Cybernetic Lyricism: Gregory Bateson, Nam June Paik, and the 'Mind' as Conjunctive

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NAM JUNE PAIK ART CENTER
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CYBERNETIC LYRICISM: GREGORY BATESON, NAM JUNE PAIK, AND THE 'MIND' AS CONJUNCTIVE

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Art – Anthropology – Visual Media

Interdisciplinary by nature, cybernetics secured a powerful theoretical position in the 1960s and 70s such that Martin Heidegger, despite his critical view of cybernetics as a "product of Anglo-American technocracy, born from the crucible of World War II and its rationalized barbarism," saw cybernetics encroaching on the ground of philosophy.[1] Its far-reaching repercussions extended to media artists including Nam June Paik, who capitalized on technological developments for art-making, in the way that elements of cybernetics like feedback, system, signal and noise were extracted and infused into artistic concepts and operations. This was driven by the course of cybernetics moving from an empirical discipline of calculating and implementing mechanisms to a critical platform for cultural communication, at the heart of which was British anthropologist Gregory Bateson (1904–1980). *Steps to an Ecology of Mind* (1972),[1] a collection of his writings since the 1930s, was
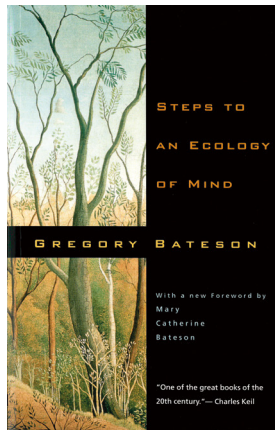
[1] *Steps to an Ecology of Mind* (University of Chicago Press, 2000)

1 Jasper Bernes, "The Poetry of Feedback," *e-flux journal*, no.82, May 2017, http://www.e-flux.com/journal/82/127862/the-poetry-of-feedback/. Heidegger was severely denounced for his joining the Nazi Party when he was Rector of the University of Freiburg in 1933–34. To discuss this issue, Rudolf Augstein, the editor of *Der Spiegel*, requested an interview in 1966, where Heidegger recast his philosophical work in terms of 'technicity,' the most profound characteristic of contemporary culture. Martin Heidegger, "Only a God Can Save Us," William J., Richardson, tran., in Thomas Sheehan, ed., *Heidegger: The Man and the Thinker*, Chicago: Precedent, 1981, p.59.

a widely-read popular book at that time. In the foreword to this publication Bateson acknowledges scholarly inspiration from the following figures: evolutionary naturalist Jean-Baptiste Lamarck; creationist–zoologist Georges Cuvier; poet and painter William Blake; writer and critic Samuel Butler; philosopher, historian and archaeologist Robin George Collingwood; and William Bateson, his father and a pioneer in genetics. They are, according to Bateson, all those who "kept alive the idea of unity between mind and body."[2] His nomadic research transcending disciplinary boundaries was to provide contemporary media artists with a possibility of cybernetics not fetishizing technology itself.

> The French Anthropologist, Claude Levi-Strauss, said, "Culture is (a) network of communication." American anthropologist G. Bateson and psychoanalyst J. Ruesch go even further: "Values are simply preferred channels of communication … as soon as interpretation of message is concerned, no clear distinction can be made between communication theory, value theory and anthropological statements about culture. This combination of features is the medium in which we all operate: therefore we call is social matrix."

This is part of Paik's report *Media Planning for the Post Industrial Age — Only 26 Years Left until the 21st Century* submitted to the Rockefeller Foundation in 1974.[3] It is the only passage in which Paik directly referred to Bateson, and the quote is from the introduction written by Ruesch. Nonetheless, this author, an art anthropologist having a keen interest in the artist Paik, is drawn to the link between Bateson and Paik, recalling that Bateson's work was rather distinctive in the anthropology of art, that he was himself

2   Gregory Bateson, *Steps to an Ecology of Mind*, Chicago: University of Chicago Press, 2000, pp.xxi–xxii. The original 1972 edition contains a subtitle "Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology," and a new foreword written by Mary Catherine Bateson, his daughter and anthropologist, was added to the edition published by University of Chicago Press in 2000.

3   For what Paik cited, see: Jurgen Ruesch & Gregory Bateson, *Communication: The Social Matrix of Psychiatry*, New York: Norton, 1951, p.8.

well versed in art and his artistic disposition marked his writings and images from those of other anthropologists, and besides, that he played a pivotal role in the development of cybernetics.

