#### THERE ISN'T EVEN A NAME FOR IT

It may be that I am out of sync with the discussion which seems to have been begun and welcomed by F. Nake in PAGE 21. After all he is responding to Lansdown. I may be chiming in — interposing in another one's debate. But I do have an immediate reaction to Nake's further discussion. So may I sound off again, May I argue that (twisting Nake's ubiquitous phrase) the repertoire of results of aesthetic behaviour has changed significantly by the use of computers. Not just methods are changed — but results.

Of course specialists might discuss computer art from a political viewpoint right up to and even thru — doomsday (in a salt mine maybe). The politics of art is its own subject. Herbert Marcuse's essay¹ and Harold Rosenberg's comment on Marcuse in his new book, THE DE-DEFINITION OF ART² would be good background to further discussion of art politics. But I am incompetent in dealing with that part of Nake's present note.

More to the point of a discussion of goals and merits of computer art — and despite his further discussion in PAGE 21 — I must still ask what does Nake mean: There should be no computer art? Has there every been any? And here I can't avoid his politics because I must ask: Does he mean there should be no computer art because the computer is a bourgeois tool? Or his sociology, because does he really want to bring up those tedious arguments that even computers must be put to use where they will do the greatest good. And does negating the negation work out, as in mathematics, where two negatives make a positive if you multiply, but make another negative if you add. I confess I'm confused here also.

Max Born was in no sense any "technocratic dadaist" when he pronounced rather grandiloquently that the most magnificent of all creations of the European mind is quantum mechanics . . . apart from polyphonic music. Computers, quantum mechanics and polyphony are all elitist subjects, but there is no question in my mind that mankind down to the last lumpen being among us is that much richer because these subjects occupy men's minds at least sometimes — sentimental as that may sound. Aren't these subjects all bourgeois — if Dada and art history are?

Is Nake's phrase — the repertoire of results of aesthetic behaviour — used as a substitute for the word — art? I suppose so because no one knows what to make of that simple word — art — anymore. (If you capitalise ART you're a Pre-Raphaelite snob). But really I don't know what Nake means by that phrase. Are those words meant to circumvent art per se, to excuse or pardon or embrace process art, de-defined art, avant-garde art, art experiment? To circumvent perhaps that very idea which Harold Rosenberg, at the end of the decade of the 60s, is at such pains to restore to respectability and re-define?

"In reality, however, an artist is a product of art — I mean a particular art. The artist does not exist except as a personification, a figure of speech that represents the sum total of art itself. It is painting that is the genius of the painter, poetry of the poet — and a person is a creative artist to the extent that he participates in that genius. The artist without art, the beyond-art artist, is not an artist at all, no matter how talented he may be as an impresario of popular spectaculars. The de-definition of art necessarily results in the dissolution of the figure of the artist, except as a fiction of popular nostalgia. In the end everyone becomes an artist."

It is OK with me if Frieder Nake wants to avoid Rosenberg's rather rigorous axiomatic views of art. Obviously I'm with Rosenberg but it hurts a little. For I cannot anyhow claim to be artist within the confines of that definition of his. I cannot claim to have produced art. Good grief — there isn't even a name for a visual art whose major dimension is time. Yet active fluidic space-time is my metier.

The fact that the computer graphic instrument possesses all the potentialities of a superb kinetic art tool is nowadays barely becoming known. As might be expected there is much confusion as to how this tool will be used for art. It is far easier to visualise the potentials for creating music. I for one think the computer is quite useless as a tool for that kind of art which must exist as a static single image. Lissajous figures are a bloody bore. I think that computer technology can contribute very little that is new to the visual arts as we have

known them in the past. The visual arts of passive time, that is. I have seen several million years of the dynamics of the evolution of a spiral nebula recreated on film splendidly by computer. Hydrodynamics elegantly visualised. Both these spectacles never have been seen before by man. Impossible to reproduce any other way. I myself have created "impossible" motion images by computer.

