

## Value and Slavery, or the *Longue Durée* of the Analog-Digital Distinction

### From Where Does a Meme Emerge?

WHAT DOES IT MEAN TO speak in terms of *aesthetics* of an object whose distinctive property is its mode of production-in-circulation? Theories of internet memes emphasize “aggregate texts, collectively created, circulated, and transformed by countless cultural participants,” texts that put “more voices in the air,” and that exhibit a “mystifying” capacity to change in the course of their circulation, to the extent that they appear the “instrument of an unconscious drive.”<sup>1</sup> The formulation *meme aesthetics* thus seems like a trap—an invitation to isolate single instances or genres and, in so doing, to jettison the circulatory operations that make a meme a meme, rather than, say, an image with some text on it, or a particular format of image-with-text, or a GIF of this or that person reacting to something in this or that manner, or the genre of GIFs of people reacting to things. The question of meme aesthetics, thus posed, seems to lead one away from the meme as relation and toward the meme as a thing standing in for a relation.

Another way of approaching meme aesthetics, the one I want to pursue here, consists in tracing the bundle of concepts, feelings, and attachments the meme mobilizes. Since, as I have already identified, the meme is a form defined by its relations of circulation, that bundle centers on the idea of a collective, uncoerced social product promising contact with some unmediated—whether because unconscious or, more mundanely, natural—site of collective social life. The context for the meme’s evocation of that site comprises a number of nested levels: (1) a developed internet culture that exists within and is shaped by (2) a so-called digital culture, whose history precedes the consumer internet, and which itself is part of (3) a science-, technology-, and media-historical network within (4) a distinctive form of society that we can call, I like to think uncontroversially (although recent

theory has attempted to dispute that), capitalist. My method here is to begin from the middle—the science-, technology-, and media-historical network—and to move from there to the deepest level in order to explain the logic of the highest.

There already exists a language for thinking across a given media-technological object's aesthetic properties and the means of its circulation: the language of analog and digital. The analog-digital distinction makes it possible to connect an object's basic properties (continuous or discrete) to the substrate on which its circulation is predicated (say, phonograph cylinder or electronic digital computer). But this, too, leads to some meme-specific complications. Is the internet meme analog or digital? Its technical substrate makes the answer appear obvious: it's digital! But, as I have already suggested, the question of meme aesthetics is a trap that invites such reduction to the individual object, and thus to saying nothing very specific about memes. And it's not so clear that meme circulation—or the concepts, feelings, and attachments that adhere to the meme understood as a certain mode of circulation—can be reduced to the technical substrate. Insofar as internet memes are stored in and transmitted between electronic digital computing machines, they're digital. But the implications their mode of circulation carries—the mark of some uncountable aggregate; the manifestation of a collective unconscious; the direct expression of a real sociality that hitherto appeared only in artificial forms, in the media outputs of some top-down entity, either private or public—veer closer to the associations historically borne by analog forms.

In *The Meme Machine* (1999), one of the founding texts of a discipline, memetics, whose waning appears to have tracked the ascendance of internet memes, the psychologist Susan Blackmore wrote that the capacity to imitate is definitive of the human person. This capacity, she continued, comes naturally, which is to say, it appears an unmediated source. In his preface to *The Meme Machine*, Richard Dawkins developed this figure of the meme as toggle between culture and nature through a media-technological framing. We “do not know what memes are made of or where they reside,” he wrote, but they “presumably exist in brains” and can be tracked through populations by “phenotypes” stored on media-technical substrates such as paper.<sup>2</sup> This claim followed an extended reflection on the way memes that retain a more or less coherent identity across many instances—which is to say, memes that remain recognizable as memes—share something with the digital, which for Dawkins signified high fidelity. Memes, Dawkins explained, are reproduced not through the copying of every detail from one instance to the next but through the transmission of instructions that, when followed, ensure identity even when there are imperfections in the act of figuration. He gave the example of two groups of children producing

representations of a boat in series. In the first group, each child draws a boat and then passes their image to the next, who produces a new drawing based on it. Here, the final image is radically different from the first, as imperfections accumulate down the line. In the second group, each child follows a set of instructions for folding a piece of paper into a boat and then passes the instructions onto the next, who does the same. In this case, imperfections of execution are not passed down the line; the final instance will retain clear identity with the first even when there are significant variations in the executors' dexterity.

For Dawkins, then, meme reproduction is digital. And, from that perspective, it is significant that he described the meme's relationship to the gene—itself a memetic relationship, since the circulatory power of the meme concept is surely derived from its putative closeness to nature, as compressed into genetics—as one of *analogy*. The meme-gene similarity is not governed by a set of rules that ensures identity, but the meme's circulation through culture is, in “at least a superficial” manner, understood as analogous to genetic transmission.<sup>3</sup> The real motor of that circulation could be “nature,” could be the unconscious, but in any case cannot be reduced to a set of rules knowingly followed by individual actors.

For all its limitations—or, more likely, because of them—Dawkins's framing captures something essential about how the analog-digital distinction illuminates the problem of meme aesthetics. In it, as elsewhere, analog and digital connote a technical distinction between indexical and nonindexical relationships: a likeness grounded in a more or less obscure connection between source and reproduction. But the terms' deployment, as by Dawkins, reveals each to carry a bundle of associations that are at best indirectly motivated by the technical operations its signal term connotes. If meme replication is digital, it is so because the digital connotes high-fidelity replication without indexicality. If the meme-gene relation is analog, it is so because circulation is understood to be motivated by some property of social life that, like natural selection, is beyond the control of individual actors or agencies. The (digital) unit of culture is situated in an analog relationship to that of nature, and this situation connotes all manner of second-order attachments: to the meme as an authentic expression of sociality due to its mode of circulation, even as the forms themselves are understood to be as artificial as can be; to the mode of personhood that meme circulation constructs as fundamentally different to that hailed by centralized media production; and so on.

It may not have gone unnoticed that I am here presenting the analog and the digital as memes—or, more properly, I am presenting the analog-digital distinction as a meme. More specifically, I am thinking of the analog-digital distinction as a meme that structures the notion—itself

a meme—that memes, because of their distinctive mode of circulation, come closer than other cultural forms to expressing a unitary, unmediated, or natural site of social productivity. There’s a troubling continuity between claims for the meme’s collective, uncoerced, horizontal character and the associations between culture and natural selection—and between the capacity for imitation and a singular humanness—in Blackmore, Dawkins, and others. In seeking the foundations of that association, I am guided by Stuart Hall’s observation that there is indeed a site in which “the cells of the body” and the “categories of the culture” can be thought together without recourse to sociobiological fantasy: the sphere of social reproduction, in which the allocation of the means of subsistence and the narrative forms associated with divergent relationships to that allocation are shown to be densely interwoven.<sup>4</sup> In the following pages, I track the cluster of conceptual and emotive associations that surround the modern analog-digital distinction backward, from its critical formulation in Hari Kunzru’s novel *White Tears*, to its formulation in midcentury debates on cybernetics and information theory, to the conceptual and mathematical formulation of alternating current in the second half of the nineteenth century. *White Tears* is a compelling starting point because it associates the analog-digital distinction with divergent modes of racialization, and thus invites questions about the distinction’s grounding in the elementary mechanics of the form of society from which it emerged and became meaningful. This association directs me to the distinctive modes of valuation associated with “free” labor and slavery and, by extension, to conceptual formations of freedom and subjection, and of authentic and inauthentic forms of value—the poles between which contemporary appraisals of the meme as mode of circulation take shape.

