Introduction

Time Studies Today

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In short, geopolitics has its ideological foundations in chronopolitics.
—Johannes Fabian, Time and the Other

Time does not pass, it accumulates, and as it accumulates it deposits an ever greater freight of material within the cargo holds of a present that is, in this sense, eternally after the Enlightenment present.
—Ian Baucom, Specters of the Atlantic

Time eludes us. Since Aristotle and Augustine posed their paradoxical questions about time to the Western world in the Physics and the Confessions respectively, we have been trying to determine what it is that we talk about when we talk about time. The terms “past,” “present,” and “future” seem too static, too thin to express our full experience of temporality. They capture neither our sense of the ephemerality of the instant nor our anxieties about the long unfurlings of time that exceed human lifespans and comprehension: geological time, evolutionary time, the time of climate change, or the time of the universe.1 On the one hand we know that this trio of terms describing something as long and deep as time is necessarily reductive. On the other hand, we are driven again and again to track those lengths and depths as best as we can. We are compelled to track the terms because “past,” present,” and “future” are examples of keywords (originally “a word that acts as the key to a cipher or code”) defined differently at different moments in history. If the terms do nothing else, then, as ciphers they unlock the historicity
of time: tracking them shows us that our conceptions of time, and our enactments of it, are rooted in specific social contexts and grow from historical transformations, some of which are finished, many of which are not.²

If concepts of time are historically situated, mutating as societies and their science, economics, values, language, and institutions change, then it is logical to ask what are our own twenty-first-century concepts of time. When we try to track how time is conceptualized in our own moment, will we see a pattern to our societal priorities—to our present anxieties, past miscalculations, and future hopes? This collection addresses this question by presenting essays about time that construct what we are calling a “vocabulary of the present.” They are a selection of keyword essays that talk about time as it has been experienced in developed nations after World War II, and they talk about time today in ways that, in part, reveal us to ourselves.

This is the critical condition and historical motivation behind what we are calling “time studies.” In naming this field of discourse, we do not assume that the always complex and largely hidden meanings of current sociocultural time can be made transparent or be fully understood by those living at the same moment. The present is usually illegible to itself, and its assumptions can be glimpsed only by hermeneutics other than its own.³ However, time studies compels attention because its findings are part of what anthropologist David Scott has recently described as “a new time-consciousness . . . emerging everywhere in contemporary theory” now, if “in a still inchoate way.”⁴ In the humanities after the turn of the millennium, for example, new critical attention to temporality is seen in the claims of affect studies, studies of the “everyday,” posthumanism, ecocriticism, and the expanding territory of media studies. Thus what follows aims to guide readers historically and critically toward understanding (especially in the study of the arts, technology, and culture) how the postwar period—our present—is animated by certain kinds of time consciousness.

However, while we take the decades since World War II as our focus, we are not interested in engaging debates about how to define “the present” or “the contemporary” as a period marker. Certainly, we understand 1945 to be a date of significant social, economic, and political change—marked not only by the dropping of the atom bomb (heralding
the advancement of technology on a scale never seen before in human history) but also the dismantling of many colonial empires, the rise of finance capitalism, the acceleration of the effects of the Anthropocene, and the beginnings of the Cold War that would eventually reshape the political landscape of the world. Instead, we are focused on the semantics of the present since 1945, particularly in relation to time.

That semantics—or vocabulary, as our subtitle has it—becomes visible to readers in this volume through a series of essays that investigate paired keywords addressing the specificity of time today, in the interest of glimpsing the unique textures that postwar temporality has assumed. We therefore begin the volume with a pair of terms that have come to dominate our sense of the present: multiplicity and simultaneity. Over the course of modernity, and with continued momentum in our time, the present has emerged as an experience of simultaneity in which temporalities multiply because they are synchronized as simultaneous on economic, cultural, technological, ecological, and planetary registers. Thus while simultaneity is often understood as a reduction of that multiplicity, creating a singular time beholden to capital, the present is actually animated by a tension between the simultaneous and the multiple, variously contracting and protracting a sense of contemporaneity in which times conjoin. The essays in this book are devoted to grappling with that conjuncture.

Multiplicity / Simultaneity

Critical discussions of the post-1945 period are often concerned with a debate that can easily become predictable. The debate focuses on what comes after postmodernism, when “the contemporary period” begins, and how the arts uniquely embody those questions. Our interest is otherwise. Given the etymology of the term, we assume that “the contemporary” is a historically deictic term, indicative of a sense of presentness that has been felt by cultures of the historical past as well as those of the current moment. However, we take that term to uniquely signify today an emerging structure of temporal multiplicity embedded in a history that has constructed the present as an experience of simultaneity.
Roger Luckhurst and Peter Marks suggest that “the difference at the heart of the ‘now’ can be seen as a constitutive and productive heterogeneity, a circulation of multiple times within the single instant. We might take this to be what the ‘contemporary,’ con-temporarius, literally suggests: ‘joined times’ or ‘times together.’” Time is multiply measured both within a society or culture and between cultures: “What if we were to get into a companionable habit of looking at our watches to ask, not what time it is, or where we are in time, but whose time it is?” This dovetails with Terry Smith’s claim that periodization of the contemporary is actually impossible, since “contemporaneity consists precisely in the acceleration, ubiquity, and constancy of radical disjunctures of perception, of mismatching ways of seeing and valuing the same world, in the actual coincidence of asynchronous temporalities, in the jostling contingency of various cultural and social multiplicities all thrown together in ways that highlight the fast-growing inequalities within and between them.”

