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PAGE 19    BULLETIN OF THE COMPUTER ARTS SOCIETY    DECEMBER 1971

Dear John

Why has the Computer Arts Society made this minimal contribution to INN$_7$0 after discussions streaching back over a year, even back to when we first met at EVENT ONE?

My own position in ICL is quite different from that of APG artists. I am employed as a technical manager and my interest in applying computers creatively is tolerated or mildly encouraged for reasons ranging from altruistic sympathy to publicity – I seem to be the only one who sees commercial potential in systems for art. This is all in a world where Art is one thing while Technology and Industry are something else.

APG artists work in their firms as artists. Their presence is an affront to – if not an attack on – the normal product and profit premises of most companies. I am delighted to see them there, for our greatest need in society is the redefinition of aims. Such radical alterations are needed before your scheme can spread that I am not optimistic about its development. We talked about all this and decided that a contribution from the Computer Arts Society documenting its history would be best. Sadly we could not find anyone with time to prepare such an exhibit. I think it would have fitted into INN$_7$0 well. Like APG, the society has been concerned with establishing links between artists and organisations, fearing the further alienation of the creative forces from those that drive society.

In the end perhaps we shall all be adapted and adopted by the political-military-academic-industrial-aesthetic complex. Who will be the artists then?    Best wishes
+ Love to Barbara  Alan

INN$_7$0                art + economics

Hayward Gallery  London SE1
10 to 6 each day until 23 December 1971
Admission free

Exposition of ideas and products of Artist Placement Group, which injects artists into industry not for patronage but as agents of change. John Latham's car crash a year ago is documented and the APG office, sitting room, meeting place is a living sculpture (aren't we all) with audio-visual monitoring points through out the gallery, and may be its all being recorded for posterity. APG's concern for the artist's relationship to the organisations of society is shared by the Computer Arts Society, and you are invited to send relevant non-returnable documents, printouts, paper tapes (there's a teletype connected to Timesharing Ltd), art work, post cards and communications in any medium to John Latham at the address above.

COMPUTER GRAPHICS # COMPUTER ART          JOHN LANSDOWN

No-one who takes an interest in the aims and objections of the CAS can afford to ignore anything that Frieder Nake says.  His note in PAGE 18 is an important personal statement which has to be taken into account by anyone who devotes any part of his life to the 'creative' use of computers.

I fear though that Nake has fallen into the same trap which ensnares so many writers on the subject:  that of equating computer art with computer graphics.  Although he mentions other applications in his first paragraph, his whole argument seems to be based on conclusions drawn from the output of computer graphicists.  If this were not so he could not make the statement that 'the repertoire of <u>results</u> of aesthetic behaviour has not been changed by the use of computers'.  This may be the case in graphics:  it is certainly not the case in the rest of the field.

Three works spring to mind which simply could not have <u>existed</u> without the computer:  each in its way is a seminal work and each shows us the direction in which, I believe, computer art will develop.

The works are (1)  Ihnatowicz's Senster sculpture: computer-controlled, 'intelligent', responsive to its environment in a way which makes other Kinetic art works seem like toys.*
(2)  John Lifton's sould/light/dance system first shown at Event One; again computer-controlled and linking in an entirely new and creative way the effects of sound, light and movement.  (3)  The Ecogame, by George Mallen and others, first shown at Computer '70.**
This work, essentially a game, allows the public to participate in the outcome of a powerful visual and intellectual exercise by decisions via computer terminals.  The interaction is complex and non-linear and takes into account not only the decisions made by the players as individuals but also those made by the participants as a whole.

The work of computer-composers not to say Metzger's as yet unrealised 'Five screens with computer' should not be ignored in this context.  In every case 'the repertoire of results of aesthetic behaviour' has certainly been changed by the use of computers.

However, unlike the graphicists to whom the output is of prime importance, many of the 'Proceduralists'*** of which I count myself a member, feel that, in computer art more than any other, <u>the object is the process</u>.

