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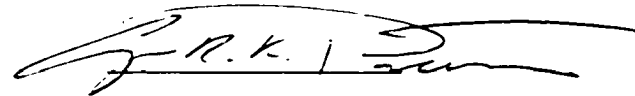


**Simultaneous Diversity:  
Discontinuity, Entanglement, and Contemporary American Fiction**

by

**Alexander C. Thurman**

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
Department of English  
New York University  
January, 2000

A handwritten signature in black ink, appearing to read 'C.R.K. Patell', with a long horizontal flourish extending to the right.

Cyrus R. K. Patell

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## INTRODUCTION

At its broadest conceptual level, "Simultaneous Diversity: Discontinuity, Entanglement, and Contemporary American Fiction" investigates how the rhetoric of discontinuity entangles contemporary evolutionary theory, social theory, science studies, and literary fiction. The dissertation's main focus is a partial taxonomy of the heterogeneous field of contemporary American fiction emphasizing the differences between selected individual novels and novelists along with their commonalities. Rather than attempting to describe a unifying zeitgeist or articulate a particular formal or thematic interest as constitutive of contemporary authenticity or now-ness, dismissing non-conforming works as anomalies or residual slag, "Simultaneous Diversity" affirms that everything in the present is of the present. The result is a dynamic taxonomy of "contemporary American fiction" that interrogates the significance of each of these three terms with respect to each of the texts examined. This taxonomy remains "partial" in both the sense of being necessarily incomplete, and in the sense of being a subjective, or necessarily arbitrary, selection of texts and authors. All the novels discussed herein are in my opinion accomplished works of literary fiction that merit more critical attention, but they do not constitute even a personal "canon", much less a prescriptive one; moreover, while the examined nine fictions by six authors amply demonstrate the simultaneous diversity of contemporary American fiction, they by no means fully encapsulate that open-ended field in

microcosm.

"Simultaneous Diversity"'s opening-out of the respective ontologies of these fictions, its close readings, are situated within an examination of the interdisciplinary subfield I call the "discourse of discontinuity," a provisional entanglement of work in evolutionary theory, social theory, and science studies dedicated to the untangling of these disciplines from embedded vestigial Progress-thought. This theoretical inquiry, engaging selected texts by Stephen Jay Gould, Michel Foucault, Jean-Francois Lyotard, Jean Baudrillard, Anthony Giddens, N. Katherine Hayles, and Bruno Latour, culminates in the elaboration of a multi-scaled methodology capable of addressing the discontinuities in and among the fictions themselves, as well as their idiosyncratic entanglements. Beyond underwriting the study's methodology, the theoretical discussion generates several heuristic themes that are subsequently used as criteria to unpack, compare, and contrast the fictions. The most important of these are: catastrophism (Gould); the interplay of structure and agency (and the key underlying issue of scale) (Foucault, Giddens); and cultural difference understood as varying ratios of presence and absence (Giddens), of virtuality (Hayles), of purification and hybridization (Latour), and of humans and non-humans (Latour). Though the discourse of discontinuity as outlined here gently corrals its theorists into a loose consensus, or mediated dissensus, the individual novels and authors examined subsequently by no means uniformly reproduce these theoretical

conclusions. While my own shared interest in both these theorists and these novelists unsurprisingly yields examples of intellectual concord among them, dissent and simultaneous diversity persist.

In Chapter I, "Disentangling Progress from Diversity: Contemporary Discourses of Discontinuity," I provide the theoretical outline and methodological foundations discussed above. Opening with a discussion of Spencerian Progress-thought and its still culturally embedded corollary assumptions (notably racism and vanguardism), the chapter proceeds to describe their dismantling in contemporary evolutionary theory, largely represented by selected works of Gould's. I next elaborate the genesis and destabilization of "universal time," the basis for the viability of the notion of "simultaneity." There follows an overview of the related deconstruction in contemporary social theory of the traditional extension of an obsolete understanding of biological evolution to social and cultural inquiry, moving from Foucault through Lyotard, Baudrillard, and Giddens. I then consider the different perspectives of Foucault and Giddens on the issue of structure and agency, and recruit elements of both for this study's multi-scaled methodology. Lastly, to complete the theoretical and methodological vocabulary of "Simultaneous Diversity" I examine and loosely correlate the varying criteria for understanding cultural difference proposed by Giddens, Hayles, and Latour.

In Chapter II, "Ruder Forms Survive: The Catastrophist Fictions of Cormac McCarthy" I present close readings of *The*

*Stonemason* (1994), *Suttree* (1979), and *Blood Meridian* (1985), three fictions by a writer invariably passed over by vanguardist literary surveys as an anomaly or anachronism. Here McCarthy's fictions, with their thoroughgoing, seismic catastrophism, their alternation between the clashing scales of Giddensian bounded agency and structure-bound determinism, and their unusual thematic insistence on material embodiment in a time increasingly preoccupied with virtuality, are understood as exemplary of the discourse of discontinuity and of the heterogeneity of the present. Tracing the three fictions' shared catastrophism but exploring the difference implied by their contrasting scales, I begin by reading the kitchen-drama *The Stonemason* as a direct statement of McCarthy's embodied aesthetic, then show how the play's theme of Giddensian bounded agency is worked out a much larger scale in *Suttree*'s focus on a single individual life enacting a death-deferring "drunkard's walk." I conclude Chapter I by examining the wide-scale historical catastrophism of *Blood Meridian*.

The focus in Chapter III, "In Vitro: The Scientist Fictions of Don DeLillo and Richard Powers," is on three novels much more inclusive of novelty and virtuality than are McCarthy's fictions: namely, DeLillo's *Ratner's Star* (1976), and Powers's *The Gold Bug Variations* (1991), and *Galatea 2.2* (1995). In these "scientist fictions" the Western scientific worldview and "in vitro" practice, what Latour calls the "work of purification," is examined from within. The chapter opens with a look at the discursive relationship

of science and literature, borrowing from key texts of science studies, including Steven Shapin's and Simon Schaffer's book on Robert Boyle, to establish a model of "objective" scientific narrative. I then discuss James Watson's *The Double Helix*, a novelized discovery narrative, as a hybrid work of science and fiction, completing the context for the examination of the three full-fledged scientist fictions themselves. *Ratner's Star* I describe as the most conflicted of the three scientist fictions, with its combination of thematic catastrophism with a heavy formal investment in mathematics, the "purest," or most abstract of disciplines. I next argue that *The Gold Bug Variations*, with its tireless, earnest synthesis of science and art, genetics and music, is the exemplary contemporary scientist fiction. Lastly, I present *Galatea 2.2* as more chastened and sober in its scientific pedagogy, yet able to achieve almost the condition of applied science in its deep engagement with contemporary virtuality.

Chapter IV, "One World, Many Tribes: The Fighting Fictions of Toni Morrison, Leslie Silko, and William Vollmann," posits a more determinedly conflicted contemporary genre, widening the scale of analysis to consider three very distinctive novels by different authors that all foreground the ongoing struggles of minority cultures and populations in North America against the dominant scientized Euro-American culture: Morrison's *Beloved* (1987); Silko's *Almanac of the Dead* (1991); and Vollmann's *The Rifles* (1994). Thus devoted to depicting the clash of different ontologies, these

fighting fictions engage more directly with what Latour calls "the work of hybridization" than do McCarthy's novelty-shunning catastrophist fictions or DeLillo's and Powers's in vitro scientist fictions. But I argue that there is a spectrum of thematic and formal inclusiveness within the group of fighting fictions itself. At the more hermetic end of this spectrum is *Beloved's* immersion in the communal supernaturalism of its nineteenth-century African-American cast of characters, in which the hegemonic scientized Euro-American culture is inverted into a hidden "minority" ontology represented by the novel's understated "objective" (non-supernatural) explanation of *Beloved's* identity, and the explicit working-out of this fighting fiction's conflict takes place in the swell of critical discussions of *Beloved's* identity. The "Indian with a Camera," Silko's authorial persona and her trope of indigenous American pragmatism and technological sophistication, yields a narrative focus, by contrast, in *Almanac of the Dead*, that is as wide as the Americas. I describe *Almanac of the Dead* as the angriest and thus most exemplary fighting fiction, but point out that the novel's Manichean politics are an obstacle to its capacity to represent hybridization. I conclude Chapter IV with a look at the most thematically and formally inclusive of the fighting fictions--*The Rifles*, an oddball mixture of fiction, journalism, history, and autobiography. I view Vollmann's depiction of the ambiguous landscape of Arctic survival, focused on the clash of Inuit and European ontologies whose intersection is the overdetermined "quasi-

object" of the rifle, as exemplary of the work of hybridization.

Finally, in the Conclusion, I reiterate my methodological extension of Latour's "symmetrical anthropology" of "collectives" to the taxonomy of recent texts, and go on to discuss the distinct instantiations of "contemporary American fiction" each of the nine fictions studied in "Simultaneous Diversity" represents, in terms of its particular mobilization of humans and nonhumans. Then some of the theorists studied in Chapter I, namely Gould, Baudrillard, Giddens, and Latour, are stirred in with all six novelists, and I outline some mutual attractions and repulsions and contradictory possible alignments among these ten contemporary writers.

## CHAPTER I

### Disentangling Progress from Diversity:

#### Contemporary Discourses of Discontinuity

Modernizing progress is thinkable only on condition that all elements that are contemporary according to the calendar belong to the same time. For this to be the case, these elements have to form a complete and recognizable cohort. Then, and only then, time forms a continuous and progressive flow, of which the moderns declare themselves the avant-garde and the antimoderns the rearguard while the premoderns are left on the sideline of complete stagnation. This beautiful order is disturbed once the quasi-objects are seen as mixing up different periods, ontologies or genres. Then a historical period will give the impression of a great hotchpotch.<sup>1</sup>

The present is plural, heterogeneous, and at once indeterminate and radically contingent on the past. Such a statement may be perceived as postmodern, though it contradicts the homogenizing universality the notion of postmodernism describes and critically embodies. If we accept Bruno Latour's premise that "we have never been modern," as all past and present cultures, or "collectives," represent different entanglements and mobilizations of humans and nonhumans (divinities, animals, machines, things), then the now overdetermined debate about a hegemonic postmodernism can be set aside. In the place of a "continuous and progressive flow" of zeitgeists, there is a continual but contingent sorting and resorting of older and newer elements, a succession of indistinct presents which each resemble, as in Latour's image, a "great hotchpotch." The choice of the older word "hotchpotch" by Latour and

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<sup>1</sup>Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge: Harvard UP, 1993) 73.



his translator is instructive, conveying not merely the generic modern sense of "hodgepodge," "a heterogeneous mixture: jumble,"<sup>2</sup> but the original borrowing from the Old French "*hochier* 'to shake' + *pot*," yielding "a thick soup or stew of vegetables, potatoes, and usually meat."<sup>3</sup> The decontextualized "hodgepodge" is the postmodern or "virtual" signifier, while Latour's "hotchpotch" remains grounded in the embodied image of a "quasi-object," an imbroglio of vegetables, animals, and human cultural and technological history. "Simultaneous Diversity" views the present, and more narrowly, contemporary American fiction, as just such a hotchpotch, a stew in which different elements, older and newer, are shaken up together and yet retain their distinctiveness; as simultaneous diversity, rather than as a modern (positive) or a postmodern (negative) melting pot, in which difference is liquified into homogeneity.

Chapter I provides a sustained theoretical engagement of the issues surrounding the periodization and apprehension of the present, culminating in the articulation of a methodology and vocabulary for the ensuing examination of contemporary American fictions. The first step is a brief genealogy of the Progress narrative whose embedded traces still inform the vanguardist worship of novelty for its own sake, obscuring the realization that everything in the present is also of the present. This entrenched modern idea of Progress, a conflation of the capitalist

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<sup>2</sup>"Hodgepodge," *Webster's New Collegiate Dictionary*, 1979 ed.

<sup>3</sup>"Hotchpotch," *Webster's New Collegiate Dictionary*, 1979 ed.

commodification of linear time with simplified Darwinism and the teleological energies of both the Judaeo-Christian and Marxist traditions, generalizes the Western Present as the benchmark of humanity's position on the single timeline of universal history. All other cultures, and non-conforming elements within western cultures, are deemed underdeveloped, and all cultural products are submitted to the ruthless commercial logic of manufactured obsolescence. The backbone of the persistence of the idea of Progress is the nineteenth-century paradigm of biological evolution as gradual, uniformitarian, upward change, extrapolated as a model for human historical, technological, and cultural development. But coexisting with the scientific and cultural discourses of gradualist Progress have always been counter-discourses of discontinuity, of catastrophism and contingency. This chapter examines contemporary discourses of discontinuity, entangling selected work in evolutionary theory, social theory, and Latour's field of science studies.

### **1. Progress?**

It is settled beyond dispute that organic progress consists in a change from the homogeneous to the heterogeneous. Now, we presume in the first place to show, that this line of organic process is the law of all progress. Whether it be in the development of the Earth, in the development of Life upon its surface, in the development of Society, of Government, of Manufactures, of Commerce, of Language, Literature, Science, Art, this same evolution of the simple into the complex,

through successive differentiation, holds throughout.<sup>4</sup>

Progress is a noxious, culturally embedded, untestable, nonoperational, intractable idea that must be replaced if we wish to understand the patterns of history.<sup>5</sup>

The idea of Progress, here elaborated by Herbert Spencer and critiqued by Stephen Jay Gould, is heavily overdetermined and its genealogy complex. One historian of the idea finds it present already in St. Augustine's synthesis of the Greek idea of "physis," or growth, with Judaeo-Christian teleology,<sup>6</sup> and it is indeed standard to attribute to Judaism the contribution to Western thought of the directionality of history, or the "arrow of time."<sup>7</sup> But by all accounts the idea attains its familiar form and becomes a dominant ideology in the nineteenth century, powered by the capitalist commodification of linear time associated with the Industrial Revolution, and the tradition of social science from Comte through Marx and Spencer, and culminating in the confused misappropriation by both capitalists and socialists of Darwin's description of natural selection as the mechanism of biological

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<sup>4</sup>Herbert Spencer, *Illustrations of Universal Progress* (New York, 1864) 3.

<sup>5</sup>Stephen Jay Gould, "On Replacing the Idea of Progress with an Operational Notion of Directionality," *Evolutionary Progress*, ed. Matthew H. Nitecki (Chicago: U of Chicago P, 1988) 319.

<sup>6</sup>Robert A. Nisbet, *Social Change and History: Aspects of the Western Theory of Development* (New York: Oxford UP, 1969) 11, 63.

<sup>7</sup>See, for example, Gould's *Time's Arrow, Time's Cycle: Myth and Metaphor in the Discovery of Geological Time* (Cambridge, MA: Harvard UP, 1987) 11; or Stephen Kern, *The Culture of Time and Space, 1880-1918* (Cambridge, MA: Harvard UP, 1983) 50-51.

evolution. In the school of thought inaptly named Social Darwinism, exemplified by Spencer himself, "intellectually confused and politically obnoxious" arguments, and "phrases like 'survival of the fittest' and 'evolutionary success' were given a socio-political application in a way that blurred the crucial differences between organic species and human races, nations, or classes."<sup>8</sup> Thus Spencer's writings remain the logical starting place for an examination of the still "culturally embedded" myths of Progress, while the writings of Stephen Jay Gould, which have done much to discredit these myths, represent an important contemporary discourse of discontinuity.

Spencer's extension of the metaphor of organic growth to all levels of development, both human and non-human, his foundational insistence that "this law of organic process is the law of all progress," is the key to unpacking many of his convictions about change. Nisbet usefully enumerates the following corollary assumptions that derive from commitment to the organic metaphor: change is "natural"; "immanent"; "continuous"; "directional"; and "necessary"; and involves "differentiation" and "uniform processes" (212). The applicability of all these assumptions about organic

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<sup>8</sup>Stephen Toulmin, *Human Understanding*, vol. 1 (Princeton, NJ: Princeton UP, 1972) 321. The importance of Progress in Darwin's own thinking about evolution is a matter of long-running debate. For a useful recent discussion of the subject see Robert J. Richards, "The Epistemology of Historical Interpretation: Progressivity and Recapitulation in Darwin's Theory," *Biology and Epistemology*, ed. Richard Creath and Jane Maienschein (Cambridge: Cambridge UP, 1999) 64-88.

change to geological, historical, or cultural change (all run together in passage from Spencer presented above) was already controversial in the nineteenth century. In the conventional narrative of the triumph of Progress over irrationalism undergirding Spencer's position, the figures of Lyell in geology and Darwin in biology are the champions of gradualist, uniformitarian evolution who bested the creationist cranks of catastrophism. But though Lyell's contribution to the Age of the Earth debate and Darwin's demonstration of physical evidence that all life on earth had evolved were crucial factors in the general Western epistemological break from religious to scientific modes of explanation, the debate over gradualism was and is a scientific debate, as Gould has shown.<sup>9</sup>

Darwin's famous disclaimer that the lack of evidence for uniformitarian evolutionary development was attributable to the "imperfection of the geological record" and the "poorness of paleontological collections"<sup>10</sup> has always attracted controversy. Both in Darwin's time and in recent years the alternative view has been put forth that if the fossil record reflects both "sudden" jumps and long inactivity it is because that is how evolution operates, rather than simply representing the surviving fragments of uniformitarian development. Before turning to the most influential contemporary formulation of this anti-uniformitarian view, the theory of

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<sup>9</sup>Gould, *Time's Arrow*, 117; also Gould's *The Panda's Thumb: More Reflections on Natural History* (New York: Norton, 1980) 181.

<sup>10</sup>Charles Darwin, *Darwin: A Norton Critical Edition*, ed. Philip Appleman, 2nd ed. (New York: Norton, 1979) 103, 106.

Punctuated Equilibrium, it is helpful to remember Richard Huggett's distinction between "the new catastrophism and the old catastrophism":

Gone is the invocation of supernatural events; gone is the dissolution of the entire globe in Flood waters, gone is a series of new creations of life; gone is the insistence on catastrophes as the only potent form of terrestrial change. But despite these differences, the catastrophisms old and new have one cardinal point in common--they both claim that biological and geological rate are non-uniform.<sup>11</sup>

As Gould says, "it is gradualism that we must reject, not Darwinism,"<sup>12</sup> and yet with the rejection of gradualism and its corollaries "uniform processes" and "continuity," Spencer's sweeping unitary "law of progress" is undermined by complexity and contingency. The theory of Punctuated Equilibrium posited by Gould and Niles Eldredge essentially argues that the picture of the history of life on earth the fossil record suggests is one characterized by brief (by geological standards) periods of dramatic speciation change followed by long periods of relative stasis, rather than gradual uniform evolution.<sup>13</sup> And the intervals between periods of active change (the greatest of which have followed mass

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<sup>11</sup>Richard Huggett, *Catastrophism: Systems of Earth History* (London: Arnold, 1990) vii.

<sup>12</sup>Gould, *Panda's Thumb*, 182.

<sup>13</sup>Eldredge and Gould's original paper is reprinted in Eldredge's *Time Frames: The Rethinking of Darwinian Evolution and the Theory of Punctuated Equilibrium* (New York: Simon, 1985); see also Gould's "Punctuated Equilibrium in Fact and Theory," *The Dynamics of Evolution: The Punctuated Equilibrium Debate in the Natural and Social Sciences*, eds. Albert Somit and Stephen A. Peterson (Ithaca, NY: Cornell UP, 1992) 54-84.

extinctions) are irregular and unpredictable, because contingent on all kinds of external constraints, including geologic or climatic catastrophes.<sup>14</sup>

This return of focus to the external causes of evolutionary change directly contradicts the most important of the assumptions inherent in Spencer's appropriation of "organic process" to explain change, namely the idea that the causes of change are "immanent," or internal and intrinsic. Yet in the case of biological evolution, it is the mechanism of change, namely genetics, which is internal, but the causes of evolution, which occurs at the level of the species rather than the individual organism, are environmental; as long as a species inhabits a stable ecological niche, change is unnecessary.<sup>15</sup> In discourses of social evolution and vanguardist cultural criticism, the idea of inevitable immanent change is at the heart of the Progress mindset that results in the worship of novelty for its own sake. For closely related to the idea that change is inevitable is the idea that change is directional and that the direction it moves in is from the simple to the complex. And so we return to Spencer's governing assertion that "organic progress consists in a change from the homogeneous to the heterogeneous," that "this same evolution of the simple into complex, through successive

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<sup>14</sup>Richard Leakey and Roger Lewin, *The Sixth Extinction: Patterns of Life and the Future of Humankind* (New York: Doubleday, 1995) 18, 44.

<sup>15</sup>Niles Eldredge and Ian Tattersall, *The Myths of Evolution* (New York: Columbia UP, 1982) 60-64.

differentiation, holds throughout." It is in the conflation of development, including that of "Manufactures" and "Commerce," with this supposed increase in complexity that social-scientific sanction is given to modern condescension toward the past and to other "simpler" cultures in the present with slower rates of change. But as with all the other assumptions of the organic metaphor, the presumption of a unidirectional increase in complexity is incompatible with the contemporary scientific emphasis on discontinuity: "the history of life is a story of massive removal followed by differentiation within a few surviving stocks, not the conventional tale of steadily increasing excellence, complexity and diversity."<sup>16</sup> However unscientific by contemporary standards, the Progress "tale" remains "embedded" in modern culture, and its ideological traces need to be de-naturalized, even if they seem part of the harmless "simplicity" of the past. As Nisbet points out:

Who today believes, really believes, that society or one of its institutions is an organism, actually obeys the principles of the life-cycle of growth? Probably no one [. . .]. It does not matter. For one of the most frequent of all phenomena in the history of ideas is this one: that long after a principle or "axiom" has been forgotten, or ignored, or transmuted into metaphor alone, principles that are themselves vigorously drawn from the initial principle remain intact, remain relevant, and are the sources of countless hypotheses in the study of human experience. (10)

A focus on these extrapolations of the axiom of universal progressive differentiation yields a partial genealogy not only of the modern equation of value with novelty, but also of the

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<sup>16</sup>Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (New York: Norton, 1989) 25.



codification or social inscription of race.

## 2. Racism, or the Social March of Progress

That progress in intelligence seen during the growth of the child into the man, or the savage into the philosopher, is commonly regarded as consisting in the greater number of facts known and laws understood: whereas the actual progress consists in those internal modifications of which this increased knowledge is the expression. (Spencer, 1)

It is alike true that, during the period in which the Earth has been peopled, the human organism has grown more heterogeneous among the civilized divisions of the species; and that the species, as a whole, has been growing more heterogeneous in virtue of the multiplication of races and the differentiation of those races from each other. (10)

The most crucial developments concerned the extensions of time produced by discoveries in the fields of geology and paleontology, especially in the 1830's and 1840's, and the reorientations of anthropology, which the production of a deep historical time prompted in allowing for the historicization of other peoples as "primitive" [. . .]. The predominating tendency was one in which the different times of geology, biology, anthropology and history were connected to one another as to form a universal time. Such a temporality links together the stories of the earth's formation, of the development of life on earth, of the evolution of human life out of animal life and its development from "primitive" to "civilized" forms, into a single narrative which posits modern Man as the rational end, in some cases, telos of these processes.<sup>17</sup>

In again juxtaposing Spencer with a contemporary critic of continuity, in this case Tony Bennett, the intent is not the moral disparagement of the nineteenth-century thinker from the "higher" perspective of the late-twentieth, but the illumination of the ideological assumptions of modernity that still infuse our

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<sup>17</sup>Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (London: Routledge, 1995) 39.

celebration of the "new." If we disagree with Spencer it may or may not be because we know "more," but it's certainly not because of any "internal modifications" to our genetic capacity for knowledge such as that which Spencer attributes to the difference between himself (the philosopher) and the "savage." Though the differentiation and "advance of knowledge" may still be analogized to biological evolution (both are directional yet discontinuous),<sup>18</sup> there is no physical link between the two:

we are a single species [. . .]. Our species is highly polytypic: physically and genetically we are very diverse, just as we are culturally diverse. But the pattern of cultural diversity does not correspond particularly closely to the patterns of phenotypes and genetic variation--and social theorists long ago abandoned the idea that cultural differentiation could be really explained as a byproduct of the physical differentiation of mankind. (Eldredge and Tattersall, 178)

That the discredited idea of a link between cultural and biological differentiation retains cultural importance despite its presumable official abandonment is evidenced by the frequency with which the debate recurs.<sup>19</sup> The persistence of the debate necessitates further attention to Gould's debunking discourse of discontinuity.

In explaining the continuing influence of the most familiar and embedded iconographic representations of the "narrative" of human development mentioned by Bennett, the March of Progress--in

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<sup>18</sup>See Toulmin, Ch.5.

<sup>19</sup>See Russell Jacoby and Naomi Glauberman, eds., *The Bell Curve Debate: History, Documents, Opinions* (New York: Times Books, 1995); or the thing itself, Richard J. Herrnstein and Charles Murray, *The Bell Curve: Intelligence and Class Structure in American Life* (New York: Free Press, 1994).

which we see a pictorial sequence of profiles of a monkey, a few early hominid stages, a neanderthal, and eventually, modern Man-- Gould invokes primate (all of the above, so not culture-specific) biology. "Primates are visual animals par excellence, and the iconography of persuasion strikes even closer than words to the core of our being" (WL, 28). Fighting fire with fire, Gould provides his own counter-icon, in words and pictures, based on his interpretation of the discovery in Canada's Burgess Shale of fossils of several entirely new phyla which apparently have no modern descendants. Gould reads these odd creatures as clearly refuting the image of evolution as "steadily increasing excellence, complexity and diversity," indicating instead that "the sweep of anatomical variety reached a maximum right after the initial diversification of multicellular animals [and] the later history of life proceeded by elimination, not expansions" (47). Thus the counter-icon: "Life is a copiously branching bush, continually pruned by the grim reaper of existence, not a ladder of predictable progress" (35). Gould's many-branched, omnidirectional bush, with its irregular and contingent entanglement of the new and the old, is another visual evocation of the plurality of the present, like Latour's hotchpotch, and another suitable image of the simultaneous diversity of contemporary American reality and fiction.