The contemporary is not “our time” because of its heterogeneity and opacity, and it is not “a time” or period because it is defined by antinomies. The contemporary present is a conjuncture of times that take time. The following essays each address a pair of interrelated terms—past/future, real/quality, labor/leisure, synchronic/anachronic, transmission/influence—to describe, individually and collectively, that conjuncture as multiple and simultaneous. The “present” performs the semantic and conceptual work of coordinating coetaneous temporalities as a sensory horizon, an affective technology, a psychic matter, a market duration, a political economy, a global mentalité, and a natural history. Understood this way, the present may be grasped as textured and stretched, latent and current—a mediation of presence and distance in time. The present is both in and out of time and takes time; it is made up of multiple temporalities. Philosophers of the late nineteenth and twentieth centuries such as Martin Heidegger and Henri Bergson recognized this multiplicity as they sought to grapple with conceptions of time as an infinite series of instants, on the one hand, and as a directional flow, on the other. No recent artwork addresses this notion of the multiplicity of present time—the present as times that take time together—more than Christian Marclay’s 2010 installation The Clock, one of the most critically acclaimed works of art since the turn of the millennium. A blockbuster event drawing lines of spectators who wait hours to enter the exhibit, The Clock
runs twenty-four straight hours and splices together scenes from movies and television programs that either incidentally show clocks and watches noting the time of day, or present characters reflecting on time in various forms. As it runs, the film becomes a kind of real-time clock, its scenes deliberately synchronized to correspond to times of the twenty-four-hour day within the time zone in which it is being projected. The extreme length of the film and its showing as a continuous run in the space of the museum not only thematizes the relentless movement of time (visitors are aware that they are unlikely to sit through the entire film as it keeps running throughout the day and night), but also provides an at first funny and then fascinating experience for spectators (they collectively participate in a kind of chronophilia). It treats time as a formal device and aesthetic means, as a social experience gesturing toward a whole way of temporal life, and as an artwork that playfully, hypnotically invites us to reflect on the times—day and night, death and life—of our lives. But while this artwork both is centered on time and happens in time, it is made of clips that are moments taken out of time, out of the context of their own televisual and filmic origins, out of the history surrounding their own production, and out of the temporal sequence of the stories to which they originally belonged. High Noon (1952) predictably and pleasurably appears when Marclay’s impractical clock strikes 12:00 p.m., while a later midday moment (12:05 p.m., to be exact) from American Gigolo (1980), happily fueled by cocaine and couture, is juxtaposed with the same 12:05 p.m. (or is it?) in The Exorcist (1973), when Max von Sydow, a world away and a film apart from a young Richard Gere, sees a clock come to a demonic stop, foreshadowing his own death at the hands of a possessed little girl later in this classic of horror. Thus on the one hand, The Clock makes us hyperaware of time as historical and narrative multiplicity, with distinct times of day embodying divergent qualities, encouraging differing actions, and engendering differential rhythms. On the other, it flattens different times as all equally synchronizable according to the chronometer, homogenizing different kinds of time into one video presentation. The Clock thus implies a contradiction: the “time that takes time” is portrayed as multiple, drawn from different moments in the history of film and television, and simultaneous, with those moments experienced as a singular event that we attend at a museum within the present created by the installation.
These are the very traits of a postmodernism that *The Clock* seems, as an artwork, both to challenge and exemplify. *The Clock*, for example, harkens back to the paradigm-shifting work of Marxist theorist Fredric Jameson, who claimed throughout his work on postmodernism from the 1980s onward that in the culture of “late capitalism,” space has supplant ed time. What he meant—citing examples in specific postwar art forms such as video, literature, and architecture—was that in today’s technologically enhanced and globalized world, we see the triumphant late stage of capitalism, which restructures all levels of society (not just economics) according to market values, eradicating or repressing other values generated by other systems. The values of capital include speed enabled by ever-improving technology, globalized contact, uniformity (or at least extreme translatability) of world cultures, and the redefinition of all aspects of life and human perception to forms that can be exploited by a world market that infinitely expands and thrives on diversification—a very specific instance in which simultaneity and multiplicity meet. For Jameson, capitalism has little use for history defined as implicit or explicit critique of market values or class privilege, or for art that makes historically constructed power relations come into focus. It is dedicated to promoting art only as an investment commodity, a “commercial” for other products, or an affective *frisson* rather than a vehicle for thought (particularly political thought) or utopian desire. Thus historical images might appear in music videos, but they are used in the interest of “pastiche,” a flattened, ahistorical montage that exists not to enable audiences to think critically and historically about their present but actually to shut down such thought, implying the idea that history is nothing more than a series of pictures that can be spliced together in any order in order to create an emotional effect for a purchasing public.¹²

Jameson’s assertions spoke to an emerging conversation among mid-twentieth-century theorists about the nature of time in postmodernism, the postwar sociocultural and economic dominant based on the increasing power (and, by century’s end, global triumph) of finance capitalism. In these theories, postmodernism is characterized by the dominance of space over time: temporality is suppressed in favor of implicitly or explicitly spatialized models. All places become the same in a tourist economy (all equally marketable images of the past, though they may depict different historical scenes), and Umberto Eco and Jean Baudril-
lard theorized how history itself becomes a commodity in the shopping mall hall of mirrors of consumer society. Charles Jencks, working in architecture, noted how new postmodern buildings raided the past for styles and spliced them together in a new urban aesthetic, much in the manner of Jameson’s postmodern video, while Edward Soja wrote about how the postmodern city became a jumble of historical styles that created a new kind of postmodern space, a “thirdspace” that lay somewhere between real and imaginary space, reality and desire. In these and many other critical statements, space and spatialization became the dominant conceptual frames for postmodernism.

Yet the 1980s and the 1990s also saw groundbreaking scholarship that was sharply focused on postmodern time and did not reduce history to a spatial model. In The Condition of Postmodernity (1989), for example, David Harvey argued that a central characteristic of the postmodern was in fact the annihilation of space by time. In the same vein, in Time and Commodity Culture (1997), John Frow rejected the spatialization of time and asserted that heterogeneous strands of time comprise historical movement. Ursula Heise argued in Chronochsisms: Time, Narrative, and Postmodernism (1997) that late-twentieth-century technological transformations foreshortened and fractured time, constructing a “culture of time” in a new way; Andreas Huyssen’s Twilight Memories: Marking Time in a Culture of Amnesia (1995) argued that postwar society was obsessed with memory and history in reaction to the timelessness of electronic communications. In these and other studies, postmillennial time studies as we defined it above was beginning to take hold in the work of critics who sought to break free of postmodernism’s putative spatial dominant without naively bracketing the questions about time and space that theorists of the postmodern taught us to ask.

