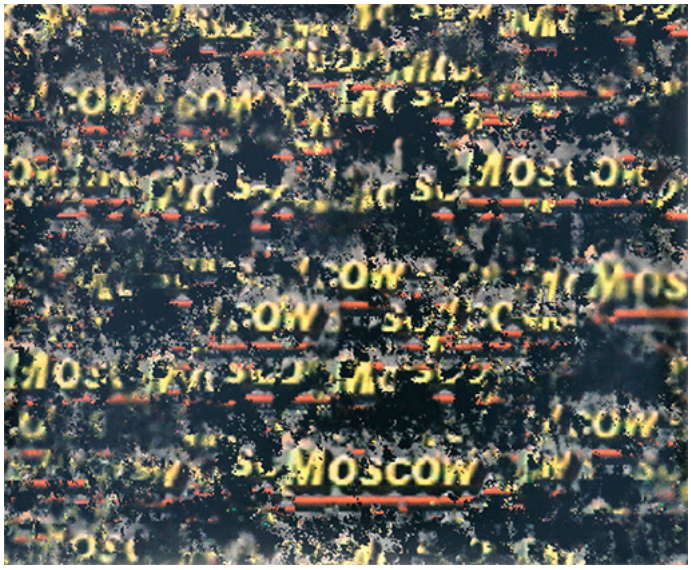
Description of 3 images from the Noise-Signal Series (1986-1990)
to be Acquired by the Centre Pompidou

George Legrady, June 18, 2024

The Noise-Signal Series images were created between 1986-1990 when the first publicly available and affordable digital imaging system for full color pixel images, the AT&T Truevision Targa system came on the market. This technology was one of the major technologies that revolutionized our understanding of the photographic image through its ability to translate an analog image into a full-color pixel-based image file. This technology was introduced about 9 years prior to digital cameras, the internet and Photoshop.

The Noise-Signal Series I created may be the very first still-image series that was informed by a) a deep history of fine art photography (documentary, street, staged photography), b) by a theoretical framework from the Humanities through Roland Barthes' visual semiotics' analysis of the "rhetoric of the image", c) an aesthetic exploration of the staging of television news, 4) Claude Shannon's Information Theory from signal processing engineering by which to explore the relationship of noise and signal. Additionally, the series integrated computer creative coding as an artistic and authoring practice, and the resultant images and prints were "born digital", meaning that from creation to physical output the process was digital at each step.

The three images acquired by the Centre Pompidou for the media arts collection are:



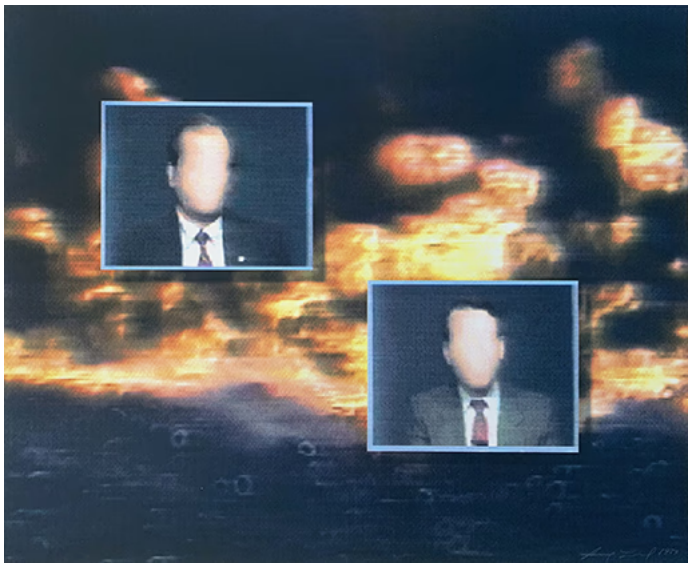
Moscow TV (1987)
https://opensea.io/assets/ethereum/0x495f947276749ce646f68ac8c248420045cb7b5e/80166608668082721631180492354978057980375363955808112573101485802231395516417

Aesthetic / Conceptual: In the article "Rhetoric of the Image", Roland Barthes describes anchorage, meaning a text caption attached to an image, as anchoring the meaning of the image by guiding the viewer to a pre-determined meaning, thereby limiting the viewer's interpretation of the image.

"Moscow TV" began with an ABC News broadcast about an event in Moscow which I captured as a still image. I don't remember the visual scene – it could have been anything – but the real-time graphics word "Moscow" placed at the lower right corner of the screen in 1987 meant something dramatic as it was still Communism and the year after the Chernobyl disaster. This led me to consider that the meaning of the image was essentially in the word on the screen, and the word could become the whole image.

