

**FROM LINE TO LIGHT:
THE DIGITAL SPIRIT OF KEITH HARING**

BY NOAH BOLANOWSKI



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While the dawn of personal computing would bring numerous major artists into contact with the computer, few would pursue the medium with the continuity, curiosity, and conceptual force necessary to understand it as anything more than a brief technological encounter. Some would be brought to the machine through commercial opportunity, as was Andy Warhol through the commission of Deborah Harry (1985) for the launch of the Commodore Amiga. Others would arrive through personal experimentation, as was Hockney, whose Macintosh drawings of 1991 would later persist into his contemporaneous iPad practice. But Keith Haring was different. Viewed through a nearly decade-long trajectory, Haring's Commodore Amiga works emerge not as incidental experiments, nor merely as early examples of a major artist using a computer – they represent the point at which his long-standing questions about the machine, the sign, the screen, and the public life of images briefly cohere into a digitally native body of work. Created for a proposed video game, on the very platform that had come to symbolize the arrival of personal computing into visual culture, the works Haring would create on the Amiga extend his vocabulary beyond reproduction and into native programmability. His figures no longer occupy walls, subways, records, billboards, or broadcasts – they enter a space of electronic mutability, where the image can be stored, altered, animated, transmitted, and played. In doing so, Haring does not surrender the human hand to the machine, but actively interrogates whether his own language of mythic icons, radiant bodies, binary contrasts, and public address could survive inside the new conditions of digital space. The answer is profound, and lies at the crux of the curatorial thesis behind *More Light*. Rather than surrendering his humanity to the machine, the illuminated screen would offer Haring a path toward profound artistic and spiritual enlightenment, proving his radiant iconography could achieve an eternal, digital vitality even as he confronted his own mortality.

KEITH HARING WITH THE QUANTEL PAINTBOX AT ABC TV, JANUARY 1, 1986. COURTESY OF TOBEY SANFORD / DISNEY GENERAL ENTERTAINMENT CONTENT / GETTY IMAGES.



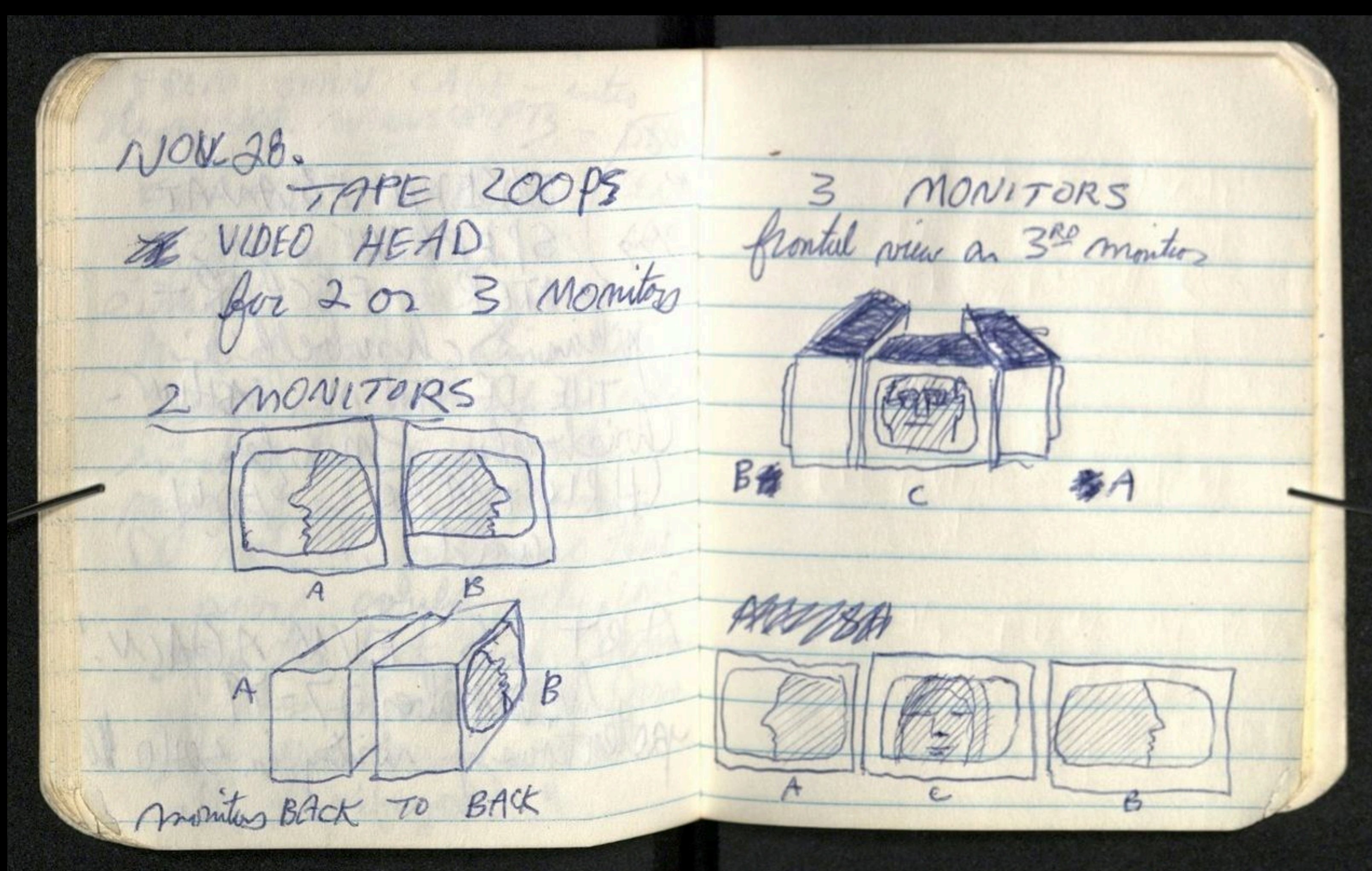
KEITH HARING'S PATH TOWARDS THE PIXEL

Haring's first exposure to the computer in relation to the arts came while at the Museum of Modern Art in the late 1970s, following a philosophical discussion with Kermit Oswald on the incoming machine age and its potential implications on the arts and humanities.¹ Acutely concerned with the potential obsolescence of human creativity and individuality in the face of a cold machine aesthetic, he would spend the next decade actively interrogating whether art could retain, and even accentuate, human creativity when created by the very machines that seemingly threatened it.

“Art is the most important product of human beings as the machine world takes hold.... As an artist aware of this situation as a reality in our time, what should my practice be?”