I say — an impossible visual art is now possible. I insist — the repertoire of results of aesthetic behaviour has been changed significantly by computer. Maybe art will be changed too. Nake needn't worry so much. He should forget all those dadaists "demanding" to use the computer who go about doing their traditional bourgeois thing. Avant-garde artists don't stay avant anymore. Rosenberg's axiom catches up with them migh---ty fast. Where, oh, where have all the cybernetic serendipidists gone already? "In kingdom gone or power to come or gloria be to them farther?" <sup>5</sup>

- On the Future of Art, The Guggenheim Museum, Viking Press, 1971.
- The De-definition of Art, Harold Rosenberg, Horizon Press, 1972.
- On Modern Physics, Heisenberg, Born, Schrödinger, Auger Clarkson N. Potter, Inc., 1961.
- The Theory of the Avant-Garde, Renato Poggiolo, Harvard University Press, 1968.
- 5 Finnegans Wake, Joyce.

#### THE REALITY MALADY

Gary William Smith has made several good points in his reply to Frieder Nake in PAGE 22. Art as fashion needs debunking — like motherhood. I, too, agree that art is not dead. And I agree with Smith that Nake's four proposals have more to do with history, theory and criticism thanart. Still, Nake proposed that we begin a discussion in these pages of the goals, the necessity and the merits of Computer Art. He was not attempting to tell anyone what "should be".

Smith, Nake, Maurice Tuchman and many others, including editors of engineering oriented computer trade journals, are entranced with the "real" artist syndrome: "If only a *real* artist could use a computer — we'd have real art." David Antin's article in ART NEWS performs a kind of psychoanalysis on victims of that syndrome. Antin has analysed the pitfalls of artist-technology matchmaking; in the case of Tuchman, the impresario.

I share Smith's doubts about the use of a computer when "pen and compass might do as well". So does Nake. So do cost accountants. But how can this be reconciled with Smith's Phenomena System Series which — as editor of PAGE 22 — he has displayed rather exclusively in this first U.S. issue. Smith should take his art problems to Bridget Riley who works by hand: (cheaper than computer — but slower).

Of course we are not going to answer on these pages who is a real artist and who is not. For example, when someone tells me he is an artist — without smiling — I know he is not an artist. So, for all those frankly non-artist technician types out there who read these pages — if they are still paying attention, that is — after the unsubtle elbowing which they have received herein and elsewhere — let them take heart: Only one of ten leading artists of the generation of Pollock and deKooning had a degree (and not in art).

Some non-art computer specialists I have known happen to be Ph.D's in psychology and such — who perform Bach's keyboard works with consumate skill and sensitivity. Others I have known have shown more visual sensitivity than has been displayed in all the twenty-two pages so far at C.A.S.

Ah Ha! Perhaps here is a clue. Who is the genius who will use the computer for great real ART? Not a trained artist — not a programmer — but someone (anyone) with extraordinary imagination and very human sensitivity. Some such attributes identify Klee, Kandinsky, Mondrian and Schoenberg, Stravinsky, Bartok as well as Einstein, Schrödinger, Heisenberg and Oppenheimer. Q.E.D.

JOHN H WHITNEY, 600 Erskine Drive, Pacific Palisades, Ca 90272, USA.

#### CONFERENCES/EXHIBITIONS

14-16 August 1972. ACM '72, Boston.

28 August – 1 September 1972. Int. Congress of Cybernetics and Systems, Oxford. Dr J Rose, College of Technology, Blackburn, Lancashire, England.

online 72 is expecting over 1000 delegates from all over the world during 4-7 September. The Computer Arts Society has been offered a room. Plans have not been finalised, but for the latest information contact John Lansdown. There will be an industrial exhibition with presentations which will be open to the public. One day tickets costing £2 are available from the Conference Secretary, Brunel University, Uxbridge, Middx. Phone Uxbridge 29262

12-14 September 1972. Computer Conference, San Francisco, California. IEEE, Inc, 345 East 47th Street, New York, NY 10017, USA.

12-14 September 1972. Irish Computer Society International Conference and Compex 72, Dublin. ICCE Congress Secretary, 74 Northumberland Road, Dublin, Ireland.

20-22 September 1972. Int Conference on Computers in Architecture, University of York, England. Conference Dept, BSC, 29 Portland Place, London W1. Papers by Camarero, Lansdown, Maver, Negroponte, Patterson, Purcell (just to mention a few of our boys).

