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BULLETIN OF THE COMPUTER ARTS SOCIETY DECEMBER 1971

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Dear John  
Why has the Computer Arts Society made this minimal contribution to INN70 after discussions stretching 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 APC 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.

APC 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 INN70 well. Like APC, 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

Best wishes

+ Love to Barbara Alan

INN 70

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.



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 results 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 existed 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 sound/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, the object is the process.

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 irrelevant 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.

#### References

\*\*\* Where Now? Alan Sutcliffe PAGE 13

\*\* The Name of the Game is ... John Lansdown Computer Bulletin September 1970

\* PAGE 4

#### 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.

#### BIG LITTLE LEADER

"Massachusetts Governor 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".

NOSTALGIA'S NOT WHAT IT USED TO BE  
John Lansdown

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

```
if A > 0 then B:= B + 1 else B:= B x 2
```

or even as

```
B:= if A > 0 then B + 1 else B x 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 sleepless 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

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.

\* Malcolm is pissed-off with organising touring shows of computer films.

### THOUGHT FOR TODAY

Let's look at the bright side  
Gustav Metzger

### GRAVE WARNING

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

### LAST WORD

I've seen enough people  
Alan Sutcliffe

### 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

### BIBLIOGRAPHERS NOTE

PAGE is always to be spelled in capitals

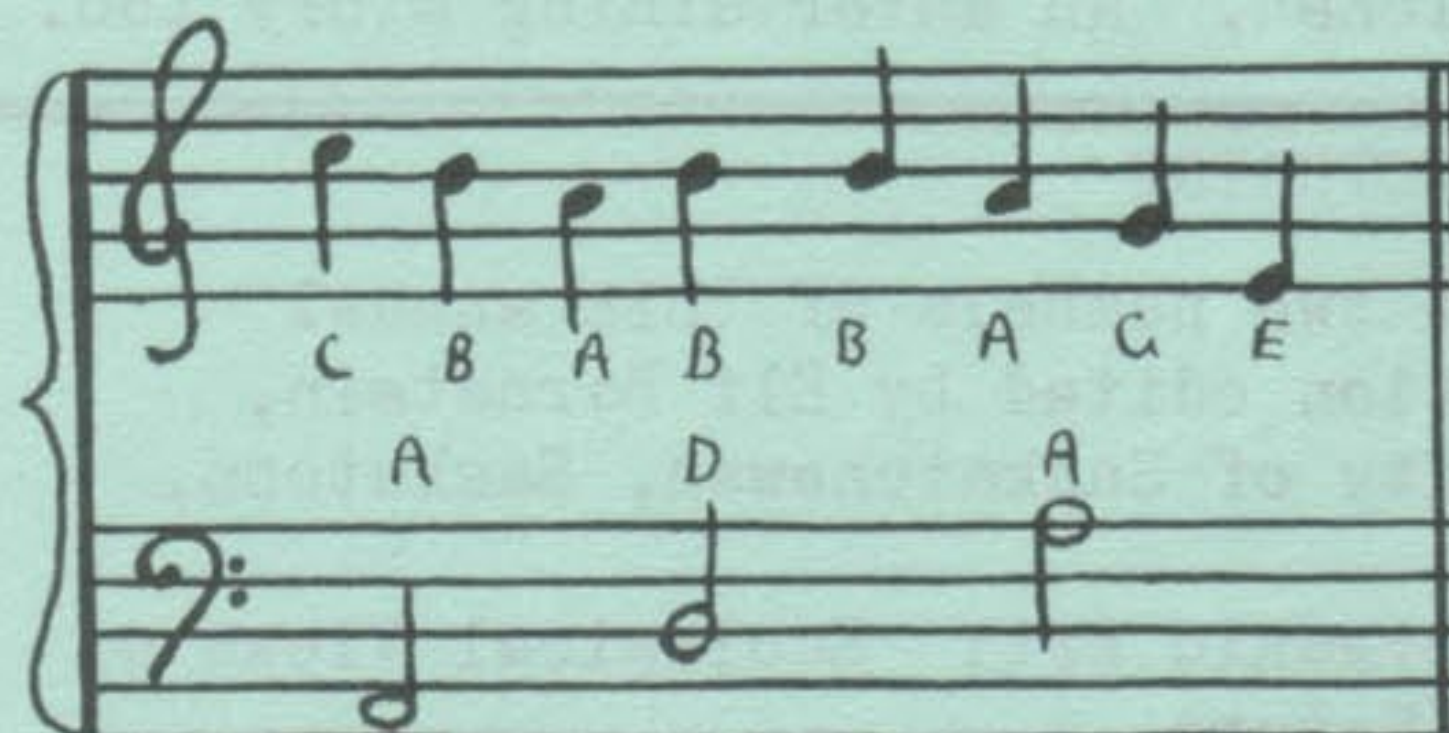
### LAST EXIT

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

### COMPUTERGRAPHIK '72

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

### 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

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

- |                               |                             |   |
|-------------------------------|-----------------------------|---|
| GOTO (Bond St x<br>Oxford St) | OR (Main St x<br>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 Sutfelife



## 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.

### NOW - FROM THE WONDERFUL PEOPLE<sup>\*</sup> 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, choosing 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.

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## 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

## 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.

## 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 societies 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 subscriptions 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.