This is a report on the creative use of computers here in Paris.

To avoid any truncation or misinterpretation, I invited everybody who is working in this field to contribute a small report on their own work.

Theory and philosophy:
Dr. Abraham A. Moles, whose books and essays on music and visual arts have become standards in the field of computer art.

Computer Music:
Pierre Barbaud, one of the first musicians in Europe who rigorously used the computer (and still does), and Iannis Xenakis who already worked in 1962 with a computer and to whom PAGE 23 was dedicated.

Visual Arts:
There are the group "Art et Informatique" at the faculty of Vincennes, and the artists Vera Molinari and myself, Manfred Mohr.

SOME REMARKS ABOUT ART AND COMPUTER

ABRAHAM MOLES

1. - Art is, first of all, artefact. Is the computer the tool of the artefact, the key to the only authentic art: the one which emancipates itself from the human warmth? These images lead us to wonder about it.

2. - Would the artist be an imperfect approach to the creative machine - an elementary model we used nevertheless, since we had nothing better to replace it? Which role should the artist play in a Universe of total artificiality?

3. - Why put up with this humanistic frenzy which claims to assimilate man to what is most animal in him, the warmth of the heart? If we can recreate the features of the world by the power of the mind - plus the computer - why do we restrict ourselves to the wanderings of instinct?

4. - Computer art is coming of age; why should a repressive ethics of Art bind it to the only hands of the "artist"?

5. - If art with computers, as being a novelty, is the subject of merchandising and of business alienation, as Nake remarks, this is only a mishap on the path of novelty, in the channels of our, given, society: silkscreen is only the first step of multiple, multiple is the first step for dissolving works of art in the cultural consciousness which, in turn, is the first step towards a new creation...

6. - Art is not a thing such as the Venus of Milo, or the Empire State Building, it is a relationship which man acquires toward things, an active relationship for the creative person who changes them and orders them at his own will, a passive relationship of the consumer enjoying the shapes and the patterning. A surplus of life, a programming of sensuality or an experience in the sensualization of patterns, it is, anyway the game of mastering one's own environment or of being mastered by it.

7. - How bright, exciting and vivid are the feelings imposed by the coloured phosphors of the light screen, the new animated surface which puts together this "assembly of coloured spots complying with some definite order" which Maurice Denis evoked. Games and kaleidoscopes of permutation art appear as the first steps for building sophisticated artefacts of the vision on the basis of unlimited memory.

8. - We know that from now on machines are able to absorb without any loss the entirety of aesthetic stimulants, to grind them into grains of coded sensibility, and to distribute them without waste into the cells of their memories. We are faced with the basic question: is it possible, out of his heap of grains, to assemble a new pattern?

9. - Art is a programmed sensimization of the environment visual environment, immediate and semi-passive, scanned by the eye, in a movement so inexpensive that we can spend it freely, time environment of the sonic or acting process, spatial environment which man explores or discovers as belonging to a whole. Visual arts, hearing arts, arts to be practiced, the artist is the programmer. The artist, alone, semi-determines micromovements of the eye, or paths of urban wandering, games of mixes and gardens. He alone, conditions these latter, by respecting the rule of the game: the acquisition of pleasure by those who practice it. The computer with its memories, its subroutines and its algorithms, provides the artist with means to elaborate this programming of the sensorial game, a scale which artists of the past were unable to imagine - let us here make a provisional exception for the mannerists, the obstinate rigour of whom has grasped the vertigo of infinity of their permutational field.

10. - The art of the social system should be founded necessarily upon machines for the handling of complexity. We see the emergence of a Neomannerism of the computer, i.e., an operational style in which the "manner", the procedure, is more important than the form, since a form is only a particular solution among a large number of other possibilities made in the same way: it is, so to speak, a "proof of existence" of the field. The procedure, the manner for actualizing the work appears thus the true source of wealth, of invention, of strength.

11. - In past times the artist was an intuitive programmer, nowadays he comes out a graduate from programming schools, he replaces a vague but sure intuition by the injection of a ration of randomness, duly measured and conveniently experimented. The artist - or what replaces him - the creator of new shapes, may get caught in his own game, when he finds in his activity a sufficient justification of his existence not to care about a public. The product of the computer solves this dialectic game which is arranged between the artist as a pure creative being and the artist as a provider of patterns, which are basically consumed by a spectator, unfamiliar with the act of innovation. How can this dialectic game be introduced into a "well programmed society"? This is the question.