We see the computer as a device for performing procedures and this is not quite the same as Bense's 'Art as a model for art'.  Within this framework it is not ridiculous to discuss the creativity of computers.  It is not irrelevent to discuss whether or not procedures within closed system can be creative.  On the contrary, these are fundamental issues.

It is, I think, significant that, in the CAS travelling exhibition of computer graphics, there are, at the moment, no works by British artists.  We in Britain seem less concerned with graphics than with music and works for performance.  I used to think that this was the outcome of a dearth of equipment: now I know better: we are all Proceduralists.

<u>References</u>

*** Where Now? Alan Sutcliffe PAGE 13
**  The Name of the Game is ... John Lansdown Computer Bulletin September 1970
*   PAGE 4

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SENSTER

Edward Ihnatowicz with slides and film talks about his computer- based sculpture and about the interaction between science and art at London's ICA, 7.30 pm Wednesday 22 December 1971, entrance 10p.

NOSTALGIA'S NOT WHAT IT USED TO BE
          John Lansdown

BIG LITTLE LEADER

"Massachusettes Govenor Francis W. Sargent has proclaimed his state "The Minicomputer State" with the Middlesex county town of Maynard "The Minicomputer Capital of the World". The proclamation was made to honor Digital Equipment Corp (DEC) headquartered in Maynard, for its "remarkable growth and progress" since its formation in 1957".
          COMPUTERWORLD   3 November 1971

## PROGRAMMING COURSE

This spring CASH organised a programming course for its members; the Mathematisch Centrum supplied the teachers, Honeywell Bull gave us room and terminal access. The course had the form of four weekends (Friday + Saturday), and we had the intention to spend the first weekend on the programming language (BASIC) and the use of the terminals, and then three weekends on three different topics: music, graphics and text. However, since not everyone of the 25 people was able to attend all four weekends, and because there were still difficulties with the language after the first weekend, this line was not strictly followed.

The choice of a language for this course has been a difficult one. ALGOL, BASIC and FORTRAN were available, and we are not too sure BASIC has been the right choice. Many people had difficulties with branching; what can be written in ALGOL as

$$\text{if } A > 0 \text{ then } B := B + 1 \text{ else } B := B \times 2$$

or even as

$$B := \text{if } A > 0 \text{ then } B + 1 \text{ else } B \times 2$$

takes in BASIC

```
200 IF A > 0 THEN 230
210 LET B = B x 2
220 GOTO 240
230 LET B = B + 1
240 ...
```

Another draw-back of BASIC is the short names; instead of

    area:= length x width;  volume:= height x area
    surface:= 2 x (area + height x width + height x length)

we have to write

```
300 LET A = L x W
310 LET V = H x A
320 LET S = 2 x (A + H x W + H x L)
```

The first formulation seems easier to verify.

It is difficult to estimate the success of such a course. How many "programmers" come out of it seems hardly a valid criterion, since people may gain a lot of insight into what can be done with the help of a computer and how it is done, without becoming able to write their own programs. We can at least mention that some 10 of the 25 people were enthusiastic until the end of the course, and were eager to join next time again. We are planning a "next time" for this winter, also because more CASH members applied for the course than the maximum number of 25. The Honeywell Bull people are willing to offer room, terminal access, manuals and computer time again.

Leo Geurts and Lambert Meertens

## COMPUTERS AND ---

"Men aren't going to liberate women. Nor are psychiatrists (or books) more than a temporary crutch."
Nancy Foy  COMPUTER BULLETIN November 1971

## PROCEDURAL LIFE
The Dice Man by L Rhinehart (Talmy,Franklin
£2.50)

Luke Rhinehart has lived, since one sleep-less night, by decisions based on throwing dice: in this simple one-level system he selects the possible decision and (some intuitionist self-indulgence here) weights them to suit himself. "If it's a one, I'll rape Arlene". An entertaining story too.

