

## **“And Follow It”. Straight Lines and Infrastructural Sensibilities**

**Ina Blom**

In this essay, I present La Monte Young’s groundbreaking *Composition 1960 #10* (Draw A Straight Line And Follow It), and the various permutations it engendered, across media and contexts, as a turning point in the longer history of straight lines in modern art and their relation to wider infrastructural conditions and changes. My argument is that Young’s work introduces a new and distinct form of infrastructural sensibility that may ultimately provide some points toward an archeology of a contemporaneity oriented around sensorial synchronization or alignment

**Essay slated for publication in *Critical Inquiry*, Summer Issue, 2019.  
Do not share or quote.**

## “And Follow It”. Straight Lines and Infrastructural Sensibilities Ina Blom

Lines are always expressive of . . . *the way things are going*.  
John Ruskin, *The Elements of Drawing*<sup>1</sup>

The human hand cannot draw a straight line, John Ruskin claimed. No matter how well trained, it will inevitably produce curvature or a variety of direction.<sup>2</sup> A century later, his claim seemed to underpin La Monte Young’s musically wayward *Composition 1960 #10*, which simply consists of the instruction “Draw a straight line and follow it”. Young’s earliest performances of this work in 1961 show his awareness of a straight line’s implicit challenge for human bodies. Like a good construction worker, he used plumb lines and yardsticks to make the lines, which he drew with chalk directly on the floor, as straight as possible, repeating the exacting and time-consuming procedure over and over again.<sup>3</sup> If the work called for drawing, his own hand was clearly not up to the task.

The recourse to technical aids may of course also have served to indicate that “drawing” here was associated less with the work of the hand than with techno-mathematical operations, represented by the electronic media that were invading artistic practice around 1960. In fact, a number of the new technologies foregrounded the question of nonhuman drawing skills: the 1968 *Cybernetic Serendipity* exhibition in London sums up a decade’s development of computer-driven drawing machines. There was Ivan Moscovich’s *Pendulum Harmonograph*, which produced stunning Lissajous figures, or Desmond Paul Henry’s *Drawing Computer*, a nonprogrammable, modified mechanical analog computer whose visual output was based on a pure mechanics of chance. And with the revolutionary graphical user interface of Ivan Sutherland’s 1961 *Sketchpad* program, even the somewhat humanoid drawing arms of these and other 1950s and ’60s computer pen plotters seemed destined for extinction. Yet, even if Young’s *Composition 1960 #10* was “unambiguous enough to be executed by a machine,” it was only peripherally in dialogue with the new world of

---

<sup>1</sup> John Ruskin, *The Elements of Drawing; In Three Letters to Beginners* (New York, 1858), p. 92.

<sup>2</sup> See *ibid.*, p. 35.

<sup>3</sup> The procedure is described in detail in a 1961 letter from Young to David Tudor (undated), available at the Getty Research Institute; see David Tudor Papers, Box 61, Folder 2. The first performance took place at Harvard University in 1961, the second and third during the concert series that Young organized at Yoko Ono’s Chambers Street loft in New York between December 1960 and June 1961. This is the one Young describes. I am grateful to Ted Gordon for sharing the relevant parts of the Tudor papers with me.

computer graphics.<sup>4</sup> The drawing of a straight line that was also *to be followed*, indefinitely, actually had little to do with creating figures or images. Emerging from within Young's musical aesthetics, it was more specifically invested in exploring imperceptible continuities between bodies and new media technologies. It was geared toward direct sensorial alignment and modulation, toward putting the senses *to work* in new and radical ways.

Of course, a line drawn on the floor (with or without technical aids) does not exactly scream new media. In fact, it does not say much at all. It is essentially uninteresting, barely worthy of attention. Even so, Young's straight line was paradigmatic, generative of a body of equally unimpressive work by a number of artists, productions that seemed to exist in some undefined realm *beyond* emphatic media and their various ways of *drawing* attention (whether through media-specific or multimedial forms or devices). Sometimes tentatively named *intermedia*, sometimes described through terms such as *events* or *boredom*, the works accumulating around the new straight line shared what perhaps can be described as an infrastructural sensibility. Of course, the mundane, withdrawing qualities of the works might already signal some sort of vague affinity for the infrastructural systems of late modernity.<sup>5</sup> But infrastructural sensibility, here, actually implies various forms of bodily association with the electronic network technologies that were both emergent tools of artistic practice and key to profound social, economic, and political changes. For in this aesthetic context, electronic networks were above all understood and approached *as* sensing systems, affordances whose radical extension of mathematical rationality into sensorial realms might generate limit modes of bodily existence. The important point, however, is that *Composition 1960 #10* and associated works do not articulate such existence in terms of new artistic form or through imaginary figures such as the cyborg (another 1960 concept).<sup>6</sup> A strongly antiformalist, concretist impulse, oriented around continuous performance, seems to have produced a different type of response. Operating, like much infrastructure, at the level of the rarely seen and barely perceived, such instances of infrastructural sensibility emerged in various types

---

<sup>4</sup> Florian Cramer "Concepts, Notations, Software, Art," 23 Mar. 2002, [www.netzliteratur.net/cramer/concepts\\_notations\\_software\\_art.html](http://www.netzliteratur.net/cramer/concepts_notations_software_art.html). Cramer sees Young's work as an early example of noncomputer-based software art, given that concept notation and execution is of a piece. However, his analysis depends on seeing Young's work as concept art (as defined by his friend Henry Flynt in 1961)—a perspective that neglects the strongly sensorial and emotional dimensions in Young's work.

<sup>5</sup> As John Durham Peter notes, "withdrawal is [infrastructure's] *modus operandi*," and what he calls the "doctrine of *infrastructuralism*" implies a fascination with the mundane, basic, boring, and behind the scenes activity: "it is a doctrine of environments and small differences" (John Durham Peters, *The Marvelous Clouds: Toward a Philosophy of Elemental Media* [Chicago, 2015], pp. 34, 33).

<sup>6</sup> The term cyborg was introduced in 1960 by Manfred Clynes and Nathan S. Kline; see Alexis C. Madrigal, "The Man Who First Said 'Cyborg,' 50 Years Later," *The Atlantic*, 30 Sept. 2010, [www.theatlantic.com/technology/archive/2010/09/the-man-who-first-said-cyborg-50-years-later/63821/](http://www.theatlantic.com/technology/archive/2010/09/the-man-who-first-said-cyborg-50-years-later/63821/)

of coupling with technologies of sensing—examples, perhaps, of the practical abstraction that Alberto Toscano sees as the mark of a new topological culture.<sup>7</sup>