– Keith Haring¹

Returning to New York's School of Visual Arts in September of 1979, Haring would study binary systems extensively,² later leading to the realization that his own visual language was not in opposition to the computer's binary code, but structurally analogous to it. In the same month, he would read the important anthology documenting MoMA's *Open Circuits* symposium of 1974, *The New Television: A Public/Private Art* by Douglas Davis and Allison Simmons. Seemingly influenced by the radical ideas and writings in the anthology by digital art pioneers such as Nam June Paik, Stan Vanderbeek, and Ed Emshwiller, Haring would conceptualize his first video sculpture, *Head for Two or Three Monitors* (c.1979), in the following two months.⁴



“My works are hieroglyphs, ideograms, and pictograms—the primary elements of the sign. That is my vocabulary: I put various signs together and create new relationships... My language is basically the same as a computer's... The computer works on a very simple language, based on the zero/one formula.”

PAGES FROM KEITH HARING'S JOURNALS, NOVEMBER 28TH, 1979, DEPICTING HEAD FOR TWO OR THREE MONITORS (C.1979). COURTESY OF THE KEITH HARING FOUNDATION.

– Keith Haring⁵

Understanding the value of visual ubiquity in becoming an established artist, but not yet able to achieve institutional permanence, Haring would embark on a series of endeavors aimed at positioning his unique imagery in front of large audiences throughout the early 1980s. Most celebrated, and recognizable, of these endeavors would be the subway drawing series – but it would not be his last.

“The thing in the subway was that it proved that you don't have to get the seal of approval from the galleries or any sort of authoritative art person for it to be real art... I had to do it as graffiti to put it there... trying to do any other thing that would eventually maybe get it in public, cutting through all those barriers and putting it there directly.”

– Keith Haring⁶

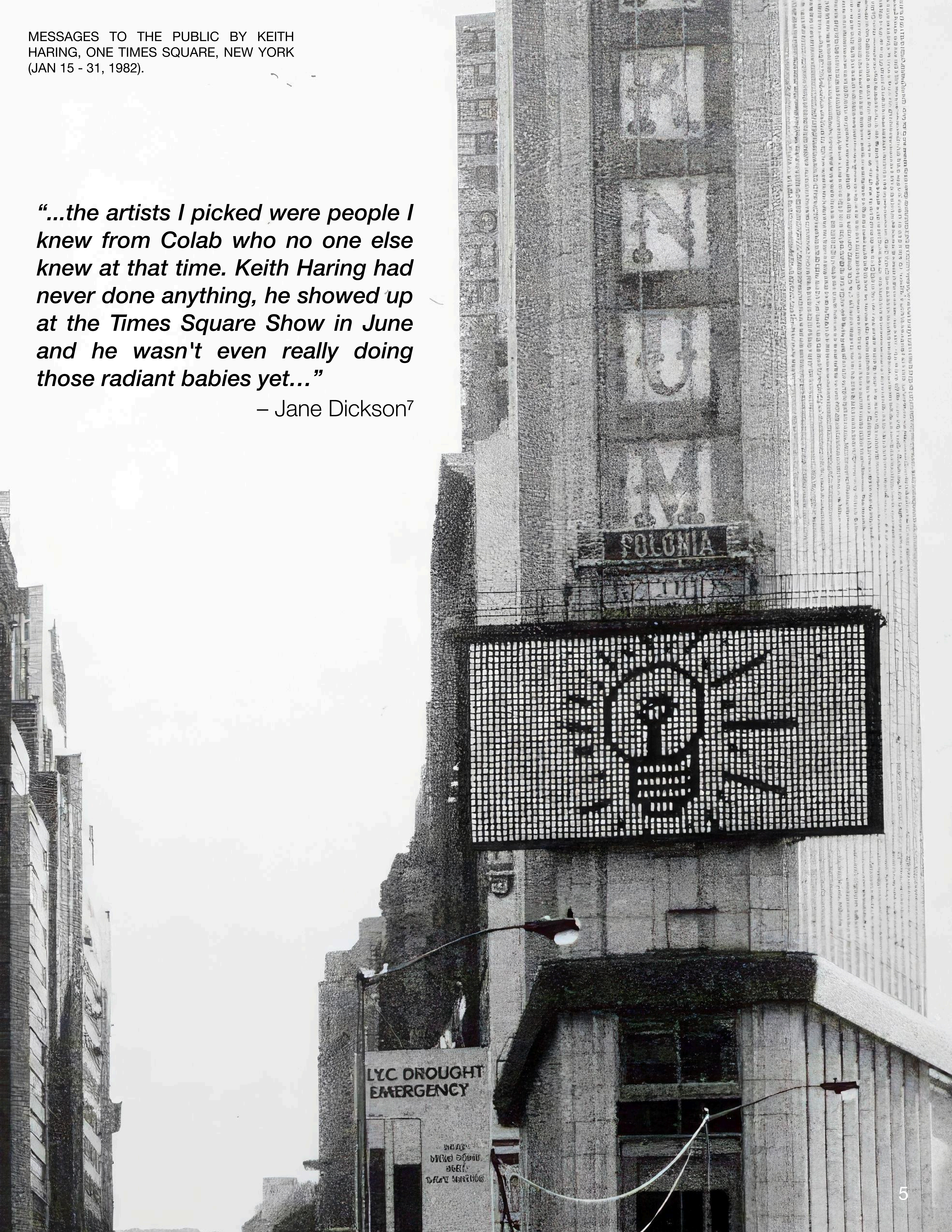


TSENG KWONG CHI, KEITH HARING, DRAWING IN THE SUBWAY, NEW YORK, CIRCA 1983. COURTESY OF MUNA TSENG DANCE PROJECTS, INC. AND THE KEITH HARING FOUNDATION

