Gregory L. Ulmer

University of Florida, Gainesville, Fl, 32611

glue@ufl.edu

Electracy

A man's work is nothing but this slow trek to rediscover, through the detours of art, those two or three great and simple images in whose presence his heart first opened. Albert Camus

Abstract

Electracy is to digital technology what literacy is to alphabetic writing. Gregory Ulmer introduced the term to update "secondary orality" used by Walter Ong to distinguish electronic culture from oral and literate civilizations. "Electracy" is a portmanteau combining "electricity" and "trace," the latter referencing Jacques Derrida's grammatology replacing semiotic signs with relational *differance* as the basis of signification. Electracy subordinates the catachresis "digital literacy" within the frame of "apparatus" (*dispositif*), to indicate that technology is one dimension of a three-dimensional matrix, including institution formation and individual and collective identity behaviors. Apparatus theory (developed by the Tel Quel group, 1960-1982) opposes technological determinism by defining literacy and electracy as invented, partly technological and partly ideological desiring machines. Computing as apparatus, for example, is understood as the meeting of Aristotle's truth tables and Leibniz's binary numbers in Tesla's logic gate. Electracy emerged out of literacy beginning with the Industrial Revolution. Immanuel Kant's promotion of Aesthetics (Pleasure-Pain) to equal status with the faculties of Pure and Practical Reason provided a metaphysical framework for the new epoch.

Keywords: Analogy, Anthropocene, Apparatus, Capability, Chora, Digital Humanities, Dromosphere, Flesh, Heuretics, Ideology, Interpellation, Literacy, Mystory, Orality, Simulacrum, Theming, Theopraxesis.

The Designing of the Disaster

The Institution of education will be reimagined for a post-COVID-19 world. The cascading disasters of 2020 created a classroom "catastrophe" jump from one paradigm to another: from print to digital media. After decades of gradual assimilation of computing within schooling, suddenly classroom instruction worldwide went online, exposing the incommensurability of literate pedagogy and digital technology. Electracy (the digital apparatus) dates from the beginning of the Industrial Revolution, in the later eighteenth century, which is to say that one of its identifying features is the Anthropocene (the epoch in which human activity began to modify the planetary environment). Here is the responsibility to be confronted in an electrate education: nature and culture have merged; *the cause of world catastrophe is us*, humanity itself. There have been four apparatus (the term is both singular and plural) in the history of civilization, beginning in the paleolithic era some 80,000 years ago: orality 10,000 years, (Western) literacy 3,000 years, and electracy 300 years ago. The insight of grammatology (the history and theory of writing), is that technologies of language and communication are one part of a tripartite apparatus (desiring machine): part ideological and part technological. The operation of apparatus in history was not noticed until the twentieth century, when the cumulative effects of electronic civilization raised awareness of the limits of (Western) literacy, the nature of its historical shape, emerging from orality in Classical Greece, and giving rise to "secondary orality" (as Walter Ong called it) in modern times.

"Apparatus" (*dispositif*) is a term favored by the *Tel Quel* school in France (1960-1982), the journal that published works by many French poststructuralists. The French provided most of apparatus philosophy, while the Toronto school (Marshall McLuhan, Eric Havelock, Walter Ong among others) provided the scholarship. The prototype apparatus of literacy includes three interrelated but independent inventions, one of which is technological (alphabetic writing). After the Greeks acquired alphabetic writing (about 1000 BCE), Plato created the first school, the Academy in Athens (387 BCE), opening a "chora," a region of new reality within the dominant orality of his era, with an original metaphysics of science (mathematics). Within the Academy the students began inventing the operating practices of literacy, codified by Plato's student, Aristotle, who founded his own academy, the Lyceum. The third dimension of invention involves identity experience, individual and collective. Eric Havelock (1963) argued that individual selfhood and the related political order of democracy are as much inventions of literacy as alphabetic writing and school. Socrates is a syncretic figure, partly oral, partly literate,

the first person to experience Self. This history is familiar, noted to make the point that each apparatus produces an original metaphysics (world view account of reality) including *technology, institution formation, and identity behavior*. Metaphysics accounts for space, time, and cause, and directs all resources of a civilization to manage ultimate cause in the interests of human thriving. Paleolithic was animistic, regarding everything as alive, using magic to promote survival (life/death). Orality identified divine cause, creating religion and the institution of the church to address right/wrong behavior mandated by God. Literacy identified nature as cause (*Phusis*), creating true/false logics of science to manage material laws. Electracy opens a new chora, with humanity as cause, including a metaphysics of attraction/repulsion. This history should be taken into account when organizing education native to the digital apparatus.

The optimistic side of this history is that the digital apparatus is invented, as an actualization of human desire, and not merely an affordance determined by technology: humanity and technology evolve together in a dialectical dynamic. The caveat is that whatever the digital apparatus is becoming, it is not more literacy. Is it any easier for a literate scholar to accept electracy than it was for a church theologian to accommodate science? The trial of Galileo is a cautionary tale. Walter Ong warned against such terms as "oral literature," a phrase he called "preposterous," because it masked the incommensurability of oral and literate productions (Ong). The same must be said about "digital literacy," not in its narrow usage for learning "best practices" of authoring online, but as a frame for understanding education native to an apparatus whose causality is not accounted for by magic, religion, or science. The complementary relationship of digital literacy and digital humanities with electracy is evident in this context, in that the functions of the former up until now have been to adapt computing technologies to the metaphysics of school, similar to religions of the book adopting alphabetic writing but not scientific metaphysics. Reviews of digital humanities discuss how information sciences augment critical thinking native to literacy. There is an analogy between concept formation in literacy and data mining. The concept as a category of reason was discovered in patterns made accessible through scanning the oral record visualized in writing. Justice is the first concept, created in the *Republic* when Plato went beyond Hesiod's topical collections of dramatic situations of (in)justice, such as the anger of Achilles in the *Iliad*, to ask, "what is justice itself?" Distance reading (text data mining), introduced by Franco Moretti, similarly is revealing new patterns in

the digitized archives of print not discernible to scholarship. Apparatus history suggests that these patterns hold major unforeseeable consequences for knowledge creation.

James Watt's steam engine (1775), The French Revolution (1789), and Immanuel Kant's *Critique of Judgment* (1790), are three threshold events marking the inception of electracy. *Climate Change* stands in for all *hyperobjects* (Morton, 2013) created by and exceeding control of scientific (literate) civilization, with posthuman significance (in which human survival and thriving are not prioritized). The apparatus of science (including literate schooling, individual selfhood and the democratic nation state) has become a victim of its own success. Scientific civilization produced a generalized sprawl, overrunning every physical and informational category and limit, resulting in an historical crisis of the formless (addressed in the recent field of border theory). Paul Virilio (2003) testified through his Museum of Accidents to the impasse created by digital speed, light-speed technologies creating real-time feed-back loops collapsing all dimensions into Now, overwhelming the time and space essential to critical thinking. Virilio's description of the claustrophobic closure of the world upon itself due to the dimension collapse he called *dromosphere* (dromos = speed) has become accessible to individual intuition in conditions of home quarantine required by the pandemic. The quarantine serves as collective existential epiphany.

Hopes for engineering solutions through technological progress are delusions, Virilio observed, since technology itself has become a primary driver of the Anthropocene. Every invention includes its own accident: the invention of the car includes the car wreck. Virilio warned of the *General Accident,* that happens everywhere simultaneously, with disasters such as Chernobyl representing harbingers. The Internet Accident has happened already, with the pollution of the public sphere by cyberwarfare, contributing significantly to the erosion of democracy. The COVID-19 pandemic is the most complete instance of a General Accident to date, exposing the limitations of the existing world order.