If anything, recent infrastructure theory is marked by topological approaches that might support this perspective. In 1963, Nam June Paik—at the time a composer of electronic music with close ties to Young—launched a project for a postal-style distribution network that would foreground a musical *when* rather than the musical *what* that dominated classical Western music theory. It is an idea that echoes in Susan Leigh Star and Karen Ruhleder’s 1996 emphasis on the relational temporalities of infrastructures—the infrastructural *when*—over analyses of discrete and transparent technical substrates.<sup>8</sup> Extending their work, Lauren Berlant has defined infrastructure as that which “binds us to the world in movement and keeps the world practically bound to itself,” in contrast to structure, which merely organizes transformation. Hence, infrastructures may be understood in ecological terms as “the movement or patterning of social form” or “the living mediation of what organizes life.”<sup>9</sup> They can, in other words, be studied only in terms of their emergent realities, the new spatiotemporal continuities they produce by connecting that which was separate while marking differences *as* differences. The growing interest in infrastructure and infrastructure theory may in fact support the claim that culture itself is becoming topological. According to Celia Lury, Luciana Parisi, and Tiziana Terranova, a shift has taken place toward a form of ordering marked by the continuous deformation or production of new social surfaces. In this order, change is no longer a temporary perturbation, exceptional and externally produced, but “constant, normal and immanent.”<sup>10</sup>

Interestingly, their text starts out by contrasting a new topological rationality marked by a hyper-pervasive mathematization of anything and everything with Sigmund Krakauer’s famous description of the way in which the cultural forms of mass-age modernity obey a Euclidian logic of elementary components and linear systems.<sup>11</sup> To follow La Monte Young’s straight line is notably also to be involved in a cultural-mathematical logic that differs from the linearity at work in Krakauer’s mass ornament and the series of deindividualized chorus-line bodies. For all its apparent rigidity, Young’s line marks a break with the geometrical forms and grid structures of early twentieth-century art and their ambivalent mediations of modern cityscapes and industrial technologies. Yet it must also be distinguished from the genetic

---

<sup>7</sup> See Celia Lury, Luciana Parisi, and Tiziana Terranova, “Introduction: The Becoming Topological of Culture,” *Theory, Culture, and Society* 29 (July 2012): 3–35.

<sup>8</sup> See Susan Leigh Star and Karen Ruhleder, “Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces,” *Information Systems Research* 7 (Mar. 1996): III–34. See also Nam June Paik, *The Monthly Review of the University for Avant-Garde Hinduism! (Postmusic)* (1963), [www.moma.org/collection/works/127508](http://www.moma.org/collection/works/127508)

<sup>9</sup> Lauren Berlant, “The Commons: Infrastructures for Troubling Times,” *Environment and Planning D: Society and Space* 34, no. 3 (2016): 394, 393.

<sup>10</sup> Lury, Parisi, and Terranova, “Introduction,” p. 4.

<sup>11</sup> See *ibid.*

line in Paul Klee's work—the autonomous, freely meandering drawn line that goes “on a walk” in a territory of its own making.<sup>12</sup> Both have topological dimensions, but the infrastructural sensibility of *Composition 1960 #10* provides a different focus. Where Klee's line invents a new plane of existence, Young's straight line provokes questions concerning the unprecedented emphasis on direct sensorial access that marks much twentieth-century art.<sup>13</sup> Promising unbroken continuity, its specific form of practical abstraction gives a new twist to the story of the relation between modernist art and psychophysics—and, along with this, a new take on the sensory present that is at the heart of this relation.

## 2

On the face of it, Ruskin was right: the straight line seems to exclude the body. Modernity, as Tim Ingold has pointed out, privileges the straight line—setting it apart from all other possible lines to the extent that it comes to connote something akin to a moral condition—because the straight line is associated with rational scientific thought and behavior, a capacity for *thinking* that sets humans apart from animals.<sup>14</sup> With this in mind, it is frankly fascinating to read Jugendstil architect August Endell's celebration of the straight line in “The Beauty of Form and Decorative Art”. For in this 1897 text he is not concerned with rational thought but with what he refers to as *the immediate power of form upon the mind*—that is, the ability of forms to produce instant feeling or empathy, unhampered by anthropomorphic mediation (appeal to meaning, narrative, historical memory, and so on).<sup>15</sup> At the outset, Endell's own design practice may have been heavily centered on the capacity of *curving* lines to construct emotion, as seen for instance in his *Atelier Elvira* in Munich; on the ceilings of the Wolzogen Theatre in Berlin he also used pointillistic surface patterns to directly stimulate the neuronal apparatus of people entering the room, to, so to speak, activate the body's expressive muscles. Yet in “The Beauty of Form” it is above all the straight line—the line that always looks the same, that always retains the same direction in our field of vision—that is said to have such psychophysiological power. The line that the human hand cannot draw is, in other words, not just associated with mathematics and scientific reason but also with aesthetics and bodily sensation.

---

<sup>12</sup> Paul Klee, *Pedagogical Sketchbook* (New York, 1972), p. 16.

<sup>13</sup> Topological thinking informs much postwar art. It played a significant role in early video art and also in the work of artists like Stanley Brouwn and Dan Graham; see Ina Blom, *The Autobiography of Video: The Life and Times of a Memory Technology* (New York, 2016), and Eric de Bruyn, “Topological Pathways of Post-Minimalism,” *Grey Room* 25 (Fall 2006): 32–63. De Bruyn touches briefly on Graham's interest in information technologies and network structures, but questions of networked sensing and the relation between art, technology and psychophysics falls beyond the purview of the text.

<sup>14</sup> See Tim Ingold, *Lines* (New York, 2016), pp. 152–55.

<sup>15</sup> See August Endell, “The Beauty of Form and Decorative Art”, 1897–8, in *Form and Function. A Sourcebook of the History of Architecture and Design, 1890–1939*, ed. Tim and Charlotte Benton (London, 1975), pp. 20–26.

This, according to Endell, is due to its ability to evoke speed—the basic sense of movement that is the key to all emotion (being *moved*). Following a curved line is a slow process because there is always something new to grasp. A curved line demands attention. The straighter and narrower the line, the speedier it is and the more direct its mobilization of affect or stimulation of the nervous system. In contrast to the curved line, the straight line seems to completely bypass perception and cognition and appeal directly to the senses.

However, Endell’s perspective is only apparently at odds with Ingold’s emphasis on the scientific rationality of the straight lines in modernity. In fact, Endell’s claim (in the same essay) that *all sensation are only tempo and tension* and that there is *a certain tempo for every emotion and a corresponding degree of exertion* is in fact a “metrics of experience” that has features in common with Gabriel Tarde’s quantitative approach to psychological phenomena.<sup>16</sup> In *Monadology and Sociology* (1893), Tarde argues that the movements of matter and states of mind (or sensations) do not belong to two different realms of explanation—one quantitative and the other qualitative—but are essentially of a piece. His point is that the key concepts for explaining our psychological and sensorial relation to the world—belief and desire—are terms that we consistently use in terms of *less or more*, and therefore they show the eminently quantifiable and also strictly technical operations that regulate all mental phenomena.<sup>17</sup> Endell’s and Tarde’s perspectives both resonate with late nineteenth-century interest in physiological aesthetics—inspired, among other things, by Gustav Theodor Fechner’s science of psychophysics, the study of how matter relates to mind, measurable physical stimuli to sense experience. As Robert Brain has shown, this encounter between science and aesthetics generated a series of new recording instruments. Language could not account for the scientific modulation of the senses; only a new type of graphism, or technologized drawing, could express pulsatile physiological phenomena, the chancing somatic states of bodies in process. Significantly, such graphism was understood to be close to musical notation, with a horizontal coordinate representing time and a vertical axis showing variation in intensity.<sup>18</sup>

These early associations between techno-mathematical and affective phenomena may serve to situate *Composition 1960 #10*: despite the more than fifty years separating them, Endell and Young’s straight lines may be instances of the same emergent order. The straight line, traditionally a rare occurrence in fine art, was of course *the* paradigmatic figure of a new world or telegraph lines,

---

<sup>16</sup> See Zeynep Çelik Alexander, “Metrics of Experience: August Endell’s Phenomenology of Architecture,” *Grey Room* 40 (Summer 2010): 50–83. Zeynep Çelik Alexander gives a rich account of Endell’s physiological aesthetics but does not discuss his emphasis on the particular sensorial efficacy of straight lines.