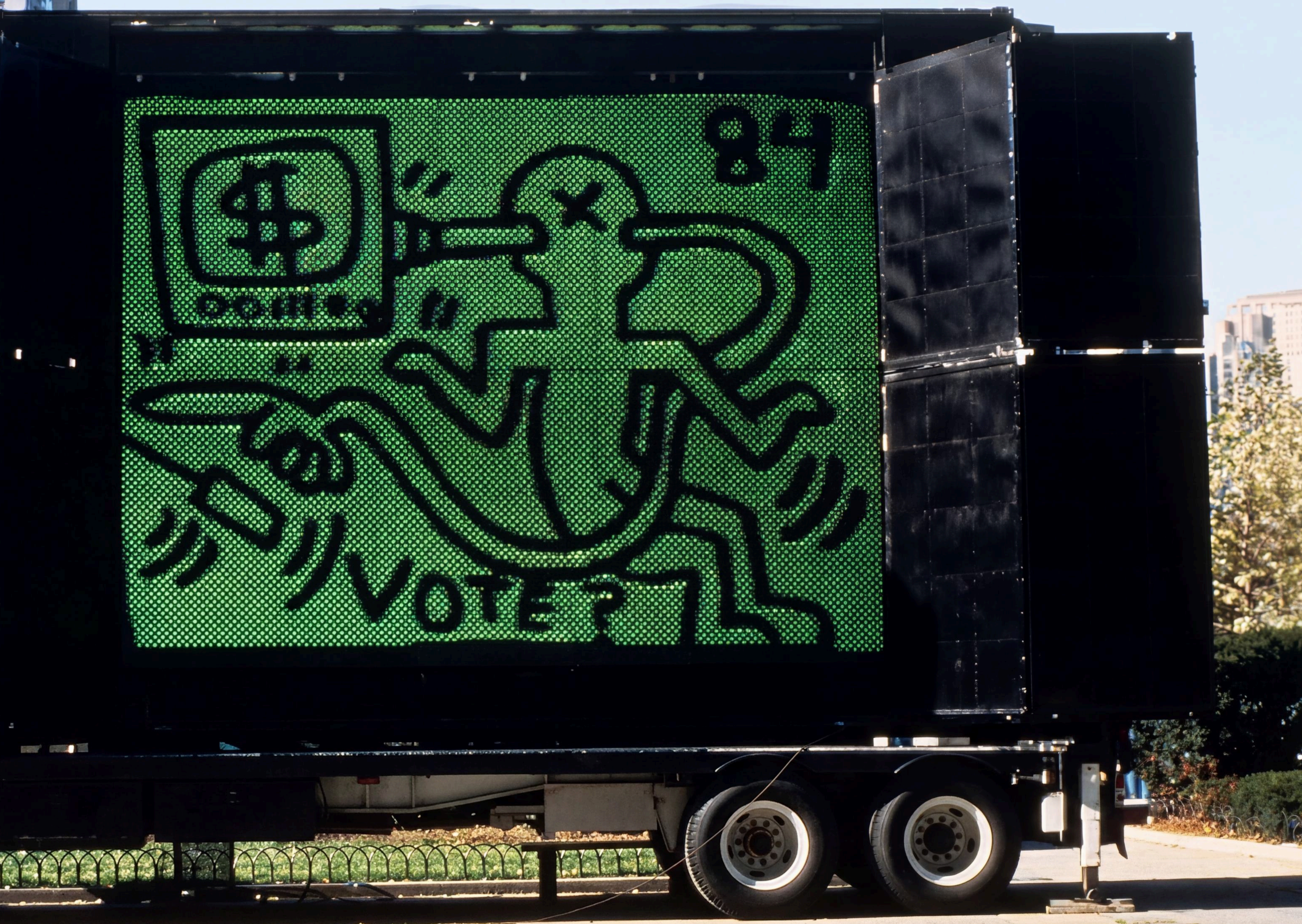
MESSAGES TO THE PUBLIC BY KEITH HARING, ONE TIMES SQUARE, NEW YORK (JAN 15 - 31, 1982).

“...the artists I picked were people I knew from Colab who no one else knew at that time. Keith Haring had never done anything, he showed up at the Times Square Show in June and he wasn't even really doing those radiant babies yet...”

– Jane Dickson⁷



Throughout 1981, Haring would participate in two critically important endeavors dedicated to increasing the visibility and reach of his oeuvre – this time, trading paint for light and electrons. The first of these opportunities was presented by Spectacolor programmer and Colab Collective member Jane Dickson, who had recently received a grant from the National Endowment for the Arts to curate and produce a series of digitally animated artworks to be displayed on a billboard in Times Square. Haring would be the first artist in what would become known as the Messages to the Public series (1982-1991), working with a programmer to realize a 30-second animated short that would be viewed by 1.5 million New Yorkers daily from January 15 - 31, 1982.¹² He would produce another Spectacolor work in 1984 as part of Jenny Holzer's Sign on a Truck installation series.³³



In an acutely pioneering moment, Haring would additionally participate in the “*first exploration of a potentially revolutionary medium,*” when he was invited to create digital artwork for Martin Nisenholtz’s Videotex Workshop at NYU’s Alternate Media Center.⁸ Working as both artist and programmer, Haring would produce a digital composition on the Norpak Telidon Terminal as part of The Electronic Gallery. An early precursor to the internet, the Telidon system would transmit the images over telephone lines to physical galleries installed at the National Video Festival, Washington DC (June 10-13, 1982) and the Times Mirror Videotex Service, Los Angeles (June 24 - July 15, 1982).⁹



UNTITLED BY KEITH HARING, 1981. CREATED ON A NORPAK TELIDON TERMINAL AT NYU’S ALTERNATE MEDIA CENTER AS PART OF MARTIN NISENHOLTZ’S THE ELECTRONIC GALLERY (1982). COURTESY OF MARTIN NISENHOLTZ/WIRED MAGAZINE, IMAGE RESTORED BY NOAH BOLANOWSKI.

“I love seeing my drawings... become part of the universally available IMAGE BANK. It makes them become an undeniable ‘fact.’”

– Keith Haring³²

By 1983, Haring had already entered the discourse surrounding digital art, formed his own position within it, executed and exhibited computer-generated work both with a programmer and by his own hand, and produced networked art decades before the genre of Net-Art would be widely recognized. Throughout 1983, he developed a distinct resolve not only in his ability to use the machine, but in the value of the images it produced.



UNTITLED BY KEITH HARING, 1983, FOR THE COVER OF LIFE IS SOMETHING SPECIAL (1983) BY THE N.Y.C. PEECH BOYS. COURTESY OF ISLAND RECORDS/KEITH HARING FOUNDATION.

Before the end of the year, Haring would demonstrate this resolve in the execution and release of two digital artworks made on early paint systems. The first would be mass produced as the cover artwork for the N.Y.C. Peech Boys' 1983 vinyl record, *Life is Something Special*. The second, executed while in Tokyo on occasion of Keith Haring (キースヘリング) at Galerie Watari (March 8 – April 8, 1983), would persist as one of the earliest examples of Haring producing fine art on the computer.

An incredibly important work in the canon of digital art history, *Untitled* (1983) would be a curatorial centerpiece in the most historically significant exhibition of digital art in America, *Digital Visions: Computers and Art* (1987-88).¹² Starting at the Everson Museum of Art, the exhibition would tour to the Contemporary Arts Center in Cincinnati, the IBM Gallery of Science and Art in New York City and The Center for the Fine Arts, now Pérez Art Museum Miami, attracting hundreds of thousands of visitors.¹³ The work, along with Andy Warhol's *Deborah Harry* (1985), was curatorially instrumental in conveying the creative potential of the machine, following decades of it being constrained to scientific laboratories.¹³

“...I started with graffiti; it was my origin. But today,.. I go beyond graffiti. I continue to favor art for everyone, I want to continue giving my messages to the public... The important thing is that my messages reach everyone, both outside and inside the galleries.”

