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"Surviving Globalization": Experiment and World-Historical Imagination in Rana Dasgupta's Solo Sharae Deckard

Abstract: This essay investigates Rana Dasgupta's Solo as an exemplar of world-mapping fiction that takes the system of global capitalism as its interpretative horizon. I argue that Solo invites world-literary criticism informed by world-systems and worldecology perspectives because its "operative totality" (Tutek) is world history rather than the nation and its aesthetics self-consciously address the formal problem of representing global scales. I consider experimental writing in the context of structural narrative innovation and demonstrate how Solo's diptych structure renovates the forms of the historical novel and the Zeitroman in order to represent successive revolutions in the capitalist worldecology. I contend that the text answers Dasgupta's question of how to survive globalization by manifesting a counter-history of capitalist modernity that restores history to the neoliberal present, from the perspective of narratives set in the former Soviet and Ottoman empires. I conclude by exploring how the generic divide between the realist and oneiric halves of the novel negotiates the problem of futurity and attempts to conjure a totalizing retrospect by dreaming the future.

Keywords: Rana Dasgupta, *Solo, Tokyo Cancelled*, world-literary criticism, world-systems, world-ecology, world-historical novel, neoliberalism, post-Soviet Europe

Though the two objects did by no means completely correspond, yet this impartial inadequacy but served to tinge the similitude not less with the vividness than the disorder of a dream.

Herman Melville, "The Paradise of Bachelors and the Tartarus of Maids" (86)

I ask to be read twice, in parts and as a whole. Robert Musil (qtd. in Spice 19)

I tell you: no one is writing the real novels of our age. . . . Writers have a lot of work to do.

Rana Dasgupta, Solo (315)

In his seminal essay on the global commodification of magical realism, Michael Denning argues that,

like world music, the world novel is a category to be distrusted; if it genuinely points to the transformed geography of the novel, it is also a marketing device that flattens distinct regional and linguistic traditions into a single cosmopolitan 'world beat,' with magical realism serving as the aesthetic of globalization, often as empty and contrived a signifier as the modernism and socialist realism it supplanted. (51)

Fittingly, Rana Dasgupta's *Solo* (2009), a twenty-first-century novel that experiments with literary form in an attempt to narrate a world-historical account of the global expansion of capitalism, incorporates a plotline that explores the appropriation of rural traditions of Bulgarian folk music for the mass manufacture of "world music" as a synecdoche for the acceleration of cultural and economic forms of globalization after post-communist economies were integrated into free market capitalism.

In contrast to the homogenized "world novels" that Denning identifies as products of cultural globalization, this essay investigates *Solo* as an exemplar of fiction whose world-mapping takes the system of global capitalism as its interpretative horizon.¹ I argue that *Solo* invites world-literary criticism because its "operative totality" (Tutek) is world history rather than the nation and its experimental aesthetics address the formal problem of representing global scales while remaining critically conscious of the problems of commodification and autonomy concomitant with the production of any global artwork. I derive the term "world-literary" from recent criticism that reads "literature of the capitalist world-system" through an aggregate of world-systems and world-ecological methods (WReC 8).² Similarly, I use the term "world-historical novel" to designate fictions that represent different phases of the capitalist world-system's evolution. This is not to suggest, of course, that such novels programmatically reproduce the categories of world-systems theory, but rather that their imagination of time and space on a world-scale and their aesthetic mediation of the sensoriums that correspond to the dialectic of world power and world accumulation can be productively interpreted through such categories.

This essay will demonstrate how Solo's diptych structure reinvents the form of the world-historical novel and the Zeitroman to negotiate different scales of time and space, while representing the ecological revolutions that underlie the rise and fall of successive cycles of accumulation in the world-ecology. It examines the significance of the novel's setting in post-Soviet Europe and argues that the text's answer to the question of how to "survive globalization," as Dasgupta asks in his similarly titled essay, is to manifest a counter-history of capitalist modernity that restores history to the neoliberal present, conveyed by characters situated in countries subjected to neoliberal peripheralization. It concludes by exploring how the generic divide between the two halves of the novel wrestles with the problems of futurity and historicity and attempts to conjure a "totalising retrospect" (Anderson 24) by switching from a realist to an oneiric mode that dreams the future. To begin, I will frame the trajectory of Dasgupta's conceptualization of experimentation and globalization and argue that each of his books seeks a new form through which to imagine and represent the geoculture that corresponds to global capitalism.

I. Experimentation and Geocultural Imagination

Although *Solo* was awarded the Commonwealth Writers' Prize, Dasgupta's writing does not fit neatly into postcolonial frameworks. Born in the United Kingdom, he worked as a marketing consultant before moving to Delhi to become a writer, reversing the diasporic trajectory of writers such as Salman Rushdie. A prolific essayist and interviewee, he openly theorizes his own aesthetics and politics. Dasgupta describes his first novel, *Tokyo Cancelled* (2005), as searching for a form that could represent not only the imagined community of the nation but also the "culture of globalization" (qted. in Colbert). This literary experiment in registering what Immanuel Wallerstein calls "geoculture" (93) is motivated by Dasgupta's perception that contemporary art struggles to conceive of capitalism as a totality of relations: "We [inhabit] this integrated economic and political system, which we [are] unable to imagine as an entity. We [are] unable to imagine how all its parts and all its peoples might co-exist" (qted. in Colbert).

In his essay "Surviving Globalization," Dasgupta explores this crisis of imagination at length. He criticizes neoliberal teleology for presenting the total integration of the market as the end of historical change: "When the twentieth century began, there was history. Capitalists and Socialists alike believed that time unfolded with moral purpose, leading human society through periodic crises into inevitable improvement. By the end of the same century, there was *globalization*" (emphasis in original). For Dasgupta, neoliberal capitalism is a "vast and violent system that tolerate[s] no alternatives" and he argues that only an "earnest attempt to grasp the realities of the global condition" can break the sense of paralysis that surrounds the "vastly expanded field of globalization" ("Surviving"). He poses literary world-mapping as a political and aesthetic project that is integral to comprehending capitalist globalization as well as to imagining an alternative system that might replace it. This project demands cultural innovations and "new systems of thought that would accept the planet as a single intellectual horizon": "[N]ew art forms and new sensibilities to outdo the scale and dynamism of economics, and to make the global market seem comprehensible and quaint" ("Surviving"). Elsewhere, he argues that literary imaginings of the world, both as it is and as it could be, demand experimental aesthetics that risk the "fear of failure" (qtd. in Colbert).

As Timothy Brennan suggests, form and aesthetics are not matters of mere ornamentation but rather enable the work of thinking: "Truth has a form. . . . In the Hegelian sense . . . truth is an active exchange,

the 'making' of a concept adequate to its object. . . . The material basis of society is brought into view by the conceptual, in a process of intellectual synthesis that is the work of the writing itself" (80). The problems of conceptualizing the material basis of global capitalism and of conceiving its alternative are intimately linked to the making of forms through which to express these concepts. As Richard Lea writes, "[f]or Dasgupta, finding the form that will suit his subject is the fundamental creative effort in his writing." However, Dasgupta's literary aesthetics do not evoke the "qualities of shock and affront, iconoclasm and difficulty" that are frequently associated with experimental writing (Bray, Gibbons, and McHale 1). They are dedicated not so much to innovation as to the renovation of literary form; his novels are experiments conducted in a spirit of imaginative renewal. This variety of experimentalism is characterized by structural rather than linguistic innovation and could be said to be quasi-scientific in the sense that it is dedicated to extending the boundaries of knowledge and artistic praxis by rejecting ossified forms of old traditions and values (Bray, Gibbons, and McHale 1).

