Aether to Wires to Rust, and Back Again

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Metode

Metode (2025), vol. 3 *Currents*
ISSN 2704-0550

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PLUGGING IN(TRODUCTION)

From wire to wire—this is what I happen to dream of—the totality of things, the whole, the entire universe, divine wisdom could concentrate their electronic rays through a single wire. Or perhaps the knowledge of everything is buried in the soul, and a system of wires that would multiply my voice and existence to infinity and reflect its essence in a single sound would then reveal to me the soul of the universe, which is hidden in mine.

Italo Calvino, *If on a Winter's Night a Traveler* (1979: 33), with slight edits by the authors

When a mediated interaction or engagement is split across two localities, here and there, the impulse is to read it as decentralized: the focal point is split between two endpoints. Here, we argue that the focal point in fact remains in the center: the wire itself.

If we imagine, for a moment, and skirting idiom, that a series of thoughts might be a wire, and at a higher level if we take discourse to be a whole set of wires, are they as entangled as the wires in that desk drawer we never open? What does it look like? How does it read? Is it legible, or as in that drawer, totally incomprehensible?

This essay takes the form of a series of these cables—or, subsections, such as *Signal-Noise, Careful of the Tripwire!, Architecture Across the Wire,* and *Temporality: The Time Machine*—interwoven as they naturally appear throughout our own conversation. Each is meant to relay a set of concepts and ideas, but just as a wire, in a manner not self-enclosed; that is, able to be plugged into here or there, depending on how argumentation emerges. Thus, so too do others appear, sometimes (often) unexpectedly. Connection and flow supersede fixity and stasis.

It is written collaboratively between practitioners within the fields of

media theory

architecture

sound art

drawn together by the activity (or, per Siegfried Zielinski, *Tätigkeit*) of media archaeology. Our goal is both an ideological entanglement and a methodology: a collaborative approach that is relational, dialogical, supra-disciplinary, at times theoretical and at times anecdotal, always highly critical. Our collective positionality is grounded in the writings of Donna Haraway (feminist thought), Karen Barad (theoretical physics), Friedrich Kittler (philosophy), Bruno Latour (anthropology), Siegfried Zielinski (media theory), Wolfgang Ernst (media theory), and Jussi Parikka (digital aesthetics); from there, we expand the conversation by bringing in our own sets of references and resources. The essay is thus vectored: reading horizontally across the three columns offers a meditation on the emergent, transdisciplinary, and relational nature of knowledge; reading down / within each column offers a disciplinary and contiguous (perhaps more legible) train of thought. If Zielinski argued that the strata of media's history is not layered linearly but with odd and interjecting temporalities, so too do we argue this stance but from the position of discipline.

According to Vilém Flusser, disentanglement's "unconfessed meaning is the attempt to forget the absurdity of the human condition" (6). We acknowledge this condition, and instead, immerse ourselves within it.

Isn't this a question of epistemology?

Discourse is always an entanglement of thoughts... Writing provides us a structure, or, let's just say, a protocol to untangle the wires. Sometimes discourse does actually work, for some topics, but for most of the time discourse pretends to be untangled, because when we zoom too far in, the entanglement no longer appears tangled. There are just a few lines that are seemingly parallel, non-relational.

While my workshops, or Trials, on untangling entanglement may have initially begun as setting up a laboratory for behavioral studies focused on the act of untangling—such as untangling headphones (the ones with cables), writing about research, or collecting archives—the work has evolved organically over time. This evolution has been influenced by participants' feedback and my own evolving understanding of our collective obsession with the patterns of untangling and entanglement involved in supra-disciplinary research and writing.

Remembering my undergraduate studies in communications, I recall that Raymond Williams, in his book *Communications* (1966), describes communication as "the institutions and forms by which ideas, information, and attitudes are transmitted and received."

They may include mirrors, tombs, hieroglyphics, writing, coins, cathedrals, stamps, flags, clocks, newspapers, postal services, telegraphs, photographs, films, telephones, sound recordings, radio, television, cable, computers, the Internet, multimedia, virtual reality, or any other ideological medium.

And wires, of course, wires. Wires that carry electronics that can then be converted into sound, images, and data over long distances. Wires that don't tell you whether the signal is being sent or received. Wires that run in our walls, underground, and nowhere to be seen in our daily lives.....Wires that can easily slip into this second-person narrative text of Calvino's *If on a Winter's Night a Traveler*, where he connects the entire universe with mirrors—the complexities and beauties and entanglements of our world linked with a single medium.

And so we begin the conversation by swapping wires with mirrors within a single text—putting media archaeology into practice in the way of approaching media we do not commonly perceive as "media" with a consistent set of theoretical discourses.

The passing of time, when human and non-human media entangled, intersect on a plane that might be referred to by Flusser as *Techne*. Marrying this with Kittler's argumentation, both writing and our workshop can be seen as time machines, both operated by human as well as non-human actors, and both with inherent feedback. We are constantly and actively aware of the nature of the three of us writing, responding, communicating, and exchanging our thoughts and ideas with one another. The circulation of ideas in the process of writing is our imaginary time machine. It is not a fictional archetype but a form over-mediated. The layout of the essay is our attempt to address these concern of latencies, feedbacks, and loops.

SIGNAL - NOISE

Is the wire, on its own, a medium?
Yes, if we think of its materiality.

Friedrich A. Kittler's definition of media in *Discourse Networks, 1800/1900* (1985: 369) is "the network of technologies and institutions that allow a given culture to select, store, and process relevant data." At first glance this definition has nothing to do with wires or their materiality. Let's dig deeper.

In Kittler's view, the technology of the computer age was qualitatively different from the invention of the alphabet and the subsequent printing age. In the era of writing and printing, writing was limited to symbols invented by humans. In contrast, technological media broke such writing monopolies by attempting to select, store, and produce physical reality itself (here Kittler adopts the term "reality" from Jacques Lacan's approach to distinguishing between symbols and physical reality (Kittler, 2002: 38). In other words, one can record nature itself. Technological media allow one to select, store, and process that which does not fit within syntactic norms, to record that which is unique, contingent, entangled, and messy.

It is worth noting that it was a shared fondness for Ernst's argumentation that initially drew the three of us together. In conversation at a media archaeology working group at Columbia University during the spring of 2024, the three of us found ourselves defending how materialist readings of media infrastructures could reasonably sit alongside interpretations within humanist and social frameworks. Luo referenced her workshops; we had a sense that these

ENTANGLEMENT AS A CONFIGURATION

As a sound/media artist, the daily act of untangling wires dominates my routine. Whenever I begin working in my studio, I start by connecting my electronic devices using a power cord—whether it's AC or DC power, a line must be connected for things to function. Despite cables constituting 80% of my daily life, both at home and at work, I still struggle to grasp their true essence. What is a wire? Just a conduit for transmitting electrical particles? The moment that allows me to re-think this everyday object is when they become intertwined: I notice their material presence while untangling. Together, these tangled wires form a matrix of different modes of reality, intertwining social, ecological, and technological interactions. From the flow of electrons between the wall outlet and my computer, to the extensive network of underwater internet cables spanning between continents—these patterns, operating on a scale below and beyond daily perception, form a comprehensive system of electrical flow. To consider the entanglement of wires as a pattern—a configuration with the ability to transform, adjust, and scale—allows for an analogy to the concept of an ecosystem, where the interplay between human and non-human entities collectively produces an electromagnetic field.