Technical: The process was to digitally crop the word "Moscow" from the image with the Targa TIPS software and then to randomize the edges, followed by running a simple custom computer program that would sequentially cover the screen with the cutout image segment in a random way. I would then click on a key to stop the process at the

moment when the image composition had arrived at an aesthetically interesting composition. Each time the process would be run, the composition would be different because of both the randomized placement sequences, and the moment when the process was terminated. The irregular cutting out was possible as the Targa had, in addition to the standard 3 channels (red, green blue), a 4th ALPHA channel that made any pixel transparent.

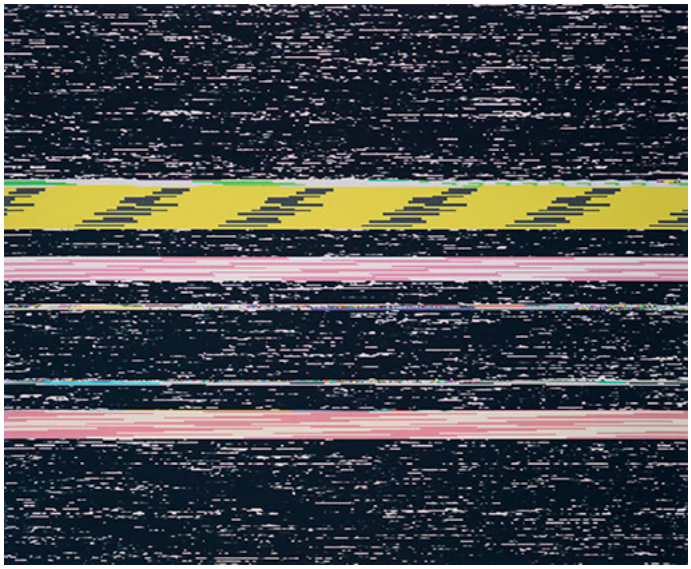


Waxing Poetic (1987)
https://opensea.io/assets/ethereum/0x495f947276749ce646f68ac8c248420045cb7b5e/80166608668082721631180492354978057980375363955808112573101485827520162955265

Aesthetic / Conceptual: The composition consists of 3 images captured from ABC News. The large background image was probably some industrial fire of tires, an ecological urban disaster. The two smaller images were “talking heads” on a TV news talk show unrelated to the fire, but I put them together, added a bluish frame, and shadows, and then painted out the speakers’ faces. The “picture-in-picture” had been a standard feature in TV news for some time as a way to add commentary on news events.

The idea to remove the commentators’ faces was inspired by watching the fictional AI “Max Headroom”, a robotic cynical news commentator which was introduced on British TV in 1985 and continued through 1987 on US TV. The result calls to mind the artwork “The Dystopia” series created by the artist team Anthony Aziz and Sammy Cucher in the early 1990s consisting of portraits with eyes and mouths removed from faces.

Technical: The assembly of the two inserted images and the removal of faces was done with the Targa TIPS (**T**ruevision **I**mage **P**rocessing **S**oftware) imaging software which allowed for image assembly with functions similar to Photoshop.



Raw Data (1987)
https://opensea.io/assets/ethereum/0x495f947276749ce646f68ac8c248420045cb7b5e/80166608668082721631180492354978057980375363955808112573101485772544581566465

Aesthetic / Conceptual: Information Theory defines “signal” as ordered information compared to “noise” which is random information that in most cases interferes with the signal, disrupting the signal. As the TARGA system received an external image through analog video signals, the first image that came up when connecting to video was random TV noise. If digitally captured, the image would freeze the noise into patterns of random white pixels against a black background. This is the source of the background image. The yellow, green, and reddish patterns were sampled from other images that became corrupted through data storage processing. These cut out samples were placed on top of the black and white background based on aesthetically determined choices. The image has affinities with the Glitch Art” aesthetics of the mid-1990s.

Technical: The noise background and corrupt image samples were accidentally encountered and digitally captured by the Targa and then assembled using the TIPS software.

IMAGE CREATION TECHNOLOGY
The Signal-Noise series images were created between 1986-1990 when the first publicly available and affordable digital imaging system, the AT&T Truevision Targa system, came on the market. At that time, I was assistant professor of fine art photography at the School of Visual Art at the University of Southern California in Los Angeles where I received the Innovative Teaching Award, the Innovative Research Award, and a large equipment grant from the IBM corporation to set up an imaging lab consisting of 4 computer stations to introduce digital imaging technologies into fine art photographic practice.