Before turning to close analysis of Solo, I will explore the evolution of Dasgupta's form by contrasting the ways in which his first and second novels negotiate the particular challenges of temporal and planetary scale that representation of the capitalist world-system poses for fiction. Tokyo Cancelled adapts the narrative structure of the story-cycle into a novelin-parts, a form intended to capture totality-in-motion. In Tokyo, as I have argued elsewhere, settings across an array of world cities enable the aesthetic registration of uneven global development and represent the local impacts of abstract economic processes as ecogothic transformations (Deckard 177). John Friedmann's "The World City Hypothesis" (fig. 1) argues that the formation of world cities offers a useful model to map the geographical striation that characterizes spatialized production in the world-system.³ As major centers for the concentration of wealth, world cities dramatize spatial and class polarization between cores and peripheries. Headquarters of transnational corporations and political superstructures are concentrated in core cities, while production is outsourced to related semi-peripheries (Sassen 28).

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In his most recent book, Capital, Dasgupta suggests that the world cities of industrializing powers such as India and China-with their characteristic polarities of wealth, uneven infrastructures, and sense of vertiginous acceleration-capture twenty-first-century modernity more vividly than the metropoles of slowing economies in North America, Western Europe, and Japan.⁴ This assessment is consonant with arguments from world-systems theorists that the rise of East Asian capital heralds a world-historical "recentring of the capitalist world system and a realignment of global power relations away from a Western-centred world towards a multipolar capitalism" (Parisot 1161-62). Tokyo's multi-nodal structure provides a formal compromise to the problems of geographical scale and totality by focusing on multiple centers of power and using the world city formation to intimate the contours of the changing world-system. The text negotiates the challenge of temporal scale-the difficulty of representing simultaneous processes across multiple locations-by containing the frame narration within a single night. Each of the travelers is paused in the airport by a blizzard. Their tales are confined within the contemporaneous, even as their individual stories contract and expand.

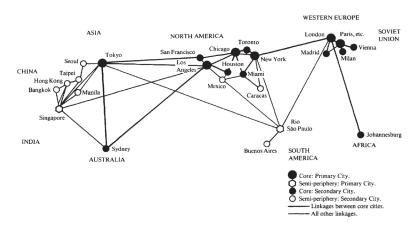


Fig. 1. From John Friedmann, "The World City Hypothesis" (Development and Change 17.1 [1986]; print; 71).

However, Dasgupta's second novel, Solo, moves between primary settings in Bulgaria, Georgia, Germany, and the United States and inverts this approach to global space-time by emphasizing the *longue durée* over the contemporary. Rather than concentrate on the current globalized world, Solo extends its temporal scope backward and excavates the twentieth century in search of the origins of the present. The novel, which Dasgupta began writing during the American invasion of Iraq in 2003, is world-historical in thrust and motivated by his desire to generate a counter-history of capitalist modernity that repudiates the American and British imperial perspective that "the 20th century was a great time, all the right people won, and things just got better and better, and people made more money, they became more mobile, technology got better, life got better" (qtd. in Colbert; emphasis in original). Solo's focus on post-Soviet Europe fits with this oppositional history of modernity since, as Neil Lazarus describes, "the full implications of the fact that liberation from 'actually existing' socialism has been liberation into the world-system of 'actually existing' capitalism are now having to be confronted" (121; emphasis in original). In Solo, the incorporation of the post-Soviet countries into a deeply uneven world market prone to contraction and dominated by American hegemony is not narrated as a triumphal completion of capitalist liberal democracy. Instead, it is portrayed as a breaking apart and diminution of lifeworlds that occurs as the social provisions and benefits of the post-Soviet states are stripped away and their populaces are laid bare to structural unemployment. For Solo's disabled protagonist, the post-communist transition literally poses the question of how to "survive" globalization.

If *Tokyo*'s formal solution to the problem of imagining the global condition is to map the present, *Solo*'s is to map the trajectory of how the neoliberal present came into being—an act of anamnesis that seeks to make a repressed history reappear. The novel's formal approach retains the principle of the whole-in-parts but, rather than a series of thirteen fragments, is structured as a diptych and split into parallel halves. "First Movement: 'Life'" employs free indirect discourse to unspool the memories of Ulrich, a blind, centenarian chemist living alone in an apartment block in post-communist Sofia. Ulrich shares his unusual

Germanic name with the main character of Robert Musil's *The Man Without Qualities*, which is set in 1913 Vienna and is a modernist *Zeitroman* that reflects the dissolution of the Austro-Hungarian empire. Like Musil's protagonist who lacks consistency, Ulrich is a man with "no instinct for politics" who feels unable to "tell what kind of world he was in" (Dasgupta, *Solo* 162). Bulgaria's twentieth century was characterized by historical turbulence and accelerated social transitions; it underwent the breakup of the Ottoman empire, the violence of two world wars in which it was occupied by both sides, a fascist coup, an abortive nationalist movement, a communist takeover, and finally, swift neoliberalization. Having endured every phase of this tumultuous history, Ulrich feels deprived of lasting social unities through which to orient himself and unable to comprehend or articulate his reality.

The novel's first movement is dense in detail and exposition, epic in historical sweep yet restrained in tone, and corresponds to Ulrich's description of his consciousness as "concussed" (7). The style of the movement aims to replicate the tone of Eastern European writers such as Musil, whose experience of peripheral modernity is conveyed in a register of speech Dasgupta describes as "lacking in self-mockery" and suffused with "an unironic conviction" in the experimental capacity of novel form (qtd. in Lea). As Nicholas Spice observes, Musil composed Man in the dark interregnum between the world wars as an attempt to restore a critical understanding of history to an unthinking age. He wrote: "It has always been a contemporary novel developed out of the past. . . . [I]f I should be reproached with going in for too much reflection, then . . . today there is too little reflection'" (Musil qtd. in Spice 19). As such, Man can be considered a modernist literary antecedent to Solo's political commitment to world-historical imagination as a route to understanding the present.

