

# Cybernetic Serendipity Revisited

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## ABSTRACT

In this paper, the 1968 landmark computer art exhibition *Cybernetic Serendipity* is examined systematically and in detail. Extant archives were examined and interviews conducted. Certain common conceptions about the nature of the event are discussed with some surprising results.

### Categories and subject descriptors:

K Computing Milieux, K.2 History of Computing, J Arts and Humanities, J.5 Fine arts

**General terms:** Human factors

**Keywords:** Fine art, history of computing, exhibitions, ICA, Jasia, Reichardt.

## INTRODUCTION

The 1968 *Cybernetic Serendipity* exhibition at the Institute of Contemporary Arts in London lives in popular legend as a seminal event in the history of computing and art. More than thirty years after the event, it has taken on legendary status. Enter the two magic words cybernetic AND serendipity into an Internet search engine and over 400 pages of text result including fascinated inquiries from wide eye young enthusiasts not born in 1968 and many web sites devoted to major figures some of them alas no longer with us. (Web sites often created by wide eyed young enthusiasts not themselves born in 1968).

## THE LEGEND

‘I think we shall look back to it one day as a landmark’ wrote a farsighted journalist after seeing the press view in August 1968. And this from a man who nevertheless found the exhibition ‘baffling, not to say impenetrable’ [1].

Several attempts have been made to re-stage the exhibition in whole and in part [2] and anniversary papers have been written [3]. This research, funded by the British Arts and

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Humanities Research Board (AHRB), is an attempt to undertake a systematic examination of the legend and the facts behind it; to record a time when the exhibition publication dreamt of a computer the price of a small car with a megabyte of memory [4]. It is also important to remember that this seminal event took place in the summer of 1968 at roughly the same time as the Soviet invasion of Czechoslovakia and riots in Chicago against the war in South Vietnam.

What has happened to the ‘cybernetic introspective pattern classifier’ which ‘allows people to watch their own cerebral processes actually in action?’ [5]. Did computer generated ‘high-entropy essays’ [6] have a life after 1968? What became of EAT? (Experiments in Art and Technology).

## THE ARCHIVE

Two substantial surviving archives were examined exhaustively. The original ICA archive is now in the Tate Gallery library and a private archive of the event is held by the original exhibition organiser, Jasia Reichardt. Both of these were investigated thoroughly. Extensive notes were taken and photocopies of certain key documents made. A large private collection of photographs documenting the exhibition has been catalogued, scanned and transferred to CD-ROM. These were not previously in the public domain. A copy of a film showing exhibited computer animation work has been transferred to contemporary videotape. A copy of the original exhibition publication and other ephemera have been obtained. Contemporary television coverage from the BBC film library has been catalogued and obtained on an accessible videotape format. All the print and radio press coverage has been examined and noted. Several original exhibitors have been contacted and several surviving works located and examined. Three long interviews have taken place with the original exhibition organiser Jasia Reichardt. The substantial influence of the exhibition noted in both traditional and on line sources has been documented.

## BACKGROUND

Jasia Reichardt was Associate Director of the Institute of Contemporary Arts in London, when, as a result of organizing an exhibition on concrete poetry, she met Max Bense whose inspired words to her in 1965 were ‘look into

computers'. Through various periodicals such as *Data Systems* and *Computers and Automation* (and their annual computer art competition), she made contact with Michael Noll of Bell Telephone Labs. These two contacts in Europe and America and the computer Technique Group in Tokyo led her into new networks. After a substantial period of research, the ICA held a press conference in December of 1966, announcing the exhibition and commencing the process of fund raising. Supported by the Rt. Hon. Anthony Wedgewood Benn, Minister for Technology, letters went out to over 200 appropriate firms seeking support. This futile search for sponsors led to some of the tight fisted corporations being named and shamed later at the exhibition press launch. Only IBM helped with significant contributions in kind without which the exhibition would have not gone ahead. In all £20,000 was raised with the Arts Council providing £5000 and the US State Department coming up with a travel grant to support a research visit to New York. The scale of the project can be compared to the contemporary Matisse exhibition at London's Hayward Gallery which cost £60,000. The exhibition was advertised at selected sites in the London underground (subway).

#### **PARTICIPANTS**

These ranged from corporate giants such as IBM, Boeing, General Motors, Westinghouse, Calcomp, major research institutes such as Bell Telephone Labs and US Airforce Research Labs. There were the 'founding fathers': Charles Csuri, Charles Pask, Frieder Nake, Michael Noll, John Whitney, Edward Ihnatowicz, the Computer Technique Group, Tokyo (a list in no particular order and not exhaustive). These creators from various backgrounds who were using computers in exciting new ways were joined by 'traditional' (non digital) contemporary artists who worked with machines and whose work would already have been seen in various gallery contexts. These artists included Bruce Lacey (photographed at the opening with Princess Margaret), Naim June Paik, Roger Dainton, Tsai Wen Ying, Jean Tinguely, and James Seawright. Lowell Nesbitt's paintings of computers were also shown. There was the work of avant-garde musicians such as John Cage, Iannis Xenakis and Peter Zinovieff and poetry including Edwin Morgan's *Computer's first Christmas card*. Films by Kenneth Knowlton, Michael Noll, Nicholas Negroponte and John Whitney among others were shown in a specially build viewing area. Finally the status of the event was such that Umberto Eco came from Italy to view its wonders.