2-4 October 1972. 2nd Annual Meeting of the Society of Informatik, Karlshruhe, Professor Dr G Goos, Institut für Informatik, Universität Karlsruhe, Postfach 6380, Germany.

3-5 October 1972. AFIPS and IPSY, USA-Japan Computer Conference, Tokyo, Japan. Robert B Steel, Informatics Inc, 21050, Vanowen Street, Canogen Park, California 91303, USA.

8-11 October 1972. Int Conference on Systems, Man and Cybernetics, Shoreham Hotel, Washington DC. KS Nurendra, Yale University, 10 Hill House, New Haven, Conn 06520, USA.

13-18 November 1972. US Trade Center, London. Lasers and electrooptical equipment.

23-29 November 1972. Electronica '72. Fair Grounds, Munich Fair Company, Munich, Germany.

28 February — 2 March 1973. 8th Annual Conference on the use of Digital Computers in Process Control, Baton Rouge, LA. CALL FOR PAPERS. Abstracts and proposals should be submitted to: Dr Cecil Smith, Department of Computer Science, Luisiana State University, Baton Rouge, LA 70803, USA.

19-21 March 1973. Optical Storage of Digital Data, Boulder, Colorado, arranged by Optical Society of America. JW Quinn, 2100 Pennsylvania Avenue, NW Washington, DC, 20037, USA.

28-30 March 1973. Congress on Cybernetics, Nürnberg. Professor Dr WD Keidel, 8520 Erlangen, Universitätsstr 17 (U Erlangen), Germany.

SPRING 1973. Symposium on Biomathematics and Computer Science in the Life Sciences. Dr G Tailor, Box 20367, Houston, Tex 77025, USA.

22-25 May 1973. Int Microfilm Congress 1973: World Micrographics, Grosvenor House Hotel, London. If you wish to present paper, or show films etc please write AT ONCE to The Secretary, IMC 73 Programme Committee, 109 Kingsway, London WC1.

27-31 August 1973. 7th AICA Analog and Hybrid Computer Congress, Prague. Secretary 7th Congress AICA, Gorkehonam 23, Prague, Czechsolovakia.

10-15 September 1973. Seventh International Conference on Cybernetics, Namur. 1 January 1973 is DEADLINE for papers. Authors of papers (in English or French) should send summaries and title as soon as possible to: Secretariat, International Association for Cybernetics, Palais des Expositions, Place Andre Rijckmans, Namur, Belgium.

11-14 September 1973. International Symposium on Computer Systems and their Applications (Systems 73). Munich Fair Grounds. Munich Fair Authority D-8000 Munich 2. Theresienhöhe 13. Germany.

September 1973. Joint Conference on Cybernetics and Society. Washington DC. KS Karendra, Engineering and Applied Science, Yale University, 10 Hill Hourse, New Haven, Conn 06520. USA.

LATE 1973. Association of Engineers and Architects in Israel. 3rd World Congress. Secretary, The Engineers Institute, 200 Dizzengoff Street, POB 3082, Tel Aviv, Israel.

October 1973. International Electronics Conference and Exhibition, Toronto. A J Dinnin, Chairman. Toronto Secretary c/o Bell Telephone Labs, Room 402, 393 University Ave, Toronto, Canada.

#### PROCEDURES PROCEDED

About 20 students attended the CAS weekend course on Computer Procedures for Art held at Cybernet Time Sharing Ltd in London on 22 and 23 April 1972.

John Lansdown presented the main part of the course using the programming language BASIC, with David Atwood of Cybernet providing know-how on the system. Among the visiting speakers were Lambert Meertens and Leo Geurts from Amsterdam and Katherine Nash from Minneapolis, who spoke about ART 1 (see PAGE 7). Roger Saunders demonstrated PLAD (Programming Language for Art and Design) which allows shapes to be described in an English sub-set to be output on a line-printer. Colin Emmett talked about the development of his MERGE program (PAGE 16) so that movement of an animated figure and changes in apparent camera angle and distance can all be achieved at the same time. George Mallen spoke about gaming simulation and all that.

Alan Sutcliffe

Typesetting by Flaschtype, 43-51 Great Titchfield St., London W1. Printed by FS Moore, London.