Solo's first movement shares Musil's narrative tendency towards logical concision rather than affect. It contours Ulrich's scientistic consciousness in rational, precise language that becomes sensuous only when describing his creative excitement over scientific discovery. The text is interpolated by the itemized lists Ulrich makes "to give him a sense that he is in command of his experiences" and to produce the

"feel[ing] that he is real" (Dasgupta, Solo 41). The lists reassemble the fragments of his staggered memory and attempt to re-tell the dis-membered history of a nation in the throes of periodic crisis. Names of historical corporations, empires, banks, scientists, and politicians pepper his items: Ulrich meets Albert Einstein, is in awe of the IG Farben chemical cartel, and survives the purges of Georgi Dimitrov. Yet he remains apolitical, unable or unwilling to intercede in the course of events even after his socialist best friend, Boris, is assassinated during the fascist coup and Ulrich's own mother is incarcerated in a Soviet labor camp for dissidents. Instead, he withdraws into the traumatized solipsism of the survivor. Ulrich seems confined to the observational role characteristic of the historical novel, that of an unheroic protagonist whose subjective experience combines the formal "interlocking of historical and existential registers" (Anderson 9). The novel's political content is focalized through his relatives' and friends' commitments rather than his own. Hs actions do not catalyze change as do those of the historical individuals glimpsed on the margins of the plot. Instead, he stands as witness to the "tragic collision between historically distinct times and characteristic social forms-what Bloch would . . . call Ungleichzeitigkeit" (Anderson 4).5

Yet the second half of the novel, "Second Movement: 'Daydreams," diverges sharply from this model. It takes place entirely in Ulrich's lucid dream world as he sits alone in his decrepit apartment. His elaborate daydreams rework motifs and events from his own life into a melancholy fable of Bulgaria and Georgia's post-communist transitions. Having lost his son to America in his real life, Ulrich constructs a dream-future for his imagined son—named Boris for the dead friend of his youth—in which he moves to New York and becomes a virtuosic violinist and star of the world music scene. In contrast to the dry, matter of fact register of the first section, the second movement is lyrical, permeated by fabulist episodes, and, in the sections describing the rise of Georgian oligarchs and mafiosos, supplants narrative restraint with a pace more reminiscent of a thriller. Whereas *Tokyo*'s formal compromise with temporality entails a bifurcation of genres between the realist frame narrative and the travelers' gothic tales, *Solo*'s genre division follows the logic of inverse similitude by exchanging the quasi-historical realism of the first movement for the fabulist dream world of the second.

This split structure mirrors the historical rift between pre- and postcommunist modernity. It presents a formal meditation on the fragmentation of knowledge in capitalist modernity by visualizing the seeming unreality and weightlessness of the neoliberal present while dividing its content between a focus on science in the first movement and art in the second. It reinvents the world-historical novel by grafting it together with an irrealist *Zeitroman*: the backward gaze of historical fiction is conjoined with the forward-peering tale of the ascendancy of neoliberal capitalism. As I demonstrate in the next section, *Solo* follows, from fixed points in space, systemic cycles of accumulation to reveal the social configurations that underpin the rise of hegemonic state-capitalist alliances and how the socio-ecological relations of what Jason W. Moore calls the capitalist world-ecology are locally embodied and experienced.

II. World-History as World-Ecology

Moore offers a "unified theory of capital accumulation and the production of nature" (126) that builds on Giovanni Arrighi's theorization of the correlation between systemic cycles of expanding and contracting capital accumulation and the axes of geopolitical rivalry and inter-capitalist competition. Arrighi argues that successive complexes of hegemonic state-capital emerge through and are sustained by organizational revolutions that propel material expansion and provide a competitive edge in economic and politico-military power through the innovation of new forms of business organization, world leadership, technology, and social structure (Arrighi 1). He identifies four systemic cycles of accumulation over the longue durée of capitalism, named after hegemonic state-capitalist alliances: Iberian-Genoese, Dutch, British, and American (Arrighi 5-6; see fig. 2). The beginning of each new cycle is characterized by new phases of material expansion and rising returns to capital in the real economy.⁶ Once material expansions encounter new competitors from outside the hegemonic center, profit-making opportunities within the productive circuit (M-C-M+) begin to falter.⁷ As the cycle begins to display what Arrighi calls, after Fernand Braudel, "signs

of autumn," capitalists respond to declining profit by reallocating capital from production to finance (M-M+), inaugurating financial expansions (Arrighi 6). When the capacity of hegemonic centers to sustain their level of accumulation declines, their power erodes and emerging rivals replace them in the next long century.

Moore contends that the world-economy should also be understood as a world-ecology that is constituted through the periodic remaking of class and power relations as well as the remaking of nature/societal relations:

World hegemonies did not merely organize resource and food regimes; the hegemonies of historical capitalism *were* socio-ecological projects. Dutch hegemony emerged through a worldecological revolution that stretched from Canada to the spice islands of Southeast Asia; British hegemony, through the coal/ steampower and plantation revolutions; American hegemony, through oil frontiers and the industrialization of agriculture it enabled. (125; emphasis in original)

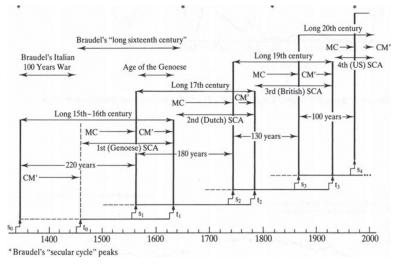


Fig. 2. From Giovanni Arrighi, "Long Centuries and Systemic Cycles of Accumulation." *The Long Twentieth Century: Money, Power, and the Origins of Our Times* (London: Verso, 1994; print; 220).

Systemic cycles of accumulation are founded in new organizations of human and biophysical nature which Moore calls ecological regimes. These organizations fundamentally transform how humans interact with extra-human nature. The regimes are dependent on a dialectic of plunder and productivity: the appropriation of nature's so-called free gifts and their transmutation through labor into surplus value. When the commodity frontiers of each successive ecological regime are exhausted and thus unable to produce ecological surpluses, the conditions of accumulation falter and ecological revolutions occur. These revolutions comprise creative responses to cyclical crises, producing new technologies to intensify extraction and locating new frontiers for appropriation. However, each revolution only resolves the exhaustion of the previous regime by reconfiguring its contradictions on a larger scale. Moore suggests that, as the ever-deeper financialization of nature produces diminishing returns, the neoliberal regime that began in the 1970s now faces an epochal crisis of productivity.

I argue that Solo's historical perspective is world-ecological in that it focuses less on changing political superstructures than on the productivity revolutions that enable accumulation. It maps the history of the world-system as world-ecology and, in doing so, reveals social projects to be ecological projects. The first movement's sections are named after elements-magnesium, carbon, radium, barium, and uranium-whose numbers on the periodic table correspond to Ulrich's age in different periods and offer a shorthand for different ecological revolutions emerging from scientific experiment and innovation. David Cunningham argues that the "totality of relations" that contemporary global novels seek to capture is that of the capitalist world-system rather than that of middle class, so that they are better understood as "capitalist epics" rather than the "bourgeois epics" George Lukács famously describes in his theory of totality and the novel (Cunningham 13). Through this lens, Solo can be productively read as an epic that traces the constitution and reconstitution of the capitalist system through ecological revolutions. Thus, Ulrich's recollections in the first section, "Magnesium," commence with the age of steam and steel in the autumn of the long nineteenth century. During that era, the "coal-steampower nexus," together with

the reorganization of British imperial and financial power, enabled a double revolution in labor productivity and the appropriation of nature. Supported by capital and empire, coal- and steam-powered railways and machines radically expanded the frontiers of appropriation and thereby secured a drastically augmented surplus of inexpensive food, energy, resources, and labor (Moore 128). As a rising competitor, the expansionist German state, backed by German finance, sought to exploit this revolution in productivity to acquire cheap surpluses to fuel its contest with Britain for hegemony. While a more conventional Anglophone novel might approach this period through the history of imperial Britain, *Solo* represents inter-state competition through its articulation in Bulgaria, a semi-peripheral zone that acts as a staging ground for the German pursuit of an alliance with the aging Ottoman Empire.

