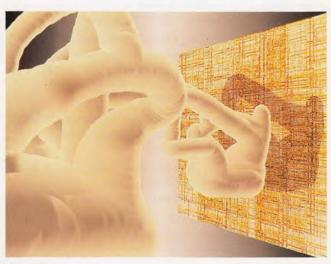
Technologies and Story Writing

John Sanborn

title unknown William Buxton

Saturday, October 1st, will be available for informal meetings of participants and speakers.

If you wish to make use of this opportunity, please contact the registration desk during the Symposium. In the final program details about meetings already scheduled on saturday will be published.



#### Mike King

#### **General Information**

#### Location

The Symposium will be held at the 'Royal Dutch Jaarbeurs' conference center, Jaarbeursplein, Utrecht; telephone (0)30-955 911. Trains leave every half-hour from Amsterdam Airport Schiphol to Utrecht Central Station. The Jaarbeurs is located in the center of Utrecht, near the central railway station. You can obtain directions to the Jaarbeurs, or to your hotel, from the information desk at the station in Utrecht.

The Hands-on-Sessions will be held at the new building of the Center for Art, Music and Technology (CKMT). The Center is located in the heart of the city. Lange Viestraat 2b, telephone (0)30 - 332 366

#### **Registration Area**

Hands-on-Session and Tutorial registration will take place at the CKMT from 17.00 to 19.00 hrs. on Monday, September 26, 1988, and from 08.00 to 09.00 hrs. on Tuesday, September 27.

Registration for the Symposium only will be at the CKMT from 16.00 to 20.00 on Tuesday, September 27 and from 08.00 hrs. each day of the Symposium at the Bernardhal at the Conference Center.

Participants can receive mail during the Symposium, addressed to the Secretariat, at the registration desk, address see below.

Telephones are available in the central hall of the Conference Center.

During the Symposium you can be reached at the following telephone number: (0)30 - 955 461.

E-mail, including the name of the adressee and stating "FISEA participant" may be sent to: mcvax!hku!fisea

#### **Registration and Payment**

Participants are strongly advised to pre-register for the Symposium. The price for Symposium registration received before July 15, 1988 will be Dfl. 325,--. The cost after this date will be Dfl. 400,--. The price for Tutorials and Hands-on-Sessions is Dfl. 150,-- for Symposium participants and Dfl. 200,-- for Non-participants. A deposit of Dfl. 200,-- is required to guarantee hotel reservations. Please complete the enclosed registration form and send it with the appropriate fee to:

#### Secretariat SCCA/FISEA

P.O. Box 23330

3001 KJ Rotterdam The Netherlands

Telephone (0)10 - 4 360 371

Fax: (0)10 - 4 360 346

Payment for registration and hotel reservations should be made by check, payable to 'First International Symposium on Electronic Art' (FISEA). Bank to bank transfers of money should be directed to the account of FISEA with the ABN Bank Rotterdam, The Netherlands, account number 50.42.25.863. Be sure to include your name and address on the bank statement.

Your registration will be acknowledged by letter after receipt of fees due. On presentation of this letter at the registration desk you will receive all documents relating to the Symposium, including a conference badge to be worn at all Symposium activities and a special issue of the Journal Leonardo, dedicated to the Symposium.

Notification of cancellation must be in writing or by telex, telegram or fax to the Symposium Secretariat. Cancellations received before September 1, 1988, will be reimbursed the total amount less 25% for administration and banking cost. Refunds will be processed after the conference.

#### **Accommodation and Meals**

Rooms will be reserved for Symposium participants at several hotels in Utrecht. The cost of hotels includes breakfast.

#### Hotels

Category	Single	Double
First Class	Dfl. 200,	Dfl. 230,
Second Class	Dfl. 130,	Dfl. 160,-
Third Class	Dfl. 75,	Dfl. 100,

Lunches are included in the registration fee and will be served in the Conference Center restaurant. Coffee and tea will be provided during the breaks. A bar is located in the Conference Center for informal meetings and there are many restaurants and cafes in the center of Utrecht, within walking distance from the Conference Center.

#### Symposium Language

The official language of the Symposium is English.

#### Symposium

Papers selected by the International Program Committee and the Organizing Committee will be presented on new developments and current problems in computer graphics, computer animation, image processing, electronic/computer music, computer poetry/literature and video art. Special focus will be given to the integration of different art forms, aesthetics of electronic art and application of Artificial Intelligence to art.