### The Superiority of the Analog

Carter Wallace, a record producer and collector whose acquisitive drives animate the plot of *White Tears*, is repelled by the digital. This repulsion is initially expressed as a preference for certain kinds of interfaces, those based not on “clicking mice and tapping screens” but on “sliders he could push, knobs and dials he could twist.”<sup>5</sup> Over time, Carter’s attachment to such continuous, tactile modes of control develops beyond the interface layer into a sonic imaginary in which “acoustic events as such” are equated with proximity to an unmediated reality.<sup>6</sup> The “vibration of an animal-gut string” and the “resonance of lacquered rosewood” come to promise direct encounters with the “soul” that digital conversions foreclose (20). Carter begins collecting “scratchy 45s,” then blues 78s that “sounded as if they’d been scoured with sandpaper” (19, 30), developing

a “melancholy attachment to the crackle and hiss” (27). This trajectory—from interface to source to medium—reproduces an opposition between “ones and zeroes” and “the human body,” a sense that something essential is inevitably erased by the “absolute cutoff” of digital processing (19–20).

These are well-worn sentiments. As Brian Massumi once showed, a sense of the “superiority of the analog” comes easily.<sup>7</sup> When Carol Wilder asked what made the analog “so seductive, so persuasive, so real,” the answer she arrived at placed the analog “closer to corporeality, more kinesthetic, tactile.”<sup>8</sup> Yet it is often said that we now live in a social world organized around the exigencies of digital-computational media, and that world is surely still within the form of society in which, as Karl Marx observed, individuals are “ruled by *abstractions*.”<sup>9</sup> So the superiority of the analog surely expresses some ambivalence, if not outright revulsion, at that which is endowed with the highest importance.<sup>10</sup> This observation invites another line of inquiry, one that requires moving beyond ontology on the one hand and the uses of this or that device on the other. Why does the sense—however confected—that something is closer to the corporeal make that thing more “seductive,” more persuasive? If the digital and the analog both exist, why is the former so consistently said to be the latter’s artificial, lossy derivative?

It is certainly not the case that either the distinction between analog and digital media or the extended fantasies about the more or less faithful reproduction of “pure” acoustic events that converge around it can be straightforwardly grounded in the properties of a given medium. Indeed, as Alexander G. Weheliye pointed out in a critique of Friedrich Kittler’s “transcendental omniscience of the phonograph,” frequency cutoff is as much a feature of the earlier technologies Carter pursues as it is of digital-computational formats like MP3.<sup>11</sup> Loss of fidelity, so often associated with the compressive operations of digital media, the hard edges of the binary, is also the mark of the analog. Why does loss appear as a sign of inauthenticity when associated with one medium and of authenticity when associated with that medium’s putative opposite? The bifurcation—*analog from digital; continuous from discontinuous; indexical from nonindexical*—entails two distinct arrangements of source and substrate. In the case of digital media, anything introduced by the substrate—glitch, error, failure—calls attention to the discontinuously coded character of a given representation. In the case of analog media, the continuity of substrate with source is actually enhanced by the former’s sonic traces (“crackle and hiss”), which bear no relation to the acoustic event. In other words, anything that points to unmediated materiality—regardless of whether it issues from the source event or the properties of the medium through which that event is represented—comes to connote the analog medium’s authenticity.

*White Tears* doesn't just present attachment to the superiority of the analog as a matter of characterization or theme. It locates the conceptual and affective associations that attachment mediates in a network of relations, technologies, concepts, and fantasies, a form of society whose elementary dynamics long precede the development of electrical and electronic media. Schematically, the novel gives fleeting narrative form to the dense web of relations in which analog chauvinism—and the concomitant suspicion of digitality—is bound to a second site of historical-ontological differentiation whose foundational relation to questions of media and mediation can be more difficult to identify.

Carter's attachment to the analog grounds and is grounded by an appropriative fascination with racial blackness, a fascination that drives him first to collect records made by black musicians and then to acquire the equipment and reproduce the techniques deployed in the production of those records.<sup>12</sup> Black music, Carter explains to his studio partner, Seth, in terms that are formally identical to his parsing of analog and digital, is "more intense and authentic than anything made by white people" (9).<sup>13</sup>

These melancholy attachments culminate in Carter's digital fabrication of a blues 78 from spectral traces of vocals and guitar that Seth accidentally captured in a field recording. Charlie Shaw, the "source" of those traces, was worked to death in a convict-leasing scheme in the late 1920s, before he was able to record them. His voice and guitar circulate, analogically reproducing what Saidiya V. Hartman called the burdened individuality of freedom in the imaginations and ultimately the bodies of those who most committedly ontologize the technical and racialized indices of authenticity and intensity.<sup>14</sup> Racial blackness, understood as a property that can be encrypted in certain cultural forms and techniques—rather than as the dynamic and thus mutable outcome, as well as the source, of historically specific forms and techniques—thus becomes legible as the other side of an oscillating surface whose recto generates the analog imaginary, that double fetishization of "pure" unmediated signal *and* of noise as the dual marks of unmediated realness.<sup>15</sup>

Media are, as John Durham Peters and Adam Wickberg have written, not simply "modern or emergent technologies" that exert "ideological or attitudinal influence." They are "agencies of civilizational and environmental order."<sup>16</sup> Although this definition affords a dramatically expanded category of media and makes possible inquiries into the colonial uses of technologies for arranging, cataloguing, networking, and indexing people and places, the bifurcation of civilizational (cultural) and environmental (natural) order obscures the historically specific network of relations that constitutes and spatializes persons as social forms. Building on the iteration of those feedback loops made fleetingly visible in *White Tears*, I am here concerned

with the *longue durée* of the analog-digital distinction and, by extension, its relationship to other, more fundamental distinctions that can be indexed to the real and the symbolic.

### Oscillations in the Real

In 1953, Jacques Lacan described the real as “almost too transparent, too concrete.” For Lacan, at that moment, the real named “what resists symbolisation absolutely.”<sup>17</sup> A year later, in his seminar on *The Purloined Letter*, he stated that “anything . . . can always come out” of the real. “But once the symbolic chain is constituted,” he continued, “what comes out can no longer be just anything.”<sup>18</sup> Since there is “no instance of a language in which entire zones are untranslatable,” the realm of language is always already the realm of the symbolic.<sup>19</sup> The symbolic, then, is a structure of discrete abstractions, an iterative chain exemplified by the sequence of pluses and minuses notating a game of odd and even.<sup>20</sup> The world of the symbolic, Lacan famously wrote, is a world of the machine. What kind of machine? Over the course of the 1954–55 seminar, automata, electronic valves, and homeostats appear alongside the notation of odd and even as explanatory objects.<sup>21</sup> But, as the doctrine of analog superiority shows, there is a class of machines whose relationship to the symbolic is less straightforward. Maybe this is why the real-symbolic distinction became so central to theoretical projects that sought to radically expand the nature and role of media.