The first ethnographic outcome of anthropologist Bateson was *Naven* (1936) about the Iatmul, an indigenous head-hunting people living in the Sepik River region of New Guinea.[4] Naven is a name of their ritual to celebrate the first-time notable achievements of Iatmul members. In Naven, performers reverse gender roles by hyperbolic transvestitism, a son is led to walk over his mother lying on the ground, and obscene and homosexual expressions are put on without reserve. Looking into the Iatmul's social structures and cultural changes through the Naven performance, Bateson analyzed the people's psychology and thought patterns, by devising a notion of 'schismogenesis,' indicating a process of differentiation caused and cumulated in a loop of interactions, which would be either symmetrical or complementary. Naven was not a successful writing in a sense if compared with the scientific style of contemporary ethnographies. His discourses steered an unexpected course, were apt to be back to square one, and openly unfold meandering and equivocal narratives.[5] A predicament for him was that the empiricist and functionalist writing structure was too constraining to describe and understand an exotic society having such strange and shocking customs. He hence made a hermeneutic attempt of rhetorical experimentation and evolved intuitive and semi-literary styles as a new modality of description in *Naven*.

Bateson moved on to his next research field where he revolutionized the use of camera. He carried out fieldwork in Bali together with colleague and wife Margaret Mead. With an aim to make a quick and random recording of the people's expressions and behaviors that defy prediction and classification, he produced 25,000 Leica negatives and 22,000ft rolls of 16mm film. Out of the photos 759 images were selected and published in a book that took the form

4 Gregory Bateson, *Naven: A Survey of the Problems Suggested by a Composite Picture of the Culture of a New Guinea Tribe Drawn from Three Points of View*, Cambridge: Cambridge University Press, 1936.

5 George Marcus, "A Timely Rereading of *Naven*: Gregory Bateson as Oracular Essayist," *Representation*, No.12, Autumn 1985, pp.66–82.

of 100 tableaux made up of 5–10 still images and accompanied by commentary text each.[6] Interestingly, the text contains, in addition to descriptive and interpretative accounts of Balinese culture, detailed information about camera apparatus, physical arrangements of shooting, and photographic techniques. This was to clarify complex layers coming into play in the ethnographic study: the plates were not a transparent documentation of Balinese realities, but were captured by an anthropologist who intervened in their life with a camera, and further edited and composed by his anthropological agendas. It also demonstrates that Bateson put to use the power of visual images that not only serve as positivistic evidence of the field, but reveal intangible social relations embodied in cultural forms when contextually disparate images are placed together. He called attention to film and photography as artistic media that could produce meanings by virtue of juxtaposition and composition.[7]

Cybernetics and the Mind

In his early New York days, Bateson curated a Bali exhibition in Museum of Modern Art and conducted a Nazi film analysis in its film library, all tied in with the WWII situation. Then in 1942, before he was drafted to Asian battle sites to design black propaganda using his schismogenesis theory, he had a chance to learn about the then new concept of 'feedback' in a preparatory meeting of the Macy conferences, building up expectation that it could facilitate a more rigorous formulation of what he had explored in *Naven*. After the war at last, he joined, as founding members from anthropology with Mead, the Macy conferences that would become a foothold of cybernetics. The Macy conferences running from 1946 to 1953,

6   Gregory Bateson & Margaret Mead, *Balinese Character: A Photographic Analysis*, New York: New York Academy of Sciences, 1942.

7   Mead found contemporary anthropologists to cling to verbal descriptions because the literary ability of a novelist or a poet was not expected of the anthropologist's writing but film and photography were presumed to take more specialized skill, even gift. She intended to say that anthropologists had to free themselves from this burden, but her remarks were also construed as her understanding of the artistic nature of visual media and the effectiveness of artistic process more than scientific language for cultural communication. Margaret Mead, "Visual Anthropology in a Discipline of Words," in Paul Hockings, ed., *Principles of Visual Anthropology*, The Hague/Paris: Mouton Publishers, 1975, p.5.

brought together a diverse host of scholars from different fields of neurophysiology, physics, telecommunications, mathematics, computer science, ecology, psychiatry, and so on, and thus the new discipline was defined from different points of view. Bateson spelled it out on a par with anthropology as a study of form and pattern, seeing everything understandable as a system of information creation and communication. Cybernetics deals with not things or events, but information they transmit, and the unit of information that travels in the cybernetic system is a difference which makes a difference, i.e., successive transforms of differences, according to Bateson.[8]

In hindsight, Bateson realized that his theory of schismogenesis derived from the dynamics of the latmul society whose apparent equilibrium always went hand in hand with possibilities of immediate changes, was concerned with proto-cybernetic notions of homeostasis and negative feedback. The cybernetic system is a circuit of feedback loops where input and output constantly interact, and through the feedback process, the system shall either sustain stability by searching for an optimum point of homeostasis, or bring out change by maximizing the variability of certain parameters. This is the way in which the system organizes and enhances its complexity. In the self-corrective mechanism, cause and effect are circular, and perception and action are inseparable, either of them unable to entirely control each other. To understand a society as a cybernetic system therefore should begin with admitting that the observer is involved in the workings of the system, too. When an anthropologist asks latmul people about social behaviors and cultural customs, these cannot be the same as before the questions are posed, because they are adjusted and mediated by the very communication circumstances of asking and answering. Bateson believed that no data are truly raw, that data are not events or objects themselves but are always their records or memories by someone using certain instruments. His awareness of self-reflexivity inherent in the observation and description of others, led him to turn cybernetics into a kind of epistemological model, through which he re-examined his previous works and set out to feed his later works in psychiatry.[9]

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8   Bateson, 1971, "The Cybernetics of "Self": A Theory of Alcoholism," in *STEPS*, p.323.