American psychologist James Gibson introduced the word "affordance" and developed it in several writings about perception, but the most often referenced explanation appears in his 1979 book *The Ecological Approach to Visual Perception*. In it, he tries to understand system theory, environmental movements, phenomenology, and of course, Gestalt psychology. Gibson argues that while psychologists focus on the quality of objects, it is rather the affordance of objects—what you can do with them—which is first perceived. Gibson writes, "You do not have to classify and label things in order to perceive what they afford.... it is both physical and psychical" (134).

I wonder, then, how I should approach the entanglement. Which end is the beginning? Which cables should I start from?

I zoom into a single interwoven knot of media history, where cables directly contribute to powering but have been largely overlooked by media historians. Among the idols of media archaeology, Wolfgang Ernst carries a cold gaze towards the operational machine, one that is no longer bound by historical discourse but is centered on a-human materiality. This draws my attention most. I want to apply this theoretical framework to help me understand my obsession with cables. (Is it merely *my* own obsession? Do I dare provide a space for discussion about these neglected objects?) Although the cable is commonly understood as one of the many objects of the digital-technical era, I want to emphasize its distinct intermediary materiality, or to redefine it as a process—a part belonging to the machine, a part en route to an outlet. If we

Claude Shannon, engineer at Bell Telephone Laboratories and a favorite of Kittler's, understood the wire as a medium. He formulated his own mathematical theory of communication that emphasized optimized transmission, and asserted that the fundamental challenge of communication is to reproduce a message selected at one point to another, either exactly or approximately. Crucially, Shannon noted that the "physical conduit" used for communication, such as wires, coaxial cables, radio frequencies, or beams of light, serves as a medium for signal transmission. Ideally, these media should function as noise-free information channels that minimize signal distortion. According to Shannon, a higher signal-to-noise ratio ensures clearer messages and increases the utility of the medium. To Kittler's original select/store/process of data, we can also add signals. Suddenly, wire-as-medium seems more likely.

The key to Shannon's theory, emphasized by Kittler, is the insignificance of the meaning of the message to the technical mechanisms of the medium. Shannon claimed that "the semantic aspects of communication are irrelevant to the technical problem." In other words, regardless of the specific purpose of a communication medium, such as the telephoto's role in transmitting photographs for newspapers over long distances, its primary concern is solely with the physical attributes of the photograph—namely, light energy and visual stimuli—rather than its conceptual content. The telephoto therefore transmits light rather than images and context.

(Wirephoto, also known as telephotography or radiophotography, is the transmission of images via telegraph, telephone, or radio communication channels. Originating in 1898 with Ernest A. Hummel's development of the telediagraph, the process involves the sequential transmission of the lines of an image. An old-school educational video from 1937 entitled *How Photographs Were Transmitted by Wire: Spot News* narrates:

A lamp light scans the original picture. A white spot on the picture makes a lot of current, and lots of current makes lots of light on the receiving machine, so it exposes the negative more heavily at that point. A black spot on the picture reflects no light back into the photoelectric cell, no current passes over the telephone line, the neon tube remains dim, and the negative line is not exposed.)

approaches could coexist, and in taking on this collaboration, our challenge became reconciling them in theory and through writing.

ARCHITECTURE AT THE ENDS OF THE WIRE

Following Ann's argumentation, the wire must functionally receive and remit signals in order to qualify as a medium. Then, in spite of an argument for the centralization of the wire-as-object, or perhaps because of it, it is necessary to consider its ins and outs: the plug, the terminus, a moment of transfer; of total disentanglement—or, of fraying.

In a materialist tradition, the terminus can only enact one-to-one transmission: an electron skips from one metal plate to another across molecular bonds, an act of geometric translation within a unidimensional plane. In a hermeneutic tradition, the terminus must also enact a formal translation, of a signal into the realm of the discernible, into something else: into an idea.

It is the former that concerns us here. A materialist reading of the wire asks us to consider a dialogical ethics, an ethics defined not by the end points but by the course, the extension of the object itself. The latter case is another wire of thought, that of dialectical ethics, going off in another direction, to be disentangled later in this essay.

The form of the terminus, it should be noted, is less important here than its operation. Standardization and unitization, nationalism and capitalism—these are all topics that are fair game—global non standardization of the electrical socket, or of the charger plugs on

are to see cables as distinct objects and excavate their material specificity, what affordances follow? We are forced to shift our perspectives, not talking of plastic shielding and copper coil as a fixed, stationary state of being; rather, as an entanglement of socio-technical human and non-human arrangements. In order to declare what it is, we should not separate it from what it does. I might take a step further and declare wires as the very subject of technical exchange, as a medium. In this state it does not only mediate information, but also consists of it: it becomes everything it is connected to—a process, a flow, an in-between moment, a state of coming and going, a tension.

TRIAL FOUR: STEPPING INTO THE WONDERLAND!

Developed in collaboration with Ian Callender and Ann Wang, conducted during the Lofoten International Art Festival and supported by ROM for Kunst og Arkitektur in September of 2024. Unlike the previous three trials, Trial Four is considered more educational, made in an effort to engage electrical currents materially. The trial is a simple reaction: now that we've determined that wires are a medium, what can we do with them? We came to realize that the question of what we do is essentially equivalent to what we know from the material affordances of wires. The Trial explores the possibilities and potentials of interacting with wire, not as something that exists between or that connects machinery, but something that is tactile and asks to be held onto. Mimi Ọnụọha's video piece *These Networks In Our Skin* is an important reference to help understand the work. (I will put down this wire for now; Ian will pick it back up later.) Inspired by a similar approach, the imaginary dimension is integral to what led us to these next steps.

Trial Four experimented with the very physicality of the wire itself, cutting and revealing, adapting and (mal)forming, in order to work in simultaneity and allowing for signals to cross, overlap, amplify, negate. By using electromagnetic microphones sensitive to small flows of current, we asked participants to try to listen to the entanglement of wires we together created. The indirect translation of the signal to the sonic output was an intentional disjunction: Can we provide a gap which only imagination could leap? What links between physical and sonic materials could then form within a material imaginary?

our phones, is truly shocking (as the USB-C / Lightning debate was so recently contested and pervaded the news). Sure, in England an electrical socket is three rectangles and across the Channel in France it's two circles, but each of these jacks is designed to perform in the same way: metal touching metal, transference of signal one-to-one. We're used to this in typological terms as well: the train terminal, the airport terminal; a moment where an architecture of dynamism and transmission (the plane, the train) meets an architecture of stasis, and people translate across the threshold.

