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Looking at Digital Video Archives from the Perspective of Media Archeology

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Looking at Digital Video Archives from the Perspective of Media Archeology

Having been academically trained as a historian and classicist with an ongoing interest in cultural tempor(e)alities, Wolfgang Ernst grew into emergent technological media studies and is now Full Professor for Media Theories at Humboldt University Berlin. His research focus covers media archaeology as a method, theory of technical storage, technologies of cultural transmission, micro-temporal media aesthetics (chronopoesis), critique of history as the master discourse of the cultural and technological time, and sound analysis from a media-epistemological point of view (time objects and time signals). Among his recent books are *Technólogos in Being* (Bloomsbury, 2021), *The Delayed Present: Media-Induced Tempor(e)alities & Techno-traumatic Irritations of "the Contemporary"* (Sternberg Press, 2017), *Sonic Time Machines. Explicit Sound, Sirenic Voices and Implicit Sonicity in Terms of Media Knowledge* (Amsterdam University Press, 2016), *Stirrings in the Archives: Order From Disorder* (Rowman & Littlefield Publishers, 2015), and *Digital Memory and the Archive* (edited and with an introduction by Jussi Parikka, University of Minnesota Press, 2013).

Wolfgang Ernst

Introduction

This is the data flow under the name of W. E., talking from the Signal Laboratory of the Institute of Musicology and Media Science at Humboldt University, Berlin. The signals at this moment about ‘The Digital Video Archive (and what it is not)’ contribute to symposium *Gift of Nam June Paik 13*¹ with a prerecorded video lecture. The speaker has become accustomed to such electronic positioning of giving ‘ghost lectures’ into a camera lens during more than one year of online academic teaching due to the lockdown of ‘on-site’ university by the COVID-19 pandemic. Here I am, but there is no ‘me’ here.

This presentation is a digital video recording. It is part of the theme of the symposium. The recording would be a thing of the past when the symposium receives it. Whatever is transmitted digitally has been ‘archival’ already. Unlike analog ‘ive’ transmission where signals are modulated but temporally intact, A/D conversion, sound compression, and image compression involve micro-archival operations on the computing level. Each signal is already subject to intermediary storage by a sample-and-hold operation and every video frame needs short-time buffering to be digitally transmitted. These micro-temporal operations always result in a delayed presence. At that moment, the audience cannot even tell if the configuration of pixels that cognitively appears like W. E. is ‘live-streamed’ or prerecorded.

The draft for this symposium announces a new digital Internet platform. It “will offer a free video streaming service” of Paik works “to worldwide as Paik.” This *Gift of Nam June Paik 13* symposium, as a hybrid of ‘on-site’ and ‘online’ video conference,

itself is a part of the theme of 'digital archive' already. It actualizes Paik's seminal synchronous satellite TV installation *Good Morning, Mr. Orwell* on New Year's Day in 1984. However, it is not an archival version of the work in 1984. The edited 30-minute version of *Good Morning, Mr. Orwell* has been displayed in several exhibitions such as *In Memoriam: Nam June Paik* at the Museum of Modern Art. The more truly archival preservation and the disclosure of its various authentic fragments are required.



Good Morning Mr. Orwell (1984), Still images

From the beginning, technical irritation in the broadcasting of *Good*

Morning, Mr. Orwell reminded the audience that—about all human artistic content—any telecommunication is a technical message of its specificity as a medium. Different versions of the show were seen in the U.S. and France because the satellite connection between the two countries kept cutting out, leaving each side to improvise to fill the gaps. At one point, a performer in New York attempted a ‘space yodel,’ the host explained that his voice would be bounced back and forth over the satellite link to produce an echo, but no echoes were heard. Paik said that the technical problems only enhanced the ‘live’ mood.² While the space yodel was about acoustic resonance and signal runtime, this one-second satellite transmission delay, which was creatively (ab-)used for artistic purposes, was the central feature of the event. But it differs radically from ‘echoes’ from the past, which is called the digital archive. The same signal transmission delay, which failed for the ‘space yodel,’ turned productive for a sequence of choreographer Merce Cunningham dancing with satellite-delayed images of himself.

In a way, Paik’s *Good Morning, Mr. Orwell* anticipated new possibilities of online conferencing. A scene of ‘Cavalcade of Intellectuals’ shows an online dialog between an intellectual in Paris and an interviewer in New York, who immediately falls in love. For this sequence of Paik’s 1984 video opera, originally, Michel Foucault was meant to have a satellite ‘live’ TV conference with Susan Sontag. The actual scene is a parody. Moreover, every video conference is not a dialog, whatever its semantic topic is, but a message basically about technológos as a medium of circuit switching. “I can’t see your human intimacy.” one character expresses. The audience who sees this video also cannot see my intimacy, except the people who are in the same place with me now.

