CODINGS
02.28.2012 - 03.30.2012

Giselle Beiguelman
Commodore Business Machines, Inc.
Adam Parrish
Jörg Piringer
Casey Reas
Páll Thayer

Curated by Nick Montfort
PACE DIGITAL GALLERY

‖‖‖

CODINGS

Curated by Nick Montfort

Codings shows the computer as an aesthetic, programmed device that computes on characters. The works in the show continue and divert the traditions of concrete poetry and short-form recreational programming; they eschew elaborate multimedia combinations and the use of network resources and instead operate on encoded letters, numbers, punctuation, and other symbols that are on the computer itself.

Rules for converting information are called codes. One type of encoding is the digital representation of glyphs or characters; another is the representation of instructions or functions, however implicitly imagined, as formal, executable computer programs. Although computers can powerfully manipulate and generate visual images and can produce sounds and music, they have served for many decades as textual devices, working upon typographical characters. And, while computers now very often serve as networked appliances, retrievers and processors of information, they still have the capability to work as symbol manipulators, doing stand-alone computation, as they have long done.

Codings features aspects of digital art, and of digital media generally, that are too often overlooked. *Code Movie 1* and *Unicode* foreground two encodings that are usually hidden: The representation of JPEG images as hexadecimal numbers and the formal specification of the Unicode character set as a sequence. In *10 PRINT CHR$(205.5+RND(1); : GOTO 10*, two non-standard characters are used to create an image; *10 PRINT* takes off from that program, leaving the character graphics aside but adding character-based input via the keyboard. *Microcodes* offers characters of visible code and operates in the terminal window, while the more materially unusual *Autonomous Parapoetic Device* has an even more limited character-based display. Whatever else computers are doing in the early 21st century, they are still chewing on texts a character at a time, continually bringing computation up against units of language. Here are systems that do that quite consciously — and in extraordinary ways.

Code Movie 1
Giselle Beiguelman (Brazil)
Digital Video

10 PRINT CHR$(205.5+RND(1); : GOTO 10
Commodore Business Machines, Inc. (Canada/USA)
BASIC program

Autonomous Parapoetic Device
Adam Parrish (USA)
Electronic device including an LCD screen, ATmega168 microcontroller, and Arduino program

Unicode
Jörg Piringer (Austria)
Digital video

10 PRINT
Casey Reas (USA)
Processing program

from Microcodes
Páll Thayer (Iceland/USA)
Perl programs

Code Movie One
Giselle Beiguelman
Brazil
Digital Video

Many videos incorporate digital images; *Code Movie 1* displays JPEG images not as the standard rectangles of color, but as black-and-white hexadecimal code. The letters A through F join decimal digits 0 through 9 to compose a large base 16 number that corresponds to a JPEG image. By transcoding the image, *Code Movie 1* takes a view that can apply to any digital object. The moving and rippling fields of characters show that these characters, although usually unseen, are in play whenever images appear — even in their more conventional manifestations.

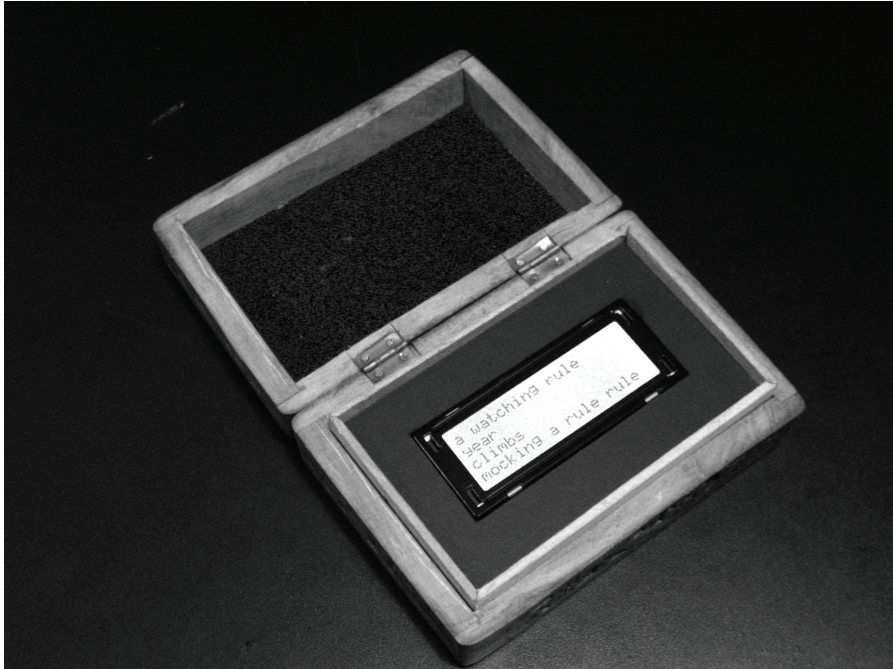**10 PRINT CHR$(205.5+RND(1); : GOTO 10**
Commodore Business Machines, Inc.
Canada/USA
BASIC program