#### **THE EXHIBITION**

As clearly stated in the exhibition *Cybernetic Serendipity*, was organised in three sections:

- computer generated work
- cybernetic devices-robots, painting machines
- machines demonstrating use of computers/history of cybernetics

Its aim was clear: '... dealing with an exploratory field, all attempts at a historical perspective or firm evaluation were

out of place. The exhibition and this record, therefore, are essentially a reportage of current trends and developments' [7].

Quite sensibly the exhibition did not tear machine assisted creative work from its context and contemporary work which was not made in any way by machine was included. For example, Bridget Riley's geometric work was exhibited alongside similar computer generated work. Equally the contemporary avant-garde music on the exhibition record included work which was, for the most part, produced in non-digital ways but which helped to set the context for the computer generated work. Also it is important to note that a wide range of disciplines were represented in the exhibition, not just the visual arts. Poetry, music, dance, film and animation work with a technological dimension were all shown.

The much quoted and consulted publication is not, as is so often assumed, a catalogue of the exhibition, but rather a publication to coincide with the show. Many of the machines and some of the works displayed or referred to in the publication were not actually in the ICA show. which was nevertheless described as 'a gallery full of tame wonders which look as if they've come straight out of a science museum for the year 2000' [8].

#### **FINDINGS**

*Cybernetic Serendipity* has a reputation as being the first computer art exhibition. It was not. There had been computer art exhibitions earlier in Germany and America. More crucially perhaps, *Cybernetic Serendipity* was, just as its title suggests, about cybernetics - 'control and communication in the animal and machine' [9] rather than exclusively concerning itself with computer generated work. The stated aim of the exhibition was to explore 'the relationships between technology and creativity' [10]. While clearly centering on computers for publicity (and fund raising) purposes, there were only two digital machines in the exhibition and much of the work was produced using analogue technology. Of the two computers on show at the opening, one had nothing to do with creative work. This was an airline reservation system provided by IBM (the only industrial sponsor of some 200 approached to make any kind of contribution). The second, used by Peter Zinovieff to compose music was removed for use by the composer for his continued use. The robotic devices in the exhibition which were a big hit with critics and the public alike were not digitally enabled.

#### **INSIGHTS AND FORESIGHT**

'one can foresee the day when computers will replace railway trains and airliners as the cult symbols of the under twelve's' [11].

'Cybernetic Serendipity deals with possibilities rather than achievements, and in this sense it is prematurely optimistic. There are no heroic claims to be made **because** computers have so far neither revolutionized music, nor art, nor

poetry, in the same way that they have revolutionized science' [12].

'The computer is only a tool which, at the moment, still seems far removed from those polemic preoccupations which concern art. . . . The possibilities inherent in the computer as a creative tool will do little to change those idioms of art which rely primarily on the dialogue between the artist, his ideas and the canvas. They will, however, increase the scope of the art and contribute to its diversity' [13].

These observations, made by curator Jasia Reichardt were, and remain, remarkably insightful, standing the test of time.

The exhibitors were a mixture of artists and scientist-engineers experimenting in a way not possible today. Whereas in 1968 scientists, engineers and artist all had to write software to produce work, today artists can use digital tools without needing coding skills. Teams of artists and engineers are less likely to exist today. Equally engineers and software developers are also less likely to experiment with artistic output.

The research work funded by this grant also looked at the possibility of a future exhibition of some of the work from the original 1968 exhibition. Surviving individual works were located and loan possibilities were discussed with owners. The intention on this front was to investigate the *possibility* of some of the 1968 work being part of a wider retrospective exhibition of computer enabled creative work. This could certainly be the case as the work survives, but the organisation and funding of such an exhibition is well beyond the scope of this research.

Funding levels in higher education, public galleries and in the corporate research sector are not what they used to be. The work that *Cybernetic Serendipity* presented to the world was made in labs by imaginative creative inquisitive

individuals and teams trying to see what computers could do. Two years of research, fund raising and general curatorial graft was required to create the exhibition. Neither the work nor the exhibition could happen today with much more focussed, often short term, agendas prevailing both in the research and museum worlds. The ICA and the Arts Council took an imaginative leap in supporting Jasia Reichardt's vision. Would such courage in the support of creative serendipity apply today?

#### ACKNOWLEDGMENTS

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