<sup>17</sup> See Gabriel Tarde, *Monadology and Sociology*, trans. and ed. Theo Lorenc (Melbourne, 2012), pp. 16–21.

<sup>18</sup> See Robert Michael Brain, *The Pulse of Modernism: Physiological Aesthetics in Fin-de-Siècle Europe* (Seattle, 2015), pp. 5–36.

railroads, conveyor belts and technical diagrams. But Young's work has little in common with iconic approaches to industrial modernity, however abstract. Moreover, he did not just "deploy" straight lines in his work but raised the very question of the straight line to a principle in a way few other artists have done. Like the single vertical straight lines that decorate the courtyard facades of Endell's Hackesche Höfe buildings in Berlin (liberated from grids and other geometric figures), Young's line operates as if on its own, centered on its proper efficacy. And the terms of Endell's distinction between straight and curving lines underscores why its efficacy served a different purpose than the autonomous mobility of Klee's line. As Erich Hörl suggests, Klee's line is "cosmographic," involved in a general process of worldmaking.<sup>19</sup> In contrast, Endell's discussion of lines is more specifically invested in the modern discourse of perception and attention control; if he privileges the straight line, it is because its speedy immediacy aligns it with the speeds of sensation, bypassing the problems of conscious attention. This is also the specific discursive framework of Young's straight-line composition. If physiological aesthetics had long been eclipsed by various types of artistic formalism, it returned around 1960 as a more subterranean artistic strategy, alongside the emergence of electronic network technologies.

This was the context in which linear continuity was promoted among other things as part of a provocative emphasis on musical causality and determinacy, an apparent revolt against John Cage's aesthetics of chance-based musical heterogeneity. But Young's early experiments with single sustained sounds—from the 1958 *Trio for Strings* to *Composition 1960 # 7*, in which a simple fifth is "to be held for a long time"—are less inversions of Cage than a veritable displacement of focus.<sup>20</sup> Sounds, here, are no longer instances of an open-ended, multitudinous world, poetically described by Roland Barthes as a "shimmering of signifiers."<sup>21</sup> They would instead be defined in terms of infrastructural components of sensing: the physiology of the individual ear and the neuronal make-up of the individual brain. And for this purpose they were approached as objects of ultrarational determinacy and mathematical precision—as frequencies, that is. But as mathematical objects, sounds also became universal givens rather than as functions of human hearing. Young even suggested that they might be independent beings, with sensing capacities of their own. Confronted with complaints about the silence of one of his compositions, he asked whether sounds should not also be able to hear humans.<sup>22</sup> If the human body had a place in this scenario it was only to the extent that it connected with a realm of frequencies affected by other frequencies, was part of a mathematically defined network of sensing.

---

<sup>19</sup> See Erich Hörl, "Variations on Klee's Cosmographic Method," in *Ray*, vol. 4 of *Textures of the Anthropocene*, ed. Katrin Klingan et al. (Cambridge, Mass., 2015), pp. 180–92.

<sup>20</sup> See [www.moma.org/collection/works/127629](http://www.moma.org/collection/works/127629)

<sup>21</sup> Roland Barthes, "Listening," in *The Responsibility of Forms: Critical Essays on Music, Art, and Representation*, trans. Richard Howard (New York, 1985), p. 259.

<sup>22</sup> La Monte Young, *Selected Writings* (2004), p. 68

The speed with which the promotion of linear continuity and causality caught on in neo-avant-garde circles perhaps says something about a growing alignment with new infrastructural realities.<sup>23</sup> Sometime in the early sixties, Arthur (Addi) Köpcke wrote that the only relevant artistic response to Kazimir Malevich's black square—the über-icon of concretism—was a vertical line. And following this principle of linearity, he used the command “continue!” as the organizing principle of large sections of his work. Around this time, Young's straight line also started to migrate indiscriminately between technologies, formats, and context, scooping up film, sound, television, performance, word-based scores, and behavioral patterns along the way. There was Nam June Paik's 1962 *Zen for Head*, in which he dipped his hair in ink in order to paint a straight line on a long paper scroll on the floor, as well as his 1963 *Zen for TV*, where he had tweaked the internal mechanism of a TV apparatus so that the screen would only show a vertical straight line. Or Jackson Mac Low's 1961 script for a movie in which a still camera films a tree for an indefinite time span; the resulting film would simply be a continuous line of single image points providing little to no variation.<sup>24</sup> In fact, a number of the short film works commissioned in 1966 by Fluxus impresario George Maciunas seem to conflate film with straight lines and issues of measure, speed, and duration. His own contribution presents film as a ruler (according to Ruskin the only means by which humans can draw straight lines)—10 feet or 120 inches of celluloid, corresponding to a mere blip of viewing time. Film was in other words tantamount to sheer metrics and barely perceptible duration. In keeping with this perspective, Eric Andersen's *Opus 74, Version 2* (1966) was simply an arrangement of seventy-four individual frames subjected to speed modulation. The film could be projected—or *drawn*—at any speed whatsoever; at the highest speed it would just become a single grey line.<sup>25</sup> But the conflation of film with straight lines was often enacted at the level of imagery as well. For these works rarely present a cinematographic space or world. There is rarely emphasis on depth or shifting angles of vision; everything tends to take place on a shallow strip or surface, a narrow frieze where action unflinchingly moves ahead in real time. George Brecht's *Entrance to Exit* (1966) simply traced the distance from an entrance sign to an exit sign in a cinema space, passing by the silver screen itself. And Bob Watts *Trace #23* (1965) had the camera follow a hand tracing the horizontal straight white lines of a sports court, ending at the reclining body of a naked woman

Each of these works seem to align technical features with bodily realities. And if they tend to come across as at once banal, boring, and painful, it

---

<sup>23</sup> See my discussion of the Fluxus artists' displacement of Cagean aesthetics in Blom, “Boredom and Oblivion”, in *The Fluxus Reader*, ed. Ken Friedman (New York, 1998), pp. 63–90.

<sup>24</sup> The script for Mac Low's *Tree Movie* (1961) was first published in George Brecht and George Maciunas's *ccV TRE Fluxus Newspaper* in January 1964.