Solo imagines Bulgaria's annexation into the sphere of German cultural and economic influence as an organic reconstitution of the urban environment: the city of Sofia, which rises up out of a "swampy void" (Dasgupta, Solo 10), is reconstructed in Berlin's image. Looking back on his childhood, Ulrich is perplexed by the rapid pace at which animal forms of transportation are supplanted by the coal-steampower nexus: "After the centuries of coexistence, humans turned away from horses and embraced machines. But he does not remember seeing how the surplus of horses was carried off" (82). Ulrich's father, a railway engineer for the new express line from Berlin to Baghdad, works for Philipp Holzmann, the contractor overseeing Deutsche Bank's investments in the Ottoman Empire. In Ulrich's father's utopian conception, the express is a harbinger of technological progress and global mastery: "[I]n the ecstasy of his reverie, he hovered above the cartoon face of the planet, now wrapped in twin lines of steel, and given over, finally, to science and understanding" (10). The railway is a new method of time-space compression, part of the ongoing epistemic reconstitution of time as linear and space as flat that has been integral to capital from its origins (Moore 110). Ulrich's father embodies the affective euphoria of creative destruction, the intoxicating blend of innovation and acquisition of knowledge that the great modernization project seems to promise. However, this worldly promise is twinned with inter-state competition for resource monopoly. The Germans attempt to access Iraqi oil, strengthen proximity to Germany's African colonies, and circumvent British territorial control of India and the Middle East. Ulrich's father is devastated when the British blow up the transcontinental line during the Great War. He is plunged into anomie that blights his relations with his family and stands in for the traumatic erosion of Sofia's cosmopolitan position in the former Ottoman Empire.

The novel's second section, "Carbon," follows Ulrich's training as an experimental chemist in post-World War I Berlin. He is awed at what he presciently perceives to be a world-historical revolution in chemical engineering:

German scientists made a philosophical leap that would change history. They rejected the idea that life is a unique and mystical essence, with different qualities from everything else in the universe. They reasoned instead that living things were only chemical machines, and they speculated that with enough research, chemical laboratories could emulate life itself. German scientists also wanted to see whether chemical laboratories could make materials that were usually found only in nature. (Dasgupta, *Solo* 41)

The ability to synthesize chemicals and manufacture fertilizers through nitrogen fixing seems to provide a technocratic solution to the problem of global agriculture in a "world . . . running out of natural nitrogen deposits" (42). It heralds the transition from the coal-steam nexus to fossil capitalism in the age of cheap food and cheap energy: a petro-modernity founded on petroleum-based industrial agriculture and manufacturing characterized by American hegemony. Just as the coal-steampower nexus shifted from horizontal appropriation to vertical mining of the coal seam, the production of synthetic rubber and fuel extends the vertical appropriation of nature by manipulating biophysical materials on a molecular level.

Ulrich's intellectual delight in the chemical revolution powerfully captures the degree to which the transformation of nature is inextricable from the transformation of the social, a simultaneous revolution in the human sensorium. Like his namesake from Musil, Ulrich has no patience with mathematical theory. He prefers the practical experiments of the laboratory, crying out to his lover, Clara Blum: "I want to make stuff. . . . I didn't come to study mathematics. I want to make plastic!" (47). He is transfixed by Hermann Staudinger's discovery of polymers, which remakes the very idea of nature: "This new area of innovation transformed the human environment. Until that era, every human being had lived among the same surfaces: wood, stone, iron, paper, glass. Now there emerged a host of extraterrestrial substances that produced bodily sensations that no one had ever experienced before" (41-43). If ecological revolutions are creative responses to the exhaustion of previous socio-ecological relations, then cultural forms are integral to the creative process, necessary to stabilize new subjectivities and imagine organizational revolutions.

The industrial production "of which Ulrich wished to be a part" (43) not only entails an intensified subordination of nature's diversity and a proliferation of new commodity frontiers dependent on enormous energy surpluses but also dialectically relates to inter-state competition. Like his father, Ulrich is transfixed by the utopian prospects and sensuous creativity of the new regime in nature-society but blind to its underlying violence. After the loss of its empire in WWI, Germany is deprived of "access to essential raw materials" and struggles to compete with Britain, "which could take all the Malayan rubber it wanted, and Middle Eastern oil" (42). The creativity of German monopoly capitalists in the interwar period is fundamentally linked to capital's need to overcome territorial barriers to appropriation and unleash new opportunities for accumulation: "Germany's chemical firms-BASF, Bayer, Agfa, Hoechst, Casella and the rest-were consolidated into a vast chemical cartel, I.G. Farben, whose objective was to produce chemical versions of these lacking natural resources" (42). Because his philosophy of chemistry as experimental creation remains detached from political or economic value, Ulrich is unable to comprehend his friend Boris' insistence on its geopolitical consequences: "I said it was the science of life, and he said it brought only death. Now I see that our views were simply two halves of the same thing" (111).

The fundamental reorganization of life enabled by the chemistry revolution simultaneously creates the conditions for genocide. The German chemical cartels produce miraculous methods of transforming oil into food and plastic, but they also manufacture weapons for the war machine. IG Farben produces Zyklon B for the Nazi gas chambers; the Monowitz camp uses Jewish slave labor to produce synthetic rubber and liquid fuels; Bayer subjects prisoners to pharmaceutical experiments. If the synthetics revolution seems to herald a new lifeworld, it also delivers deathworlds via the unholy nexus of fascist ideology and capitalist competition. When Ulrich is summoned home to Sofia on the eve of WWII, he forsakes his chemistry degree and leaves behind his Jewish lover, an abandonment that haunts him for the rest of his life. A scientist in her own right, Clara signifies Ulrich's flawed political comprehension and tragic failure to act, the trace of a dead future, and a possibility foreclosed.

The novel's next sections, "Radium" and "Barium," describe Bulgaria's subsequent reorganization under Soviet Communism. The semi-periphery is subordinated to a new core, Moscow, and the state leapfrogs several stages of modernization as it is violently integrated into the centralized command economy. While "Carbon" explores the correspondence of fascist political organization, scientific innovation, and inter-state capitalist competition, these chapters interrogate the organizational revolution that underpinned Soviet hegemony during the Cold War era. The atomic regime that undergirded Soviet industrial modernity relied on the appropriation of cheap uranium, fossil fuels, minerals, and industrialized food from the dominated territories incorporated into the Soviet Empire (Josephson 5). While the Soviet production of nature distributed ecological surpluses according to socialist ideology, it shared with capitalist production an instrumentalist conception of external nature as a static source of resources without limits or value until transformed by human technology.⁸ The USSR competed for its survival against Euro-American capitalist cores and strove for self-sufficiency but remained enmeshed in the global accumulation regime of the capitalist world-ecology and was therefore vulnerable to crises of under- and overproduction. Driven by the pressure to catch up, Stalinist industrialization attempted to convert the whole of nature into a machine. Like the capitalist First World, which appropriated the cheap surpluses of its peripheries and transformed the Global South into a factory farm in order to sustain Fordist manufacturing, the USSR's modernization relied on intensive extraction from its peripheries. It reorganized entire ecosystems in order to convert them to monocultural production within the centralized command economy.