#### UNITED STATES/CANADA

Symposium. We are currently planning a major international symposium on the "Computer and the Arts" to take place in the Ypsilanti area sometime during February or March of 1973. The symposium is intended to be broadly based, including graphics, sculpture, film, music, dance, literature, etc. Ann Arbor's leading art gallery, the Lantern Gallery, has agreed to host certain segments of the exhibitions and cooperate in the production of a permanent catalogue. Plans are still quite tentative, but we definitely plan to include guest speakers, panel discussions, and perhaps a workshop series. Your suggestions and creative output are solicited. Deadline for entry by slides, tapes, film etc. will be approximately December 1, 1972.

Repository of Creative Tools and Ideas. To facilitate the entry of "artists" into the use of the computer I would like to form a "repository" of computer programs, "outlines" for procedures in film-making, manuals, etc. Submit to me any materials you would like to share with other "artists" and I will keep members informed as to "copies" of all repository items available at cost. An example of a very useful item would be the detailed outline of how to make computer film using facilities already available in the U.S. at nominal cost. My hope is that this repository could eliminate a lot of needless duplication of effort. But, only your help will make it a success.

Kurt F. Lauckner, Coordinator of CASUS, Department of Mathematics, Eastern Michigan University, Ypsilanti, Michigan 48197, USA.

The IBM Education Center, Poughkeepie, New York, is holding a three day seminar on Museum Data Processing, 5-8 September 1972. There is no charge, participants will be guests at the IBM Homestead. Information and application forms from local IBM branch offices.

The American Council of Learned Societies offers a limited number of awards in all fields of the humanities involving the use of electronic computers. Open only to citizens or permanent residents of US and Canada. Application forms from Office of Fellowships and Grants, ACLS, 354 East, 46th Street, New York, 10017, USA. From Computers and Humanities, March 1972.

#### **EUROPE**

The Heinrich-Ströbel-Stiftung is constructing an electronic experimental studio for music in Südwestfunk, Freiburg, Germany. It is especially intended for young composers.

A large event took place at the end of June in Pamplona organised by the Grupo ALEA, San Bernabe 18, Madrid 5, telephone: 266 38 38, to which many artists film makers and composers from other countries were invited. Events took place in a large inflated dome designed by Prada Poole, Juan Hidalgo, Walter Marchetti and Esther Ferrer of ZAJ were among the Spanish participants. The address of Juan Hidalgo is Datalla del Salado 1, Madrid-7.

cajc, Buenos Aires, also sent a show dealing with Latin American Art to the Pamplona Meetings. It is now arranging an international exhibition to be shown at the Museum of Modern Art, Buenos Aires in October 1972, and at the Museum of Fine Arts of Santiago de Chile in the following month.

Graphic artists in the DDR were warned in a recent number of the Fachzeitschrift für Theorie und Praxis der Sozialistischen Werbung, against using Jugendstil elements in the design of posters and packaging.

An article published early in June 1972 in Vychodoslovenske Noviny, the organ of the Czechoslovak Communist Party, makes the allegation that the purchase of Western computers undermines the socialist economy. Incompatibility of programming is the chief bug. Numerous socialist industrial systems have vainly attempted to adapt to the computer programmes, which, the article alleges, are exclusively designed for the capitalist economy.

#### **GREAT BRITAIN**

The first meeting of the Computer Arts Society after the holidays will feature an illustrated talk by Ernesto Camarero of Madrid. It will take place on Tuesday 19 September 1972 at 7.30 pm at the office of John Lansdown. Members and their guests are invited.

6 November 1972 11.30 am and 7 November 1972 12.05 am, two further showings of the film made about two years ago describing work of several members of our Society; film forms part of the series Computers in Society. On BBC 1 Schools TV.

As part of the large ICES programme there will take place at The Place an evening with members of the Computer Arts Society on Monday 21 August 1972. Works by Colin Emmett, John Lansdown and Alan Sutcliffe. A programme note makes these points. 'A program is an organised series of instructions. Computers obey programs. People can obey programs. Except for the films each of the works involves people obeying programs. Rehearsed performances in some. In others the audience. Is this participation or manipulation?'

Also at The Place on the 20 and 22 August 1972 the choreographer Micha Bergese will present a work using people and motorbikes. This is tentatively titled 'Pro Pollution'. Members of CAS are presently working on the score. For full details of the ICES events keep reading TIME OUT.

