

Virtual Gallery: Electronic Mail Art 1 – 5

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Abstract

Computer Graphics and Electronic Mail Art exhibitions are annual shows of computer generated or manipulated images, transmitted via e-mail, printed and exhibited in Bratislava in the occasion of the greatest computer exhibition in Slovakia - COFAX. Until now, artists and computer graphics scientists from Austria, Belgium, Brazil, Canada, Czech Republic, England, France, Germany, Greenland, Israel, Japan, Holland, New Zealand, Poland, Russia, Singapore, Slovakia and USA have participated. The reason why electronically created and transported images are printed and exhibited in a traditional way is that few artists in our country use the Internet. Another reason is that classic exhibitions and their openings are also social events.

‘The Global Village is not created by the motorcar or even by the airplane. It is created by instant electronic information movement. The Global Village is at once as wide as the planet and small as a little town, where everybody is maliciously engaged in poking his nose into everybody's business’.

Marshall McLuhan [1]

1. Introduction

Computer (Graphics) Art exhibitions became part of the scientific computer conferences in Slovakia since 1978. One reason was that "computer art" was not recognized and supported by the official art representatives [2] in the former Czechoslovakia and artists had no chance to present their works at the official art galleries. Another reason was that artists using this tool and medium had very difficult access to computers, so they needed help and support from the scientific and technical community.

When we created conception of the first “official” (at the Regional gallery Banská Bystrica) exhibition of Computer Graphics in Fine Arts in 1992, we concentrated on Central European artists - not because of regional patriotism, but for a pragmatic reason, to reduce transport fees and problems with custom offices. In order to introduce artists from distant parts of the world, in 1994 we decided to exploit the Internet. The images were generated with computers and then transmitted electronically (by e-mail) to the mailbox on the server at the the Slovak University of Technology. Files were uploaded to the computer (via public telephone lines and slow speed modems) at the Academy of Fine Arts and Design in Bratislava, which was probably the first art school in Eastern Europe connected with the Internet. Image files were stored on floppy disks, and printed at the sponsoring company and the images were exhibited. Sample works are published on URL: <http://www.elf.stuba.sk/~sperka/#emart>

2. E-mail art - form of the interactive telepresence

Electronic mail art is a new form of the interactive Mail Art, where works of artists from different parts of the world are transported by the snail-mail. The paradigm of electronic mail is similar to the traditional one. The source of the information puts their message into the mailbox, the mail service takes, sorts and transports it to the destination points, where the receiver withdraws (or not) it from their mailbox.

Electronic mail allows transmission not only of text, but also of static and moving images, voice, music and programs for manufacturing three dimensional objects by numerically controlled machines.

In the electronic mail we transmit information, but no mass. Computer networks do not pollute space with an ever-present electromagnetic field, but information flows through determined communication channels. Electronic networks are part of a new culture, where we do not think, see, or feel in isolation. Creativity is shared authorship and is distributed.

Also telecommunications art has its bottlenecks. " ... even basic telephone technology is full of serious problems in most developing countries." [3]. New technologies in art could cause another segregation of rich and poor countries, and division of the artistic community into those who have it and others. This was also the motivation for the announcement that exhibiting artists were asked to formulate their statements about the role of the computer and e-mail art in post-communist and third world countries. Unfortunately very few of them answered this question.

Electronic mail is part of a new culture. "Telematic culture means, in short, that we do not think, see, or feel in isolation. Creativity is shared, authorship is distributed, but not in a way that denies the individual her authenticity or power of self - creation, as rather crude models of collectively might have done in the past" [4]. This aspect is compatible with the goal of our first E-Mail Art exhibition. And this idea should be present in the next events, integrating scientific and technological innovations with art.

Some artists asked about the possibility of submitting and exhibiting their works by the World Wide Web, which allows storing and presenting of text and images at the place of their origin. Due to the fact the Academy of Fine Arts and Design did not have a fast communication link with the University Computing Center, we decided to continue with the mail communication paradigm - those artists who wish to participate create, select and send their images via e-mail.