The Clock embodies and embraces many of these historical tendencies and theoretical queries. The installation, after all, is easily described as a twenty-four-hour music video that flattens rather than intensifies historicity by splicing together multiple moments from the history of film as if they were simultaneous, part of a singular now, in an artistic event akin to the opening weekend of a blockbuster movie. This is to say that the simultaneity of The Clock threatens to become a singularity. Singularity is a term denoting a kind of postmodern and post-postmodern space, the reduction by the capitalist system of all things to one model
or one kind of thing—a commodity space or conceptual container defined by capital. Simultaneity is the temporal register of the singularity. Within capitalism, if all things become, really, one thing (the commodity), then all times become, really, only one time: the present, the time of consumption that is also the time of the affective singularity. The singularity, however, should be distinguished from the event—the timespace happening (appearing in theory from Foucault to Lyotard to Badiou) that cannot be contained within existing social registers and structures. Jameson writes, for instance, that “the [art] installation and its kindred productions are made, not for posterity, nor even for the permanent collection, but rather for the now and for a temporality that may be rather different from the old modernist kind. This is indeed why it has become appropriate to speak of it [the artwork] not as a work or a style, nor even as the expression of something deeper, but rather as a strategy (or a recipe)—a strategy for producing an event, a recipe for events.” We therefore see a potential contradiction about time in the present that The Clock makes clear. On the one hand, contemporary time is a multiplicity that, in the Marclay artwork, pluralizes each minute of the day with many moments. On the other hand, contemporary time is a singular simultaneity concocted from a recipe that calls for aligning clips with the time of day and shown to a paying audience. Yet these poles are not as oppositional as they at first appear, and The Clock ultimately seems to exemplify how contemporary installation art sits on a shimmering line between singularity and event, working a Jamesonian territory of precarious and implicated critique.

To see how, consider a compressed history of the present as both simultaneous and multiple. The trajectory by which capitalist nations of the developed world arrived at a state of temporal simultaneity is a long one. The present—and presentism, it seems—has a past. In the modern history of time, especially in the developed world, the experience of the present is one of increasing simultaneity as a result of technological, economic, and cultural developments that expand and extend our sense of the now, even though doing so has progressively attenuated past and future. According to some cultural historians, the experience of simultaneity can be traced to three events: the creation of the mechanical clock, the advent of capitalist modernity, and the development of the modern nation-state. The chronometer and capital appeared
around the same historical moment. Mechanical clocks performed an important function. They abstracted time from cyclical, natural, and mythic time such as seasonal cycles, circadian rhythms, and liturgical calendars and replaced them with “a continuous succession of constant temporal units,” such as the twenty-four-hour day and the sixty-minute hour. Time became tied to the demands of the workplace (the need for a regulated workday, scheduling the transfer of goods, and international trade)—that is, tied to a market society dominated by the commodity, the very embodiment of the present in its extinguishing of the past of production that went into its making. The chronometer facilitated the arbitrary and abstract time of production: the workday and its redefinition of natural time into calculable time.

Eventually, as many studies have by now shown, the clock gave rise to that mode of time that Walter Benjamin famously called “homogeneous, empty time.” According to Benedict Anderson, the newspaper, especially by the eighteenth century, likewise abstracted time but added calendrical coincidence around a given date, thus synchronizing disparate events for the reader as simultaneously occurring (much as The Clock uses a particular minute in the day to coordinate historically distinct moments of film experience). In the same century, the novel began to make of mass culture a similar horizon of temporal experience because it elaborated “meanwhile time,” the time of reading that allowed different plot threads, sequentially narrated, to be perceived by readers as simultaneous in time. Yet if the novel and newspaper intensified the present in the eighteenth century, then the content of both made of that present a conjunctural time to the degree that the former depicted plots that involved backstories, flashbacks and flashforwards, and parallel storylines, and the latter reported events that began at different moments in the past and finished at distinct moments in the future. Indeed, one might say that in this respect newspaper and novel gave back to the commodity the past it extinguished, since both were themselves commodities of a particular sort: the regular novelty. As such, they marked change according to the cadences of consumption that were emerging as European societies, especially England, commercialized and modernized in the eighteenth and nineteenth centuries.

Anderson’s work suggests that the present was increasingly a mediated experience of simultaneity, even if we would add that such simul-
taneity was not necessarily an experience of temporal homogeneity: the present was shot through with past and future in novel and newspaper alike. Moreover, both were part of a growing presentism that seized upon itself as radically and reflexively contemporary—a perspective, Peter Fritzsche has argued, that can be traced to the revolutionary events of the late eighteenth and early nineteenth centuries. These events forged “a newly felt sense of contemporaneity which pulled Europeans together into a circle of shared understanding and busy literary activity, one which newspapers attempted to bind in a more permanent way.”²¹ A “sense of contemporaneity” was the bid to make of the present a virtue, as modernity enacted a radical break with tradition. Pursuing the present as a virtue was in many respects a necessary temporal compensation in the face of those events by which, in Ian Baucom’s words, “modernity [was coming] into a historicist awareness of itself” through the French Revolution and the Napoleonic wars as well as colonialism’s activity (especially the global slave trade) worldwide.²²

The nineteenth century saw other world-historical pursuits of the present (especially of a presentism in scientific research and information practices such as geology) and technological development of infrastructure such as railroads that demanded synchronized timetables so as to run on singularly chronometric time.²³ By the twentieth century, such presentism merged with a historically modern sense of contemporaneity that further elaborated the present as an experience of simultaneity. Stephen Kern has argued, for example, that steam power and wireless telegraphy were technologies that not only played an innovative role in travel and communication by the early 1900s, but also transmitted the present instantaneously as such. In this respect, they were descendants of the newspaper, offering their users “[t]he ability to experience many distant events at the same time,” an ability that telephony also provided.²⁴ Likewise, cinema, a major technological development of this period, continued the “meanwhile time” of the novel through techniques such as parallel editing, which sequenced shots so that spectators felt two events to be happening at the same time. But the presentism of parallel editing was inflected by the past, if a past overwhelmed by an investment in the present. As Mary Ann Doane has shown, in exposing “people to aspects and events of the world that had previously been distant and inaccessible,” early film produced “the sense of a present moment laden with
historicity at the same time that [it encouraged] a belief in our access to pure presence, instantaneity.”

Though this breathless overview seems to give a developmental view of history, it would be a mistake to present a “history of presentism” as teleological. Understanding the present as a temporal conjuncture often linked to an experience of simultaneity might be thought rather as an intensity in our postmillennial moment. As an experience of simultaneity, the present of modernity has been an effect of increasing numbers of events and actors undergoing intensifying technological and economic synchronization across space, with local times becoming one time through the advent of developments such as the clock, the locomotive, and the telephone. This reached a nexus in the era of high modernism, which supposedly put into place a movement toward the postmodern experience of spatialized time. For postmodern theorists that experience is a symptom of “the end of temporality” and a “crisis in historicity.” In this model, there are few protensions or retentions, and time is nothing more than global capitalism extending its systemic tentacles around the world, seemingly replacing time with space. Yet if for Jürgen Habermas the “project of modernity is not yet finished,” one might say the same for time’s evolution in our present. Our experience of time is not yet complete, and it is not directed toward any one end. Even as it is marked by an experience of simultaneity that veers toward singularity, multiplicity persists. To use Baucom’s terms in the second epigraph to this introduction, time accumulates in many forms that crystallize both simultaneity and multiplicity.