Virilio lamented that dependence on computational algorithms of calculation in all areas of productivity eliminated *analogy* as a resource of thought and imagination.

> Digital technology is a filter that is going to modify perception by means of a generalized morphing, and this in real time. We are faced with something which is more than the failure of the traditional static arts, both visual and plastic: we are faced with the failure of the analogical in favor of calculation and the numerology of the image. Every

sensation is going to be digitized or digitalized. We are faced with the reconstruction of

the phenomenology of perception according to the machine. (Lotringer and Virilio, p. 66)

Virilio's concern recalls Plato's warning in *Phaedrus*, that writing would destroy living memory. Virilio suggests *digital imaging will destroy perception itself*. Plato's Academy began inventing a new metaphysics adequate to the artificial memory of writing. Electracy must do the same for the constructed (fictional, deep fake) phenomenology of the digital apparatus.

The more familiar usage of "apparatus" is in the phrase "Ideological State Apparatus," (ISA) used by Louis Althusser to describe the institutions responsible for educating citizens to become productive members of society (Althusser, 2001). Ideology represents the imaginary relationship of individuals to their real conditions of existence (which are not knowable directly). The alternative to ISA is RSA, the Repressive State Apparatus (the police, for example). The difference between managing social cooperation by ideas versus force was manifested in the protests following the murder of George Floyd. Citizens are *interpellated* (invited, solicited, called) to their preestablished position in the social order, according to the culture, customs and traditions of identity categories (the WASP order in the tradition of patriarchy). Althusser's analogy for the iconic *gest* of this call, especially telling in our context, was that of a police officer approaching a group, commanding "hey you there!" and the one who turned around to answer is interpellated. We recognize our place in the system.

The authors of a recent special topic issue on Digital Humanities for *PMLA* declared ideological critique of identity as a priority:

We reassert a fact that we believe to be self-evident: that DH must concern itself deeply with race, gender, disability, economic and linguistic access, and other intersecting axes of power embedded in our materials and methods as demanded by this troubled moment in the world (Booth and Posner, p. 10).

Critique of ideology, and critical analysis in general, are inherently literate, applying analytical reason to the Western tradition itself and against humanism as a compromised metaphysics. There are good reasons for this critique within literacy. Electracy calls for an *aspect shift*, however, to regard the "humanities" in DH from the point of view of apparatus, as resources for creativity across all disciplines, essential to education's response to the Anthropocene. Hans Blumenberg's insight into the relation of secularization to Christianity applies to our project also, which *reoccupies* the questions of the traditional humanities while replacing the conventional

answers (Blumenberg, 1983). The insight of apparatus is that the four primary institutions of ISA—Family, Church, School, Media—are precisely the primary institutionalizations of apparatus (Paleo, Oral, Literate, Electrate), each originating in its own epoch, with its own metaphysics, coexisting historically now, and in need of attunement into a tempered "stack." The challenge of electrate pedagogy is to discover how we are positioned within these institutions and how to take control of this positioning on behalf of individual and collective well-being.

Heuretics

Students learn electracy by helping to invent it. Having the same root as "eureka," heuretics is classified as "obsolete" in the O.E.D, defined as the use of theory to invent, as distinct from hermeneutics, the use of theory for interpretation. The difference between hermeneutic humanities and heuretics is similar to Thomas Kuhn's distinction between normal and revolutionary science (Kuhn, 2012). The logic of normal science has been simulated in AI expert systems, for addressing routine problems whose solutions are codified within the paradigm of the discipline. When anomalies accumulate to the point of putting the paradigm in question, revolutionary science emerges in original hypotheses formulated by certain creative individuals. Gerald Holton (1973), historian of science, studies such creative figures to understand the ability to think beyond a paradigm. Holton noted that science includes three primary dimensions. Two of the dimensions are taught in the disciplines--those concerning how knowledge is verified (normal science): empirical facts (the archive of theory-dependent materials); analytical operations (mathematics, logics for manipulating the materials)—object of study, and method of study.

The third dimension (not taught in most schools) concerns how knowledge is discovered, refocusing on the subject who invents, dependent on analogies outside the range of algorithms (hence Virilio's concern about the elimination of analogy in favor of algorithms). This difference has received attention, especially in periods following great calamities, in the hopes of finding a logic of creativity, so far with little success. Holton named this third discovery dimension "thematic," to indicate its origins in the presuppositions, the dispositions specific to individuals, constituted in part by received cultural archetypes, and in part by idiosyncratic experience acquired in childhood, which is to say that creativity is grounded in that order of common sense resistant (so far) to AI simulation. The thematic order manifests itself in an intuition of reality, a

dispositional feeling about how the world works or how one wants it to be. Original hypotheses, it seems, are part of a larger order of positioning, "position" being "thesis," one's standpoint or stand: diathesis (state of mind), aisthesis (sensory perception). Northrop Frye referred to literature not as fictional but "hypothetical," an observation that calls attention to literature as an archive of themata, expressing underlying intuitions about reality. The core of most of Anton Chekhov's stories, for example, is said to convey his life feeling of the mutual isolation of human beings and the impossibility of understanding each other. A rich vocabulary surrounds "thesis," including Heidegger's *Gestell* (enframing), a synonym for *dispositif* (apparatus). Heidegger (1977) remarked the ontological importance of disposition, which is essentially what he meant by Dasein (being-in-the-world). If digital technologies give us GPS (physical location), electracy takes up the challenge of metaphysical orientation, EPS (Existential Positioning System). This context of thesis becoming thematic reveals what is at stake in our aspect shift regarding ISA, in that the recognition experience of ideological interpellation is a clue also to one's unique disposition (Dasein). One imagines within a specific hegemonic cultural order in the same way that one speaks a native language. Disposition is the site of human cause, chora of electrate metaphysics.

A figure guiding reoccupation or retrieval (cf. McLuhan & McLuhan, 1988) of the humanities is Amartya Sen (Nobel Prize laureate in Economics, 1998), who argues for an economics of well-being (Sen, 2009). The pragmatic takeaway is that happiness is literally profitable, although the main point is to expand the measures of productivity. Sen defines justice as an inalienable human right to develop one's capabilities to their fullest potential. A society that supports individuals' capacity to choose their own life possibility will prosper economically (Sen, 2009). The capability movement, taken up also by the philosopher Martha Nussbaum (2011), retrieves virtue ethics, as Sen acknowledges, and even the tradition of human "faculties." The understanding of being in terms of human virtues, powers, abilities, extends from Plato to the present, in a heritage including Aristotle's Entelechy, Leibniz's Monad, Spinoza's Conatus, to Heidegger's Dasein and Ereignis (event). Conatus (*striving to persevere in one's own being*) perhaps best defines what is at stake in electrate pedagogy, taking ownership (enownment) of our responsibility for the Anthropocene as *the creativity accident*. This pedagogy is personal, with students receiving the tradition as guide to their own capabilities. In our aspect shift we focus on

the core lesson of how the faculties (virtues) operate within culture, repeated in many variations, with the same structure throughout history.

Paul Gauguin's experience in Tahiti introduces the traditional questions to be reoccupied in electrate pedagogy. The moment is 1897, late in his career, in a state of mind (diathesis) informed by despair and disillusionment due to debt and illness. Gauguin decided to paint his final testament and then commit suicide. He painted a masterpiece, but the suicide attempt failed. The title of the fresco-size painting is, "Where Do We Come From? What Are We? Where Are We Going?" The art critic Hal Foster declared this work to be the catechism of modernism itself, the title drawn from Gauguin's upbringing in the Catholic faith. Reading from right to left, the scene depicts three groups of figures in Gauguin's Fauvist style of portraiture, expressing the passage from birth to death, with each grouping symbolically associated with one of the three questions of the catechism. It is a visualization of the force of being, of Conatus, that Derrida calls "trace."