International speakers participate in this symposium in the form of prerecorded or ‘live stream’ video lectures. Then the

round table on the 27th November 2021 at the NJP Art Center in Yongin, Korea, runs with on-site speakers who deal with the themes that the international speakers transmit. Despite all optimism of video conferencing (which a media artist like Paik would have appreciated since he was open for every new technical affordance), from Paik's *Good Morning, Mr. Orwell* video opera, we learn that an 'online' conversation can only barely be a scholarly dialog, but is a cybernetic circuit in reality: a technical coupling, and a 'technologue' instead of a 'dialogue.' The medium message of such a format is already the techno-logics of Zoom videoconferencing software. If this is a technical comedy, as one staged in the *Good Morning, Mr. Orwell*, or just another variance of the relationship between humans and technology, or something that finally reveals the truth about the techno-logical condition as such, is another question of deep media-epistemic concern.

Archiving not only 'content' but also 'technical condition'

But now, let me get back to the digital archive topic. While the thematic focus of this symposium is mainly on the 'video commons' aspect of the new digital platform, media-archaeological thoughts are instead about the technical and philosophical aspects of the clash between Paik's 'analog' video works and the consequences of 'digitizing' such materials into an essentially metamorphosed digital archive. Because digitizing is not a smooth translation.

Any media archive is more than about a human subject's idiosyncrasies, but as well about the affordances and options rendered by the technological unconscious which appeals to be discovered—like the signal delay time in satellite TV transmission, creatively (ab-)used by Cunningham's dance with his own electronic

shadow in *Good Morning, Mr. Orwell*. Therefore, it is mandatory to co-display the technical archive in the platform, not just video content, such as documentation of video recording electronics in the 1980s. That's my claim.

So let us differentiate between the institutional 'historicist' archive, which takes care of preservation of authentic 'Paik' records on videotape, *and*, on the other hand, the original hardware running it as the actual 'archive of the present.' Not in the sense of the institutional archive, but in the sense of Foucault's neographism, *l'archive* is the whole technical apparatus which is involved in online communication already—both its hardware and code, that is: the technical and logical diagram as a condition for the possibility of 'online' transmission. The meaning of the traditional archive is submitted to the technical one, such as—the live and prerecorded footage in the *Good Morning, Mr. Orwell* satellite TV broadcast—the sequence with minimal music, which had been composed by Philip Glass for John Sanborn and Dean Winkler's video synthesizer piece *Act III*. The hardware for the sequence was part of *Good Morning Mr. Orwell* installation by Paik, composed by Via Video Computer Painting System, provided with a real-time image processing system and an additional 'Dimension' frame store software.³

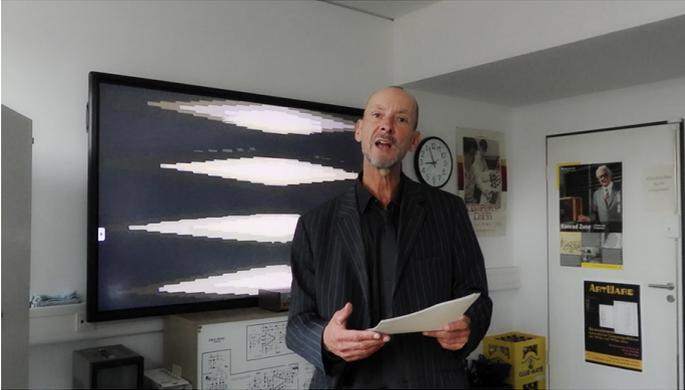
"A video synthesizer is able to generate a variety of visual material without camera input through the use of internal video pattern generators." It also accepts, enhances, or even distorts live television camera imagery through purely electronic, or digitally augmented manipulations. The media archaeology of video synthesis "is tied to a 'real-time performance' ethic."⁴ Therefore, it is electro-technical equivalent to Fluxus art aesthetics itself, as it can be perceived in the visualization of my very voice by a video synthesizer in the background.