Which media come closest to the real, that site of “pure opacity”?<sup>22</sup> One tradition, exemplified in Roland Barthes’s *Camera Lucida* and Hal Foster’s *Return of the Real*, identified the real less with particular media than with certain accidents of consumption or reproduction—encounters with the “prick” of the photographic image or the tears in its screen-printed repetition.<sup>23</sup> Another, more readily traceable to Germany than France, deployed the categories of real and symbolic to show how technical media inhabit discursive networks comprising psychiatry, physiology, mathematics, engineering, anthropology, and design. In this tradition, the zones of real and symbolic—and the site of their mediation, the imaginary—compose a map onto which particular media forms can be plotted on the basis of their modes of capture (indexical or nonindexical) and reproduction (continuous or discrete). For Kittler, the results were quite straightforward, in the sense that certain modes of mediation are identified with one realm or the other. The real, Kittler wrote, “has the status of phonography.” Phonographic reproduction is thus the location of “waste or residue . . . the physiological accidents and stochastic disorder of bodies.” The symbolic is

a “grid” with “the status of block letters”; exists in a nonindexical relationship to the real; and is perfected through the development of mechanical writing, from the typewriter to the digital computing machine.<sup>24</sup> And film, that means of generating an illusion of continuity from discrete frames, corresponds to the imaginary.

From this perspective, it appears easy enough to identify the analog with the real and the digital with the symbolic. Phonograph (continuous, indexical capture; continuous reproduction) = real. Typewriter and computing machine (discontinuous, nonindexical capture; discrete reproduction) = symbolic. Film (discontinuous indexical capture; illusorily continuous but actually discrete reproduction) = imaginary. But to identify one thing with another is to have already entered both into the realm of the symbolic, to render both conceptually for the purpose of their commensuration. The Kittlerian triad’s most powerful revelation may then be what it discloses about the essentially Romantic character of analog superiority, the ease with which the concept of a certain mode of technical mediation is equated with unmediated nature (“physiological accidents and stochastic disorder of bodies”) on the basis of its modes of capture and reproduction. More important than the question of each medium’s proximity to the real, then, is that of how each medium comes to connote—or be imagined as—access to the real and its proxies: the natural, the authentic, the intense, and so on.

Departing from Kittler, Bernhard Siegert turned this question into a methodological proposition by locating media at the heart of “operative chains,” or networks of techniques and technologies “involved in operationalizing distinctions in the real.” The door, for example, allows one to “perform, observe, encode, address, and ultimately wire” the distinction between inside and outside.<sup>25</sup> As a result of this function, the medium itself cannot be located on either side of the distinction it operationalizes. It cannot be located in the real or the symbolic but rather functions as the means by which the two spheres come into relation.<sup>26</sup> Media, in this telling, occupy an unmarked third space, from which they function as *interfaces* “between cultural orders and a real that cannot be symbolized.”<sup>27</sup>

From the perspective of cultural techniques, then, the analog-digital distinction does not exist independently of the network of devices and techniques that generates, maintains, and makes meaningful the distinctions between continuous and discrete abstractions. The persistent association between the analog and some unmediated reality—whether “natural,” social, or, as in the tradition that sociobiology exemplifies, revealing the latter’s containment by the former—is an effect of this network.



The discussion that followed the neurophysiologist Ralph W. Gerard's presentation on analog and digital concepts in the analysis of the nervous system, which took place in March 1950, at the seventh Macy conference on cybernetics, underscored the difficulty of maintaining a clear separation of analog, natural, and real. Over the course of this debate, technical objects were frequently evoked to crystallize the concepts—and the distinction—in question: slide rule and abacus; rheostat and wall switch; vacuum tubes and relays; and so on. Yet the debate is haunted by a slippage between the technical and the natural in the space of the analog. Gerard initially responded to a question from Gregory Bateson on the meaning of analog and digital by claiming that he had learned from John von Neumann that “an analogical system is one in which one of two variables is continuous on the other, while in a digital system the variable is discontinuous and quantized.”<sup>28</sup> In response, von Neumann stated that “both for the man-made artifact as well as for the *natural* organ, which are supposed to exercise discrete switching actions . . . *discrete actions* are in reality simulated on the background of continuous processes.”<sup>29</sup> Both a model airplane in a wind tunnel and a differential analyzer, although differing with respect to the relationship between model and modeled (scaling versus abstraction), are analog devices because “certain physical continuous motions are represented by similarly continuous processes,” whereas interrelationships “are entirely different in a digital model.”<sup>30</sup> That difference indexes the ontological distinction that animates analog superiority: “underlying reality is analogical,” von Neumann wrote, and digital phenomena are conceptual abstractions “for the sake of description.”<sup>31</sup> In this version of the analog-digital distinction, the analog is continuous with “reality” and is the true condition of every physical component, “natural” or otherwise. The digital exists only in a simulated reality maintained through technical and conceptual operations. Although other participants in this debate emphasized that analog and digital both name modes of abstraction, one “continuously” and the other “discretely coded,” the association of the former with “natural” and real and the latter with “artificial” and symbolic clearly carries greater affective charge.<sup>32</sup>

In an essay on the culture-technical chains that fed into the Macy discussion, Siegert identified as pivotal Claude Shannon's 1936 master's thesis, “A Symbolic Analysis of Relay and Switching Circuits.” There, Shannon advanced a method for making circuit design less “tedious” and prone to “error.”<sup>33</sup> His method was premised on the treatment of physical relays and switches as symbols in propositional logic. This approach was not, however, grounded in some assumed commonality between material and symbol. The commonality had to be constructed through conceptual operations on continuous variables. In a section on “Fundamental Definitions and

Postulates,” for example, Shannon introduced the methodological proposition that “at any given time the circuit between any two terminals must be either open (infinite impedance) or closed (zero impedance).”<sup>34</sup> Around that limitation, Shannon showed how to implement the symbolic in the real through a series of practical-conceptual operations: first, the consideration of potential components and applications; then, the conceptual limitation of possible real circuits to two alternatives (open or closed, zero or infinite impedance); then, a process of mapping the remaining possibilities onto symbols and drawing circuits from those symbols; and, finally, the construction of functional circuits from the components those symbols represent. Through those operations, the symbolic was made to function, in Siegert’s words, “as the limiting value of the real.”<sup>35</sup>

From this observation, Siegert traced the analog-digital distinction of 1950—the basis of our present iterations—to Michael Faraday’s 1831 discovery of induction, the “basic principle of alternating current.”<sup>36</sup> In so doing, he emphasized the artificiality on which the appearance of discrete (and thus symbolizable) states was premised. Induction electricity, Siegert summarized,

is not a phenomenon that is caused by some kind of matter like galvanism but exists only in that moment in which a switch is operated. Permanent induction electricity (i.e., AC), therefore, is the product of machines, in which the serialization and continuation of the momentary on/off is effectuated. Magnetic and electric fields mutually produce each other in these machines by mutually breaking down. Make-and-break, make-and-break, endlessly.<sup>37</sup>