The forms of high modernism often suggest this tendency as much as they do the movement toward spatialized time. Thus while cinema discovered how to create “meanwhile time” through parallel editing, most innovatively in the films of D. W. Griffith, modernist authors experimented with free indirect discourse (allowing a simultaneous subject/object positionality that accesses the private time of individual subjects, as in Virginia Woolf’s *Mrs. Dalloway*) and multiple focalizations of events (allowing simultaneous experience of different minds and thus many psychic tempos). Philosophers such as William James, Edmund Husserl, Martin Heidegger, Henri Bergson, and Maurice Merleau-Ponty worked to reconcile the idea of the present with models of immanence and singularity (time as a multiplicity, a series of singular instants) or...
with durational models of time (a kind of simultaneity). Such perspectives persist in postmodern philosophies, such as Jean-Luc Nancy’s concept of an “inoperative community” of singularities and the metaphysics of Gilles Deleuze and Félix Guattari. These all point towards an alternative genealogy of the present in which multiplicity is just as significant as simultaneity, complicating any simple telos for our history of presentism.

However, the question remains: how does simultaneity intersect with multiplicity in a way that evades singularity? As noted above, seen through the lens of Marxist-inflected theories, the temporal terms are two aspects of capital itself: capitalism reduces all time to simultaneity, a presentism that demands, paradoxically, multiplicity defined as infinite creation of new markets and diversification. From this angle, multiplicity is a kind of dodge: what seems multiple and diverse is actually always part of the system, always feeding the logic of capital. However, as a temporal term, “multiplicity” can mean something different: the recognition of multiple times operating subversively within or outside the seemingly airtight simultaneity and singularity of the world system. For example, some theorists note that there are still cultural and even economic elements as yet uncaptured by capitalism, and in fact there has been significant criticism of theories of postmodernism for their Anglo-European and American bias. Some claim that postmodernism is not, or not yet, a seamlessly triumphant global system, while other theorists note that we can discuss this system without importing putatively outmoded Marxist theoretical concepts. Is it possible that some cultures or bodies themselves resist incorporation into capitalist time? Is it possible that capitalist time itself produces or calls forth obstinacies in the form of times that chafe against its relentlessly singular structuring of our days? Is it possible that temporality itself might be something that always eludes complete cooptation by capital, something on a different categorical or ontological level leading to multiple fractures and sites of resistance within (or outside of) that very system?

Such questions are powerful motivating inquiries in theory today. For instance, Peter Osborne writes of temporal multiplicity that “the distinctive conceptual grammar of con-temporaneity” is that of “a coming together not simply ‘in’ time, but of times: the present is increasingly characterized by a coming together of different but equally ‘present’ tem-
poralities or ‘times,’ a temporal unity in disjunction, or a *disjunctive unity of present times*.” Using a number of metaphors to convey the “polytemporality of the present,” the fluid and unpredictable nature of time in social contexts, Steven Connor asserts a compatible perspective:

In contemporality, the thread of one duration is pulled constantly through the loop formed by another, one temporality is strained through another’s mesh; but the resulting knot can itself be retied, and the filtered system also simultaneously refilters the system through which it is percolating. The scoring of time constituted by one temporality is played out on temporal instruments for which it may never have been intended, but which give it its music precisely in the way they change its metre and phrasings, and remix its elements.

We are back to *The Clock* with this passage, for Marclay’s installation does rely on sound and music to “remix its elements.” Remixed into a temporal montage that constantly announces what time it is in the most impractical of ways, each minute is never one time, but multiple times shaped by multiple references and overlapping historicities. As much as it recalls the ahistorical pastiche decried as a temporal terminus by postmodern theory, *The Clock* also implies Heidegger’s “Being-in-the-world”: the private individual often mistakes the present for a moment that rapidly comes to an end, especially in postmodernity, but the public character of the world means that individuals will always come into contact with other times characterized by significance. In contrast to singularity, such “significance” is what spectators discover when they sit with friends and among strangers viewing *The Clock*, watching time multiply simultaneously from moment to moment, minute to minute, and hour to hour. That temporal multiplication happens not only as a formal feature of the “remix” on screen, but also as a dimension of being in time with others as a temporal public constituted in the present and presence of *The Clock*. Thus as much as *The Clock* exists within a postmodernist temporality of static simultaneity associated with capital, the antinomic tension of the installation is how it also exists within a counter-temporality of multiplicity. Rather than contributing to the worlding of capital, this multiplicity may gesture toward a new, potentially deterritorializing, planetarity.
The Emergence of Time Studies

How then is the multiplicity of temporality and counter-temporality theoretically defined today? The question is too large to address here in detail, so we have provided a bibliography at the end of this book to guide readers to the many sources they might consult to pursue further answers—which, of course, the keyword essays in this volume also aim to provide. One might nonetheless identify a few threads—or an interdisciplinary series of “turns”—in the humanities in relation to the postmillennial emergence of time studies: the global turn, the durational turn, the affective turn. But these are just a few of the ways to conceptualize how time studies is emerging and diversifying today. Readers should pursue others as well.