If we allow for a purely dialogical ethics, an ethics of the entanglement, then does oppositionality largely fall away? Isn't it always more interesting when a wire is in tension than when it holds slack? As the wire phones in our workshop (Trial Three) showed, messages weren't communicated if this condition was met. The condition of slackness preceded the medium: the wire was strung taut such that messages could be communicated.

During an online roundtable at the Università di Cagliari—it was the height of the pandemic, June 2020, as the world endured a collective re-mediation—Wanda Strauven presents a string phone, such as those we used during Trial Three, as an archaeological curiosity: specifically, as it's hacked together using multiple common household items, will archaeologists of the future understand it as an odd assemblage of raw materials, or as a toy relying on the gestalt of that assemblage? Regardless, what fascinates me is that she qualifies the string-phone as a true media device. "We have to keep it very tense, if not, the signal won't pass—but we have a signal. We have a true telephonic signal" (author's translation). This is to say, resolution or quality of media device is truly of lesser importance to our argument than that it operates, even imperfectly, and that it exists.

Contrarily, in the children's game of *Tug of War* (where a rope is pulled in opposite directions by an opposing team at each end, to see which team will fall and which will remain standing), it is medium which precedes slackness: messages of jolts and pulls are communicated up until a moment of denouement, of release, of literal collapse.

But in neither case does the wire or the rope—in neither case does the essence of the wire or the rope—consist solely in slackness or tautness. As rudimentary physics teaches us, it is impossible to tension a rope perfectly within a horizontal plane; gravity will always necessarily draw it down, even just a bit. If we squint, perhaps we can convince ourselves this to be true oppositionality. In reality, we replace oppositionality with gradients of tension; disjointedness with dynamism. An ethics purely of the terminus is disproven. Haraway smiles from a feminist positionality.

In the epilogue of his *The Organizational Complex*, Reinhold Martin outlines a paradigm of building which sits decontextualized within a physical environment but deeply situated within a network: with the building literally plugged in, contextualization takes the form of communication and of distribution, the networked condition. What drove this

"Terminus" is a definition of what the cable does. I am recalling some moments in my pre-collaboration workshops when participants were instructed to unplug and re-plug speaker cables, with sound actively passing through them. The moment they unplugged, passage was cut off: signals stopped, and everything became silent. At first, participants were seemingly afraid to do anything that would disrupt the sound, but this faded when they began to notice how helpful it is to the untangling. When I first designed the workshop's structure, I tasked the participants with recording how often they unplugged the cables—specifically, from small preamps and audio interfaces. However, this task did not come with consequences; it simply asked for a moment of awareness of how it could affect an entire workflow. As an ulterior motive, I hoped that being forced to count their moves would slow their unplugging and replugging.

KEEPING THE DUST IN MY WIRES

What fascinates me about these Trial encounters is the resistance, in its many forms, generated from silencing signal flow. Because the entire setup was designed as a live performance, with all the sonic experiences directly happening in the room as dictated by people's actions, the moment of unplugging interrupts the "normal" flow of a performance structure; it's a counter-action to what is expected during a music performance. The media has to go underground, even become invisible. This is especially true for audio cables; once noise is generated from within, there is a danger of the wires themselves becoming "visible." The typical gesture that follows is to turn the knobs slightly, or replug the connectors and hope for a "good" connection. I see these specific moments in direct conversation with Jay Bolter and Richard Grusin's concept of *hypermediacy*. In this process of creating awareness, situating the term within Karen Barad's concept of *intra-action* between materiality and observation, the terminus of the cables was forced to be anchored. Through the negation of contact, or creating a condition of the inability of signal transmission, participants gained an embodied understanding of how sound transmission functions. This means that the phenomenon of entanglement, the one that concerns us in this study most, is actually that of a passage defined by two ends.

architectural paradigm was not some esoteric theory, but rather pragmatic corporate needs within a globalized economy.

At a friend's dinner last night, the person sitting next to me introduced himself as a Wall Street banker; I asked if I could pick his brain, explaining this paradigm and how I was grappling with flipping the narrative to center on the wire instead of the architecture. Without missing a beat, he expressed that knowledge of latency and decentralization was standard within the banking world. He pointed me to Michael Lewis' survey of high-frequency trading on Wall Street, *Flash Boys*, where Lewis recounts an entrepreneur's undertaking to speed up data transfer between Chicago and New York by only four milliseconds. This involved laying 827 miles of new wire—whereas fiber optic internet cables had previously run alongside railroads and highways, this route ran in a straight line, cutting under small towns, renting the rights to move through private land, and tunneling through mountains, with small bunkers to power-amplify the wire every fifty to seventy-five miles. The improvement, completed 2009, yielded profits to the tune of some $20 billion per year.

The logic of late capitalism, to borrow Jameson's expression, marked the landscape not only by way of the corporate complexes within these two cities, but now between these two cities. In both capital and ethical terms, the wire ceased to delineate solely the transfer of values (or the exploitation of values), but became the values themselves.

As Shannon Mattern argues across her tome, deployments of technological media across urban environments is not simply a deployment of material, or material capital, but of maintenance and labor. This labor, no matter how abstracted in its goals (to replace a wire, a contextless artifact of global production), still relies on situational and localized knowledge developed over deep time: the processes of digging certain soil, or the right additive for a certain concrete mixture. Or, the unexpected insights that can emerge from a chance conversation over dinner.

It is an ethics that is situated, relational, intellectually relaxed, and as this very inquiry proves (dare I say), fun.

To directly oppose what I've been saying, I'm thinking of the distinction between a straight line versus a curvy line, and what they demonstrate when they become diagrams. To what end do they usually serve, and in what context? When your banker friend offers up this image of straight wiring between Chicago and New York, can we comfortably say there is some connection of a diagram of a straightened wire and efficiency? Isn't this also the subconscious image we have to "show" a wire between any communication technologies, for example between the signal tower and an individual cellphone, between a Wi Fi router and a server.....and often, dotted! In the language of abstraction, we're pointing to something flat, two-dimensional. These diagrams merely penetrate the surface: in them, currents don't flow, electrons simply exist, in stasis, inside of insulation materials and outside of actual practices. To negate this, these states of tautness and slackness might be read as verbs of tightening and slackening. The effort here is to consider tension as active motion between the wire's terminals. The verb hinders static essence. Whether the wire is lying on the ground or pulled tight between my computer and the closest (though still faraway) outlet, the wire is there!