What ‘digital’ video commons platforms overlook

Against the symbolic order of alphabetic or alphanumeric writing or coding, the Paik text from 1968 proposes a genuine signal analysis: “the acoustic analysis of pitch and timbre (overtone, formant) should replace the outmoded, often insulting pentatonic transcription” as an “invention of 19th-century.”⁵ Now here, Paik resists transcription. Digitizing analogy type is a form of transcription. Therefore, digitization is already against the bias of Paik. The Atari Video Music device, operating in the background of this lecture from the Signal Laboratory, has been an audio signal visualizer since 1976, ‘interpreting’⁶ an input acoustic waveform, in this case, my voice. “The Video Music translates the levels of acoustic intensity and mellowness into colors and shapes that are output to a graphical display.”⁷ This vintage Atari C240 analog video music synthesizer is an analog/digital hybrid already. “Input your audio and out comes [...] 8 bit analog graphics.”⁸ This ‘digital’ aesthetics is absolutely not a false retro-memory of the digital age. The Atari Video Music device “eschews a computer and uses custom analog circuitry that generates a video signal.”⁹ But the technical authenticity (or even resistance) of the analog gets lost in the merely symbolical ‘digital archivization’ of such media creation. At this moment, by digital transmission on my talk and the Atari performance, the analog is already lost or transcribed. It is part of great transcription, which dramatically is happening worldwide, called digitization.

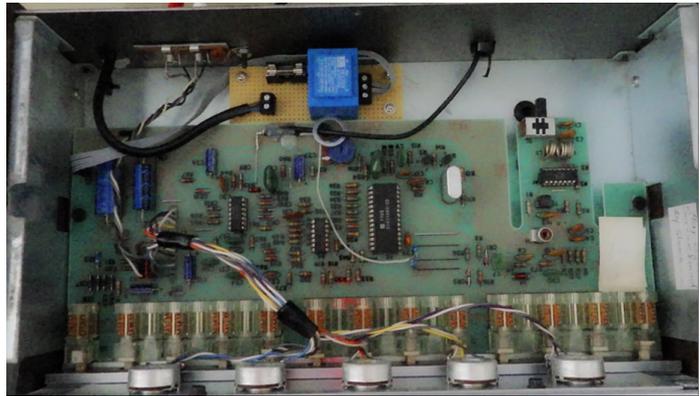
One collector describes it on his website on the Internet, “The design of Atari device itself appears to be based on a custom digital integrated circuit, driven by analog inputs.” And one user comments on this, “I’d love to take one of these apart to find out how it works [...]”¹⁰ Opening this archive simply requires reading the original patent, all with the screwdrivers opening the device, and

the user manual to Model No. C-240. Under the entry ‘Specifications,’ the manual lists a ‘Semiconductor Complement’ with 5 integrated circuits. Deciphering the circuit diagram (‘Schematic Layout’) reveals an IC with its digital ‘TTL’ logic without any software.



Screen capture of
NJP Art Center
symposium lecture
(2021.11.17-27)

Atari Video Music
device, Screen capture
of NJP Art Center
symposium lecture
(2021.11.17-27)



A fundamental issue of the material Paik legacy is to preserve the integrity of the analog audio and video signal, the transscriptural ‘age of electronic video recording.’ Media-ironically, the ‘scriptural’ regime nowadays returns *within* computing, as the regime of source code programming of such signals.

A central concern in Paik’s knowledge has always been the difference between the electric and electronic: “If the Russian

Revolution of 1917 meant for electrification, then May 1968 events in France means electronification.”¹¹ But beyond Paik’s grave, this question has to be carried further nowadays: to the difference or intertwining between electronics and digitization (or algorithmization). The textual Paik (1968) accentuates “(...) even McLuhan misuses and mixes up the words ‘electric’ and ‘electronic,’ which have as much difference as tonal and atonal (...).”¹² The text pleads “to focus the attention of the whole academic community drastically to this electronic situation.”¹³ With a similar rigor, the difference between media electronics (the *technólogos* of analog music and video signal processing and recording) and its computational digitization has to be accentuated. A ‘digital’ video commons platform which suggests immediate access to the ‘analog’ Paik video heritage dissimulates this media-epistemic difference between the analog and digital.

The Foucaultean *l’archive* rather than the institutional archive

There are of course different levels of defining ‘the archive’: the institutional sense and technical sense specifically for media records. The media-archaeological reference is obviously the Foucaultean *l’archive* rather than the institutional ‘archive’ (which in French, as *les archives*, is always expressed in the plural).

According to the explanation of NJP Art Center, Paik’s Video Study is composed of various formats “including single-channel video, various versions of TV programs, works in progress, video recordings of performances, interviews, video sculptures and sources for installations, multifarious footage collected by Paik himself and so forth.” Media-materially, “all kinds of video formats are mixed, from the early video converted from films, 1 inch, 2 inch,

1/2 inch, 8mm, Super 8, laser disks, VHS, to Beta Cam SP, U-matic”—which currently have been converted to “live digital videos.”