The “global turn” toward time is actually discussed above: the theorization of a time unique to capital on a global scale, and the possibilities of its refusal, fracturing, or deterritorialization. Yet the global turn takes different forms. It includes ecocriticism, new materialist theories, and posthumanisms that redefine time on a global or even cosmic scale. This global turn rests in part on redefining “globalization” within the frame of the Anthropocene or as part of “planetarity” (a social model that understands time as structured by the needs of living systems, ecologically entwined). The global turn also includes, however, theories that mesh these concerns with the functioning of capital and the world system. For example, modernity overseen and defined by capital depends upon speed of communication, speed of consumption, and speed of obsolescence and innovation.35 The phenomenologist and urbanist Paul Virilio characterizes this technological culture of speed as “dromology” (taken from the Greek dromos, meaning race or racecourse); this is part of what he calls the “war model” of the modern city and of human society.36 For Virilio, the logic of acceleration is the basis of modernity, and technology is a handmaiden to increasing societal control.37 Moreover, we now may have “hit a wall of acceleration”: with global digital data transmission and instantaneous communication, we may be now approaching a critical point at which further acceleration (and hence development) is no longer possible. Virilio wants to examine the consequences of this temporal state, and claims that speed as a way of calculating time now unifies perception as well as social, political, and military development.38
Virilio’s unmasking of a culture of speed is one way to interrogate existing structure. But if speed characterizes modernity circumscribed by capital, then “slowness” also becomes a counter-temporality as well as a means of resistance. One thinks of “slow food movements,” or the “Slow Movement” itself that “aims to address the issue of ‘time poverty’ through making connections.” And in point of fact, slowing down and falling asleep are being reclaimed by critics focused on the time of the present. That reclamation is unfolding as an explicit counter to the routinely pivotal role that acceleration has played in accounts of the historical movement toward time-space compression, with slowness and sleep both suggesting tactics to expand the present once again. In addition, the pleasures of speed and the malignancies of velocity, Lutz Koepnick argues, have blurred how much the present is an experience of “different stories, durations, movements, speeds that energize the present, including this present’s notions of discontinuity and rupture, of promise and loss.” Slowness, argues Koepnick, “asks viewers, listeners, and readers to hesitate, not in order to step out of history,” but rather to engage slowness as a contemporary tactic of historical reflexivity by which we can register and reflect on “the co-existence of multiple strands of time in our expanded present.” Less hopeful than Koepnick about the present as a waking horizon of experience, Jonathan Crary nonetheless lodges a related protest against a “24/7” temporality through which networked technologies insist that we stay perennially awake to always accelerating and expanding work time. Falling asleep for Crary is akin to the historical reflexivity Koepnick attributes to the “medium” of “slowness,” because the time of sleep constitutes “a periodic release from individuation. . . . In the depersonalization of slumber, the sleeper inhabits a world in common, a shared enactment of withdrawal from the calamitous nullity and waste of 24/7 praxis.” Yet Sarah Sharma has argued that simply opposing slowness and sleep to the velocity of modernity may only solidify—rather than disrupt—the violent hierarchies structuring such modernity. Based on her ethnographic research with people who work in occupations defined by temporal parameters (e.g., taxi drivers, frequent-flyer business travelers, and devotees of the slow food movements), she defines “power-chronography” as a way in which capital uses temporality in the interest of biopolitical control.
In a very different way, a new critical return to durational time is also positioned as a resistance to the unnatural time dictated by the chronometer and central to Western modernity, but also underlying the division of mind/body, subject/object, and thinking/feeling central to much Western philosophy. Now claiming widespread influence in fields as diverse as systems theory, posthumanism, and virtual aesthetics, the temporality theories of Henri Bergson, William James’s radical empiricism, the materialist philosophy of Baruch Spinoza, the radical metaphysics of Gilles Deleuze and Félix Guattari, and the process philosophy of Alfred North Whitehead reconceive durational time as materialist temporality. In these theories, which side with realist philosophies, time is understood as haptic and coterminous with an undifferentiated flow of energy/matter that makes up a vitalist universe. Registered proprioceptively, in the body’s own participation in the movement of time-matter, reality is a force—“event-ness” based in the relation of matter to all other matter, the nature of matter as energy flux and flow. Opposing the rationality and dichotomous thinking undergirding Anglo-European philosophy that parcels reality into discrete objects and forms, such philosophy emphasizes relationality and co-presence, the creative “becoming” of life that can be constrained neither by social forces nor biopolitically driven theories of cognition and perception. All objects are events, based in “virtual movement.” Brian Massumi’s example is instructive: a chair is not just an object but a marker of temporality (“the feeling in this chair of past and future chairs ‘like’ it”); a connection to life forces (“the feeling in this chair that life goes on”); a presentation of its own relation “to the flow not of action but of life itself, its dynamic unfolding”; and a marker of relation and activity (“It’s how life feels when you see it can seat you”). Such philosophy asserts an alternative to the instrumentalization and objectification of reality, and its counter-hegemonic potential is seen, for example, in the anarchist vitalism of Deleuze and Guattari’s philosophy. What it offers to time studies is a definition of the present that is based in philosophical, material, and political assumptions about a reality and collectivity hidden from, and often antithetical to, the cognitive rationality organizing the dichotomous categories of modernity.

The “affective turn” in theory today often draws from the haptic and somatic grounding of such anarchic vitalism to assert a tempo-
ral register based in the body—the nonrational, affective somatics of “thinking-feeling” that stand in counter-relation to cognitive rationality and “conscious” thought. Affects link emotion and body, but in theoretical work by Lauren Berlant, Sianne Ngai, Sara Ahmed, Brian Massumi, Eugenie Brinkema, Richard Grusin, and others, they also register social and formal logics. Notes Ngai, “I’m interested in . . . ‘minor’ or non-cathartic feelings that index situations of suspended agency . . . I’m interested in the surprising power these weak affects and aesthetic categories seem to have, in why they’ve become so paradoxically central to late capitalist culture.” Affect theory is the effort to understand the present as it plays out in somatic contexts, which become politicized as perceptive platforms that either can or cannot be coopted by capital. It is the sustained attempt to attend to “the contemporary moment from within that moment,” as Lauren Berlant writes, calling attention to the present as a “mediated affect” or “a thing that is sensed and under constant revision, a temporal genre whose conventions emerge from the personal and public filtering of the situations and events that are happening in the extended now whose very parameters (when did ‘the present’ begin?) are also always there for debate.”

In these theories, affect becomes a medium not unlike slowness or sleep—a condition of relation and an activity that mediates the present reflexively in its ongoingness, allowing contemporaneity to take hold of us and produce potentially political effects. For example, joining many other affect theorists who reject Fredric Jameson’s claim that postmodernism signals a “waning of affect,” Kathleen Stewart contends that “the emergent present” is “weighted and reeling”—that “a present that began some time ago” is more than the effect of a structural totality (late capitalism), a conjuncture of events (globalization), or a recognizable and legible period (neoliberalism). Using the language of metaphysics, Stewart asserts that the present is “a scene of immanent force . . . composed out of heterogeneous and noncoherent singularities.” Or, more concretely, the present is “[s]omething that surges into view like a snapped live wire sparking on a cold suburban street.” In Berlant’s work, the present “surges into view” affectively: “the present is what makes itself present to us before it becomes anything else, such as an orchestrated collective event or an epoch on which we can look back.” For Berlant, this means that the present “is also a thing that is sensed and under constant revision.”
As the above shows, the present is being rethought and politicized in new theories that ask how a reconception of temporality today can have social, ethical, and psychic effects. Moreover, as the example of *The Clock* has demonstrated, art often plays a central role in all of these new analyses: it is in literature, painting, photography, installation art, music, digital media, and film that new ways of seeing and experiencing time are captured and new ways of conceiving time in our moment are glimpsed. Certainly, such theories illustrate just some of the ways that “a new time-consciousness is emerging everywhere in contemporary theory” now, if “in a still inchoate way.”