I return to Kittler's storage, selection, and processing:

Wires have the function of letting electronics through, and so can we argue that the constraint electronics feel in between, the temporal flow of data, counts as (moving) storage, of temporary, in-between data? Perhaps we can see that it is a continuous action of data transfer, a movement, yet held within the material for bits of moments, fairly recorded by time. Batteries too work as a temporary storage of chemicals and then the upcoming process with the chemical potential energy turned into electricity in the circuit... it is a dynamic change of state: *store-release-halt-store-release*. If we break down the process of signals flowing through wires in digital language, the wire has only two states: either in use or not. 0s or 1s. (Here, perhaps, is entangled another wire of thought on what should be defined as the "1" state—"the message has been successfully sent out" or "the message has been successfully received"—versus the "0" state. Here, though, I lean into the first, sending, to open up the conversation of who or what can be holding the two open ends of the wires.) The first indication of meaning transitioning from one state to another was initially captured by the click of the telegraph relay, a key moment that echoes through the cacophony of the digital realm—now perpetuated in the relentless flow of state transitions between 0s and 1s, manifesting

Film images are present insofar as they flash by at twenty-four images/second. They are present because they vanish quickly. They exist only because they are unstable, because they escape. There we have an inversion of the pictorial aesthetics of appearance into the aesthetics of disappearance, a phot-cine-mato-video-holographic aesthetic. There is, of course, the possibility of disappearance in excessive speed: disappearance of the world's peculiarities and of the consciousness we could have of them to the extent that overaccelerated speed renders us unconscious.

Too much speed is comparable to too much light. We see nothing.

Paul Virilio, *Pure War*, 98

as torrents of data traversing digital landscapes (DeMarinis, 2011: 213), highlighting the existence of channels, the wires themselves, as media.

What of selection and processing? Do wires have an agency of their own? (It doesn't seem to fit my common sense.) Perhaps we can argue first that wires reject all signals/waves/signs that fall outside the capabilities of their materials. Recalling Shannon's wire photo, wires cannot pass light records of the image; the light must reach a photoreactive cell where it interacts with a reactive metal, producing varying electrical signals based on the grayscale intensity of the original image, and as such be transmitted through a wire. The shielding that surrounds the power/signal conductors of the cables protects them from reflecting signal interference and picking up noise from the environment along the way and passing it through the channel. (Note: So what would happen if there isn't a protection cover?)

Interestingly though, we often forget that we as humans are one of the biggest obstacles in succeeding zero-friction transfers. As the media theorist John Durham Peters interestingly (and strangely) emphasizes in *Speaking to the Air* (1999), the human body retains its weight even in the new norms of mental communication inspired by the speed of electricity—we do not gain weight, we do not gain newfound mechanical abilities. We are always the interpreter, and simultaneously the sender and receiver—holding on both sides of the wire, and everything in between.

Can the myth of 'optimized communication' actually enhance a reading of the wire as a medium? In theoretical physics, the coefficient of frictional loss for signals can be infinitely close to zero, but in actuality, it can never be, as long as wires are still made of metals and alloys: copper, iron, perhaps steel, brass, bronze, aluminum, zinc... And cables, formed by a bundle of wires (copper, iron, steel, brass, bronze, aluminum, zinc), then shielded. Wires transmit electrons. Through these electrons, wires can record and transcribe virtually anything when the signals are encoded into electronic charges—text, images, and sound. Electrons are the data that flows through wires—yet we must allow for the brief intervals between when a file is downloaded and when it is available on my desktop. Why so, when electrons can travel at nearly the speed of light? Because as data passes through servers and routers, or from one application to another, it alternates between different states and storage forms. It cycles between fast-moving charges in wires, tiny specks of magnetic flux on the iron-oxide-coated spinning disks of hard drives, and even light-speed signals in fiber optics—ether to wires to rust, and back again. In the words of Paul DeMarinis: 'relayed, delayed, stored' (2011: 211).

I think it is favorable to have some noise in the system. If a system is going to freeze into a particular state, it is inadaptable and this final state may be altogether wrong. It will be incapable of adjusting itself to something that is a more appropriate situation.

Heinz von Foerster, *On Self-Organizing Systems and Their Environments*, 18

It might be possible to further argue that the wire qualifies as a medium *specifically because* it is imperfect at shielding from contextual noise. External factors influence the data being stored, and it is up to the materiality of the wire to determine how good or bad it is at this. Aside from the human at each end choosing what data goes in and what data goes out, I would argue von Foerster's noise sounds an awful lot like the selection of data.

ARCHITECTURE ACROSS THE WIRE

Mimi Ọnụọha's exceptionally beautiful 2021 short film *These Networks In Our Skin* depicts a group of women enter into a space of stripping and recoating wires, manually dismantling the technological and imbuing it with a sense of something far beyond. Onuoha offers images to expand our relational readings of the wire, often blending into the natural: alongside spices and grains, to song, the wire as hair, as grain of wood, as plant stem.

The wire, according to Ọnụọha, is no longer solely a connection between two points: it is a subject itself, in genesis through the acts of these women. This recalls the theories of Emanuele Coccia, who labels a plant as the veritable interface between earth and sky. Read within Ọnụọha's context, this can be taken a step further: what is a plant but this exact double translation of information, from sky and ground into plant, and from down to up and up to down? The materiality which passes through it, both as minerals taken up from the ground and carbon brought in from the air, contribute to its growth and survival. The wire, then, is a subject not only in genesis, but in self-genesis.

This offers direct opposition to the story brought forward by Michael Lewis (that of the wire run from Chicago to New York): the plant, this double translation of things across a thin linear vein, asks for the human to slow to a pace that is far beyond what is comfortable, perhaps even comprehensible. The wire becomes our portal to operating at speeds either super- or sub-human.

TRIAL ONE: STARTING TO MAKE NOISE

I start with a very basic idea: four female participants untangle speaker cables, all together and all at once, to produce a sonic experience of those cords' materiality; the materials are XLR cables and power cords. The "instrument" (the term is another wire of thought I'll pick back up in another paragraph)—that is to say, the sound source—is microphone feedback. A piezo / contact microphone is connected to the end of each speaker cable, and two omni-microphones receive ambient sounds from the cable during the untangling. The instrument's sound, then, is a result of contact between the gestures of untangling and the environment. This sound is transmitted to outputting speakers, resonating the room. The setup allows participants to directly hear their own action of untangling wires. I then put two in groups, trying to learn if group action is more encouraged under such a situation, or perhaps results in the opposite direction. Although there was no definite instruction besides untangling the wire, communication is allowed in the process. Thanks to it, many critical yet crucial ideas were made clear through their questions, and reflected in the second trial.