The assignment structuring the curriculum of disposition is for students to discover variations on these questions and ultimately to answer them relative to their own situations (EPS). An unpacking of the catechism opens a vector through the entire Western tradition (expandable to other traditions as well). Plato established a comprehensive version of the capabilities, including individual and collective dimensions (microcosm and macrocosm). The *Republic,* Plato's dialogue outlining the ideal city of literacy, correlates the three faculties or virtues—Reason, Will (Spirit), Appetite—with Head (rulers), Heart (guardians), Viscera (workers). Aristotle updated the virtues into their definitive form: *Theoria* (knowledge of necessity, nature's laws known through science); *Praxis* (ethics and politics, not amenable to science because involving human choice); *Poiesis* (aisthesis: craft, making, techne). In Aristotle's Entelechy entities become what they (already) are through time, actualizing their potential, realizing their form in matter. Acorns become oaks in time. The art of education is responsible for the actualization of human potential (Sen's economics doubles as a theory of education). Human essence is happiness (Sen agrees), but it may be achieved only collectively, in a polis (Republic), through human choice and productivity. The portmanteau term *theopraxesis* indicates the requirement of human intelligence to integrate the virtues into one performance. *We wanted Happiness but produced Anthropocene*. Such is the fundamental aporia (tragedy) of civilization that makes humanity uncanny, Heidegger said.

Immanuel Kant revised Aristotle in his three Critiques outlining the limits, functions, and *relationships* of capability. The Critiques treat Understanding (Pure Reason, *Verstand*) dealing with laws of nature; Reason (Practical Reason, *Vernunft*) treats moral freedom. Kant's innovation, the third Critique, the Judgment of Taste, promoted aesthetics, the capacity to enjoy beauty, the experience of pleasure and pain, the dimension of sensory appetite, to equal status as a faculty, not traditionally acknowledged. Kant's Copernican revolution is an aspect shift, regarding Aristotle's categories not as in nature but rather as human capabilities. The categories space-time-cause are in us, not the world, enabling all experience, thus positioning humanity as responsible for what it makes (the Anthropocene). Kant set the agenda for electrate pedagogy, assigning to aesthetic judgment the task of bridging the irreducible gap, the abyss, separating the actualizations of pure and practical reason, that is, science and religion, laws of nature and human freedom. We may recognize in this *aporia* the condition to which *fetish logic* responds, the human capacity to support contradiction, to oscillate between aspects: *I know what is the case, but still I believe otherwise*. As we learned from Wittgenstein's exercises with the duck-rabbit optical illusion (the Neckar Cube Gestalt shift), this seeming glitch in the sensorium is also a power, precisely the power of toggling aspects or points of view, in conditions oriented not by identity (as in literacy) but difference.

Electracy can be understood in terms of Kant's hypothesis that aesthetic judgment is the key to attuning the faculties and related ISA institutions, an argument reiterated more recently by Hannah Arendt. Kant anticipated Gauguin's catechism, asking in the context of his three Critiques: *What can I know? What should I do? What may I hope?* (how does the world work; how should I behave in such a world; how do I feel about this behavior). The mythological version of the questions dramatizes the aporia. The theme is the Judgment of Paris, the contest of the Golden Apple, awarded to the most desirable goddess by Paris of Troy. The competition was among Athena (Wisdom), Hera (Political Power), Aphrodite (Fertility), whom we recognize as our three faculties personified. Each goddess bribes Paris, who decides in favor of Aphrodite in order to possess Helen, the most beautiful mortal woman, leading to the Trojan war disaster. Plato's solution was that of time and process, a passage of ascent beginning with sexual desire, which draws one into the customs of marriage and social relations, subsequently through love to recognize Beauty itself, the pure form (Idea). Botticelli, commissioned by the Medici in Renaissance Florence to visualize this Neoplatonic lesson, attempted to condense the passage,

genesis, or trace of being into a scene of the birth of Venus out of sea foam. Michel Serres adopted Aphrodite rising from the sea as the emblem of *chaosmos* (order emerging from complexity)—the scene of chora.

Theopraxesis

Theopraxesis is a portmanteau term to signify the importance of syncretizing the abilities beyond thinking: theoria, praxis, poiesis. The practical application of theopraxesis begins with testing the mode of *reflective judgment* that Kant proposed for integrating dissociated faculties, such as in the extreme breakdown of the sublime, when circumstances overwhelm both the archive of concepts and the productive imagination, as has become the norm in formless conditions of alienation. As a symptom of apparatus disorientation, the sublime sets the agenda of electracy to augment imagination (poiesis) to the same degree that literacy augmented theoretical reason. Reflective judgment is the ability to create an original category for a multiplicity of perceptions out of the pure relations immanent in the materials. The modality of reflective judgment (as opposed to determinate judgment operating through existing concepts) is pleasure-pain in the experience of beauty or ugliness, and attraction-repulsion in the sublime, the breakdown of perception and loss of intuition. The sublime is defined as the simultaneous experience of attraction and repulsion, the defining axis of electracy, the equivalent for the digital apparatus of true/false for literacy, right/wrong for orality, life/death for paleo. Categories formed without concepts by aesthetic design support sense-making native to electracy. Kant anticipated a new mode of autopoietic (self-organizing) causation (chaosmos).

The consequences of Kant's aspect shift are manifested in the revolution across the arts, their inward turn to perform their own formal "critiques" as operations in their own right, and as extensions of the human sensorium rather than as mimetic representations. Theopraxesis may be observed in Alan Kay's creation of the Graphical User Interface (GUI). Participating in the development of the personal computer in Xerox Park in the 1970s, Kay recognized the need to harness all the capabilities orienting people in experience. His interface design engages the Symbolic dimension of language (Theoria) in the keyboard and code; the Enactive order (Praxis) of action, movement, the hand control of a mouse; the Imaginal (Poiesis) in the visual figures of the eye with windows and icons. Donald Norman, Director of the Design Lab at UC San Diego, developed a program of experience or emotional design, integrating the three faculties,

articulated as: Reflective (intellect, useful); Behavioral (effective, usable); Visceral (appearance, desirable). Testing proved a correlation between usability and desirability. We are back at Sen's vision, that happiness has economic value.

A final point to make about capabilities concern the "popcycle," the stack or cognitive (conative) map, the EPS by which citizens orient themselves in reality. The Anthropocene is sublime, a dromosphere of collapsed dimensions, meaning that the challenge of electrate education is to restore orientation by overcoming alienation that broke the continuity between individual experience of agency and collective forces of energy in the world, everything from global capitalism to quantum physics that exceed individual intuition. The popcycle (transversal circulation of invention through the apparatus) proposes to restore the micro/macrocosm continuity through insight into recapitulation, witnessing the relationship between phylogeny and ontogeny, the correspondence or homology between the four institutions of apparatus and the body with its three virtues. The old question regarding whether history has a direction (if not a goal), in this context, must be answered affirmatively in observing this correlation of institution and virtue, just as Plato proposed (although without his hierarchy), and as assumed within traditional cultures of world civilizations (the mandala principle). By the time children are five years old, they have been interpellated into and become native practitioners of four different metaphysics, four discourses (epistemes), collectively generated by human capability, but fatally unsynchronized.