**Time: A Vocabulary of the Present**

The essays that follow examine how numerous postwar “contemporalities” come together in and as the present. In them, that present is definitively galvanized by multiple temporalities that collide dynamically and dialogically, effecting an experience of simultaneity that often—but not always—exceeds singularity of the kind that was the focus of postmodern theorists. This project is facilitated, we hope, by the keyword essay format, in which each author tackles two temporal terms. To explore the disjuncture of times that make up the historical present—the contemporary as an immediacy, a moment, an era, or a longer *durée*—each contributor to this book has juxtaposed two temporal terms important to postwar arts and society. These essays are grouped into three sections: “Time as History,” “Time as Measurement,” and “Time as Culture.”

**Time as History: Periodizing Time**

Common sense tells us that time and history are natural siblings. And indeed, the “conception of history as an immanent and continuous process in chronological, or secular, time” is central to many if not most Anglo-European academic approaches to history. Lorenz and Bevernage note, for example, that “Marc Bloch famously called history ‘the science of men in time.’ Similarly, Jacques Le Goff labels time the ‘fundamental material’ of historians,” and conversely, Norbert Elias famously declared, “Wherever one operates with ‘time,’ people
within their ‘environment,’ within social and physical processes, are always involved.\textsuperscript{50} Moreover, write Lorenz and Bevernage, several historians—in particular Lucian Hölscher, François Hartog, and Peter Fritzsché—have started historicizing time conceptions previously taken for granted.\textsuperscript{51}

But is history, “the science of men in time,” the same as the science of time by men? Sexist language aside, the question is an important one: to what extent are historians actually conversant in the language, perspectives, and claims of the philosophy of time when they posit history as time? “All those people who think that historians are in some sense experts in the study of temporality,” Hayden White has remarked, “should realize that farmers probably know more about time than historians do.”\textsuperscript{52} It might behoove us to understand history and time studies as fundamentally related fields of discourse but operating at different levels of conceptual construction. Jörn Rüsen writes, “History is a specific way in which humans deal with the experience of temporal change. The way they realize it essentially depends upon pre-given or underlying ideas and concepts of time.”\textsuperscript{53} This implies that history is not philosophy of time per se but rather is built upon time, upon already ensconced cultural understandings of what time is.\textsuperscript{54} Predicated on time schemas, history is at least two removes from “actual” time, whatever that may be.\textsuperscript{55} History is not time but a cultural mediation of time, which itself has already been mediated through our cognitive schemas, cultural vocabularies, moral systems, ontologies, and epistemologies (and perhaps even our mathematics, as the quantum revolution has shown).

In the essays that follow, time as history is examined in this light: as a social organization of time aligned with historical narrativization, accounting, or logic. Moreover, each of the essays attempts to illustrate how the post-1945 period in developed nations has created cultural conditions that shape the presentation of time-as-history in new, unique, or unexamined ways. This return to history crosses disciplinary boundaries and is different in tone from earlier postmodernist metahistoricity. Amelia Groom notes that in art and art history, early-21st-century art has seen a rising concern with re-present-ing the past. Many artists are embracing obsolete technologies, abandoned places and outmoded materials; resuscitating unfinished ideas; revisiting docu-
ments and testimonies; and restaging downtrodden possibilities. Rather than a winking postmodern pastiche of appropriated styles, or an earnest nostalgic immersion in a fixed, absent past, these new engagements with the remnant of previous times mark a thickening of the present to acknowledge its multiple, interwoven temporalities.56

One might recall Kara Walker’s black cut-paper silhouettes, or Joe Sacco’s graphic novel The Great War—both of which avoid pastiche as well as nostalgia in their depictions of the past.57

Thus the essays in “Time as History: Periodizing Time” assume that we need to rethink temporal terminology associated with the logic of historical understanding in light of sociocultural change. In her essay, “Past / Future,” Amy J. Elias posits that we now live in a time of “techno-duration,” in which duration has assumed a metaleptic character inside both planetary and historical time. She argues that in the twenty-first century, “past” and “future” have become redefined as “retrofuture” and “slipstream,” terms that signal neither progress nor decline but rather a doubled movement of simultaneous futurity and historicity that provokes an image of “moving stasis” compatible with techno-durational “presentism.”

What time is as history may, however, be discernable through the lenses of cultural analysis and art, both of which work to defamiliarize the unexamined assumptions of a society. In “Extinction / Adaptation,” Ursula K. Heise illustrates how post-1960s film and literature expose these terms as processes in the biological world but also as narrative metaphors for different kinds of cultural engagement with ongoing processes of modernization and globalization. Ranging through paleobiology, environmentalism, ethnolinguistics, evolutionary theory, genetics, and biotechnology, she invites us to rethink the temporal directionality of evolution through both adaptations and extinctions.

A very different kind of historicism characterizes time in the arts—namely, periodization. In “Modern / Altermodern,” David James asks whether modernism can still provide an appropriate interpretive lexicon for apprehending the arts of our time and how we account for the curious persistence and institutional acceptance of periodization itself. Periodization, he claims, offers a particular kind of “solace” to the contemporary imagination, inhibiting the interrogation of period concepts and paradigms.
Yet while the modern and the “post”-modern seem to indicate a logic of continuance between the past and the present, the “perpetual present” of contemporary global society actually depends centrally upon the values of innovation and obsolescence. At their most general, Joel Burges argues in “Obsolescence / Innovation,” these terms refer to twinned processes of technological change that for us engender a temporal relation between past and future: innovation and obsolescence spark the emergence of a horizon of temporal sensation shaped by the commodified coming and going of technologies and products. This is a sensory horizon in which historical time unfolds by way of our ongoing sensitivities to the “product life cycle.” What is produced for us as a result is a rhythmic experience of historical time.