<sup>25</sup> As Eric Andersen explained to me in a 8 February 2018 email, the film was originally screened on an editing device that allowed the audience to determine the speed. Its inclusion in the Fluxfilm anthology precluded such speed modulation.



is perhaps because the bodies evoked here are defined through features that are at once smaller and larger than the more anthropomorphic presences in early performance and body art. Endell already thought in terms of a dissipated architectural subject whose consciousness does not exist prior to its interactions with its surroundings; early Fluxus works equally seem to suggest bodily existence at the intersection of multiple scales. Postwar cybernetic culture and its theories of body/machine coupling may have reinforced fantasies about such scalable modes of bodily existence, as if in preparation for the way in which today's electronic infrastructures facilitate flexible interaction between macroscale and microscale elements, such as (for instance) fiber optical networks, computer protocols, and subconscious user habits.<sup>26</sup>

Within this general framework, however, the question of perception and attention control constantly surfaces. Paul Sharits's *Word Movie* (1966), a flicker film informed by W. Grey Walter 1940s research on the psychedelic effects of stroboscopic light, is based on a rhythmic alternation between darker and lighter frames, and frames of different color.<sup>27</sup> But more specifically, it presents the straight line of Western left-to-right reading as a hallucinatory production of visual/aural associations, exposing the inevitable corporeal processing of any written text. The long straight lines of print technologies are now imbued with speed, evoking not just the sensorial effectiveness of the straight line but also the troubled issue of the speeds of sensation, an important issue in the modern efforts to regulate and control perception and attention.<sup>28</sup> Similar intuitions underpin the reading/work pieces of Addi Köpcke: They foreground the linearity and continuity of reading as a technical and even networked device—reflexively presented in the formulation “*thelinkwhichcontinues*.”<sup>29</sup> Once again, reading is defined in terms of constant interruption and speedy linear continuity; sensory stimuli only. The continuity of the lines is underscored precisely through the many skips, jumps, and repetitions they produce. On the one hand the work seems to recapture Emile Javal's late 1870's discovery that the eye does not move in a linear fashion across the page but traverses it a saccadic manner, mechanically recaptured in the scanning movement of Paul Nipkow's 1898 electrical telescope (also known as the invention that made television possible).<sup>30</sup> On the other hand, these lines are essentially the lived reality of the perennially bored, distracted, or exhausted subject of information overflow, for whom the effort to follow a text produces nothing but

---

<sup>26</sup> The concept of infrastructural operation across scales is discussed in the introduction to *Signal Traffic: Critical Studies of Media Infrastructures*, ed. Lisa Parks and Nicole Starosielski (Urbana, Ill., 2015).

<sup>27</sup> See W. Grey Walter, *The Living Brain* (New York, 1963).

<sup>28</sup> See Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge, Mass., 2001).

<sup>29</sup> Addi Köpcke, from *Continue*, boxed edition of works on paper 1958-64 (Berlin: Edition René Block, 1972)

<sup>30</sup> See Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design* (Chicago, 2017), pp. 84-87.

hallucinatory flickering. The difficulties of *drawing* a line is one thing, but—as both Endell and Young knew—the questions of *following* it is just as important.

### 3

In fact, Young's call for drawing cannot be understood without taking seriously the question of following also indicated in his instruction/score. In a 1961 letter to composer and pianist David Tudor, Young gives a detailed description of the work's first performances and the coolly technical zeal applied in the execution. One detail in particular is worth noting: Young made sure that, moving along the floor, the person drawing would take care to always stay *behind* the piece of chalk, so as to automatically *follow* the line. This, Young asserted, was how he originally thought of the piece: "drawing and following taking place more or less in the same act."<sup>31</sup> A curious conflation of movements is implied in this idea, complicating the more obvious ways in which lines may suggest "following." When discussing the straight lines of modernity and the specific realities they produce, Tim Ingold identified two paradigmatic types of line functions, notably guidelines and plotlines. Guidelines are typically the hidden or half-visible ruler lines that your hand follows so as to keep handwriting on the straight or narrow; from a wider cultural perspective they serve to produce the blank surfaces of modernity on which any inscription is possible. In contrast, plotlines are the diagrammatic lines that are drawn up between two or more points or positions; they make up the assembly that is laid out on the blank surface prepared by the guidelines. Guidelines then function as the invisible foundation for a more visible action or narrative; in many ways they may be compared with all sorts of hidden infrastructures. In this analysis, musical scores hold a special position in the sense that they display *both* guidelines (the ruled staves that establish a space for the determination of pitch and tempo) *and* plotlines (the positioning of the notes and their interrelation, following the staves). The musical score displays both the general infrastructural framework and the specific plot or organization of materials that it supports.

However, the peculiar thing about Young's straight-line work—alternatively realized as a printed line on a card and a small flip booklet in which the instruction runs as a repeated and potentially animated line of text in the middle of each page—is that it collapses any meaningful distinction between guidelines and plotlines or between drawing and following.<sup>32</sup> The

---

<sup>31</sup> Young, Letter to David Tudor (undated, 1961), available at the Getty Research Institute; see David Tudor Papers, Box 61, Folder 2.

<sup>32</sup> The card with the printed straight line was named *Composition 1960 #9* and seen as a corollary to *Composition 1960 #10*. The booklet is entitled *LY 1961* and contains Young's *Compositions 1961*: in it the instruction "Draw a straight line and follow it" is realized as twenty-nine identical but individually dated compositions, one on each double page, stretching throughout the year 1961 at thirteen-day intervals. It was published by George Maciunas as a Fluxus edition in 1963 (New York).

straight line is all at once a neutral, blank foundation, filled with sheer possibility *and* the specific content of the composition. The act of straight-line drawing—a potentially infinite technological projection ahead—is of a piece with the body that follows it. They move, so to speak, at the same speed. *Composition 1960 #10* is therefore a work that does not just display an infrastructural framework but promotes infrastructural operability and bodily alignment all rolled into one.

In fact, a closer look at Young's investment in sonic continuity based on the determinacy of a single command, shows that bodies were relationally coupled with sound frequencies in a manner not unlike what we today discuss as user habits. Thanks to input from Tony Conrad, his mathematically educated musical collaborator in the Theatre of Eternal Music and the Dream Syndicate, the endless continuity of a single sound outlined in *Composition 1960 # 7* came to be oriented around the principle of just intonation—that is, on precise frequencies, often derived from prime numbers, rather than the relational properties of the sounds in the twelve-tone technique.<sup>33</sup> The investment in just intonation was rooted in ideas that evoked a desire for command and control. Overlooking the material instabilities of the instruments or machines that would produce prime number frequencies, Young presented just intonation as a tuning system that made *exact* repetition possible. Intervals from the system of rational numbers are (in principle) the only ones that can be repeatedly tuned exactly; hence they are the only intervals that have the potential to sound exactly the same on repeated hearing.<sup>34</sup> Forget about the well-trained ear and so-called perfect pitch. Here was, apparently, the perfect sonic corollary to the straight line that cannot possibly be drawn by the human hand. The exact repetition of sound matched the endless and exacting repetitions of line drawing in Young's early performances.<sup>35</sup>

In fact, Young's stated reason for choosing sounds that seemed to permit exact repeatability echoes Endell's argument for the straight line: Because such sounds would continuously trigger a specific set of the auditory neurons, they might transmit a periodic pattern of impulses that corresponds to a set of fixed points in the cerebral cortex. They would essentially *program* the brain for stronger emotional/affective impact, bypassing the demands for

---

<sup>33</sup> See Tony Conrad, "LYssophobia: On *Four Violins*," in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York, 2006), pp. 313–18. For an in-depth study of the relation between Young and Conrad, see Branden W. Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts After Cage* (Cambridge, Mass., 2011).