Such is Gould's undermining of the ethnocentric March of Progress on the macro-evolutionary front; in the earlier work *Ontogeny and Phylogeny* he detailed specific nineteenth-century ideas

about micro-evolution and their translation into subsequent discourse on race. The "recapitulationist" view of embryology (which preceded genetics as the major focus of micro-evolutionary processes), encapsulated in Ernst Haeckel's axiom "ontogeny recapitulates phylogeny," held that the embryonic and maturational development of an individual organism recapitulates, or retraces, the entire evolutionary history of the organism's species back to its single-celled ancestor. The racist inflection of this belief, appealing to those already conditioned to assume the greater or higher development of the lighter-skinned, was to note presumed physiognomic resemblance between "white" children and "non-white" adults as evidence "that children of higher races (invariably one's own) are passing through and beyond the permanent conditions of adults in lower races."<sup>20</sup> For an example of this kind of scientific activity we need look no further than our familiar Spencer text:

The infant European has surely marked points of resemblance to the lower human races; as in the flatness of the alae of the nose, the depression of its bridge [and five other traits] [. . .]. Now, as the developmental process by which these traits are turned into those of the adult European, is an intimation of that change from the homogeneous to the heterogeneous developed during the previous evolution of the embryo, which any embryologist will admit; it follows that this parallel developmental process by which the like traits of the barbarous races have been turned into those of the civilized races, has also been a continuation of the change from the homogeneous to the heterogeneous. (11)

Gould's contemporary scientific response to this line of argument is that the recapitulationist assumption of accelerated or progressive

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<sup>20</sup>Gould, *Ontogeny and Phylogeny* (Cambridge: Harvard UP, 1977) 126.

evolution, in which "the stages of ancestral ontogenies are repeated in successively shorter intervals, leaving time for the addition of acquired characteristics" (so the organism can develop "further" than its parent), is not the dominant pattern of human development (86). Instead, human development is characterized by paedomorphosis, or retardation; the profound differences between humans and chimps, "who are almost identical in structural genes," derive from "a small genetic difference with profound effects--alternation in the regulatory system that slow down the general rate of development in humans" (9). The human intelligence epitomized for Spencer by the "philosopher," is not the inevitable process or telos of continuous universal progress toward complexity but an evolutionary accident, and the human is "an ape arrested in its development, holding the spark of divinity only through a chemical brake placed upon its glandular development" (361).<sup>21</sup>

Supplementing Gould's inquiries into the "iconography of persuasion" and its racist manifestations in evolutionary discourse is Bennett's genealogy of the museum, in which the representation of

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<sup>21</sup>Paul Gilroy later goes further in repudiating the racist attachment to the analytical scales of physiognomy and embryology, pointing out that "the modern idea of race belonged to a certain scale. [. . .] the scale of comparative anatomy" (193). But, he asks, "what does that trope 'race' mean in the age of molecular biology?" (192). At the infinitesimal scales available to modern spectroscopy, "racial difference [. . .] cannot be correlated with genetic variation" (194). Ultimately, he wonders, "Is there still a place for 'race' on the new scale at which human life and human difference is contemplated?" (193). Paul Gilroy, "Scales and Eyes: 'Race' Making Difference," *The Eight Technologies of Otherness*, ed. Sue Golding (London: Routledge, 1997) 190-196.

the March of Progress becomes three-dimensional and performative. Nineteenth- and early twentieth-century museum and world's fair anthropological exhibits were arranged in a series in which non-white cultures were used to represent "earlier," stages of cultural evolutionary development, leading up to "more advanced" European civilizations, and culminating in celebrations of the history and current modernity of the particular nation hosting (permanently or otherwise) the exhibit (Bennett, 79). These exhibits thus demonstrated their designers' "commitment to provide the visitor with a linear route within which an evolutionary itinerary might be accomplished" (181), and "the museum visit thus functioned and was experienced as a form of organized walking through evolutionary time" (186). Bennett's study, consciously modeled after (though differentiated from) Foucault's studies of institutions such as the prison and the clinic, substantiates Gould's claims of the importance of the use of racist evolutionary iconography as part of the national socialization of modern citizens. Bennett affirms that in his scheme "the museum might be seen as providing a reinforcement mechanism in relation to the new institutions of social training governed by what Foucault calls evolutive time" (46). But before turning to the work of Foucault and other contemporary social theorists who critique evolutionary Progress-thought in favor of discourses of discontinuity, heterogeneity, and hybridity, it will be useful to follow up on Bennett's discussion of "universal time" by examining how this nineteenth-century "discovery" has been

destabilized.

### 3. Universal Time

Bennett shows that the nineteenth-century conception of "universal time" involved a dual focus, both linking "the different times of geology, biology, anthropology, and history" (39) into an all-encompassing linear narrative about the past and in turn conceiving the notion of a present national and cultural moment that is "the outcome and culmination of the universal story of civilization's development" (76). The catastrophist and neo-catastrophist scientific challenges to the version of the past underlying the Progress narrative have been examined above. Equally significant is the modern construction of a universal present and its relation to twentieth-century science and technology. Kern's *The Culture of Time and Space, 1880-1918* thoroughly documents the obsession with time constitutive of turn-of-the-century and twentieth-century thought and experience. The Western industrial and commercial development that had influenced Darwin's description of the history of life as a form of competition, and inspired Spencer's interpretation of natural selection as the "survival of the fittest" or most heterogeneous, emerges in Kern's study as a powerful homogenizing force.

The "institution of World Standard Time" is the emblem of this homogenization and is traced to commercial imperatives:

the most momentous development in the history of uniform, public time since the invention of the mechanical clock in the

fourteenth century was the introduction of Standard time at the end of the nineteenth century [. . .] [and] despite all the good scientific and military arguments for world time, it was the railroad companies and not the governments that were the first to institute it. (12)

The "heterogeneity of times" that existed within and across international boundaries ("around 1870, if a traveler from Washington to San Francisco set his watch in every town he passed through he would set it over 200 times") was transformed by a series of fiats into the "uniform time" favored by the railroads. In 1912 the International Conference on Time held in Paris "provided for a uniform method of determining and maintaining accurate time signals and transmitting them around the world" (13) based on the guidelines created at Washington's Prime Meridian Conference in 1884, which "proposed to establish Greenwich as the zero meridian, determined the exact length of the day, divided the earth into 24 time zones one hour apart, and fixed a precise beginning to the universal day" (12). As "the Eiffel Tower sent the first time signal transmitted around the world [in 1913] [. . .] the independence of local times began to collapse and the framework of a global electronic network was established" (14). Developments in communications technology have of course accelerated this globalization to the point of such simulacra of simultaneity as world-wide media events such as the Gulf War,<sup>22</sup> and have set the agenda for the contemporary social theorists discussed below. Kern argues that it was this creation of

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<sup>22</sup>See Jean Baudrillard, *The Gulf War did not take place*, trans. Paul Patton, (Bloomington, IN: Indiana UP, 1995).



"uniform public time" that sparked the profusion of works at the time by "novelists, psychologists, physicists, and sociologists [. . .] examin[ing] the way individuals create as many different times as there are life styles, reference systems, and social forms" (15), a project which is echoed in contemporary discourses of discontinuity.

The inclusion of "physicists" among the ranks of those invoking the necessary heterogeneity of temporal experience against the encroaching simultaneity of the "global electronic network," is not simply ironic but rather evidence of the complexity and contention within convenient conceptual categories such as "science." Einstein's general theory of relativity represents a paradigm shift from the Newtonian model of absolute time, in which universal simultaneity is viable, to a universe with as many distinct local times as there observers, and in which "simultaneity can be defined only in terms of a given reference frame."<sup>23</sup> Despite the difference between the astronomic scale in which Einstein's description of the warping of light by gravity has most practical value and the human scale--"the reason flexitime isn't part of our everyday commonsense experience is that human beings rarely achieve relative speeds greater than a millionth of the speed of light, and any time dilation is too small to notice" (Davies, 83)--the cultural

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<sup>23</sup>Paul Davies, *About Time: Einstein's Unfinished Revolution* (New York: Simon, 1995) 218.

influence of Relativity was immense.<sup>24</sup> Working at the sub-atomic scale Heisenberg, Bohr, and the other founders of quantum mechanics elaborated the principle of uncertainty or complementarity, arguing that we can know the specific position of a particle at a given time or its velocity but not both. This principle introduces indeterminacy as a fundamental property of matter, a problematizing of causality unpalatable even to Einstein, but which like Relativity expresses the "irreducible plurality of perspectives on the same reality" (225). Thus even as a functional standardization of global time measurement was effected, the physical and philosophical coherence of the idea of Universal Time assumed by professors of Progress, and its correlative notion of the possibility of "simultaneity," was vitiated.

#### **4. Contemporary Social Theory and the Discourse(s) of Discontinuity**

The issue of Progress versus discontinuity is one in which the already broad and contested categories "science" and "social theory" are inextricably entangled. If a functional distinction is to be made between these categories it must be a matter of degree, quantitative rather than qualitative.<sup>25</sup> Acknowledging the ongoing

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<sup>24</sup>Kern discusses this, but the phenomenon was energetically proclaimed as early as 1927 in Wyndham Lewis's recently reprinted critical polemic *Time and Western Man* (Santa Rosa, CA: Black Sparrow, 1993).

<sup>25</sup>Latour would describe science and social theory as merely describing different mobilizations of humans and nonhumans, and view both disciplines as examples of esoteric "work of purification" when compared to the more hybridizing perspective of science studies.

disputes within "science" (such as gradualism versus catastrophism) and the directional yet discontinuous aspect of scientific "advance,"<sup>26</sup> we can still attribute to scientific discourse a greater concern with a statement's "objectivity," or its demonstrable relation to material "reality," than obtains in social theory. Indeed the questioning of the hegemony and purported objectivity of the scientific model of reality is central to much of the discourse of discontinuity to be examined.<sup>27</sup> A shared, if independent, antipathy to evolutionary discourses informs selected theoretical works by Michel Foucault, Jean-Francois Lyotard, Jean Baudrillard, Anthony Giddens, and Bruno Latour. In this limited sense they may all be considered contributors to a collective "contemporary discourse of discontinuity."<sup>28</sup> But none of these idiosyncratic thinkers would be especially comfortable within this tentative collective, as there are many implicit and explicit dissonances or disagreements between their respective texts.

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<sup>26</sup>See Thomas Kuhn, *The Structure of Scientific Revolutions*, 2nd ed. (Chicago: U of Chicago P, 1970).

<sup>27</sup>Among useful sources not examined here see especially *Social Text's* Spring 1996 issue "Science Wars," and its attendant controversy following contributor Alan Sokal's "hoax," and *Social Text* editor Andrew Ross's books *Strange Weather: Culture, Science and Technology in the Age of Limits* (London: Verso, 1991), and *The Chicago Gangster Theory of Life: Nature's Debt to Society* (London: Verso, 1994).

<sup>28</sup>The word "contemporary" is left intentionally flexible (or vague) in this project, in part to avoid reifying the Timeline, but usually assumes "discourers" who are living (a convenient limiting of the field). In the cases of Foucault and (more recently) Lyotard, the vitality of their works must suffice.

Thus the discourse of discontinuity must remain discordant or discontinuous within "itself". The Latin prefix "dis-" responsible for all this alliteration means "apart," and the etymology of "discourse" yields "an act of running about."<sup>29</sup> The older senses of "discourse," such as "the capacity of orderly thought or procedure, or "a formal and orderly and usually extended expression of thought on a subject" obviously stress the continuity implicit in "course." By contrast Foucault's influential conception of discourse accents the apart-ness, the random or spontaneous aspect of "running about": "A discursive formation is not, therefore, an ideal, continuous, smooth text that runs beneath the multiplicity of contradictions [. . .]. It is rather a space of multiple dissensions."<sup>30</sup> Hence by the more traditional denotation the phrase "discourse of discontinuity" would be an oxymoron, while in the context of Foucault's sense it is redundant; this change is itself an example of the "rupture" Foucault's texts emphasize. In jumping into these texts and those of Lyotard, Baudrillard, Giddens, and ultimately Latour, I will first consider their respective assaults on evolutionism.

Foucault's *Discipline and Punish: The Birth of the Prison* famously begins with an anecdotal illustration of its larger concerns, and similarly the concept of "evolutive time" he discusses in this volume, already mentioned as a model for Bennett's study,

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<sup>29</sup>"Discourse," *Webster's New Collegiate Dictionary*, 1979.

<sup>30</sup>Michel Foucault, *The Archaeology of Knowledge*, trans. A.M. Sheridan Smith (New York: Pantheon, 1972) 155.

may be used as an introduction to the anti-evolutionary aspect of the project of discursive "archaeology" he outlines in earlier works. "Evolutive time" refers to the methods of socializing individuals intrinsic to European schooling and military training beginning in the late seventeenth century, and thus not yet connected to the evolutionary "deep time" of the nineteenth century, being instead

a new technique for taking charge of the time of individual existences; for regulating the relations of time, bodies and forces; for assuring an accumulation of duration; and for turning to ever-increased profit or use the movement of passing time. How can one capitalize the time of individuals, accumulate it in each of them, in their bodies, in their forces or in their abilities, in a way that is susceptible of use and control? How can one organize profitable durations?"<sup>11</sup>

Maximizing profit from "the time of individual existences" is accomplished by organizing the time and space of students', recruits, ' or apprentices' existences into internalized series, by segmenting "duration" and "arranging different stages, separated from one another by graded examinations, [and by] drawing up programmes, each of which must take place during a particular stage and which involves exercises of increasing difficulty" (159). Individuals can then be differentiated "according to the way in which they progress through these series". This creation of individuals "in relation to other individuals, or in relation to a type of itinerary" through the procedure of "exercise" "thus assures, in the form of continuity and constraint, a growth, an

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<sup>11</sup>Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan, (New York: Vintage, 1979) 157.

observation, a qualification" (161), and is a process so culturally entrenched that "'evolutive' historicity, as it was then constituted [. . .] is still self-evident for many today" (160). Indeed the matrix of evolutive time remains central to the institution of education at all levels, presumably inscribing the expectation of linearity and progress most thoroughly into the most- or longest-educated.

That this latter prediction cannot fully account for the existence of discourses of discontinuity from highly-educated individuals like Gould or Foucault himself is an anticipation of the criticism by Giddens and others that Foucault's explorations of the anonymous working of "power" upon "docile bodies" fails to explain the apparent agency and idiosyncrasy of individuals (such as Michel Foucault). But before exploring this debate in detail it is necessary to describe briefly Foucault's project of discursive archaeology, so suffice it to say that for Foucault, "making historical analysis the discourse of the continuous and making human consciousness the original subject of all historical development" are inseparable, and both are to be avoided.

The old questions of the traditional analysis (What link should be made between disparate events? How can a causal succession be established between them? What continuity or overall significance do they possess?[]) [. . .] are now being replaced by questions of another type (AK, 3-4)

how is one to specify the different concepts that enable us to conceive of discontinuity (threshold, rupture, break, mutation, transformation)? By what criteria is one to isolate the unities with which one is dealing; what is a science? What is an oeuvre? What is a theory? What is a concept? What is a text? How is one to diversify the levels at which one may

place oneself, each of which possesses its own divisions and forms of analysis? (5)

Concerning itself only with the latter sort of questions, Foucault's "archaeology" is to be a practice rid of notions that reinforce "the theme of continuity," notions including "tradition," "influence," "spirit," and most importantly here, "development" and "evolution" (21). And taking "archaeology" thus defined to be one of the analytic "levels at which one may place oneself," and refusing to treat it as an all-or-nothing continuity, it may be diversified and/or hybridized with other discourses of discontinuity.

Lyotard's project, like Foucault's, is premised on a rupture from evolutionary discourses, which he influentially deems "metanarratives." His definition of the "postmodern" as "incredulity toward metanarratives"<sup>32</sup> is now axiomatic. The succession implied by the "post-" in "postmodern," likely the reason Foucault, Baudrillard and others inclined toward discontinuity avoid the word, is not emphasized in Lyotard's scheme. The "modern" and the "postmodern" are understood as contrary discursive modes or sets of assumptions, the former necessarily "older," but with no precise chronological division assigned. The metanarratives Lyotard describes as the sources of legitimation of modernity are familiar components of the overdetermination of the idea of Progress:

the progressive emancipation of reason and freedom, the progressive or catastrophic emancipation of labor (source of

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<sup>32</sup>Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis: U of Minnesota P, 1984) xxiv.

alienated value in capitalism), the enrichment of all humanity through the progress of capitalist technoscience, and even--if we include Christianity itself in modernity (in opposition to the classicism of antiquity), the salvation of creations through the conversion of souls to the Christian narratives of martyred love.<sup>33</sup>

The "postmodern knowledge" which the waning of the metanarratives represents involves the displacement of "Newtonian anthropology (such as structuralism or systems theory)" by a "pragmatics of language particles" (PC, xxiv), which "refines our sensitivity to difference and reinforces our ability to tolerate the incommensurable" (xxv).

Lyotard's "postmodern knowledge" is a discourse of discontinuity based on the conflict of antagonistic, indeed "incommensurable" "language games." Though he mentions several types of utterance, or language game, his focus is on the disjunction between "denotative" or scientific utterances, which "assert something with a truth value that must be judged by the addressee," and "narrative" utterances, which operate independently of the true/false axis and are constitutive of the fabric of pragmatic knowledge necessary for social competence. Whereas narrative utterances may incorporate denotative elements, "scientific knowledge requires that one language game, denotation, be retained and all others excluded [. . .] [and] is in this way set apart from the language games that combine to form the social bond" (25).

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<sup>33</sup>Lyotard, *The Postmodern Explained: Correspondence, 1982-1985*, trans. ed. by Julian Pefanis and Marge Thomas, trans. Don Berry, et al (Minneapolis: U of Minnesota P, 1993) 17.



The scientist questions the validity of narrative statements and concludes that they are never subject to argumentation or proof. He classifies them as belonging to a different mentality: savage, primitive, underdeveloped, backward, alienated, composed of opinions, customs, authority, prejudices, ignorance, *ideology*. (27)

In modernity, "the rules of the game of science" and their attendant "cultural imperialism" become conflated with the criteria for social "legitimation," and the result is "the notion of progress":

It represents nothing more than the movement by which knowledge is presumed to accumulate--but this movement is extended to the new sociopolitical subject. The people debate among themselves about what is just or unjust in the same way that the scientific community debates about what is true or false; they accumulate civil laws just as scientists accumulate scientific laws (30)

With this formation of a collective denotative "subject," "the people," "the traditional knowledge of peoples," non-progressive, non-universal, becomes marginalized.

The elevation of the modern language game of denotation into the arbiter of social legitimation is the basis of Lyotard's main derogatory construction of "science." Another important manifestation of pernicious science is "capitalist technoscience," a phenomenon establishing "an equation between wealth, efficiency, and truth" (44). As science, the domain of "proof," becomes more and more dependent on increasingly intricate and expensive technology, "whoever is wealthiest has the best chance of being right," and the technical criterion of efficiency or "performativity" becomes all-important (46). The discursive manifestation of the obsession with "performativity" is some form of functionalism, or "systems theory," a version of the old organic metaphor updated with the language of

cybernetics. Lyotard finds functionalism completely insupportable, and in order to debunk it he invokes "postmodern science,"

which, by concerning itself with such things as undecidables, the limits of precise control [. . .] "fracta," catastrophes, and pragmatic paradoxes--is theorizing its own evolution as discontinuous, catastrophic, nonrectifiable, and paradoxical. It is changing the meaning of the word *knowledge*, while expressing how such a change can take place. It is producing not the known, but the unknown. (60)

Thus Lyotard addresses one of the central paradoxes of the contemporary discourse of discontinuity--the appeal to a "newer" scientific paradigm to bolster a critique of the rationalistic scientific worldview that presumes progress and thus privileges the "new." In order to displace this apparent contradiction in logic, Lyotard presents "postmodern science" as a wholly different mode of knowledge discontinuous with the science constitutive of modernity, one that produces "the unknown" rather than a steady accumulation of facts. And it is indeed the negative "discovery" of complexity and indeterminacy that has inspired the above juxtapositions of Einstein and Heisenberg with Newton, or Gould with Spencer.

Among the discourses of discontinuity considered in this study none goes farther in the rhetorical appropriation of scientific neo-catastrophism, or "postmodern science," than that of Jean Baudrillard. Nowhere is this better exemplified than in *The Illusion of the End*, which is saturated with idiosyncratic tropological extensions of chaos theory (for example) to history and social theory. The title of its opening essay, "Pataphysics of the Year 2000," an allusion to Jarry's "Ubu Roi," is an accurate description

of the book's rhetorical propulsion of "science" well away from the domain of "proof." Only in his memoirs and travelogues is Baudrillard closer to the discursive assumptions of "fiction" than in this work, which amply demonstrates his continuing anti-evolutionism, and its expression in a contemporary scientific vocabulary.

the under-developed are only so [. . .] in terms of a dominant evolutionism which has always been the worst of colonial ideologies. The argument here is that there is a line of objective progress and everyone is supposed to pass through its various stages (we find the same eyewash with regard to the evolution of species and in that evolutionism which unilaterally sanctions the superiority of the human race) [. . .]. To encourage hope of evolution--albeit by revolution--among the poor and to doom them, in keeping with the objective illusion of progress, to technological salvation is a criminal absurdity.<sup>34</sup>

In a non-linear, non-Euclidean space of history the end cannot be located [. . .]. Perhaps history itself has to be regarded as a chaotic formation, in which acceleration puts an end to linearity and the turbulence created by acceleration deflects history definitively from its end, just as such turbulence distances effects from their causes. (110-111)

In these excerpts Baudrillard's "post-Marxist" political orientation is visible, an "affiliation" loosely applicable to Foucault, Lyotard, and Giddens as well, if construed to include a rejection of both the developmental rhetoric of "technoscience" and its ethnocentric universalism and of the similarly linear assumptions of Marxist "revolution" (understood as the overcoming of class struggle and the "end" of history). More literally "post-Marxist" than these other theorists in that his early works on the "consumer society"

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<sup>34</sup>Jean Baudrillard, *The Illusion of the End*, trans. Chris Turner (Cambridge, U.K.: Polity, 1994) 69-70.

and "the political economy of the sign" were more closely associated with Marxist traditions than anything they've produced, Baudrillard's "break" with Marxism comes with *The Mirror of Production*.

The central theme of *The Mirror of Production* is that Marxism and all subsequent "revolutionary discourse" reify rather than displace production in that they challenge only the "contents" of capitalist political economy, "leaving production as a *form* intact."<sup>15</sup> The title refers both to Marxism's fate to be simply the "mirror" of production and to the way that the concept (and capitalist reality) of "production" has served as the "mirror" in which we see our "selves" reflected, an analysis analogous to Foucault's discussion of the use of "evolutive time" to create individuals conceived as producers of "profitable durations":

Everywhere man has learned to reflect on himself, to assume himself, to *posit himself* according to this scheme of production which is assigned to him as the ultimate dimension of value and meaning. At the level of all political economy there is something of what Lacan describes in the mirror stage: through this scheme of production, this *mirror* of production, the human species comes to consciousness in the *imaginary*. Production, labor, value, everything through which an objective world emerges and through which man recognizes himself objectively--this is the imaginary. Here man is embarked on a continual deciphering of himself through his works [. . .] [in the mirror of] a productivist ego. (19)

Marx's division of the value of labor into "use value" and "exchange value" (according to which the rise of the latter under industrial capitalism creates the "alienation" of workers from their labor and

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<sup>15</sup>Baudrillard, *The Mirror of Production*, trans. Mark Poster (St. Louis, MO: Telos, 1975) 17.

the accumulation of "surplus value" to enrich the bourgeoisie) in Baudrillard's view universalizes "work" as the human condition, supporting rather than undermining capitalism. Furthermore, Marx's "presupposition of use value--the hypothesis of a concrete value beyond the abstraction of exchange value, a human purpose of the commodity in the moment of its direct relation of utility for a subject--is only the effect of the system of exchange value," and is thus a retrospective construction and not an effective invocation of a pre-capitalist reality (22). One should not infer pre-existing human "needs" to explain existing products; this is the anti-functional point made in Baudrillard's earlier works on "consumption" that consumer goods and advertising produce "needs," rather than the other way around.