TEMPORALITY: THE TIME MACHINE

I started to think about the concept of temporality at the very end of Trial One, in collecting material artifacts of the workshop (the

WIRELESS? WIRED NEVERTHELESS

However 'tech' or 'mundane' this column may seem if you're reading vertically, as previously stated, our aim isn't to conduct an anti-hermeneutics approach to trace back the invention of wires and its implications across different fields. To that end, here, Bernhard Siegert's definition of *cultural techniques* guides the inquiry. In his definition, he redefines 'media' by concentrating on the practices, tools, and social interactions that allow media to operate within cultural contexts. Originally an agricultural concept, *cultural techniques* examined how agriculture shapes culture through 'chains of operations' that link humans, things, media, and even animals (Siegert 2013: 48). Expanding upon the original practice, this

As Jean Epstein writes in his *The Intelligence of a Machine* (1947), time is the first, not fourth, dimension. Andrei Tarkovsky echoes this in his treatise on filmmaking, *Sculpting in Time* (1985): through narrative rhythm, through montage and reversal, through phenomenological affect, cinema allows for time's sculptural manipulation. This, then, is true time travel.

I shall make frequent reference to the concept of 'time—space compression.' I mean to signal by that term processes that so revolutionize the objective qualities of space and time that we are forced to alter, sometimes in quite radical ways, how we represent the world to ourselves. I use the word 'compression' because a strong case can be made that the history of capitalism has been characterized by speed-up in the pace of life, while so overcoming spatial barriers that the world sometimes seems to collapse inwards upon us. The time taken to traverse space and the way we commonly represent that fact to ourselves are useful indicators of the kind of phenomena I have in mind. As space appears to shrink to a 'global village' of telecommunications and a 'spaceship earth' of economic and ecological interdependencies — to use just two familiar and everyday images — and as time horizons shorten to the point where the present is all there is (the world of the schizophrenic), so we have to learn how to cope with an overwhelming sense of compression of our spatial and temporal worlds. The experience of time—space compression is challenging, exciting, stressful, and sometimes deeply troubling...

David Harvey, *The Condition of Postmodernity*, 240

As we watch this boat pull out of the harbor and I read the argumentation you're beginning

wires themselves) and documentation to present alongside the sonic remnants. I was trying to turn a live action event into a static installation, for the sake of display, and I began to question what accounts for a material translation between the realms of ideas and the sensorial. By displaying wires that were once operational, and video documentation of the live action of the untangling, was I holding the illusion that the copper wires still contained remains of the electrons? What I am sure of is that the project was dealing with three continuous/contiguous modes of existence: a past of gestural interaction (a state resembling an instrument); a future of material proofs (a state resembling artifacts and documentation in a gallery); and a current of direct encounter (a state resembling audience-to-installation display, participants-to-cable, myself-to-work-in-progress). Each state overlapped with each other, creating layers of entanglement on the x, y, z, and t (time) axes.

Regardless, a temporal analysis is inevitable, because sound as a media already always provides this Foucauldian *dispositif*. Any design to alter the teleological tension between the past, future, and present is always an aesthetic decision, also a political one. So imagine a configuration of a wire connected at both ends: a trade route, a journey of an immigrant from one place to another, a person's routine between work and home. The wire is a metaphor of a specific relation between two ends. Within these analogies, each of the materials, geographies, and labor economies are interchangeable (the wire could be an underground path that sneaks through borders crafted by illegal immigrants, generation by generation, or simply a marine internet cable that requires years of development in advanced material science). What holds constant is that in both imagined scenarios, there are temporal metaphors of before/after/during, as above; this passage is an alternative time machine. By referencing Erkki Huhtamo's *cycling topoi*, which describe the recurring archetypes of media forms, wires always maintain this relational functionality. It is an ahistorical standpoint to bring wires into the discourse not of technological development but rather of a psychological gestalt. In cultural terms, a power cord that makes a linkage between an AC outlet and a computer is no different than a length of yarn crocheted with two needles.

WOW! WIRED ROBOTS!

While we're sitting here writing, we're watching a giant cruise ship slowly reverse its way out of New York Harbor, right next to this old factory building we're in. The ship's size is so immense and the ship is so close that the window of Ian's studio can't really fit it all. How impressive that we still, during this "modern" age, are awed by the scale of some machine, a self-sustained machine that "walks" freely, that is wireless. The cruise, according to what Ann quickly searches for online, is only operating on America's Eastern Seaboard, just New York to the Bahamas and back. Although this machine does not have a wire attached, at least not one that is literal or legibly visual, an invisible boundary is still set for the cruise. What determines what is out-of-

method invites us to reframe media history, considering processes like writing, farming, or even religious rituals as 'technologies' in the cultural sense rather than solely as hardware. As Bao (2022) explains, *cultural techniques* blurs the lines between media, culture, and the human subject, embedding media within practices that sustain both material and symbolic life.

Hence we may see the world of wires as technical, laborious, and architectural, forming itself into the very fabric of infrastructures. In the age when landline telephony reigned supreme, architecture didn't merely accommodate technology—it was penetrated by it. Picture the 31-story Art Deco building at 140 West Street in New York City. Behind its gilded doors lay a nerve center where cables, copper wires, and switches intersected to connect landlines across lower Manhattan. Built by Verizon's predecessors (note: Verizon is an American telecommunications company which stands as the second-largest telecom company in the world by revenue), this wasn't merely a building but an infrastructural fortress; its walls and foundations had to absorb and contain the sprawling networks of wires needed to keep the lower part of the city in communication. This wasn't unique to New York. By the 1880s, the wiring of buildings was happening on a national and global scale. Each wire that burrowed through a wall, looped around a corner, or hung exposed from ceilings marked an intrusion into the architectural space, turning walls, floors, and ceilings into active participants in the mechanics of communication. The telephone switchboards of this era—requiring interfaces at the scale of furnitures for laborers—made the task of managing these networks visible and tactile for female operators, transforming technology into a physical experience within these fortified architectures (Harwood, 2014; Mattern, 2021).

(One may argue that Siegert's notion of *cultural techniques* is solely grounded in examining the operational logics behind mundane and discrete physical and functional objects, such as grids, doors, and filters, and enhances a "binary" opposition. However, I argue that while his analysis often centers around discrete physical existences, these objects ultimately serve as embodiments of systemic logics—patterns and operations that shape cultural forms. By shifting "the analytic gaze from ontological distinctions to the ontic operations that gave rise to the former in the first place" (2013: 48), Siegert's approach reveals a methodological flexibility that accommodates more abstract mediatory processes. This perspective allows us to think of the wire both "abstractly" and "groundedly." Thinking of abstract practices based upon concrete objects (maybe) offers a definition extension of the theory precisely because it prioritizes the processes and operations that mediate human culture over static ontological categories.)

To also consider Bernard Geoghegan's and Weihong Bao's critique of "anthropotechnics"

to lay out, I'm brought to a childhood memory: of sitting with my grandfather, at his window, watching the Roosevelt Island Tram dangling from a wire and carrying passengers back and forth across New York City's East River. As a child, and perhaps even now, the paradigm which emerged was a metonymic understanding of agency: it wasn't a person operating the tramway but the tram itself which went; it's not a person steering this boat but the boat-as-machine which has agency. And thus, by way of a cablecar's drive sheave or the boat's propeller, we watch the literal gears of the city turning.