Such a digitization of such different materials, though, is standardizing and erasing the media-material difference. The media archaeological perspective rather proposes, parallel to the “digital” conversion of the content only, to establish a signal laboratory to discover the inherent *technológos* of individual video formats as an aesthetic function of the technical *l’archive* in Foucault’s sense. Creating an archive of Paik’s works has to be related to the hardware as well, the physical medium and analog techniques. It is a challenge to what can be digitized. Since any digital internet-based communication misses the materiality, video platforms cannot capture it. The conversion of an analog video to a digital video runs the risk of reducing media art to software and to the preservation of its data content, while ignoring its technical conditions of aesthetic possibilities (which philosopher Immanuel Kant called *a priori*). In the digital transformation, the analog aesthetics of video art, which is the center of Paik’s expression, becomes a mere surface effect.

After the NJP Art Center has completed the first stage of digitalization in 2012, the second digitalization stage intends to construct a free video streaming platform on the basis of digital files accessible online. This whole process is like a dangerous rope walking between analog and digital indeed. First of all, digitization allows for the multiplication of authorship since instead of choosing a representative video, many versions of ‘one’ work can be accessed in co-original (e)quality. Another collateral damage to the analog video original is the digital insertion of captions and the assignment of meta-data, which reveals that the temporality of authentic video signal has become pure computational data space. So the digitization of analog Paik video tapes is not simply another variance of analog video, but a complete transformation. It misses the essence of

analog video.

Analog video tapes are a storage medium that are not archival in essence, but become archival records only by their institutional enframing (Heidegger called *Gestell*). So the archive is outside of the inherent memory aesthetics of video tape. Video tape becomes part of the symbolic regime called institutional ‘archive’ only when they are registered in an inventory and therefore supplied with metadata externally.

In accordance with the Nyquist/Shannon Sampling theorem, a digital video platform might even preserve the idiosyncrasies of the analog transmission—but only on the phenomenal level, not on the true techno—archival (internal) level. Digital computing, as discrete-state machine, is turning real continuous electromagnetic signal flows(which is the essence of the videotape) into what is compatible with the symbolic order: so it misses the physical real, the digital regime. In that sense, any digitization is turning Paik’s signals into ‘archival’ records.

It’s not Nam June Paik

Although viewers of this video recording experience the image of a speaker at the very moment of reception, the image is already archival. Even if it was transmitted as ‘live stream,’ it is radically disembodied and nonpresent, and becomes a signal in latency. The Paik’s video archive as well is radically disembodied from Paik, so let us resist all efforts to anthropomophize them again. The organization of a digital video platform may exorcize all biographical hallucinations and rather allow for experimentation in the sense of ‘digital *non-humanities*’—just like a ‘digital’ black & white portrait of media theorist Friedrich Kittler can be composed of zeroes and ones.

The rupture between embodied knowledge and technical recording shall not be smoothed but radicalized. If the ‘digital’ is understood in the sense of ‘algorithmicized,’ a radical different intelligence emerges (as *technológos*) from data sets. But it should not be called an ‘archive’ anymore, since it leads to confusion.

What is essentially ‘Paik’ in an online platform of his digitized video records? It raises the question of the relation between techno-archival records (or published texts), which they maintain with their ‘author.’ As we know from philosopher Nietzsche’s experience with his typewriter, co-author of any technical record is media technology itself.

Once the record of Paik has been ‘archivized,’ it should not be addressed in the name of Paik anymore, but rather in the name of recording device. As long as his estate is organized in relation to his biography, it is a ‘historical’ archive. But as we know from Prussian or Vatican archives, the historical archive is no real archive. The real archive is secret which, in technical terms, refers to the “protected mode.”¹⁴ The real opening of an archive is its technical accessibility.

The Paik estate raises the question: To what degree is artistic knowledge production bound to the idiosyncrasies and intellectual uniqueness of a personal life on the one hand, and to techno-logical knowledge, the apparatus on the other hand? The crucial challenge arises to de-personalize the Paik’s archive against the narrative allure of the author-biographical approach, as expressed in Paik’s recollection that “[s]ince 1961, Joseph Buys [sic] and I have had a wonderful kind of contact. I found out at one point that he was saved by the Tartars in Russia during World War II, when his plane was shot down. The Tartars and Koreans are very close.”¹⁵ That is what Paik remembers, but the memory itself now is submitted to purely technical recording apparatus.