In theorizing an alternative view of social exchange to that of the world of "labor" conceived both by political economy (capitalism) and its Marxist critique, which is not simply its negation (as in the notion of non-work, "free-time," or "play" informing the ideal post-class-struggle just society), Baudrillard invokes cultural difference, a strategy constitutive of the discourse of discontinuity. Anticipating Lyotard's later distinction between denotative language games (and their criteria of "performativity") and "narrative" discourse, which is the substance of the social bond, Baudrillard stresses the realm of the symbolic. "The real rupture is not between "abstract" labor and "concrete" labor, but between symbolic exchange and work (production,

economics)" (45). "Instead of exporting Marxism" to the "primitive societies" we should attempt to apply the reality of their cultural difference to the understanding of our own embedded assumptions such as "production" (49). An example of such a model of difference is Marcel Mauss's classic study of the significance of the circulation of gifts in non-western cultures, alluded to in Baudrillard's statement that "in the primitive exchange gift, the status of goods that circulate is close to language. The goods are neither produced nor consumed as values" (98)<sup>36</sup>. But Baudrillard's aim in this work is primarily to shatter the "mirror of production," not to construct alternative models. For a discourse of discontinuity that provides a more detailed theoretical account of both social structures and individual agency, considering both western and non-western social formations in an anti-evolutionary context, we must turn to the "structuration theory" of Anthony Giddens.

Giddens, an influential and prolific English social theorist much less familiar to cultural critics than his flashier French contemporaries Foucault, Lyotard, and Baudrillard, provides the discourse of discontinuity as here imagined with much of its "difference within"; despite sharing their forceful anti-evolutionism, his important stress on the constitutive role of agency in social reproduction is explicitly opposed to the exclusion

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<sup>36</sup>Baudrillard, *Mirror*, 98. See Marcel Mauss, *The Gift: The Form and Reason for Exchange in Archaic Societies*, 1950, trans. W.D. Halls, (London: Routledge, 1990); and Baudrillard's *Symbolic Exchange and Death*, (1976), trans. Iain Hamilton Grant (London: Sage, 1993).

of agency central to Foucault's discursive archaeology. Giddens's "structuration theory" is explained and refined in a series of books, but most useful here is the elaboration of his project in *A Contemporary Critique of Historical Materialism* (vol.1), where (like Baudrillard's *The Mirror of Production*) it is defined against the Marxist interpretation of history as "the progressive augmentation of the forces of production."<sup>17</sup>

In the preface to the second edition, Giddens presents with typical concision the ideas that his project renounces, writing that his Critique

seeks to move away from all forms of teleology save for those directly associated with individual human beings. Contrary to functionalism, social systems have no "needs" which can be invoked as means of explanation for social occurrences; and contrary to certain versions of historical materialism there is no overall teleology to history either. In my view one should also disavow evolutionism, even where the evolutionary mechanisms identified are non-teleological. There are no direct social or cultural equivalents to notions such as adaptation, mutation and so forth, central to biological evolution. (ix)

The evolutionary assumptions "commonplace" in the social sciences (and recalling Spencer and the metaphor of organic growth) that "human societies tend to develop from relatively simple forms of organisation to more complex ones [. . .] [and that] the sources of major processes of societal change are primarily endogenous in character" are to be rejected (90). Also unsatisfactory is the related view common to both the capitalist and Marxist perspectives

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<sup>17</sup>Anthony Giddens, *A Contemporary Critique of Historical Materialism*, vol.1, (1981), 2nd ed. (Stanford, CA: Stanford UP, 1995) 1.

that "the level of development achieved by any given society can be derived from how 'advanced' it is in terms of its capability of controlling the material environment [. . .] [i.e.] of the level of the development of the productive forces" (82). Thus abandoning the ethnocentric "simple/complex" model associated with relative productive development, but as a working sociologist still desiring a theoretical vocabulary with which to examine inter-societal continuities and differences, Giddens posits an alternative model based on "time-space distanciation." This he defines as "the process whereby societies are 'stretched' over shorter or longer spans of time and space" (90).

In this scheme societies are studied and compared based on their respective ways of "binding" time and space. "Inherent in the nature of the constitution of social systems" is an "intermingling of presence and absence"; "every society participates in some form of dissolution of the restraints of time and space." In order to illustrate the range of relative time-space distanciation in human societies, Giddens cites the example of "the smallest of human societies, band societies of hunters and gatherers," which "are marked by the predominance of presence"; their social bonds are based on face-to-face content, and do not involve "regularised transactions with others who are physically absent" (94). Just as their "mediated transcendence of space" is thus relatively low, compared to modern societies with elaborate transportation systems and technology that thereby collapse or transcend space, so their



"distanciation in time" is limited to the oral transmission of tradition and is therefore also substantially less than that of modern societies. The invention of writing and its exponential dissemination through technological developments such as the printing press or the computer make possible an extraordinary "distanciation in time" in that information and texts are "stored," so that their ideological contributions to social cohesion can be influential (continuously or discontinuously) for an indefinite period of time (95).

Though Giddens's recent books make clear his recognition of the encroachment of "modernity" upon diversity, the relative cultural homogenization made possible by technological developments expanding the time-space distanciation of western society beyond the Earth, even, he stresses the spatial rather than temporal or developmental aspect of this change. For Giddens societal change is usually importantly "exogenous" or externally-caused, rather than purely "endogenous." This means that despite Giddens's unwillingness to embrace the opportunity of analogy with contemporary science (unlike Lyotard and Baudrillard), his view of large-scale social change as being "episodic" and externally caused by friction along the "time-space edges" represented by "forms of contact or encounter between types of society organised according to variant structural principles" (83) is a discourse of discontinuity analogous to Gould's and Eldredge's views about evolutionary speciation. For Giddens diverse human societies have always existed

"simultaneously," and no degree of "time-space differentiation" deserves critical priority; societies with greater amounts of technological capacity do not necessarily have better-off populaces, and are responsible for more environmental damage (a theme Giddens emphasizes in some of his more recent books).

The elements of structuration theory dealing with the role of agency in social reproduction are equally important to the discourse of discontinuity conceived as a context for cultural analysis as this displacement of the biased developmental model of cultural difference to the value-neutral axis of time-space distanciation. Giddens's attempt to make time-space relations central to social theory has as its primary opponent the familiar rhetorical antagonist known variously as "functionalism," "structuralism," or "systems theory," all of which wrongly presume that the existence of social phenomena can be explained as fulfilling some systemic "need," or function, rather than being attributable to the decisions or actions of agents. The consequence of treating societies as holistic systems of functioning parts is to view them as static, or synchronic, with the diachronic axis, the passing of time, thus conflated with social change. Giddens points out the insufficiency of this synchronic/ diachronic opposition, stressing that "time (time-space) is obviously as necessary a component of social stability as it is of change.[. . .] For social systems exist as systems only in and through their 'functioning' (reproduction) over time" (17). Acknowledging that the most influential functionalists,

Talcott Parsons and Louis Althusser, did describe social reproduction in their respective schemes, Giddens faults their theories for factoring human agents as "'cultural dopes,' not as actors who are highly knowledgeable (discursively and tacitly) about the institutions they produce and reproduce in and through their actions" (18).

Structuration theory is intended as a theoretical displacement of the traditional sociological opposition between structure and action, or between functionalist or institution-based theories and individual-based "action theories" which stress "rational choices" or "communicative action." Neither extreme suits Giddens, whose theory aims to elaborate a concept of "bounded" agency:

According to the theory of structuration, all social action consists of social practices, situated in time-space, and organised in a skilled and knowledgeable fashion by human agents. But such knowledgeability is always 'bounded' by unacknowledged conditions of actions on the one side, and unintended consequences of action on the other. (19)

Giddens' agents are thus by no means omniscient or autonomous, but are skilled and "self-monitoring" actors whose ongoing acts collectively constitute their society, unpredictably (because contingently) mingling persistence with change. His implicit criticism of the Althusserian claim that agency is moot as subjects are interpellated or hailed and thus saturated by ideology (which is trans-historical) is that "all social actors, both the powerful and the relatively powerless, have some degree of discursive penetration of the conditions governing the reproduction of the social systems they produce and reproduce in their action" (62).

Giddens explicates the link between local individual acts and social reproduction by combining ideas from Bergson, Heidegger, and the contemporary historian Fernand Braudel, arguing that "there are three intersecting planes of temporality involved in every moment of social reproduction":

There is the temporality of immediate experience, the continuous flow of day-to-day life [. . .] the *duree* of activity. Second, there is the temporality of *Dasein*, the life-cycle of the organism. Third, there is what Braudel calls the *longue duree* of institutional time. It is essential to see that these interpenetrate and that, according to the theorem of the duality of structure, every moment of social interaction, implicated in the "passing away" of the human organism, is likewise involved with the *longue duree* of institutions. (19-20)

This elaboration of the different planes of temporality that simultaneously inhere in all human action, and Giddens's understanding of inter-societal difference as a function of different degrees of time-space "stretching" interacting along time-space "edges," energize the effort of the discourse of discontinuity to address Foucault's question "how is one to diversify the levels at which one may place oneself, each of which possesses its own division and forms of analysis" (AK, 5). If the non-human scales of geology and astrophysics are considered as well, as they are in some contemporary fiction and critical responses to such fiction, then the discourse of discontinuity indeed involves a confusing profusion of conceptual scales.

Foucault further asserts that "the notions of 'influence' or 'evolution' belong to a criticism that puts them--for the foreseeable future--out of use," and goes on to ask rhetorically

whether we need also "dispense for ever with the 'oeuvre,' the 'book,' or even such unities as 'science' or 'literature'"(26). He answers with the heuristic admonition that we at must least "tear away from [these latter notions] their virtual self-evidence," and indeed his project has contributed to the necessary unsettling of previously underexamined concepts such as the Author and the Work of Art, as well as to the questioning of the presumed self-sufficiency of existing institutional disciplines. But as Giddens has pointed out in what is for him a rare article dealing in detail with issues of literary theory, the opposite extreme is equally reductive: "writing is sometimes portrayed as though texts wrote themselves; the relegation of the author to the role of shadowy adjunct to writing is manifestly unsatisfactory."<sup>38</sup> The efforts of Foucault or Baudrillard to demonstrate the constitutive role of "evolutive time" or "production" in the very idea of an agent, or "subject," which are here understood (and Giddens would likely agree) as useful contributions to the discourse of discontinuity's critique of Progress, do not rule out the importance of agency in the "ontology of social life."

Foucault and Giddens share the crucial anti-evolutionary insistence that "history has no subject," no telos or providential design, but Giddens objects to the degree to which "Foucault's history tends to have no active subjects at all" (214). Giddens's

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<sup>38</sup>Giddens, "Structuralism, Post-structuralism and the Production of Culture," *Social Theory Today*, eds. Anthony Giddens and Jonathan H. Turner (Stanford, CA: Stanford UP, 1987) 211.

comment that "the historian is a reflective being, aware of the influence of the working of history upon the determination of the present [. . .] [but in Foucault] this quality of self-understanding is seemingly not extended to historical agents themselves," is an understated version of the questioning of the agency of the discursive archaeologist himself by Foucault's own inscribed interlocutor. "What then is the title of your discourse? Where does it come from and from where does it derive its right to speak? How could it be legitimated? [. . .] And how could your enterprise prevail against the question of origins, and the necessary recourse to a constituent subject?" (205). Foucault's response is a "manifestly unsatisfactory" evasive retort about the questioner's fear of a non-transcendental History.

In mediating, or retaining the unmediated dissension between, these points of view about agency, the discourse of discontinuity thus reaffirms the usefulness of the concepts of the individual author and of her oeuvre, while also exploring the following concerns of discursive archaeology:

Relations between statements (even if the author is unaware of them; even if the statements do not have the same author; even if the authors were unaware of each other's existence); relations between groups of statements thus established (even if these groups do not concern the same, or even adjunct, fields; even if they do not possess the same formal level; even if they are not the locus of assignable exchanges); relations between statements and groups of statements and events of a quite different kind (technical, economic, social, political). (AK, 29)

The many-headed subject of the resulting methodology resembles what the leading critic of "literature and science" N. Katherine Hayles

calls "a heterogeneous discursive field through which multiple fissures run, with boundaries of fractal complexity."<sup>39</sup> Indeed my approaches to contemporary American fictions in "Simultaneous Diversity" will be varied, including both considerations of the distinctiveness of individual authors from one another and indeed of individual fictions by the same author from one another, while also positing tentative entanglements of fictions under the rubrics "catastrophist fictions," "scientist fictions," and "fighting fictions." Some close readings will be relatively hermetic, while others will engage ongoing literary critical debates, or be broadly interdisciplinary, depending on the nature of the fictions and of the amount and relevance of existing criticism. To consolidate this methodology a few final criteria for articulating difference and envisioning its entanglement in the complex landscape of the present must be considered, returning this chapter to its beginning, the work of Bruno Latour.

##### **5. Theorizing Cultural Difference: Purification and Hybridization**

This study's multi-scaled, interdisciplinary, "dirty" work of addressing the cultural landscape of heterogeneity and complexity that Hayles describes, has so far been focused on the attempts of Gould, Bennett, Foucault, Lyotard, Baudrillard, and Giddens, to

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<sup>39</sup>N. Katherine Hayles, "Deciphering the Rules of Unruly Disciplines: A Modest Proposal for Literature and Science," *Literature and Science*, ed. Donald Bruce and Anthony Purdy (Amsterdam: Rodopi, 1994) 31.

derail Progress-thought and disentangle its vanguardist prejudices from our apprehension of the present. Toward that end, pursuing the logic of these theorists' break from embedded Spencerian notions of gradualist Progress in favor of a Gouldian (neocatastrophist) emphasis on history's contingency, I have presented them as jointly contributing to a loosely collective "discourse of discontinuity." Most of these figures, however (on a spectrum whose high end would be Gould and Giddens and low extreme would be Lyotard and Baudrillard), could also be described as providing alternative positive "taxonomies" (Gould) or "ontologies" (Giddens) of the profusion of the present to counter the homogenizing evolutionary narratives that they discredit. But Bruno Latour, reigning gadfly in the constitutively trouble-making field of "science studies," will serve as the key theorist for my articulation of the productive copresence of discourses of discontinuity and entanglement.

Latour's own science studies have shifted from the anthropological critique of scientists in action to a more wide-ranging effort to reconceptualize our very notion of historical periodization, which is eminently an evolutionary narrative dependent on modernity's scientized worldview.<sup>40</sup> In *We Have Never Been Modern*, Latour defines modernity, or the "modern critical

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<sup>40</sup>See Chapter III of this study for a discussion of Latour's and Steve Woolgar's influential early work *Laboratory Life*. Also, for a useful account of the implications of Latour's recent work on periodization, and its origin in Latour's engagement with the work of Michel Serres, see Donald Wesling, "Michel Serres, Bruno Latour, and the Edges of Historical Periods," *CLIO* 26:2 (1997) 189-204.



stance," as the designation of "two sets of entirely different practices which much remain distinct if they are to remain effective":

The first set of practices, by 'translation,' creates mixtures between entirely new types of being, hybrids of nature and culture. The second, by 'purification,' creates two entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other. Without the first set, the practices of purification would be fruitless or pointless. Without the second, the work of translation would be slowed down, limited, or even ruled out. The first set corresponds to what I have called networks; the second to what I shall call the modern critical stance. (10-11)

The "work of purification," closely related to the "in vitro" ethic I discuss in Chapter III, is premised on the assumed dichotomy of Nature and Culture, or Objects and Subjects, or Nonhumans and Humans. By contrast, the "work of translation" (or "hybridization"), involves the inevitable mutual entanglement of these categories into "networks" of "quasi-objects," that are "simultaneously real, like nature, narrated, like discourse, and collective, like society" (6). The work of purification, or specialization, continually churns out what it takes to be new objects, or objective "facts," which are nevertheless immediately socially embedded and entangled, resulting in an unacknowledged "proliferation of hybrids down below." Thus the "paradox of the moderns," namely that "the more we forbid ourselves to conceive of hybrids [through increased specialization], the more possible their interbreeding becomes" (12).

In equating the modern Constitution's separation of the practices of purification and translation with Progress-thought, and in offering an alternative scheme based on greater attention to

hybridization, Latour participates in the discourse of discontinuity while presiding over its shift of focus toward entanglement. He answers the question "What is the connection between the modern form of temporality and the modern Constitution, which tacitly links the two asymmetries of Nature and Society and allows hybrids to proliferate underneath?" by arguing that the extension of the Nature/Society dichotomy over time results in the increasing divergence of the putatively universal, necessary, ahistorical nonhuman realm from the contingent, historical, human realm (70). In other words, "the history of the moderns," or Progress-thought, documents "the emergence of the nonhumans--the Pythagorean theorem, heliocentrism, the laws of gravity, the steam engine, Lavoisier's chemistry, Pasteur's vaccination, the atomic bomb, the computer," while dismissing "the labours and passions of humans" as so much contingent confusion. "The asymmetry between nature and culture then becomes an asymmetry between past and future. The past was the confusion of things and men; the future is what will no longer confuse them" (71).

In his latest book, *Pandora's Hope*, Latour restates this explication of the "myth of progress," and diagrams it as a horizontal left-to-right time-axis with an arrow of "efficiency," representing the realm of Nature, moving off in a northeast angle, and another arrow, "subjectivity," signifying Society, moving down

to the southeast.<sup>41</sup> Thus as time passes, and the angle formed by these two arrows, representing "Rupture," grows along the moving vertical line of the Present, or "front of modernization," it "will distinguish even more clearly the efficiency of the laws of nature from the values, rights, ethical requirements, subjectivity, and politics of the human realm." Acknowledging the cultural resilience of the image of gradualist Progress and the need for a counter-scheme (as Gould does in displacing the "ladder of Progress" with his own icon of the "copiously branching bush" in *Wonderful Life*), Latour provides an alternative figure in which "objects" and "subjects" are connected by arcs across the same arrow of time.<sup>42</sup> In this model, as time passes, the angle between objects and subjects shrinks, as they move towards each other in an ever-narrowing cone, while the arcs connecting objects and subjects (representing networks), grow increasingly longer. Latour sums up this scheme as signifying "imbroglios of humans and nonhumans on an ever increasing scale." What increases with time in Latour's model is not the false universality suggested by the growing autonomy of the nonhuman from

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<sup>41</sup>Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge: Harvard UP, 1999) 199.

<sup>42</sup>Latour adds "Until we have an alternative to the notion of progress, provisional as it may be, science warriors will always be able to attach to science studies the infamous stigma of being 'reactionary'" (201). Visible here is the recent (1990's) shift in Latour's identification of his adversary from the monolithic "technoscience" to "science warriors," or the familiar polemical scientists who consistently dichotomize Science's objectivity with what they deem to be the knee-jerk social constructionism of science studies.

the suppressed human realm, but rather heterogeneous entanglement, "the ever expanding scale at which humans and nonhumans are connected together" (201).

This call for greater attention to the work of hybridization includes an important theorization of cultural difference that again situates Latour at the intersection of discourses of discontinuity and entanglement. In *We Have Never Been Modern* Latour reasons that if "the very notion of culture is an artifact created by bracketing Nature off," we should speak not of different cultures but of different "natures-cultures," as all societies entangle both the nonhuman and human realms (104). Moving beyond the inaccurate term "cultures" and the unwieldy "natures-cultures," Latour settles on "collectives": "we now find ourselves confronting productions of natures-cultures that I am calling collectives--as different [. . .] from the society constituted by sociologists--men-among-themselves--as they are from the Nature imagined by epistemologists--things-in-themselves" (107). This reconceptualization enables and impels the discarding of both "cultural relativism," according to which all cultures are presumed equal in their common marginalization outside Nature, and the more dominant contemporary attitude of "particular universalism," in which Nature is separate from cultures but "one society--and it always the Western one--defines the general framework with respect to which the others are situated" (105). Latour calls his alternative perspective--in which "all the collectives similarly constitute natures and cultures; only the

scale of their mobilization varies"--"symmetrical anthropology."  
Just as when "we direct our attention simultaneously to the work of purification and the work of hybridization we immediately stop being wholly modern [. . .][and] stop having been modern," so collectives with smaller scales of mobilization of hybrids and networks cease to be "premodern" (and to have ever been "premodern") (11). Latour's scheme thus moves away from the inherently evaluative and ethnocentric temporal, developmental model of cultural difference toward a spatialist view of the present focused on the simultaneous copresence of collectives with different ratios and mobilizations of nonhumans and humans. In this regard it both recalls Giddens's similarly spatial understanding of cultural difference as a function of respective ratios of presence and absence (or "time-space distanciation"), and informs Hayles's recent consideration of "virtuality," another potential criterion for comparing cultures and cultural products.

Latour's and Giddens's independent models both insist that cultural difference is spatial rather than developmental; what varies is the quantity of time-space distanciation, or scale of mobilization of hybrids, not the qualitative evolutionary stage respective cultures/collectives have "reached." Hayles's *How We Became Posthuman*, by contrast, is not a work of comparative sociology/anthropology, but rather a narrative of the evolution of

"virtuality," or "how information lost its body."<sup>41</sup> Yet Hayles's evolutionary narrative emphasizes contingency over teleology, and therefore recalls Gould more than Spencer; and she concludes with an explicitly Latourian entanglement, or collective, of humans and nonhumans. Moreover, Hayles's work overlays science studies and literary criticism, and her interrelation of "embodiment" and "virtuality" helps complete the methodological vocabulary for this study's examination of contemporary American fiction.

Hayles describes her project in *How We Became Posthuman* as the telling of "three interrelated stories":

The first centers on how *information lost its body*, that is, how it came to be conceptualized as an entity separate from the material forms in which it was thought to be embedded. The second story concerns how the *cyborg* was created as a *technological artifact and cultural icon* in the years following World War II. The third, deeply implicated with the first two, is the unfolding story of how a historically specific construction called the *human* is giving away to a *different construction called the posthuman*. (2, Hayles's italics)

The first and third of these connected stories are most relevant here. Her identification of the emerging disembodiment of information, provides another generative index for comparing and contrasting collectives, namely their respective ratios of embodiment and virtuality. Though making such comparisons between different cultures is not Hayles's goal here, she emphasizes that "U.S. culture at present is in a highly heterogeneous state

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<sup>41</sup>N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: U of Chicago P, 1999) 2.

regarding the condition of virtuality," and does read contemporary fictions with an eye to their relative absorption of/by virtuality (19). Despite Hayles's sensitivity to contingency and heterogeneity her seemingly sweepingly evolutionary view that one era is being succeeded by another does appear at odds with the theorists of discontinuity, including Latour. But the relation to Latour's scheme suggested by her title's echoing of Latour's title is acknowledged explicitly on the last page of Hayles's conclusion: "Bruno Latour has argued that we have never been modern; the seriated history of cybernetics--emerging from networks at once materially real, socially regulated, and discursively constructed--suggests that we have always been posthuman" (291). The argument here is that the blurring of the boundaries between the human and the nonhuman enacted by cybernetics retrospectively demonstrates that the body itself has always been contingently entangled with the nonhuman, a move modeled after Latour's claim that we have never been modern because indeed our collectives have always entangled humans and nonhumans. The difference is Hayles's greater valuation of the historical novelty of cybernetics, while Latour gives greater weight neither to the interaction of humans with machines nor to the interaction of humans with animals or divinities.

Latour reminds us that "all collectives are different from one another in the way they divide up beings, in the properties they attribute to them, in the mobilization they consider acceptable" (107). This being the case, "no one can now categorize actors [or

texts] that belong to the 'same time' in any single coherent group" (74). He credits "the postmoderns" with recognizing this fact that "every contemporary assembly is polytemporal," but argues that they unfortunately "keep on believing in the requirement of continual novelty that modernism demanded." This familiar vanguardism continues to operate even in otherwise rewarding recent criticism. For instance, Hayles's identification of an emergently dominant "posthuman view [that] privileges informational pattern over material instantiation" leads her to argue that the shift of concern from embodiment "to pattern and randomness" is constitutively contemporary, though "the development is by no means even" in all recent texts (35). Her interest lies with "information narratives," the texts "in which the displacement is most apparent."<sup>44</sup> This subset (or subsoup) of contemporary American fiction overlaps somewhat with the "scientist fictions" of Don DeLillo and Richard Powers discussed in Chapter III.<sup>45</sup> But the present is not reducible to only its putatively most novel elements; other types of collectives/texts also deserve consideration.

In "Simultaneous Diversity" individual texts are viewed as Latourian collectives, each unique in its respective contingent commingling of the older and the newer, of humans and nonhumans, and of embodiment and virtuality, yet all mutually entangled in the

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<sup>44</sup>The result is a field much less heterogeneous and fissured than that her earlier article (Hayles, "Deciphering") had described.

<sup>45</sup>Indeed, Hayles and I both consider Powers's *Galatea 2.2*.



hotchpotch of the present. Latour argues that all collectives are similar in that they all combine humans and nonhumans, yet different in their respective scales of mobilization of these elements, "like the successive helixes of a single spiral"(107). He also suggests that the figure of the spiral replace the timeline as a way of visualizing the interrelations of heterogeneous elements of the present, such that "we do have a future and a past, but the future takes the form of a circle expanding in all directions, and the past is not surpassed but revisited, repeated, surrounded, protected, recombined, reinterpreted and reshuffled" (75). If we throw this spiral imagery directly into our hotchpotch we can imagine the critical labor of stirring as implying both the work of entanglement and the work of sorting, or both the work of hybridization and the work of purification. As clumps of diverse ingredients are added to the pot, the action of stirring breaks up these initial groups and disseminates all the ingredients throughout the stew; continued circular stirring motion, however, creates both centrifugal forces sending ripples out to the sides of the pot, and a centripetal action creating a central vortex, thus resulting in a "sorting" of heavier ingredients on the perimeter and lighter ones in the middle. Different stirring motions would create different effects.