Alternating current (AC) cannot be said to arise from any real or natural phenomenon. It is an outcome of switching operations. Yet, as Lacan observed, “it is on the basis of an already effected symbolic reduction of forms, in fact of the work already performed by the machine, that one asks the real, concrete machine to operate.”<sup>38</sup> The practical implementation operationalizes—or in a sense makes real—the artificial state.<sup>39</sup> In other words, AC really works to implement the symbolic—or an approximation that can be straightforwardly symbolized—within the real, and in so doing makes the symbolic real, the real symbolic. A sinusoidal analog signal produced through switching operations (make-and-break . . .), AC inverts the commonsense logic that posits the real (continuous phenomena) as prior to the symbolic (discrete, switchable states). And, as such, it is a troubling phenomenon for those habits of thought that identify the real and its proxies (the natural, the analog) with some authentic source. While some engineers and mathematicians “continued to act as if a discrete signal modulating a carrier frequency could be treated like a sign in optical telegraphy,” others recognized the need for a new physics. For the former,

a signal or symbol with no correlate in physical reality evoked “admiration and disgust.”<sup>40</sup> For the latter, the possibility of generating such signals and symbols—and of writing them down algebraically—revealed a world of possibilities premised on the co-constitution of symbolic and real. The fact that the operation *worked* and the reality of its outcomes took precedence over the points at which the unreality of its premise became too apparent. Oliver Heaviside, exemplar of the latter camp, devised his step function by treating everything below a certain impedance threshold as one symbol (0) and everything above that threshold as another (1), ignoring “points of discontinuity at which nothing corresponds to [those alternatives] in the reality of electrical switching circuits.”<sup>41</sup> Shannon’s reduction of all circuits to zero or infinite impedance—and, thus, the technical principle behind the notion of the symbolic as a mechanical product parasitic on some real phenomenon—is predicated on this function.

“What in the domain of the symbolic appears as a discrete switching operation,” Siegert wrote, “is a miracle of backcoupled oscillations in the domain of the real.”<sup>42</sup> What are the theoretical consequences of this peculiar appearance-reality relation, which is the result of scientific developments in a determinate form of society? The real and the symbolic cannot be treated as simple opposites. Their relation is one of recursion, not exclusivity. The symbolic emerges through and effects oscillations in the real, and from those oscillations follow a multitude of concepts, associations, and attachments.

The epistemic trajectory that followed this “miracle” handily explains the associations that mathematicians and engineers came to attach to the concepts of analog and digital over the middle decades of the twentieth century. And it is those associations, rather than some essential property of analog or digital forms, that ground both the expanded field of concepts and attachments crystallized in Carter’s disposition toward analog media and the present fascination with the internet meme as giving uncoerced form to some unmediated or unconscious site of social production. Most importantly, it shows those associations to emerge not from a straightforward ontological distinction between realms of plenitude and “loss” but from historical operations that made possible incursions of the symbolic *into* the real, and that in turn induce *in* the real functions that can be symbolically denoted. Analog fetishism prevails, in close association with a notion of the digital as a means of asserting control over the real. And this association surely grounds the figure of the meme as a digital register of collective sociality. To historicize the conceptual and affective attachments that adhere to these operations—and to explain why they so readily invite, as Kunzru identified, analogies with racialized figures of freedom and subjection—it is necessary to move beyond engineering, mathematics, and

philosophy and into the form of society that contains those disciplines, is modulated by them, and in which their findings circulate in the specific ways that shape contemporary media fantasies. This move requires us to treat coherent concepts—such as analog and digital—as concentrations of many determinations in a peculiar form of society.<sup>43</sup>

### Real Abstraction as a Switching Operation

Lacan sketched the basis for such a treatment while accounting for the historical inflection of *discourses*, those networks of subjects, objects, signifiers, and products that somehow both appear autonomous and recur with marked regularity across (and may indeed be said to be constitutive of) the social field. In the course of this accounting, Lacan identified what is, for capitalist modernity, the most generalized and socially generative instance in which the symbolic becomes operative in the real. This moment appears in Lacan's account of the "master's discourse," that formalization of Hegel's master-slave dialectic in which what "the master receives from the slave's work" is not in the first instance material wealth but the fantasy of an encounter with the real as pure potential, here posited as surplus *jouissance*. Put differently, the master's discourse describes for Lacan a mechanism through which the capacity for command and control allows a subject to dissimulate, via the symbolic appearance of the slave, the loss inevitably occasioned by the coding of the real by the symbolic. In the midst of this account, Lacan stated:

Something changed in the master's discourse at a certain point in history. We are not going to break our backs finding out if it was because of Luther, or Calvin, or some unknown traffic of ships around Genoa, or in the Mediterranean Sea, or anywhere else, for the important point is that on a certain day surplus *jouissance* became calculable, could be counted, totalized. This is where what is called the accumulation of capital begins.<sup>44</sup>

I want to note three conjoined elements in this remarkable passage. First: discourses are historical in character and, consequently, so are the subject-, concept-, and form-generating interactions that take place at the interface of the real and the symbolic. Second: one of the most significant of those interactions—that which demarcates the master's discourse—changes in a significant way "where what is called the accumulation of capital begins," which is to say, where money-mediated exchange starts to become the primary mechanism by which the form of society coheres and takes on its distinctive directional tendency. Third: the resultant social form is, on the surface at least, exemplified by the "traffic of ships," or commodity circulation.

The “something” that changed is the generalization of value, or what Alfred Sohn-Rethel called the real abstraction.<sup>45</sup> *Real* abstraction because, unlike conceptual abstractions, value is generated not in the mind but through concrete actions of production and circulation. Value as real abstraction is the appearance in the symbolic of real energetic potential—what Marx called “a definite quantity of human muscle, nerve, brain”—at the end of a chain of transformations: labor power into “free” labor, “free” labor into abstract labor, abstract labor into value.<sup>46</sup> Before the engineers’ and mathematicians’ efforts to materially induce, algebraically represent, and ontologize discrete symbols, this translation from energetic potential to discrete token recursively implemented oscillations in the real. And, like those efforts, the implementation produced a symbol with no direct correlate in the real, which cannot be “seen” except via a secondary medium—money, commodities—that obscures its origin. But, unlike the consciously deployed techniques of the engineers and mathematicians, the generation of value happens objectively, beyond the consciousness of any individual.

Objectively, and *collectively*. The value of a quantum of labor is an expression not of any particular person’s productivity but of an average established through the aggregate relations of production in an emergent network—what Marx called socially necessary labor time. The moment at which the reproduction of this operative chain became self-sustaining marks what Lacan called the “something” that changed at a certain point in history. It is what distinguishes capitalism from directly coercive social forms such as feudalism and the universalized mode of slavery one finds in Hegel’s dialectic (as well as in many other places across the history of political philosophy).<sup>47</sup> Value is a symbolic register produced through emergent, collectively enacted switching operations: masses of muscle, nerve, and brain are rendered as productive labor, whose deployment in specifically capitalist production generates value. Back and forth, over and over, across a global network. Make and break, make and break. These oscillations generate a register of discrete symbols with the concrete efficacy of gravity.<sup>48</sup>

One might then say that labor power is exemplarily analog: a continuous representation of the energetic capacity of “muscle, nerve, and brain.” And one might further say that abstract labor and its objectified form, value, are digital: symbolic representations that have no direct relation to any specific instance of “muscle, nerve, and brain,” but that arise as “miracles” through alternations induced in real phenomena. In both cases, labor takes on a conceptual yet practical form that cannot be located in the real. Or, in Marx’s words, “labour in reality . . . become[s] the means of creating wealth in general, and has ceased to be organically linked with particular individuals in any specific form.”<sup>49</sup> The concept of labor power may *promise* greater proximity to the real, but it is in fact a *derivative* of the abstract form

of labor whose generality and socially synthetic function is specific to capitalism. This historically specific arrangement of real potential, labor power, and abstract labor limns the form of society in which the analog-digital distinction emerged. And, as Lacan's reflections on the discourse of the master imply without explicating, the logic of modern racialization unfolded across the same substrate, as a co-constitutive element of a form of society predicated on the conversion of capacity into value.