It was in the theoretical mold of cybernetics that Bateson's notion of 'double bind' in relation to schizophrenia was conceptualized. A double bind is a dilemmatic situation of communication in which a person is confronted with two or more irreconcilable messages. Bateson once drew parallelism between this and a Zen koan, and actually the widespread interest of American intellectuals in Zen Buddhism at that time mutually influenced the alternative world view of cybernetics. Whereas the Zen koan[10] is a technique of achieving the state of Buddhist enlightenment by dissolving the modern, autonomous self, schizophrenia is a symptom of disorientation caused by losing the self but struggling to maintain it at the same time. Bateson diagnosed this as the dark side of modernity. The analogy between cybernetics and Buddhist philosophy evokes Paik's manifesto whose opening is: "Cybernated art is very important, but art for cybernated life is more important."[11] Paik goes on to say that "cybernetics, the science of pure relations, or relationship itself, has its origin in karma," linking the karma principle of an endless net of cause and effect, to a chain of interdependent actions in cybernetics. The last sentence of this manifesto, "We are in open circuits," seems to have an ambiguous connection with other parts of the text, but if viewed with Bateson's notion of 'mind' theorized through cybernetic epistemology, reveals itself as an obvious and natural conclusion.[2] Thinking, mentality, conception, or what is called 'mind,' does not exist inside a single entity or a physical body, but is formed between entities, on the pathways of their relationship. Be it humans or things, they turn into a certain state through the feedback loop along the links connected to an external network. Their minds are neither intrinsic nor transcendental, but an aggregate of interacting components triggered and transported by disparity and difference.[12] The mind fluidly resides in the system of body — plus — environment,

9   In an epilogue to the second edition of *Naven* published in 1958, Bateson disclosed theoretical errors of the 1936 edition and rewrote it in light of his current position in cybernetic terms. In a foreword to *Steps to an Ecology of Mind*, he also noted that "My debt to Warren McCulloch, Norbert Wiener, John von Neumann, Evelyn Hutchinson, and other members of these conferences is evident in everything that I have written since World War II."

10 Bateson, 1956, "Towards a Theory of Schizophrenia," in *STEPS*, pp.211–212.

11 Nam June Paik, 1965, "We are in Open Circuits," in Dick Higgins, ed., *Manifestos* (A Great Bear Pamphlet Series), New York: Something Else Press, 1966, p.24.

and becomes a conjunctive between the self and the world in open circuits of communication ecology.

Art as Communication Code

Neo-avantgarde artists such as John Cage, Allen Ginsberg, Paik, and many more, were in direct or indirect touch with those figures from the Macy Conferences, and they navigated cybernetic topography and stimulated artistic experiments upon it. It was from Bateson's work that some of the artists took theoretical and philosophical beacons to explore new media in a broader context of communication, and furthermore, in the interrelationship of mankind, technology and ecological nature. Among those who worked personally with Bateson were Paul Ryan and Frank Gillette. They met Bateson in a conference where he presented a paper *The Cybernetics of "Self"* in 1970, and much inspired by it, they began to actively propagate his ideas in the media art scene.[13] Founding an alternative video collective Raindance Corporation in 1969 with a cohort of video artists, they grounded their work on the notion of media ecology theorized by Marshall

12 Bateson set six criteria for a cybernetic circuit, and regarded any entity that would satisfy these criteria as a unit of mind.

Gregory Bateson, *Mind and Nature: A Necessary Unity*, New York: E .P. Dutton, 1979, pp.91–128.

McLuhan, Buckminster Fuller, and Bateson. With a motto that "power is no longer measured in land, labor, or capital, but by access to information and the means to disseminate it," they also published *Radical Software*, a discursive space for communal approaches to technological aesthetics and politics of mass media. The magazine issued several pieces of Paik's text including *We are in Open Circuits*, and Bateson also contributed articles about Manhattan urban planning and DDT's harmful effect on the environment.[14]

As a matter of fact, Bateson made his presence felt in the art world long before this. He took part in such gatherings of art historians, theorists and artists as Western Roundtable on Modern Art in San Francisco in 1949 and the Annual Convention of American Federation of Arts in Houston in 1957.[3-1, 3-2] He was invited as an expert of communication studies to these occasions where different arguments were staged about changing conditions due to the mass media being introduced into art – making. Against traditionalists who saw this change as anti-artistic, non-humanistic, only efficiency-driven, Bateson joined the side with Marcel Duchamp and others. Duchamp's stance was that the artist's conscious intention combined with the unconscious mind works for a creative act, and there is a difference between his/her intention and its realization in works of art, a difference which the artist cannot be aware of.[15] What is contained in the works is thus a personal 'art coefficient' between the intended but unexpressed and the unintentionally expressed; and the audience, too, plays a part in the creative act by deciphering and interpreting the works. Similarly, Bateson argued that we are all part