The resulting methodology for cultural, and more narrowly, literary criticism, that this mobilization of Latour's work allows, aims to further what he terms the third and fourth "guarantees" of his "Nonmodern Constitution":

3rd guarantee: freedom is redefined as a capacity to sort the combinations of hybrids that no longer depend on a homogeneous temporal flow.

4th guarantee: the production of hybrids, by becoming explicit and collective, becomes the object of an enlarged democracy that regulates or slows down its cadence. (141)

This critical freedom to sort out collectives and/or texts independently of the pernicious developmentalism that is critiqued by all of this chapter's discourses of discontinuity yields a fluid, dynamic taxonomy of contemporary American fiction. The formations generated by the particular critical stirring motions of "Simultaneous Diversity" are contingent, inherently impermanent, and thus by no means prescriptive; I distribute nine fictions into the three formations I call catastrophist fictions, scientist fictions, and fighting fictions. Some existing contemporary American fictions not examined here might fit into these formations, while many others combine elements of more than one of these groups, and/or embody qualities suggestive of other formations altogether. Thus granting the heterogeneity of the hotchpotch, the first local vortex or helix that I examine, in Chapter II, is that represented by the catastrophist fictions of Cormac McCarthy. McCarthy's aesthetic of embodiment results in fictions that shun novelty and virtuality, emphasizing the contingent survivals of a Giddensian bounded agency against a catastrophist horizon of death and discontinuity. His fictions mobilize diverse humans with traditional nonhumans (animals, landscapes, oldish tools), while ignoring the newer nonhumans that dominate media culture, such as the media themselves,

computers, and the related phenomena of simulation or virtuality. The scientist fictions of Don DeLillo and Richard Powers that I address in Chapter III, by contrast, differently encircle a more homogeneous group of humans among a wealth of mechanical and/or virtual nonhumans, paying less attention to older nonhumans (animals, landscapes, divinities). Each of these novels, moreover, demonstrates a scientific commitment to patterning evocative of Hayles's description of information narratives and the emergence of virtuality. Chapter IV's fighting fictions of Toni Morrison, Leslie Silko, and William Vollmann all emphasize ontological conflict, and therefore, to varying degrees, represent broader mobilizations of humans and nonhumans, entangling different peoples with both "objective" and "subjective," or scientific and supernatural, nonhumans. The larger-scale mobilization of the diversity of the present these fighting fictions enact is closer to the Latourian work of hybridization that I pursue in "Simultaneous Diversity," but does not thereby accrue for these works a greater share of contemporaneity. In the slowed-down but still dynamic "enlarged democracy" of collectives, texts, and things in the hotchpotch of a nonmodern, non-vanguardist criticism, all of the innumerable ingredients of the present are indeed contemporary.

## CHAPTER II

### **Ruder Forms Survive: The Catastrophist Fictions of Cormac McCarthy**

The vivid and distinctive catastrophist fictions of Cormac McCarthy are an appropriate starting place for an exploration of the heterogeneity of the present cultural landscape. First merely obscure, then famously obscure, and now obscurely famous, McCarthy's novels are only recently beginning to receive sustained critical attention.<sup>1</sup> However, while his eight novels have all garnered admiring and occasionally hyperbolic reviews and now a sprinkling of academic articles, they remain excluded from critical overviews or other periodizing studies of contemporary American fiction. The reasons for this neglect center on the vanguardist, evolutionary bias undergirding most attempts at literary-critical periodization, according to which certain cultural texts are anointed as authentically "contemporary" based on some perceived novelty of form or currentness of content. In Hayles's *How We Became Posthuman*, for example, a bona fide contemporary novel must be an "information narrative," or one that demonstrates the "posthuman" priority of

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<sup>1</sup>The nineties have seen a small boom in McCarthy criticism (following the popular success of the National Book Award-winning *All the Pretty Horses*), bringing the total of book-length studies to five: the career-spanning monographs by Vereen Bell, *The Achievement of Cormac McCarthy* (Baton Rouge, LA: Louisiana State UP, 1988), and Robert L. Jarrett, *Cormac McCarthy* (New York: Twayne, 1997); the two critical anthologies *Perspectives on Cormac McCarthy*, edited by Edwin T. Arnold and Diane C. Luce (Jackson: UP of Mississippi, 1993) and *Sacred Violence: A Reader's Companion to Cormac McCarthy*, edited by Wade Hall and Rick Wallach (El Paso: Texas Western P, 1995); and one single-work study, John Sepich's *Notes on Blood Meridian* (Louisville, KY: Bellarmine Coll P, 1993).

virtuality, or "informational pattern over material embodiment." Hayles's decision not to consider any of McCarthy's books is entirely consistent with this narrow construction of contemporaneity, as the thoroughgoing catastrophism of McCarthy's fictions vigorously opposes Hayles's premise of a constitutively posthuman present.

McCarthy's novels emphasize discontinuity and death, doggedly insist on material embodiment, and ignore novelty and virtuality altogether.<sup>2</sup> *The Stonemason* (1994), McCarthy's lone play, is the most direct extant statement of his embodied aesthetic of temporal heterogeneity and catastrophism. McCarthy's implicit self-identification with the millennia-old but increasingly obsolete trade of the stonemason is emblematic of his own seemingly anachronistic relation to his contemporaries. The play also affirms the Giddensian themes of bounded agency and of tradition understood as ongoing decision-making by individuals rather than as social inertia or stagnancy. These themes are pursued on a much larger scale in *Suttree* (1979), wherein an anti-nostalgic post-industrial past landscape embedded with the age-old entanglement of humans and nonhumans grounds McCarthy's depiction of life as the contingent and idiosyncratic deferral of death, evoking the statistical parable of the "drunkard's walk." *Blood Meridian* (1985), a historical novel about a marauding band of scalphunters in the Old West, represents

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<sup>2</sup>Hayles's and McCarthy's copresent ontologies are thus mutually exclusive.

McCarthy's widest-scale expression of historical catastrophism, in which the only real agency belongs to death. While all three works are thoroughly catastrophist, and all evoke temporal heterogeneity in McCarthy's unmistakable prose, their respective versions of agency vary along with their clashing scales. The sequential examination of the kitchen-drama *The Stonemason's* tension between the autonomy of the individual artist and family responsibility, Suttree's picaresque focus on the adventures of an unencumbered individual, and *Blood Meridian's* deterministic dance of death, yields three significantly different ontologies. Thus McCarthy's contemporary American fictions, like those of the other writers examined in this study, are distinctive not only from the work of his contemporaries but from each other as well.

#### **1. The Naked Centenarian: The Embodied Aesthetic of *The Stonemason***

McCarthy's still-unproduced and largely ignored play *The Stonemason* (1994) is a reflexive dramatic embodiment of his aesthetic ideals; moreover, its idealization of the ancient, incontestably material trade of stonemasonry constitutes an aesthetic of embodiment. In considering the play as a contemporary American fiction, the first step is to examine the relation of this aesthetic to the play's orientation in time, its construal of the contemporary. In articulating the play's temporal orientation, or setting, McCarthy's stage notes cut directly to *The Stonemason's* broadest thematic aspirations concerning the nature of history and

the aesthetic and moral responsibilities of the artist. The setting, as the opening line of the stage notes reveals, is "an old victorian house in the black section of Louisville Kentucky in February of 1971,"<sup>3</sup> establishing a scene some twenty-odd years in "the past" which is yet as such the most recent setting of any of McCarthy's works to date.<sup>4</sup> Adding yet more temporal depth to the scene is the fact that "the principal set of the play. [. . .] is an old-fashioned kitchen from the early 1900's" (7) including both a refrigerator and a wood-burning stove. In the play, as in all McCarthy's novels, physical objects/traces from diverse times combine to invoke the heterogeneity of the present, and the relative unimportance of novelty.

The most interesting device with which McCarthy effects his characteristic temporal disjunction is the splitting of the play's main character, Ben Telfair, into both a monologist delivering speeches from behind a podium at the side of the stage in "the present" and an agent in the dramatic interaction of the play with its other characters in what the monologues frame as the represented "past." Here Ben is not simply stepping out of the play's action to deliver asides to the audience, a common enough device; rather when the actor who delivers all of Ben's lines of either sort is reading a monologue from behind the podium, a silent double of Ben takes his

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<sup>3</sup>Cormac McCarthy, *The Stonemason* (New York: Vintage, 1995) 5.

<sup>4</sup>*Cities of the Plain*, McCarthy's latest novel, ends with a jolting flash forward to the near-future.

place in the "scene," emphasizing the disconnection between the two realms. McCarthy's elaboration in the stage notes on the significance of this device merits quoting at length for the insight it offers into his handling of time and history:

The purpose [. . .] is to give distance to events and place them in a completed past. [. . .] What must be kept in mind at all times is that the performance consists of two separate presentations. One is the staged drama. The other is the monologue--or chautauqua--which Ben delivers from the podium. And [. . .] a crucial feature of the play [is] that there be no suggestion of communication between these worlds. [. . .] Above all we must resist the temptation to see the drama as something being presented by the speaker at his lectern, for to do so is to defraud the drama of its right autonomy. One could say that the play is an artifact of history to which the audience is made privy, yet if the speaker at his podium apostrophizes the figures in that history it is only as they reside in his memory. It is this which dictates the use of the podium. It locates Ben in a separate space and isolates that space from the world of the drama on stage. The speaker has an agenda which centers upon his own exoneration, his own salvation. The events which unfold on stage will not at all times support him. The audience may perhaps be also a jury.  
(5-6)

McCarthy's dramaturgy thus strives to depict simultaneous discontinuity, insisting on the dual but separate presentation of the completeness and autonomy of past events and of the subjectivity of historical narration, or the agenda of the speaker in any narrative of the past. Ben Telfair tells fairly, indeed presenting in his monologues an extended meditation on stonemasonry that elucidates much of McCarthy's own aesthetic stance, but he is neither omniscient nor disinterested. At the end of the quoted passage from the stage notes (and again at the play's end) the focus shifts from the aesthetic integrity of the individual teller to that individual's communal responsibility, and the final authority of the



audience or community in judgement of a life's works.

So who is Ben Telfair? What does he tell about stonemasonry and otherwise in the monologues? What happens in the "staged drama" and how do these two aspects relate to one another? In brief Ben is at the play's outset "a thirty-two year old black stonemason" living in the old Louisville house with his grandfather ("Papaw," the iconic 101-year-old master stonemason), his parents (Mama and Big Ben), his sister Carlotta, nephew Soldier, and wife Maven (5). Moreover Ben has given up the graduate study of psychology in order to devote himself to mastering his grandfather's trade of stonemasonry, and he is thus idealized as thinker and doer, a fully engaged laborer/artisan and family linchpin active in the "real-life" staged drama of the past, but also dramatically empowered as the play's critical consciousness and conflicted conscience via his monologues. The opening scene of the play is a long monologue from Ben at the podium juxtaposed with silent tableaux of Ben's double writing at his desk in the basement (this is generally but not always how the double is occupied during Ben's monologues) and of Papaw fixing himself tea and reading his bible in the kitchen. Before the start of the staged family drama, then, which begins in the following scene, the generative emotional relation powering the play is established; Ben's monologue begins "I always wanted to be like him," and the rest of this monologue and most of the play's subsequent monologues continue in this vein, expressing the younger stonemason's obsessive admiration of and reflection upon the elder,

Papaw, who in this opening scene is iconically silent (6).

For Ben stonemasonry represents an almost mystical trade of unparalleled historical continuity, personal experiential knowledge handed down between generations outside the realm of books and/or the regimented organization of institutions or governments. Stonemasonry is thus knowledge that resists transformation into "information," surviving only as variously embodied in the minds of its practitioners, and passed on only through person-to-person interaction. And now, since "the introduction of portland cement made it possible to build with stone and yet know nothing of masonry" (9), the trade is threatened with extinction:

The old masons would quit work if you stopped to watch them, but I dont think you could learn by watching. You couldnt learn it out of a book if there were any and there are not. Not one. We were taught. Generation by generation. For ten thousand years. Now in the memory of a single man it's been set aside as if it never existed. (26)

Ben's obsessive desire to absorb every iota of Papaw's arcane expertise, his decision to "cleave to that old man like a bride," is an extreme effort of willed continuity in the face of the discontinuity effected by modern technical "progress" (11). But his sentimental attachment is interestingly buffered by theoretical or intellectual convictions as well. Acknowledging that his idealizing of Papaw's actions and utterances seems a naive "labor theory of value," Ben nevertheless insists that stonemasonry involves more than labor and commodity production: "because the world is made of stone the mason is prey to a great conceit and to whatever extent the look and the shape of the world is the work of the mason then

that work exists outside the claims of workers and landholders alike" (31). The appeal of stonework is its solidity and presence; it not only resists virtuality, it resists what Giddens would call the "disembedding" transformation into exchangeable capital, or commodification.

In contrast to the alienated impersonal products of industrial labor, stonework (and by extension fiction-writing) is inseparable from the stonemason (or author), irreducible to an informational "pattern," and greater than the sum of its non-modular irregular parts:

I can look at a wall or the foundation of a barn and tell his work from the work of other masons even in the same structure. [. . .] The stonework out there at night in the snow and the man who laid that stone are each a form of each and forever joined. (8)

My grandfather says that you might learn how a watch is made by taking one apart [. . .]. But tearing down stonework tells you nothing. (26)

Ben sees stonemasonry not only in terms of resistance to modern commodification but also as being historically resonant with political as well as creative freedom. In addition to being McCarthy's most self-consciously intellectual character (with the exception of the satanic Judge Holden of *Blood Meridian*), Ben is also by far the most religious and is led by a vague scriptural allusion of Papaw's to discover the biblical sanction, "And if thou make me an altar of stone thou shalt not build it of hewn stone, for if thou lift thy tool upon it thou hast polluted it" (63). Ben's interpretation and historical gloss on this and other biblical

passages is that while freestone masonry "can teach you reverence of God and tolerance of your neighbor and love for your family," the same is not true of the dominated labor of "hewn stone" (64-5):

But not ashlar. Not cut stone. All trades have their origin in the domestic and their corruption in the state. Freestone masonry is the work of free men while sawing stone is the work of slaves and of course it is just those works of antiquity most admired in the history books that require nothing but time and slavery for their completion. It is a priestridden stonecraft, whether in Egypt or Peru. Or Louisville Kentucky. I'd read a great deal in the Old Testament before it occurred to me that it was among other things a handbook for revolutionaries. That what it extolls above all else is freedom. [. . .] The Semitic God was a god of the common man and that is why he'll have no hewn stones to his altar. He'll have no hewing of stone because he'll have no slavery. (65)

McCarthy presents stonemasonry through Ben's monologues as an undiluted, non-ironized good, as artisanal uniqueness versus commercial reproduction, freedom against slavery, and presence over pattern. *The Stonemason* is therefore a testament to tradition unparalleled elsewhere in McCarthy's otherwise much darker, more ambivalent oeuvre.

While the quality of unapologetic, unironic conviction that Ben's religiosity gives to *The Stonemason* is alone enough to differentiate the play interestingly from the vast majority of contemporary American literary writing, it is through the play's darker themes that one sees its connection to McCarthy's more characteristic hard-bitten works. Ben avers in his first monologue that "true masonry is not held together by cement but by gravity. [. . .] by the warp of the world" (9), and what most distinguishes McCarthy's writing is its gravity, not only its thematic ambition

but the seriousness of his often biblically or otherwise archaically cadenced prose, and the way his naturalistic ear for rural American speech gives much of his dialogue a feel of unforced exactness. And if McCarthy's confidence in the greater durability and naturalness of his verbal stones leaves him prey, like the mason, to a "great conceit" about the quality of his work compared to other prose falsely reliant on the cement of the fashionable, he has no illusions about his works' permanence, or likely continuity. Through Papaw, McCarthy describes discontinuity or transitoriness as a given:

You know that man up there aint goin to let nothin stand forever noway. Not in this world he aint. And it's against that judgement that you got to lay stone. If you goin to lay it at all. (29-30)

And it is discontinuity--the death of stonemasonry, and of Papaw, and other members of Ben's family--that the play explores and interrogates.

The persistence of social violence in the African-American experience is one unwanted continuity bridging the past described in the monologues about Papaw and in Papaw's own speeches, and the 1970's Louisville present of the staged family drama. Born only a few years after the Emancipation Proclamation, Papaw thus experiences in his lifetime the whole span of post-Civil War "freedom." He tells of his uncle Selman, also a mason, killed on the job by a white laborer (not a mason) for ostensibly drinking from the whites' waterbucket rather than that designated for the "coloreds," and how the murderer went unpunished. The greatest

conflict in the present staged drama is the disappearance at age 15 of Ben's nephew Soldier, due to his mysterious entanglement with local gang violence. Trying to find Soldier, Ben chases down and questions Jeffrey, a friend of Soldier's whom Ben believes to be associated with the gang or "club" the Nighthawks, and is told by the battle-hardened old-before-his-time Jeffrey:

They aint no more Nighthawks. Aint no more clubs. They aint shit. Just a bunch of freelancers out roguin and doin drugs. These young bloods are all strung out, man. [. . .] Fourteen year old. Twelve. [. . .] It's just brother against brother. (74)

Musing later on Soldier's nearing birthday and the sustained family pain at his continued absence Ben further invokes the idea suggested by the warlike street atmosphere Jeffrey had described of a kind of missing generation:

He would be sixteen. Will be sixteen? In what tense do you speak of those who have vanished? You don't speak of them. You are simply enslaved to them. (85)

The nickname "Soldier" (his given name is Benjamin) itself points to the metaphoric or allusive aspect of his absence, referring perhaps not only to the disproportionate number of African-American soldiers killed or otherwise lost to the Vietnam War, but also to the phenomenon of political "desaparecidos" worldwide. This theme of discontinuity via political violence is explored on a much larger scale in *Blood Meridian*; in *The Stonemason* Soldier's absence is primarily a family matter.

Soldier's absence causes and illustrates the conflict between Ben's insistence on his own aesthetic or narrative authority as

mason and teller and his ethical responsibility to his family. In the immediate wake of Soldier's disappearance Ben drives around looking for him, and questions Jeffrey and others about Soldier, trying to right things himself. He promises his sister Carlotta, Soldier's mother, that "nothing's happened," attempting to assert or retain narrative authority of real-life events, but Carlotta isn't convinced, replying, "You cant promise. You think you can fix everything. You cant" (19). Later on Ben's wife Maven, a law student and his frequent moral cross-examiner, also recognizes Ben's protective but arrogant desire to control or withhold information about Soldier from his family, getting him to admit that while he would indeed tell her, Maven, anything negative he might learn about Soldier, he would most likely not tell Carlotta. And this is borne out when in the fifth and final act, after roughly three years have passed, Ben admits in a monologue that eventually (we never know exactly when), "Soldier did come back. He came back and we met secretly and I gave him money and sent him away again" (112). In the staged drama Ben visits the now-nineteen-year-old Soldier<sup>5</sup> and in this scene and elsewhere in the last act it becomes clear that Soldier has all along been involved in criminal activities of one sort or other and that this is why Ben has opted to pay him to stay away and has not shared his knowledge of Soldier with his family.

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<sup>5</sup>This change in Soldier's age is the clearest chronological marker for the play's latter events, implying that it is by then 1974 or 75 as Soldier was fifteen going on sixteen in 1971 (perhaps extending the Vietnam analogy as the war was by the later date over).

Directly following a scene in which Ben finally admits to knowing of Soldier's survival to Maven but refuses to agree to tell Carlotta and burden her with Soldier's badness, there occurs--as if in a direct consequence of Ben's decision or judgement--a brief scene consisting of Ben returning to Soldier's hotel room with a final payoff to discover Soldier dead of a drug overdose. When Ben tells Maven of Soldier's death, part of an exchange which is the moral climax of the staged drama, she insists that Ben tell Carlotta:

BEN--How am I supposed to tell her this, Maven? How?  
MAVEN--Dont you see what you're doing? You're getting to say, Ben. And it's not up to you. [. . .] You cant judge, Ben. You cant get to say. (125)

Finally making the climactic decision to cede knowledge and/or control of events and tell the truth to Carlotta and the rest of the family, Ben calls the police (representatives of organized "society") and tells them of Soldier's whereabouts and identity, but with the consequence of permanently alienating and embittering Carlotta (who with her new husband moves away).

But the ruptures of Soldier's reappearance and death, and the consequent separation of Ben and Maven from Carlotta and her new family are only the final examples of discontinuity that adversely affect the relatively whole household with which the family drama begins. Overshadowing the positive events, which are treated in a decidedly minor key (Papaw's 102nd birthday, and the birth of a son to Ben and Maven, who like their daughter Melissa is all but absent from the play) are the deaths of Papaw and of Big Ben, which closely



follow them. The finality of these two deaths effectively dislocates the "kitchen drama" and its chronological pacing and mooring; after Big Ben's suicide brings the curtain down on Act IV and the old routines of the Telfair family in the Louisville house, the curtain opens in Act V with Ben alone in the now emptied kitchen previously identified as the "principal set of the play" (7). While all the events in the first four acts take place within roughly one year or less (Papaw is originally identified as 101 years old, and dies shortly after his 102nd birthday, and not long before Big Ben's suicide) the chronology of events in Act V is intentionally more vague and dispersed, discontinuous.

The catastrophic nature of these deaths is underlined by their brutal swiftness and brevity; a brief scene depicting the baptism of Ben's and Maven's son is immediately followed by Ben's discovery of Papaw's natural death, which, after token glimpses of reaction and mourning is followed by Big Ben's silent scene of preparation to shoot himself, which he then does offstage. Papaw's death is of course for his family and especially Ben the end of a treasured continuity, but an inevitable, natural end. Big Ben's suicide, by contrast, is portrayed as the violent end of a flawed man, a generational "weak link" who had been primarily responsible for the financial and administrative operations of the family stonemasonry business, and who through some sort of speculations and/or mismanagement had incurred huge debts. Big Ben's adultery and decision to hide the truth of his financial predicament from Mama,

Ben's mother, is a darker manifestation of the controlling impulse Ben struggles with in his generally more open treatment of the facts about Soldier with Maven and Carlotta. After the deaths of Papaw and Big Ben the family is depleted and literally displaced, the last act taking place in new settings.

The last act of *The Stonemason* opens with an image of realized rupture, the kitchen, the symbolic family space that had been central to the telling/enacting of the family's story, now empty, evacuated. Ben's double enters and walks into what had been Big Ben's bedroom, while from behind the podium Ben discourses on discontinuity:

The big elm tree died. The old dog died. Things that you can touch go away forever. I dont know what that means. I dont know what it means that things exist and then exist no more. Trees. Dogs. People. [. . .] The world was before man and it will be again when he is gone. (104-5)

Here even in his smallest-scale, most personal work, his lone kitchen-drama among novels, McCarthy insists on entangling his human drama with the nonhuman, impersonal time scales of astronomy and paleontology, invoking the physical world before, after and beside its human aspect, and shunning the narrow obsession with the newness of nowness so characteristic of much media culture.

But if Ben's monologues infuse the play with some of McCarthy's characteristic philosophical distance, or impersonality, Ben's concurrent engagement in the family drama and his reflections upon family ties also allow an interrogation of the ethical costs of such aspirations to intellectual or aesthetic autonomy. Burdened by

the "weight of the dead," by the natural death of Papaw, the unnatural but inevitable death of Big Ben, and most acutely by the possibly preventable death of Soldier, Ben confesses to having failed: "I lost my way. I'd thought by my labors to stand outside that true bend of gravity which is the world's pain" (111). The tension at the heart of the play between the striving for authentic selfhood or individuality, via the aesthetic integrity of one's creative "labors," and the moral weight or gravity of communal responsibility, is perfectly distilled in Ben's recounted premonitory dream of a traditional christian judgement day. In the dream Ben stands confidently to judgement with his "jobbook," emblem of his true labors, "in the full folly of my own righteousness," only to find that the book's pages crumble away leaving him to empty-handedly face the divine admonition "where are the others?" (112,113). But as Ben says, the dream went unheeded, and his decision to pay Soldier to stay away, to excise the flawed agent from the family rather than allowing Carlotta and the rest of the family to try to help him, leads in part to Soldier's death, and the subsequent further dissolution of the family. The actual end of the family drama comes when, after Soldier's funeral, Carlotta moves away, unable fully to forgive Ben, fragmenting the remains of the family with which the play began.

*The Stonemason* is a contemporary work unconcerned with defining the contemporary, or capturing/expressing cultural currentness. It takes the form of an "artifact of history" set, like

all of McCarthy's fiction, in a completed past, and juxtaposed with a narrated meditation on that past (Ben's monologues) which takes place in an unspecified "present." The past settings of McCarthy's works are anti-nostalgic; they are not lost paradises recalled for some intrinsic superiority to the present-days in which they were written. As the excerpted passage from the play's stage-notes shows, McCarthy writes about the past for its pastness, its completedness, for the "distance" of that which is not. Artifacts, or other traces of the past, remain, but are isolated, strange, estranged from their context; history, or the attempt to order these traces, to restore wholeness and continuity which was never there to begin with to that which is gone, is fraught with the agendas of the "present," which is itself unstable. McCarthy's principal subject is time, and its inexorable but heterogeneous motions, its moil and roil of local continuities and discontinuities. In *The Stonemason* as elsewhere in his work discontinuity is above all figured by death: the deaths of individuals; the swelling and fragmenting of families; the dying out of even the most long-lived human practices, such as stonemasonry. In spite of or in opposition to death are idiosyncratic continuities, odd persistences; life, either as manifested by unthinking animal instinct or sentient human agency or the two entangled.