In Solo, Sofia is transformed by a "grind of great machines" as forests are cleared; "scientific housing" towers rise out of a swamp, "white and repeating endlessly in the sky," and a new mode of "communal living" fundamentally changes the texture of life (Dasgupta 134). Party official Ilya Popov pontificates that industrial modernization will transform "backward" peasant culture: "Bulgaria will be the chemical engine of the socialist countries. We have ore, we have rivers, we have land and good climate. We have workers who will soon forget cattle and crude village dances and fill their minds with modern things" (93). As Bulgaria's folk culture is repressed, its factories are subjected to Five Year Plans that are insistent on accelerated outputs without acknowledging the human and biophysical limits of production. Ulrich is caught up in the forced industrialization of the chemical state and commanded to oversee a barium chloride factory. He is horrified by the contradiction between his dream of the factory as a site of meaningful experiment, where laborers might perform a "rhapsody of chemicals . . . a scientific spectacle of mystery and delight" (143), and the absurd reality of a "fatal" system of rationalization and bureaucratization (142). In order to increase efficiency to meet Moscow's demands, the factory is forced to sell black market exports to the capitalist West and forges its numbers to maintain the fiction of ever-increasing productivity, even as its pollution accelerates.

A lyrical passage captures the collapse of the Soviet ecological regime as Bulgaria becomes a "chemical disaster":

The rivers ran with mercury and lead and hummed with radioactivity. Fishing had dried up on the Black Sea coast, and every year more field and forests were lost. The Kremikovtzi steelworks and the Bykhovo uranium mine flooded Sofia with lead, sulphur dioxide, hydrogen sulphide, ethanol and mercury. . . . Arsenic flowed straight into the Pirdopska River, and dead fish piled up downstream in enormous stinking bunches. (159–60)

Both human nature and extra-human nature are marked by the fundamental crisis of nature-society: "Nylon stockings melted on contact with the air. Bulgarian sheep had miscarriages and died, and the cows went mad. Children were born with cancers and deformities" (160). This biophysical crisis of biomagnification and toxification is also constituted in human subjectivity and bodily disposition. Ulrich imagines his blood as embodying the chemical regime: "Like all his compatriots, [he] had become chemical himself, his blood a solution of cadmium, lead, zinc, and copper" (160).

The conclusion of the first movement, "Uranium," portrays the age of Ekoglasnost as the ossified Soviet regime crumbles in the face of mounting human and biophysical resistance: "The old factories churned, but the shops were empty, and even a child could see that the eternal system was only propped up with contraband and rust" (159-60). After perestroika, Bulgaria-far from achieving environmental reforms that might remedy the crisis—is subjected to the application of neoliberal economic policies that unleash a vertiginous period of financial speculation and accumulation by dispossession. Instead of the outsourcing experienced by post-Fordist capitalist cores in the neoliberal period, the semi-peripheral state experiences wholesale dismantling of its heavy industries. As the formal economy is hollowed out, an informal economy with new frontiers in oil, narcotics, securitization, and human trafficking prospers: "The United Nations cut off supplies to Milosevic's Serbia, and gleeful thick-necked Bulgarian toughs stepped in to supply the food and oil, becoming billionaires overnight. . . . Heroin poured in from Afghanistan. Criminal syndicates selected the best-looking Bulgarian girls to work in brothels in Dubai" (161). The opening of the economy unleashes a frenzy of privatization, while state institutions are stripped of their assets by former party members and ex-security forces turned mafia: "It was amazing how fast the old order was swept away. . . . They

said, *Now we are capitalist!* But all Ulrich could see was criminality raised to a principle. Murderers and thieves took over and called themselves *businessmen*" (161; emphasis in original).

On the global scale, rather than inaugurating a halcyon era of liberal democracy, the neoliberal transition brings a new round of inter-state competition to monopolize energy in Asia and the Middle East. Instead of experiencing Bulgaria's entry into a globalized world of mass commodity consumption and a euphoric release from Soviet austerity, Ulrich endures neoliberalization as a global proliferation of war: "The Americans bombed Baghdad, which his father had tried to link harmoniously to Europe with his Berlin-Baghdad railway line. People said, Now our country is open! But even if it had been possible for Ulrich to journey to the places of his life, they all seemed to be in flames" (161-62; emphasis in original). His lifeworld contracts; he is plunged into poverty and trapped in a decaying apartment block, unable to travel or work. His "life had become minimal. He rarely left his tiny apartment and he had little to do" (164). He feels as if the "substance" of his days "has entirely escaped" (166). He is no longer able to measure his existence by what he makes, but only by his waste, an emblem of the dematerialization of the wider economy: "He produced nothing at all. He spent some time every day making lists of the things he threw out. He listed toothpaste tubes, exhausted pens, and sachets of coffee, and he found there some signature of his remaining significance" (164).

As *Solo* approaches the contemporary period of neoliberal capitalism, it encounters a new representational challenge. Arrighi argues that in the "autumn" of every systemic cycle, overemphasis on financial speculation rather than the production of commodities in core hegemons leads to the collapse of the current cycle and the rise of a new one, which is inaugurated through new forms of plunder in peripheries. This coupling of the most abstracted form of fictitious capital with the most extreme forms of violence presents a double challenge to representation, as Dasgupta suggests: "[When] immense suffering and poverty combine with amazing levels of financial accumulation, reality seems beyond our grasp; beyond our ability to describe it" (qtd.

in Lea). Michael Niblett argues that when socio-ecological unities are destroyed in the course of ecological revolutions, the unified referents required by realist representation disappear, and realist modes of literature are more likely to be disrupted by irrealist aesthetics (Niblett 17-20). Accordingly, at the conclusion of "Uranium," Ulrich experiences an epistemological crisis derived from his inability to comprehend the post-Soviet world. He laments that he is living in a "flimsier" era (Dasgupta, Solo 153), an "aftertimes, whose rules he did not understand" (164), and wishes that he had not lived through so many ideological transitions, for "the human frame could not hold up if the world was destroyed too many times and made again" (164). In response to this sense of disintegration, he immerses himself in a conscious transformation of memory into dreams. In a cocoon of blindness, his mind "generates its own material" (166) and creates an edifice of "private fictions" that sustain him "from one day to the next, even as the world itself has become nonsense" (167). These are not merely escapist wish fulfillments but rather a kind of lifework: "The greatest portion of his spirit might have been poured into this creation. But it is not a despairing conclusion. His daydreams were a life's endeavour of sorts, and now, when everything else is cast off, they are still at hand" (168). The second movement of the novel takes place entirely in this dreamworld.

