

DIGSWELL ARTS TRUST

GORDON MAYNARD GALLERY

22, PARKWAY

WELWYN GARDEN CITY, HERT'S

Tel: W.G. 21506

' CREATIVE COMPUTERS '

EXHIBITION

June 2nd - June 24th, 1972.

Open daily: 10 a.m. - 5 p.m. Closed Sundays

The Gordon Maynard Gallery is administered by a Charitable Trust (Digswell Arts Trust)

It is helped financially by grants from the following bodies:-

The Eastern Arts Association

The Welwyn Garden City Urban District Council

Hertfordshire County Council - Mid-Herts Divisional Executive

The Friends of the Gallery kindly subscribe annual amounts ranging from £1 - £10.

Visitors are invited to help support the Gallery by making donations.

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Creative Computers

This exhibition, made possible by a grant from the Arts Council of Great Britain, is of part of the collection of computer graphics owned by the Computer Arts Society.

In every case a computer has been used either to design or to draw the images presented and the exhibition gives a broad spectrum of many of the ways in which graphic artists are using computers in their work.

The absence of any British works will be noted. This is not because British Artists are inactive in the field of computer art. On the contrary, much of the stimulus in this direction comes from London via the Computer Arts Society. However workers in Britain seem to have concentrated on the use of the computer in music, the performing arts, poetry and film so that their efforts cannot be displayed here.

Works marked with P are Prints : those marked O are Originals.

BOEING GRAPHICS developed the system which produced these pictures for studies of cockpit configurations. The dimensions of the man are based on data from the US Air Force. The drawings here are a rear-view sequence, but since the program does not remove hidden lines, the figures appear transparent. Each figure is made up of several independently movable sub-systems: head and neck, torso, legs, left upper arm, left lower arm, right upper arm, right lower arm.

PRINT BY MOTIF EDITIONS

1. HUMAN FIGURE. P

MANUEL BARBADILLO is an artist whose work is well known in his native Spain. For the past seven years he has been working on modular paintings, exploring the very many possibilities of a few basic modules. He spent 1969 working with the programmer Lorenzo Soto and others at the University of Madrid Computer Centre.

A single square module has 16 forms, based on rotation, mirror image, and inversion (black for white). A square element of four such modules can be formed in over 4000 ways from a single module. Barbadillo has been interested in permutation of forms where there is a large degree of symmetry, unlike many other artists who have used random arrangements of a module. Having designed a module, he uses the computer to print out many different arrangements of it before selecting one to paint by hand.

2. SILK SCREEN. P

3. TYPICAL COMPUTER OUTPUT. O

HERBERT BRUN is director of the Experimental Music Studio at University of Illinois.

The drawings illustrated are musical scores for keyboard pieces and were performed by John Tilbury at the Computer Arts Society Event One in London 1969.

4. NINE COMPUTER SCORES. P

DAVID CAULKINS is at the Jacobi Computation Center in Los Angeles. He is the author of DARTI a general graphics system for artists, which runs on the Univac 1108 and Calcomp 663 drum plotter at the Center. Caulkins describes himself as more of a tool-builder than a tool-user, and he is currently debugging a new release of DARTI.

5. ROTATING SPIRAL AROUND ELLIPSE. 0
6. TWO TURN SPIRAL AROUND SPIRAL. 0
7. DRAWING NUMBER 717904.00000. 0
8. UNTITLED. 0

CAYC is Centro de Arte y Comunicacion in Buenos Aires. Under its director Jorge Glusberg, it is one of the most active centres in the world for the creative use of computers and other technology. Shown here is a selection of work by artists from the Centre.

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|-----------------|-----------------|
| Antonio Berni | 9. UNTITLED. P |
| Ernesto Delva | 10. UNTITLED. P |
| Ango Demarco | 11. UNTITLED. P |
| Oswaldo Romberg | 12. UNTITLED. P |
| Miguel Vidal | 13. UNTITLED. P |

COMPUTER TECHNIQUES GROUP are well known for their interest in graphic transformation processes, illustrated in these prints. Idea by Masao Komura (product designer), data by Makoto Ohtake (architectural designer), program by Koji Fujino (systems engineer). Programmed in Fortran IV on IBM and drawn on Calcomp 563 plotter.

PRINTS BY MOTIF EDITIONS

14. RUNNING COLA IS AFRICA. P
15. RETURN TO SQUARE. P

CHARLES CSURI and JAMES SHAFFER are at Ohio State University at Columbus. The print shown here was produced as output from a simple simulation of a battle, in which each soldier had a name. Comprehensive casualty lists, sector by sector of the battlefield, were also produced.

PRINT BY MOTIF EDITIONS

16. RANDOM WAR 1967. P

JAUME ESTAPA works at CERA in France. These works are preparatory studies for an automatic system in which photographs are scanned and reproduced using different textures on a line printer or plotter.