A three-line version of this program appeared in the original 1982 *Commodore 64 User's Guide:* *10 PRINT "{CLR/HOME}" / 20 PRINT CHR$(205.5 + RND(1)); / 40 GOTO 20*. This is one of many short BASIC programs, for this and other computers, that have been entered by users seeking to puzzle their friends, to learn more about computing, and to see aesthetically pleasing output. The program, which produces its visual effect by using two characters in the PETSCII character set, is the topic of an MIT Press book by Nick Montfort, Casey Reas, and eight others that is to be published in Fall 2012 and is entitled *10 PRINT CHR$(205.5+RND(1); : GOTO 10*. The program is also the inspiration for the work by Reas in this show, *10 PRINT*.

Autonomous Parapoetic Device
Adam Parrish
USA
Electronic device including an LCD screen,
ATmega168 microcontroller, and Arduino program

This self-contained device, which can be run on battery power, is a portable poetry-generating machine. When carried by a user, the generated stanzas are juxtaposed with whatever environments the bearer is passing through, just as those listening to a portable music player bring the sounds they are listening to into contact with the architectural or natural spaces they inhabit. The 20x4 character monochrome LCD display enforces a more austere constraint on the generated text than does the computer or mobile phone screen, but Parrish has nevertheless programmed the device to produce compelling language.
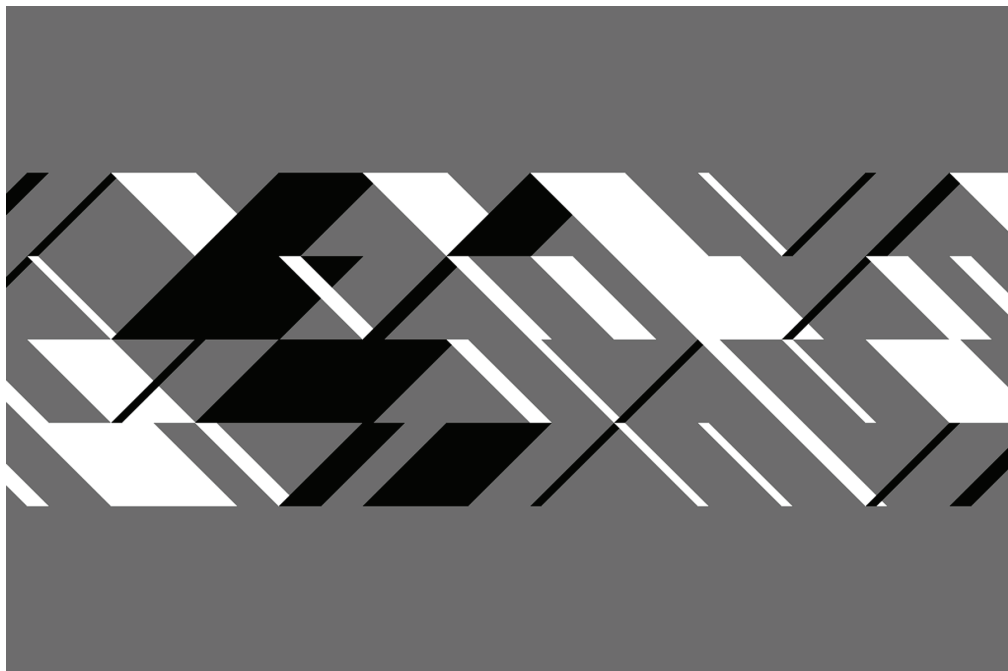
Unicode

Jörg Piringer
Austria
Digital video

This video shows all displayable Unicode characters in the range 0-65536, one character per frame. The 49571 characters that are shown appear as they are listed in the international Unicode standard, the first volume of which was published in October 1991. Unicode was developed to supersede earlier, incompatible character encodings. The current version, 6.1, encodes characters from practially all writing systems in current use. Piringer's recitation of the German alphabet accompanies the video, one letter per one or two frames.

10 PRINT
Casey Reas
USA
Processing program

This is a program in Processing, a system initially developed by Reas and Ben Fry at the MIT Media Lab and the Interaction Design Institute Ivrea. It explores some of the visual ideas in the Commodore 64 program that is included in this exhibit, displaying a maze-like pattern whose colors and structure are derived from the same underlying random process. In this work, however, the parameters that generate these visuals can be changed by simply pressing a key while the program is running. By default, programs in Processing, like BASIC programs and Web pages, can be inspected and modified by users.