Ulrich's dream-life is an experiment in conjuring the proper form to narrate the seeming unreality unleashed by Eastern Europe's transition into capitalism, with its dizzying destruction of social formations and precipitous immiseration of populaces. As such, the juxtaposition of the first movement's strict realism with the more oneiric aesthetics of the second movement suggests a mirroring of the spilled blood and evanescent credit characteristic of the ascendance of finance capital and rush to primitive accumulation in the neoliberalization of the post-Soviet countries.⁹ The second movement charts the lives of Ulrich's dreamcharacters—violinist Boris, doomed poet Irakli, and hectic entrepreneur Khatuna—as they grow up and struggle to survive Bulgaria's and Georgia's entries into a globalized world. While the first movement emphasizes changing productivity revolutions and accumulation by organizing its chapters according to the periodic table, the titles of the second movement highlight ecological crisis and exhaustion by employing a taxonomy of extinct and threatened marine animals: Beluga, Ichthyosaur, Dugong, Manatee (DeLoughry 59). These creatures suggest an ambivalent analogy with the biophysical natures of the post-communist countries that are rapidly subsumed into and exhausted by the neoliberal regime.

Throughout the movement, Irakli's experimental poetry assembles a catalogue of ecological degradation and neoliberal extraction. In the first movement of the novel, the text is dominated by Ulrich's quasiscientific listmaking, which replicates the bureaucratic rationalization of his life's work as factory director. In contrast, the second movement is interpolated by poetry, the product of Irakli's peculiar ideasthesia.¹⁰ He is overly sensitive to both the horror and the euphoria of modernity and his sensory perceptions trigger the activation of new concepts. He makes poetry out of sense-ideas. When Irakli first hears Boris' compositions, he senses the music as poetic exclamations that embody antic energy and charged political consciousness: "[E]mbark *rebellious*! . . . [P]roclaim *the tsunami klaxon!*" (Dasgupta, *Solo* 280; emphasis in original). When he listens to Boris playing Alfred Schnittke's second violin sonata, the dissonances form anguished quatrains:

radium cholera bitumen patriot albatross dessicate fungicide pyramid chemical Africa national accident multiply hurricane industry motivate (279)

The lines are sparse yet evocative of a neoliberal regime comprised of a series of ecological disasters: the desiccation of the factory farm of the Global South by the chemical monocultures of industrialized agriculture; the climate volatility and ever-worsening natural disasters produced by petrochemical dependence; the industrial accidents of transnational corporations in semi-peripheral manufacturing zones; the nuclearized competition of military-industrial complexes; the disease vectors spurred by privatization of water and global commons and exhaustion of local ecologies.

Irakli's paratactic quatrains are reminiscent of the avant-garde L=A=N=G=U=A=G=E poets in North America and also allude to the spare diction of radical modernist Bulgarian poet Geo Milev. Terse modular units critically mirror financialization's radical simplification of nature, which it does by reducing all diversity to commensurability for exchange.¹¹ The dehumanized list of nouns and verbs without subjects or pronouns creates an effect of radical depersonalization, while the use of corporate and bureaucratic jargon acts as a shorthand for the neoliberal doctrine of privatization, rationalization, and biopolitical surveillance and securitization, thus capturing the paradoxical double movement of increased regulation of citizens and deregulation of finance in the neoliberal state: "[S] tructural legalise radical standardize / terminal citizen management privacy" (278-79; emphasis in original). Stripped of connective syntax, the reader must detect the links between each word, an exercise in re-correlating the relations that constitute the world-ecology.

Irakli's art can be understood as an experimental poetics of globalization whose ideasthesic origins help circumvent reified abstractions. It is a corollary to Boris' music, which is described as a prophetic refusal of globalization's homogenization of culture, suffused with an uncanny authenticity that unleashes "new kinds of desire" in his audiences (279). After a childhood spent in an abandoned factory town developing his own musical style from a fusion of Romany, folk, and jazz music, Boris is discovered by a New York world beat music producer, Plastic Munari, and feverishly marketed into an overnight success in a global market hungry for exotic novelty. If Boris recalls the real-life Bulgarian folk choir Le Mystère des Voix Bulgares who achieved unexpected fame in the world music scene in the 1980s with their otherworldly antiphonies, then the fittingly-named Plastic, with his canny ability to make money by predicting trends and futures, acts as a hieroglyph for the neoliberal regime of information technology, digital networks, and new media driving the rapid assimilation and circulation of cultural commodities across the world market. Boris struggles to maintain his artistic autonomy, refuses to participate in promotion, violates his contract by playing music for free, and resists his packaging as an "exotic" folk artist in order to invent industrial music with vacuum cleaners and factory sounds. An experimental musician, he is uninterested in profit and resists the fetishization of purity of style yet is ineluctably drawn into the celebrity machine.

In "Surviving Globalization," Dasgupta tartly describes cultural globalization as a "shrill jamboree of marketing and celebrity" reliant on the assimilation of peripheral cultures: "The energy of the arts-'world cinema,' 'world music,' novels from the 'periphery'-was supplied by a frisson of distance: the euphoria of the strange and exotic." In Solo, the rapid commodification of Boris' music-which seems to his bourgeois audience to offer something pure and thrillingly archaic in its distance from consumer society-parallels the subsumption of immaterial cultural labor and the material plundering of nature in post-Soviet states. The novel stages the limits to autonomy for artists who are conscious of the culturally homogenizing dynamics of globalization and critical of capitalist exploitation yet remain enmeshed within the commodity relations of the culture industry. It is only after Irakli is driven to suicide by a despairing sense of exhaustion that Boris decides to flee the industry and pursue "a new music" without pay (Dasgupta, Solo 338). If Irakli embodies the tragedy of the artist's restricted autonomy, Boris is the hope of reclamation of autonomy. He is the survivor whose existence points to creativity beyond commodity relations. Through Irakli's and Boris' artistic challenges, the novel offers a metatextual commentary on the tension between its own aims to produce a world-historical critique of global capitalism, while being itself a "world novel" circulated as a commodity and subject to market pressures.¹² I will conclude by exploring the formal implications of the novel's structural approach to historicity and futurity—its attempt to create the conditions of possibility for the imagination of a "beyond."

III. Futurity, Retrospect, and the World-Historical Novel

Solo's focus on an individual protagonist diverges from other recent world-historical novels that are more epic in scope and cast of characters. For example, Jorge Volpi's *Season of Ash* arranges for its characters to be present for every "newsworthy" event of the late twentieth cen-

tury, from the Chernobyl disaster that opens the novel, to the Mexican debt crisis, to the fall of the Berlin Wall that marks the rise of unipolar American hegemony. This wooden plotting produces a paralyzing sense of determinism even as the novel seeks to evoke history. The end of the Cold War, the rise of American capital, and the impotence of the Global South before the ravages of structural adjustment feel wholly inevitable, headed inexorably towards a timeless present, an end without end. The preponderance of famous Great Men, place names, and dates emphasizes the making of history-from-above and prevents any narrative evocation of the concomitant presence of collectivities acting from below. Solo, however, is situated on the periphery of world-historical events and refrains from maneuvering its protagonist through a repertoire of historical set pieces. Dasgupta writes that Bulgaria is central to his counter-history of capitalist modernity precisely because it is "one of those places which has taken the pummelling of the 20th century, the periphery which allows the centre to become" a zone for competing ideologies and empires (qtd. in Lea). Rather than overdetermining the social sensorium of hegemonic cores, the novel offers Ulrich's life situation as a window into the larger totality of capitalist modernity in which semi-peripheries are constituted through processes of peripheralization and chaotic transition essential to core accumulation.