– Keith Haring¹¹

UNTITLED BY KEITH HARING, 1983, IN EXHIBITION AT COMPUTERS AND ART, EVERSON MUSEUM OF ART, NEW YORK (SEPTEMBER 17, 1987 - NOVEMBER 8, 1987), COURTESY OF THE AESTHETICS OF EXHIBITION BY PATRIC PRINCE, 1988.



“In Tokyo I started using a computer and, with a computer, drawing computer graphics... Working with computers made me aware of how... perfect my images are for it.

– Keith Haring¹⁴



UNTITLED BY KEITH HARING, 1983. CREATED ON A PAINT SYSTEM IN TOKYO. COURTESY OF CYNTHIA GOODMAN/EVERSON MUSEUM OF ART.

DIGITAL DRAWINGS BY KEITH HARING AND ANDY WARHOL, OCTOBER 9, 1984. IMAGE COURTESY OF THE ANDY WARHOL FOUNDATION FOR THE VISUAL ARTS / CANTOR ARTS CENTER AT STANFORD UNIVERSITY.



By 1984, Haring would establish his opinions on the computer in relation to his practice, and in its impact on the arts and humanities. In an artist statement from the same year, he would come to the conclusion that, “I think any artist working now has to take advantage of the technological advances of the past hundred years and use them creatively...”¹⁵ Decades ahead of many of his contemporaries in understanding the future proliferation of the medium, Haring would embark on a several year effort to create digitally native works that represent a culmination of his interactions and understandings of the medium. Haring would start to refine his interactions with the technology, and even start to convey its appeals publicly. Having previously used the Apple Macintosh to design a t-shirt, Haring would welcome the opportunity while at Sean Lennon’s 9th birthday party to demonstrate its potential to first-time users Andy Warhol and Kenny Scharf.¹⁶

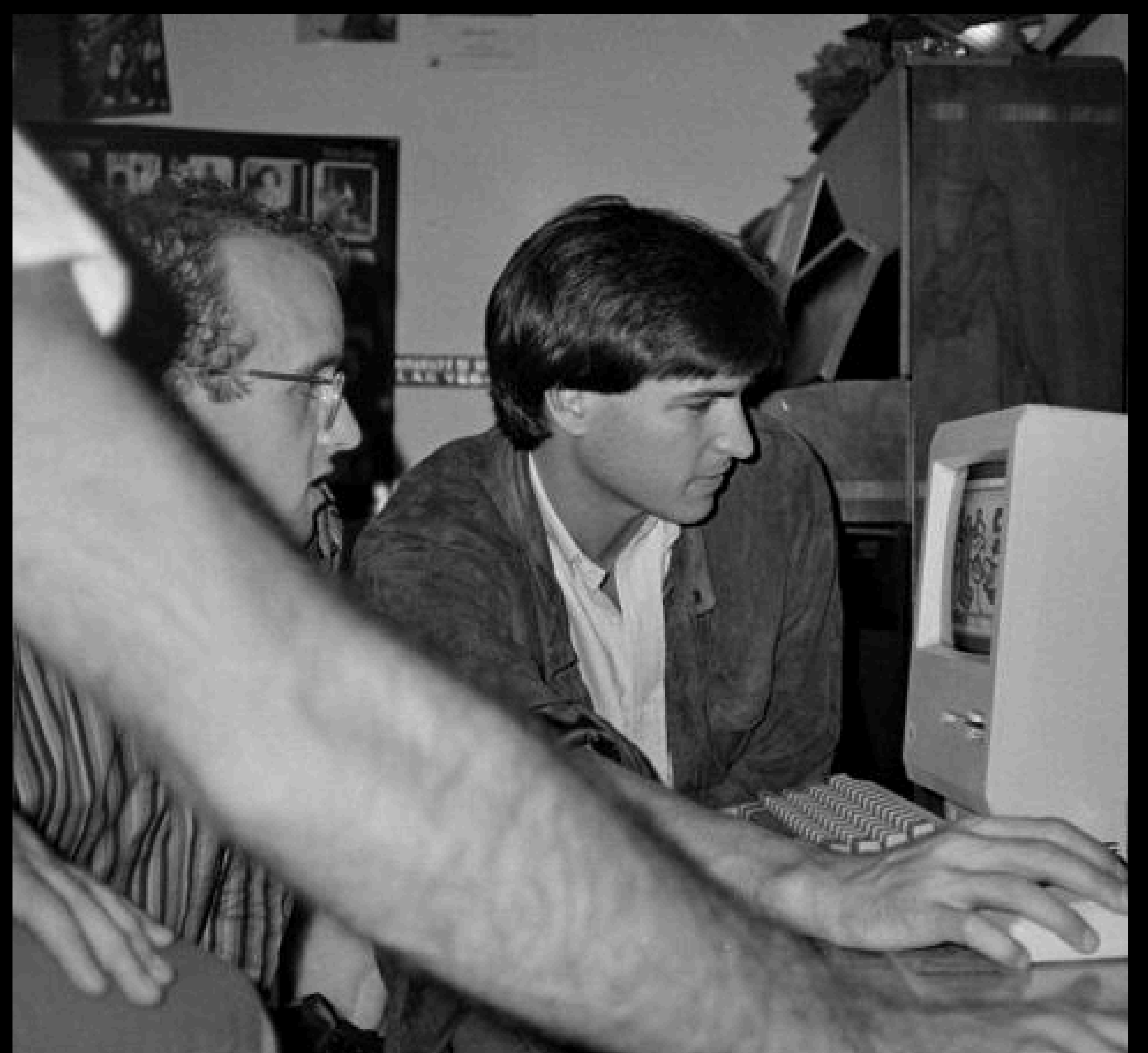


KEITH HARING CREATING DIGITAL ART ON AN APPLE MACINTOSH WITH SEAN LENNON, AS STEVE JOBS FINISHES SETTING UP THE COMPUTER IN LENNON’S ROOM, OCTOBER 9, 1984. IMAGE COURTESY OF THE ANDY WARHOL FOUNDATION FOR THE VISUAL ARTS / CANTOR ARTS CENTER AT STANFORD UNIVERSITY.