12. - Fascination is the quality of the relationship between beings and form which implants durably this latter on the path of his look. Its means are numerous: the single "strength of the pattern" is only one of them, intricacy, double meaning, symmetry, perspectivist vertigo, perceptive integration, colour shock, imposed refinement of a given detail, mastering of apparent complexity by the way of distinctive clues, all belong to the tools of fascination. They are the ones the artist exploits at his own will, the ones of which the innovations of optical art have made a systematic census. Art with computers has a disposal of new resources for fascination: eg. the tracking of a lengthy design, resulting from accurate and numerous variations that the watching eye integrates into the mind in an eyewink, finding the regularity under the deviation, the rule under the exception, distant order under close disorder. This is only one of these
new possibilities which come directly from this "accuracy of details in the enormity of the purpose" which the "sequence controlled processing machines' offer. Our artists in computing have now to list the algorithms arisen from this new possiblility, and to assess the strength of fascination they can extract from them.

13 - The images of Knowlton, Nees and Nake, Barbadiello, Kawano and Mohr, disregarding their formal beauty, remain, up to now, milestones in the "field of the possible", instances of application of a more general algorithm, theorems of existence for this field. They show that it is possible to go further in the art of fascination: if they seduce me, I know that each of them is the bearer of endless variations: it suffices that I demand them. They are not closed to the surroundings, they exemplify an art composed wholly of artefacts which follows ways much different from the traditional artistic imagery. Is the road of the arbitrary guided through perfect order? There is not a dot, a spot, a hue, which has not been taken into account, loaded into his consciousness by the oxier of forms. It is no longer a spontaneous continuity of the displacement of his hand, but a desire for shape, it implies an attitude of going beyond. The artist must go over, trespass, and his activity must be defined by the concept of example, better than by the concept of work.

©Copyright 1972 by Abraham A. Moles
This text was first published in EX MACHINA a portfolio of 6 Computer Graphics, edited by Gilles Cheerbrant, Montreal 1972

HIGHLIGHTS OF SOME MAGNIFICENT PRINCIPLES
PIERRE BARBAUD

1 Considering first a set D, the elements of which are called datas and then another set N, the elements of which are called notes, the cartesian product D x N will be called universe of discourse.

2 Any subset of D x N will be called music.

3 When the set N results in

$$N = \{2^n\} \quad (n \in R)$$

the universe of discourse is octaviant and each element of N is named frequency of the notes.

4 When

$$n = k/12 \quad (k \in Z)$$

the universe of discourse becomes chromatic tempered.

5 The Universe of discourse is said audible when n is comprised between 5 and 13 approximately.

6 If any element of a music

$$M = \{d_1, n_1, d_2, n_2, ..., d_m, n_m\}$$

responds to all the conditions of a corpus rationum which is called program, M is considered as result of a calculation relative to this program.

7 If one or several of the conditions listed in the corpus rationum enable the operator to make a choice between several elements which altogether represent a Borel's field, M is called stochastic.

8 If the calculations are made through a computer, M is usually called in France, by misuse of term: algorithmic music.

BARBAUD (Pierre): French composer, was born in Grenoble, on a Tuesday night by 9.30 p.m. He studied Music in Zurich and Paris, and in 1967 was appointed to the Library of the Music Department of the National Library.

He was then composing music that did not satisfy him and in the early 1950s he decided to study Mathematics. He started monitoring chance (dice, heads and tails, telephone number directory) placing it into a set of arbitrary rules in order to automatically compose musical pieces. At the same time Michel Philippot was also using a rather similar approach with his "imparible machine".

In 1968 Pierre Barbion came into contact with the Compagnie des Machines Bull which has since become Compagnie Honeywell Bull, in order to improve his method by using computers.

On June 30, 1960 an orchestral score, entirely composed by computer with a program written by Pierre Barbion was presented in Paris, Music critics labelled it "a mathematician's delirium". Following events demonstrated that such a critic was wrong.

GROUP OF VINCENNES

The 'Group Art et Informatique' has been founded in 1969 as a section of the 'Departement d'Informatique' of the Faculte de Vincennes (Universite Paris 8), and in connection with the Music and Visual Arts department.