In the process of compiling the exhibitions, there were many questions, notes and suggestions from artists regarding the sense of electronic creation, archiving, transmission of images and printing and exhibiting them in a traditional way. This approach has some inherent contradiction.

Printing documents - created, distributed and stored electronically - is traditionally the proof and symbol of trust at offices, banks, schools and factories. The increased use of paper (and chemicals for nice looking color pictures) is not going to be reduced, but it looks like computers contribute (by the fact of easy to use and cheap publishing systems) to even more consumption of hard copy media. Piles of magazines, books, catalogues and commercial

booklets are the proof of this trend not only in Western industrial and post-industrial countries, but also in post-communist countries in Central and Eastern Europe.

The reason why the works were shown in the traditional way (printed, framed and hanging on the wall) was that very few artists had and even now have access to the Internet. It is also social aspect - openings, where people can meet physically.

3. Art, science and technology -- synergism or schism?

The symbiosis of art, science and technology is not new. Since prehistory, artists had always used the "High Tech" of each particular era. The cave paintings in Spain or France, or Venus from Moravany (a mammoth ivory sculpture found in Slovakia) are done with the best tools of that time - the same ones used for survival.

Also, transmission of artistic images via telecommunications had its predecessors in time when no fax or e-mail existed. The Hungarian artist Laszlo Moholy-Nagy (one of the founders and teachers at the school of design, Bauhaus, who also lectured several times in the Bratislava School of Applied Arts) showed his "telephone images" in Berlin in 1924. These pictures were transmitted through telephone line as a sequence of numbers, representing color codes of picture elements.

The high professionalism in different human activities forced deep and narrow concentration of knowledge and skills in particular activities. Telecommunications and computers integrate individuals who have professional links, and it is also reasonable to think that they have the ability to bring together creative people from cross-disciplinary backgrounds.

Together with simple and sign-oriented human-computer communication, interactive and multimedia education, huge databases accessible by global computer networks and the possibility of gaining practical skills by means of "virtual experiments" in real time could reduce the training and education period very significantly. This would enable people to gain more and more time for the general development of their personality and could contribute to the fulfilling of the Renaissance ideal of a broadly developed and harmonic human being.

I consider this a legitimate reason for including participating professional artists, students of art as well as computer scientists and engineers and university students (with visually interesting images, illustrating algorithms for image processing and synthesis) at the Electronic Mail Art exhibitions. Sometimes images documenting programs, or methods, are visually surprising and interesting, and on the contrary the works proclaimed as an art works are, from the point of view of the computer graphics experts as well as artists, trivial and uninteresting.

A few years ago there existed no programs with a user friendly interface (GUI) which could be learned easily even by the pupils at the elementary school. The pioneers of computer art had to know programming, or co-operate with computer specialists. The fact that we can learn programs for graphic design, photographic image processing, painting, 3D modelling or animation in a few hours can be compared to brush or pencil strokes, releasing the shutter of a camera or chiselling. "Using an interactive program is very basic - simply pointing and clicking. By a clever sequence of such simple actions, a user sets into motion huge piles of frozen mental labor that others - system and software designers and programmers have done", said Frieder Nake, computer scientist and one of the pioneers of computer art [5].

Even in the case when this "pointing and clicking paradigm" becomes more and more a "cultural phenomenon", art requires something more. On the contrary, knowledge and skills in the advanced computer technology, like multimedia, sophisticated animation systems or virtual reality systems cannot be learned in few days.

Fine or "media" artists have to learn in using advanced technology or they must trust (if they do not know the tools) an assistant. In both cases, the match between idea and final result depends on the ability to communicate - with human or machine. This is the similar situation, as in the times of computer art pioneers.