13 For more explanations of their relationship with Bateson, see: William Kaizen, "Steps to an Ecology of Communication: *Radical Software*, Dan Graham and the Legacy of Gregory Bateson," *Art Journal*, 67(3), Fall 2008, pp.86-107. In response to Kaizen's paper, Paul Ryan and Roy Skodnick pointed out historical errors that Kaizen made, missing out on Frank Gillete who was in direct contact with Bateson, and instead picking out Dan Graham who came under Bateson's influence only circuitously, as one of the major artists in the vein of his arguments. Paul Ryan & Roy Skodnick, "Letters to *Radical Software* and the Legacy of Gregory Bateson," *Art Journal*, 68(1), Spring 2009, pp.111–113.

14 Nam June Paik, "Utopian Laser TV Station," "Expanded Education for the Paperless Society," *Radical Software*, 1(1), 1970, "Video Synthesizer Plus," "We are in Open Circuits," 1(2), 1970; Gregory Bateson, "Restructuring the Ecology of a Great City," 1(3), 1971, "Up Against the Environment or Ourselves?," 1(5), 1972.

15 Marcel Duchamp, "Creative Act," reprinted in Michel Sanouillet & Elmer Peterson, eds., *The Essential Writings of Marcel Duchamp*, London: Thames and Hudson, 1975, pp.138–140.

[3-1] Western Roundtable on Modern Art, San Francisco, 1949 Duchamp with a pipe in his mouth (farthest to the right), Mark Tobey holding a photocopy of *Nude Descending a Staircase* (in the middle), and Bateson to Tobey's right hand
Photo by William Heick, Courtesy of San Francisco Art Institute Archives

[3-2] Western Roundtable on Modern Art, San Francisco, 1949 Duchamp and Bateson at the dinner table
Photo by William Heick, Courtesy of San Francisco Art Institute Archives

of the circular causal system and there is no such thing as absolute autonomy of art or the artist.

To view art from a communication angle and grant it a special status was what Bateson's earlier anthropological work on Balinese art already did. Anglo-American textbooks of art anthropology never forget to include Bateson's paper *Style, Grace, and Information in Primitive Art* (1967) that analyzes Balinese art drawing on the idea of information.[16] In its introduction, Bateson quotes a well-known phrase of Isadora Duncan: "If I could tell you what it meant, there would be no point in dancing it."[17] Taken simplistically, this statement is easy to be misunderstood, Bateson warns, to mean that if something could be told in words, it would be quicker with less ambiguity; to communicate verbally is a conscious act, while dance is performed somewhat unconsciously, and to grasp things by consciousness would be a better way of knowing. Bateson emphasizes that this is a mistake made to put language hierarchically above any other means of communication with value-laden judgments. The implication of Duncan's remark, he argues, is that if the message were the sort that could be communicated in words, there would be no point in dancing it, but it is not that sort of message. It is, in fact, precisely the sort of message which would be falsified if communicated in words, because the use of words implies a fully conscious message coded by a specific grammar, so in order to communicate an unconscious mind, you cannot but dance it, whose code of grammar is completely different from that of language.

The above paper deals with an ink painting made by an indigenous painter in Batuan in 1937. Bali was part of the Dutch East

16 An anthological textbook edited by Morphy and Perkins includes this paper of Bateson's, and another book edited by Bakke and Peterson has an article *For God's Sake, Margaret: Conversation with Gregory Bateson and Margaret Mead* (1976), in which the two figures recollected the Macy conferences and had a heated debate on the relationship between anthropology and visual media. It is interesting to compare the contents of the two textbooks that collected important historical and contemporary papers on art anthropology, to catch a glimpse of changes in the conceptual and methodological framework of anthropology handling 'art' as its subject matter. Howard Morphy & Morgan Perkins, eds, *The Anthropology of Art: A Reader*, Oxford: Wiley-Blackwell, 2006; Gretchen Bakke & Marina Peterson, eds., *Anthropology of the Arts: A Reader*, London: Bloomsbury Academic, 2017.