<sup>34</sup> See Kyle Gann, "The Outer Edge of Consonance: Snapshots from the Evolution of La Monte Young's Tuning Installations," in *Sound and Light: La Monte Young Marian Zazeela*, ed. William Duckworth and Richard Fleming (London, 1996), p. 162.

<sup>35</sup> According to Young's letter to Tudor, the lines were drawn, repeatedly, one on top of the other so that there was never more than one single line; see *ibid*. In a 1961 letter to Tudor, Cage reports that Young drew the line thirty times: the entire procedure took more than three hours on each of the two days he saw it performed; see John Cage, letter to David Tudor (undated, 1961), Getty Research Institute, David Tudor Papers, Box 61, Folder 2.

attentive perception. Exactly repeatable sound was in other words understood as a direct sensory modulator.<sup>36</sup> The encounter with the mathematical rationality of sound thus also bypassed the idea of a consistent rational self, opening up a mobile psychoacoustic realm that would combine fantasy and desire, alignment and habituation. It is not by chance that Young's most ambitious realization of this musical idea—an open public space on 275 Church Street in New York in which a single loud sound is played all day, every day—was named *Dream House*. The sound is literally a house or home, an environment that (like any home) produces and protects habits through endless repetition. If the question of habit becomes particularly pertinent in the age of electronic networks, it is, as Wendy Chun underscores, precisely because habit is not a function of stasis but of crises, that is, constant acts of connectivity or updating.<sup>37</sup> In fact, *Dream House* is all about such user habits; an electronically generated mathematical constant, the sound is simultaneously a constantly evolving function of the programming and reprogramming of individual visitor brains.

But such psychoacoustic network effects were reinforced by being associated with a wider set of infrastructural affordances as well. For the fundamental that Young used as the basis for this harmonic apparatus—7.5 Hz—is a downward transposition by three octaves of 60 Hz—the frequency at which the North American power grid operates.<sup>38</sup> The harmonic range and its emotion-modulating effects, should, in other words, always be aligned with the general hum of modern electrified environments (when performed in other parts of the world, the harmonic range of the work is adapted to the frequencies of the local grids). Young's own psyche was, by all appearances, already infrastructurally aligned. A self-mythologizing anecdote, repeated to numerous interviewers over the years, is his sonic childhood memory of the 60hz “humming of the power station next to us, the telephone poles and the motors.”<sup>39</sup>

[lb]

---

<sup>36</sup> See Young, “Notes on the Continuous Periodic Composite Sound Waveform Environment Realizations of ‘Map of 49s’ Dream the Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery,” in Young and Marian Zazeela, *Selected Writings* (2004), p. 8, [www.ubu.com/historical/young/young\\_selected.pdf](http://www.ubu.com/historical/young/young_selected.pdf). Young was not alone in promoting such ideas: French musicologist Alain Daniélou expressed more or less exactly the same ideas as La Monte Young regarding the use of exact sound for sensorial modulation and expansion: in fact, he states that “thought and sensation are probably mathematical operations” (Alain Daniélou, “Influence of Sound Phenomena on Human Consciousness,” trans. Paul Huebner and Ralph Metzner, *The Psychedelic Review* 7 [1966]: 22).

<sup>37</sup> See Wendy Hui Kyong Chun, *Updating to Remain the Same: Habitual New Media* (Cambridge, Mass., 2016), pp. 69–92.

<sup>38</sup> See Jeremy Grimshaw, *Draw a Straight Line and Follow It: The Music and Mysticism of La Monte Young*. (New York, 2011), p. 130.

<sup>39</sup> Young, interview by author, Oct. 1988. These memories have been presented in many previous and later texts and interviews.

At this point, it is worth recalling the historical reference point for guidelines and their infrastructural significance. According to Ingold, they derive from the technology of weaving (plotlines, in contrast, derive from land measuring). In the context of modern art, weaving is noted for the way in which it eradicates the distinction between image and material support—a fact that explains why many artists of the 1960s and early '70s described the super speedy and continuously drawn scan-lines of video technology as a form of weaving.<sup>40</sup> Just like Young's *Composition 1960 #10*, the video image was all infrastructure: all straight lines and speed. Paik, whose musically inflected work with TV technologies was mainly based on the manipulation of scan lines, saw his most sophisticated instrument for such work—the 1968 video synthesizer he created in collaboration with Shuya Abe—in terms that echo both Endell and Young. To work directly with the frequencies of video signals and scan processes was, in his view, to engage with a haptic feedback technology that could be used for direct neuronal stimulation, with all sorts of potentially brain-altering effects.<sup>41</sup> The body caught in the speedy straight lines of modernity was, once more, naturally given to measure and calculation as well as to the incalculable effects of continuous modulation. This might, in fact, be what is intuited in the strange conflation of drawing and following outlined in Young's work. The body would not come *after* the infrastructural framework of straight lines, adapting as best it could to a predetermined grid or axiomatic. But it would not come *before* it either, formatting infrastructure in squarely human terms. In this case, technological alignment, or following, meant that the body would literally *be* the movement of the straight line and the force it exerted. Aspects of this scenario seem to anticipate Derrida's much later discussion of the way in which confrontation with the most intimate forms of otherness (domestic animals, autobiographical writing) disturbs the very distinction between being and following, self-presence and self-tracing.<sup>42</sup> At the dawn of the cybernetic age, such questions may also have marked the increasing technologization of the sensory present and, with it, the emergence of a new and restless concept of social time.

#### 4

In the age of networked sensing, there is a term for what allows the body to *be* the movement of the straight line: *vectors*. A vector is the ultimate instance of a speedy straight line, expressing effectuating power and directionality.

---

<sup>40</sup> T'ai Smith demonstrated how the work of the women weavers at the Bauhaus broke with visual discourses based on the model of modern painting because the woven design is built in tandem with the physical matrix. The passive ground of painting turns into an active ground in weaving; see T'ai Smith *Bauhaus Weaving Theory: From Feminine Craft to Mode of Design* (Minneapolis, 2014).

<sup>41</sup> See the untitled 1966 text in Paik, *Videa 'n' Videology 1959–1973*, ed. Judson Rosebush. (Syracuse, N.Y., 1973), pp. [19–20].