One of the main characteristics of the group is that the use of computers is available full time for its members. This makes its work develop naturally towards a particular effort in programming. The activity of the group is systematically half teaching and half research.

As soon as 1968, i.e. long before F. Nake's famous letter, it was clear to us that the main direction taken by the Computer Art did not give a satisfactory answer to this question: can the use of computers bring lasting revivals in the fields and feelings of Music and Visual Arts?

The greatest effort was therefore to be made in:

1. The development of relevant (i.e. very local) models of composing processes.

2. Intensive programming, at the highest possible level, of these models, which affords our constant revival.

Some satisfactory results begin to appear in the fields of colour and musical composition processes.

On the other hand, it appeared by degrees that models found and the questions asked were rather similar to those of heuristic programming and research in robotics. Several Artificial Intelligence techniques are therefore commonly used by the members of the group.

PEDAGOGY:

At this time, the lectures are given in three of the university departments: Computer Science, Music, Visual Arts. We intend to settle this year a specific 'Art et Informatique' course which should gather them.

A free summer course, with plenty of computer time, is organised every year. It is open to any general artist.

A paper including programs and articles (ARTINFO-MUSIC) is printed monthly and can be sent.

MEMBERS OF THE GROUP & INTERESTS

Jacques ARVIELLER (Music, Psychiatry) develops models of improvisation and interaction between instrumentists.

Jerome CHAILLOUX (Visual Arts, Electronics) is concerned by interconnections between computers and display systems.

Jacques & Françoise DURBE (Visual Arts) work out a theory of colour in relation with robot models.

Patrick GREUSSAY (Music, Visual Arts) builds programming languages aimed at musical composition and develops a formal linguistic theory of musical analysis.

Jean-Claude HAGLARD (Visual Arts) works on relationship between automatism theory and pictorial composition.

Heve HULTRUC (Visual Arts) builds, with the help of linear equation systems, coloured surfaces, still and moving.

Jean-Claude MARROUETTE (Visual Arts) is interested in the visual aspects implicitly contained by some literary texts, and the visual display of linguistic regularities existing in periodical texts.

Pierre-Loise NEUMANF uses, for visual arts, Conway self-reproducing automata.

MACHINE & THE PEOPLE OF FIRMINEY

Machinarum Firmiennorum is a recent work by Pierre Barbion, first performed in Firminey at the 'Maison de la Culture' on 10 December 1972 by the Ensemble Instrumental de Musique Contemporaine de Paris conducted by Konstantin Simonovitch. The score was derived from calculations, half of which were performed by computer and half by the people of Firminey and school boys and girls all around France.
"Programmed art" is neither a revolutionary art, nor a new one. It may be, that all art is "programmed". The ideas given by the church of the Middle Age to artists are programs. L.B. Alberti's advice in order to obtain perspective-effects are programs. The technique of Cézanne is a program. When Monet retired to make pictures representing the same haystack at different moments of dawn: he executed a program.

The thing which is new is the following: we are now able to realize a program with the utmost precision. Indeed, the painter of the Middle Age was able to execute the instructions of the church, Cézanne was in a position to compare the color on the bottom of his brush with all the successive points elements of his picture. Today, we can — thanks to the computer — execute similar tasks and in very short delay. Thus, artists today can build up programs running in full speed on computers which became more and more powerful. Also, they can compare the result of their different programs in order to select them, to modify, to complete, to begin again and again. With this realistic experimental method, called in psychology method of "trial and error", the artist can approach his prime idea more and more. I think this method of artwork is a real progress.

But we should not forget that each idea expressed in a program we imagine is a logical construction, that is to say, it is arbitrary of the point of view of aesthetics. Indeed, our affective behavior is not necessarily logic, more precisely, our aesthetic feeling does not follow the same logic as does mathematics for instance.

The real revolution in art, the artistic renaissance will take place only at the moment when he will be able to build up and realize programs in function of the psychology and physiology of human beings.

Truly speaking, I believe, this revolution has already begun. The new man/machine and art/machine relation within the two past decades in fact deeply transformed the "Science of Art".

Nevertheless a new effort is required of both, artists and scientists. Artists have to tend in the direction of science and scientists toward art, to work out a coherent science, a new "Science of Art".