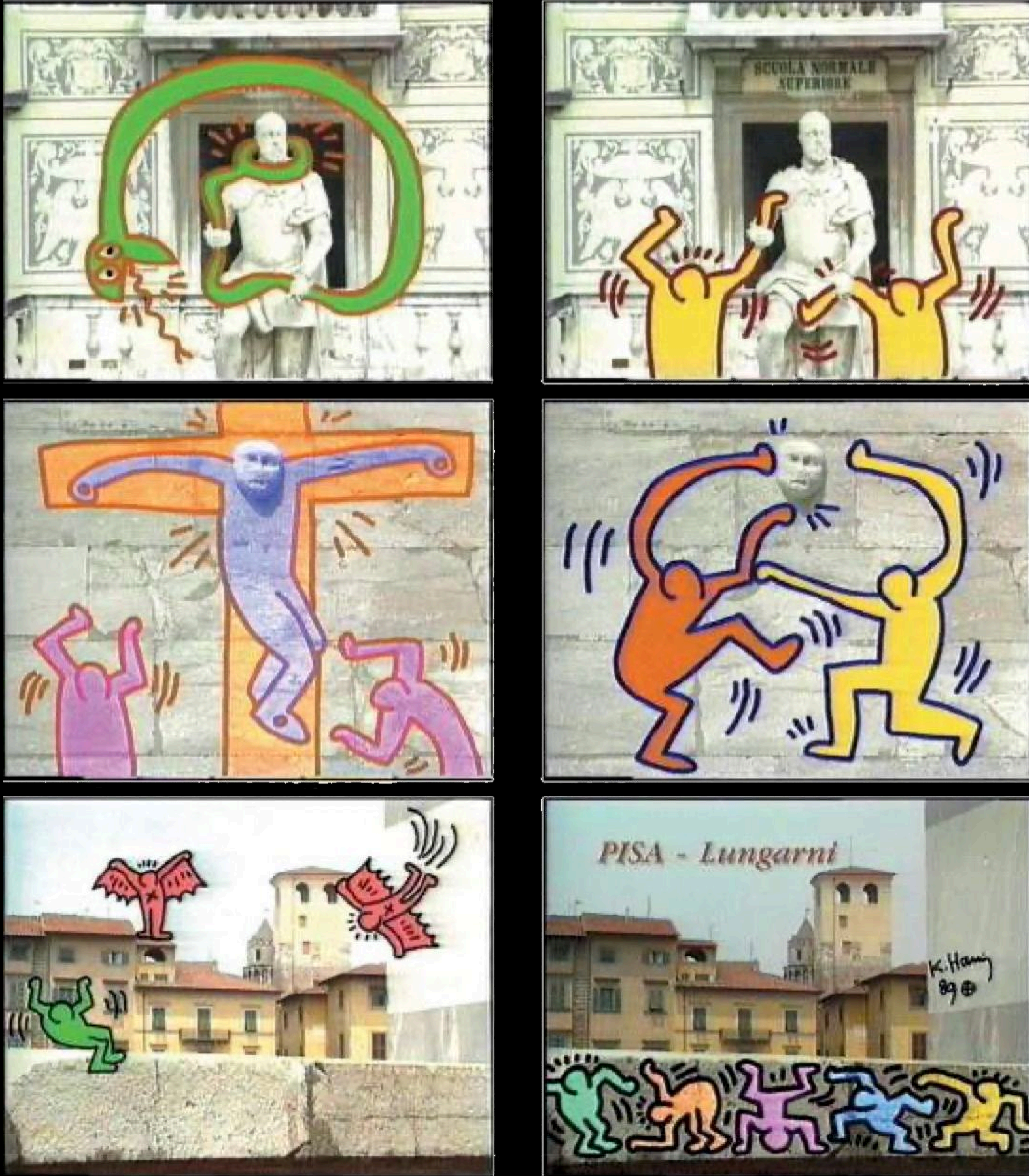
KENNY SCHARF, ANDY WARHOL, SEAN LENNON, AND KEITH HARING LOOKING AT THE MACINTOSH COMPUTER IN SHOCK AND AWE, OCTOBER 9, 1984. IMAGE COURTESY OF THE ANDY WARHOL FOUNDATION FOR THE VISUAL ARTS / CANTOR ARTS CENTER AT STANFORD UNIVERSITY.

“What is this? Look at this, Keith. This is incredible!” The second guest, Keith Haring, the graffiti artist whose work now commands huge prices, went over. Warhol and Haring asked to take a turn at the Mac, and as I walked away, Warhol had just sat down to manipulate the mouse. ‘My God!’ he was saying, ‘I drew a circle!’”¹⁷



KEITH HARING AND STEVE JOBS

Haring returns to computer animation throughout the next few years, first producing an animated work for BIG Department Store (1984)¹⁸ then ABC Television's 20/20 (1986),¹⁹ concluding in 1989 with the production of a 5 minute long Pennellate Sonores (Sonic Brushstrokes) and several 5 second long Affreschi Elettronici (Electronic Frescos),²⁰ which would be screened shortly after in Artoon at the Palazzo della Civiltà del Lavoro, Rome (November 25, 1989 - January 15, 1990).²¹



AFFRESCHI ELETTRONICI BY KEITH HARING, 1989. CREATED ON A QUANTEL PAINTBOX IN ROME. COURTESY OF ASSOCIAZIONE CULTURALE ONDAVIDEO.

Throughout this interrogative process of exploration and experimentation, Haring begins to develop a pioneering confidence in the computer not as a substitute nor replacement to traditional mediums, but as a vehicle to redefine previously established notions around drawing, authorship, scale, access, and the social life of images as they depart from the physical world and enter into the digital.

Brian From K.H. to
TL - part of
an 8 page hand-
written letter
K

Keith

Delhi, India
July 15 or 16 1986

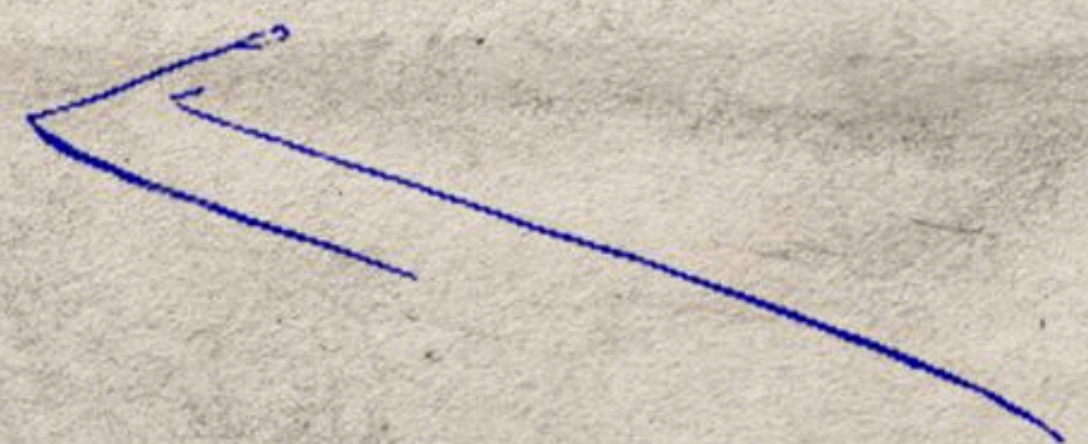
Timothy-

I sent you yesterday, from Montreux two drawings I did in my hotel there. I wanted to send them to you because they were important to me and after being absorbed in FLASHBACKS I felt compelled to give them to you. I don't know how much about my work you know, I'm also sending a catalog from my exhibition at the Stedelijk museum (Amsterdam) which you probably haven't seen.