## THE STRUCTURIST

The next two numbers of this annual publication edited by Eli Bornstein, University of Saskatchewan, Saskatoon, Canada:
11  An Organic Art: Ecological Views of Man/Nature
12  Art, Language and Literature: the Visual and the Verbal

## COUNTDOWN

All those interested in forming a Negative Growth Society contact Gustav Metzger before he disappears.

"A lot of people in the sixties were busy back-dating their work, but of course I was doing it much earlier. In fact I was the first person to back-date my works way back in ...."

## INBETWEEN REAL TIME

Real Time Bulletin is to appear between issues of the real Real Time, that infrequent magazine of radical commentary by and may be for computer people.

"What should the radicalized computer person do? Leave the business? Convert the firm? Sabotage? Work for a hospital? Get stoned?".

Write to 36 St. Georges Avenue  London N7 for details.

PROCESS NOW - PROCEDURES LATER
                    Alan Sutcliffe

Thanks to the coincidental visits to London
of Lillian Schwartz and John Whitney jr and
an earlier drop-in by Stan Vanderbeek, the
Society's autumn series of meetings on
Computers and Film was a chance to concentrate
thought on this area: aided by showings at
the US Embassy and the London Film-Makers
Co-op, all with our own Malcolm LeGrice* as
impresario, compere and projectionist.

Much of the attractiveness of all the films
I saw comes from the added colour and other
processing unconnected with the use of a
computer. Most of the films are composed of
sequences of a few seconds each edited
together in an informal way. For me only
John Stehura's Cybernetic 5.3 sustains more
than 5 minutes of film happily and this may
be due more to the introduction of filmed
images than to his use of procedural
composition. That Lillian Schwartz is
busy editing Pixillation down to less than
half its original length suggests both
that it had no important overall form, and
that she did not feel that the material
supported 10 minutes of film. Her Mathoms
(a word from Tolkien meaning things not
good enough to use but too good to throw
away) made from bits of film she picked
up around Bell Labs has a manifestly
arbitrary structure, and this seems to
work by preventing us from looking for
any other. It also has, because of its
varied sources, something lacking in the
other films  rhythmic variety. I find that
most computer animation is unduly hectic and
limited in changes of pace: I think that
the makers may lose touch with real audience
time in working at 24 frames a second.
Malcolm LeGrice's attempt at a Terry Riley
effect in Your Lips is an exception.

Computer animators have a lot to learn
from music in the management of rhythm and
form. At present computers are used almost
entirely for automating the production of
already formulated images and for decorative
random effects. I believe that whoever is
first to apply, with a computer or otherwise,
a procedural approach to the composition of
abstract film may also be first to build
satisfactory large structures in the medium.
Not that the automation already applied isn't
important: it has already enabled Lillian
Schwartz to produce in two years an amount
of work comparable to what James Whitney has
achieved in half a lifetime.

Seeing in a short space of time films by
Vanderbeek and Schwartz made with Ken
Knowlton's BEFLIX and EXPLOR systems, and
John Whitney sr's recent work Matrix, I
understand why Whitney talks about motion

*Malcolm is kissed-off with organising touring shows of compute films.

in graphics. His system is a language
of movement in space, while the other
systems are more languages for the description
of static images, with the movement arising
from the changes from image to image and the
consequent limited vocabulary of simple
animation. Everything in these films is in
the plane of the screen, but Matrix moves in
space. Schwartz, however, in her latest work
investigating flicker effects
is leaving the screen too and entering the
eyeball.