We are born into a family, the institution created in the paleolithic (goddess culture), in which we gain control of our body. It is worth pausing to consider this primal scene of instruction of infants that Julia Kristeva called the semiotic chora, in which imagination is formatted: weaning from the breast, sensory-motor standing and walking, bowel control, learning to speak. Erik Erikson (1982) described the developmental vectors relating this early apprenticeship in embodiment with the social orders of knowledge, law, play. These behaviors produce "part-objects" emerging in transitional space (mother-infant fusion, the first chora), relating oral-anal-genital-voice-gaze appetites, informing all subsequent learning and behavior. EPS orientation augments this embodied foundation of human intelligence, setting an (impossible?) agenda for AI, or even artificial theopraxesis (AT). Apparatus education continues with children taken to church, mosque, synagogue, temple, and otherwise introduced to moral norms of right and wrong (orality, praxis). By age four children enter formal schooling,

introduced to the metaphysics of reason, evidence-based thinking of true/false, the laws of nature and history (literacy, theoria). Meanwhile, at some point early on, children enter into media culture through the screens transmitting entertainment into the home, projecting the corporate commodity metaphysics native to electracy. We take this assemblage for granted, and yet the conflict and contradictions among the institutions are patent from the beginning, not only within individuals and among the members of a family, but historically in the hot and cold wars of McWorld and Jihad. The 9/11 attack summarizes the macrocosmic conflict, integrating as it does religious motivation (orality), capitalist target (electracy), and scientific technology (literacy), intended to destroy bodies (paleo). This event symptomizes the disaster, the chaos of capabilities, well documented in infinite variation in the cultural archive.

The Visceral Turn

What is the metaphysics native to electracy? This question brings us to the challenge of apparatus as a frame for education, concerning what makes it "preposterous" to characterize our epoch as "digital literacy." The point of estrangement is that *electracy institutionalizes human visceral appetite*. It does for appetite what literacy did for reason, orality for will, paleo for the body itself, which is to say that the institution of electracy functions with a reality principle of attraction/repulsion (the experience French psychoanalysis calls *jouissance*), superseding right/wrong, true/false, or even life/death. This *differend* (constitutive incommensurability) is the aporia (impasse), the barrier inhibiting our ability to counter the Anthopocene, which is resistant to the concerns of families, churches, and schools. *The institution of appetite is the corporation*, especially the entertainment corporation, but in general the function of the corporation as prosthesis of collective sensory viscera, organized by attraction/repulsion. Given the differend separating school from corporation, the immediate question concerns the terms of a pedagogy capable of attuning or tempering the full apparatus cycle (theopraxesis).

Kant's Judgment of Taste is well-named to introduce the heuretics of electrate pedagogy. The "discovery" of America by Columbus (whose statues are now coming down around the world), was an accident of the sense of taste, emblem for the Anthropocene. The story is familiar but unappreciated as symptom of apparatus shift. Columbus was seeking a new route to India to allow Spain access to trade in pepper, a trade that, expanded to include all spices, became the first hyperobject. Pepper was one of the most valuable commodities in the world over its six-

thousand-year history. The movement to rename Columbus Day as Indigenous Peoples Day is well-meant, to acknowledge the genocide that accompanied the event, but it would be more apt to call it World Pepper Day, ritualized by abstaining from visits to the grocery store Spice Aisles for a week. It has to be recognized that people love pepper in electracy the way they love God in orality or truth in literacy. It is further proof of Virilio's insight into the General Accident. Genocide of Indigenous People is the pepper accident.

The Spanish Conquista was carried out primarily by private enterprise licensed by the Crown. The first corporation was the British East India Company, created in 1600 (the Dutch counterpart just two years later), establishing a monopoly to engage in the spice trade. This institutional invention involved the legal innovation of limited liability, which solved the problem of risk management with respect to raising the enormous amount of capital necessary for the business, giving us the stock market. This invention has a long history, associated with inventions in mathematics, especially statistics and probability, motivated by attempts to hedge bets by gamblers. The history of capital tells of a continuing struggle to escape the mimesis of risk, with the latest installment being the "credit default swap" that produced the bubble and crash of the Great Recession (2007-2009). Finance still awaits its own Jackson Pollock, although cryptocurrency bears watching as a site of invention.

When Galileo faced the Inquisition over his claim that the earth moves around the sun, he assured the theologians that his interest was only with the laws of nature, material entailments leaving in place their divine cause. The theologians refuted Galileo's toy telescope with their own instrument of proof, the rack. The choras of spirit and nature, created within orality and literacy respectively, actualize the potentiality of Praxis and Theoria. Gregory Bateson acknowledged this apparatus differend when he observed that the past two and a half millennia of civilization could be accounted for by two terms: *sacrament* (religion); *entropy* (science) (Bateson, 1979). A third term is needed to mark the emergence of electracy. That term is "commodity," the nature of which is evoked by identifying El Chapo (Shorty) as the Galileo of electracy: drug lord, ruthless head of the Sinaloa Cartel that supplied eighty percent of the U.S. market in cocaine, heroin, meth, and marijuana—the contemporary spice trade—earning some one hundred billion dollars annually. People love drugs, and the mayhem associated with the trade is the drug accident.

Drugs are a commodity, commodity being an invention of corporate capitalism as prosthesis of human appetite. It is abject by standards of the previous apparatus. Such is the conventional critique of the corporation, as in the epic theater of Bertolt Brecht, that the new identity behavior of the digital apparatus is the mafia (collectively) and the prostitute (individually). Walter Benjamin (1999) identified the poet Charles Baudelaire as the first modern person because he experienced himself as a commodity and the city as a market. El Chapo as the Galileo of electracy makes explicit the differend, the barrier that makes electracy as metaphysics unacceptable to school, church, family. And yet it is us, our accident, our Anthropocene. The presidency of Donald Trump holds some of the same lessons, manifesting paradigmatic abjection. His credentials qualifying him as the first electrate (in the worst sense) president is his status as a billionaire of shady real-estate deals and a reality TV star. Most telling is his trading in conspiracy theories and science denial, introducing a politics that is literally uncanny in its exposure of the unofficial dimension of social life kept out of view until now. His administration exposed the limits of literate collective identity and the need to reimagine the political and ethical order itself, beyond selfhood and democracy into brand franchising in a way that promotes well-being rather than disaster.

Our post-COVID reimagining requires an aspect shift, to accept the sublime experience of attraction/repulsion (*jouissance*) as a capability, a primary human faculty, to take up the project inventing synergy among the faculties and their institutions. Let us review the elements of electracy as metaphysics (technology, institutional form, and identity behavior). *Technology* is manufacturing, the machine age of the Industrial Revolution, and the associated inventions of recording—photography, telegraphy, phonography and the like, evolving into the Information Revolution. The corporation is the *institution*, realizing the capitalist mode of production. Our apparatus analogy helps notice the relevance of certain events, such as recent Supreme Court decisions (Citizens United, 2010) confirming the standing of corporations as persons, whose speech is money and as such protected by the Constitution. The analogy is with Thespis, the legendary inventor of tragedy (a transitional form moving from ritual to theater): Thespis was the first actor to step out from the ritual chorus and speak as an individual. This event in the invention of selfhood in literacy has its equivalent in the emergence of the corporation as a collective entity or macro-subject, a kind of Leviathan, whose appearance stimulated the formation of its counterpart, the Proletariat. Critics have noted in this context that corporation

behaviors match FBI profiles of sociopaths (a diagnosis applied to Donald Trump himself). In apparatus terms we understand that what corporate Leviathans are doing is not reasoning or worshiping but *enjoying*. They are not so much speaking as twerking with money. This enjoyment is not an aberration but a human capacity suppressed in previous apparatus and becoming hegemonic in electracy.