These free-but-constrained machines enact part of a much larger system, invisible, and predicated on the certainty of fixed and repeated movement. Perhaps the exact opposite is watching this flock of seagulls swoop by, free-flowing, unconstrained, following the fish.

Architecture — etymologically, *arkhi-* and *tekton*. Architecture has never meant to accommodate technology but rather to be a form of technology.

If architecture and the wire fold into each other, then architecture's theories might serve some justice in understanding formal translation and moving through dialectical ethics. That other wire, the one of dialogical ethics, argued (in line with Haraway) against binary oppositions in the construction of an ethics, and instead towards gradients of tension. The same can hold fast here; architecture, within globalized praxis, has seen this issue before:

Theory has to a high extent lost contact with the concrete life-world. [….] Character, however, depends upon how things are made, and is therefore determined by the technical realization ('building'). Heidegger points out that the Greek word techne meant a creative 're-vealing' (Entbergen) of truth, and belonged to poiesis, that is, "making". A phenomenology of place therefore has to comprise the basic modes of construction and their relationship to formal articulation. Only in this way architectural theory gets a truly concrete basis.

The structure of place becomes manifest as environmental totalities which comprise the aspects of character and space. Such places are known as 'countries', 'regions', 'landscapes' […] and 'buildings'.

So claims Christian Norberg-Schulz in his 1976 text *Genius Loci* (15). The Norwegian architect argues extensively for a reconciliation of architectural theory (read: growing

reach and what is reachable, what is included as a terminus and what is not, is the "right outlet" for a wireless wire.

cultural extensions (2022), we position Siegert's notion of *cultural techniques*—"a post-humanist understanding of culture that no longer posits man as the only, exclusive subject of culture" (2015: 11)—within specific historical and geopolitical contexts. We may say that wires perhaps operate differently in East Asia, Scandinavia, or North America, but their mediatory role transcends these differences, revealing a cultural logic that is both local and systemic.

During Trial 4 of our study, participants noted how leaving the wires entangled, bare, and exposed in the air evoked a sense of nostalgia, reminding them of a time when such sights were common. The image of dangling wires or cables vividly connects to memories of the past, contrasting sharply with today's belief that we have progressed technology. Yet this trend from wired to wireless began long before our generation. By the turn of the twentieth century, 'wireless telegraphy' promised to erase this visual entanglement.

The 'magic' of transmitting electromagnetic radiation through the air temporarily suggested that wires—and the walls structured to contain them—might no longer be necessary. Radio and other 'wireless' technologies are only ever apparently 'wireless'; even a simple live broadcast requires extensive wiring, often surpassing the complexity of the largest telephone switching installations (Harwood, 2014). This fascination with 'wireless' masked the deeper and ongoing embedding of wires within architecture. The more we tried to move beyond wires, the deeper they embedded themselves—within walls, beneath the ground, and hidden in infrastructure, sustaining the myth of technology's minimalist progression. 'Wireless' was not a disappearance of wires; it was the ultimate reimagining—concealed, silent, out of sight, yet ever-present, reshaping how infrastructures live and breathe.

of Postmodernism) with local style and construction techniques. Local character does not take precedence over globalized theory, but rather enables that theory.

Though the phenomenological aspects of his argumentation live on solely in the architect-poets (academically it has been somewhat set aside), his stance on critical regionalism lives on, continuing to offer a mechanism by which to mediate between global architectural discourse and local character and construction techniques; it becomes possible, even within a dialectical ethics, to operate without pure opposition, instead always an operative gradient.

The wire is still thus read as a wire, a gradient of information and flow, of tension and slack. Fred Sandback's installations of taut wires delineating space can be read in fluid terms.

Intentional or not, the image of exposed wires doesn't only respond to our initial inquiry regarding wires as media but also serves as a nostalgic image of the past. This brings to light an interesting paradigm: before wireless technologies offered us a vision of a possible future, wired technologies offered the same for generations before us. But this isn't a one-way street: the posture of looking back into history and finding what used to be an imagined future is an interesting way to examine the now. The best example I can think of is *Neon Genesis Evangelion*, a Japanese anime series that aired during the increasingly wireless 90s. Its writer/director was born in the 60s, and in the first robot scene in the series, the main robot is wired, dangling, and exposed. Each time an enemy comes, this wired robot is sent up from underground, together with its power station, and its attack range is limited to the wire's length—this limitation is somehow in place, even though they had imagined the robot as being controlled by a neurological interfacing system, giving way to robots developing their own consciousness.

When and where did the wireless machine start to take over? What is it replacing? What is it *actually* replacing? Which parts of the world are wirelessly covered? Like the cruise ship, what are its invisible terminals—where is its periphery?

TRIAL TWO: TO INCREASE NOISE, AND FEEDBACK

After receiving further feedback from Trial One's participants and thinking further on the cable's sonic affordance, I adjusted the instrument to abstract sound received from the piezo microphone through frequency modulation synthesis. I noticed that people are good at understanding that the instrument's sound is a direct result of the untangling action, too good at it, so much so that they don't bother to give attention to materiality. To perform tension, then, means in this trial to bring intervention to this overlooked phenomenon. To introduce obstacles where I can reintroduce awareness, and to understand the interplay between entanglement and sonic conditions, the materiality of the technology and the feedback system is of utmost importance. To continue, I add three more microphones hanging in the middle of the room to receive signals where there are actions. Therefore, the signals coming in are not only from one terminus but "other" sources; adding "noise" translation helped to create irritation and to disrupt the taken-for-granted relations between body and instrument/cable. And because the condition is complicated by the instrument's mechanisms, rules are made to keep the participants clear on their goal. Once a participant successfully untangles the assigned cable, they can use a hammer to break the concrete brick which is anchored at the end of their cable.

AFTER THE REVOLUTION, WHO'S GOING TO PICK UP THE GARBAGE ON MONDAY MORNING?

It was a Friday afternoon when I saw this almost hour-long video art piece *SinoFuturism* by Lawrence Lek. I was late at the time, and only got to watch the last five chapters of the film (of which there are seven: "Computing," "Copying," "Gaming," "Study," "Addiction," "Labour," and

"Gambling"). The film adopts the form of a video essay examining "Chinese-ness" from 2000 to 2018, a period when China's economy and technology both grew massively. Fascinated by the chapters on "Gaming" and "Labour," though, it was inevitable to entangle what I saw and what I did, and especially placing my work and of Lawrence's adjacent, as a way to eschew a mess of murmurs into thought. This took me some time to process and distill: labor as practice.