BIBLIOGRAPHY: TO RELAX AND RESEARCH

Aesthetische Redundanz by Kurt Altislaen
Schnitt Verlag, Hamburg 1962

Artificial Intelligence Journal by A. Meltzer
North Holland Publishing Company

Artistic Intelligence Journal by Max Bense

Art et Ordinateur by Abraham Moles
Castren, Paris 1971

Brain Mechanisms and Mind by Keith Oatley
Thames and Hudson, London 1972

Cybernetics, Art and Idee by Jasia Reichardt
Studio Vista, London 1971

Computers and Thought by E. Feigenbaum and J. Feldman

Expanded Cinema by Gene Youngblood

Eye and Brain by R.L. Gregory
Weidenfeld and Nicolson, London 1966

Fiatland by Edwin A. Abbott
Dover Publications, New York 1952

Geometrie and the Imagination by H. Hilbert and S. Cohn-Vossen
Chelsea Publishing Company, New York 1956

Guerrilla Televison by Michael Shambler
Raindance Corporation, New York 1971

Kunst und Kommunikation by Günter Pfeiffer
DuMont Schauberg, Köln 1972

Lawson by Form by J. Ouvir Brown
George Allen and Unwin, London 1969

Leonardo (journal) ed. Frank Naia
Perennon Press, Oxford

Les Musiques Artificielles by Nicole Lachèrètre
Diagrammes du Monde Journal April 1969

La Communication by Abraham Moles
C.E.P.L., Paris 1971

Mathematics and Imagination by E. Kasner and J. Newman
Penguin Books A 1966

Minds and Machines by Alan Ross Anderson
Prentice Hall Inc., New Jersey 1964

Musique, Décision Scientifique by Pierre Barbaud
Dunod, Paris 1968

Operating Manual for Spaceship Earth by R. Buckminster Fuller
Southern Illinois University Press 1965

Sociologie de l'Information by J.L. Aranguren
Hachette, Paris 1970

Radical Software Journal
Raindance Corporation, New York

The Machine of the Brain by Dean E. Wodrige
McGraw-Hill, New York 1963

The Intelligent Eye R.L. Gregory
Weidenfeld and Nicolson, London 1970

The Last Whole Earth Catalog
568 Santa Cruz Ave, Menlo Park, Ca 94025
Available also in Penguin

La création scientifique by Abraham Moles
Kister, Geneve 1957

Information, theory and aesthetic perception by Abraham A. Moles

Musique expérimentale by Abraham A. Moles
Cercle d'Art, Zürich 1961

COMPUTERS AND THE HUMANITIES
INTERNATIONAL CONFERENCE
University of Minnesota 20-22 July 1973 Minneapolis

Abstracts in the areas of Linguistics, Literary Studies, Creative Arts, Related Fields by 15 March 1973 to
Prof. Jay Lawson
CICS, 114 Main Engineering
University of Minnesota
Minneapolis, MN 55455

Submissions may be in the form of exhibits and productions
For further details and a copy of the preliminary program contact
Prof. Donald Ross
English Department
207 Main Engineering
University of Minnesota
Minneapolis, MN 55455

SUMMER WORKSHOP & COURSES
Prior to the Conference, workshops and courses are planned for those interested in computer applications in the arts, in the study of language and literature, in the use of FORTRAN and SNOBOL. For information contact Prof. Allen Hanson, at the same address as Prof. Lawson above.
MANFRED MOHR

Using a computer in visual arts means amplifying the possibilities of intellectual and visual experience.

The logical part of this domain creates a refreshing and open space for aesthetic communication.

Technical and social development requires a more and more logical and abstract thinking. It is therefore quite natural that in the field of aesthetical research is being done in order to find new and logical bases. Computer-art in general shows results of well defined problems. Through the detailed programming-analysis, one is able to visualise logical and abstract models which lead deep into the understanding of creative processing.

The relatively short history of computer-art shows until now two distinct directions:

1. The visualisation of mathematical formulas as an artifice. Without doubt very interesting and never before seen results appeared, but for a long term artistic interest the resulting aesthetical information of a mathematical formula is in itself limited and therefore, in my opinion, a closed system.

2. The profound research to find (or to invent) an individual algorithm as an artistic expression.

   The individual impact of man's behaviour, filtered and reformulated through the (philosophical and actual) peculiarities of a computer, leads directly to an interesting and over all coherent open system.