What of the *identity* dimension of electracy? The new behavior emergent in electracy is consumerism: *brand* supplementing soul and self, modelled in celebrity stardom—the experience of oneself as an image. The commodity form separated exchange value from use value (a necessary step in the creation of any language mode). The first to exploit design thinking native to electracy were advertisers, similar to the sophists at the beginnings of literacy using dialectic for purposes of deception rather than wisdom. Given that the commodity has exchange value, advertisers realized they were selling not the steak (use value, the substance in literate categories) but the sizzle (the accidents of taste, the aesthetics of sensation). Such is the aspect shift in ontology, from a reality of essence and substance, to a reality of accidents and flesh. The reason advertising is so superior to critique, Walter Benjamin observed, is its recognition that *what matters is not what the moving red neon sign says but the fiery pool reflecting in the asphalt* (not the concept but the atmosphere). The culture wars in contemporary politics are about sizzle.

Advertising emblems support desiring in the same way that logical arguments support reasoning. The ad evokes a promise of happiness by triggering a fantasy, an event of electracy. What inferential entailments are to arguments fostering understanding, colors textures shapes are to designs triggering moods (feeling). The insight of electracy is that these moods are an independent capacity equal to and apart from logic or morality, with equal power to organize civilization. The greatest conversion of a civilization since Rome converted to Christianity is that of Christian and ultimately global society to consumerism. Philosophers warn of the dangers of this conversion, in that the commodity form disseminated in entertainment media, circulating part-objects, has tapped directly into human libidinal economy, industrializing and homogenizing the embodied energy source of imagination (Stiegler, 2013). The experience of electracy seen from the point of view of literacy is the series of *Matrix* films.

Electracy opens a new chora governed by a native ontology, a new understanding of *thing*, as theorized in psychoanalysis. Humanity itself is metaphysical cause in electracy, and

psychoanalysis is the best account we have of visceral cause. Aristotle is credited with inventing the literate thing (substance) and codifying in his categories the ten statements possible to make about anything using declarative propositions, limited to the neutral modality of true/false. These categories remain in force today, condensed into the five *Ws* of journalism: *Who What When Where Why*, manipulated within alphabetic media, vehicle of reason, and dismissed in electracy as fake news. Meanwhile, Aristotle's truth tables, joined in a bachelor machine with Leibniz's binary numbers and Tesla's logic gate, meet in electronic computing to write true/false at light speed. Literacy put true/false into a machine and gifted it to electracy, to be applied in emergent ways, just as orality put speech into writing and gifted it to literacy. The object of electracy is *das Ding*, to use Freud's term, naming object relations (it is a relation, not a substance). Julia Kristeva (1982) revised Freud and Lacan to situate the formation of this new kind of thing in the pre-Oedipal period from birth to eighteen months, the period of sensorial apprenticeship. In this period the child's first object forms, *the transitional object* as Winnicott called it, simultaneously within and outside, parent and child at once, a moebius topology for a homothetic imagination (extimacy). The energy of electrate chora comes from the initial event of satisfaction undergone in this potential space of infancy, giving rise to the fantasy of lack retrospectively constructed as defense against anxiety. The fantasy of the *object-cause of desire* (not what is desired, but desire's cause), Lacan's *objet petit a* or object @ (the little other, embodied in part-objects, produced by and separated from the fragmented body), inspired by Winnicott's transitional object, circulates among bodies through media, structuring deep memory, experienced as *attraction/repulsion orienting the reality of electracy*. This cause is not logical but catalysed by fiery pools of aesthetic design. The political order today must be reimagined in terms of this aesthetic articulation of need, demand, and desire (Three Graces of psychoanalysis). The political order in every apparatus emerges in relations formed at the intersection of the faculties (Fukuyama, 2002). This intersection is the fundamental interval requiring augmentation in AI, AT, even artificial unconscious. Again, it is worth repeating, the digital apparatus augments the commodified object @ just as the alphabetic apparatus augmented the propositional thing.

The insight of electrate ontology is that the universal exchange enabled by the general equivalent of commodity form supports this visceral dimension of human imagination (poiesis), potentially activated by any trivial item or detail invested with libidinal energy (its prototype is PTSD). It is the motivational "butterfly effect" of chaos theory. The change from one apparatus

to another includes a shift in the functioning of the human sensorium--dominance of the hand in paleo, ear in orality, and eye in literacy. Kant's taste registered the new priority of the contact senses over the distance senses of the previous orders. The libidinal chora clarifies that the electrate sensorium is organized by what Lacan calls *lamella*, a fantasy organ unifying the erogenous zones of the body. Lacan explicitly compared his topology of the subject, the Borromean rings (knot) relating the Real, Symbolic, and Imaginary (RSI), held together by the drive of object @, with Aristotle's theopraxesis, thus confirming the consistency of the capability structure through history, self-evident also in Freud's Ego, Superego, and Id (principles of reality, morality, and pleasure). The pivot of our theme is that, as Heidegger promised, *where danger is, grows the saving power also*. The faculty of imagination is a *pharmakon* (both gift and poison).

Cabaret Academy

The pivot into the saving power of electrate education was the creation of cabarets in Montmartre on the outskirts of Paris in the 1880s. It is useful to place this innovation in the context of education, to appreciate its significance for the apparatus. Our framing question concerns how our civilization may reimagine itself against self-destruction. The historical innovation is the French response to losing the Franco-Prussian war of 1870-1872. The treaty ceded Alsace-Lorraine back to the Germans (it had traded hands numerous times). The French did not respond with the creation of a new kind of university, as the Germans had after their humiliating defeat by Napoleon, but instead with a cabaret scene, which hosted (accidentally) the invention of electrate metaphysics. Alsatian patriots began meeting in Montmartre, a site of bohemian counterculture opened in the industrializing city, populated with the abject class Marx dubbed the Lumpenproletariat (the dregs of society). It was a vice district, supplying cheap wine, women, and song, disrespectable, as theater districts always have been. The American equivalent is Storyville in New Orleans, scene of the invention of jazz, the music of modernism. The patriots met in the backrooms of bistros, invoking the spirit of Rabelais, *Gargantua and Pantagruel*, especially the utopian Abbey of Thelema, with its motto, "Do what you want." They invoked the *Esprit Gaulois* of carnivalesque wit. The emblem of this inaugural movement was a painting by Manet, one of the founders of modernist art, called *Le Bon Bock* (A Good Glass of Beer), depicting a drinker in Alsatian attire. The cabaret scene of the 1880s included such venues

as Le Chat Noir and Le Lapin Agile where artists gathered and formed the Hydropaths and the Incoherents, forerunners of the modernist avant-garde. Modernism actualizes the visceral turn in civilization.

The new state of mind (disposition) nurtured in this environment was *fumisme*, from *fumer*, to smoke (chimney-sweeping, figuratively lackadaisical, slacker, shirker). *Fumisterie* is humbug, farce, parody. It is worth noting that Anna O. (Bertha Pappenheim), one of the first patients to undergo psychoanalysis, referred to the "talking cure" as "chimney sweeping." The bohemian partiers mocked the entire Western tradition for amusement, of which Marcel Duchamp's modified readymade, *L.H.O.O.Q.* (a punning acronym saying "she has a hot ass"), is the prototype--a cheap reproduction of Leonardo's Mona Lisa defaced by a mustache. The poetics of Duchamp's oeuvre remains (for now) the one "style" beyond the powers of AI simulation (Manovich and Arielli), perhaps calling for revision of the Turing test: not whether a machine can think, but laugh. This new institution culminates in the Cabaret Voltaire, opened in Zurich during World War I, hosting the invention of Dadaism. *Cabaret is the academy of electracy, and Dadaism is its logic*—the Surrealist bachelor machine, exemplified by the meeting of an umbrella and sewing machine on an operating table (collage sampling of an archive). The analogy with the invention of literacy clarifies the micro-level of metaphysical invention. The basic device of literacy is dramatized in Plato's dialogues when Socrates asks an interlocutor to define a term (for Euthyphro to define "impiety" for example). Definition is a practice native to concept formation in literacy, unknown to illiterate interlocutors. Definition (outlining verbally the shape of idea) exposes contradictions in reasoning, with the principle of noncontradiction, identity, the excluded middle, as the primary operating rule of logic.