The drawing of Grace at Paradise Garage is my first drawing of Grace. I have drawn "on" Grace but never drawn her. The drawing is from a photo you will see in the Stedelijk catalog which was taken during her performance at Paradise Garage (which is where I met you--while I discussed with Grace the preparations for the performance.) I don't know if you know how important the "Paradise Garage" is, at least for me and the tribe of people who have shared many a collective spiritual experience there....

a I am even more excited and enthusiastic about finding way to work together on a computer program...sharing some time "exchanging" and "exploding" some ideas together.

love
Keith



THE INCEPTION OF KEITH HARING'S AMIGA SERIES

All of these studies, explorations, and interactions with the digital image would culminate in 1986, when Haring would be presented with the opportunity to execute a dream conceptualized years prior in 1983 – to move his line beyond digital reproduction and into digital nativity – to realize a video game.

“A few weeks ago I had dinner with Timmy in New York and we talked about computers, drawings, etc. I might be doing some drawings for a new computer program he is developing... I have already, I explained, used computers in Tokyo in 1983 and even earlier on a video-text machine at NYU in 1980.”

– Keith Haring²²

Following an introductory letter expressing appreciation and admiration after reading Timothy Leary's *Flashbacks* (1983),²³ gifted to Haring while in Los Angeles in the months earlier,²² Haring would be formally invited to participate in *Neuromancer: Mind Movie*. He would agree to participate in a letter dated December 18, 1986, providing artwork and lending his likeness for an in-game character on the condition that he receives title credit. Provided with the *“...hot graphics computer that Andy helped publicize last year,”*²⁴ the Commodore Amiga, Haring would, for the first time, have a computer of his own.



UNTITLED (APRIL 14, 1987) BY KEITH HARING, 1987. CREATED ON A COMMODORE AMIGA AT KEITH HARING'S STUDIO IN NEW YORK CITY. COURTESY OF THE JEANNIE VU AND JEHAN CHU COLLECTION.



Despite having extensive experience on an array of systems up to this point, they had all been largely inaccessible – large and expensive machines constrained to production facilities and laboratories. While Haring would consistently take advantage of opportunities to use these machines, particularly when involving the nearly million dollar Quantel Paintbox,²⁰ the Commodore Amiga would offer Haring a platform for personal expression, reflection, and experimentation.²⁵ Haring would execute his first two digital artworks for Leary's Neuromancer on the Commodore Amiga on February 2 and 3, 1987 just prior to traveling to Kenny Scharf's house in Brazil. Influenced predominantly by Leary's psychedelic model of expanded consciousness, the mandala-inspired works are seemingly intentional reflections of Leary's theories on cyber-psychedelia.



“The mandala is the basic visual expression of the brain because it's simply a reflection of what the brain ‘sees’: the eyeball loaded with digital optic pixels, the rods and cones, with the blind spot in the center.”

– Timothy Leary²⁷



UNTITLED #2 (APRIL 16, 1987) BY KEITH HARING, 1987. CREATED ON A COMMODORE AMIGA AT KEITH HARING'S STUDIO IN NEW YORK CITY. COURTESY OF THE JEANNIE VU AND JEHAN CHU COLLECTION.



While in Brazil, Haring would read *Neuromancer* by William Gibson and learn of the passing of Andy Warhol.³⁰ Returning to New York for Warhol's April 1st memorial, he would execute the final three digital artworks on the Commodore Amiga on April 14 and 16, 1987. A profound evolution in the context of the two works that preceded them, they reflect a distinctly darker visual vocabulary, transforming the body into signal, spectacle, and ghost.

"[Warhol] became a teacher for a generation of Artists now, and in the future, who grew up Pop, who watched television since they were born, who 'understand' digital knowledge... I feel like I have a responsibility to try to continue the things which he inspired and encouraged."

– Keith Haring³⁰



UNTITLED (APRIL 14, 1987) BY KEITH HARING, 1987. CREATED ON A COMMODORE AMIGA AT KEITH HARING'S STUDIO IN NEW YORK CITY. COURTESY OF THE JEANNIE VU AND JEHAN CHU COLLECTION.



For Haring, the appeal of translating his distinctive imagery for use in a video game was less exploratory than tied to a sustained pursuit towards visual ubiquity that would permeate from his earliest subway practice through the creation of this series of works. Acutely aware that the next generation was shifting its visual exposure from street to screen, Haring realized a video game would offer him the ability to reach a new generation of eyes — and even generations beyond.¹⁴

“The computer has totally changed the whole concept of what composes and defines a ‘picture space.’ ...Images can be moved, stretched, multiplied, shrunk, enlarged, recolored, altered, rotated, flipped, digitized, edited, refined and obliterated in fractions of a second...It's only electrons and light...”

– Keith Haring²⁶



UNTITLED #1 (APRIL 16, 1987) BY KEITH HARING, 1987. CREATED ON A COMMODORE AMIGA AT KEITH HARING'S STUDIO IN NEW YORK CITY. COURTESY OF THE JEANNIE VU AND JEHAN CHU COLLECTION.



“The generations of kids, the generations of artists in the future, are growing up on video games and have a visual vocabulary for this kind of color (gesturing toward the computer), this kind of movement, this kind of separation.”