Jonathan Benthall, one-time PAGE contributor and now Controller of the ICA, has issued details of the latest massive ICA programme which he is producing with Ted Polhemus. It opens 6 September 1972, running till the end of the year. Titled, The Body as a Medium of Expression, it marks Benthall's disillusion with technology and science.

The BCS monthly Computer Bulletin for June 1972, draws attention to the fact that the New Scientist magazine has terminated its connection with the Honeywell Dial-a-Computer competition. The reason for this move, which has received publicity elsewhere, is the enormous involvement of Honeywell in some of the dirtiest aspects of the weaponry used by US forces in South-East Asia. See New Scientist 30 March 1972, p 206; ibid 27 April 1972, p 206; ibid 11 May 1972, p 352.

Counter Information Services, 52 Shaftesbury Avenue, London WC2, produced the sensational report on RTZ, which was handed out at the Annual Meeting of Rio Tinto. The phone number is 01-734 8862.

Perhaps the greatest pleasure for the small number of regular attenders of the Computer Arts Society committee meetings is the occasional appearance of one of our foreign members. Recently we were charmed by the visit of Sozo Hashimoto, Computer Artist from Tokyo. Hashimoto stopped in London in the course of an extensive journey. We were treated to very many slides of his work. Much of his work has been with Asakura Shoi Co Ltd, where he has produced a large body of fabric designs with the aid of computer and plotter.

#### LETTER

Reading PAGE always gives me pleasure, even although it frequently leads me to a state of confusion.

The extraordinary biography of lannis Xenakis which appeared in PAGE 23 has led me to propose the following additions to the English language:

a person who is engaged upon creative interaction with the computer can be said to be 'lannovating Xenakicaly';

a person who has achieved success in this field should be called an 'Xenakical lannovator'.

David Firnberg

David Firnberg Associates Limited, Tetbury Place, London N1.

#### SPOT ON LASER

Automating of engineering drawings with laser equipment would increase drafting-room productivity six-fold, says David Hawkins, chief of the Consolidated Edison Co, New York. Laser Focus, June 1972, p 20.

Laser Video Inc, Corona Del Mar, California, is working on exciting TV-laser applications. Why not drop in some time.

The world premiere of LASER by Walter Haupt took place at the Bayerischen Staatsoper 20 February 1972. The work ends with the 'crucifixion' of the single male dancer held between three laser beams. He has to wear spectacles against the light. Picture in LASER + Elektro-Optik, June 1972.

'Smart' bombs Wreck Viet Bridges, is the headline of an article in AVIATION WEEK & Space Technology, 29 May 1972, p16. Photographs show the effects of laser-guided bombs on bridges, petroleum tanks etc.

The most famous laser experts in the world gathered recently in Isfahan, Iran. Their views on future developments are summarized in LASER + Elektro-Optik, June 1972, p 3.

#### **GRAPHICS**

John J Huston, operating as COMPUTRA is offering for sale prints and originals of computer graphics by himself and Lloyd Sumner. He will send you an illustrated brochure and a copy of his computer-produced calendar on request. Write to him at Box 608, Upland, Indiana 46989, USA.

Art ex Machina, a portfolio of 6 original computer art serigraphs by Barbadillo, Kawano, Knowlton, Mohr, Nake, Nees, with a text by Abraham A Moles, and statements by each artist. Limited edition of 200; 'Each print is individually signed and numbered by the artist.' To be obtained from: gilles gheerbrant, éditeur, 3355 queen mary, montréal, canada (upper case interdit).

#### GOODIES

GRAFSY is a graphic software package for plotter. It is also aimed at artists who wish to engage in computer art. Shown at the Hanover-Messe 20-28 April 1972.

High resolution images stored in electro-optic ceramics. 3-D display permits multiple viewing. Computer Design, April 1972, pp 33 and 40.

Useful. The latest Hitachi TV set has an additional smaller screen as part of the set, enabling the holding of single images — up to 60 per minute. Set weighs 23 kg.

Science Accessories Corp, Southport, Conn, USA, announces the 3-D Digitizer. The 3-D Graf/pen generates three-position coordinates in digital form as the pen or stylus traces the exterior contours of physical objects. Price, \$4610.