Our analogy prompts us to look for the equivalent micro-device articulating visceral mood functioning within digital media. This device was invented in the modernist arts, the exemplar being Paul Cézanne's *passage*. Cézanne's "faceting" of planes (point of departure for Cubism subsequently) introduced a device for working with sprawl conditions (formless loss of shape, disappearance of idea, blurring of figure-ground relations). The discovery included a new way to represent three dimensions on a two-dimensional surface, by exploiting *the little sensation* of aesthetic perception apart from concepts (enabling reflective judgment). His post-mimetic space was created by addressing the *involuntary* perceptual operation of the human sensorium---cool colors recede and warm colors advance. The importance of this optical effect in

art history reminds us that cinema is based on the *phi* phenomenon, the optical illusion by which still images are made to move. Lacan adopted it as analogy of the Phallus illusion in the unconscious. Electracy emerges within the gathering of modernist arts, cinema, and psychoanalysis around the involuntary operations of perception.

The equivalent history in electracy of noncontradiction in literacy is that bringing this little sensation into design opens a practice for managing the autotropic experience of human visceral orientation in the world. Sensation metaphysics, augmented in digital technology, builds out the human demand for self-stimulation, the appetites of sensory organs (the lamella) engaged through consumption of every kind, from drugs, coffee, spice, to body-to-body replication of behavior accomplished by watching sports, movies, pornography (accounted for by the discovery of mirror neurons). The insight of libidinal economy is that at the heart of this drive for satisfaction is the lost impossible object @, fusion engine of the Anthropocene (human dis/satisfaction). The autotropic body must be educated to thrive in the light-speed feed-back loops of dromosphere. This program is part of the aspect shift away from critique to heuretics. The shift is from exclusive attention to communication within the "I-s/he" system, to the "I-I" system. "The place of auto-communication in the system of culture," the Russian semiotician Yuri Lotman observed, "is far more significant than is commonly supposed" (Lotman, 2000, p. 21).

In electrate ontology *flesh* replaces Aristotle's substance, flesh being the term the phenomenologist Maurice Merleau-Ponty used to name the dimension of being revealed in the works of modernist painters such as Cézanne and Paul Klee. Marcel Proust dramatized the signature scene of the little sensations in his novel, *In Search of Lost Time*. The little sensation triggers involuntary memory for Marcel when he bites into the madeleine, the tea biscuit he first tasted as a child, served by his beloved grandmother. The incident is catalytic, which is the electrate equivalent of analytic in literacy, provoking in Marcel's case *an experience of happiness* that motivated the composition of his novel in search of the origins of this feeling. Merleau-Ponty adopted Proust's memory as methodology. These events of flesh testify to the existence of a visceral *value*, manifested in aesthetic qualities: intensity, vividness, participation, at the level of primary being, *the feeling of being alive*. The modernist arts originating in cabaret entertainments researched and experimented with the formal properties of design addressing the human sensorium, to augment these values and their catalytic effects on memory and

imagination. In the context of apparatus, Virilio's warning about digitizing phenomena becomes an exact description of flesh actualized within electrate metaphysics. *Electracy designs flesh*, just as literacy writes speech.

A reason for insisting on the cabaret setting of the invention of the vanguard aesthetic revolution is to notice its context not only as entertainment, but the setting of vice, the attractions and disgusts of desire and appetite. Electracy undertakes a revaluation of all values (Nietzsche). The (impossible) imperative today: *reimagine vice*. The revaluation of appetite is most explicitly embodied in the themed casinos of Las Vegas, such as the Venetian or the Bellagio, family-friendly capitals of vice. Walt Disney, codifying if not inventing the theme park in Disneyland, is the Plato of electracy, actually building his model polis devoted to happiness and knowledge. To appreciate this analogy, we have to consider the micro-level of design. What is the sensation-operator of Disneyland? Sergei Eisenstein, inventor of cinematic montage, praised Disney for his revelation of the power of the *plasmatic line* (plasma = shape, equivalent of Eidos, Gestalt, Idea). Eisenstein had in mind the first animated sound cartoon, Disney's *Steamboat Willie* (1928). Eisenstein spoke for his peers in his admiration for Mickey Mouse, whose popularity at the time was rivaled only by Charlie Chaplin. The key for electrate metaphysics is that this line, originating as the line of depiction in the caves of the paleo apparatus, is not restricted to the naturalism of photography, but exceeds all mimesis to articulate an imagined fictional dimension in which shape may be distorted and reassembled according to its own formal potential guided by imagination. The energy of this line is what Derrida (1974) identified as trace, referenced in the *gramme* of grammatology (the trace of electracy). Most telling in the context of capability is the comment by designer John Hench, responsible for the portrait celebrating the twenty-fifth anniversary of the creation of Mickey Mouse, that the cartoon figure in graphic terms is a symbol of life, expressed in the circular curves of the mouse (the overlapping circles that resonate with the Borromean knot of Lacan's subject topology). "The curves suggested fecundity, regeneration, babies and breasts, the lost safety of the womb, the life impulse itself" (Snow, 2019, p. 115). Aphrodite wins again. This world mouse personifies electrate thing. Hench characterized Disneyland as the architecture of reassurance, even if for its critics Disneyland is judged as the happiness accident.

The analogy between Plato and Disney affords a systematic comparison of apparatus: 1) Academy, school / Disneyland, theme park. 2) Science, reason / Entertainment, fantasy. 3)

Dialogue, discourse / Cartoon, animation. 4) Socrates, dialectic / Mickey Mouse, gag. 5) Proof, persuasion / Event, enjoyment. The list could continue, as a way to appreciate the historical inevitability of Disneyization, the theming of everyday life now well advanced globally, as the electrate equivalent of secularization by which literacy displaced orality in the social organization of experience. The functional point is to note the opening of chora in each case, of a place for science in school within an oral society; a place for fantasy in theme parks within a literate society. The predictive value of the analogy is to note the trajectory of history, that theming will have become hegemonic in guiding collective thriving (or not), including global policy formation. The cabaret origins suggest that theming of the world is also the bohemianizing of lifestyle: Lumpenproletariat as macro-subject. The specific character of electrate chora is manifested in Disney's intention that entering his park was like Alice passing through the looking glass into another world (before Mickey Mouse, Disney created a series of films mixing live photography and animation based on the Alice story). Slavoj Zizek observed that the best emblem of Lacan's part-object is the grin of the Cheshire Cat.