17 Bateson, 1967, "Style, Grace, and Information in Primitive Art," in *STEPS*, pp.137–138.

Indies, and Western artists like Walter Spies and Rudolf Bonnet made their homes there to form a small community. Seeing the European artists at work, some of the young indigenous people began to draw so-called Western-style pictures from the early 1930s. The resident European artists taught their Balinese neighbors to paint, lent them materials, and helped sell the pictures to other European visitors, which increased the number of Balinese 'painters.' Mostly peasants, the indigenous painters were daring enough to go beyond the scope of traditional art forms made as elements in rituals, unlike their Western counterparts made to stand alone for appreciation. Although reflecting the Western taste, however, they came to create a unique style by projecting their life and society into the painting. Arriving in Bali in 1936, Bateson and Mead were led to this newly emerging genre of Balinese paintings with the help of Spies who was conducting an ethnographic study of dance and drama there. They collected 1,300 paintings and related data.[18]

The painting Bateson analyzed depicts a cremation procession of the traditional Balinese funeral taking place in a courtyard. With its background filled densely with foliage, the lower half of the picture looks turbulent by active male figures moving in a procession to form swirling composition upwards, while the upper half, in contrast, is serene and steady featuring perfectly balanced women with offerings on their heads. Also the enormous cremation tower with two elephant heads at the base, carried by man through a narrow passageway, makes a sexual allusion to a phallus passing through a vagina. According to Bateson, the picture is not about any specific one of these, not about only a cremation ritual, only a sexual connotation, or only gender roles. The leaf patterns portrayed freely but practised quite precisely in the background, embrace seamlessly serenity on the top and turbulence on the bottom, and the event's gaiety and the funeral's etiquette. The value of this work of art consists in the fact that all their relationships are woven finely into the picture, Bateson elucidates. His emphasis is placed on the profundity of art that is all about relationship itself, not any identifiable

18 Bateson and Mead did not develop this collected materials into further research, and anthropologist Hildred Geertz carried out a follow-up study. Hildred Geertz, *Images of Power: Balinese Paintings Made for Gregory Bateson and Margaret Mead*, Hawaii: University of Hawaii Press, 1994, pp.5–24.

relata, whose information is coded in style, material, composition, rhythm and skill. Moreover, in Balinese paintings which, under the cross-influences of traditional and European art forms, throw light on different ways of art communication in each society and also represent various individual stories and surroundings of painters, Bateson found out the 'meta-ness' of art. Taking on self-reflexivity that illuminates the context of communication ecology which art itself is part of, a work of art can signify content and simultaneously comment on that content and the conditions of its transmission in the very act of transmission.[19] The act of moving between different dimensions present in a communication system and thereby disclosing each dimension's frame, art for Bateson is a highly creative field of human communication, i.e., a form of communication that has a function of meta-communication embedded. He elevated art to the same level as epistemology and psychiatry.[20]

Distorted and Dissolved:
Distance between the Self and the World

Another interesting part in *Style, Grace, and Information in Primitive Art* is his investigation of "algorithms of the heart."[21] Bringing up a quotation, "The heart has its reasons which the reason does not at all perceive," from Blaise Pascal, Bateson postulates that the unconscious mind is coded like the conscious language but in a very different manner, on its own detailed and complicated algorithms, which could be only accessible in "dreams, art, poetry, religion, intoxication, and the like." He argues that art as a special means of communication gains deep significance to emancipate you from a vicious circle caused by linear and conscious purposes that are "necessarily pathogenic and destructive of life" in that "life depends upon interlocking circuits of contingency, while consciousness can see only such short arcs of such circuits as human purpose may direct." We need to be aided by art to bring us back into touch with a total circuit of the mind, namely, communication ecology. This is the relationality between art and the mind that Bateson advances in a

19 William Kaizen, *Against Immediacy: Video Art and Media Populism*, Hanover, New Hampshire: Dartmouth College Press, 2016, pp.143–144.

20 Ruesch & Bateson, op.cit., p.224.
21 Bateson, 1967, op.cit., pp.138–144.

cybernetic way.

To create and perceive art, which fuses different levels of the mind, is a realm to experience the whole, holistic self. In this regard, Bateson noted the homogeneity between art and hallucination. He had already been preoccupied with the mind issues at the intersection of artistic and pathological states, which is shown in Bateson and Mead's ethnographic film *Trance and Dance in Bali* shot in the 1930s and released in 1952. The Balinese possession ritual recorded in this film has a scene in which performers go violently into the ecstatic state, are thrust to the verge of stabbing themselves with daggers, and then regain their consciousness with holy water and incense. In Bateson's scrutiny, the symptom that would have been discounted as schizophrenic was regarded in Bali as even sacred has something to do with the Balinese view of the world as 'plateau': you should constantly rethinks any inclination and orientation toward a climax, a culmination, or an external endpoint, so that your body and mind form a continuous, self-vibrating region of intensities, that is, a plateau. Bateson discovered the plateau sensibility of Balinese people in the trance performance.[22] The sensuous choreography of bodily movements and patterns revealing human perception and emotion blurs boundaries between the individual and the collective, between the observer and the participant, and between the flow of reality and its temporary halt for critical reflection upon it, which is a trance-like state, which is what art seeks to achieve.