4. E-mail art exhibitions: overview

Computer graphics art has different forms. In contrast with works before user friendly and commercially available programs appeared, it was necessary to invent methods, algorithms and implement programs. Now, many artists use programs for graphic design, image processing, 3D modelling and animation. It is not easy to select what is an original idea and what is an imitation. Of course the tool is not the final criterion. Those who know can create also with relatively simple tools, and those who have no creative fantasy and skills are not able to achieve good results even with the best instruments.

In 1994 there took place the exhibition Computer Graphics in Fine Art - Electronic Mail Art at the gallery MEDIUM (Academy of Fine Arts and Design). There were presented works from 28 artists from Austria, France, Great Britain, Japan, Poland, Slovakia, Switzerland, and USA. Most of the artists submitted their works via e-mail, and a few of them sent magnetic media or prints. Four of them use programs written by themselves - Vera Molnar (one of the European pioneers in computer art), Roman Verostko (uses program which generated evolutionary patterns, drawn with the digital plotter), Yoshiuki Abe (winner of Goldene Nica prize at Ars Electronica in Linz - generates space surfaces, which are printed on a very high quality sublimation printers in large formats). The Slovak painter Orest Dubay started with 8-bit home computers and wire-frame rendering of complicated surfaces. Now he uses shareware programs for realistic ray tracing rendering. His computer generated worlds are compatible with his oil paintings.

In 1995, the announcement of the exhibition was published in the electronic journals ISEA Newsletter (Holland) and Fineart Forum (Australia). I received more than 100 questions regarding the details of the exhibition - from artists in America, Europe, Australia and some of the more developed Asian countries, but unfortunately, nobody from Africa. Let us mention a few of them. Jaroslav Blazek, a mathematician, worked together with the first artist who used computers in Czechoslovakia, and submitted a visualization of iterative mathematical equations. Gershon Elber, a computer scientist from Israel, developed a method for shading 3D objects, which visually reminds one of engravings of old masters. Brazilian artist Tania Frega deals with computer modelled sculptures and she sent images - stereo pairs of her virtual objects.

In 1996, the theme of this exhibition was "Danube-Main-Rhine: Borders - Bridges - Communication", as an metaphorical parallel between traditional the communication role of rivers, which divided but also united different parts of world. The Danube and Rhine were and still are borders between many countries and nations, and in the past they were part of the border of the Roman Empire (Limes Romanes) on one side and Internet on the other. The goal was to physically bring the exhibition to the ISEA (Inter Society of Electronic Art)

symposium in Rotterdam (which lies on the same Trans-European river road from the Black to the North Sea as Bratislava, and in the times of Romans, both cities were on the other side of the border) via the rivers. At the end, only the metaphorical transport was realized. Among participating artists was also Charles Csuri, professor of Art and Computer Science, winner of the Goldene Nica prize from Ars Electronica, founder of Supercomputing Center for Artists and Designers in Columbus, Ohio who models big scenes with human or animal models, and Brian Evans, musician and visual artist, who uses supercomputers in visualization of his algorithmically generated music compositions.

1997: 90 percent of the applying participants for the previous exhibitions were from the USA, but very few were from former East Europe, Africa, Latin America or poor parts of Asia. The name of this exhibition was "Internet for all, all for the Internet". We also exhibited photographs (not manipulated by the computer programs, but transmitted by Internet, or even by mail on magnetic media). Artists from Bulgaria, Greenland, Russia, Slovakia and the USA contributed to this event. We have to mention the Slovak sculptor Vladimir Havrilla, who submitted intellectually and aesthetically interesting virtual sculptures.

In 1998, no specific topic was declared, but in the process of inviting artists I concentrated on works integrating art and science symbiosis. Ken Musgrave, scientist and artist who worked together with the "inventor" of fractals Benoit Mandelbrot, Steven Rooke, who generate images with programs simulating evolution, and Roman Verostko, with his interactive web page "Homage to Alan Turing" (simulating the a Turing machine in visually aesthetic form), are among those who have promised to participate.

5. Acknowledgements

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