<sup>42</sup> See Jacques Derrida, "The Animal That Therefore I Am (More to Follow)," *Critical Inquiry* 28 (Winter 2002): 369–418.

Vector figures were key to the introduction of so-called graphical notation in music. Earle Brown's revolutionary *December 1952* simply consists of a single square page on which a number of horizontal and vertical straight lines are distributed. Performers were to imagine a three-dimensional reality of potential movement: "right to left, back, forward, up, down and all points between."<sup>43</sup> Ten years later, the wild proliferation of straight vectoral lines in Toshi Ichiyanagi's *Kaiki for Koto for John Cage* (1960) and *Music For Piano # 7* (1961) seemed to indicate unrepresentable realms of speedy potential. But graphical notation had its limits; it was the *Sketchpad* computer program that in 1961 first allowed users to directly experience vectoral powers in electronic geometrical *drawing*. The mere indication of a direction on the screen surface with a light pen would automatically generate a dynamic line movement. To watch the early filmed *Sketchpad* demonstrations is therefore to see a straight line that seems to draw itself, instantly—simultaneous with, yet weirdly detached from, the movement of a human hand that seems to follow the forward movement of the line rather than actually drawing it. It is a demonstration that overturns normal right-handed drawing of straight horizontal lines, where the hand typically moves *ahead* of a line that so to speak follows from the hand movement. The agency of the human hand has changed—from being the source of action, its role is now that of enacting/following. The movement of the hand has turned into a form of alignment.

*Sketchpad* is generally known as a pioneering step in the development of so-called object oriented programming, a programming approach that privileges the human desire to engage with concrete, definable, objects (such as, for instance, the drawing of figures) rather than abstract logical/mathematical entities. It was, in other words, an instance of the more sophisticated forms of human/computer integration that emerged alongside the infrastructural sensibility in the field of art. There was, in particular, intensive technological investment in the question of common sense—to the extent that already in 1961 information science pioneer Mortimer Taube felt the need to publish a book debunking so-called common sense computing, or the still-controversial idea that computers could be used for nonnumerical purposes, such as learning and thinking.<sup>44</sup> The approach first surfaced with John McCarthy's effort to establish a logical and mathematical foundation for common sense reasoning, presented in a 1959 paper on his hypothetical "*advice taker*" program.<sup>45</sup> And Marvin Minsky's *Steps toward Artificial Intelligence* (1960) established common sense computing as a field dedicated to technically replicating the complexity and ambiguity of implicitly shared knowledge and experience so as to develop

---

<sup>43</sup> Earle Brown, "Notes, Thoughts and Assorted Material from Notebook; 1952 to 1953; Relevant to *Folio* Pieces such as 'Synergy' and 'December, 1952,' in *An Anthology of Chance Operations*, ed. Young and Jackson Mac Low (New York, 1963), pp. [15].

<sup>44</sup> See Mortimer Taube, *Computers and Common Sense: The Myth of Thinking Machines* (New York, 1961).

<sup>45</sup> John McCarthy, "Introduction," *Programs with Common Sense* (Stanford, Calif., 1959), [www-formal.stanford.edu/jmc/mcc59/mcc59.html](http://www-formal.stanford.edu/jmc/mcc59/mcc59.html)

forms of artificial intelligence that might realistically communicate with feeling, sensing humans.<sup>46</sup> The social-industrial legacy of this project can be seen in the contemporary quest to develop robots for the service sector; a 2009 paper describes the future shortage of human care workers as an “AI emergency,” to be met by technologies that have “physical knowledge of how objects behave, social knowledge of how people interact, sensory knowledge of how things look and taste, psychological knowledge about the way people think,” as well as the ability to “handle this knowledge, retrieve it when necessary, [and] learn from experience.”<sup>47</sup>

Artificial intelligence must in other words include affective forms of knowledge and behavior. And in so-called affective computing—a sub-discipline of common sense computing particularly geared towards behavioral ambiguity—a key method is to understand an emotional expression as a specific vector. The so-called continuous model in affective computing defines each facial expression as a “feature vector” in “face space.”<sup>48</sup> Affects are in other words treated *as* infrastructure—as embodied forms of mobility, speed, and connectivity. In fact, a reality in which a face is a mathematically defined space containing feature vectors can be seen in Mieko Shiomi’s *Disappearing Music for Face* (1966), another short Fluxus film commissioned by Maciunas. In this work, a narrow smiling mouth in tight close-up forms a relatively straight line that is horizontally aligned with the screen rectangle. The only action in the film is the almost imperceptibly slow movement of this mouth line: from a wide smile it contracts to the shorter dark line at the center of a closed mouth. The entire process takes ten minutes. Slow motion—an example of the time axis modulation that Friedrich Kittler saw as the key innovation of modern media—transforms the fleeting sign of changing emotional states into technically distended linear action. Shiomi’s speed-modulated smile then also appears as a somewhat chilling prediction of the administered smiles that would become the signature trait of service-industry optimization and the ever-shorter technical/affective feedback loops between service output, customer feelings, and career tracks. A smile, in this context, is less an expression than a mechanized leap into the near future, a preemptive capture of microscopic consequences viewed in terms of accumulated large-scale economic effects. [lb]

Technical investment in common sense was, however, not new. It was also key to late nineteenth-century interest in straight line drawing, if from a very different perspective. Molly Nesbit has described how the French school

---

<sup>46</sup> See Marvin Minsky, “Steps toward Artificial Intelligence,” *Proceedings of the IRE* 49 (Jan. 1961): 8–30.

<sup>47</sup> Erik Cambria et al., “Common Sense Computing: From the Society of Mind to Digital Intuition and Beyond,” in *Biometric ID Management and Multimodal Communication*, ed. Julian Fierrez et al. (Heidelberg, 2009), pp. 253.

<sup>48</sup> Aleix, and Shichuan Du, Martinez (2012). “A model of the perception of facial expressions of emotion by humans: Research overview and perspectives”. *The Journal of Machine Learning Research*. 13 (1): 1589–1608

system at the end of the nineteenth-century taught technical drawing in order to produce a new type of natural, rational subjects, exemplary participants in a technological modernity centered on engineering. Drawing, here, became the language of industry and the antithesis of art; students were taught that all things could be analytically reduced to straight lines. Straight lines would produce good common sense, a universally shared language *without* recourse to the body. They would not speak of emotions or expression; they had (as Nesbit puts it) no genres, no epics, no sarcasm, no tone, and needed *no past tense*. They were invested in the present of production only.

Still, the drama of Nesbit's book revolves around the sly artistic responses to this instance of modern reductionism and standardization, as seen in the subversive return of the excluded body *within* the quasi-industrial geometries of modernist art. Bodies were inscribed in the provocatively straight lines of cubist painting, for instance, and also asserted themselves in Marcel Duchamp's and Francis Picabia's erotically charged evocations of technical drawing. But in the work of Duchamp and Picabia this erotic dimension is not simply an inherent aspect of a new technologized art or aesthetics. It is approached as if from a certain distance. It is *conceptually* aligned with technical procedures that point in the direction of a new sort of instantaneity, also known as the productively elusive now time of the avant-garde work. And from this perspective, Young's infrastructural sensibility constitutes a veritable gear shift. For his straight-line drawing does not evoke an erotic body excluded in modern technocratic society. The body, here, is part and parcel of infrastructural topologies that both display *and* deploy such technical affordances. While they foreground bare-boned technicity, they also concretely depend on these affordances in order to enable an actual and continual construction of new realms of sensation and emotion, or new bodily vectors.