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THOUGHT FOR TODAY

Let's look at the bright side
                    Gustav Metzger

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GRAVE WARNING

You can play SPASMO at my funeral, and
not before            George Mallen

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LAST WORD

I've seen enough people  Alan Sutcliffe

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ADVERTISEMENTS

I'm looking for a wife   John Whitney jr

I need £5000, but anything less will do
                    Malcolm LeGrice

Replies to 48 Salisbury Road  Harrow
Middlesex in both cases

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BIBLIOGRAPHERS NOTE

PAGE is always to be spelled in capitals

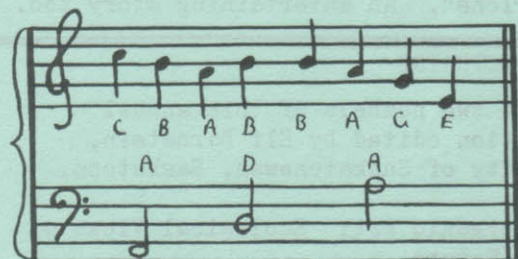---

LAST EXIT

The Computer Arts Society is like the
Mafia:  there's only one way to leave it
                    John Lansdown

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COMPUTERGRAPHIK '72

Edited by Frieder Nake, in English and
German. 13 coloured pages 41cm x 67 cm.
Published by Bruckmann, Munich at DM22.

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THEME FOR VARIATION

## TREE DESTRUCTURE

"A single 1000 lpm printer, for example, is capable of consuming 300 pounds of printed form paper a day.  Based on a five day week, this accumulates to a yearly total of more than 35 tons of paper."          DATAMATION  1 June 1971

## JOB DESCRIPTION

Going up to my room in a Houston hotel, I offered my used newspaper to the lift operator.  When he said "I can't read" I asked about trying to learn:  "Look Mac, I already know more than I'm paid for on this job".

## KULTURA

Seven German art institutes, including Stadtische Museum Leverkusen and the Kunsthallen Bielefeld and Kiel, have formed an association for shuttling exhibitions. Plans include a show with the theme of science and art.

## MICURACY

Are you stickler for accuracy?  Then you should use the computer controlled plotter of Max Levy & Co. Inc, of Germanstown, Philadelphia.  By its use lines five feet long accurate to 50 millionths of an inch are drawn.  Lines are written with a beam of light onto photo-resist on metal-coated glass.  The system is built around a PDP-9 medium-scale computer.  The base of the plotter is a 15000 pound block of black Californian granite mounted on 12 vibration isolated concrete pillars.

## CONVERSATIONS OF THE ACM

Beverley Rowe is now chairman of the British Chapter of ACM, in succession to Bob Parslow, now vice-chairman.  Both were founder members of the Computer Arts Society.  A monthly series of Conversations are being arranged, open to non-members. £1 per meeting including wine.  For details contact B. Rowe, Computer Unit, Polytechnics of North London, London N7.

## SAY SOMETHING SIMPLE

"ARPA the Advanced Research Projects Agency of the (US) Department of Defense is suddenly very interested in getting a speech understanding system running.  It proposes funding the project at 3-4 million $ over the next several years.  1976 is the target date for a 1000 word speech system".          DATAMATION 1 October 1971

## EXPLORING STEREO IMAGES:

A Changing Awareness of Space in the Fine Arts
Harold A. Layer. Leonardo Vol 4 (1971) p233

A survey of techniques and applications for the display of there dimensional images and their application.

## CATALOGUES

In spring 1972 Dillon's are bringing out a new edition of their catalogue of books, journals and other publications dealing with computers.  Please send full bibliographic details of any publication currently available to Computer-Catalogue, Dillon's University Bookshop, 1 Malet Street, London WC1.

Claude Gill Books  481 Oxford Street London W1 publish a catalogue of Computer Books at 10p listing about 170 items.

# PROCEDURE
## Binary Space of Eight Dimensions

Generate a sequence of eight bits using a (pseudo) random process and obey the following procedure appropriately.