17. CATHERINE SAUVAGE. O

18. GEORGE BRASSENS. O

19. GEORGE BRASSENS. O

20. SERGE REGGIANI. O

21. THE BEATLES. O

22. THE BEATLES. O

HERBERT W FRANKE studied physics, chemistry, psychology and philosophy at Vienna University. He is the author of 'Computer Graphics-Computer Art' published in November 1971 by Phaidon.

The black and white works shown here were produced on an analogue computer system developed with Dr. Franz Raimaim.

PRINTS BY KUNST KONTOR FRANZIUS

The serie Drakula Prints were produced on a Siemens System 4004 computer and a Calcomp plotter.

23. SERIE 1956. P

24. SERIE 1956. P

25. SERIE 1961/1962. P

26. SERIE 1961/1962. P

27. SERIE 1961/1962. P

28. FOUR PRINTS FROM SERIES
DRAKULA. P

AURO LECCI is an Italian artist, until recently working in Florence. The reproductions shown here are of works which are part of a series, each one being a variant of a basic design. He spent 1970 in the Graduate Art Department of the University of Massachusetts. He finds that using a computer allows him to achieve a precision in his works that would be difficult by normal means.

- 29. SLANT ONE. P
- 30. SLANT FOUR. P
- 31. SLANT FIVE. P
- 32. LATTICE TWO.
- 33. SHIFT ONE. /1 P
- 34. /2 P
- 35. /3 P
- 36. /5 P

MAUGHAN S MASON lives in Saratoga, California. He works with an analogue computer controlling an X-Y plotter. He first visualises the pattern he wants and then designs the circuit arrangement that will produce it. He has produced many such Moire patterns and other works with striking visual effects.

PRINTS BY MOTIF EDITIONS

- 37. MAUGHANOGRAM. P

CHARLES MATTOX is Professor of Sculpture at the University of New Mexico at Albuquerque. He is well known in North America for his kinetic and sound making sculptures of striking and simple design.

He is also the American editor of Leonardo, the journal of art and science. His computer graphics have a strength and spatial depth that might be expected from so experienced a sculptor. These works were produced using the DARTI system of David Caulkins.

- 38. UNTITLED. O
- 39. UNTITLED. O

LAMBERT MEERTENS and LEO GLURTS are two Dutch programmers working at the Mathematisch Centrum in Amsterdam.

They have produced music and graphics by computer and the print shown here is one reproduced on a 1971 Dutch Calendar.

40. UNTITLED

GEORG NEES has worked since 1964 on problems of Computer Graphics. He is the author of 'Generative Computer Graphics' and has produced a computer film 'Spuren von Bedeutung'. The works shown here were produced on a Siemens System 4004 computer.

PRINTS BY KUNST KONTOR FRANZIUS

41. GRAVEL STONES. P

42. CORRIDOR. P

43. UNTITLED. P

44. UNTITLED. P

45. COMPUTER SCULPTURE. P

LILLIAN SCHWARTZ is an American artist who has worked in graphics and computer produced films. The works here were done in collaboration with Bell Telephone Laboratories in New Jersey.

KENNETH C KNOWLTON works in the research division of Bell Telephone Laboratories and developed the REFLEX programming language for the production of computer films. He has collaborated with a number of artists to produce computer film and graphics.

46. FISH. P

47. HIPPIE. P

48. NUDE. P

49. UNTITLED. P

50. FOUR STILL FROM THE FILM
PIXILLATION. P

with BOB TATEM

51. UNTITLED. P

52. UNTITLED. P

53. UNTITLED. P

KERRY STRAND is with California Computer Products at Anaheim. This classic of computer art was produced on a Calcomp 770 tape system in association with a 207 flatbed plotter. The plotting time was 4½ hours.

PRINT BY MOTIF EDITIONS

54. THE SNAIL. P

PETER STRUYCKEN is a Dutch artist working in Arnhem, who uses a computer in all his current work. He has a close collaboration with A Tempelaars of the Electronic Music Studio in Utrecht, who does the programming. A large quantity of output is generated on a line printer indicating possible designs. He chooses from this what he wants, possibly modifying it, and then produces the final design by hand. Some of his designs were used to decorate the Dutch pavilion at Expo 70 in Japan.

55. COMPUTERSTRUCTURES :
PROGRAM AND PRINTS. P

LLOYD SUMNER is one of the very few full time professional computer artists. He is president of Computer Creations, Charlottesville, Virginia USA. Several of the works here were reproduced in his book 'Computer Art and Human Responses' published in 1968. His works have been exhibited widely.

He works in a way more like that of a traditional artist than most people using computers creatively. He conceives a design and then, knowing quite clearly what he wants, writes a specific program to realise it.

56. THE ROTUNDA. O

57. MY LAST DESIRE. O

58. FRIENDLY FLOWERS OF
SPACE AND TIME. O