### The Slave as Mediator

In his exposition on the master's discourse, Lacan treated the position of the slave with the same universality he found in Hegel's *Phenomenology*.<sup>50</sup> However, viewed from the perspective of switching operations in the real that precede the developed form of the analog-digital distinction, the relation between slave and "master"—the latter here understood in structural terms, as the "free" subject in general rather than any one of its many iterations—is bound up with the operative chains that produce, maintain, and modulate freedom, and that thus knit together the economic and the racial. As Marx noted, the historical conditions of capital's existence "are by no means given with the mere circulation of money and commodities," but arise "only when the owner of the means of production and subsistence finds the free worker available, on the market, as the seller of his own labour-power." This "one historical pre-condition comprises a world's history."<sup>51</sup> The "freedom" associated with the sale of labor power—and thus with the abstraction of labor—has a simultaneously real and symbolic existence: the "free" laborer is not subject to direct domination, for example, by being forced into the production process under the threat of violence; and the "freedom" derived from that laborer's ability in principle to sell their labor wherever and to whomever they choose generates political-philosophical notions of modern subjecthood as self-possession.<sup>52</sup>

The two sides of this "freedom" are cinched together by value, the digital representation of real energetic capacity after its co-constituting entry into the networks of production and circulation. This representation is not a grid imposed onto the real of material existence but the outcome of oscillations introduced into that existence by the generalization of "free" labor. As a consequence, for the second, purely conceptual side of freedom to appear as the *cause* of a given social position, rather than the outcome of a network of switching operations at the threshold of the production process, it is necessary to dissimulate the reality that "free" laborers are dispossessed, market-dependent, and thus unable to exercise their freedom by *not participating* in money-mediated social relations. Once

again, and in a manner that is derivative of the basic relation that recursively generates value, the symbolic form—“freedom” as attribute of the modern subject—appears to take on concrete factuality as a result of second-order oscillations in the real: between the rendering of capacity as labor power, its sale for deployment by another, and the sellers’ resultant capacity for reproduction. Put another way, for freedom in the modern sense to appear an analog outcome rather than a digital representation of an individual’s social capacity, it must appear grounded in some natural property of man and/or society, rather than in the specific conditions under which individualized bundles of nerve, muscle, and brain are mediated, subject to the recursive transformations that output and agglomerate value.

Although I lack the space to fully develop this claim here, it feels necessary to observe that the same dynamic governs the figuration of price in classical and neoclassical economics and the forms of common sense they appeal to and inform. Price persistently appears as the (analog) representation of a commodity’s “real” value. This principle governs both substantialist labor theories of value and the Hayekian assertion that prices compress into single numerical expressions a multitude of means and ends so complex as to otherwise defy individual or group comprehension—an assertion whose similarities to those concerning the meme form’s social significance should not be overlooked.<sup>53</sup> Indeed, the question of labor’s price—and thus of its relation to the network of real and symbolic operations comprised by the capitalist form of society—points to the deepest layers of the modern analog-digital distinction.

As Lacan’s comments on surplus *jouissance* suggest without fully revealing, the chain of operations that maintains the appearance of “free” personhood by disavowing freedom’s symbolic foundation is centered on the figure of the slave. And that figure, in the form of society premised on the generalization of “free” labor, is ineluctably linked to racial blackness.<sup>54</sup> Lacan collapsed these dynamics by deploying “slave” as a general term for one who exists in a relation of servitude to another, and by treating the surplus *jouissance* expropriated from that “slave” as the real content of surplus value—that which became “calculable, could be counted, totalized” at a certain (albeit impossible to fully specify) point in the emergence of capital. I want instead to note that the historically specific, racialized conceptual form of the slave allows the “free” person to externalize what would otherwise make the digital artificiality of their freedom too visible. For the “free” person, the slave stands in for analogicity itself in the sphere of social production. It sustains the fantasy that social wealth (and thus “freedom”) is an analog representation of real capacity rather than the bearer of a digital (and thus “inauthentic”) social form.<sup>55</sup>

That fantasy structures Richard Ligon's 1657 history of Barbados, an "Iland . . . divided into three sorts of men, *viz.* Masters, Servants, and slaves."<sup>56</sup> In a section of his *History* concerning the status of slaves on the island, Ligon wrote:

When they are brought to us, the Planters buy them out of the Ship, where they find them stark naked, and therefore can not be deceived in any outward infirmity. They choose them as they do Horses in a Market; the strongest, youthfulest, and most beautifull, yield the greatest prices. Thirty pound sterling is a price for the best man Negre; and twenty five, twenty six, or twenty seven pound for a Woman; the Children are at easier rates.<sup>57</sup>

The process for establishing price entailed converting observable features (anatomy, perceived beauty and/as the absence of "infirmity") into analog representations of nominally real phenomena (strength and age).<sup>58</sup> Those representations approximated a "certain amount of physical labor" that could be expected from the enslaved person over their lifetime.<sup>59</sup> And that anticipated productivity, converted into a "general equivalent of physical labor value," added to the cost of transportation, and modulated by commodity prices and (later) by the dynamics of speculative finance, produced a given slave's price.<sup>60</sup>

Saidiya Hartman observed that this chain of conversions made the captive body not only a financial object but also "an abstract and empty vessel vulnerable to the projection of others' feelings, ideas, desires, and values."<sup>61</sup> One such projection rendered the enslaved natural mediators between the unsymbolizable real and the wealth arising from production. Because the computation of future productivity indexed the social averages arising from the total network of production and circulation, including production premised on "free" labor, the determination of the price of slaves was a mixed analog-digital process. Equally, the use of imputed sex-gender—as a proxy for strength on the one hand and capacity to produce more slaves on the other—introduced a discrete element before the conversion of (analog) labor power into (digital) value. As Jennifer Morgan has shown, building on Hortense Spillers's theorization of the (un)gendering dynamics of chattel slavery, the determination of price functioned to mark slaves as the embodiment of rational equivalence, "the antithesis of social, emotional, or familial categories, which were simultaneously delimited as the sole purview of Europeans."<sup>62</sup> In other words, chattel slavery—the condition of productive capacity (and so much more) purchased for a unit price rather than "freely" exchanged, quantum by quantum, for a wage—is too the outcome of alternations between the real and the symbolic. Nonetheless, the mere presence of analog representations of capacity in the calculation of price—representations that are abstracted away in the distributed,



emergent valuation of “free” labor—exercised a vast imaginative force that continues to occupy conceptual and affective attachments to analogicity in the present. The logic of this occupation can be glimpsed in Ligon’s *History*.