      The place opened to institutionalization by electrate chora has been present in the structure of narrative from the beginning of storytelling. A prototype is *The Wizard of Oz*, which serves as an electrate equivalent of Plato's allegory of the cave. Dorothy begins at home in Kansas, confronting a quotidian life problem--having her dog Toto taken from her to be put down. The tornado that blows her and the house into Oz is the disaster we are generalizing as the Anthropocene, the accident of human cause. The passage from the first to the second act of the narrative, from Kansas to Oz, transports Dorothy into *the other scene*, like Alice through the mirror, the scene Freud called the unconscious, a realm with its own rules and tests for the protagonist, as documented in Joseph Campbell's *Hero with a Thousand Faces*. The bonus in the case of *The Wizard of Oz* is that the companions Dorothy encounters following the yellow brick road—Scarecrow, Cowardly Lion, and Tin Woodman—personify the three capabilities (thinking, willing, feeling), whose powers are in a state of privation (Aristotle's *steresis*), potential only, virtual, unrealized, like those of students on the quest of education. The lesson of the allegory is that this fictional other scene is now being realized, materialized, objectified in digitalized perception, *constructing a virtual dimension* compensating for the collapse of time and space in dromosphere. In the coming community, reality will be virtual, a dimension imagined until now in the modality of *impossible*, evoked only indirectly. Realization of this

virtual order is a pharmakon, manifested equally in Otaku (Japanese) fan culture and QAnon conspiracy movements.

Theming Mystory

Disneyland as a hyperreal Republic of fantasy provides instruction in the nature of plasmatic design, a dimension of fiction but not mimetic: a *simulacrum* of place. A Yale professor of Architecture observed this quality of Fantasyland, describing the cable car ride above the castle and through the paper-mache Matterhorn. "Now nobody thinks that that mountain is the Matterhorn or even a mountain, or that those bobsleds are loose upon its slopes—slopes being on the outsides of mountains. Yet the experience of being in that space is a real one and an immensely exciting one, like looking at a Piranesi prison or escalating in the London Underground" (Sklar, 1967, p. 80). The comparison with Piranesi is most telling, the highest compliment coming from an Architect, given Piranesi's status as the ultimate designer of impossible architecture.

Another instance of this original dimension, relevant to our example of Gauguin's failed attempt to live his fantasy Tahiti, is a psychologist's description of the effect of the Tiki Room. "In a fake hut, fake parrots play-sang not very estimable tunes, but the colors were a riot of rainbows and the parrots moved their beaks in precision—now this group, now that, never faltering, always surprising. The great totems (Tiki) in various corners of the hexagonal room broke into mobile faces, singing and chanting, and soon the songs of men and birds were joined by the songs of flowers. It was like a moment from dimly remembered, complicated dreams" (Sklar, 1967, p. 111). The psychologist reported feeling himself and observing in those around him a reverence that he identified as *satori*. He credits the imagineers with having created an *anti-bomb*, equal in technological and imaginative skill to the atomic bomb haunting everyone during this period (fantasy against anxiety). The Tiki Room displayed a Polynesian theme, a simulacrum of Tahiti. It is a confrontation of two energies, libidinal and atomic. Gauguin's misunderstanding of the relation of art and fantasy is remedied in the AI GAN (generative adversarial network), capable of generating photorealistic images from diagrammatic sketches, dubbed GauGAN by its developers (Leach, 2022). AI is becoming heuretic, as it must to democratize augmented imagination. The lesson is not (only) to admire a document of someone

else's fantasy, but to explore one's own in real time. Meanwhile, we can imagine a postmodern scene: "Gauguin visits the Tiki Room."

Paul Virilio declared Disney to be more radical, more avant-garde in his productions, than the modernist painters themselves. Appreciation of his claim requires recognizing in Disney the cabaret spirit of *fumisme*, expressed in design terms through caricature and camouflage (exaggeration and deception). Disneyland as simulacrum is a caricature of Plato's *Republic*. Plato declared there are two kinds of image: copies (likeness, representation), and simulacra (appearance). Caricature as device of simulacrum produces the hyperreal, exploiting the plasmatic line to *seem more real than reality itself*, with Disneyland as the prototype of hyperreality, the dimension opened in electrate chora (Baudrillard, 1983). The paradox is that a caricature of a famous person is more recognizable than a photograph, having to do with the nature of perception and memory. This lesson has been learned by Elvis impersonators, who report that the Elvis effect requires only three gestures (lip sneer, hip swivel, rubber leg motion). Las Vegas casinos apply experience design to create Venice (The Venetien), that is more like Venice than Venice itself, according to tourist promotions. The Venetien is a simulacrum of Venice, not a representation (it is a copy for which there is no original). The theme effect is produced by providing just a few exaggerated features, accidents of flesh, enough to catalyze memory and imagination, to solicit personal disposition into participation, recognition, which is to say, to interpellate. These attunements are to digital media what logical entailment is to alphabetic writing. The little sensation is the enthymeme of electracy. The implications for solving the problem of information overload are important: *bachelor machine meets simulacrum in a game engine supporting intuition of dromosphere*. Here is an assignment for electrate AI.

Interpellation brings us back to the dialectic of danger and saving power, in noting the echo of theming in Holton's definition of the discovery side of science as *thematic*. This resonance of terms is not accidental, prompting a shorthand version of electrate pedagogy as *designing a personal theme park*. Disney carried around in his mind a vision of the park for many years before it was built. It is a modern update of a memory palace, like the one designed (but never built) by Camillo beginning in 1519 for learning all of Cicero. Personal memory theaters were a necessary feature of literate education up to the invention of print, along with commonplace books for recording a personal archive of information and topical arguments. The ground level of the theater was a familiar street, like that of one's hometown, along which were

placed at regular intervals striking images (second level) associated with knowledge, the information to be memorized (third level). When students orated, they walked in imagination through this scene. Today we know that beneath this mnemonic street is not a beach (as the Situationist said), but the infant body of semiotic chora.

Mainstreet U.S.A., entrance to Disneyland, is based on Disney's idealized recollection of Marceline, Missouri, his hometown, generalized to evoke turn of the century America. The street leads to the town square at the center of the park, a "hub" (vortex), from which radiate the four lands: Frontier, Tomorrow, Adventure, and Fantasy—past, future, nature, imaginal. Together the four scenes constitute Disney's version of the modernist catechism, and the themes are his models for answers. The park as a whole was designed by filmmakers working for Disney's studio, not architects, objectifying a kind of visit to *the other scene* created by movies. Christian Metz argued that the experience of watching movies is regressive, producing a state of potential satisfaction recalling the original transitional space of early childhood (catalyzing semiotic chora). In the TV series Disney made with the ABC network leading up to the opening of the park in 1955, narrated by Disney himself, each land is associated with specific stories, registering Disney's personal themes. Frontierland is introduced through the life of Davy Crockett; Tomorrowland features the rocket designs of Wernher von Braun; Fantasyland by fairy tales, especially the folktales of Uncle Remus; Adventureland by "reality" adventures in nature. America emerges as tourist macro-subject in its Disneyland memory palace.

Disney's creation may function as a relay for students exploring and composing a representation of their own themata, serving as a contemporary cognitive (or conative) map. Investigating the thematic dimension of knowledge creation, Gerald Holton (1973) identified an *image of wide scope* (wide image) organizing the imaginations of those responsible for scientific revolutions. Holton identified the wide image as a pattern emerging within the *oeuvre* of innovators. The pattern was constituted by four or five images, anchored in a scene of childhood memory. When a paradigmatic theory becomes anomalous, it is replaced hypothetically during the discovery phase by the innovator's unique wide image, formatting imagination. The wide image is vehicle for the object @ (cause of desire), making it the metaphysical operator of electracy. This connection between body and design is what digital technologies natively augment. The prototype is the career of Albert Einstein, and the memory he recorded in his autobiography, of the gift of a compass from his father when Albert was four years old. The

uncanny symmetry between the compass and the forces of electromagnetism makes Einstein's case paradigmatic. The wide image is just that: a vehicle and a tenor. The vehicle for Einstein is the compass; the tenor (the theme) is "invariance." The theory of relativity has been called a theory of invariance, naming Einstein's primal intuition about reality. *Vehicle*: the compass needle pointing north; *Tenor*: the speed of light. Subsequently, analysts have identified wide images in the careers of hundreds of figures across all fields of culture (Briggs).