– Keith Haring³⁰

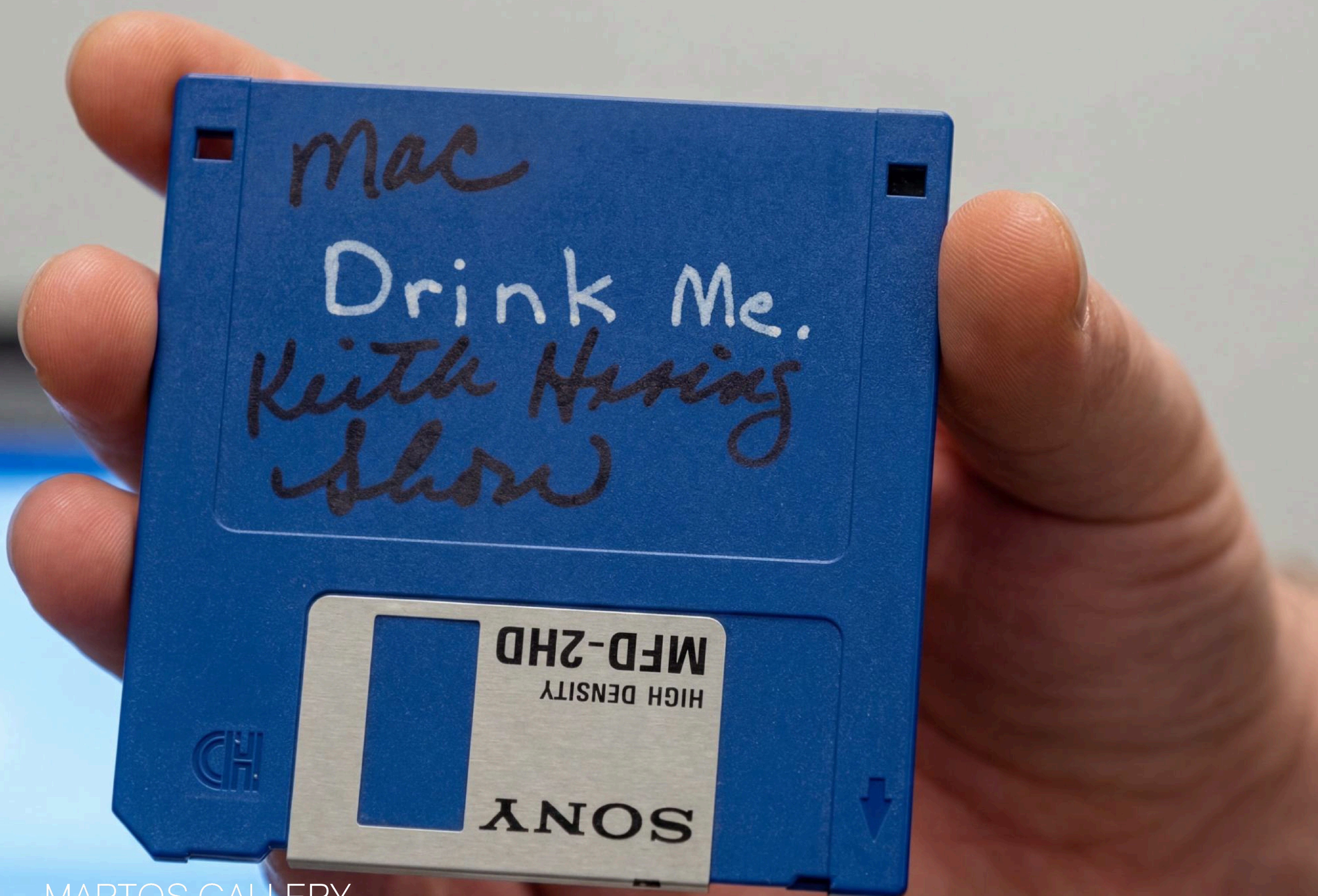


While the video game would never ultimately be released, Haring would posthumously call attention to the works when they were rediscovered by the New York Public Library in 2013 — their unique handwritten titles, such as “*drink me*,” catching the attention of archivists processing the Timothy Leary archive.²⁴ The works would ultimately realize Haring’s desire for preservative visual ubiquity, and reach even further, when they were preserved on the blockchain by the Keith Haring Foundation in 2023.²⁹

“Computer art... has its own politics that are very different from the art world's idea of creating a precious object and then a value being ascribed because of how limited it is. Many people are very threatened that I'm making art much more available to people by breaking down the distinctions between supposed high art and low art and by working on the computer.”

– Keith Haring²⁸

ONE OF KEITH HARING’S FLOPPY DISKS DISCOVERED BY THE NEW YORK PUBLIC LIBRARY WHILE PROCESSING THE TIMOTHY LEARY PAPERS FROM 2011-13. COURTESY OF THE NEW YORK PUBLIC LIBRARY.



KEITH HARING POSING WITH AN APPLE MACINTOSH II GX, PROVIDED BY CONNIE GUGLIELMO AND SUZANNE WEBER, IN 1989. COURTESY OF MARIO RUIZ/MACWEEK MAGAZINE.



Haring would continue to actively use the computer in his artistic practice throughout 1989 until his untimely passing on February 16, 1990. Acutely aware of his mortality, fame, and the resulting commodification of his traditional work, the digital medium would emerge within this period as a potent vehicle for the artist's visual permanence to persist beyond his lifetime.²⁸

“Even the subway drawings, which were quite obviously about the ‘act,’ not the ‘thing,’ are now turning up, having been ‘rescued’ from destruction by would-be collectors. Possibly only the murals on cement walls that cannot be removed and the computer drawings, which can be rearranged at will, are free from these considerations.”

– Keith Haring³¹

UNTITLED (CATERPILLAR) BY KEITH HARING, C. 1980-83, COURTESY OF SOTHEBYS AUCTION HOUSE AND THE KEITH HARING FOUNDATION



Haring, like many true pioneers in the technological art canon, would ultimately find himself limited by the technological capabilities of his era — predominantly in the realm of digital display. He would feel constrained by the small display of the computer, both in the works' exhibition and creation. He would lust for, *"a giant screen so I can create huge computer-generated images and change the scales of things. Even better, something that would allow me to project [images] onto the sides of buildings."*²⁵



While the works Haring created for Leary's Neuromancer would never obtain visual ubiquity through game-play, they would find an even further permanence in their preservation on the blockchain, ultimately becoming *"part of the universally available IMAGE BANK,"*³² as Haring had intended. Today, nearly forty years after their initial execution, Haring's desire to see his computer-generated work presented on a *"bigger screen that's really high density"*²⁸ is finally realized in More Light at Martos Gallery.

ABOUT THE AUTHOR: Noah Bolanowski is a digital art historian, researcher, and strategic advisor dedicated to the provenance, preservation, and canonization of electronic art. Described as one of the *"very few trusted sources of the canonical history of the art,"* his research has helped illuminate overlooked chapters of digital art history, including Andy Warhol's Deborah Harry and accompanying works produced on the Commodore Amiga in 1985. His experience in the institutional integration of digital art includes landmark museum initiatives as former Managing Director of 10F1 Collection, from Guggenheim Bilbao's record-setting presentation of Refik Anadol's in situ to the historic donation of CryptoPunks and Chromie Squiggles to the permanent collection of The Museum of Modern Art. Across research and advisory work, he focuses on the systems that give digital art lasting cultural value: provenance, preservation, institutional context, and historical clarity.

Using computers to make art

By Jerry Stein
Post staff reporter

It looks like an arcade, or maybe some sort of futuristic Christmas show.

Lights flash. Strobe lights blink. Funny machines — one suggesting a Venus fly-trap — move with a clap of the hand or stomp of a foot.

All these technical hijinks are part of the Contemporary Arts Center "Computers and Art" show. The exhibition, organized by Syracuse's Everson Museum of Art under a grant from International Business Machines Corp., has already drawn 15,000 visitors since its opening Nov. 27.