The striking final image of *The Stonemason* is one such improbable willed continuity, and the literal embodiment of McCarthy's material aesthetic. As Ben's double stands in the

cemetery where Big Ben and Papaw are presumably interred, "Papaw materializes out of the fog upstage just at the edge of the headstones. He is naked" (132). And as the audience is confronted with the presence of Papaw, Ben from his podium recalls or recreates the scene:

He came out of the darkness and at that moment everything seemed revealed to me and I could almost touch him I could almost touch his old black head and he was naked and I could see the corded muscles in his shoulders that the stone had put there and the sinews and the veins in his forearms and his small belly and his thin old man's shanks and his slender polished shins [. . .].

Here as always McCarthy's language evokes the physical and the specific; but not as a naive "realism" attempting to represent what is but rather as an evocation against discontinuity of what is not, what is past, dead. In embracing stonemasonry and revering the example of Papaw, the "guidance" of "dead kin," Ben is attempting to will into being a form of social continuity, through the pursuit of traditional practices and traditional knowledge (133). Thus tradition, as it is advocated here more strongly than anywhere else in McCarthy's work, is not the maintenance of an inertial status quo or the impersonal operation of ideological state apparatuses but rather operates if at all contingently and fragilely via the daily choices of individuals such as Ben Telfair. For McCarthy discontinuity is the ground(lessness) of reality against which human agents can trace small continuities in their choice of everyday action, living against death, making the world "in the very maelstrom of its undoing." This is tradition envisioned as

idiosyncrasy, brazenness, McCarthy thrusting before a contemporary American audience drenched in the celebration of novelty and youth a naked centenarian laborer as exemplar.

## 2. *Suttree* and the Drunkard's Walk

If *The Stonemason* is ultimately more of a fleshed-out statement of aesthetic purpose than a fully realized drama, most valuable as an introduction to McCarthy's fictional universe, *Suttree* is the most massive and profuse world therein. As the text of *The Stonemason* begins with detailed stage-notes explaining the play's orientation in time with the expansiveness of a novel, the earlier work *Suttree* features a vivid, densely imaged stage-setting prologue that concludes with a startling curtain-raising upon a scene of death and scuttling survival:

A curtain is rising on the western world. A fine rain of soot, dead beetles, anonymous small bones. The audience sits webbed in dust. Within the gutted sockets of the interlocutor's skull a spider sleeps and the jointed ruins of the hanged fool dangle from the flies, bone pendulum in motley. Fourfooted shapes go to and fro over the boards. Ruder forms survive.<sup>6</sup>

The time and place the prologue describes but does not identify turn out to be the city and environs of Knoxville, Tennessee circa 1951. But temporal specificity is rendered almost moot by McCarthy's literal landscape of clashing time scales; the prologue evokes not a nostalgic but a practically post-apocalyptic, certainly post-industrial past. The western theater of Progress lies abandoned,

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<sup>6</sup>Cormac McCarthy, *Suttree* (New York: Vintage, 1986) 5.

strewn with the remains of the putatively highest-evolved species that constructed it, while hardier, "ruder forms survive."

McCarthy's fictions all aspire to such rude vigorous unfashionable survival, and *Suttree* in particular centers upon the finite but contingent and unpredictable deferral of death, enacting a careening drunkard's walk through a catastrophist landscape of clashing times.

The prologue's opening words--"Dear friend now in the dusty clockless hours of the town"--epitomize the time-drenched yet chronologically amorphous "dusty clockless" landscape of the novel, combining the archaic direct address to the "friendly" reader with the insistent "now" which yet proves to be a palimpsest of different ages (3). The reader's panoramic overview begins with "old stone walls unplumbed by weathers, lodged in their striae fossil bones, limestone scarabs rucked in the floor of this once inland sea," an evocation of several entangled time scales, the oldest of which is the pre-human geological history still etched in the landscape. The prologue teems with temporal signifiers, presented as a profusion rather than a sequence, but the next-oldest time scale McCarthy dwells on here is that of the first European pioneers and settlers to appear along the banks of the river:

Where hunters and woodcutters once slept in their boots by the dying light of their thousand fires and went on, old teutonic forebears with eyes incandesced by the visionary light of a massive rapacity, wave on wave of the violent and insane, their brains stoked with spoorless analogues of all that was, lean aryans with their abrogate semitic chapbook reenacting the dramas and parables therein [. . .].(4)

This passage, a neat adumbration of the subject of McCarthy's

subsequent novel, *Blood Meridian*, resonates with the temporal depths or willed reenactments implicit in the typological schemes of the settlers, here deemed "spoorless analogues" or fanciful, arbitrary historical continuities. So, then, beyond the eras depicted in the Old Testament, the pioneers' "semitic chapbook," and those of the exploration and settlement of North America, is the more recent time frame(s) of the "mongrel architecture" of "this city constructed on no known paradigm" (3). This more recent history of the city is embodied in the "curious marble architecture" and bone- and rag-packed earth of the cemetery, in trolley tracks and a railway and abandoned buildings and most importantly in waste, the "wreck of cratewood and condoms and fruitrinds [and] Old tins and jars and household artifacts" along the river. In these blasted outskirts of Knoxville the signifiers of technological progress are themselves overcome by time and nature, hence "blownout autos" and "a steamshovel reared in solitary abandonment against the night sky," "lamps stoned blind," and "pavings rent with ruin."

Importantly, though, "ruder forms survive": weeds, "fourfooted shapes," and representatives of ineradicable age-old species such as the "spoonbill catfish, relict of devonian seas" (355) or the "long cataphracted forms of gars [. . .] [those] heavy shapes of primitive rapacity" that appear later in the novel (121). Here the temporal depth is compounded by McCarthy's allusion to ancient human armor ("cataphracted") and the connection between the mindless "rapacity" of the gars and that of the pioneers, whose "relict" descendants,



mad ranting preachers and drunken baptizers, still prowl the novel's pages. Suttree's discourse of discontinuity, from its prologue onward, details a hyper-real "world beyond all fantasy, malevolent and tactile and dissociate," a landscape of death and decay where ruder forms (whether stonework, animals or people) survive, and more refined, advanced or evolved forms (in a Spencerian sense) die out or rust (4). In the pre-dawn setting of the prologue discontinuity and death personified await--"the city beset by a thing unknown and will it come from forest or sea?"--and yet in "these alien reaches," the outskirts and slums of Knoxville where the novel will linger and circle stubborn life persists, "illshapen or black or deranged, fugitive of all order."

The novel proper begins by introducing its protagonist, (Cornelius) Suttree, at work, as a solitary fisherman rowing his skiff and running his lines in the "grimy," "viscid" urban river, catching carp and catfish out of the "murk" between the river's surface of "gouts of sewage [. . .], gray clots of nameless waste and yellow condoms" and the "thick muck shot with broken glass, with bones and rusted tins" at the river's bottom (7,8). Suttree's chosen trade is older even than stonemasonry, but he fishes not in the open sea nor in clear mountain streams or other settings signifying "nature"<sup>7</sup> but rather amid urban waste in a thoroughly hybrid

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<sup>7</sup>As for example do the protagonists of Hemingway's (McCarthy's most notable modern American precursor as a novelist of masculinist "action") *The Old Man and the Sea*, and *The Sun Also Rises*, respectively.

environment entangling the human and nonhuman. When Suttree first speaks in the novel it is to an acquaintance named Joe who asks "are you still fishin?", and given the polluted waters and post-Hiroshima time-frame the reader may add "after fission?" (10). Furthermore, the occasion of Suttree's encounter with Joe is the dragging of a suicide out of the river that they have both stopped to watch, a death anticipated by the presence in the pre-dawn prologue of the menacing "thing unknown." The suicide, who had jumped from a bridge clad in his "seersucker suit and his lemoncolored socks" is in dress and apparently in temperament the less hardy more "civilized" type of person who is survived by ruder types like Suttree (40). He is also likely an allusion to Faulkner's self-involved time-obsessed suicide Quentin Compson, who had tried to stop time by smashing the face of his watch, as Suttree notices that "the dead man's watch was still running," McCarthy seeming to emphasize that though Quentin's over-wrought consciousness has indeed been extinguished (leaving only more river detritus) time and the material world persist (10). Suttree's character is further delineated in contrast to the suicide's by his smiling dismissal of Joe's suggestion that he pursue an available position at Miller's, where "they needed somebody in men's shoes," as earlier on the same page it is said that the suicide's shoes were found on the bridge. Not only does Suttree find the idea of a retail sales job to be emasculating and unfulfilling, but there is also the joky implication that it could be the suicide's shoes (or now-available job) into which he would be

stepping. Like Ben Telfair, Suttree has been to college but has foresworn formal education for a more traditional (or obsolescent) trade; unlike Ben Telfair, but like most of McCarthy's other protagonists, Suttree is an outsider, not only working but living alone on the river, in a houseboat.

Indeed, if Suttree as the "still fishin" unencumbered white male adventurer/wanderer is a more typical McCarthy protagonist than is Ben Telfair the black family man, he is as such more consonant with the strain of "classic American literature" that are famously (white) "boys' books", in part, such as much of Cooper, Melville, Twain, and Hemingway. But the issue of individual freedom vs communal responsibility or solidarity that *The Stonemason* examines later is also a conscious concern of McCarthy's in *Suttree*. Alienated from his relatively well-off parents, and having previously abandoned under undisclosed circumstances his wife and child, Suttree has none of Telfair's family feeling. In contrast to Ben's awed admiration and emulation of his centenarian grandfather Papaw, Suttree "confronting figures out of his genealogy" in a photo album belonging to his aunt Martha is distant and analytic (126), and cold family memories and mementos become testament to discontinuity, to the foreignness of his own forebears and past:

The old musty album with its foxed and crumbling paper seemed to reek of the vault, turning up one by one these dead faces with their wan and loveless gaze out toward the spinning world, masks of incertitude before the cold glass eye of the camera or recoiling before this celluloid immortality or faces simply staggered into gaga by the sheer velocity of time. Old distaff kin coughed up out of the vortex, thin and cracked and macled and a bit redundant. (129)

Suttree's rapport with his aunt during this brief unannounced visit to her home, her only appearance in the novel, represents the warmest family encounter he has in the book, and even so he can't be convinced to stay for a meal. For Suttree family ties signify the taint of pastness and irredeemable past failures; the reader only learns that Suttree had started his own family when Suttree hears of his son's death. Travelling to the funeral he is unable to call up an image of the child's face, and when he approaches the house of his abandoned wife he is literally fought off by her enraged parents. McCarthy emphasizes Suttree's remorse, but with the grotesque skirmish scene with his in-laws seems to forestall any possibility of reconciliation; Suttree's irresponsibility or insistence on his own autonomy is here presented as his greatest flaw.

McCarthy highlights this failing by inverting his otherwise consistent characterization of Suttree as sympathetic if never quite heroic and of policemen as oppressors and even agents of Death, presenting the sheriff of the small town where Suttree's wife lives as fair and reasonable, escorting Suttree out of his town with five dollars for bus fare and the words:

You, my good buddy, are a fourteen carat gold plated son of a bitch. That's what your problem is. And that being your problem, there's not a whole lot of people in sympathy with you. Or with your problem. Now I'm goin to do you a favor. Against my better judgment. And it's not goin to make me no friends. I'm goin to drive your stinkin ass to the bus station and give you an opportunity to get out of here. (156)

Suttree's "problem," his alienation from his family and general

preference for solitariness and autonomy, is presented as a fait accompli, as exposition rather than, as in *The Stonemason*, the central dramatic conflict. Suttree has virtually no contact with his parents, is terse with aunts and uncles, has failed his dead son and is hated by his (ex?)wife and her family, and this disconnection is treated as a given.

Simple survival, or self-perpetuation, is the main challenge faced by Suttree and his fellow "derelicts," and the novel's narrative energies are generally focused on this ongoing external, physical struggle rather than on resolving Suttree's psychic or "personal" problems. As fishermen or foragers the fortunes of Suttree and his transient friends are largely seasonal, and the novel's seeming plotlessness derives in part from its depiction of lives still subject to the seasonal rhythms and ultimate contingency of the weather, "uninsured" lives existing on the fringes and in the cracks of the modern urban "built" environment. The odd outdoor domesticity Suttree finds himself part of during the summer he works and lives with the Reese family at their isolated mussel camp, grueling labor which throws Suttree together with Wanda Reese in his first depicted romantic episode, literally comes crashing down. McCarthy's thoroughgoing catastrophism is never more evident than in his use here of natural calamity, namely a landslide caused in part by weeks of rain bringing a collapsed wall of slate down onto the Reese's camp, killing Wanda, to sever one longish narrative sequence and "free" Suttree for more disconnected picaresque experiences.

Here then the threat of encroaching domesticity is foreclosed by natural disaster.

But domesticity again rears its ugly head in the winter of the same year (1953), when Suttree temporarily leaves his houseboat to rent a room in town to better ride out the cold weather, and ends up staying there and in hotels through the following summer after meeting a hustler named Joyce and living mostly off the proceeds of her prostitution trips. This interlude of sex, conspicuous consumption and idle comfort is a kind of setpiece travesty of domestic fiction and domesticity itself, with which neither McCarthy nor his protagonist are comfortable; when seeing Joyce off on one of her trips Suttree is conscious of the scene's conventionality, "smiling to himself at this emulation of some domestic trial or lovers parted by fate and will they meet again?" (397). And as Suttree tires of indoor idleness and the shallow information pools of media culture, "reading the paper mindlessly and listening to the radio with its inane announcements," and the relationship deteriorates, McCarthy hurries the couple toward the inevitable breakup with the summary lines "follow now days of drunkenness and small drama, of cheap tears and recrimination and half-so testaments of love renewed" (404,405). An argument flares up between them when they're out driving in the expensive car her earnings enabled them to buy, and Suttree walks off, back once more to his houseboat and his fishing.

Although's Suttree's distaste for the encumbrances of family

ties and domesticity correctly identifies him as a contemporary incarnation of masculinist "rugged individualism" and self-determination, he is not simply an anti-social wanderer/adventurer. Throughout the five years the novel covers (1950-1955), despite occasional trips out of the area and time in jails and workhouses and convalescences away from his houseboat on the river, Suttree's life centers on the houseboat and his circle of friends in and around the slum of McAnally Flats, on the outskirts of Knoxville. Indeed when Suttree gets restless enough to pull his fishing lines one late fall and travel to Gatlinburg, where he hikes into the mountains eventually leaving both roads and trails to wander in the wilderness, the utter solitude drives him temporarily insane. Suttree's ramble in the mountain woods represent his furthest advance into "nature," yet the landscape he encounters, like the grimy industrial Tennessee River on which he lives, is always already etched with human history and waste: he passes "the ruins of a CCC camp" (the post-New [Deal]), a children's cemetery, and riverbanks dotted with sewage (285). Here again McCarthy's insistently material imagination evokes a Latourian environment in which the human and nonhuman are inextricably entangled.

As Suttree goes further into the mountains, losing track of time as "his beard grew long and his clothes fell from him like the leaves," his identity or selfhood starts to dissolve; "he scarce could tell where his being ended or the world began nor did he care" (286). But this experience of near-transcendental perception,

recalling the rhapsody of Emerson's "transparent eyeball," is shown to be "a madman's clarity," allowing not blissful openness to nature but rather the grotesque universalization of the detritus of a particular imagination (287). In the profoundest solitude Suttree begins to feel that he is "accompanied," even spying an "elvish apparition" (285), and later in a storm he becomes awash in disordered hallucinations:

in the rain and lightning came a troupe of squalid merrymakers bearing a caged wivern on shoulderpoles and other alchemical game, chimeras and cacodemons skewered up on boarspears and a pharmacopeia of hellish condiments adorning a trestle and toted by trolls with an eldern gnome for guidon [. . .]. A mesosaur followed above on a string like a fourlegged garfish heliumfilled. [. . .] Nemoral halfworld inhabitants, figures in buffoon's motley, a gross and blueblack foetus clopping along in brogues and toga. (287-88)

Suttree's jaunt in the woods thus brings not only the pleasures of outdoor exploration familiar to many an American literary adventurer but also an intolerable aloneness that necessitates the compensatory company of madness. The riff of archaisms quoted above suggests that the primal encounter with nature yields not what is, some final Truth or Reality, but rather what is not, mythical monsters of the imagination. Though Suttree seems to enjoy his weeks of dizzy ego-discontinuity and McCarthy the opportunity for a magical realist flourish<sup>3</sup>, the episode serves to ironize and distance the pastoral

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<sup>3</sup>Indeed these apparitions in Suttree and that of Papaw at the conclusion of *The Stonemason* indicate that both of these predominantly materialist texts, or collectives, include in their entanglement of humans and nonhumans a small dash of the supernatural (the inverse of *Beloved's* normative supernaturalism and hidden "objective" ontology--see Chapter IV).



idyll ideal as ultimately untenable. When Suttree encounters a hunter (who identifies Suttree as "beyond the bend in a queer road," as odd as a "yankee or somethin") and gradually accepts him as actual and not another apparition, he partly regains his self-awareness, becoming conscious of his own rags, inch-long beard and matted hair, and he receives directions back to human society (289).

The human society with which the novel is principally involved is that identified in the prologue as the "world within the world" of outcasts and fugitives that inhabit McAnally Flats. These are the marginalized figures excluded from any definition of the contemporary, outside of any evolutionary reproductive economy; such figures may appear in some of the fictions by other writers examined in this study, but only in McCarthy's novels do they take center stage. Within this world is a loose but energetically maintained community including both groups of drunks and individual isolatos and hermits that is realized via a circular trajectory of reciprocated visits and kindnesses. After a brief transitional "halfmad" phase as he returns home from his wilderness unsettling and is unable to chew or swallow once familiar diner food or communicate with the people he encounters, Suttree convalesces in a McAnally Flats rented room (290). It is when he is visited there by one of his cronies, Blind Richard, that he is reintegrated into this community of pariahs which in the novel signifies health, and the all-important indicator of this reintegration is Suttree's casually dropped conventional conversational closer to Richard, "come back"

(297).

Much more than simply a common Southern farewell, the phrase "come back" is ritually reiterated in the novel as emblem of willed continuity, of the contingent community consisting only of reciprocal visits between dispersed, weather-beaten, police-hunted and death-haunted individuals against a background of discontinuity. This pattern is established on the day with which the novel opens, as Suttree goes about his routine errands, beginning with a mutual wave between Suttree on his skiff and some "old blacks" who live near the riverbanks, and with his visit (after seeing the suicide dragged out of the river) to an "old ragpicker" living underneath the bridge bearing the gift of a catfish. After a typically brief but friendly visit including a mutual resolution against following the example of the suicide, and thus as if warding off death, the ragpicker utters the novel's first "come back" (12). Further iterations and near variants of "come back" occur from a waitress in a diner, from Mr. Turner the fishmonger to whom Suttree regularly sells some of his catch, from Daddy Watson the railroader, from Suttree's friend and neighbor Ab Jones, from his Aunt Martha, and from Suttree to his fellow fisherman Michael.

Particularly notable among these cyclical encounters are Suttree's repeated visits to the ragpicker and the reciprocal visits of Suttree and Daddy Watson, during which the talk returns again and again to the subject of death. The railroader hails Suttree in their first depicted exchange with "well, you still alive" and "I allowed

ye'd gone under" (as Suttree had been away, in jail) (87). Suttree later visits the railroader in his abandoned caboose home during bitter winter cold, half-joking, "thought I'd better check on you to see were you still living" and Watson soon reciprocates, tapping on the door of Suttree's freezing houseboat with the cry "ain't dead in there are ye?" (180, 192). Suttree's summer with the Reeses takes him away from these friends and routines, and when he returns from this wrong turn after Wanda's sudden death, significantly "a man with no plans for going back the way he'd come," he is unable to find the railroader or find out where he's gone (363). He does find the ragpicker at home under the bridge, and asks him about their mutual friend the railroader, getting only vague suggestions that the latter may have died or been taken by the police (later Suttree is surprised to see him in the same asylum as his aunt Alice). The following year when Suttree returns to his houseboat after the time away spent with Joyce, he finds the ragpicker dead in his junk-littered shelter beneath the bridge and addresses the corpse with anger: "you have no right to represent people this way [. . .]. A man is all men. You have no right to your wretchedness" (422).

Suttree's mix of anger and guilt reflects his conviction of the dual responsibility of individuals to themselves and to others. Both the railroader's disappearance and the death of the ragpicker occur significantly when Suttree is temporarily away, out of the circulation of this largely homosocial community of mutual aid and involved in (relatively) prolonged heterosexual relationships, and

Suttree feels remorse at this negligence. At the same time Suttree is an individualist, willing to help out friends but incapable of parental or other serious commitment to another's wellbeing, and believes that part of one's social responsibility is to account well for oneself, to survive (and preferably retain or recover one's sanity), for "a man is all men." "Come back" expresses the desire for continuity and community, but also the awareness of the dependence of these things upon the individual will of the addressee (who may choose not to come back, as with Suttree's absences) and upon contingency (which may prevent any such return, as has the ragpicker's death and the railroader's commitment to an asylum).

This entanglement of will and contingency characterizes Suttree's engagement with Giddensian bounded agency on a much larger and starker scale than that of *The Stonemason's* conflict of individual autonomy and family responsibility. Despite the fragile solidarity of the novel's racially mixed, marginalized "come back" community of criminals, hermits, dropouts, and working poor, Suttree is principally interested in the individual's existential struggle against death. Suttree himself is the exemplary agent, and his experiences are entangled with and counterpointed by his comic foil, the novel's shadow protagonist, Gene Harrogate. Upon his release from the workhouse where he had first met Suttree, the awkward teenager Harrogate appears at Suttree's houseboat clownishly appareled in a shirt "fashioned from an enormous pair of striped drawers, his neck stuck through the ripped seam of the crotch, his

arms hanging from the capacious legholes like sticks" and "a pair of outsize pastrycook's trousers" (114). The line "Gene, said Suttree, what are your plans?" expresses not only Suttree's concerned bewilderment at Harrogate's feckless vulnerability, but also puns on Harrogate's paradoxical yet very human status as both the product of inscrutable genetic coding and a lively agent with unpredictable intentions (115). Indeed all of the name Gene Harrogate has metaphoric resonance, as the surname compresses "harrow" and "arrogate" or "arrogant," evoking a clash between the harrying, lacerating rake of external environmental forces and the perversely proud and grasping will of the individual. Taken together "Gene Harrogate" depicts human being as the commingling not only of genetics and environment, or nature and nurture, but also of brazen will. And to a greater extent than anyone else in the novel, Harrogate does have "plans," from finding his own "slick place" under a nearby viaduct to schemes for hunting pigeons and pigs for food, for killing bats for bounty, for robbing payphones and for tunnelling into bank vaults.

Unfailingly ambitious but always comically doomed to failure or trouble (as when he enters the caves beneath Knoxville hoping to dynamite his way into a bank vault, and ends up "engulfed" in sewage) and last seen on a train to prison after being caught at his first robbery, Harrogate is both a resilient agent and the novel's fated whipping boy (270). This latter notion is underscored in his reminiscence, "worst thing I ever did was to burn down old lady

Arwood's house," for which "I never got such a whipping in my life. The old man like to of killed me" (144, 145). Harrogate's childhood beating for a willfully criminal act not only foretells his future but echoes the opening scene of Richard Wright's *Black Boy*, in which the author describes his four-year-old self setting fire to his own house and being "lashed so hard and long that I lost consciousness."<sup>3</sup> There is an intentional irony in the racial undertones of Harrogate's characterization as "whipping boy," as he is a wholly destitute and ignorant "poor white" who nevertheless believes himself superior to his black neighbors and yet ironically depends on the hospitality of the black hogfarmer Rufus Wiley to survive the cold winter.

The entanglement of race with the question of agency in *Suttree* is not limited to the comic and incompetent irrepressible minstrel-like agent Harrogate, but embraces the novel's entire community of castoffs from Progress. The tendency of Progress thought to conceive of racial and cultural difference as developmental, and demonstrative of Spencerian "survival of the fittest", has historically consigned non-white peoples and all the poor to the margins of the narrative of the present. In opposing this pernicious tradition McCarthy focuses in *Suttree* exclusively on such marginal people, and thus situates his construction of agency within a hybridized discourse of race. In contrast to the African-

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<sup>3</sup>Richard Wright, *Black Boy (American Hunger)* (New York: Harper, 1993) 7.

American cast of characters in his later work *The Stonemason*, McCarthy's principal agents in *Suttree*, *Suttree* and *Harrogate*, are whites whose characterizations are invested with contrasting American myths of "blackness." The comically star-crossed agency represented by *Harrogate*'s minstrelsy is countered by *Suttree*'s aura of cool competence, which in turn is fed by his association with the anti-establishment struggles of his non-white friends. *Suttree*'s most accomplished peer in the novel is his neighbor Ab Jones, the owner of a floating tavern, and significantly the possessor of a "scarred black face" (202) with "stories of the days and nights writ there, the scars, the teeth, the ear betruncheoned" from numerous skirmishes with the police and others (108). A close second in *Suttree*'s regard is Michael, the expert fisherman and "Indian" who appears on the river and easily outfishes *Suttree*, and with whom he shares a turtle stew and anti-police sentiments. As *Suttree*'s presence in *McAnally Flats* is in a way "slumming," as he is a college-educated dropout, his involvement with the more urgent struggles of Ab Jones and Michael with the police is a pursuit of anti-establishment existential glamor reflexively acknowledging McCarthy's own authorial subject-position.