from Microcodes
Páll Thayer
Iceland/USA
Perl programs

This series of short programs is in Perl, a language that is well-suited to text processing and which some find obscure, others delightful, and yet others both. (Perl is standard on Mac OS X and Linux systems and is available as free software for Windows.) The *Microcodes* programs can be read based on their titles, and based on their code, and by considering how they function when they are run. They engage programming, textual practices, and visual art, all while working within the confines of a character-based terminal window. The example code and execution snapshot that is shown here is from "The path to enlightenment."

```perl
#!/usr/bin/perl
$height = `tput lines`;
@lines = ('\\', '|', '/');
$last_line = 30;
while(!$enlightened){
        system 'clear';
        foreach(1..$height){
                $the_spot = abs($_ - ($height));
                $the_line = int(rand(scalar @lines));
                system 'tput', 'cup', $the_spot, $last_line
                print $lines[$the_line];
                $last_line += $the_line-1;
                select(undef, undef, undef, 0.25);
        }
}
```

ARTISTS

Giselle Beiguelman
Giselle Beiguelman is a new media artist and curator who teaches art history and design at the Architecture and Urbanism Faculty of the University of São Paulo. Her work has been presented in international venues such as Net_Condition (ZKM, Karlsruhe), el final del eclipse (Fundación Telefonica, Madrid), The 25th São Paulo Biennial, Algorithmic Revolution (ZKM), 3rd Sevilla Biennial, Transitio_MX (Mexico), YOU_ser (ZKM), Geografías Celulares (Fundacion Telefonica, Buenos Aires and Lima), artemov and FILE (Brazil) and Visual Foreign Correspondents (Berlin). She was curator of Nokia Trends (2007 and 2008), of the Brazilian participation in ISEA Ruhr (2009) and of the on-line festivals HTTPvideo and HTTPpix (2010). She was artistic director of the Sergio Motta Institute (2008-2011) and professor in the graduate program in communication and semiotics of PUC-SP (São Paulo, 2001-2011) and is the editor of *seLecT* magazine.
Her site: http://www.desvirtual.com

Commodore Business Machines, Inc.
Founded as the Commodore Portable Typewriter Company by Jack Tramiel in 1954 in Toronto, this company moved to the U.S. and went into the calculator business. It went on to market some of the most successful and influential early home computers, including the Commodore PET, the VIC-20, the Commodore 64 (the best-selling single model of computer ever), and the Amiga. Commodore went bankrupt in 1994 and was liquidated.

Adam Parrish
Adam Parrish is a computer programmer, game designer, and experimental writer. He is chief software architect at social media startup Socialbomb and an adjunct professor at New York University's Interactive Telecommunications Program.
His site: http://www.decontextualize.com/

Mission: The goal of Pace's Digital Gallery is to foster the creation and understanding of digital art for the benefit of Pace University, the surrounding community, and the general public. It furthers Pace University's commitment to educational excellence, diversity, and civic involvement by exhibiting the work of Pace faculty and students, and regularly exhibiting curated work of leading digital artists. It sponsors lectures and symposia on digital art, an artist-in-residence program, and publication of materials for its documentation and promotion.

Website: http://www.pace.edu/DigitalGallery

Directors: Francis T. Marchese, Jillian Mcdonald

ARTISTS (continued)

Jörg Piringer
Jörg Piringer, born in 1974, is currently living in Vienna, Austria. He is a member of the Institute for Transacoustic Research and the Vegetable Orchestra. He earned a masters degree in computer science and works as a freelance artist and researcher in the fields of electronic music, radio art, sound and visual electronic poetry, interactive collaborative systems, online communities, live performance, sound installation, computer games, and video art. His site: http://joerg.piringer.net

Casey Reas
Casey Reas lives and works in Los Angeles where he is a professor at UCLA's Department of Design Media Arts. His software, prints, and installations have been featured in numerous solo and group exhibitions at museums and galleries in the United States, Europe, and Asia. Casey co-founded Processing, an open source programming language and environment for artists and designers, in 2001 while studying at the MIT Media Lab. His site: http://reas.com/

Páll Thayer
Páll Thayer is an Icelandic/American artist who works with computer programming code as an artistic medium. He studied visual arts at the Icelandic College of Arts and Crafts and the Helsinki Academy of Art and received an MFA in Open Media at Concordia University, Montreal in 2008. He has been active within the computer based art scene since the late 90s. He has exhibited and presented his work at festivals and galleries around the world including New York, Montreal, Copenhagen and Sao Paulo. He currently works as a computer programmer and lecturer at SUNY Purchase College in New York. His site: http://pallthayer.dyndns.org/

About Us: Pace University's Digital Gallery was inaugurated in Spring 2003 as a collaboration between the Seidenberg School of Computer Science and Information Systems and the Department of Fine Arts.

Location: Located at 163 William Street, a few blocks from City Hall, The Brooklyn Bridge, and Wall Street, Pace's Digital Gallery is part of a vital downtown NYC art scene that includes historic architecture and national museums.

Seidenberg
School of Computer Science
and Information Systems

PACE UNIVERSITY
Work toward greatness.

C A M

Pace Digital Gallery

Catalog Design: Jia Zhang
//