Symposium proceedings will be published and a selection of the best papers will appear in a special edition of Leonardo ( Journal of the International Society for the Arts, Sciences and Technology).

#### Hands-on-Sessions, a Tutorial and a Workshop

A Tutorial, a Workshop and 7 Hands-on-Sessions will be given by international experts on various topics including computer graphics, computer music, image processing and computer animation on Tuesday, September 27. Participants can register for more subjects throughout the day. The Tutorial will take half a day, the Hands-on-Sessions half a day or a full day and the Workshop a full day. There will be an hour break for lunch and two breaks for coffee and tea during the day. Lecture notes will be given to attendees.

#### **Industrial Exhibition**

An Industrial Exhibition will be organized for the Symposium where companies will display their most recent developments for electronic art in hardware and software including computer graphic systems, computer music systems and interactive media.

#### **Special Events**

There will be an informal get-together in the lobby of the CKMT - Lange Viestraat 2b - from 17.30 to 20.00 on Tuesday, September 27. During this event, the Centre for Art, Media and Technology will officially be opened. The official reception will take place on Wednesday, September 28. Details as to the time and location will be announced in the final program.

A selection of computer graphics will be exhibited at the Conference Center during the Symposium.

Music performances will be held Tuesday and Thursday evenings for Symposium participants at the Utrecht Academy of Arts Theatre, Janskerkhof 18 in Utrecht. On Friday evening performances will also take place for the general public.

#### **Competitions and Presentations**

An additional art show will be held throughout the Symposium where video's, slides and prints that have been entered for this purpose will be shown. The exhibition will be open to the public and media coverage is expected. The deadline for entries is July 1.

A selection from this exhibition will be shown at the Utrecht Academy of Arts Theatre on Friday, September 30. Video's and films will be projected on a large screen.

Poster exhibitions will be held featuring livedemonstration of systems under development.

Prize-winners of the competitions will be announced during the Symposium. A world-wide press release with illustration materials will be organized. The international press will be invited to attend both the art show and the theatre presentation.

#### Omniversum

A special Omniversum competition is organized. The deadline is July 1. Information about this competition can be obtained from the Secretariat. The result of this competition will be shown at the Omniversum Theatre on Wednesday evening, September 28.

The Omniversum in the Hague is one of the two Space Theatres in the world which combine the superb Omnimax filmprojector and the Digistar planetarium projector.

The Digistar is a realtime vector graphics generator attached to an image tube. The monochromatic images are projected onto the dome of Omniversum. Digistar is designed to generate planetarium shows. Motion of the stars, planets and galaxies are standard features of Digistar.

However, Digistar can manipulate and display any type of image, provided it consists of lines and/or dots. Up to twenty images can be displayed at the same time and indepently translated, rotated and scaled. One single image can be quite large, e.g. the Digistar star field with its 7000 stars, is treated as one image.

# The Groningen program during the First International Symposium on Electronic Art.

During the FISEA Symposium several activities will take place in Groningen in the northern part of Holland. The program in Groningen will include a lecture on Fractal Art, by prof. Heinz-Otto Peitgen of the Institute for Complex Dynamics at the University of Bremen. Several panel discussions are planned, amongst others, on the relationship between electronic mass-media and art, and on the use of computers in the process of composing today, these will be followed by a concert of computermusic. Several art schools will present their computer activities to the public. An elaborate interactive video installation by the artist Frits Maats will be installed. A program will be available at the symposium registration desk.

#### Center for Art, Media and Technology

The Centrum voor Kunst, Media en Technologie (Center for Art, Media and Technology) was founded in 1987 by the Utrecht Academy of Arts, one of the largest such institutes in Europe. The Center's new housing, available just weeks before FISEA, will include US \$ 4 million in computer equipment, professional audio and video equipment and provide a unique and integrated environment for education, research and production in electronic art. During FISEA, guided tours will enable you to meet students and faculty members who will gladly inform you about the activities that are going on in the Center's 20.000 sq.ft. of computer gardens, audio and video studio's, etc.

#### SCCA, foundation for Creative Computer Applications

The SCCA was founded in 1984 in order to stimulate cooperation between scientists, technologists and artists. The thought behind this is that scientific participation is a necessary incentive for successful artistic hightech projects. The SCCA has organized many educational projects on computer art in Holland and initiated the computer graphics courses at Dutch art schools. Since 1987, the SCCA has cooperated closely with the Utrecht Academy of Arts.