Ligon recounts an incident on Barbados in which the indentured servants plotted to “fall upon their Masters, and cut all their throats, and by that means, to make themselves not only freemen, but Masters of the Iland.”<sup>63</sup> Only the execution of the rebellions’ “leaders and contrivers” prevented further “haughty” and “incorrigible” servants from becoming “actors in a second plot.”<sup>64</sup> Ligon went on to offer several explanations for why the enslaved, despite being “subject to their Masters for ever,” and “more then double the numbers of the Christians,” did not attempt such a “horrid massacre.”<sup>65</sup> Before considering the question of rebellion, he noted that the enslaved were “kept and preserv’d with greater care then the servants, who are [at the masters’ disposal] but for five yeers, according to the law of the Iland.”<sup>66</sup> Later, in a section explaining why the enslaved “can plot no Massacres upon their Masters,” he proposed three reasons: lack of access to weapons; the “awe and slavery” in which they are held by the master, which “subjugated” their spirits “to so low a condition, as they dare not look up to any bold attempt”; and the fact that “they are fetch’d from severall parts of *Africa*, who speake severall languages, and by that means, one of them understands not another.”<sup>67</sup>

Each of Ligon’s explanations for the nonoccurrence of slave rebellions is rooted in techniques of slave acquisition and management across the network of production and circulation. Yet his description of the slave market, which immediately follows his account of the techniques that prevented uprisings, invites a different interpretation grounded in the dynamics of value-mediated freedom—or the oscillations in the real that generate the capitalist form of society.

In a series of passages far more expansive than his brief aside on slave management, Ligon depicted the enslaved Africans on Barbados as naturally obedient, with an inclination toward production that verges on automatism. He described “happy people, whom so little contents.”<sup>68</sup> He recounted occasions on which they appeared “so earnest” to extinguish cane fires “as with their naked feet to tread, and with their naked bodies to tumble, and roll upon it; so little they regard their own smart or safety, in respect of their Masters benefit.”<sup>69</sup> And he wrote that the enslaved were “as loyall to their Masters, as any that live under the sunne.” On first glance these claims are consistent with the racialized theories of natural slavery that preceded and succeeded the *History*.<sup>70</sup> Closer reading, however, reveals a more complex interaction between such theories and the specific relationship to production posited in the determination of price. Enslaved Africans were not simply “very good servants” but “very good servants, *if they be not*

*spoiled by the English.*"<sup>71</sup> They were "loyall" not because of a natural predisposition toward the master's authority, but because they "*set no great value upon their lives.*"<sup>72</sup> In these passages, the slave figures an analog relation to productive labor that is antithetical to freedom ("the English") and self-responsibility (setting "value upon their lives"). In order to posit the slave's labor power as pure analogicity, a continuous link between body and production, Ligon made freedom's artificiality briefly legible. In so doing, he disclosed, at an early moment of its emergence, the ambivalences of the culture-technical network in which value and status became co-constitutive.

This ambivalence toward freedom's abstract mediator—to the "content" that would hold capitalist social form together—is amplified in Ligon's descriptions of indentured servants, whose period of servitude would in time give way to formal freedom and, with it, capacity for waged labor, property ownership, and improvement. Where slaves are imputed little regard for "their own smart or safety, in respect of their Masters benefit," servants are marked in Ligon's account by "carelesnesse," "slothfulness," and a proclivity for rebellion—a characterization that is striking in its similarity to Charles Babbage's insistence, almost two centuries later, that automatic machinery could eradicate the "inattention, the idleness, or the knavery" of "free" labor.<sup>73</sup> Where slaves are "happy," "earnest," and "loyall," servants are careless, slothful, and rebellious. The coexistence of real subjection with the prospect of freedom—both an abstraction in itself and, as the legal, political-philosophical, and imaginative corollary of "free" labor, co-constitutive of the abstraction that animates capitalist production—makes the indentured servant appear the most dangerous of the social forms crystallized in the early Atlantic plantation economy. After the generalization of "free" labor, that prospect is actualized in a strictly delimited capacity by the wage form, which, through the appearance of fair exchange, generates the durable appearance of a real connection between degrees of capacity and status. The prospect of this arrangement falling apart, which lurks below the surface so long as "freedom" remains conditional on a recursive relationship to the digital form of value, is dissimulated though the abstracted figure of the plantation slave and the social forms that are derived from it.

This dense web of economic, conceptual, and psychic relations prefigures the chain of mediations I tracked over the first half of this essay, from the nineteenth-century engineers' discomfort with the algebraic enshrinement of AC and its derivatives, to the cyberneticians' midcentury haggling over the reality of the digital and the analogicity of the real, to the strikingly prevalent conviction about the superiority of the analog—and, by extension, the imagined power of the meme as socially significant index—that persists through the present. This sequence surely extends from and derives

its consistent affective charge from the oscillations that maintain capitalist social form as the unobservable matrix of social reality. Only when a digital form (value, mediated by money) rules over concrete relations with the impersonal effectivity of gravity can the opposite mode of abstraction—the analog, understood as a site of unmediated or authentic recording—creep into collective fantasy as the promise of a direct encounter with the real. The meme’s promise resides in its digital circulation of some real collectivity that is imagined to originate elsewhere—a striking incursion of abstract labor’s aggregate character into the conceptual space of the analog. We should be most wary of such promises, issuing as they do from distributed, really abstract operations that function through alternation and oscillation, generating a universe of inverted, distorted, and otherwise misplaced attachments through their “accidental and ever-fluctuating” movement.<sup>74</sup>

## Notes

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1. Ryan M. Milner, *The World Made Meme: Public Conversations and Participatory Media* (Cambridge, MA, 2016), 2; Scott Wark and McKenzie Wark, “Circulation and Its Discontents,” in *Post Memes: Seizing the Memes of Production*, ed. Alfie Bown and Dan Bristow (Brooklyn, 2019), 294.
2. Richard Dawkins, foreword to *The Meme Machine*, by Susan Blackmore (Oxford, 1999), xii.
3. *Ibid.*, viii.
4. Stuart Hall, “Brave New World,” *Marxism Today* 32, no. 10 (1988): 28.
5. Hari Kunzru, *White Tears* (London, 2017), 16. Subsequent references in parentheses.
6. The phrase “acoustic events as such” is from Friedrich A. Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford, 1999), 23: “The phonograph does not hear as do ears that have been trained immediately to filter voices, words, and sounds out of noise; it registers acoustic events as such.”
7. Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC, 2002), 133–43.
8. Carol Wilder, “Being Analog,” in *The Postmodern Presence: Readings on Postmodernism in American Culture and Society*, ed. Arthur Asa Berger (Walnut Creek, 1998), 252.
9. Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus (London, 1993), 164.
10. As Alexander R. Galloway has recently noted, this reaction informs some of the dominant theoretical tendencies of the present. In the period from the 1990s to the present, Galloway wrote, “the shift into full-fledged Deleuzianism, the dominance of Latourian methods in the social sciences, the rise of radical empiricism, new materialism, pragmatism and the various arguments *against method*, or even the *how-we-read-now* debates in literary criticism” represent “peak analogicity, the *golden age of analog*”; Alexander R. Galloway, “Golden Age of Analog,” *Critical Inquiry* 48, no. 2 (2022): 231.