Once the critical potentiality of innovation is exhausted today, however, what is the fate of emergence? In “Anticipation / Unexpected,” Mark Currie turns to philosophy of time, specifically phenomenology, to examine the complex relation between “emergent terms” as modes of temporality. He argues that the category of the unexpected event is more prominent in a world that is methodical, accurate, and expert in its predictions, and for this reason it makes sense to explain emergent ideas about a world less predictable than it used to be as the product, and not the failure, of anticipation.

**Time as Calculation: Measuring Time**

If someone were to ask, “What do you think about when I say the word ‘time’?” many of us might automatically think of time’s numerical forms. We might think first of minutes and hours—clock time. We might then think of time calculators and time limits—stopwatches, media run times, class or work schedules. If we were attuned to our bodies for some reason at the moment we were asked, we might also think of aging, or a circadian rhythm that we conceptualize in chronometric terms as our “biological clock.” Associating time with calculation in this way seems completely natural. It is not natural, of course. Time as calculation has its own history, like every other form of time. If the Egyptians were the first to create a twenty-four-hour day, it was the U.S. government that issued the Calder Act of 1918, which implemented standard time and daylight savings time throughout U.S. territory.
Moreover, time calculation has a long narrative of development and change. While horological devices of one kind or another (including sundials, water clocks, and hourglasses) are among the oldest of human technologies, early mechanical clocks were seen in Europe in the early Middle Ages and eventually became essential to Europe’s great age of colonial expansion. As noted above, chronometric temporality was bound not only to the invention and worldwide adoption of the mechanical clock, but also to new demands for schedules and time calculation by a growing intercontinental trade empire.

This is the temporal calculation discussed by Jimena Canales in her essay “Clock / Lived,” which specifically examines the development of chronometric time in “the West.” Starting with the fact that the development of the atomic clock after WWII gave such confidence to the scientific community that it changed the length of what constituted a second as an interval of time, Canales examines the twentieth-century divide between scientism’s faith in chronometrics and competing versions of time based in lived and biological rhythms, such as theories of duration by Bergson. Both versions of time were mediated, she claims, by phenomenological notions of time by Heidegger and others and, later, by modifications in time calculation provided by filmic time, literary time, and historical time.

In “Synchronic / Anachronic,” Elizabeth Freeman tackles two terms associated with durational time and argues that both synchronic and anachronic time calculation offer ways to conceptualize freedom as corporeal modes of time, sites through which bodies are dominated and resist domination. She argues, however, that both are also bound up in specific iterations of the social: under contemporary conditions of “chronobiopolitics” and instantaneity, anachronistic irruptions of other forms of time or historical moments can become sites of critique or alternative imagining.

In terms of scale, the keywords examined in “Human / Planetary” look to a very different mode of time calculation. In her essay, Heather Houser uses this scale to contrast human time to planetary time, noting that through the concept of the Anthropocene, the two times interpenetrate in complex ways. She introduces the notion of geological timekeeping in climate change calculators and argues that human time and technological time are interwoven with the inhuman time of instru-
mentation, computation, and mathematicization, a third kind of time that mediates the binary of human and planetary time.

Thus the role of visualization seems to play a key role also in how we understand time today—from our various timepieces that show us second to second where we are in time, to our online calculating technologies, to our art forms, which visualize time in new ways. In his essay, "Serial / Simultaneous," Jared Gardner discusses how Einstein's special theory of relativity highlighted the paradoxical relationship between seriality and simultaneity, two seemingly contradictory models of time. More than a century of experimentation since Einstein formulated his theories culminates in a growing number of opportunities in the popular narrative arts of the present, such as comics, to explore and experience time as both serial and simultaneous.

In "Emergency / Everyday," Ben Anderson draws our attention away from the scientific and the popular to how we calibrate time socially and politically: how do we measure the difference between the everyday, slow-moving time of the quotidian and the rushed, instantaneous time of emergency? Given the visibility of "the everyday" in social and cultural theory today, and the claims being made for the disruptive potential of the everyday as an alternative to market-driven, industry-centered chronometric time, how, he asks, should we draw the temporal line between emergency and the everyday? While we typically conceive of these as opposite kinds of time calculation, Anderson argues that they must be put in relation, for they are frequently conjoined in claims that the contemporary condition of human life is life lived in uncertainty.

This is very different from John Maynard Keynes's 1930 prediction that by 2030 the wealth created by new technologies would bring about an era of universal leisure. In "Labor / Leisure," Aubrey Anable examines this assertion, probing the character of time as it is calculated in terms of work and play. Anable claims that, following the Industrial Revolution, the boundaries between labor time and leisure time were meaningfully blurred yet still distinct, but after 1960, these two terms have become, if not indistinguishable, at least vastly more temporally and experientially confused. Using digital games on mobile communications devices as an example, she argues that leisure time has shifted today from being a counterpart to labor time to being another modality of productive work.
Rounding out this section, Mark McGurl’s “Real / Quality” takes up the idea of “work time,” time as calculated according to workplace schedules and rhythms. He claims that the terms “real time” and “quality time” are not opposites but rather exist in broken or partial opposition, “as though they are the mutually reflecting shards of some prior, and presumably deeper, dialectical collision in the late capitalist life-world.” Moreover, “real time” and “quality time” become gendered terms in the postindustrial workplace. The collision he identifies is between qualitative and quantitative or subjective and objective time, a relation placed under a new kind of stress in late capitalism.

_Time as Culture: Mediating Time_

To the degree that “time studies” refers to a capacious field of discourse in the humanities, time as culture is arguably the privileged locus of time studies today. Across recent cultural analyses of temporality, we see a concerted effort to show that the empty, homogenous time of modernity is actually full—full of impulses and rhythms that make the seeming uniformity of modern time a far more heterogeneous, and far more syncopated, experience than previous models had advanced. “History is the subject of a construction whose site is not homogenous, empty time,” writes Benjamin in 1940, “but time filled full by now-time.”

This takes a number of forms in time studies today: showing the lure of contingency in the reified temporalities of industrial modernity; revealing the alternative temporalities that texture the emptiness of modern times with, for example, queer, fantastic, and globalized cadences; unpacking contemporaneity itself so that it is no longer a purely spatial and geopolitical phenomenon, but an experience of temporal disjuncture and of intuiting the present as presence; and attending to how time functions formally, as a device that structures both works themselves and their arrangement as we access them as a horizon of experience.