The TARGA Truevision imaging system made it possible to capture in digital, pixel-based form, analog video images: https://www.computer.org/publications/tech-news/chasing-pixels/att-truevisions-targa:

> *The possibility of digitally capturing a photographic image became a reality around 1985 with the release of the AT&T Truevision Targa raster graphics image capture videoboard added inside a desktop IBM AT PC. The Targa system made it possible to digitize high-resolution, pixel-based images at 16 bit or 32768 colors by connecting to an analog video source such as a video camera or any television signal and the Targa would capture and translate the signal to a digital pixel-based image.*

The images were stored digitally in the proprietary Targa “.tga” files which today can be converted to any other current file format such as .jpeg, .png. and .tiff.

IMAGE COMPOSITING AND CREATIVE CODING
The Targa image-capture hardware came with a software, the TIPS (**T**ruevision **I**mage **P**rocessing **S**oftware) imaging software that allowed for image assembly, cropping, addition of texts, through standard keyboard interaction, and by a stylus tablet by which to select, click or draw.

An important additional feature of the Truevision Targa system was the ability to rework, process, or create from scratch images by writing computer code in C language, introducing the ability to write image filtering processes similar to what Photoshop does today. The writing of computer code, a form of executable language where commands are sent to the computer resulting in some machine-generated action, led to the realization that the creation of artistic images through computer code is a form of creative authorship, similar to the writing of musical notation, a syntactic-based language system that provides instructions for the performance of a musical event. While the similarity lies in the description of an image or audio experience through language code, there is a key difference. Computers can generate the same digital images or musical artifacts repeatedly without variations, whereas musicians impose an additional layer of meaning through their interpretation and performance of the encoded musical score. This introduces challenges to the tradition of the artwork as a unique object, and the credibility of the image as an unmanipulated document as it is difficult to ascertain any pixel data manipulations.

FUJI JETGRAPHIX PRINTING PROCESS
The ink jet prints I realized during the 1987-1990 period were produced on a prototype Fuji Jetgraphix ink-jet printer located at a printing lab near UCLA in West LA. one of the first printers that could directly print “high-resolution” images from digital transfers of digital image files. After creating the image on my computer system in my downtown LA studio and saving the images on 5.25” floppy disks I took the floppies to the printing lab where the Fuji printer was located, and the data files were digitally transferred to a tape (like in Alphaville) and then the data was then sent to the inkjet printer which pushed ink onto paper. The resolution of the image file was 512 x 480 pixels at 16-bit, meaning up to 32768 colors. Both values had to be interpolated by custom software designed by Fuji engineers as the low-resolution data images had to be resized to the much larger scale of 23.5” x 28.5” (59.69 cm x 72.39cm).

URLS & LINKS
The 1989 paper “Image, Language & Belief in Synthesis” that addresses the major issues of digital photography:
https://www.mat.ucsb.edu/g.legrady/glWeb/publications/p/image.html

(Published in the Art Journal, College Art Association (199), and *Critical Issues in Electronic Media*, edit Simon Penny, SUNY Press)

The NFT listing of the 57 existing images: https://opensea.io/collection/noise-to-signal

A description of the diptych and triptych groupings:
https://www.mat.ucsb.edu/g.legrady/glWeb/publications/p/1980sJetgraphixOPT.pdf

Brief online overview of the Noise-Signal Series:
https://www.mat.ucsb.edu/~g.legrady/glWeb/Projects/noise/noisesignal.pdf

EXHIBITIONS
George Legrady: From Noise to Signal, USC Atelier, Santa Monica (1987); *Photography of Invention: American Pictures of the 1980s*, National Museum of American Art, Smithsonian, Washington, DC, MIT Press catalog (1988); *Edict and Episode: Image as Meaning*, 930 E Street, San Diego (1988); *Digital Photography: Captured Images, Volatile Memory, New Montage*, SF Cameraworks, San Francisco, California, traveling to Houston Center for Photography, Museum Folkwang, Essen, Museet fur Fotokunst, Odense (1988); *Fotografie, Wissenshaft und Neue Medien*, Kunstforum, Dusseldorf (1988); *Virtual Memories: New Electronic Photography*, curated by Mike Mandel, Friends of Photography, Ansel Adams, Center, San Francisco (1991); *George Legrady: From Analogue to Digital*, National Gallery of Canada, Canadian Museum of Contemporary Photography, Ottawa, Canada (1997), online catalog and CD-ROM (2006); *A Brilliant Spectrum*, Santa Barbara Museum of Art (2019); *Digital Witness: Revolutions in Design, Photography and Film*, Los Angeles County Museum of Art (2024-2025)

COLLECTIONS
Canada Council Art Bank
The Centre Pompidou
Los Angeles County Museum of Art
Santa Barbara Museum of Art
Smithsonian American Art Museum and Renwick Gallery