Of course mathematics is used here as technical help and not as its only purpose.

My first step in this direction was an extended analysis of my own paintings and drawings from the last ten years. It resulted in a surprisingly large amount of regularities, determined of course by my particular aesthetical sense, through which I was able to establish a number of basic elements, that amounted to a rudimentary syntax.

Since the most important point in applying a computer to solve aesthetical problems is the MATERIÄLGERECHTE¹ use of this instrument, the research therefore should assume that old techniques of drawing and imagination are not to be imposed on the machine (although this would be possible), but should develop a priori a vocabulary which integrates the computer into the aesthetic system. That means: to use this powerful instrument not only as an interpreter!

My computer-graphics are conditioned by four basic premises:

1. A precise idea of an aesthetical problem.
2. The need to break this idea into parts which could be reassessed as a program.
3. A steady control of the computing process to take full advantage of the machine—man dialogue.
4. The need to keep logic of the events to become perceptible.

As it is possible to conceive a logic of a construction but not all its consequences, it is nearly imperative to rely on a computer to show this large variety of possibilities. Since the creation of a form is limited to the shape of its author's characteristics for which he may be conscious or unconscious, the exploration of a new idea leads sooner or later to a repetition, which can be avoided by introducing at certain parts in the computer-program variable decisions in order to create unexpected situations. That means: Working with randomness.

From the constructive point of view however, it is absolutely necessary to keep control over the information flow during calculation time, I develop, therefore, subroutines which I call 'aesthetical filters', in which all calculation steps are tinted and compared with imposed 'laws', so that only that information can leave the filter which satisfies these prepositions. Randomness is therefore in my programs only a cause but not a result!

The 'aesthetical-filters' are based on my above mentioned syntactic research and according to the programs they can involve divergent mathematical structures.

The logical construction of a programming language forces us, on one hand, to concentrate with a almost maniacal precision of formulation (the instructions), but opens, on the other hand, new dimensions for large and statistical thinking which otherwise could never be achieved, due to our ignorance of possible operation models.

The dialogue with the computer implies, that results (graphics etc.) and their visual expression have to be judged under completely new aspects. Evidently one should not create single forms and judge them in a traditional and subjective aesthetic, but build sets of forms where the basic parameters are relationships between forms with no aesthetical value associated to any particular form.
Within this context it is possible to ignore the former 'good' and 'bad' and aesthetical decisions can be based on statistical and WERTFREI procedures, where the totality represents a 'quality of a quantity'. This procedure may lead to different and perhaps more interesting answers, lying of course outside of one's normal behaviour but not outside of the imposed logic.

The fundamental consequence of this attitude is, that after a period of tests, modifications of the logic, and parameter exchanges, all possible results of a program have to be rigorously accepted as final answers. Thus, the above postulated conception becomes now part of a conditioned aesthetical information.

Computer graphics is a young and new way of aesthetical communication which integrates logic, mechanical handling, new possibilities of drawing, and inscribable precision of drawing — a new DUKTUS. Finally I would like to evoke the danger of putting 'computer-art' in a separate category opposed to 'traditional-art', i.e. 'machine-art' vs. 'art', which would put the computer into a neo-romantic light as an 'artist-replacement'. This could easily lead to an irrelevant overestimation of the computer!

A computer is only (at least until today) a partially autonomous tool, and a program (this becomes quite clear, once working with such a machine), is only the smaller part of an enormous selection process which is until now not part of the machine's domain.

1 MATERIALGERECHT, German for: working or using a material only in the way which is basic to the material.
2 WERTFREI, German for: decisions, where the knowledge is neither based nor conditioned by any values.
3 DUKTUS, Lat., German for: 'handwriting', individual peculiarity of the drawing material.

MACHINE INTELLIGENCE
AISB Summer School 16-20 July 1973 Oxford

Instruction and research reports focused on the topic of knowledge systems. For details write to:

James Dohan
AISB Summer School
SRC Atlas Computer Lab
Chilton
Didcot
Bucks OX11 0QY

1-day meeting on chess-playing by computers at SRC Atlas Lab on 21 May 1973. For details write to:
C L Robbins
Computer Chess Meeting
SRC Atlas Lab - address above

Gilles Ghersinchant, editor of ART EX MACHINA and the 1+1 Series, will open soon a gallery in Montreal; 2130 Crescent, Montreal 107.