The Electric Music Box, Series 200, is a comprehensive collection of precision modules for generating and processing sound. For brochure, write to Buchla and Associates, Box 5051, Berkeley, California 94705, USA.

At the Basel watch fair April 1972, Swiss watch manufacturers showed the first steady-state liquid crystal watches.

Stichting Werkgroep Video, Erasmusweg 424, Den Haag, Holland. Phone 070 643989.



### Maple Tree Farm Lanesville, N.Y. 914 688 7084

#### LITERATURE

Prentiss H Knowlton; Capture and Display of Keyboard Music. Datamation May 1972 pp 57-60. To commemorate its 25th Anniversary, ACM is producing a special in-depth over-view of all aspects of computers and computer science. This will appear as the July 1972 issue of the Communications of the ACM.

Victor Papanek; Design in the Real World. Thames and Hudson, London 1972.

The March 1972 issue of Computers and Humanities contains the Annual Bibliography for 1971.

Robert J Wolfson 'In the Hawk's Nest'. A revealing article on RAND. In Society, April 1972.

Process Control and Computers. In Chemical Engineering Progress, April 1972.

IEEE Transactions on Electron Devices, April 1972. Special Issue on Electrographic Processes.

Perspectives of New Music, Vol 9/2, 10/1, has several reviews of books on computer music.

Guy Atkins Editor; Manding Art and Civilisation. Studio International, pp 47, illustrated. London 1972.

Computer-Design in der Textilindustrie, a publication summing up the first symposium in a series arranged by GESAMTTEXTIL, Frankfurt/M, Schaumainkai 87, Germany. The publication is excellently produced, and contains the main contributions (in German). See PAGE 18.

C J Bradley and A P Cracknell; The Mathematical Theory of Symmetry in Solids. Representation theory for point groups and space groups. Clarendon Press, Oxford, 1972. £28, pp 745.

Report on the Annual Congress of the National Microfilm Association, New York, May 1972. In adl-nachrichten, No 74 1972, pp 22-23.

Nicholas M Raskhodoff; Electronic Drafting and Design. Second edition. Prentice Hall Inc, New Jersey, 1972, pp 666.

Henri Cartier-Bresson; Man and Machines. London 1972. Do try to see this major work. Commissioned by IBM.

J Braunbeck; Computer technik mittels Laser-heute, morgen. Part 3. LASER + Elektro-Optik, June 1972, pp 53-57.

David S Prerau; Computer Pattern Recognition of Printed Music. Proceedings AFIPS 1971 FJCC pp 153-162.

JR Ravetz; Scientific Knowledge and its Social Problems. Clarendon Press, Oxford, £5, pp 449. This is an indispensable book in the current re-evaluation of science and technology.

LLBA Language and Language Behaviour Abstracts. Quarterly, University of Michigan, Ann Arbor.

Clay T Whitehead, The Information Industry and Government Policy. Computers and Automation, April 1972. The April issue of this magazine is of exceptional interest.

Leonardo, the quarterly covering science-art-technology, has had a number of articles recently of interest to computer people.

Subscription is at a special price for individuals (£3 per year); this is a very good value for an expensively produced magazine. From Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, England.

Zentralblatt für Mathematik und ihre Grenzgebiete, Springer-Verlag,

Berlin, Heidelberg. Has extensive bibliography and summaries of articles, etc, in English.

Harold Kushner; Introduction to Stochastic Control, New York 1971, pp 390.

Leslie Mezei's book An International Portfolio of Visualized Processes is now due for publication by New York Times early in 1973.

3M are publishing a series of folders under the title The Scope of the Computer. The first folder — lushly produced, it goes without saying — is titled Music and the Computer, and has as hors oeuvre a real record by Zinovieff titled A Lollipop for Papa. Who says the gravy has run out of the computer business? Apply for your (free) copy from: Martin Cannon, 3M UK Ltd, Wigmore Street, London W1A 1ET. Mention CAS and PAGE.

Gilles Gheerbrant (no fancy spelling this time!); Art et Ordinateur. In Opus International, no 35, May 1972. This special number on Canada also has article by Groupe Informatique-Musique de l'Université de Montreal.