The uncharted mental state was of research interest to those of the Macy conferences, too, and there were accordingly cultural and artistic experiments using drugs. In pace with the countercultural movements of psychedelic art and new age art leading then lawful LSD experiments, Bateson also brought back his previous anthropological works including Balinese trance dance into the research context of mental metamorphosis like mediation, hypnosis, and schizophrenia, and paid attention to the dimensions of the mind that LSD called into being. He introduced beat poet Ginsberg to an acid trip, and also tested himself with LSD, the experience of which

22 Bateson, 1949, "Bali: The Value System of a Steady State," in *STEPS*, pp.112–113. This also inspired Deleuze and Guattari's notion of plateau. Gilles Deleuze & Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, Brian Massumi, trans., Minneapolis: University of Minnesota Press, 1987, p.158.

he described as follows: "under LSD, I have experienced, as have many others, the disappearance of the division between self and the music to which I was listening. The perceiver and the thing perceived become strangely united into a single entity. This state is surely more correct than the state in which it seems that "I hear the music.""[23] Intriguingly, Paik often mentions ecstasy or hallucination in his text, and one of them is *Video Synthesizer Plus*, published in *Radical Software*, which connects his experimental participatory television and the ecstatic state.[24] He sees "all the complicated contingencies in the art world" arising from the discrepancy between creators, audiences and critics, and asserts that the ecstatic mind caused by drug experiences helps you recover a sense of participation, uniting the three parties of creator, audience and critic into one. He goes on to claim that his participation TV and video synthesizer is one of the ways to "transplant this strange ontology of drug experience to safer and more authentic art medium, without transplanting the inherent danger of drug overdose." If associated with the aforementioned Bateson's articulation of the relationship between art, ecstasy and the mind, Paik's ontological analysis of drug experience comes up as a potent statement of media art from a perspective of cybernetics, media art that is truly participatory by fusing different dimensions of the mind.

Rigorously and Meticulously

David Joselit considers this text of Paik's to express political aspects of ecstasy.[25] The psychedelic visuality in the 1960s and 70s was characterized by the dissolution of objects into optical waves or pulsations in order to affect everyday perception, and according to Joselit, Paik's "dancing patterns" produced by the audience's interaction with his participation TV were a political analogue as well as a morphological one. Paik's pursuit of a possibility of media

23 Bateson, 1970, "Form, Substance, and Difference," in *STEPS*, p.469.

24 Prior to that, Paik wrote a kind of postscript to his first solo show *Exposition of Music – Electronic Television*, and dedicated one of its eight chapters to elaborating the word 'ecstasy.' Nam June Paik, "Afterlude to the Exposition of Experimental Television," in *fLuxus cc fiVeThReE* (Fluxus Newspaper No.4), June 1964.

25 David Joselit, *Feedback: Television Against Democracy*, Cambridge, MA: The MIT Press, pp.73-76, 81–83.

that enables genuine participation of audience, came to produce dancing patterns, by resituating derivatives generated parasitically from commercial television, in the museum for viewers to manipulate, which has the effect of externalizing the inner scanning dots of the television that resembles the acid tripper's state. Joselit argues that Paik's video synthesizer seizes upon and intervenes in normal broadcast signals, and aberrantly distorts and dismantles them, as the virus infects its host without completely overturning it, whose resulting images exhibit deviant behaviors of self-propagation and reproduction; and hence that Paik's tactics embody what Bateson renders as "self-correctiveness … in the direction of runaway."[26] Upon this, Mari Dumett makes a comment that Joselit's analysis is largely concerned with the surface effect of Paik's moving images that degrade video signals into malignant noises and give rise to system disruption. In her view, Paik, among the artists influenced by information and systems theory from the late 1960s onwards, was "one of the first, most articulate, and most outspoken proponents of applying cybernetic thinking to art." This is because Paik devoted himself to extending the idea of cybernetic negative feedback to the potential of art to work within a much wider range of those complex phenomena called 'systems,' including capitalist economy and postwar politics than broadcast media, thereby disrupting the very systems.[27] Paik's experimentation of malfunctioning televisions makes more visible the TV set and its system, rather than its content on the screen, so that it could be perceived as a statement, as a representing act; his works that emphasize mass media as an agent of mediating information, not merely a means of communication per se, are artistic meta-communication.[28] In other words, this is Paik's awareness and practice of what Bateson called the capacity and even responsibility of art to evoke a network of self-embedded

26 Ibid., pp.48–51. Bateson, 1969, "Pathologies of Epistemology," in *STEPS*, p.490.
27 Dumett coined a term "performing the system" for this mode of artistic practices to work the system through its very operations and protocols, making a critical comment on the system itself. Mari Dumett, "Nam June Paik: Art for Cybernated Life," in *Corporate Imaginations: Fluxus Strategies for Living*, Berkeley: University of California Press, 2017, pp.246–247.
28 O-ryong Lee, "The Art of Meta-Communication – A Conversation with Nam June Paik," in Toni Stooss and Thomas Kellein, eds., *Nam June Paik: Video Time, Video Space*, New York: H.N. Abrams, 1993, p.128.

communication by questioning the rules of information as a difference that makes a difference, and transforming noise into a new kind of information.