But the specter of social injustice embodied in the novel by the police is only one aspect of the discontinuity with which all agents, however socially situated, are faced--namely death. In *Suttree* catastrophism is enunciated at the scale of evolutionary history--"life does not come slowly. It rises in one massive

mutation and all is changed utterly and forever"--and in the smaller scales of the sudden death of Wanda Reese by landslide and the razing of McAnally Flats for the construction of an expressway with which the novel ends (459). Individual lives such as Suttree's or Harrogate's proceed without "plots," reflecting varying degrees of willed agency but all subject to external contingency and the temporal irreversibility policed by the inevitability of death. Life in Suttree, quite literally for many of the novel's characters, is an occasionally charmed but eventually doomed "drunkard's walk," as in the traditional statistical parable of the same name here explained by Stephen Jay Gould:

A man staggers out of a bar dead drunk. He stands on the sidewalk in front of the bar, with the wall of the bar on one side and the gutter on the other. If he reaches the gutter, he falls down into a stupor and the sequence ends. [. . .] for simplicity's sake--since this an abstract model and not the real world--we will say that the drunkard staggers in a single line only, either toward the wall or toward the gutter. [. . .] Where will the drunkard end up if we let him stagger long enough and entirely at random? He will finish in the gutter--absolutely every time, and for the following reason: Each stagger goes in either direction with 50 percent probability. The bar wall at one side is a "reflecting boundary." If the drunkard hits the wall, he just stays there until a subsequent stagger propels him in the other direction. In other words, only one direction of movement remains open for continuous advance--toward the gutter.<sup>12</sup>

Gould uses the paradigm to demonstrate how the presumed "progressive" directionality of evolutionary history can in fact be explained by way of random motion, buttressing his own neo-catastrophist discourse of discontinuity. The resonance of the

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<sup>12</sup>Stephen Jay Gould, *Full House: The Spread of Excellence from Plato to Darwin* (New York: Harmony, 1996) 149-50.



scenario to the less abstract world of Suttree here suggested is simpler; the gutter which unpredictably but inevitably awaits all the novel's staggering drunks, where "the sequence ends," is death.

The drunken stagger motif returns over and over in the novel, beginning with Suttree's first drinking binge with friends J-Bone, Blind Richard, Callahan, and others, during which scene "a drunk had taken the floor [. . .]. In a daring pirouette, vacanteyed and face agrin, he overlisted and careered sideways and crashed among a table of drinkers" (77). And whereafter Suttree himself wakes in a garbage dump after dreaming of his dead twin, and stumbles around hungover until arrested by the police. On a later outing with the same crew, Suttree becomes enmeshed in a alcohol-stoked roadhouse free-for-all and is nearly killed by a blow from a floor-buffer. Suttree's insanity-inducing ramble in the deep woods also functions as another drunken stagger, as does his hallucinatory, near fatal bout with typhoid fever near the book's end. In the latter sequence, as Suttree struggles against death he dreams or hallucinates that he is on trial (for his life), imagining the following exchange:

Mr Suttree it is our understanding that [. . .] contrary to conduct befitting a person of your station you betook yourself to various low places within the shire of McAnally and there did squander several ensuing years in the company of thieves, derelicts, miscreants, pariahs, poltroons, spalpeens, curmudgeons, [. . .] sots and arch-sots, lobcocks, smellsmocks, runagates, rakes, and other assorted and felonious debauchees. I was drunk, cried Suttree. (457)

Later in the sequence after Suttree regains consciousness in his hospital bed he is asked by a Catholic priest if he'd like to confess, and he answers, again comically but tellingly, "I did it"

(461). Together, the inquiries of the imagined judicial questioner and actual priest represent the normative mores of the society and institutions Suttree has willfully forsaken, and his responses dismiss these mores while finally averring a real but bounded agency (and responsibility).

To Suttree all the crimes and other breaches of conventional morality suggested by the dream-magistrate's list are moot; the universal enemy is death, and the consequent over-riding (moral) responsibility of every individual is to survive, to live as long as possible before the inevitable end and also to assist others to do so. Drunkenness is problematic then only inasmuch as it diminishes agency and leaves the drinker's life increasingly vulnerable to contingency and more reliant on the aid of others; Suttree's binges with his "bad crowd" lead to his only narrowly and luckily escaping death more than once (87). But death, personified in the prologue, is insinuated throughout the novel, including: the suicide dredged out of the river at the story's outset; Suttree's musing on his stillborn twin, and other long-dead relatives; the death of Suttree's son; Wanda Reese's violent death; the ragpicker's death by exposure, for which Suttree remonstrates his corpse; Suttree's reluctant participation in his acquaintance Leonard's efforts to dispose of Leonard's father's corpse; Callahan's death by gunshot; Ab Jones's fatal beating by the police; and the anonymous corpse which Suttree finds in his bed when he returns to his houseboat a final time. Suttree's obsession with death (topped by only *Blood*

*Meridian* among the fictions examined in this study, and there less affecting as involving less developed characters) is inherently disruptive of Progress thought. Corpses belie virtuality. The anonymous corpses of the suicide at the novel's opening and that found in Suttree's houseboat at the novel's end, along with the persistently disturbing corpse of Leonard's father, which resurfaces despite having been dumped in the river weighted with chains, serve to embody the world's inescapable materiality.

But the suicides and to a lesser extent also the ragpicker, who though surviving until an old age is felt by Suttree to have ultimately given up, looking "as if he had forced himself to death," exemplify agents who have failed to uphold the novel's code of resistance to death (421). The deaths of Wanda Reese and Suttree's son are by contrast deaths that evidence human powerlessness before natural contingency, but the latter death also represents Suttree's greatest failure, due to his abandonment of his family and abdication of parental responsibility for his son's life. The violent deaths of Callahan and Ab Jones are both unsurprising, as in keeping with their combative natures, but while Callahan is shot dead in the act of denying a robbery he has in fact just committed, Ab Jones dies as a result of resisting police harassment and brutality. Suttree is assisting Ab Jones home one night when they are met by two policemen; Jones runs off to avoid arrest and is ultimately cornered, and in a "bloody dumbshow" he is given a beating by the two officers that proves fatal (422). Left alone in

the alley after the police pursue Jones on foot, Suttree suddenly indulges in his greatest (though ultimately only symbolic as it does not save Jones) act of resistance or civil disobedience, stealing the policemen's cruiser and wiring it to accelerate driverless over the river's edge and sink out of sight in the river. This act makes Suttree himself a fugitive, forcing him to leave the houseboat and lay low in the cheap hotel where he eventually contracts typhoid fever, after recovering from which he has to leave McAnally Flats for good. This partial taxonomy of the novel's deaths ranges from those which are utterly random, to those for which Suttree is partly responsible, to those he tried valiantly to prevent, through to his own personal battle with a deadly fever.

The culmination of Suttree's ongoing battle against death in the novel is his struggle with typhoid fever, in which he senses the nearness of "the deathcart before the door," and the impersonal immensities of the universe in which his own living and dying amounts only to "a small soul's going" (455, 461). Upon rallying his strength, Suttree informs the visiting catholic priest that his brush with death has instilled in him not an appreciation of divine providence but rather the knowledge that "nothing ever stops moving" and "that there is one Suttree and one Suttree only." The latter statement in part reflects some sort of resolution of Suttree's occasional feeling in the novel of being shadowed, perhaps by his dead twin, but it is also an assertion of uniqueness and agency tempered by a knowledge not only of human mortality but of universal

flux. *The Stonemason* similarly ends with a willful avowal of agency against discontinuity, and as the play's principal setting, the kitchen, is emptied and abandoned by play's end, replaced by newer settings, Suttree's end witnesses "the destruction of McAnally Flats" (464).

After slipping out of the hospital, himself "a thin, a wasted figure," Suttree encounters the "scenes of wholesale razing, whole blocks row on row flattened to dust and rubble" attendant upon the building of an Expressway: "new roads being laid over McAnally, over the ruins, the shelled facades and walls standing in crazed shapes, the mangled iron firestairs dangling, the houses halved, broke open for the world to see" (463). This "wholesale razing" of the buildings and streets which had been so carefully evoked in the novel, like the novel's abandonment of Suttree's houseboat, its symbolic center, to an anonymous corpse, is thoroughly catastrophist, but not apocalyptic. "New roads" and new structures are after all going over the ruins of the old, and in accordance with Suttree's fever insight "nothing ever stops moving," such processes inspire not nostalgia but visceral glee: "the long tethered wreckingball swung through the side of a wall and small boys applauded" (464).

But the fugitive Suttree also must keep moving, and this final rupturing of his ties to the area necessitates the disruption too of the circular community or "fellowship of the doomed" he had been participating in (23). This disruption is signaled by the novel's

final (negative) iteration of "come back," during Suttree's chance encounter with John, a caricaturish black transvestite (and thus in the 1950's Southern context of the story, and perhaps also in the 1970's Southern context of its writing, signifying the extremest of "outsiders") also known as "Trippin Through The Dew", who upon hearing of Suttree's imminent departure asks him "when you comin back?" and is told "I dont guess I'll be back" (468). McCarthy observes earlier in the novel that "in the act is wedded the interior man and the man as seen," implying that one motive behind his greater reliance on the depiction of action and dialogue than on his characters' depicted "thoughts" is a preference for the interpersonal and social over the introspective (375). And indeed Suttree's foreclosure with his farewell to John of his social ties to the world of McAnally Flats is depicted as a kind of social death:

Walking down the little street for the last time he felt everything fall away from him. Until there was nothing left of him to shed. It was all gone. No trail, no track. The spoor petered out down there on Front Street where things he'd been lay like paper shadows, a few here, they thin out. After that nothing. A few rumors. Idle word on the wind. (469)

This quasi-death or sloughed-off self is then embodied by the anonymous corpse which is discovered and removed from Suttree's houseboat, as the "real" or living Suttree is reduced in the neighborhood to rumors, such as the statement by one of the boys watching the unidentifiably-deteriorated corpse being removed, "Old Suttree aint dead" (470).

Though thoroughly catastrophist, breaking up and building over

its created world without nostalgia, and all but killing its protagonist and dissolving his "trail," Suttree's ending, as have all the catastrophes affecting evolutionary history so far, permits rude survivals. Specifically, the fever-shrunk, "crudely barbered," generic-looking, "like someone just out of the army or jail," un-self Suttree survives, and hitchhikes out of town toward the unknowable future betokened by the adjacent unfinished highway ramp which "curved out into empty air and hung truncate with iron rods bristling among the vectors of nowhere" (471). As Suttree's "drunkard's walk" thus careens in another random direction, the gutter, or death, awaits, here personified as in the novel's prologue as "the huntsman" whose "hounds tire not"; but ultimately in Suttree, at least on the scale of one individual, and only for an unknown but finite amount of future staggers, death is a while deferred.

### **3. The Historical Catastrophism of *Blood Meridian***

A drastic shift in scale occurs between Suttree and McCarthy's fifth novel, *Blood Meridian, or the Evening Redness in the West* (1985). This shift is already evident in the works' respective titles, the former novel being an evocation of an individual agent's experiences and the latter an historical epic about the American "West." In *Blood Meridian* McCarthy's catastrophist imagination unrelentingly documents the appalling bloodshed attendant upon the historical working-out of American Progress-thought, the doctrine of

Manifest Destiny. McCarthy's mid-nineteenth century American West features not heroic settlers and soldiers and pioneers but mercenary scalp-hunters slaughtering almost indiscriminately on behalf of "itinerant degenerates bleeding westward like some heliotropic plague."<sup>11</sup> *Blood Meridian* sardonically demonstrates the incommensurability of the ideologies of Manifest Destiny and self-reliant rugged individualism generally conflated in "Western" myths; McCarthy's scalp-hunters are themselves caught in the deterministic "dance" implied by the notion of Destiny, and are merely temporary agents of Death rather than "free" agents. The Giddensian bounded agency evident in Suttree's focus on the scale of an individual's ontology is displaced in *Blood Meridian* by the violent chaotic "structure" of the impersonal historical scale symbolized by the "optical democracy" of the novel's desert landscapes (247). And such structure as exists is catastrophic rather than providential; "war is god" (249), and Death, personified by the figure of the seven-foot tall, three-hundred-plus pound Indian-killer "Judge" Holden, is the only true agent.

Possibly the most violent and blood-drenched "literary" novel ever written, *Blood Meridian's* force derives not from its apparent excesses but rather from its frightening historicity.<sup>12</sup> The heart of

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<sup>11</sup>Cormac McCarthy, *Blood Meridian, or the Evening Redness in the West* (New York: Ecco, 1986) 78.

<sup>12</sup>McCarthy's extensive use of nineteenth-century memoirs and other historical documents is well-shown in John Sepich's *Notes on Blood Meridian* (Louisville: Bellarmine College P, 1993).



the novel focuses on the historical activities of the band of scalp-hunters led by John Glanton, who in 1849 signed a contract for Indian scalps with the governor of the Mexican state of Chihuahua. Glanton proceeded to bring back not only the scalps of warfaring Indians but also those of peaceful Indians and Mexicans, and was killed in 1850 by a group of Yuma Indians shortly after having led his band to take over the Yumas' ferry over the Colorado River in what is now southwestern Arizona. This loose structure of historically verifiable events and personages provides (or determines) the underlying framework for the band's seemingly random desert crossings and re-crossings, sometimes as the predators sometimes the prey, upon which McCarthy fleshes out his work of imaginative fiction.

The primary fictional elements are the novel's two main characters, "the kid," McCarthy's intentionally rudimentary and underdeveloped "protagonist," and the Kurtz-ian "Judge" Holden, the most educated and most fearsome of the scalp-hunters; but even these characters have documentary roots, both inspired in part by the memoir of Samuel Chamberlain, an eventual Union army general who in 1849 and 1850 had served in Glanton's gang. Chamberlain's colorful memoir, believed to have been written between 1855 and 1861, but not published until 1956, is McCarthy's major source for the make-up and doings of Glanton's gang, and the only known extant document mentioning Holden. The most seemingly literary or fictional qualities of McCarthy's Holden, namely his physical hugeness, his

erudition, and his habit of sexually violating children, are all already present in Chamberlain's description of "a man of a gigantic size called 'Judge' Holden of Texas,"<sup>13</sup> whose "desires was blood and women" and who was yet "by far the best educated man in northern Mexico." And Chamberlain himself, whose story begins with his childhood departure from the East coast and takes him to Texas and northern Mexico and eventually into Glanton's gang, is the rough model for McCarthy's "kid," whose story also begins with departure from home and westward drift before leading to Glanton's gang and his similar positioning as a minimally conscientious foil for the maximally evil Holden.

But McCarthy's variations from and additions to Chamberlain's story are numerous and instructive. Chamberlain's self-aggrandizing and self-consciously literary "Confession" is told in a garrulous, occasionally stilted first person, as in the opening of its first chapter, "I Leave Home":

The day was cold and drear in December, 1844, when I bid good-bye to my friends at the Worcester Depot, in the good city of Boston, and embarked on the train for Norwich en route to the great West. I was in my sixteenth year, full of life, yet felt sad and downhearted enough at leaving home for years if not forever. What a change the last few months had made in my prospect for life! From a promising member of the Baptist Church in Bowdoin Square [. . .]. I was now, to quote the language of the Rev. R.W.Cushman, of the above Church, "worse than the Devil!" What had produced this change? [. . .] [I took up sparring, and] then I got hold of Scott's immortal works. What a glorious new world opened before me, how I devoured their pages and how I longed to emulate his heroes!  
(7-8)

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<sup>13</sup>Samuel Chamberlain, *My Confession* (New York: Harper, 1956) 271.

Chamberlain's "David Copperfield crap," as Holden Caulfield might have judged it, evokes a background of Eastern privilege and polite aspiration, from which the impressionable but rugged youth is exiled as a result of uncouth behavior and more importantly, romantic dreams of literary-inspired adventures in the "great West." Chamberlain's cowboy-and-a-gentleman self-stylings represent the mythical Western ethos of self-reliance and armed agency that McCarthy wishes to deflate in *Blood Meridian* through the use of a distanced, historical perspective. After three epigraphs, the last of which is an excerpt from the June 13, 1982, edition of the *Yuma Daily Sun*<sup>14</sup> suggesting that the "news" (significantly that printed in Yuma, Arizona, where in 1850 Glanton's skull was cleaved in two) is that mankind has always been murderous, *Blood Meridian* opens with its terse third-person ejection of the nameless "kid" into the world:

See the child. He is pale and thin, he wears a thin and ragged linen shirt. He stokes the scullery fire. Outside lie dark turned fields with rags of snow and darker woods beyond that harbor yet a few last wolves. His folk are known for hewers of wood and drawers of water but in truth his father has been a schoolmaster. [. . .] The mother dead these fourteen years did incubate in her own bosom the creature who would carry her off. The father never speaks her name, the child does not know it [. . .]. He watches, pale and unwashed. He can neither read nor write and in him broods already a taste for mindless violence. All history present in that visage, the child the father of the man. At fourteen he runs away. (3)

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<sup>14</sup>The excerpt reads: "Clark, who led last year's expedition to the Afar region of northern Ethiopia, and UC Berkeley colleague Tim D. White, also said that a re-examination of a 300,000-year-old fossil skull found in the same region earlier shows evidence of having been scalped," 1.

McCarthy's opening enacts the devolution that Chamberlain's opening paragraph purports to bemoan. Chamberlain recalls his youthful chagrin at his temporary fall from "promising" Christian among supportive family, friends, and Church in Boston to West-bound exile as prologue to the real story of his romantic adventures in the "new world" of literature of/and conquest, the well-born "muscular Christian" hero's securing of autonomy. McCarthy's anonymous "child," or "kid," by contrast, is the illiterate, undernourished, violent son of educated but poor parents whose catastrophic birth kills his mother, and who after growing up in the relative frontier wilderness of Tennessee wanders off further west spurred by congenital disaffection, like all the other "itinerant degenerates bleeding westward."

Both Chamberlain and the kid encounter repeated violence right from the start of their respective stories, but the violence is contextualized differently in the two works. Chamberlain's earliest scrapes involve: punching a "rough" for "using profane language on the Holy Sabbath [. . .]. [and] to punish him for his blasphemy" (8); an argument with a Church singing-master who has insulted Chamberlain's "adored one" during which "all the long pent-up knight errantry and the Seven Champions of Christiandom, consolidated in me, burst and Paine lay prostrate, bleeding" (9); and a dispute with a slave-owner who insists objectionably that his slave, a major investment, should on a cold night be able to share the coach in which Chamberlain and his latest damsel are riding. While

Chamberlain thus presents violence as necessary to the codes of Christiandom and chivalry and the social prerogatives of the white upper class, McCarthy's kid's first fights are motiveless multicultural melees: in the New Orleans tavern into which the kid has drifted he and other anonymous battlers "fight with fists, with feet, with bottles or knives. All races, all breeds" (4). McCarthy's ironic identification of "mindless violence" as the capacity in which the kid is prodigious, "all history present in that visage, the child the father of the man," travesties the romantic idealization of childhood traditionally associated with Wordsworth's phrase. This theme of innate viciousness is further underlined by McCarthy's decision to place the kid's birth in 1833, significantly later than Chamberlain's birth-year of 1829, in order that his experiences with Glanton's gang in 1849-50 occur at an even younger age than Chamberlain's. And the kid's near escape from death in New Orleans at fifteen, when he is shot "just below the heart," is thus a hint of the mortality that will catch up with him at the novel's end rather than an intimation of immortality.

Though the kid's violence is not self-consciously ideological from the outset as Chamberlain's is, his talents are soon appropriated by the forces of Manifest Destiny in the form of the fictional figure, invented by McCarthy, of "Captain White," the leader of an American expedition to filibuster in Mexico who enlists the kid in Texas. White's rambling monologues in his initial interview with the kid embed his apparent primary motivation for

filibustering, namely financial self-interest, within an energetic rhetoric of nationalism and racism. Beginning by referring to the Mexican War just concluded the year before, in 1848, with the Treaty of Guadalupe Hidalgo, about which the kid admits to knowing "nothin," White persists with an appeal to the kid's Tennessee roots, and goes on from there:

I suppose more men from Tennessee bled and died on the field in northern Mexico than from any other state. [. . .] They were sold out. Fought and died down there in that desert and then they were sold out by their own country. [. . .] We fought for it. Lost friends and brothers down there. And then by God if we didnt give it back. Back to a bunch of barbarians [. . .]. A people so cowardly they've paid tribute a hundred years to tribes of naked savages. [. . .] Whole villages abandoned. While a heathen horde rides over the land looting and killing with total impunity. [. . .] What we are dealing with is a race of degenerates. A mongrel race, little better than niggers. [. . .] We are dealing with a people manifestly incapable of governing themselves. And do you know what happens with people who cannot govern themselves? That's right. Others come in to govern for them. (33-34)

Before concluding his recruitment speech with the warning that "unless we act, Mexico [. . .] will one day fly a European flag. Monroe Doctrine or no," White cuts to the financial chase, pointing out that when the way to resource-rich California is cleared, "we will be the ones who divide the spoils" (35). White's speech not only efficiently encapsulates much of the historical ideological context framing the novel's events, but also evokes the later Cold War "domino principle" justification for intervention in foreign internal conflicts and post-Vietnam Ramboesque "hawk" discourse, providing a very contemporary resonance with mid-1980's American activities in Central America. And in revealing personal profit as

the essential motive for White and his recruited filibusters (and the apparently decisive incentive for the kid to sign on), the speech looks forward to Glanton's gang of scalp-hunters, for whom financial "spoils" are also the over-riding incentive behind their own career of "looting and killing with total impunity."

Both Chamberlain's memoir and the speech of McCarthy's characters are suffused with the racist rhetoric of the period, but self-interest is presented as the only coherent underlying motive determining the behavior of all the parties in the violent maelstrom of *Blood Meridian*, from White's party to Glanton's gang, to Angel Trias (the historical Mexican governor who contracts with Glanton for Apache scalps), to the Apaches, Comanches, Yuma and other Native American groups who appear in the novel. Glanton's gang is itself racially heterogeneous, including in addition to its Anglo majority several Delaware Indians, the African-American John Jackson (who ultimately kills his white namesake), and the Mexican McGill. So-called "atrocities," a staple of militarist "savage war" rhetoric from European colonialist empire eras through the settling of New England and the "winning of the West," up through Vietnam, the Gulf War and the recent war in Yugoslavia, are in *Blood Meridian* not the monopoly of any particular group or individual but the prerogative of the winners of practically any particular conflict.<sup>15</sup> The first

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<sup>15</sup>See Richard Slotkin's *Gunfighter Nation: The Myth of the Frontier in Twentieth-Century America* (New York: Atheneum, 1992) for a thorough historical overview of "savage war" rhetoric in American (cultural) history.

notable depiction of large-scale "atrocities" in the novel is that visited on White's filibusters by a party of Comanches, who appear suddenly from behind a herd of cattle as a war-painted "legion of horrors" (52) and massacre the expedition,

stripping the clothes from the dead and seizing them up by the hair and passing their blades about the skulls of the living and the dead alike and snatching aloft the bloody wigs and hacking and chopping at the naked bodies, ripping off limbs, heads, gutting the strange white torsos and holding up great handfuls of viscera, some of the savages so slathered up with gore they might have rolled in it like dogs and some who fell upon the dying and sodomized them with loud cries to their fellows. (54)

Here as always McCarthy's period diction makes no aspiration to political correctness, with its image of animalistic gore-slathered "savages," and yet the novel's use of the rhetoric of "atrocities" is indiscriminate; if anything the later massacre of a huge Gileno camp by Glanton's gang (the two conflicts unrelated and involving completely different sets of antagonists except for the kid's presence at both, so the later in no way a "revenge" attack) is the more egregiously bloodthirsty.

Glanton's scalp-hunters, "nineteen in number," who are themselves first introduced in the novel as "a pack of vicious-looking humans [. . .] bearded, barbarous, [and] clad in the skins of animals [. . .]" (78), attack the Gileno "encampment where there lay sleeping upward of a thousand souls" (155) and undertake the general slaughter of men, women, and children:

Women were screaming and naked children and one old man tottered forth waving a pair of white pantaloons. The horsemen moved among them and slew them with clubs or knives. [. . .] There were in the camp a number of Mexican slaves and these



ran forth calling out in spanish and were brained or shot [. . .]. [Glanton's riders] moved among the dead harvesting the long black locks with their knives and leaving their victims rawskulled and strange in their bloody cauls. [. . .] Men were wading about in the red waters hacking aimlessly at the dead and some lay coupled to the bludgeoned bodies of young women dead or dying on the beach. (156-57)

Unlike the Comanches' earlier attack on White's party, which could be construed as an attack on an invading army, Glanton's assault on the Gileno camp is a simple scalp-harvest, and furthermore a scalp-harvest in which the contract clause specifically requiring Indian scalps is ignored; Glanton's gang here and elsewhere collects Mexican scalps in addition to Indian scalps and later presents them to Mexican authorities for bounty payment.