Such a project implies a different type of presentism than the one generally associated with a Duchampian avant-garde. Many have taken Duchamp's celebration of machinic automatism and instantaneity as signs of an underlying photographic logic. His emphasis on delays and impossibilities (delays in glass and *impossibilités du fer*) points to the split temporality of the photographic image, a perennially absent presence that has also been associated with messianic time and a melancholic relation to the future.<sup>49</sup> In sharp contrast, Young's presentism is that of microtemporal synchronization, based on subperceptual alignment with real-time machine processes. Recall Young's all-important emphasis on the way in which certain frequencies are more neuronally efficient than others and therefore also more emotionally conducive. And this present of synchronization is all the more intensely lived due to its insidiousness as well as its dynamic quality. Its grip on us is not based on external modes of coordination such as clock time or social rituals. While the power-time of capitalist industrialism universalized and standardized the

---

<sup>49</sup> See, for example, Rosalind E. Krauss, *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass., 1999), pp. 196–209.



measuring of time, displacing the world's variety of changing, context-dependent timescapes, the machine clocks at work in media and information machineries operate in a qualitatively different manner. They organize what Robert Hassan describes as “an open-ended spectrum of temporalities . . . measured from a picosecond (one trillionth of a second) upwards.”<sup>50</sup> In Dominique Janicaud's view they challenge, at a technical level, Henri Bergson's distinction between quantitative and qualitative (or durational) aspects of time.<sup>51</sup> Alignment with these types of machine time is, rather, a question of constant, yet discreet, innervation, and the idea that the body may be continually retuned or re-coordinated as a result of its engagement with machine processes. If anything, such presentism exemplifies the internalized continuity of change that Lury, Parisi, and Terranova associate with topological culture—also described as an ongoing expansion of the present.

The internalization of continuous change appears in high relief the moment Young's straight line takes on the vast territories of preelectronic infrastructures, the extensive natural realms appropriated in so-called land art. In his 1961 letter to David Tudor, he associates *Composition 1960 #10* with privacy as well as with the topography of the desert: “I thought of it as a somewhat private piece in which some one would begin drawing a line all alone—a straight line & would just follow it and follow it and follow it & I usually saw pictures of it out in a desert going for mile & miles and always straight.”<sup>52</sup> In 1968, Young's close friend and collaborator Walter de Maria—known for, among other things, his so-called invisible drawings, which test the limits of perceptibility—realized this idea with *Mile Long Drawing*, two straight parallel lines traced on the flat terrain of the Mohave Desert. Reducing the landscape to a geometrical plane, it underscores the common vision of the desert as a spare, rigid, linear world—a place that resonates, as Joshua Shannon notes, with modernist design aesthetics.<sup>53</sup>

But here, straight line aesthetics no longer signals a world of construction and industry. An arid, uninhabited territory, the desert is the antithesis of more emphatic or outward forms of social organization. And to the extent that this beyond of civilization holds modern construction, it is mainly long, straight, stretches of highway—endless lines that makes the desert into a place of pure speed and hence also pure sensation since the sameness of the landscape places few demands on your conscious attention. The desert is therefore a place where expansive, bare-boned materiality gets entangled with

---

<sup>50</sup> Robert Hassan, “Timescapes of the Network Society,” *Fast Capitalism* 1, no. 1 (2005): [www.uta.edu/huma/agger/fastcapitalism/1\\_1/hassan.html](http://www.uta.edu/huma/agger/fastcapitalism/1_1/hassan.html)

<sup>51</sup> See Dominique Janicaud, *Chronos: Pour l'intelligence du partage temporel*. (Paris, 1997), pp. 29–33.

<sup>52</sup> Young, Letter to David Tudor, (undated, 1961). available at the Getty Research Institute; see David Tudor Papers, Box 61, Folder 2.)

<sup>53</sup> Joshua Shannon, *The Recording Machine: Art and Fact During the Cold War* (New Haven, Conn., 2017), p. 71.

all sorts of sensorial phenomena: hallucinations, visions, fantasies, and a general, restless sense of potential. By realizing Young's quest for the "desert privacy" of straight-line drawing, de Maria quite literally transforms its extensive territories into intensive, sensorial continuities.

The strangeness and specificity of this project begs comparison with other mile-long straight-line drawings, notably the ones Piero Manzoni produced on enormous paper rolls between 1959 and 1961. Here the abstractions of traditional industrial capitalism inform every aspect of the work. The human hand, which cannot draw a straight line, is producing one only by subjecting itself to the mechanical grind of a conveyor belt principle. And the product is immediately whisked away into yet another realm of abstraction, instantly "canned" like other identical-looking commodities, forever cut off from their makers. In stark contrast to the new forms of affect-based productivity eroticized in *Composition 1960 #10* and associated works, Manzoni's lines evoke the passive, exhausted bodies of postwar productivism in Europe in general and in Italy in particular. In fact, Manzoni's work seems like a dark caricature of the cultural forms of the industrial age, such as the lines and circles produced by precision-dancing showgirl bodies. Photographic documentation further emphasizes the association with factory work—with the artist harnessed to heavy equipment holding the paper rolls, we fully expect to see a supervisor coming around to check that there are no unwarranted breaks in the line production.

Manzoni's time is, in other words, not his own but an externally framed labor time. And yet, produced on the brink of the violent 1962 Torino revolts against the productivist model, his lines operate, as Jaleh Mansoor argues, as "a metonymy for change on the factory floor" as well as for the political self-definition of workers betrayed by a communist party in alliance with state and capital. The abstract, withdrawing, quality of the work signaled a political reorientation towards more dispersed or autonomous forms of resistance, underscoring the creative potential of a new class of unskilled workers.<sup>54</sup> But if this negation of the logic of sped-up industrialism may point towards new ways of valorizing working bodies and worker subjectivity, the relationship between body and machine in Manzoni's line drawing is still one imposed from without. It has still not embraced the body/machine continuities evoked in Young's work, the internalized processes of temporal synchronization and alignment that also underpin industrial efforts to capture and capitalize on sensorial speeds.<sup>55</sup>

---

<sup>54</sup> Jaleh Mansoor, *Marshall Plan Modernism: Italian Postwar Abstraction and the Beginning of Autonomia* (Durham, N.C., 2016), pp. 18; see also pp. 27, 91, 119–23.