On the leaflet of Paik's solo show *Cybernetics, Art and Music* held in New School in 1965, the exhibition title was actually not put in a sequence of words, but took the form of a mathematical notation. It might be interpreted as meaning an integral calculus of the horizon of interrelations between cybernetics, art and music for the temporal section between the years 1961 and 1965. The catalog of another 1965 solo show *Nam June Paik: Electronic Art* in Bonino Gallery also contains a mathematical form, asking for the delta t value of 'cybernated art,' the delta x value of 'art for cybernated life,' the logarithm of this if its base is 'you' and its top is 'me,' the root of 'Marshall McLuhan' subtracted from the log of 'John Cage' and then divided by 'Norbert Wiener.'[4-1, 4-2] Corresponding to the historical sentiment of the time, Paik made so solid and rigorous endeavors to explore cybernetics and thread his way through emergent connections between humans and technology, that the mathematical notations cannot be set aside as mere nonsensical wordplays.[29] For example, in order to decode 'the logarithm of you and me,' let's summon an inequation between 'self' and 'me' that Bateson explicates in *The Cybernetics of "Self"*. Cybernetically speaking, 'my' relation to a system would be different from 'your' relation to it, but having relationality to the system must be always complementary, necessarily and logically. The whole process of thinking and acting happens as a system, and thus a delimited agent of the self by my mind, which is only a small part of the entire system, is false reification.[30] Bateson's theory that two or more persons or even things may together form a single system of the mind seems to support that Paik's diagrams of the relationship between you and me are none other than cybernetic.

[29] 1961 in the first formula is the year when Paik participated in Stockhausen's *Originale*, and its significance can be inferred from Paik's recollection. "I started a new life from November 1961. By starting a new life I mean that I stocked my whole library except those on TV technique into storage and locked it up. I read and practiced only electronics. In other words, I went back to the Spartan life of pre-college days ⋯ only physics and electronics." Nam June Paik, *Beuys Vox 1961–1968*, exh. cat., Seoul: Won Gallery/Hyundai Gallery, 1986, p.19.
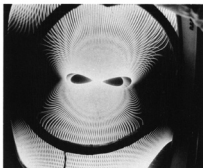
[30] Bateson, 1971, op.cit., pp.331–332.

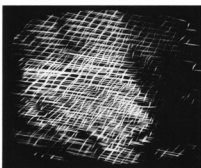[4-1] Nam June Paik: Electronic Art (New York: Galeria Bonino, 1965) Nam June Paik Art Center Archives

"Electronics" has been the catch-phrase since 1950, in science and society, in music and stock-market . . . why not in art?
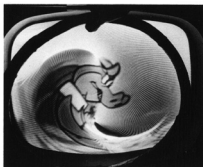
Some says, the condition of success is "only 20% NEW" . . .
Sorry, my thing is "95% NEW"

$\log_4$ Cage — $\frac{3.5}{\sqrt{\text{McLuhann}}} = \pm$ sorry
Norbert Wiener

electronic art $>$ pop art $>$ op art $\geqq$ pot art $>$ electronic art
(if a $\frac{1}{x}$ o)

As collage technic replaced oil paint, so cathode-ray tube will replace canvass

[4-2] Nam June Paik: Electronic Art (New York: Galeria Bonino, 1965) Nam June Paik Art Center Archives
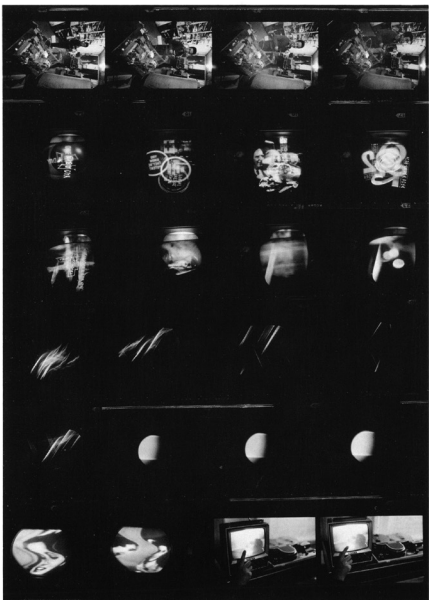
Studio.
la possibilité en soi . . . c'est la jeunesse en soi. So is my electronic art.
polyphonic painting à la Freud.

$$\int_{t=you}^{me} (\text{cybernated art}) \, dt - \text{art for cybernated life} = |\frac{3}{8}|_{dx}$$

electronic moon, a prelude to necklace-TV?
parameter—indeterminacy is under developed in art, although cage . . .
Video tape
minivac
a painting which exists only for one second in one hour.