The utter amorality or indiscriminateness of the bloodshed portrayed in *Blood Meridian* is further underscored and itself presented as historical in McCarthy's use and embellishment of an anecdote from Chamberlain concerning the discovered remains of another, smaller massacre. Expanding on Chamberlain's terse passing mention of the incident (involving a single charred wagon) (Chamberlain 275), McCarthy's version increases the bodycount and again reaches for the atrocity register:

Five wagons smoldered on the desert floor and the riders dismounted and moved among the bodies of the dead argonauts in silence, those right pilgrims nameless among the stones with their terrible wounds, the viscera spilled from their sides and the naked torsos bristling with arrowshafts. Some by their beards were men but yet wore strange menstrual wounds between their legs and no man's parts for these had been cut away and hung dark and strange from out their grinning mouths. [. . .] The tracks of the murderers bore on to the west but they were white men who preyed on travelers in that wilderness and disguised their work to be that of the savages. (152-53)

Implicit in this vivid anecdote is the novel's understanding of "atrocities" as part of a historical discourse about the "savage" other rather than a specific practice or set of practices unique to individual Indian groups or "Indians" collectively. But McCarthy further develops the anecdote in order to once again pull back the camera angle of his narrative focus to educe a wider perspective, relativizing the Glanton gang as just one group of bloodthirsty criminals among others wandering the inhumanly scaled desert, not exemplary agents but pawns or "vectors."

Directly following the line about the "tracks of the murderers" McCarthy stirs up a brief philosophical consideration of determinism by his gang's thinkers, Tobin ("the expriest") and Judge Holden:

Notions of chance and fate are the preoccupation of men engaged in rash undertakings. The trail of the argonauts terminated in ashes as told and in the convergence of such vectors in such a waste wherein the hearts and enterprise of one small nation have been carried off by another the expriest asked if some might not see the hand of a cynical god conducting with what austerity and what mock surprise so lethal a congruence. The posting of witnesses by a third and other path altogether might also be called in evidence as appearing to beggar chance, yet the judge [. . .] said that in this was expressed the nature of the witness and that his proximity was no third thing but rather the prime, for what could be said to occur unobserved?

This image of the three parties as converging vectors in the desert wasteland brought together either by chance or by a "cynical god" is a microcosm of all the novel's lethal but morally ambiguous desert crossings and recrossings. By extension McCarthy's characters' wondering about the malevolent entity guiding their fates is also

one of the reflexive or mutedly metafictional moments that occur more frequently in McCarthy's later novels. And in this register and given the context of "atrocities," the judge's insistence on the primacy of the witness is a reminder of the reader's complicity in the "realization" of the novel's violence.

But the external forces determining these men's fates and the interpretation of those fates in the novel are not simply the whim of McCarthy and his readers; there is also the question of their relation to history, understood both as the textual and thus ideological historical record which includes such documents as Chamberlain's memoir and as what Holden calls the "historical absolute," which is the permanence or order inscribed by death. The two converge in McCarthy's faithfulness to the historical record in Chamberlain and contemporary newspaper reports and extant government documents in depicting the fatal end met by Glanton and most of his gang at the hands of the Yumas in 1850. In this sense McCarthy's authorial "omnipotence" or free agency yields to the external force of history, as does his following of Chamberlain's story of the escape and survival of a few of the scalphunters, including Chamberlain himself and Holden. But Chamberlain's narrative ends abruptly, unfinished, and says nothing of his return to the East and subsequent career. While other existing records confirm that men claiming to be survivors from the Yuma massacre of Glanton's gang appeared in California in May of 1850, an account that McCarthy also follows, beyond that his novel imagines a wholly fictional

resolution of the story of his two main characters, Holden and the kid.

McCarthy's Judge Holden is presented as an amateur anthropologist, archaeologist, botanist, chemist, geologist, and musician, as a satanic sophist continually making portentous philosophical proclamations for the benefit of his largely uneducated fellow scalp-hunters, and as the cruellest of predators in a band of professional killers. If Captain White is the representative of the nationalist component of the ideological forces contributing to the historical bloodbath of the "winning of the West," and Glanton is the novel's fiercest "Indian-hater" and money-maker, Holden in part represents the rapacity of the scientific worldview, the voracious energy of technological progress and modernity. While the gang is camped amid what only the judge among the scalp-hunters recognizes as Anasazi ruins, he delivers an impromptu lecture about these long-gone "old ones" and the historical lessons to be learned from their achievement and disappearance:

The [Anasazi] tools, the art, the building--these things stand in judgement on the latter races. [. . .] All progressions from a higher to a lower order are marked by ruins and mystery and a residue of nameless rage. [. . .] The way of the world is to bloom and to flower and to die but in the affairs of men there is no waning and the noon of his expression signals the onset of night. His spirit is exhausted at the peak of its achievement. His meridian is at once his darkening and the evening of his day. [. . .] This you see here, these ruins wondered at by tribes of savages, do you not think that this will be again? Aye. And again. (146-47)

The Anasazi civilization which flowered and died suddenly is here

presented as an object lesson in historical catastrophism; rather than steady gradual universal human progress there are violent periods of achievement which burn themselves out brightly and are followed by periods of stasis.

The obvious further implication of this passage is that the technologically enhanced general slaughter marking the westward conquest that Glanton's "partisans" are part of is another such historical meridian, and technoscientific advance and large-scale death and destruction go hand in hand. And Holden, who explains of his botanical investigations that "whatever in creation exists without my knowledge exists without my consent," and insists on routing out "the existence of each last entity" in order to fully dominate the earth, is the agent provocateur of this fatal will to power (198). Tobin tells the kid of Holden's first meeting with Glanton's gang, when they encountered him alone in the desert while they were fleeing from Apaches with next to no gunpowder left, and Holden led them up the side of a volcano and proceeded to improvise a saving (and deadly, for the Apaches) batch of gunpowder out of nitre leached from bat guano, chipped brimstone, charcoal, the partisans's urine and the heat of the sun. When many months later Glanton and most of his men are massacred by the Yumas, Holden survives by virtue of technological superiority, brandishing the gang's howitzer under his arm. Thus Holden's entire career with the gang is bracketed by his association with death-dealing technology.

The life-trajectory McCarthy invents for the kid, after his escape from the Yuma ferry massacre and Holden's predatory desert pursuit of him and the other surviving scalp-hunters, is choppy and discontinuous but ends in 1878 with the kid's (now deemed "the man") fatal, fated intersection with Holden. After providing a brief overview of the kid's activities between 1851 and 1861, the novel (not, after all, primarily concerned with the kid's "story") jumps in its final chapter to 1878, and the now-45-year-old kid's encounter with Holden in a bar in the north Texas buffalo-hunters' town of Fort Griffin. The sudden gratuitous shooting of a dancing bear that had been performing in the establishment, emblematic of the final killing-off of an already-tamed "nature," and of the vulnerability and utter enslavement to "fate" of the seemingly powerful beast, leads to and anticipates the appearance of Holden at the kid's side. Holden uncorks a bottle and a final lecture on determinism and agency, explaining to the typically terse and incurious kid why he and the bar's other patrons happen to be there:

This is an orchestration for an event. For a dance in fact. The participants will be apprised of their roles at the proper time. For now it is enough that they have arrived. As the dance is the thing with which we are concerned and contains complete within itself its own arrangement and history and finale there is no necessity that the dancers contain these things within themselves as well. (329)

Thus reprising a theme which recurs in many of his earlier pronouncements, Holden's words subordinate agency to the wider extra-individual perspective of "the dance," linking the fate and fatedness of all the novel's individual lives to that of the dancing

bear.

But who then (apart from that "cynical god" the author) has orchestrated the "dance," determined the numbers of the living and the dead, or the "bears that dance, [and] bears that dont," and thus qualifies as sole true agent among pawns? Only Death, or Holden, a personification Holden makes clear:

What do you think death is, man? Of whom do we speak when we speak of a man who was and is not? Are these blind riddles or are they not some part of every man's jurisdiction? What is death if not an agency? And whom does he intend toward? Look at me.

After killing the kid in an outhouse in a manner whose horror is magnified by its being left unspecified (in a novel in which all manner of violence is vividly specified), again rendering the novel's violence inextricable from the reader's response(-ibility), Holden joins in but towers over the general dancing inside the saloon. Emphasizing Holden's unique power to transcend time, the last paragraph shifts to the present tense, as in the last lines: "he is dancing, dancing. He says that he will never die" (335). With this dire dramatization of agency trivialized by fate, the final surrendering of the novel's hollow conventional "protagonist" the kid to its extra-human true protagonist, death, the sole "historical absolute," the novel's final chapter (and most critical responses to the novel) comes to an end.

But *Blood Meridian*, in this sense the only "historical novel" in an oeuvre entirely consisting of works set in the past, goes a little further before ending, with an opaque epilogue that again

widens the narrative perspective to the historical scale:

In the dawn there is a man progressing over the plain by means of holes which he is making in the ground. He uses an implement with two handles and he chucks it into the hole and he enkindles the stone in the hole with his steel hole by hole striking the fire out of the rock which God has put there. On the plain behind him are the wanderers in search of bones and those who do not search and they move haltingly in the light like mechanisms whose movements are monitored with escapement and pallet so that they appear restrained by a prudence or reflectiveness which has no inner reality and they cross in their progress one by one that track of holes that runs to the rim of the visible ground and which seems less the pursuit of some continuance than the verification of a principle, a validation of sequence and causality as if each round and perfect hole owed its existence to the one before it there on that prairie upon which are the bones and the gatherers of bones and those who do not gather. He strikes fire in the hole and draws out his steel. Then they all move on again. (337)

This rarely-discussed<sup>16</sup> but obviously critically placed passage describes a man "progressing over the plain" with a post-hole digger producing holes for a fence, most likely one of the new barbed-wire fences which after their invention in 1873 rapidly transformed the landscape of the Great Plains. In the transitional landscape described in the epilogue, the fence is unlikely to demarcate the limits of an individual ranch, as "the earliest barbed-wire fences constructed by open-range cattlemen did not fully enclose their grazing land. [. . .] [but rather] were east-west 'drift fences' designed to keep northern cattle from drifting onto the southern

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<sup>16</sup>See Sepich, 72-74, for the only sustained literal explication and historical contextualization of the epilogue, and Dana Phillips' "History and the Ugly Facts of Cormac McCarthy's *Blood Meridian*," *American Literature* 68.2 (June 1996): 453-54 first connects (in brief) the epilogue to the altered landscape of *All the Pretty Horses*.



ranges."<sup>17</sup> Thus the very abstractness of McCarthy's man's line, whose stressed "progress" and embodiment of the historical "principle" of Manifest Destiny suggests an east-west orientation, is itself likely historically grounded.

And yet before the Plains could be fully appropriated for profitable cattle-raising they first had to be "cleared" of their prior occupants, notably Native Americans and the huge buffalo herds from which most of their sustenance derived. That *Blood Meridian* depicts the brutal "clearing" of Native Americans from the land as graphically as any novel has already been established; but the rapid extermination of millions of buffalo in a few short years to the point of near-extinction, which enervated Native American groups more completely and effectively than direct military confrontations, is also efficiently encapsulated in the novel in the opening scene of the final chapter. There the kid encounters a solitary old buffalo-hunter, who tells him of "the buffalo and the stands he'd made against them [. . .] the riflebarrel so hot the wiping patches sizzled in the bore and the animals by the thousands and tens of thousands and the hides pegged out over actual square miles of ground and the teams of skinners spelling one another around the clock [. . .]" (316). But this frenzied killing industry left nothing more to kill:

On this ground alone between the Arkansas River and the Concho there was eight million carcasses for that's how many hides

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<sup>17</sup>David Dary, *Cowboy Culture: A Saga of Five Centuries* (Lawrence, KS: UP of Kansas, 1989) 314.

reached the railhead. Two year ago [in 1876] we pulled out from Griffin for a last hunt. We ransacked the country. Six weeks. Finally found a herd of eight animals and we killed them and come in. They're gone. Ever one of them that God ever made is gone as if they'd never been at all. (317)

The last major industry attending the buffalo-hunt was the scavenging of the bones<sup>18</sup> and the stray lead left by the years of intense slaughter, and indeed the kid subsequently encounters "the bonepickers" at their work and "in the distance he could see a train of wagons moving off to the northeast with great tottering loads of bones" (318).

This thick historical context provided earlier in the novel animates the epilogue's terse mention of "the wanderers in search of bones" with a sense of the catastrophic and irreversible man-made historical discontinuity effected on the absent Native Americans and buffalo represented by the bones. And who are the mysterious hangers-on, "those who do not search" for nor gather bones? They must represent that component of the population of "itinerant degenerates bleeding westward" who found employment in service industries in the buffalo- and cattle-towns and later mining- or railroad-towns that flared and died (at which point "they all move on again") with the temporary local flourishing of these various industries (towns like Fort Griffin, Texas, the buffalo-town where Holden kills the kid).

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<sup>18</sup>"Bones instead of hides had become the legal tender of Dodge now [1874], bones at six to ten dollars a ton, for bone china, carbon that the sugar refineries needed, phosphates for the soil, and for industrial phosphorus." Mari Sandoz, *The Buffalo Hunters* (Lincoln: U of Nebraska P, 1978) 176.

*Blood Meridian's* epilogue, like *Suttree's* prologue, presents a landscape dense with temporal signifiers, most of which, in contrast to *Suttree*, are foreshadowings of the future exploitations awaiting that landscape in the century between the epilogue's setting and the novel's writing. This motif of time, and its modern construction as the regimented, profitable "clock-time" associated with Taylorism and industrial production, is centrally located in the epilogue with its comparison of the wanderers' motions to those of "mechanisms whose movements are monitored with escapement and pallet," a reference to interconnected parts in a timepiece that resonates with the earlier description of the buffalo skinners' "round the clock" work shifts. The times evoked in the epilogue include: the prior millennia in which the plains were dominated by buffalo and Native Americans; the brief period in which buffalo hides and subsequently buffalo bones became the plains' first large-scale industry; the short period of the peak of the "open-range" cattle industry that flourished in the wake of the willed near-extinction of the buffalo and the resettlement and starvation of many Native American groups; and the coming violent confrontations between ranchers and farmers and large-scale settlement spurred by the invention of barbed wire, the invention for which the epilogue's post-holes are being dug and which made homesteading on the Plains viable for the first time<sup>13</sup>.

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<sup>13</sup>"Without barbed-wire the Plains homestead could never have been protected from the grazing herds and therefore could not have been possible as an agricultural unit." Walter Prescott Webb, *The Great Plains* (Lincoln: U of Nebraska P, 1981) 317.

Further, the epilogue's motif of the man who with his tool "strikes fire in the hole and draws out his steel" not only recalls all the lead fired into Native Americans and buffalos and then scavenged and resold, but anticipates the mining industries and oil-wells to come, and possibly even the fire struck out of the world's first atomic explosions.

Lastly, the epilogue's anticipations of a "rationalized--settled, fenced" American West provide a link to the later landscapes of McCarthy's subsequent "Border Trilogy" novels, which occur in an American West in which the mythic cowboy romance of horsemanship and adventure their young protagonists seek is already an anachronism, forcing them south into Mexico (Phillips 454). *All the Pretty Horses* (1992) begins with its young protagonist John Grady Cole in 1949 attending the funeral of his rancher grandfather, who had started the family ranch in 1866 and whose death results in the sale of the ranch. Thus cut off from his ranching heritage and otherwise disaffected, Cole and his friend Rawlins impulsively head south to Mexico on horseback, their way impeded occasionally by barbed-wire fences and the need to ford not conventional rushing rivers but dangerous highways. McCarthy's "western" novels are set in periods chosen to bracket the entire cowboy ranching culture mythicized in traditional western films and t.v. shows; *Blood Meridian* details the brutal "clearing" of the plains that made cowboy culture possible, and the "Border Trilogy" opens with the symbolic closing and selling-off of the family ranch, leaving the

heyday of cowboys and their "pretty horses" elided as the stasis between the historical/cultural ruptures that dominate McCarthy's catastrophist imagination.

McCarthy's catastrophist fictions, with their archaic diction, past settings, and fierce materialism, are also contemporary American fictions, as much a part of the present as the urban waste or desert warfare they describe. Heuristically isolating them as catastrophist fictions, and then juxtaposing them with the very different scientist fictions of Don DeLillo and Richard Powers examined in the next chapter, opens up a space for hybrids in between that would not exist if either fictional type was focused on exclusively and the other ignored as anomalous. Out in this resulting space, moreover, other types of fiction proliferate, including the more hybridized fighting fictions of Toni Morrison, Leslie Silko, and William Vollmann. But in the scientist fictions, which I consider first, the opposite attitude to novelty and virtuality than McCarthy's catastrophism obtains. The embodied aesthetic of *The Stonemason* and the individually and historically scaled dances with death of *Suttree* and *Blood Meridian* give way to aesthetics of pattern; for DeLillo, the abstract language of mathematics provides the inspiration, and for Powers, the resonant patterns of music and genetics, and of neural networks.

### CHAPTER III

#### **In Vitro: The Scientist Fictions of Don DeLillo and Richard Powers**

In *We Have Never Been Modern* Bruno Latour describes the "work of purification" as thought premised on an essential dichotomy of humans and nonhumans, Society (or Culture) and Nature, and subjects and objects. The scientific pursuit of "objective" facts about the natural, or "real" world, obtained and/or verified "in vitro," under controlled conditions in isolated enclaves, is exemplary of such work of purification.<sup>1</sup> Progress-thought is the extension of this dichotomy over time, the putatively increasing disentanglement of the facts of Nature from contingent human confusion. And the assumption and aspiration to progress continue to dominate scientific practice and discourse, buttressed by what Thomas Kuhn calls the "unparalleled insulation of mature scientific communities from the demands of the laity and of everyday life."<sup>2</sup> Latour, whose earlier work to penetrate this characteristic insularity of scientific communities has been the most influential since Kuhn's, confirms that "technoscience is made in relatively new, rare, expensive and fragile places that garner disproportionate amounts of resources," a handful of laboratories and research centers "so

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<sup>1</sup>But the work of purification is not limited to scientific work; any esoteric pursuit that is similarly premised on the human/nonhuman split, including undertakings in social theory or cultural studies that understand themselves as wholly separate from the objective, material realm of Nature, would also qualify.

<sup>2</sup>Thomas Kuhn, *The Structure of Scientific Revolutions*, 2nd ed. (Chicago: U of Chicago P, 1970) 164.

powerful and yet so small" they resemble the nodes of a "network."<sup>3</sup> This chapter will examine texts that seek to produce narratives from within these mysterious and powerful nodes of technoscience, beginning with "nonfictional" works respectively representing science studies and popular science, and moving on to three novels, or "scientist fictions."

The three novels to be considered--Don DeLillo's *Ratner's Star*, and Richard Powers's *The Gold Bug Variations* and *Galatea 2.2*--all fit N. Katherine Hayles's definition in *How We Became Posthuman* of "information narratives," namely works in which "pattern tends to overwhelm presence" (and indeed *Galatea 2.2* is included in Hayles's study) (35). The specific modalities of patterning, or immateriality, these novels aspire to are those of: mathematics (*Ratner's Star*); music and genetics (*The Gold Bug Variations*); and artificial intelligence (*Galatea 2.2*). But Hayles's umbrella term "information narratives" was chosen to refer broadly to a range of non-fictional and fictional works that do not all necessarily address scientific work per se. These three novels, on the other hand, not only engage the impulse toward pattern and abstraction endemic to the work of purification, but also attempt to penetrate the scientific node, or laboratory, to represent scientific work directly from within. For that reason I have chosen to call these novels "scientist

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<sup>3</sup>Bruno Latour, *Science in Action: How to Follow Scientists and Engineers Through Society*, (Cambridge, Mass: Harvard UP, 1987) 179, 180. The Latin root "insula" means "island," suggesting an unexpected affinity between Latour's studies of scientists in action with the trans-oceanic expeditions of traditional anthropology.

fictions."<sup>4</sup>

When compared to the other fictions examined in this study these novels' shared status as "scientist fictions" is self-evident, yet within the group important differences of attitude toward science persist. The astrophysical vocabulary of *Ratner's Star* could be extended to describe the novel's ambivalent attitude to science as positioning it as an unstable star on the outer perimeter of the "cluster" of scientist fictions, powerfully drawn to the pessimistic gravity of the distant catastrophist cluster. *The Gold Bug Variations*, by contrast, with its earnest ambitious attempt to show that all life's diversity can be iterated from a few base chemicals operating under the laws of genetics (just as Bach's Goldberg Variations is iterated from a few simple notes), might be envisioned as a giant planet near the center of the cluster. Rounding out the picture, *Galatea 2.2*'s more chastened but still hopeful view of scientific advance would be located somewhere in between the group's

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<sup>4</sup>"Scientist fiction" is more specific than "information narrative" in this context, and is also distinct from the more common term "science fiction," which generally denotes conventional adventure stories with more fantastic, frequently futuristic or extraterrestrial settings inspired by scientific speculations and/or hi-tech hardware. A closer candidate might be Latour's "scientifiction," his coinage for his own "hybrid" work of sociology, science studies, and fiction, *Aramis, or the Love of Technology*. Indeed Latour notes in his preface his regret that "the book was published too soon to use the treasure trove of narrative resources developed by Richard Powers, the master of scientifiction and author of *Galatea 2.2*, whose Helen is Aramis' unexpected cousin" (x). But in *Aramis*, as with *The Double Helix*, "narrative resources" common to fiction are put to the service of non-fictional ends, in contrast to the mining of science to structure or iterate fictions characteristic of these novels.



center and its periphery, and notable for its flaring suggestion of imminent formal metamorphosis. Before examining these novels' particular patterning engagements of science, we must take a step back, consider the somewhat hostile traditional relationship between science and literature, and look at the origins of laboratory literature.

### 1. Laboratory Literature: Science Studies and *The Double Helix*

Despite the ever-increasing body of work exploring the literariness and subjectivity of scientific practice and pronouncement, and despite the periodic scientific aspirations of fiction writers and literary critics, science and literature continue to appear in print as antagonists, as Snow's "two cultures" gives way to the "Science Wars" of contemporary academia. This military rhetoric is evident in John Limon's assessment of the troubled "place of fiction in the time of science" as a function of the "territoriality of science" and the fact that "the category of literature and the writing profession are more vulnerable to invasion than science or the scientific profession."<sup>5</sup> Limon depicts science as an invulnerable intellectual juggernaut and literature as its defenseless victim:

literature is not opposed to science in this disciplinary study in terms of what it asserts as against science, but in terms of its inability to assert: [science is] the

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<sup>5</sup>John Limon, *The Place of Fiction in the Time of Science: A Disciplinary History of American Writing*, (Cambridge, Mass: Harvard UP, 1990) 5.

professionalizing discipline versus the discipline that cannot professionalize, the best-insulated source of modern intellectual history versus the most vulnerable recipient of intellectual history, the past-destroying discipline versus [. . .] the one whose relation to the past is most unsettled. (17)

Science is likewise depicted as professionalizing, insulated, and past-destroying by Kuhn, and by Latour, who in analyzing the rhetoric of scientific writing also invokes military imagery. Describing the impenetrable density or "stratification" of a typical scientific technical article, with its layered armaments of terse citations, diagrams, graphs, data-tables and the like, Latour asserts that "the transformation of linear prose into, so to speak, a folded array of successive defence lines is the surest sign that a text has become scientific" (48).

But the laboratory has not proved entirely invulnerable to "outsider" scrutiny, as evidenced by Latour's and Steve Woolgar's *Laboratory Life*, in which the authors succeed in framing all laboratory activity as fundamentally rhetorical. Belying somewhat Limon's assertion of literature's passivity before science, Latour and Woolgar begin their narrative reconnaissance of the laboratory via the literary device of following "the trials and tribulations of a fictional character, 'the observer,'" as s/he attempts to make sense of the lab's confusing activities<sup>6</sup>. This observer finds that the common denominator linking the laboratory's disparate spaces (experimental benches, conference rooms, personal offices, the

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<sup>6</sup>Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (London: Sage, 1979) 45.

"computer room," the "secretariat," etc.) is the ubiquity of "inscription devices" and the written documents transcribing and distilling their output (or determining their input). The "strange mania for inscription" (48) that unites the lab-coated technicians, the secretaries, and the senior scientists, leads to their anthropological designation by the observer as "a strange tribe who spend the greatest part of their day coding, marking, altering, correcting, reading, and writing," (49) and the laboratory itself "begins to take on the appearance of a system of literary inscription" (52).

The scientists themselves acknowledge to the observer that the main goal of the laboratory's activity is the "production of papers" (71), technical articles consisting of statements the authors hope will be persuasive enough to triumph over the din of rival statements in the arena of scientific debate and thus become "facts."<sup>7</sup> This emphasis on rhetoric, or the "social construction of scientific facts," aims to dispel "the misleading impression that science is about *discovery* (rather than creativity and construction)" (129), instead depicting "laboratory activity as a constant struggle for the generation and acceptance of particular

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<sup>7</sup>Hayles too cites the importance of narrative in science as a factor working against Limon's belief in science's hegemony over literature, writing "I want to rescind the idea that influence flows from science into literature. Culture circulates through science no less than science circulates through culture. The heart that keeps this circulatory system flowing is narrative-- narratives about culture, narratives within culture, narratives about science, narratives within science." *Posthuman* 21.

types of statement" (81). The "laboratory life" that Latour and Woolgar present is a deliberate deflation of the extremely potent rhetoric of scientific "discovery," the lab a site not of methodical yet mystical revelation of nature but rather of utilitarian calculation:

The problem for participants was to persuade readers of papers (and constituent diagrams and figures) that its statements should be accepted as fact. To this end rats had been bled and beheaded, frogs had been flayed, chemicals consumed, time spent, careers had been made or broken, and inscription devices had been manufactured and accumulated within the laboratory. (88)

Aside from its attraction as literature, its alliteration and its echoes of the ironic deflation that literature has mustered at the expense of scientists at least as far back as Gulliver's visit to Laputa, this passage and Latour's and Woolgar's book as a whole succeed in framing the conflict of science and its critics as a civil war between rhetoricians, rather than as objective truth vs subjective rhetoric, as the scientists would have it<sup>4</sup>.