The reinforcement of repetition as gestural training is foregrounded; that is, repetition as some form of bodily learning as a mediating act between what is organic (our flesh) and inorganic (systems of the machine, of knowledge, of strategy). Practices, learning, labor, themes all present in the Trials, root themselves in and derive from time—how can process not count as sculpting time? During Trials One and Two, I invited my friends to be participants. I thought it would be fun for them to play. But as Trial One progressed, I began to wonder, is this even fun to them? And if not, do they change from participants to laborers? What, in terms of capital, distinguishes a worker from a gamer, and if there is no difference here, am I guilty of this form of art practice? After Trial One, I remember asking my friends, and they said they'd gotten bored after around twenty minutes when they realized that untangling all the wires seemed impossible and they still had a long way to go. I changed the rules for Trial Two, setting goals and obstacles (easy ones) to make them feel driven. To win the "game," they had to be the first to untangle the wires, and were then given the chance to break the brick with a hammer. But even this gesture of using a hammer to smash a brick resonates with something far more than just having fun: Would a construction worker see this objective as something fun? Why would I think this is fun in the first place?

TRIAL THREE: CABLE =? YARN

Developed in collaboration with Ian Callender and Ann Wang, conducted at the Film and Media Studies Department of Columbia University's School of the Arts. This workshop focused on the situated body, the translation of information (signal-noise), and the gestalt of entanglement as a new dialectical ethic. The workshop adopted a popular children's toy, a wire phone, as its sonic medium. It was meant to demonstrate the relationship between entanglement and communication, an afterthought of Trial Two to pay more attention to the history of communication tools/technology. In entangling several wire-phones together, the transmission of the signal between terminals is less translational but natural, undertaking its original form: vibration. Our words were muffled, often lost due to the many natural sources of noise, and eventually abstracted into noise to the participants and the other ends. Interestingly, however, we found out that sound transmitted not one-to-one between two cups, but one-to-many when entangled in the middle. With a person talking on one side, the other ends are able to receive the same signal/noise. This also worked in simultaneity, allowing for signals to cross, overlap, amplify, negate. The legibility of content was limited in this case, but did it matter? Our argument was about the medium, not the content. The string-phones' wires were of nylon and cut in different lengths, pushing the workshop leaders (myself, Ian, and Ann) to form a dynamic and imperfect

CAREFUL OF THE TRIPWIRE!

Granted, the lighthouse functions as both a localized signal and an abstract mediator, but let's push (or twist?) this argument a bit further: these broad systems are not always as innocuous as climatology and will never be, but go as large as geopolitics or sovereignty. I'm thinking of this in relation to Isfjord Radio, a former radio station as well as an adjacent lighthouse built in Svalbard (itself "re-discovered" by Norway) before World War II under pressure from the Soviet Union (Rote, 2024). The station currently operates as a resort with its facilities owned by a mining company called Store Norske, and its existence highlights how media infrastructures like lighthouses or radio stations, and even houses, function under one architectural structure while being deeply entangled with histories of mediation and power. For Isfjord Radio, the lighthouse and radio station did more than help ships navigate difficult ice; they embodied a moment of Norway's failed geopolitical resistance to Soviet influence, anchoring communication within a network of territorial control.

GHOST WIRES

The other night, I watched a Hong Kong film called *Love in the Time of Twilight*. Aside from enjoying the laughs (it's a great film), I was drawn to the scene where one of the characters, Jiwei, is strangled to death by an entanglement of wires. Jiwei's soul is then trapped within those wires—a very unusual play out in an East Asian context (where spirits are typically connected to natural sources)—until another character plugs the cable into an electrical socket, using it to power a lamp. This act releases Jiwei's soul from the wires.

(Interestingly, we see a parallel in the concept of phantom power, also called standby power or ghost power. Electrical devices like laptops, gaming consoles, and kitchen appliances draw small amounts of power even when they aren't in use. This "ghost power" suggests a faint, persistent connection within the wires, a trace of potential communication that remains even when the device itself is inactive.)

Something calls to mind Jean Epstein's 1947 *Le Tempestaire*, a short experimental film where a young woman tries desperately to save her fiancée, a sailor, from a violent storm. First, she tries running to a weather station, modern and bright, where radio and radar operators bustle to determine the storm's course. They cannot help, so she runs to a local home, dilapidated and unassuming, where an elderly fisherman is able to help her by conjuring the storm to subside. In both moments, the functionality of the wire is shifted, not in service of communicating broadly but in localizing broad communications. In the former, it is the wire in its various forms that receives and solidifies transmissions, presenting them incomprehensibly to be interpreted by a specialist. In the latter, it is but a woven fishing net, but not contentless; for as the fisherman weaves, he weaves himself further into the extrasensorial matrix of the world. This defines a dialectic, not only of communication (whereby the wire becomes the terminus itself, elevated to the interpretive mechanism between signal and individual, the very mediative apparatus) but metonymically of the architectures which encompass those media. Per Deleuze, they fold over themselves into one.

web, and participants (around twelve) to walk back and forth. It is certainly not an ideal trial (like I said before, or maybe like I say later, trials and errors….) but our attempt to use nylon cords instead of an electrical cable somehow brings us forward to our next claim, which is that they, in turn, cannot be simply understood as lines connecting dots, but as embodying physicality, practical usage, and potentiality. So maybe what I claimed before—that entanglement could be understood as a pattern, which is to say, a mere representation of a kind of surface—is insufficient, and it *does* matter what has been entangled.

To follow this argument, I am thinking about the lighthouse in relation to a radio hub, and how they serve communication processes. A signal is a sign. A sign is a language. One is one, there is no place for interpretation. I think this may be an interpretation of your geometric translation. But if there is translation, there is also replication: the signal is one to many, with the lighthouse the transmitter and every boat the receiver. This is similar to radio and television. Often times, this narrative somehow skews into "brainwashing," apparatuses for mass control, with the reintroduction of the human: when it is not the technological medium that conducts the formal translation, there must be an interpreter involved; for example, a sailor on the boat must witness the lighthouse's signal, know what it means, and then be able to inform the entire crew. The human acts as an intermediary station in this line of information transmission. Oftentimes the lighthouse signal only indicates one message: *Danger! ~~Here is a coastline!~~ Beware of the coastline!* Regardless, the human interpreter is free to decode it in different ways, such as: *I'm stuck on a deserted island, come rescue me!*

This idea of a soul lingering in wires or circuits has a Western counterpart in *Gramophone, Film, Typewriter*, where Kittler briefly mentions a science-fiction story, "Resurrection Co," by Walther Rathenau (1867–1922). In this story, the author imagines a telephone company connecting tombs to the public telephone network via cables—not to trap souls but to create an ongoing link between the living and the dead. These wires store and transmit signals beyond our real-world experience, offering an unusual, technological way of linking two realms. It's less ghostly, less claustrophobic, more technical. Imaginings like these from the Second Industrial Revolution offer a technologically advanced version of ancient myths about communicating with the dead. Beyond echoing traditional one-way offerings to the departed (Peters, 1999: 156), it is an extreme case of a wired network where the message is presumed to drift, never reaching a receiver. Here, the message itself becomes caught within the medium—the wire and the surrounding air—creating a channel that connects but does not necessarily complete.