11. Alexander G. Weheliye, *Phonographies: Grooves in Sonic Afro-Modernity* (Durham, NC, 2005), 33–34.
12. I use “racial blackness” after Lindon Barrett, for whom the term signalled a conceptual procedure that “indiscriminately catalogues dark-skinned Africans and their descendants”; Lindon Barrett, *Racial Blackness and the Discontinuity of Western Modernity*, ed. Justin A. Joyce, Dwight A. McBride, and John Carlos Rowe (Urbana, 2014), 8.
13. Note the difference between Carter’s imaginative conflation of analogicity with racial blackness and Weheliye’s observation that, “far from being transmitted ‘in [a] startlingly authentic form,’ as [Lindon] Barrett will have it, the black singing voice, decoupled from its human source and placed in the context of spiritual collections and subsequently phonograph records, insinuates a much more overdetermined and unwieldy constellation within both black and mainstream American cultural discourses”; Alexander G. Weheliye, “‘Feenin’: Post-human Voices in Contemporary Black Popular Music,” *Social Text* 71 (2002): 28. Weheliye cites Lindon Barrett, *Blackness and Value: Seeing Double* (Cambridge, 1999), 86.
14. Saidiya V. Hartman, *Scenes of Subjection: Terror, Slavery, and Self-Making in Nineteenth-Century America* (Oxford, 1996), 115–24.
15. Note how, across quite different work in black studies, theorizations of the phonograph, its successor technologies, and the expanded implications of its name—phonic writing—refuse this equation. See, for example: Fred Moten’s theorization of the “literary, performative, phonographic disruption of the protocols of exchange” in Frederick Douglass’s 1845 *Narrative*; Stephen Best’s analysis of the phonograph as a pivotal technology in the dense entanglement of personhood and property, whose exemplary expressions included chattel slavery and intellectual property law; and Weheliye’s observation that the phonograph, far from offering a direct link to the real, “made it possible to split sounds from the sources that (re)produced them, creating differently pitched technological oralities and musicalities in twentieth-century black culture.” Fred Moten, *In the Break: The Aesthetics of the Black Radical Tradition* (Minneapolis, 2003), 10; Stephen Best, *The Fugitive’s Properties: Law and the Poetics of Possession* (Chicago, 2004); Weheliye, *Phonographies*, 7.
16. John Durham Peters and Adam Wickberg, “Media: The Case of Spain and New Spain,” *Critical Inquiry* 48, no. 4 (2022): 676. For an example of this “expansive” media history focused on the coloniality of an exemplary analog medium, the phonograph record, see Gavin Williams, “Shellac as Musical Plastic,” *Journal of the American Musicological Society* 74, no. 3 (2021): 463–500.
17. Jacques Lacan, *The Seminar of Jacques Lacan, Book I: Freud’s Papers on Technique, 1953–1954*, ed. Jacques-Alain Miller, trans. John Forrester (New York, 1991), 66.
18. Jacques Lacan, *The Seminar of Jacques Lacan, Book II: The Ego in Freud’s Theory and in the Technique of Psychoanalysis, 1954–1955*, ed. Jacques-Alain Miller, trans. Sylvana Tomaselli (New York, 1991), 193.
19. *Ibid.*, 287.
20. *Ibid.*, 193.
21. *Ibid.*, 47.
22. Jacques Lacan, *The Seminar of Jacques Lacan, Book V: Formations of the Unconscious*, ed. Jacques-Alain Miller, trans. Russell Grigg (Cambridge, 2017), 25.
23. See Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (London, 1993), 4–5, 23–27, 40–59; Hal Foster, *The Return of the Real: The Avant-Garde at the End of the Century* (Cambridge, MA, 1996), 132–36.

24. Kittler, *Gramophone*, 15–16.
25. Bernhard Siegert, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real*, trans. Geoffrey Winthrop-Young (New York, 2015), 14. In theorizing these techniques, Siegert extends Kittler’s repurposing of Lacanian terminology in service of a media-technological formulation of culture. See Kittler, *Gramophone*, 15–16. Bernard Geoghegan writes that the “proponents of cultural techniques reread Friedrich Kittler’s media theoretical approach of the 1980s and 1990s—known for its presupposition that a technological a priori defines the scope and logic of distinct cultural formations and epistemes—with a closer focus on the local practices, series, and techniques that configure medial and technological arrangements”; Bernard Geoghegan, “After Kittler: On the Cultural Techniques of Recent German Media Theory,” *Theory, Culture & Society* 30, no. 6 (2013): 66.
26. Siegert, *Cultural Techniques*, 14, 192–205.
27. *Ibid.*, 15.
28. Ralph W. Gerard, “Some of the Problems Concerning Digital Concepts in the Central Nervous System,” in *Cybernetics: Circular Causal and Feedback Mechanisms in Biological and Social Systems; Transactions of the Seventh Conference*, ed. Heinz von Foerster, Margaret Mead, and Hans-Lukas Teuber (New York, 1950), 13.
29. John von Neumann, response to Gerard, *Cybernetics*, 20. First emphasis added.
30. *Ibid.*, 27.
31. *Ibid.*
32. Warren McCulloch, response to Gerard, *Cybernetics*, 43.
33. Claude Elwood Shannon, “A Symbolic Analysis of Relay and Switching Circuits” (master’s thesis, MIT, 1936), 1.
34. *Ibid.*, 4.
35. Bernhard Siegert, “Coding as Cultural Technique: On the Emergence of the Digital from Writing AC,” *Grey Room* 70 (2018): 9.
36. *Ibid.*, 12.
37. *Ibid.*
38. Lacan, *Seminar II*, 318.
39. “The ploughshare of the signifier ploughs the signified into the real”; Lacan, *Seminar V*, 30.
40. *Ibid.*, 13, 17.
41. *Ibid.*, 18.
42. *Ibid.*, 20n13.
43. Marx, *Grundrisse*, 101.
44. Jacques Lacan, *The Seminar of Jacques Lacan, Book XVII: The Other Side of Psychoanalysis, 1969–1970*, ed. Jacques-Alain Miller, trans. Russell Grigg (New York, 2007), 175.
45. See Alfred Sohn-Rethel, *Intellectual and Manual Labour: A Critique of Epistemology*, trans. Martin Sohn-Rethel (Atlantic Highlands, NJ, 1978), 20–21. For Sohn-Rethel, the real abstraction is formed in the sphere of circulation, but it should properly be understood to result from the processing of (real) energetic capacity into (abstract) value that requires, among other things, the indexing of individual to collective productivity across the network of production and circulation. See Moishe Postone, *Time, Labor, and Social Domination: A Reinterpretation of Marx’s Critical Theory* (Cambridge, 1993), 177–79.
46. Karl Marx, *Capital: A Critique of Political Economy*, vol. 1, trans. Ben Fowkes (London, 1976), 274.
47. Marx observed as much, with specific reference to classical slavery and Aristotle’s understanding of money. See Marx, *Capital*, 1:152.