"Signum" is another graphic edition which was founded lately in Canada. Serigraphies from different artists are available.
Contact: Edition Signum, P P Box 1478, Station B, Montreal 110.

This edition of PAGE was edited by Manfred Mohrt.
WOODEN DUCKS
GARY WILLIAM SMITH

Upon reviewing John Whitney's comments in PAGE 24, it becomes apparent to me that my article in PAGE 22 has created some misunderstandings. I believe that the thing which has been confusing in the last several issues of PAGE is beginning to anesthetize many readers, not unlike the effect of the weekly Vietnam death counts. Therefore, I shall address myself to the following points as briefly as possible.

Let me begin with three points of lesser significance.

Point one. Whitney asserts that Nake (PAGE 18) was not attempting to tell anyone what "should be." I offer the following quotes from PAGE 18 to justify my attack on Nake:

"The computer is a synthetic machine and should be the investigation of aesthetic information as part of the investigation of communication. This investigation should be directed by the needs of the people." (italics added)

Point two. Whitney refers to PAGE 22. mentions "Smith's Phenomenon System" - as editor of PAGE 22 - he has displayed rather exclusively in the first US issue. I was not editor of PAGE 22. I sat, along with Kurt Lautcher, co-editor. I must state, with all due humility, that Kurt Lautcher originally suggested including reproductions of my drawings in that issue. Having written an article in PAGE 22, I agreed to include the reproductions on the theory that one ought to put his art where his mouth is. To speak (I lack illustrations is one criticism that I have of most of these pages).

Point three. Whitney infers that my drawings might be done just as well by hand as by computer. I honestly do not know how. I challenge anyone, Brilliant Rieley included, to show me an alternative, non-computer generated product with the same results. In fact I would be most grateful to receive such information.

Art and Artists

Now on to a matter of greater significance. My article in PAGE 22 apparently caused Nake to believe that I was attempting to define what constitutes "real" artists or "real" art. I hope this was not the interpretation of other readers, since it was certainly not my intent. In fact even the title of my article, Computer Art and Real Art was somewhat of a misnomer. I believe that it is quite impossible to define either "art" or "artist." Many have tried and failed. The best attempts have yielded insights into certain aspects of what it is to be an "artist." The list of aspects of what constitutes a "work of art." An all-embracing definition of "art" seems beyond our ability and to me at least, completely unnecessary.

Whitney does well in pointing out that Nake's phrase "the repertoire of fruits of aesthetical behaviour" seems to be used as a substitute for the "word art." Perhaps it is not fashionable to use that word today - witness the many individuals who loudly proclaim that their "work" is not art, nor yet they busily scurry about getting their "non-art" displayed at the art museums and heralded in the art magazines, and their "aesthetic behaviour" financed by art patrons.

At any rate, Whitney has recognized Nake's phrase as a substitute for "art." Does Whitney then recognize his own phrase "someone (anyone) with extraordinary imagination and very human sensitivity" as a substitute for this "art?" (The difference here between "substitute" and "definition" is important.) If Whitney objects to someone saying "I am an artist," would he feel better about someone saying "I am an individual of imagination and sensitivity whose life is more or less dedicated to aesthetic behaviour? Why bother with these substitutions (semantic gaffes) when they are not and can not be complete and definitive? Why not use the terms "art" and "artist" and avoid that the language labels, and accidents of the art styles, labels, and perhaps a convenient means of talking about something rather nebulous?

My remarks on artisitic "background training" in PAGE 22 seem to have given Whitney the impression that I place a good deal of importance on formal education and degrees. Nothing could be farther from the truth. A degree or lack thereof has more to do with employment possibilities than to artistic/artistic strength.

What I was trying to get at is this. When an artist succeeds in investing the term of aesthetic/artist strength in his work, it is distinctly recognizable. Much computer assisted art does not do this. In the absence or lack of this strength, I believe that this deficiency is, as Robert Mueller states, "due to a basic lack of understanding of the nature of art." (From a Computer Art, Art in America, May 1968.)