**0**                                    **1**

GOTO ( Bond St x / Oxford St)     OR ( Main St x / First Ave )      1

AT  (Midnight)     OR (Midday)      2

ON  (31 December)  OR (1 January)   3

WITH (A child)     OR (An animal)   4

WEARING( White)    OR (Black)       5

HOLDING(An umbrella)  OR (A balloon)  6

STAY  (For an hour)  OR (For a minute)  7

AND  (Sing a song)  OR (Speak to everyone)  8

One day I'll write a book called
PROCEDURAL ART : BEHAVIOURAL ART
and be famous
but I'm too busy just now          Alan Sutcliffe

COMPUTER ARTS SOCIETY MEETINGS

MOVIES
Manipulation of Visual Images Employing
Software
7.30 pm Wednesday 15 December 1971
BCS  29 Portland Place  London WC1
Colin Emmett and Tony Pritchett survey
computerised image making systems in
America and Britain.

1972 TALKS

At 7.30 pm on the 3rd Wednesday of each
month January to June 1972.  There will
be two themes:

The Extremists
Computers and the Built Environment

Will any member outside Britain who may
be visiting this country in the first half
of 1972 and who would like to contribute
to the series on the Built Environment
please write to John Lansdown.  Given
about a month's notice meetings off the
normal schedule can be arranged and
advertised.

7.30 pm  Wednesday 19 January 1972
BCS  29 Portland Place  London WC1
PSSHAK: an open discussion with Nabil
Hamdi and Nicholas Wilkinson of their
"primary support structures and housing
assembly kits" and the society's contribution
to the forth coming ICA exhibition – see
next item.

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NOW – FROM THE WONDERFUL PEOPLE* WHO GAVE YOU
ECOGAME

The current co-operative project by members
of the society in London is for an exhibition
at the ICA in February 1972. This will be
built around the PSSHAK project for variable
housing. Visitors to the exhibition will be
able to experience the decision processes of
a prospective tenant, chosing first the shape
of the outer shell, then the division of the
area between the major functions, and finally
the details of partitions and fittings.
Revisions will be possible at each stage, and
when the initial configuration is established
the process of adaptation to changing family
needs can be simulated. All this will be on a
terminal connected to the system of Cybernet
Timesharing Ltd.
It seems entirely appropriate that the society
should be connected with a project that has as
its theme Systems for People.

* with a few small changes.

PRINT IN
Stuart Pound, poet and programmer, has
written a program to produce on a line
printer structures on names or other
input and has made one for each member
of the society. These are being distributed
with this issue of PAGE and the next one,
which will contain an article about the
procedure

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RENEWAL OF MEMBERSHIP
                    (EXCEPT HOLLAND)

It has been decided that all memberships
and subscriptions will run from January to
December. Unless you have already paid
your fee for 1972 you will shortly
receive a note about this.
On all matters relating to membership write to
JM Sutcliffe, 4 Binfield Rd, Wokingham, Berkshire.
Make cheques payable to Computer Arts Society.

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AIMS AND MEMBERSHIP

The Society aims to encourage the creative
use of computers in the arts and allow the
exchange of information in this area.
Membership is open to all at £1 or $3 per
year, students half price.  Members receive
PAGE eight times a year, and reduced prices
for the Society's public meetings and events.
The Society has the status of a specialist
group of the British Computer Society, but
membership of the two socieities is
independent.

Libraries and institutions can subscribe to
PAGE for £1 or $3 per year.  No other
membership rights are conferred and there
is no form of membership for organisations
or groups.  Membership and subcriptions
run from January to December.  On these
matters and for other information write to
Alan Sutcliffe.

COMPUTER ARTS SOCIETY ADDRESSES
Chairman:  Alan Sutcliffe, ICL, Lovelace Road,
Bracknell, Berkshire.
Secretary: John Lansdown, 50/51 Russell Square,
London WC1.
Editor of PAGE:  Gustav  Metzger, BM/Box 151,
London WC1
Dutch Branch (CASH):  Leo Geurts and Lambert
Meertens, Mathematisch Centrum, Tweede
Boerhaavestraat 49, Amsterdam, Holland.

This edition of PAGE has been edited by Alan
Sutcliffe.  Note his new address above.