48. Marx: “in the midst of the accidental and ever-fluctuating exchange relations between the products, the labour-time socially necessary to produce them asserts itself as a regulative law of nature. In the same way, the law of gravity asserts itself when a person’s house collapses on top of him”; Marx, *Capital*, 1: 168.
49. Marx, *Grundrisse*, 104.
50. On racialized slavery and the master’s discourse, see Sheldon George, *Trauma and Race: A Lacanian Study of African American Racial Identity* (Waco, 2016), 22–25.
51. Marx, *Capital*, 1:274.
52. The most famous of these notions is perhaps John Locke’s insistence that “every man has a ‘property’ in his own ‘person’... Whatsoever, then, he removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property”; John Locke, *Two Treatises of Civil Government* (London, 1924 [1689]), 130. Also see C. B. Macpherson, *The Political Theory of Possessive Individualism: Hobbes to Locke* (Oxford, 1990), 263–71.
53. See F. A. Hayek, “The Use of Knowledge in Society,” *American Economic Review* 35, no. 4 (1945): 519–30. “Even the single controlling mind, in possession of all the data for some small, self-contained economic system,” Hayek wrote, “would not—every time some small adjustment in the allocation of resources had to be made—go explicitly through all the relations between ends and means which might possibly be affected” (525). The “marvel” of the price system, he continued, “is that in a case like that of a scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; *i.e.*, they move in the right direction” (527).
54. As Barrett wrote, racial blackness “can be understood as a powerful *analog* of the complex of commodity fetishism. That is, the extended quarantining of the African-derived population largely and effectively promotes key turns of the imagination that naturalize the gulf between the social conditions of the labor yielding the commodity for exchange and the failure of the commodity to resemble those conditions in the exchange—in other words, the dissemblance by which it is not as readily apparent that what passes as rational economic transactions always dispossess some of the parties attendant to the exchange”; Barrett, *Racial Blackness*, 8. Emphasis added.
55. Hannah Arendt, writing eight years after the Macy debate on the analog-digital distinction (and, it must be said, in the afterlife of the Atlantic-capitalist form of racialized slavery, which surely inflects subsequent accounts of all prior forms), observed that slaves (along with barbarians) were classified in the Athenian polity as *aneu logou*—not without language but embodying a way of life for which speech did not exemplify socially valid practice, and in which speech between citizens was not the organizing feature; Hannah Arendt, *The Human Condition* (Chicago, 1958), 27. Arendt’s formulation is reproduced by Giorgio Agamben in an early (1970) essay inspired by *The Human Condition*. See his “On the Limits of Violence,” trans. Lorenzo Fabbri, *Diacritics* 39, no. 4 (2009): 104. This formulation resonates with Hortense Spillers’s observation that mid-fifteenth-century Portuguese slavers in West Africa regarded the “aberrant phenotype” of those they encountered and intended to enslave as linked to the impossibility of translating their languages. “Arabic translators among the

- Europeans,” she noted, “could at least ‘talk’ to the ‘Moors’ and instruct them to ransom themselves, or else. . . .”; Hortense J. Spillers, “Mama’s Baby, Papa’s Maybe: An American Grammar Book,” *Diacritics* 17, no. 2 (1987): 70.
56. Richard Ligon, *A True and Exact History of the Island of Barbados* [ . . . ] (London, 1657), 43.
  57. *Ibid.*, 46.
  58. As Vincent Brown noted, “Spanish and Portuguese traders had called young African males *piezas* or *peças*—pieces—as if they and their value as potential laborers could be counted like bolts of cloth. Women, young children, and the old were designated as fractions of pieces”; Vincent Brown, *The Reaper’s Garden: Death and Power in the World of Atlantic Slavery* (Cambridge, MA, 2008), 28.
  59. See Sylvia Wynter, “Beyond the Categories of the Master Conception: The Counterdoctrine of the Jamesian Poesis,” in *C. L. R. James’s Caribbean*, ed. Paget Henry and Paul Buhle (Durham, NC, 1992), 81: “The pieza was the name given by the Portuguese, during the slave trade, to the African who functioned as the standard measure. He was a man of twenty-five years, approximately, in good health, calculated to give a certain amount of physical labor. He served as the general equivalent of physical labor value against which all the others could be measured—with, for example, three teenagers equalling one pieza, and older men and women thrown in a job lot as refuse.” For an earlier, more expansive account of this argument, see Sylvia Wynter, *Black Metamorphosis: New Natives in a New World* (unpublished manuscript), 29–47.
  60. On transportation costs as a portion of the price of slaves, see Stephanie E. Smallwood, *Saltwater Slavery: A Middle Passage from Africa to American Diaspora* (Cambridge, MA, 2008), 67: “Shipping across the Atlantic ‘doubled the price of slaves,’ and this, together with the fact that the same doubling was incurred in the shipment of trade goods from Europe to Africa, meant that overall, ‘the transportation component of converting goods in Europe into slaves in the Americas comprised approximately three-quarters of the selling price of an African in the Americas.’ If captive people and gold could be substituted one for the other with relative ease in the African marketplace, they occupied dramatically different positions once ships transported them to markets outside Africa.” Smallwood cites David Eltis, *The Rise of African Slavery in the Americas* (Cambridge, 2000). On the modulation of slave prices by produced commodity prices, Walter Johnson observed that in the US context “the price of slaves tracked the price of cotton to such a degree that it was a commonplace in the years after 1840 that the price of slaves could be determined by multiplying the price of cotton by ten thousand (seven cents per pound for cotton yielding seven hundred dollars per slave). Only in the 1850s did slave prices seem to cut loose from cotton prices in a cycle of speculation that made entry into the slaveholding class prohibitively expensive”; Walter Johnson, *Soul by Soul: Life Inside the Antebellum Slave Market* (Cambridge, MA, 1999), 6.
  61. Hartman, *Scenes*, 21.
  62. Jennifer L. Morgan, *Reckoning with Slavery: Gender, Kinship, and Capitalism in the Early Black Atlantic* (Durham, NC, 2021), 6. Spillers observed that, aboard the slave ship, an enslaved person was “neither female, nor male, as both subjects are taken into ‘account’ as *quantities*. The female in ‘Middle Passage,’ as the apparently smaller physical mass, occupies ‘less room’ in a directly translatable money economy. But she is, nevertheless, quantifiable by the same rules of accounting as her male counterpart”; Spillers, “Mama’s Baby,” 72.
  63. Ligon, *True and Exact History*, 46.

64. Ibid.
65. Ibid., 45.
66. Ibid., 43.
67. Ibid., 46.
68. Ibid., 44.
69. Ibid., 45.
70. See, for example, Robert Renny's *An History of Jamaica* [...] (London, 1807), 161: "Slavery is peculiarly congenial, and seems even to be natural, to the inhabitants of warm climate. Man, untutored, though possessed of superior faculties to the other animals of the creation, is, like them, the slave of circumstances, and yields, without reflection, to the necessities of his situation. . . . sloth is a natural, almost a necessary, consequence; and, indolence being the parent of weakness, submission to injustice and violence, without murmur, reflection, or resentment, generally takes place."
71. Ligon, *True and Exact History*, 44. Emphasis added.
72. Ibid., 54. Emphasis added.
73. Charles Babbage, *On the Economy of Machinery and Manufactures* (London, 1832), 39.
74. Marx, *Capital*, 1:168.