The genre of *mystory* was created to enable students to discover and design their wide image at the beginning of their productive lives (Ulmer, 2003). Mystory retrieves the pedagogical tradition of memory palace from manuscript culture, to connect a primal scene of childhood experience with a disciplinary aporia. It is an investigation of interpellation, registering the position one *recognizes* emotionally (punctum) in each of the primary institutions of apparatus: family (home); mythology (entertainment); history (community); career (discipline as anagogy). The wide image diagram emerges from the topological invariances registered across the four theses. A wide image is a *fable* in Nietzsche's account, replacing the dialectic of appearance/reality (truth) with the central *event* of electrate learning: *the intersection of an aphorism of thought with an anecdote of life.* In this bachelor machine, external macro events allegorize individual intuitions--the disaster in me (my Anthropocene). Such is the event of theopraxesis made possible online: a convergence of human faculties and their institutional projections into one holistic "world." The caveat is that the state of mind native to this virtual dimension was modeled in the first novel of modernism, *Madame Bovary*—Bovarysme (Serres, 1994).

The life of James Joyce exemplifies theming the ISA instructive for mystory. Joyce oriented himself in his existence (EPS) through identification with four figures. *History* (School, Community): "Young Joyce's imagination was captured by the cause of Irish freedom, whose most prominent spokesman at the time was Charles Stewart Parnell, a national hero who suffered a tragic fall. He became in the Irish imagination the type of the betrayed hero" (Litz). *Church* (Religion): Joyce's formal education took place in schools run by the Jesuit order. His most important religious experience occurred at Belvedere College, when he was elected Prefect of the Sodality, that is, "head of a group of students who banded together for the purposes of devotion and mutual help." Although Joyce broke with the Church, as Litz observed, this stance carried over to his view of the artist as secular priest. *Family* (Paleo): The defining problem of

Home for Joyce was his ambivalence toward his father, whose chief interest in life was "jolification." "The inefficiency of Joyce's father and his wasteful habits gradually undermined family finances and family solidarity." *Career*: At age eighteen Joyce published a review of Ibsen's play, *When We Dead Awaken*. In a letter he sent to Ibsen, the student Joyce explained the most important reason for his admiration: "How your willful resolution to wrest the secret from life gave me heart and how in your absolute indifference to public canons of art trends and shibboleths you walked in the light of your inward heroism" (Joyce, in Litz 24).

Joyce's EPS compass: Parnell, priest, his father, Ibsen. These figures manifest Holton's *themata*, perhaps summarized in the completed sentence of Ibsen's title, expressing Joyce's own life mood: "When we dead awaken, *we will see that we have never lived*." Such is the epiphany structuring Joyce's best-known *Dubliners* story, "The Dead." What makes life worth living? The wide image is an epiphany relative to this question. Poetic epiphany is the syllogism of electracy. If human capability is the cause of Anthropocene, human creativity is the remedy. Students are introduced to electracy by composing a mystory, to discover and design their own theming of capabilities, the target of marketing but also source of creativity, perhaps to play their wide image against disaster in AI game architecture. Our best chance collectively against the Anthropocene (creativity as pharmakon), the diagrams of a coming reimagined community will have originated in the transitional objects of children.

References

Althusser, Louis. 2001. *Lenin and Philosophy and Other Essays*. Trans. Ben Brewster. New York: Monthly Review Press.

Bateson, Gregory. 1979. *Mind and Nature: A Necessary Unity*. New York: Bantam.

Baudrillard, Jean. 1983. *Simulations*. Trans. Paul Foss, Paul Patton and Philip Beitchman. New York: Semiotext(e).

Benjamin, Walter. 1999. *The Arcades Project*. Trans. Howard Eiland and Kevin McLaughlin. Cambridge, MA: Harvard University Press.

Blumenberg, Hans. 1983. *The Legitimacy of the Modern Age*. Trans. Robert M. Wallace. Cambridge, MA: MIT Press.

Booth, Alison, and Miriam Posner. 2020. "Introduction—The Materials at Hand," Special
       Topic: Varieties of Digital Humanities, in *PMLA* 135:1.

Briggs, John. 1990. *Fire in the Crucible: The Self-Creation of Creativity and Genius*. Los
       Angeles, Tarcher.

Derrida, Jacques. 1974. *Of Grammatology*. Trans. Gayatri Chakravorty Spivak. Baltimore: Johns
       Hopkins University Press.

Erikson, Erik H. 1982. *The Life Cycle Completed: A Review*. New York: W. W. Norton.

Fukuyama, Francis. 2002. *The End of History and the Last Man*. New York: HarperCollins.

Havelock, Eric A. 1963. *Preface to Plato*. New York: Grosset & Dunlap.

Heidegger, Martin. 1977. *The Question Concerning Technology and Other Essays*. Trans.
       William Lovitt. New York; Harper Colophon Books.

Holton, Gerald. 1973. *Thematic Origins of Scientific Thought*. Cambridge, MA: Harvard
       University Press.

Kristeva, Julia. 1982. *Powers of Horror: An Essay on Abjection*. Trans Leon S. Roudiez. New
       York: Columbia University Press.

Kuhn, Thomas. 2012. *The Structure of Scientific Revolutions*. Chicago: The University of
       Chicago Press.

Leach, Neil. 2022. *Architecture in the Age of Artificial Intelligence*. New York: Bloomsbury.

Litz, A. Walton. 1972. *James Joyce*, revised ed. New York: Hippocrene Books.

Lotman, Yuri M. 2000. *Universe of the Mind: A Semiotic Theory of Culture*. Trans. Ann
       Shukman. Bloomington: Indiana University Press.

Lotringer, Sylvere and Paul Virilio. 2005. *The Accident of Art*. Trans. Michael Taormina. New
       York: Semiotext(e).

Mcluhan, Marshall, and Eric McLuhan. 1988. *Laws of Media: The New Science*. Toronto:
       University of Toronto Press.

Manovich, Lev, and Emanuele Arielli. 2022. *Artificial Aesthetics: A Critical Guide to AI,*
       Media and Design. http://manovich.net/index.php/projects/artificial-aesthetics

Morton, Timothy. 2013. *Hyperobjects: Philosophy and Ecology After the End of the World*.
       Minneapolis: University of Minnesota Press.

Nussbaum, Martha C. 2011. *Creating Capabilities: The Human Development Approach*.
       Cambridge, MA: Harvard University Press.

Ong, Walter. 1982. *Orality and Literacy: The Technologizing of the Word*. New York: Methuen.

Sen, Amartya. 2009. *The Idea of Justice*. Cambridge, MA: Harvard University Press.

Serres, Michel. 1994. *Atlas*. Paris: Julliard.

Sklar, Marty. 1967. "Walt Disney World: Background and Philosophy." *Harrison "Buzz" Price Papers*, 160. https//stars.library.ucf.edu/buzzprice/160.

Snow, Richard. 2019. *Disney's Land: Walt Disney and the Invention of the Amusement Park That Changed the World*. New York: Scribner.

Stiegler, Bernard. 2013. *What Makes Life Worth Living: On Pharmacology*. Trans. Daniel Ross. Malden, MA: Polity Press.

Ulmer, Gregory L. 2003. *Internet Invention: From Literacy to Electracy*. New York: Longman.

Virilio, Paul. 2003. *Unknown Quantity*. New York: Thames & Hudson.