Let me offer an analogy. I know several people whose job it is to make refined wood models for the automotive industry. Having access to highly sophisticated and expensive wood-working machinery, they will occasionally fashion things the like of wooden ducks and real quails to hang on their garage walls. They have no illusions of these decorations being "works of art."

I see no difference between their wooden ducks and Darby Scallon's "Scallions" winning an award at this year's Computer Contest, Graphics and Automation. Similarly, I fear, much computer assisted art falls in the Wooden Duck category.

It seems, then, that exposure to a good deal of art (of all ages) and to many artists would help to enrich one's understanding of the nature of art. University education is but one way, and perhaps not the best, to attempt to obtain such exposure and understanding. But, in one way or another, it must be obtained. Otherwise, I am afraid, there might be a time when the computer with which to produce wooden ducks.

A Clarification

I would like to register my appreciation of John O. Saal's comments in PAGE 25. I tend to agree with Saal that "the programming of aesthetic decisions" should prove to be a valuable area of investigation.

However, I feel that his erroneous assumption regarding the method by which my drawings (PAGE 22) were produced should be corrected. My drawings are not "serendipitously selected from a large volume of output with randomly generated variations." There is no random generation in my computer assisted drawings. I begin by drawing by hand or graph paper, constructing several sets of lines. The X, Y coordinates of these lines are recorded and used to direct a plotter in recreating my original lines. These lines are then subjected to measured and programmed transformations. Sets of these transformations are then superimposed, creating controlled and (more or less) predetermined interference patterns, the resulting drawing is, for the most part, explicitly intended to be, there is none of the "randomness" mentioned by Saal. It amounts to executing an idea with the most simple, most direct tool available.

Gary William Smith
8:33 Carlin, Detroit, Michigan 48228

NEW ROLES

The main outcome of the recent discussion is that the CAS has become a professional organization. A group of CAS members have taken responsibility for maintaining a Data Base. They will be collecting and categorizing the exhibits and producing a catalogue. If you have information to contribute, contact the following members:

Jacqueline Shama is in charge of the Data Base. She can be contacted at the Computer Science Institute, University of London, London WC1, London, England.

Roger Saunders has become the data collection officer and is collecting information from the graphics and animation field.

CASS DATA BASE

I have taken on the task of organizing and maintaining a Data Base for the Society. The first job is to catalogue the collection of slides and films, and produce a list of members who are prepared to give lectures on some aspect of Computer art. Later a catalogue of members' interests and the accumulation of printed material will be constructed.

The purpose is for the more effective presentation of the work within the field of Computer Art both to members and, more generally, to other bodies. This should promote growth of interest and perhaps sharing of research experience.

A new brochure will be printed that introduces the aims and activities of the Society and explains the facilities available.

A form is being circulated with this issue of PAGE. Filled in, however vaguely, and sent to me, it will aid the progress of this work. If at any time you have any literature, slides, films or information that you think could have a place in the Data Base do not hesitate to send them to me.

Roger Saunders
29 Haxted Drive, Pinner, HA5 3NJ

GRAPHIC TECHNIQUES

I am undertaking the job of coordinating a number of special techniques for graphics and animation work. I will be collecting information from artists, students and individuals who have worked in this area, but would be grateful if members could write to me with details of their experience and the write-ups of their programs, with listings if possible. Anybody with a problem in graphics or film making should write to me and I may be able to help them.

Colin Emmett
61 Balcombe Street, London NW1

AIMS AND MEMBERSHIP

The Society aims to encourage the development of graphics in the arts and allow the exchange of experience in this area. Membership is open to all £1 or $3 per year. Students have free membership. Members receive PAGE eight times a year, and are reminded of the Society's public meetings. The Society has the status of a special interest 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. New memberships rights are confered 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 Solomoff.

COMPUTER ARTS SOCIETY ADDRESSES

Chairman: Alan Sutcliffe, 4 Head Head, Worthingham, Berkshire. Secretary: John Landan 10/5 Russell Square London WC1 4XJ Editor of PAGE: Gustav Metzger, BM/BX 151, London WC1 Dutch Branch (CAS): Leo Geurts and Lambert Meertens, Mathematische Zentrum, Tweede Boerhaavestraat 49, Amsterdam, Holland. US Branch (CASUS): Kurt Lautcher, Mathematics Department, Eastern Michigan University, Ypsilanti, Michigan 48197, USA