Finally, you may want to produce your own literature. You could contact the Beau Geste Press, Langfrod Court South, Cullompton, Devon, England. Tel: Plymtree 340. They specialise in the use of duplicators. If they like you, you might be invited to stay and do your own book: they are interested in maximising the potential of duplicators. Write and ask for their list.

#### 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, Eng. Secretary: John Lansdown, 50/51 Russell Square, London WC1B 4JX. 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.

US Branch (CASUS): Kurt Lauckner, Mathematics Department, Eastern Michigan University, Ypsilanti, Michigan, 48197, USA.

## THE VIETNAM WAR • Civil servants work o



Brian Aris-Camera Press

The heart-rending truth behind a statistic in the list of wounded civilians in Binh Dinh Province . . . little girl, loss of both arms. And the list grows daily

# Thieus Saigon

A NEW piece of jargon is being used here this weekend by Vietnamese officials. It joins a long list of convoluted phrases which have infiltrated the language since the Americans became involved in the war. The phrase is "morale mobilisation" and I heard it yesterday from Dr Phieu, the Vietnamese Minister for Social Welfare.

It means that the Government is trying desperately to instill a "Dunkirk spirit" into the majority of the South Vietnamese people. It seems unbelievable that this should be necessary after eight years of bitter fighting, but "morale mobilisation" has still been the main point of Government action during the past week.

President Thieu's televised speech to the nation warning that "this country is in danger" and the declaration of martial law were the most obvious examples of efforts to alert the people, but there have been a host of other decisions, some bordering on the farcical, and a general attempt to prepare effective civil defence organisations.

The day the President emerged from isolation in his heavilyguarded palace to address his people, an extraordinary decree was being passed. It said that civil servants must work all day on Saturdays. The vague explanation was that it would enable them to deal with the extra prob-

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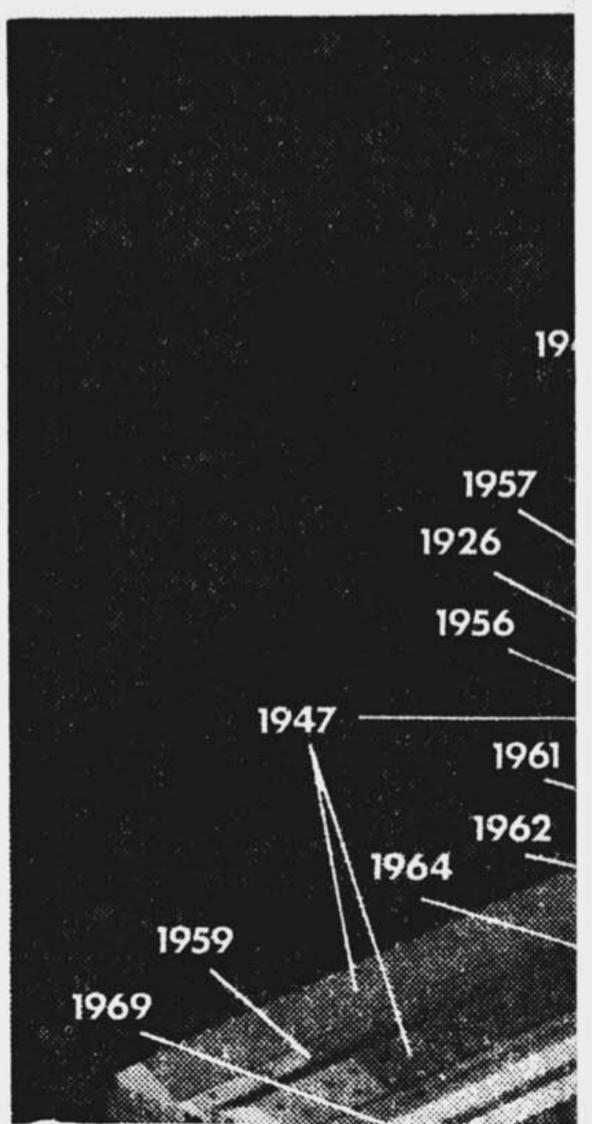
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HOW MANY WESTERN DIGITS TO DELETE THESE ASIAN DIGITS