To look for cybernetic points of contact in Paik's art is not confined to one specific line of his works. The exhibition *Cybernetics, Art and Music* already featured different types of what he might have thought of as cybernetic work: audience – participating experimental televisions, robot pieces like *Robot K–456*, *T–7*, *Miss Sarah*, performances by artists from different fields, including Charlotte Moorman's *Pop Sonata*, and installations of *Zen Boxes* and *Zen Cans*. Fundamentally, Paik foresaw that cybernetics would give birth to new components in art, such as programmed objects, audience interaction, self-organizing installation, and also would offer a common ground valid for different artistic genres to become an intermedia platform in which visual artists, musicians, dancers and poets could work together. This is an anticipation of intermedia grammar and vocabulary based on the transdisciplinarity of cybernetics, which could lay out and act out conceptual art, performance art, sound art, and video art in a single framework. Paik's video art and its moving images are also imbricated with Bateson's theoretical concerns. Take as example *Guadalcanal Requiem* (1976) that looks like an ethnographic film at first glance.[31] His filmic aesthetic shows how he tried to fuse all the minds, those of perpetrators and victims of the war, natives and outsiders of the island, artists and spectators, and human beings and natural environments; and at the same time, he intended to pick up certain conflicts of the minds and to unlock unintended noise coming out of the feedback loop of different actors including the artist himself, all in different standpoints from each other. In a program booklet of the premiere of *Guadalcanal Requiem*, he again put "Nostalgia is an extended feedback," another mathematical-looking proposition, to

31 This film was added to the 1976 program in a section of avant-garde experimental films, as part of visual anthropology conferences and film festivals organized by anthropologist Jay Ruby at Temple University from the late 1960s. The screening included artists Juan Downey, Woody & Stenia Vasulka as well as Paik. Jay Ruby, "Temple University's Conferences on Visual Anthropology: A First Person, Clearly Biased Report on an Experiment," in Aida Vallejo & María-Paz Peirano, eds., *Film Festivals and Anthropology*, New Castle upon Tyne: Cambridge Scholars Publishing, 2017, p.152. For more articles on *Guadalcanal Requiem*, see: Sangae Park, "Guadalcanal Requiem: Video Tape Analysis," Seongeun Kim, "Nostalgia is an Extended Feedback: An Anthropologist's Some Thoughts," *NJP Reader*, No.3, 2012, pp.201-279.

imply that he enfolded in the film the mind as a cybernetic system, as a conjunctive that put into operation the complicated but connected world.

Poetic Belief

In a lecture delivered at Sacramento State College in 1966, Bateson chose the Treaty of Versailles as one of the two most historic events in the 20th century.[32] He explained that the nations concerned in the peace conference to end the WWI between Germany and the Allied Powers were economically too self-interested to prevent the deterioration of reciprocal trust and the demoralization of German politics, ending up with the outbreak of the WWII. Bateson gave an analogy that "The fathers have eaten bitter fruit and the children's teeth are set on edge," and pointed out how an attitudinal turning point in human history could have violent and complex aftereffects and run up to the tragedy and collapse of mankind. The second historic event for Bateson was cybernetics, because while the Treaty of Versailles made an attitudinal change, what cybernetics prompted is not only a change in attitude, but a question about the understanding of what an attitude is. He added that the cybernetic principles enabled ethics to be looked at as something to know "with rules and logics," not something to feel from pleading and preaching. According to Bateson, cybernetics is "the biggest bite out of the fruit of the Tree of Knowledge that mankind has taken in the last 2000 years. But most of such bites out of the apple have proved to be rather indigestible — usually for cybernetic reasons." Despite his keen awareness that there would be still unidentified dangers latent in cybernetics, he cherished a hope for cybernetics that there might be "the means of achieving a new and perhaps more human outlook, a means of changing our philosophy of control and a means of seeing our own follies in wider perspective."

Artistic practices as a catalyst for expanded mind, the very backbone of relatedness and connectedness of cybernetics, are the communication that signifies not only certain behaviors but also attitudes toward the behaviors, to reconstitute the consciousness

32 Bateson, 1966, "From Versailles to Cybernetics," in *STEPS*, pp.477–485.

through which the aesthetic experience could manifest itself on a political level. For this reason, those in the vanguard of countercultural movements in the mid−20th century, articulated their experiences of irrationalities and disorderliness onto the constellation of cybernetics. All these traits are the basis of Paik's art. The artistic medium for him was neither television nor video but communication itself, which was always to imagine a better future, not in nebulous generalized terms, but with a gamut of emotions and sensations about particularized realities, namely, with the lyrical sensibility of minds. We are living in a world of crisis where any conceivable political idea of togetherness is cynically dismissed and it is more likely to provoke confrontation by constant 'othering'; in a world of raging globalization where, paradoxically, the increase of the minds blocked and closed permanently is accelerated. To us here and now, Bateson seems to suggest that Paik who often chanted openness like poetic verses, is not merely a utopian idealist of the bygone era. Not at all. "Art is a part of man's quest for grace; sometimes his ecstasy in partial success, sometimes his rage and agony at failure."[33]

33 Bateson, 1967, op.cit., p.129.