According to Fredric Jameson, problems of determinism in the historical novel are related to temporality since "no historicity can function properly without a dimension of futurity, however imaginary" (*Antinomies* 297). Whereas the reader might "normally stand in for the place of the future, as we peer into the various pasts offered by novels claiming to be historical" (297), contemporary authors confront a temporal crisis rooted in the difficulty of representing history in "an age that has forgotten to think historically" (Jameson, *Postmodernism* ix). For Perry Anderson, this crisis of historical imagination poses a formal conundrum for the modern historical novel: the problem of how to evoke a "totalising retrospect" that can resurrect the present as history via the invention of a future (24). He argues that the "exaggerated inventions of fabulous and non-existent pasts" in magical realist fictions are formal

inventions that "unsettle the emptiness of our temporal historicity, and try convulsively to reawaken the dormant existential sense of time by ... the electro-shock of repeated doses of the unreal and the unbelievable" (Anderson 10). In his essay on globalization, Dasgupta similarly highlights a crisis in historical time that arises in tandem with the total integration of the world-market: "Time no longer soared above all this. It had become only another commodity among many-and there was no more talk of 'progress'" ("Surviving"). In response, Solo offers an experiment in the formal generation of totalizing retrospect by way of the unreal. Ulrich is buffeted by a history that he cannot make sense of, consistently thwarts his aspirations, and constrains his actions. His sense of a crisis in historicity compels him to synthesize a dream world that improvises on the material of his past in order to project a future beyond his imprisoning present. This generic rupture in the second half of the text does not represent an end of history so much as an attempt to conjure a not-yet-real history that cannot be imagined in the previous mode of historical realism.

Despite yearning his entire life to "make stuff," Ulrich is denied two creative vocations-first music, then chemistry-and consigned to a life of bureaucratic managerialism. Yet even as he is cut off from Western scientific knowledge, he persists in the seemingly absurd endeavor of replicating the advances of petrochemical synthesis on his own, painstakingly producing the plastic for a pair of lumpen tortoiseshell sunglasses rather than buying the cheap, mass-manufactured version. These home experiments prove tragic when an explosion of sulphuric acid blinds him and renders him "useless" in the neoliberal economy (164).¹³ Ulrich's compulsive desire for productive artisanal labor and firsthand knowledge gained through experiment poignantly highlights the systematic dematerialization and deindustrialization of the Bulgarian economy. Paradoxically, while his preference for practical experiment is shrouded in a lack of understanding of how scientific innovations can be bound up with oppressive configurations of accumulation and power, it can nonetheless be conceived of as foregrounding an alternative politics of value rather than an apolitical perspective. As a failed professional scientist. Ulrich is uninterested in innovation for the sake of career advancement or the production of intellectual patents. He fundamentally rejects the conception of experiment for the sake of exchange value or the parceling of knowledge into alienable commodities. His work to make odd plastic facsimiles is an exercise in autonomy that rematerializes the human in the sphere of production and recalls Jameson's observation that science can operate in fiction as the image of "the true non-alienated labor as which art was once seen" (*Antinomies* 312).¹⁴

One of novel's motifs is "triumphant failure" (Dasgupta, Solo 348), or what Dasgupta calls Ulrich's "tragic optimism" (qtd. in Colbert): his utopian pursuit of science, his blindness to the tragic consequences of industrial science, and his lifelong sense of failure in comparison to the scientific heroes of his youth. However, in the second movement this failure is transmuted into something productive: Ulrich grants Boris the "gift" of his own "failed music" (Dasgupta, Solo 348). Failure is a form of non-value, in contrast to which value can be determined; it is the marker of the world's need for a new shape. To practice, discover, imagine, and remake the world risks failure; the experiment cannot proceed without the risk. Ulrich fails to become a professional inventor, chemist, or musician, but he does not fail to experiment, and he retains a kind of impossible autonomy under both Soviet state capitalism and neoliberal capitalism that is enabled by his lack of total incorporation into the sphere of commodity relations. As such, he is another figure in the novel for the problem of creative autonomy, especially since in the second movement he converts his yearning for creative production into a fantasy of his son's musical creativity. The first movement's emphasis on scientific experimentation thus transforms into artistic experimentation in the second.

In the first movement, Ulrich dreams of writing a "chemical opera" for one of the workers he hears singing during a factory shutdown. Her artistic resistance against the dehumanization of forced industrialization resurrects his belief in the creative potential of chemistry as life-making. In the second movement, he transmutes these desires into fiction. His imagined son, Boris, spends his *Kunstbildung* improvising solos in a factory abandoned after post-communist deindustrialization. Similarly, Irakli plans to write a "philharmonic novel" that would tell the "real"

story of the modern age (315). These dream artworks take up where politics and science have failed: they are the sphere in which the remaking of the world can be imagined. In the first movement, the two tragic failures Ulrich feels most keenly are the loss of his best friend's utopian politics and creativity and the repression of his own musical imagination. In naming his imaginary son—"the strange offspring that might have grown out of man like him" (78)—after an assassinated revolutionary, Ulrich resurrects the possibility, if not the actuality, of future revolution, just as he resurrects the folk music banned during the Soviet regime, a music with its origins in a pre-capitalist social collectivity.

In literary tradition, the diptych short story is closely associated with the criticism of social divisions, as in Herman Melville's "The Paradise of Bachelors and the Tartarus of Maids," whose contrasting halves famously employ inverse similitude to reveal how the complacent luxury of the bachelor merchants is built on the hellish exploitation of women workers in New England paper mills. In photography, diptychs are often used to illustrate a lapse in time or activity. Dasgupta's renovation of the form taps its potential for both social critique and temporal mobility but, unlike Melville's stories, Solo's second movement does not wholly invert its first. Ulrich dreams that he travels to New York to hear his lost son play, but a fairytale reconciliation is denied him; he is never able to tell Boris that he is his father. A third movement of Solo's "philharmonic" novel-the synthesizing conclusion typical of a sonata form or a symphony-never arrives to resolve the previous two. Ulrich's dream world does not reverse his defeats but rather imaginatively projects elements of his thwarted desires into a future that unfolds beyond the geographical and temporal limitations of his own present. It is a future that he cannot observe directly, only imagine. This dreaming is a compositional form of what Sigmund Freud called *Überdeterminierung*.¹⁵ As such, the content summoned by the condensation of Ulrich's life experience is perhaps less important than the formal process itself, which is ontologically necessary to the conjuring of the future out of the detritus of the past. As Kenneth Olwig writes, just as "dream thoughts can create privileged images that condense many thoughts into the single totality of a picture," so too is "the mode of production . . . similarly a picturelike totality that embodies within it the contradictions that will bring about its transformation" (106). Because Ulrich never imagines antisystemic movements, this can be understood—at the level of form, even if not at content—as the novel's attempt to dream a global totality in which the not-yet-visible future is already latent.