<sup>55</sup> Maurizio Lazzarato defines post-Fordist labor and its reliance on new media technologies or "machines to crystallize time" as a production of open-ended subjectivity, also understood as a new development in the management and exploitation of biopower; see Maurizio Lazzarato, "Machines to Crystallize Time," *Theory, Culture and Society* 24, no. 6 (2007): 93–122. Following this analysis, Luciana Parisi and Steve Goodman argue that post-Fordist labor increasingly also engages prehensive and preemptive mechanisms that exceed the powers of

The condition of “the vectoral,” McKenzie Wark writes, is one of open potential yet limited application.<sup>56</sup> In his *Hacker Manifesto*, the vectoral denotes the capacity to make anything—even the minutest sensations—into a resource for capital. And the limitation of vectoral power is somewhat paradoxical because in geometry a vector is a line of fixed length but of no fixed position, and in technology it is a means of movement that has fixed qualities of speed and capacity but no predetermined application. As Wark puts it, “nothing about the vector *in the abstract* says what flows along it must flow only one way, from boss to hand, from metropolis to province, from empire to colony.”<sup>57</sup>

If the early '60s straight-line works promote continuity and directionality, they also in some sense relate to the vector in the abstract. They are, all at once, practicing and reflecting its specific type of force or flow, testing its implications. In this context, the capture of common sense—accessing gut feelings that mobilize and connect—may be complicated by questions about exactly who or what it is that is connected by sensing. Young’s suggestion that sounds are sentient beings, with listening capacities of their own, could be read as a warning against too easy assertions of the common in sensing. It is a warning that resonates in Mark Hansen’s recent thoughts on the way in which digital technologies also open up an expansive domain of worldly or nonhuman sensibility, modes of connecting that cannot be reduced to delimited or defined acts of feeling, sensing, perceiving, or thinking (however complex or ambiguous).<sup>58</sup> Hence the technical production of shared sensing is accompanied by an acute intuition of the power and actuality of sensibilities that are not contained by any given form of subjectivity or interaction.

Such intuition is above all a function of the particular temporality of sensing produced in digital media. Rather than being surrogates for conscious perception and its distinct representations and memories of the past, they constitute an operational present of sensibility that is categorially distinct from the present of consciousness. Here, the famous half-second gap between neuronal activation and awareness in the human brain is exteriorized as the temporal gap between data, making the data that is constantly generated *about* our behavior into a form of worldly, environmental sensibility that marks a multilayered sensory present, dense with a vibratory actuality that constantly produces the future.

---

the living. It does, in other words, not just produce a becoming subjectivity but the outer limits of subjectivity itself; see Luciana Parisi and Steve Goodman, “Mnemonic Control”, in *Beyond Biopolitics: Essays on the Governance of Life and Death*, ed. Patricia Ticineto Clough and Craig Willse (Durham, 2011), pp. 163–76.

<sup>56</sup> See McKenzie Wark, *A Hacker Manifesto* (Cambridge, Mass., 2004).

<sup>57</sup> *Ibid.*, p. [156]; my emphasis.

<sup>58</sup> See Mark B. N. Hansen, *Feed Forward: On the Future of Twenty-First-Century Media* (Chicago, 2015), p. 46.

In fact, this analysis might illuminate Young's project of *actual* line drawing—as distinct from mere graphic *notations*—and its weird insistence on the simultaneity of drawing and following. In human bodies, the operational present of sensibility is defined by the constant feeding forward of sensing, which is why the moment of sensing is all at once fundamental and hidden. The present of consciousness is therefore, with respect to its causal efficacy, always already past, a form of now time that inevitably, but imperceptibly, *follows* or comes after the sensory event that produces it. Hansen's point, however, is that digital technologies may give a more direct, if diffuse, access to the forward-feeding dynamic of sensation itself.<sup>59</sup> With Young's technically inflected drawing, such access would in fact constitute a critical conflation of “drawing and following.” Aligned with electronic infrastructure, following—or conscious perception—is no longer simply lagging behind the forward-moving “drawing” force or efficacy of its own senses. This also means that the emphasis on causality and determinacy in Young's early work does not simply imply processuality, a relentless forging ahead in order to produce new aesthetic *nows*, come what may.<sup>60</sup> Rather, it points to the restless, vibratory quality of his musical presentism. For this particular brand of now time marks a technically inflected perception of the very activity of constantly catching up with the forward-feeding drive of sensation. It marks, in other words, the now time of a consciousness forever compelled to be ahead of itself—with all that this might entail.

For Young it entailed, among other things, the creation of his 29 *Compositions 1961*, each consisting of the words “draw a straight line and follow it” and a date. Starting on 1 January 1961 and spread throughout the entire year of 1961 at thirteen-day intervals, these compositions were in fact predated. In this later, temporally distended, version, straight line drawing also included an impatient awareness of its own forward-feeding infrastructural sensibility.

[lb]

It was, ultimately, a case of drawing/following the expanded, multilayered, present of topological culture. In the context of art criticism, the boring, barely discernible works associated with Young's 1960 compositions are often seen as spearheading a shift in the twentieth-century art institution. Tentatively termed *intermedia* by artist Dick Higgins, they outline a shift toward radically networked, scalable, elusive, mobile, and continuous activities—in short the type of activities that define what is today known as *contemporary* rather than *modern* art. At some point, terms that seemed to evoke a thick sensory present—a coming-together or synchronization of a range of different cultural and technical “timescapes”—were deemed more apposite than

---

<sup>59</sup> See *ibid.*, p. 191.

<sup>60</sup> In “Lecture 1960,” Young stated: “I am not interested in good; I am interested in new—even if this includes the possibility of its being evil” (Young, “Lecture 1960,” *Tulane Drama Review* 10 (Winter 1965): 75.

progressive modern visions of the future.<sup>61</sup> By evoking a longer technomathematical modernity experimenting with aligning external and internal speeds, *Composition 1960 #10* may in fact be an archive of the implicit sense of duty towards restlessly prehensive connectivity and continuous, microscopic change that marks late twentieth-century aesthetic practice. It is a work in which the emergent power-time of synchronization is made sensible precisely by exposing the very efforts involved. And by the same token, the recent desire (seen in a plethora of research projects, publications and roundtable discussions) to raise the concept of contemporaneity to a principle, to question the institutional aspects of its peculiar holding-together of times, may also, implicitly, mark a growing awareness of the limits of the duty to *be* connected and its never-ending straight line.

Ina Blom is professor in the Department of Philosophy, Classics, and History of Art and Ideas at the University of Oslo and Wigeland Visiting Professor at the University of Chicago.

---

<sup>61</sup> There is no room here to do justice to the recent debates on the increasing institutionalization of concept of contemporaneity. As noted by Geoff Cox and Jacob Lund, contemporaneity—as presented in the work of Peter Osborne and Terry Smith, among others—is above all a designator of the changing temporal quality of the historical present, indicating a coming-together *of* times that marks the complexity of today’s cultural formations. For their part, Cox and Lund argue for closer attention to the role played by new media and information technologies in the production of this temporal condition; see Geoff Cox and Jacob Lund in *The Contemporary Condition: Introductory Thoughts on Contemporaneity and Contemporary Art* (Cambridge, Mass., 2017).