The computer had its initial applications in the scientific laboratory, the military and business. But, as computers became more "user-friendly," more widely available and lower in price, artists began to realize what



An untitled paint-system image from 1983 by Keith Haring.

servants they had available.

Computer art has two main branches — artists who use computers and monitors to create art electronically and those who use the com-

puter as an extension of their brains, to help make decisions about color and form.

Please see COMPUTERS, 4D

THE CINCINNATI POST, DECEMBER 8, 1987.

SOURCES:

- ¹Haring, Keith. Journal Entries, 1978. Keith Haring Foundation
- ²Haring, Keith. Journal Entries, November 2 & 18, 1979. Keith Haring Foundation
- ³Haring, Keith. Journal Entries, September 5, 1979. Keith Haring Foundation
- ⁴Haring, Keith. Journal Entries, November 28, 1979. Keith Haring Foundation
- ⁵Durante, Francesco. Dalla testa alla mano, e poi al muro. *Il Piccolo di Trieste*, 5 May 1983.
- ⁶Gooch, Brad. Archival interview with Keith Haring. *People Magazine*. December 1983.
- ⁷Dickson, Jane. "Entrevista VII." Interview by Rodrigo Costa Maceira. *Palavra em performance: reverberação do gesto na Arte Pública*, by Rodrigo Costa Maceira, Universidade de São Paulo, 2021
- ⁸Kirsner, Scott. All the News That's Fit to Pixel. *Wired Magazine*, February 2000
- ⁹Nisenholtz, Martin. Graphics Artistry On Line. *Byte Magazine*, Volume 8, No. 3, July 1983
- ¹⁰Haring, Keith. Journal Entries, November 2 & 18, 1979. Keith Haring Foundation
- ¹¹Serani, Antonella. Keith Haring e i suoi bambini graffiati. *L'Unità*, 21 June 1989.
- ¹²Goodman, Cynthia. *Digital Visions: Computers and Art*. H. N. Abrams; Everson Museum of Art, 1987.
- ¹³Emmett, Arielle. "Computers & Fine Arts." *Computer Graphics World*, Oct. 1988.
- ¹⁴Haring, Keith. Interview by Lisa Ponti. *Domus*, no. 645, Dec. 1983.
- ¹⁵Haring, Keith. Artist Statement. *Flash Art*, no. 116, Mar. 1984, pp. 20–28
- ¹⁶Warhol, Andy. 9 October 1984. *The Andy Warhol Diaries*, edited by Pat Hackett, 1989.
- ¹⁷Sheff, David. Playboy Interview: Steven Jobs. *Playboy*, vol. 32, no. 2, Feb. 1985, pp. 49–70, 174–184
- ¹⁸Belsito, Peter. *Notes from the Pop Underground*. 1985.
- ¹⁹Sanford, Tobey. Keith Haring Portrait in Studio. 1 Jan. 1986, Getty Images
- ²⁰S. Lischi (a cura di), *Il museo elettronico: rassegna internazionale di arte nel video*, Ondavideo, Pisa 1993.
- ²¹Artoon: *L'influenza del fumetto nelle arti visive del XX secolo*. Electa, 1989
- ²²Haring, Keith. Journal Entries, July 8, 1986. Keith Haring Foundation
- ²³Haring, Keith. Letter to Timothy Leary. 15 July 1986. Facebook, uploaded by Brian Fargo, 8 Nov. 2015
- ²⁴Rhonemus, Alison. *Transmissions from the Timothy Leary Papers: Keith Haring Makes a Mind Movie*. The New York Public Library, 25 Jan. 2013
- ²⁵Bonn, Kathryn. Dear Santa: Computer-Using Celebrities Tell Us What They Want for Christmas. *Family Computing*, no. 52, Dec. 1987.
- ²⁶Haring, Keith. Journal Entries, June 29, 1989. Keith Haring Foundation
- ²⁷Sheff, David. Timothy Leary: Turn On, Tune In, Drop Out ... *Ars Electronica 1990*. Band II: Virtuelle
- ²⁸Guglielmo, Connie, and Suzanne Weber. Keith Haring Meets His Mac: New York Pop Artist Suggests That Computers May Transform 'the Ideology of Art.' *MacWEEK*, 19 Sept. 1989, pp. 56, 60.
- ²⁹Discover How Keith Haring Used an Amiga Computer to Push the Boundaries of Art in the 1980s. *Christie's*, 5 Sept. 2023
- ³⁰Haring, Keith. Journal Entries, February 1987. Keith Haring Foundation.
- ³¹Haring, Keith. Journal Entries, June 25, 1987. Keith Haring Foundation
- ³²Haring, Keith. Journal Entries, July 26, 1986. Keith Haring Foundation
- ³³Public Art Fund. "Jenny Holzer: Sign on a Truck." Public Art Fund

ADDITIONAL SOURCES:

- Bunnell, David. "Neuromancing the PC." *Macworld*, Apr. 1987.
- Bunnell, David. *Subroutines: David Bunnell's Newsletter from inside the Personal Computer Industry*. PC World Communications, Nov. 1986.
- How Quantel's Paintbox Changed Our World*. Exhibition catalogue, 2023.
- Input/Output*. Time-Life Books, 1986.
- "Keith Haring: Pixel Pioneer | The Technical Approach." *Digital Practice*, 2023.
- Leary, Timothy. *Flashbacks: A Personal and Cultural History of an Era*. Tarcher, 1983.
- Lundell, Alan. "Electronic Art Gallery in the Works." *InfoWorld*, 6 July 1981, p. 33.
- Malagnini, Fabio. "Dipingo per i primitivi del Duemila." *L'Unità*, 26 Oct. 1983.
- "Media News: A Monthly Column of News and Commentary." *Educational Technology*, vol. 21, no. 7, July 1981, p. 40.
- Micacchi, Dario. "Il pennello nel fumetto." *L'Unità*, 28 Nov. 1989.
- Pelfrey, Robert H. *Art and Mass Media*. Harper & Row, 1985.
- Portfolio*, vol. 4, nos. 2–6, 1982.
- "Potpourri." *U&lc*, vol. 8, no. 3, Sept. 1981.
- Schuessler, Jennifer. "Timothy Leary Video Games Unearthed in Archive." *ArtsBeat*, *The New York Times*, 27 Sept. 2013.
- Soldani, Andrea, director. *Tuttomondo*. Ondavideo, Interferenze, SBP, 1989.
- "The Timeless Relevance of Alfredo Jaar's A Logo for America." *Art21*.
- Wilson, Adrian. "Keith Haring's *Tuttomondo* 1989 Documentary World Premiere, NYC, 20 Dec. 2025." YouTube, 20 Dec. 2025.