One of the "Notes" to Solo posted on Dasgupta's website is an extract from Raymond Federman's "The Real Begins Where the Spectacle Ends," a manifesto that calls for new literary forms that create a space of resistance to the derealizing flux of media spectacle in neoliberal capitalism.¹⁶ Ulrich's blindness, like Irakli's ideathesia, offers new varieties of aural and imaginative sensory experience that circumvent reified images of global totality: "The shape of the world changed when Ulrich lost his sight. When he had relied on his eyes, everything was shaped in two great shining cone rays. Without them, he sank into the blank continuum of hearing, which passed through doors and walls, and to which even the interior of his own body was not closed" (Dasgupta, Solo 81). His altered perception enables a new mode of cognition that creates the conditions of possibility for dreaming. Ulrich's preternaturally enhanced hearing moves through space differently, mapping the world through "sine waves," while "the blackness of his obliterated vision [makes] a fertile screen for his daydreams" (82). As in Dasgupta's first novel-in-parts, the échappée de vue is employed as a formal negotiation of the artistic challenges to world-historical imagination and totalizing representation: the space in an obstruction that illuminates a view, however partial, of the whole beyond. Unbounded by visible abstractions, extended by an imagination that generates new forms, the flatness of Ulrich's previous perception gives way to a more complex concept of the shape of the world, imagined as both history and futurity.

Notes

1 Here, I follow Brown's Marxist conception of the interpretative horizon of world literature as the capitalist world-system, characterized by a "rift between capital and labor . . . [which] knows many displacements, the most important of which is the division of the globe between wealthy nations and a much larger and poorer economic periphery" (3).

- 2 For articulations of world-literary criticism, see Deckard; DeLoughry; Graham, Niblett, and Deckard; Niblett; Shapiro; and WReC, among others. For an introduction to world-ecology, see Moore. Throughout this essay, I use hyphenated versions of world-ecology, world-system, world-economy and so forth, following Immanuel Wallerstein's usage of the hyphenated words to emphasize that emphasize that other world-systems besides the capitalist world-system are possible, and to avoid suggesting that there has only ever been one World System in the history of the world.
- 3 Friedmann's figure, generated in 1986, does not register the rise of East Asian economies or the BRICS (Brazil, Russia, India, China, and South Africa), but remains suggestive as a method of mapping global concentrations of capital.
- 4 Dasgupta's use of global cities to plot the contours of capitalism is influenced by his involvement with the Cybermohalla Hub in Delhi, an experimental culture lab for artistic mediations of global urban spaces. For more, see his essays in the *Sarai Reader (2002 and 2003)*.
- 5 The phrase *die Ungleichzeitigkeit des Gleichzeitigen*, usually translated as the "the simultaneity of the non-simultaneous" or "the synchronism of the non-synchronous," is used by Bloch to denote the temporal unevenness and lags produced in the social sphere by incomplete processes of capitalist modernization when heterogeneous stages of social and economic development coexist simultaneously.
- 6 The term "real economy" designates the part of the economy concerned with actually producing goods and services, rather than buying and selling on financial markets.
- 7 In Marx's discussion of the circuits of capital, M-C-M+ is the general formula for capital when money is used to buy commodities and then sell them for more money (surplus value), a cycle whose ultimate purpose is the accumulation of more money. However, in the case of financial accumulation, or M-M+, the physical production and trade of commodities is cut out of the equation; instead, one sum of money is lent out at interest or traded for another currency or financial claim in order to make more money, as in the case of speculation on stock markets and the exchange of financial derivatives. In the M-M+ phase of accumulation, fictitious capital dominates the economy, rather than tangible commodities produced by human labor or capital invested in physical means of production.
- 8 Geographer Smith uses the concept of "the production of nature" to describe how capitalist commodity relations reconstruct nature for the purposes of accumulation (56). While the production of nature in the USSR was governed by a political ideology of state ownership and distribution of natural resources, it was nonetheless organized within an economic system of state capitalism in which the management of the means of production, including capital accumulation, wage labor, and hierarchical centralized management, was organized in a capitalist manner.

- 9 "Primitive accumulation" is the term used by Marxists to describe the original moment of capital accumulation when pre-capitalist modes of production are transformed into the capitalist mode of production, usually through forms of brutality and violence, as populations are forced off the land or severed from previous modes of self-sufficiency.
- 10 Ideasthesia, from the Greek, loosely means "sensing concepts" or "sensing ideas." It is a mental phenomenon in which the activation of concepts evoke perception-like experiences and are associated with sensory experiences. In this case, Irakli feels poetry as music and vice versa.
- 11 Within capitalism, all commodities, whether apples or oranges, land or clothes, must be made commensurable, or able to be exchanged, no matter how different their use functions, worth, origins, or kind. Capital's fantasy of planetary nature is of a world of infinitely interchangeable parts, where any one part of nature can effortlessly be substituted for another. A fundamental tendency of globalization in the neoliberal period has been towards modularization and simplification of eco-systems, so that, for example, the biodiversity of a rainforest is replaced with the monoculture of a lumber plantation growing only one species for exchange. Every tree is thus exactly commensurable with the others and can be readily exchanged as a commodity.
- 12 While *Solo* positions its Eastern European setting as a counter-narrative to triumphalist accounts of the American century, it is vulnerable to the charge of "mining" the cultural experience of the semi-periphery, even if it is self-conscious about this danger.
- 13 Even here, vestiges of social collectivity persist amidst the atomization of social relations. Ulrich is able to stay alive and dreaming because of his neighbors' care.
- 14 Jameson refers to Kim Stanley Robinson's science fiction, although a counter-argument can be made that the sciences have been subjected to an unprecedented level of commodification in the neoliberal period under the intellectual property rights regime.
- 15 The standard translation of Freud's term *Überdeterminierung* is overdetermination, which describes the effect of the dreamwork processes of condensation and displacement in the thought-factory of the unconscious where a number of different dream-thoughts are condensed beneath a single image, thus producing a complex, palimpsestic dream-image that contains multiple layers (Freud 259). The term has also been used in Marxist literary criticism to describe artworks whose contradictions reveal the multiple determinations of social practice.
- 16 As part of his ongoing attempt to imagine new forms, Dasgupta also experiments with multi-modal interdiscursivity. *Tokyo Cancelled* includes a series of photographs that are also featured on Dasgupta's website alongside his "Notes," which reveal antecedents for the story-cycle. Similarly, the website publishes footnotes to *Solo* together with photographs of Tbilisi and Sofia. Thematically, *Solo* represents multi-modal collaboration between Boris and Irakli, who per-

form simultaneously and publish Irakli's poems as commentary on Boris' violin compositions. This improvisatory composition suggests an attempt to generate forms of collective creativity that move beyond the limits of individual imagination.

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