But the human preference for a biographical focus prevents archival access from cold media-archaeological distance. At that moment, the crucial archival question arises whether the digital video platform should be organized according to the provenance (with its transcendent referent named ‘Paik’), or according to pertinence which means grouping in thematic relevance and in deindividualized subject matters. Both are archivological options, the one being historicist (like the Prussian archival organology) and the other being rather functional (the French postrevolutionary archive organization).¹⁶

“A young video curator in the 21st century will ‘interpret’ a video installation [...] from notations and photographs,” (Paik predicted in 1980)—and, I would like to add from the technical diagram, and the actual electronic apparatus. This can be applied to the NJP Art Center itself, where Paik has become the object of his own claim. For a repository which holds electro-acoustic art, TV media art, analog video art, and finally new media ‘digital’ art, “Nam June Paik’s work requires a conceptual framework that goes beyond an art historical narrative.”¹⁷ Therefore, the NJP Reader once invited for the production of new conceptual systems beyond the anthropocentric focus, by explicitly “choosing to use Nam June Paik’s initials for its title, rather than his full name.”¹⁸ AS part of any archive, Paik became an address, an alpha-numerical address in the digital archive, and this is not a personal name anymore.

Archival aesthetics, as opposed to historical narrative, is ice-cold in exorcizing any bio-hallucination from the reading of the records. In that sense, it is appropriate that the NJP Reader addresses ‘Paik’ as what it is, on the technical level, an array of writing symbols, be it alphabetic (textual), alpha-numerical (code), or binary (the ‘digital’ signal).



From the perspective of media archeology

The intention of Paik’s Video Study might not be a subject-centered archive, and rather an organization according to cybernetic information aesthetics. Just as the theme of a previous NJP Reader has been ‘Cybernetics,’ and in 2012, NJP Art Center celebrated the 80th anniversary of the artist’s birth by the special exhibition *Nostalgia is an Extended Feedback*, and by the symposium *Man-Machine Duet for Life*, “all of which drew on the theme of cybernetics.”¹⁹

As stated in the opening text of *Gift of Nam June Paik 13 Symposium*, “The video archive will open up interesting possibilities in terms of media archeology.” Indeed—both in its soft, and radical sense. Let us not reduce the notion of media archaeology to a mere preservation of ‘obsolete’ technical items, but re-actualize them in the context of media-epistemic question, such as the relation between the analog and the digital, and, for example, computing *within* physics (quantum computing) *versus* the symbolical machine.

In terms of material media archaeology, the value of “dead media” (as Bruce Sterling calls it) results from resisting their digitization, and to maintain their electro-material ‘veto’ and electronic idiosyncrasies.

- 1 | NJP Art Center, November 27, 2021
- 2 | https://en.wikipedia.org/wiki/Good_Morning,_Mr._Orwell#cite_ref-2
accessed September 27, 2021
- 3 | Teletronics V12 operating system ver L2.3 (written by Robert L. Lund)
- 4 | https://en.wikipedia.org/wiki/Video_synthesizer
accessed September 27, 2021
- 5 | Nam June Paik, "Extended Education for the Paperless Society," *Radical Software*, 1(1), (1968), pp. 7-8.
https://www.radicalsoftware.org/volume1nr1/pdf/VOLUME1NR1_art02.pdf
accessed September 30, 2021.
- 6 | https://en.wikipedia.org/wiki/Atari_Video_Music
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- 7 | *Ibid.*
- 8 | <https://www.matrixsynth.com/2012/10/atari-video-music-c240-with-original.html>
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- 9 | Web site PCWorld, entry "The Atari Video Music is a trippy, psychedelic rarity from the 1970s" by Benj Edwards (January 28, 2016)
<https://www.pcworld.com/article/419318/this-old-tech-atari-video-music-is-a-trippy-psychedelic-rarity-from-the-mid-1970s.html>
accessed October 9, 2021
- 10 | Web site Retro Thing, entry "Atari Video Music: Psychedelic 1970s Music Visualizer" by James Grahame
<https://www.retrothing.com/2007/09/atari-video-mus.html>
accessed October 9, 2021
- 11 | Nam Jun Paik (1968), p. 8.
- 12 | *Ibid.*
- 13 | *Ibid.*
- 14 | Friedrich A. Kittler, "Protected Mode," *The Truth of the Technological World*, Redwood City (Stanford University Press, 2020), pp. 209-218.
- 15 | Paik, 1980.
- 16 | See Wolfgang Ernst, *Im Namen von Geschichte* (München: Fink Verlag, 2003).
- 17 | NJP Reader #1 out now = announcement by the NJP Art Center, from December 20, 2009. Editors: Youngchul Lee, Henk Slager
- 18 | Compare Jacques Derrida, *Le t-i-t-r-i-e-r*, in: xxx
- 19 | <https://njpac-en.ggcf.kr/njp-reader-3-cyberneticus/>
accessed September 26, 2021