The concept of time-as-culture drives us today toward a realization of multiplicity, a plurality of temporal differences within the contemporary. Modern times produce their own temporal others immanently, dragging in alternative rhythms and outmoded objects as the medium and material in which time becomes culture. All of the essays in this section pursue this idea and as a whole reflect the temporal plurality that thinking
about time-as-culture glimpses askance. In “Aesthetic / Prosthetic,” for example, Jesse Matz distinguishes between aesthetic time, or the ways in which aesthetic works create their own time, and prosthetic time, or the ways in which we work to externalize time. Taking an almost reparative approach, Matz is ultimately interested not in the bifurcation of aesthetic and prosthetic time, but how, when they converge in films such as Source Code and Limitless, a relationship develops between “temporal prosthesis and filmic art” that actually seeks today nothing less than to “cultivate a new humanity.”

The literary arts are James Phelan’s focus in “Analepsis / Prolepsis,” keywords that are, as he explains, “rough synonyms for flashback and flashforward.” As Phelan points out, we would be hard-pressed to imagine these temporal devices as contemporary inventions, given that we can locate them as early as Homer. Thus while Phelan makes the historical claim that contemporary literature has not enacted a total transformation of the flashforward and the flashback, he does argue that post-1960s fiction uses analeptic and proleptic temporalities to reveal new, contemporary anxieties about temporality and the politics of historical time.

In “Embodied / Disembodied,” Michelle Stephens and Sandra Stephens reveal how post-1960s Conceptual art moves “from an embodied scopic regime of space, through a disembodied proprioceptive regime of time, to arrive, now, at a complex notion of the body as re-embodied, relational timespace.” Considering the politics of colonial difference and postcolonial art, the more complex spatiotemporality of reembodiment comes to reside within—or upon—our skins in the artworks they consider, many of them the work of Sandra Stephens herself. A tactile temporality thus emerges on the surface of our bodies, dynamizing the spatial regime of embodiment with the kinesthetic and fleshy flow of time in ways sensitized to race, colonialism, and the body.

But what of sacred time? While this question could be the foundation of an entire essay collection in its own right, given the abundance and diversity of sacred times and sacred traditions worldwide, here we present a consideration of a sacred kind of time increasingly visible in postwar U.S. discourse and significant to contemporary Marxist and post-Marxist critical theory. In “Theological / Worldly,” Stanley Hauerwas insists that Christianity is rooted in time, the ongoing product
of “a revelation in history” rather than “a passage to the eternal.” At the root of this insight is an other-worldly time, which Hauerwas takes to be the lived time of the Christian person—a temporality that works at the disjuncture of the time of God (theological time) and the time of modernity (worldly time). In this sense, Hauerwas is very much part of the movement in time studies today to show how full the presumed emptiness of what he calls worldly time can be.

Whereas Hauerwas turns to religion to reveal the plenitude of the historical present, in “Authentic / Artificial” Anthony Reed turns to race and diaspora to disrupt the seemingly consecutive temporal relationship of the authentic and the artificial. That which is authentic is often that which is most closely associated with “the folk,” who are imagined to exist before modernity. That which is artificial is therefore that which comes after modernity. Tied to pernicious cultural hierarchies and political inequalities, this consecutive temporality, however, is in actuality a coeval time of reverberation and resemblance. Reed asks when, not where, the African diaspora can be located; through an account of the global circulation of hip hop, he suggests that this “when” may be “an impossible similarity rooted in shared time.”

In “Batch / Interactive,” it would seem that Nick Montfort would end up hewing mostly closely to a model of time that insists upon its abstraction and rationalization as empty and homogenous. For what interests Montfort are two modes of computer time: batch time and interactive time. Such temporalities might seem to be the ultimate embodiment of capitalism’s empty, homogeneous time. But while batch time is organized around the computer itself, interactive time is organized around the human user of the computer. Thus what has emerged, Montfort argues, is a heterogeneous mix of computing temporalities in which human time becomes increasingly digital—as in the example of multitasking that he considers—even as the time of the computer is bent to the will of the human being who is using it.

In “Transmission / Influence,” Rachel Haidu deconstructs notions of artistic influence along temporal lines. Her deconstruction is not proffered as an effort to do away with influence but as a means of redescribing and recuperating the concept for criticism today. To that end, she reconfigures what we usually call “influence”—the historical time of diachronic lineage we construct between two artists—as “transmission.”
She argues that a transmissive temporality occurs in real time when one artist really looks at another’s work in a synchronic moment, a present in which that artist comes into contact with some other artist’s work (even, in some cases, his/her own work). Influence thus becomes a discursive and metacritical temporality.

The last essay of the volume enacts this notion of influence in hip hop montage. Paul D. Miller aka DJ Spooky, That Subliminal Kid asks us to consider the interrelations of sound and space as they intersect in mathematics, underscored in contemporary music and the writing about it. In this sense, the end of this collection of essays opens back out to the temporality of the immediate, of the spoken word, the artwork, and the multiplicity of times that characterize the contemporary moment.

NOTES


2 The following discussion cites numerous sources concerning contemporary time. When not fully cited in these endnotes, these sources appear in “Time Studies: A Bibliographical Reading List” at the end of this volume.

As noted here, the essays in this book primarily are focused on a sociocultural experience of time by persons living in the present, though the essays reference many approaches to time apprehension. For example, “philosophy of time” investigates the nature of time: whether time passes, whether the past and future actually exist, when time begins, John McTaggart’s famous distinction between A- and B-theories of time, and the nature of causation (see J. R. Lucas; Robin Le Poidevin and Murray MacBeath; Jeremy Butterfield; Adrian Bardon; Yuval Dolev). The phenomenology of time accounts for how we experience time as human beings and why some things appear to us as appropriate to the category of temporality. Such investigation might include the problem of asymmetry, or how the past, present, and future carve up time differently. Edmund Husserl, Martin Heidegger, and Jean-Paul Sartre are among those associated with this investigation, but modern and postmodern continental philosophy has also addressed different phenomenological concerns, including questions about the nature of memory and self-identity. (See Ned Markosian, “Time,” *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta [Spring 2014], http://plato.stanford.edu/entries/time/#3D4Con, and, in the bibliography, David Wood; David Couzens Hoy.) Cognitive science researchers have asked ques-