This practice of speaking into a channel without expecting a response reflects situations where dialogue is impossible or unwanted. When speaking to the deceased, an infant, a pet, or a distant person, the speaker occupies both ends of the conversation. Our communication with the departed may never reach them, yet the act of sending is as essential as receiving. The presence of a channel—a wire that may or may not carry a response—holds significance on its own.

However, when we compare these modern representations of spirits in wires with the initial social and religious responses to electromagnetic powers in the United States, there is a noticeable shift—a retrogression, even a rupture. This initial movement, known as "Modern Spiritualism," aimed to construct a "spiritual science" where followers believed the dead were in contact with the living through the gifted "mediums" represented by female bodies (Sconce, 2000: 12). In these early interpretations, the medium was a physical, embodied presence. Over time, though, wires—or the concept of the "wireless"—replace the physical existence of this labor, the bodies, the female presence. It is one of many examples of how physical presence is peeled away in contemporary technical narratives, echoing our early reflections on "advanced technology."

And let us stop here, let it sink in (cue the Elon Musk "let that sink in" meme with him holding a giant sink and walking straight into the headquarters of Twitter aka X).

This brings to mind "Wind Phones," where those in the process of grieving speak into telephones in booths that are connected to...nothing. The wire, again, becomes a mediative apparatus, between the fixed and the indeterminate, reverberating into thin air.

The new value placed on the transitory, the elusive, and the ephemeral, the very celebration of dynamism, discloses the longing for an undefiled, an immaculate and stable present...

Jurgen Habermas and Seyla Ben-Habib, *Modernity versus Postmodernity*, 5

This calls to mind Bernard Tschumi's differentiation between architectural program and event: the former is a use that is planned, fixed, or mandated in a sense by the structural system; the latter is a use that is unexpected, without firm temporal bounds, accidental, counterinstitutional (Tschumi, *Architecture and Disjunction*, 139ff). He has spent much of his practice defining, often through the deployment of visual manifestos (such as his *Manhattan Transcripts*), a theoretical foundation for architecture made to contain event before program; or, to allow room for counterforces upon program through event.

WRAPPING THE WIRES

To my right, Luo is leaving off with an image of collaboration and coming together. To my left, Ann is leaving off with—autocrats aside—an image of communication beyond the ontologically determinate. I'm saddened our collaboration on this text is drawing to a close. But reconciling what they're both hinting at, I have a feeling this isn't the end of our work together.

That is, through this continuous grappling with each others' texts over this writing process, we've not only grown accustomed to each others' knowledge sets but wonderfully come to rely on them. It's this exact paradigm that, to us, gives the text its weight. Each of us approaches

WHAT WOULD HAPPEN IF WIRES ENTANGLED MY LIFE?

Ultimately, being self-identified as an artist, one ought to make, instead of writing, fundamentally two different gestures to produce a self into the world. It has led me to do a series of untangling entanglement workshops, a work-in-progress (not in status, but in process). Maybe to call it a "work-in-progress" is even too determinate and I should refer to it as a series of workshops-in-progress, as the workshop itself connotes a certain interplay between humans and things (both social and technical)…I therefore acknowledge that the workshop's state of being is inevitably entangled both with my body as the workshop's initiator/designer and with the workshop's encounter with the rest of the world. What singled itself out as the very cause of my action occurred during an installation at Fridman Gallery in New York City's Lower East Side, where I needed to wire all my electronic components to a powered outlet, making sure electricity passes through, but doing it almost invisibly, as if these wires were part of the functionality of the electronics, and not its materiality: symptoms, not components. The cables gradually grew into a net-like shape around the structure of my piece, trying to escape to part of my work aesthetically and conceptually. I tasted a fear of its exhibition.

I picked up this interesting memory when I was reading Kittler: when he himself was trying to examine the materiality of the gramophone, I was doing my own observation of wires, of these slippery solid objects. Wires are always treated as unnoticed, though they are rarely actually unnoticed, but a fundamental condition for a machine's operation. Leaning into the field of media archaeology has allowed me to develop a more structured framework for this possession by the image of cable entanglement. My workshops are designed within what might be labeled four theoretical axes of media archaeological thought: temporalities, labs/workshops, play (through tool and toy), and feminist positionality. The workshop is also developed in the field, in real time, with input and feedback from my participants, as I repeat it over and over again, just like a scientific experiment, replete with trials and errors. I refer to my workshops as Trials One, Two, Three (the third, collaborative, with Ann and Ian), and Four (collaborative, again with Ann and Ian).

the prompt of a materialist reading of wires from a different positionality, intellectually and otherwise; placed alongside each other, something else emerges. It is by turning our attention to the media of the in-between that we enact the media of the in-between; or, rather, the other way around. Perhaps, to Socrates' disenchantment, we might be able to coalesce some glimmer of what might be called knowledge or understanding.

Who was it who talked about the strata of media history, that layers aren't exactly linear but interlaced and fluid, caught up in one another and lacking in true boundary? This is our attempt: temporally, critically, ontologically...and so, as we pull on one wire, one thought to investigate, the rest realign too. The entire entanglement becomes implicated; it is impossible to investigate one wire without invoking the rest.

Which is really a pain when I'm just trying to charge my phone.

It was Siegfried Zielinski, speaking to a concept of heterological time:
"The Earth's evolution [was not] a linear and irreversible process but as a dynamic cycle of erosion, deposition, consolidation, and uplifting before erosion starts the cycle anew."
(2006: 4).

Apple or Samsung?

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“It is a delight to read across the columns and to explore meanings in-between; a lovely read for someone like me who tend to “think sideways”! Yet I wonder, what is the essay’s finding/contribution, apart from the method itself?”

- Elisabeth Brun, participant of *Metode* (2025), vol. 3 ‘Currents’

“Could we suggest to our web designer, Trond, the idea of creating a playful but annoying wire that follows the cursor, making the reader more aware of their movements while reading? However, it’s important that this wire can be removed or “cut off” to avoid obstructing the entire screen..”

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“WIRES! The three different voices and tones in the text add an engaging dimension, especially when considering the connecting technology. This diversity also encourages deeper reflection on how technology influences communication and interaction.”

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Cite this essay:
Ian Callender, Yueyang Luo, Ann Wang, “Aether to Wires to Rust, and Back Again,”
Metode (2025), vol. 3 ‘Currents’

Metode

Metode (2025), vol. 3 *Currents*
ISSN 2704-0550

ROM