But the products of the contemporary scientific laboratory, the technical articles published for other scientists, are so fortified, or "stratified," with the esoterica of insulated

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<sup>4</sup>Latour opens his most recent book, *Pandora's Hope*, with some "News from the Trenches of the Science Wars," registering his dismay that he and his discipline of science studies are still viewed by scientists as the enemy, when in fact his goal is not the victory of "postmodern" relativism over science's objective reality, but rather the ever-increasing entanglement of humans and nonhumans (or "things"): "We tell the scientists that *the more connected a science is to the rest of the collective, the better it is, the more accurate, the more verifiable, the more solid* [. . .] [and] we tell the humanists that *the more nonhumans share existence with humans, the more humane a collective is*" (18).

specialization, as to be all but incomprehensible to the non-scientist. Latour and Woolgar manage to unpack the articles produced by the laboratory under study in enough detail to confidently describe their tightly-knit structure of statements "operating" on and with statements from other articles in the race to construct facts, while admitting to relative ignorance of the physical properties these statements purport to describe. In *Leviathan and the Air-Pump: Hobbes, Boyle and the Experimental Life*, Steven Shapin and Simon Schaffer are able to circumvent somewhat this problem of the incomprehensibility of contemporary scientific discourse by employing a historical, rather than anthropological, approach to "science studies."

Focusing on the nascent experimentalist culture exemplified by the now-canonical air-pump experiments of Robert Boyle in the 1660's, Shapin and Schaffer illuminate the origins of the distinctive modern space of the laboratory and detail Boyle's role in codifying and mobilizing the scientific narrative in service of the social production of facts<sup>3</sup>. Like Latour and Woolgar, Shapin and Schaffer identify the central problem for science studies as the need to deconstruct the rhetoric of scientific "discovery" of the objective truths of "Nature." Boyle is identified as "a founder of

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<sup>3</sup>Limon also alludes to this historical moment, asserting that "the specifically American literary problem with science is that the American colonies were established at the same time as modern science," such that the later "discourse of the American Revolution takes place within the discourse of science," and all American history thus falls within the "time of science" (28).

the experimental world in which scientists now live and operate"<sup>13</sup>  
and an originator of this now-ubiquitous discourse:

In common speech, as in the philosophy of science, the solidity and permanence of matters of fact reside in the absence of human agency in their coming to be. [. . .] To identify the role of human agency in the making of an item of knowledge is to identify the possibility of its being otherwise. To shift the agency onto natural reality is to stipulate the grounds for universal and irrevocable assent. Robert Boyle sought to secure assent by way of the experimentally generated matter of fact. (23)

Boyle was among the first to conceive of the laboratory as the semi-public site where matters of fact were created, as "the outcome of the process of having an empirical experience, warranting it to oneself, and assuring others that grounds for their belief was adequate [. . .][ via the] multiplication of the witnessing experience" (25). To be accepted as a "fact" by a culture not yet accustomed to acceding to esoteric scientific descriptions of "reality," an experiment had not only to be eye-witnessed by the reputable gentlemen who were invited to such laboratory demonstrations, but also reported convincingly so as to allow other experimentalists to replicate the results, and to make "virtual witnesses" of non-experimentalist readers of the experimental write-ups. Thus, stress Shapin and Schaffer, in addition to the "material technology" of experimental apparatus, fact-making also required a

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<sup>13</sup>Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton UP, 1985) 5.

"literary technology" to enlist readers as virtual witnesses" (31):

The technology of virtual witnessing involves the production in a reader's mind of such an image of an experimental scene as obviates the necessity for either direct witness or replication. Through virtual witnessing the multiplication of witnesses could be, in principle, unlimited. (60)

This view of the scientific narrative as a technology for imbuing in the lay reader the ideological image of the "experimental scene" is relevant not only to the analysis of contemporary "popular science" texts but to novels that depict the "experimental scene" as well.

Before examining some of these scenes, it will be helpful to consider some of the conventions Shapin and Schaffer argue Boyle established for the scientific narrative. The function of these conventions was to reassure the readers, or virtual witnesses, of the reliability of the experimental account, primarily through the use of verisimilitude and the rhetoric of "modesty." The conventions intended to evoke verisimilitude include Boyle's use of iconography to help "trigger in the reader's mind a naturalistic image of the experimental scene" (60), such as a detailed and expensive-to-produce engraving of "a particular existing air-pump" used in his experiment. Marked by a greater attention to the rendering of "density of circumstantial detail" than was typical of other contemporary experimentalist or natural philosophical accounts,

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"In their own study Latour and Woolgar would collapse this distinction entirely, arguing that "the so-called material elements of the laboratory are based upon the reified outcomes of past controversies which are available in the published literature" (87), but the early experimentalists Shapin and Shapiro discuss necessarily relied more on invention and less on the then-sparse literature in designing their instruments.

Boyle's illustrations are a less daunting but undeniable precursor to the omnipresent graphs, statistical tables, and diagrams that Latour finds in present-day technical articles and judges part of a "folded array of successive defense lines." But where Latour conceives of this present-day scientific iconography as a means of "folding" or distilling the particulars of the experimental scene into ever-smaller bites of data, Shapin and Schaffer see Boyle's use of iconography as the furnishing of a "prolixity" of detail in order to provide the reader a convincing simulation of the original scene. This prolixity extends to the prose of the experimental essays, which Boyle admitted to be characterized by "verbosity," again intended to evoke an effect of verisimilitude (63).

In combination with verisimilitude Boyle also adopted a rhetoric of modesty as a convention for experimental reports, as a further token of reliability. "A man whose narratives could be credited as mirrors of reality was a *modest man*; his reports ought to make that modesty visible" (65). The impression of authorial modesty could be fostered by scrupulously reporting failed experiments as well as successful ones. Furthermore, restraint or understatement should be the rule for discussing "theories, hypotheses, speculations, and the like," so that confident positive locutions could be reserved for "matters of fact," heightening the latter category's status as such while again reassuring the reader of the author's modesty (67). And indeed the essay form itself was said to betoken modesty in contrast to the all-encompassing "natural



philosophical system" (65), such as that of Boyle's rhetorical adversary Thomas Hobbes, whose long-running debate with Boyle is the subject of Shapin and Schaffer's book<sup>12</sup>. The model form established by Boyle for the experimental essay, the paradigmatic scientific narrative of concrete, finite "discovery," thus strove to make "virtual witnesses" of all readers by recreating the visual experience through prolixity of detail and verisimilitude both in the accompanying illustrations and the essay's prose itself, while cultivating an impression of modesty through "full disclosure" and understatement.

American literature, as Limon argues, has always chafed at the authority of scientific discourse and its claims to objectivity and impersonality, but it was not a poem or novel that most destabilized the (Boylean) "traditional view of the scientific enterprise as an autonomous exercise of pure reason by disembodied, selfless spirits, inexorably moving toward a true knowledge of nature"<sup>13</sup> but rather a hybrid text, James D. Watson's 1968 novel-ized discovery narrative

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<sup>12</sup>In *We Have Never Been Modern* Latour uses Shapin's and Schaffer's opposition of Boyle and Hobbes to historically situate the symptomatic modern break between Nature and Society he wishes to overcome: "Boyle is creating a political discourse [namely, science] from which politics is to be excluded, while Hobbes is imagining a scientific politics from which experimental science has to be excluded. In other words, they are inventing our modern world, a world in which the representation of things through the intermediary of the laboratory is forever dissociated from the representation of citizens through the intermediary of the social contract" (27).

<sup>13</sup>Gunther Stent, preface, *The Double Helix: A Personal Account of the Discovery of the Structure of DNA*, by James D. Watson (New York: Norton, 1980) ix.

*The Double Helix: A Personal Account of the Discovery of the Structure of DNA*. The interesting ways in which Watson reinforces some elements of the paradigmatic form of scientific narrative exemplified by Boyle while flouting others are evident from the opening lines of *The Double Helix's* preface:

Here I relate my version of how the structure of DNA was discovered. In doing so I have tried to catch the atmosphere of the early postwar years in England, where most of the important events occurred. As I hope this book will show, science seldom proceeds in the straightforward logical manner imagined by outsiders. Instead, its steps forward (and sometimes backward) are often very human events in which personalities and cultural traditions play major roles. To this end I have attempted to re-create my first impressions of the relevant events and personalities rather than present an assessment which takes into account the many facts I have learned since the structure was found. Although the latter approach might be more objective, it would fail to convey the spirit of an adventure characterized both by youthful arrogance and by the belief that the truth, once found, would be simple as well as pretty.<sup>14</sup>

The passage reinforces traditional scientific narrative form in introducing the book as fundamentally a recounting of a discovery of a natural "truth," the structure of DNA, now to be taken as an irreversible datum about nature. Watson's stress on recreating his "first impressions" and the "atmosphere" of the time, intended to belie the false retrospective orderliness and objectivity of much scientific history, nevertheless represent a reiteration of Boyle's concern with verisimilitude, with the same rhetorical goal of evincing reliability. Later in the preface Watson calls attention to his "extensive use of letters written at virtually weekly intervals"

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<sup>14</sup>James D. Watson, *The Double Helix: A Personal Account of the Discovery of the Structure of DNA* (New York: Norton, 1980) 3.

to his parents and his inclusion of "photographs taken at the time the story occurred," both measures being attempts to reinvest his retroactive narrative with the immediacy and density of detail of the Boylean experimental essay (4).

But Watson's brash succession of "I"'s in *The Double Helix's* preface announce his revocation of Boyle's rhetoric of the scientist as a "modest man." This insistence on personality and "arrogance" is repeated in the famous opening line of the first chapter, "I have never seen Francis Crick in a modest mood," a sentence that betokens the often-insulting candor with which Watson describes fellow scientists throughout the book (9). Watson's Kuhnian and Latourian emphasis on scientific history as being non-linear and subject to "personalities and cultural traditions" is made manifest in *The Double Helix's* portrait of scientific discovery as the by-product of competition between scientists for Nobel prizes and research grants. *The Double Helix's* substitution of personality and "human events" for the traditional impersonality, neutrality and objectivity of the scientific narrative as inherited from Boyle could also be interpreted as a hybridization of the scientific narrative with elements of the novel. Watson encourages this association by concluding his prologue (a single untitled page between his "preface" and Chapter "1") by describing his "tale" as chiefly "a matter of five people: Maurice Wilkins, Rosalind Franklin, Linus Pauling, Francis Crick, and me" (7). Far from minimizing the role of human agency, as Boyle would have advised, Watson presents the

discovery of DNA as a happily humanized adventure tale.

Indeed, in "The Double Helix as Literature" John Limon proceeds from examining the "similarities of plot, character, tone, and style"<sup>15</sup> between *The Double Helix* (originally to be titled *Honest Jim*) and Kingsley Amis's *Lucky Jim*, to the strong claim that Watson's thoroughgoing expression of the metaphoric and scientific implications of the phrase/motif "base pairs" (another reputed alternate title for the book) represents the creation of "a truly transgeneric literature"(46). In other words, for Limon "base pairs" describes not only the "pairing of the chemical bases adenine with thymine, and guanine with cytosine"(34) which Watson and Crick discover to be central to the structure of DNA, but also the pairing of the coarse male buddy-scientists Watson and Crick and other character-pairings in the book, and lastly the view that "science and literature can bond in [an asexual] complementary masculinity"(41). Judging from the argument in his later book on "the place of fiction in the time of science," one would expect Limon to view *The Double Helix* as a successful scientific appropriation from defenseless literature of elements of the novel. But Limon seems to view *The Double Helix* as a sui generis example of "transgeneric literature" or "factual novel"(46-7).

An opposing "pro-literature" view might argue in a Bakhtinian vein that *The Double Helix* represents the scientific narrative

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<sup>15</sup>John Limon, "The Double Helix as Literature," *Raritan*, 5 (Winter 1986): 33.

"novel-ized" in the passive sense, a recipient of the liberating effect Bakhtin describes the novel as exerting upon other (literary) genres in "Epic and Novel":

What are the salient features of this novelization of other genres [. . .]? They become more free and flexible, their language renews itself by incorporating extraliterary [or in this context, extra-scientific] heteroglossia and the "novelistic" layers of literary language, they become dialogized, permeated with laughter, irony, humor, elements of self-parody and finally [. . .] the novel inserts into these other genres an indeterminacy, a certain semantic openedness, a living contact with unfinished, still-evolving contemporary reality (the opened present).<sup>16</sup>

Certainly Watson's book has all these features relative to its predecessor scientific narratives (though his and Crick's technical articles reporting these same findings do not). But ultimately Watson's literary borrowings are primarily ways of increasing the readership for (and thus the social persuasiveness of) a narrative of scientific discovery, of reinforcing for the contemporary reader that image of the "experimental scene" that Boyle strove to disseminate, complete with believably coarse and competitive scientist characters. *The Double Helix* builds suspense in following Watson's and Crick's race against Linus Pauling and others to crack the structure of DNA, and climaxes in the epiphanic experimental scene in which Watson, alone at his desk manipulating his base-pair models, has his historic "eureka" moment, positing the first plausible chemically viable double helix model for DNA. "Suddenly I

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<sup>16</sup>M. M. Bakhtin, *The Dialogic Imagination*, ed. Michael Holquist, trans. Caryl Emerson and Michael Holquist (Austin: U of Texas P, 1981) 6-7.

became aware that an adenine-thymine pair held together by hydrogen bonds was identical in shape to a guanine-cytosine pair held together by at least two hydrogen bonds" (114). *The Double Helix*, then, straddles the elusive line between "popular science" and the novel, incorporating elements of the novel for the rhetorical end of increasing the scientific narrative's contemporary verisimilitude, and thereby increasing its persuasiveness, and reinforcing for lay readers the experimental scene.

The principal burden of this chapter is to examine to what extent selected contemporary novels that also engage the experimental scene, here deemed "scientist fiction," serve to reinforce and/or subvert the authority of scientific discourse and its attendant ideologies of discovery and progress, while remaining attentive to the ontological uniqueness of each of the novels discussed. The identification of *Ratner's Star*, *The Gold Bug*, *Variations*, and *Galatea 2.2* as "scientist fictions" is complicated by the fact that *Ratner's Star* shares with much conventional science fiction a setting in the (near) future and not only speculative but literally fictional science. However, DeLillo and Powers are clearly "literary" novelists, as attested by their ample body of non-science-related novels, whose scientist fictions represent conscious attempts to investigate the authority of scientific discourse and its relation to literature. Like *Laboratory Life* and *The Double Helix*, these novels place readers "inside" the scientific establishment, inside its laboratories and richly-funded research

centers, with both thematic and formal investment in specific scientific principles.

The "network" of technoscience, as described by Latour, is generated by the activities at its concentrated nodes, the handful of well-insulated research centers and major laboratories where highly specialized inquiries are conducted under ideal conditions. The symbolic nucleus of these nodes is the experimental scene, wherein a small working group pursues a specific research goal. As the nodes are metonymic of the network, and the work-group or sub-group or individual scientist are metonymic of the nodes, the *in vitro* experiment is paradigmatic of scientific work. From the Latin for "in glass," the glass symbolic of the insulation modern society grants technoscience's nodes, *in vitro* refers to experiments conducted "outside the living body and in an artificial environment," and is typically contrasted with *in vivo*, or "in the living" experiments, which are carried out "in the living body of a plant or animal."<sup>17</sup> All novels, however sprawling and inclusive, are inherently reductive "slices of life," but the scientist fictions under study are yet more suggestive of the exaggerated insulatedness of the *in vitro* experiment, as a result of their close focus on small enclaves of elite individuals working out intellectual puzzles. Furthermore, all three novels manifest the impulse toward abstraction and the distillation of presence into disembodied,

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<sup>17</sup>"*In vitro*," and "*In vivo*," *Webster's New Collegiate Dictionary*, 1979 ed.

decontextualized pattern intrinsic to in vitro experimentation.

Just as Latour and Woolgar's *Laboratory Life* was based on observations at the Salk Institute, and *The Double Helix* on Watson and Crick's laboratory adventures at Cambridge<sup>18</sup>, Ratner's *Star*, *The Gold Bug Variations*, and *Galatea 2.2* all centrally feature scientific work-groups. DeLillo's *Ratner's Star* begins with the arrival of its protagonist Billy Twillig, a 14-year-old math prodigy who had already graduated from the elite "nodes" the Bronx High School of Science and the fictional "Center for the Refinement of Ideational Structures," at "Field Experiment Number One," the top-secret ur-node where the world's elite minds have been called to puzzle out the meaning of a signal received from outer space. DeLillo's historical catastrophism and related distrust of scientific claims of progress results in an ironic portrayal of scientific work. But DeLillo's attempt to invest his novel with a virtually mathematical form constitutes an in vitro experiment. Powers's *The Gold-Bug Variations*, which has echoes of both *The Double Helix* and *Ratner's Star*, has as one of its main narrative strands the efforts of the "Cyfer" (or "Cytological Ferment") team at the University of Illinois at Urbana-Champaign in 1957-58 to go beyond Watson and Crick's discovery of the structure of DNA to understand how specific combinations of adenine, guanine, cytosine, and thymine code for particular proteins. The novel's other

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<sup>18</sup>And Watson later wrote the book while employed by another major "node" of scientific research--Harvard.



principal narrative strands, interwoven like the DNA structure itself, include the efforts of the reference librarian Jan O'Deigh to educate herself via the published literature on the entire history of genetics and molecular biology, and the present-day interrelations of the "work-group" of O'Deigh, the Cyfer veteran Stuart Ressler, and art history graduate student Franklin Todd at their private and powerful node in the network of financial data, "Manhattan On-Line." Lastly, Powers's *Galatea 2.2* takes place in the present at the "Center for the Advanced Sciences," yet another well-funded super-think-tank at a Mid-western American university, where author "Richard Powers" has received a fellowship as the "token humanist," and ends up working informally in the lab of expert "connectionist" Philip Lentz on an artificial intelligence project. Thus linked as scientist fictions, these three "experiments" produce varying results, including differences in tone, in formal technique, and in proportion of critique of scientific discourse to science boosterism.

## **2. Mathematics and Discontinuity: The Instability of Ratner's Star**

*Ratner's Star* is a text that actively resists pigeonholing, presenting itself as a manifold container of multitudes in its reflexive assessment of the astronomer Kepler's book *Somnium* as all at once "an experimental novel, an allegory, a lunar geography, an artful autobiography, a cryptic scientific tract, [and] a work of

science fiction."<sup>13</sup> If DeLillo's novel cannot then be comfortably tagged with any single classification, it can certainly bear the addition of another tag, that of "scientist fiction," particularly in relation to the vast majority of contemporary American novels, and all those considered in the other chapters of "Simultaneous Diversity," which are clearly not scientist fictions. But once within this putative taxonomic grouping *Ratner's Star* does not rest easily alongside the Powers novels; DeLillo's novel is paradoxically both drastically more critical of its scientific community than are the Powers novels, and, more thoroughgoing in its formal commitment to the logical/mathematical ordering principles associated with scientific ideology. *Ratner's Star* is an experimental novel that travesties scientists and their experimental scene, positing a higher "spatial" correspondence of art as/and mathematics above the progressive temporal trajectory of discovery and technological advance associated with scientific practice. Herbert Spencer's central tenet of Progress-thought, the expectation of a universal movement from the homogeneous to the heterogeneous, or from the simple to the complex, is belied by a narrative treatment of the subject of scientist fictions that in tracing three novels chronologically moves from irony toward earnestness. Yet if the jump from Boyle to Watson fulfills these conventional Spencerian narrative expectations, the sequence of DeLillo to Powers does not.

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<sup>13</sup>Don DeLillo, *Ratner's Star* (1976; New York: Vintage, 1989) 57.

To illustrate this disruptive ambiguity of DeLillo's novel it is useful to examine its treatment of the elements that qualify it as a scientist fiction, namely its protagonist's involvement in a scientific work-group, after first acclimatizing to the novel's unsettling setting. Ratner's Star's exposition, which introduces protagonist Billy Twillig and delivers him to Field Experiment Number One, proceeds by way of dislocation and disorientation in time. The novel's opening lines literally transport Billy from the "known" here and now to an amorphous imaginary future:

Little Billy Twillig stepped aboard a Sony 747 bound for a distant land. This much is known for certain. He boarded the plane. The plane was a Sony 747, labeled as such, and it was scheduled to arrive at a designated point exactly so many hours after takeoff. This much is subject to verification, pebble-rubbed (*khalix, calculus*), real as the number one. But ahead was the somnolent horizon, pulsing in the dust and fumes, a fiction whose limits were determined by one's perspective, not unlike those imaginary quantities (the square root of minus-one, for instance) that lead to fresh dimensions. (3, DeLillo's italics)

Granting the technological advancement represented by the airplane, and the ideological attractions of the planned and realized flight-path as an image of a managed, progressive future, this passage proceeds to cloud this idealized Progress in the "dust and fumes," or natural and man-made instabilities, of the "somnolent horizon" of the necessarily fictional future. The unfettered spatial imagination common to mathematics and fiction rises above the limited scientific ethos of incremental progressive "verification," and involves a temporally heterogeneous mix of elements of forward motion ("the number one") and backward motion ("minus-one"). Signifiers of

futurity<sup>20</sup>, such as the "Sony 747," with its "five-two-three-two-five seating pattern" (4) along whose four aisles stewardesses drive motorized food-carts, combine in the opening pages with allusions to "Theban initiation" rites and Billy's musings on "Sumerian gesh-time" (5), Ancient Egyptian number-theory, and "pre-cuneiform" numerals recorded on "clay slabs" (8). The exposition's dislocation and temporal un-settling assert an insulated imaginative space striving for the unboundedness of mathematics but more akin to the insulated space of the laboratory or of the *in vitro* experiment itself, with Billy in his Sony 747 "pressurized chunk of tubing" (5) soaring "above the weather" of grounded sociopolitical nowness (12).

But before Billy's plane lands him on the hazy ground of his unnamed destination and he is taken to Field Experiment Number One, DeLillo further undercuts the narrative realism or verisimilitude that helps differentiate the scientist fiction of Powers, for example, from conventional "science fiction." The laconic, Beckett-like verbal exchanges that Billy has on the plane with the flat, underdeveloped characters Eberhart Fearing and Mrs. Roger Laporte, and with the escorts "Ottum and Hof" who meet him at the airport, set a pattern of one-dimensional characterization and detached, occasionally joky but affectless dialogue that persists throughout the twelve chapters of the book's first section, "Adventures: Field

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<sup>20</sup>Despite these and other "distancing" details, such as the ongoing war between perennial neutrals Switzerland and Sweden, the setting of DeLillo's 1976 novel is identified indirectly late in the novel as the centennial year of Einstein's birth, or the surprisingly-near future of 1979.

Experiment One." Only somewhat more fleshed-out characters and meaningful exchanges populate the novel's obverse second section, "Reflections: Logicon Project Minus-One." The time-blending title of a brochure Billy sees Mrs. Laporte reading, "ANCIENT TREASURES / MODERN PLEASURES A Lifetime of New Relationships in Twelve Frolicsome Days and One Dangerously Sensual Night," reflexively foreshadows the novel's structure, a structure inspired, according to DeLillo, by the "Adventures" and "Reflections" of Lewis Carroll's *Alice's Adventures in Wonderland and Through the Looking Glass*.<sup>21</sup> In the same interview (with Tom LeClair) in which DeLillo discusses the influence of Carroll's books, he explains the novel's flat characters as necessary to his scheme of creating a truly mathematical structure for the work:

I wanted the book to become what it was about. Abstract structures and connective patterns. A piece of mathematics, in short. To do this I felt I had to reduce the importance of people. The people had to play a role subservient to pattern, form, and so on.

DeLillo's strategy, then, is the reverse of Watson's in *The Double Helix*; rather than lead up to the exploits of the scientific work-group by grounding the narrative in a specific time and place and "humanizing" it with fleshed-out characters with clear motivations, DeLillo in his exposition and overall structuring of the novel aims to dislocate the reader and dehumanize the story toward the end of

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<sup>21</sup>DeLillo's comments on Lewis Carroll's influence and the structure of *Ratner's Star* are in "An Interview with Don DeLillo," in *Anything Can Happen: Interviews with Contemporary American Novelists* Ed. Tom LeClair and Larry McCaffery (Urbana:U of Illinois P, 1983) 86.

approaching the perfect abstraction of mathematics. He is thus paradoxically aspiring to formal virtuality, or disembodiment, even as his thematic catastrophism belittles scientific progressionism.

Field Experiment Number One, the top-secret think-tank where Billy is brought, is conceived as the exaggerated epitome of the new, hugely expensive, supremely insulated scientific "node." Its "relatively brand new" structure (17), which is vaguely identified only in the book's closing pages as being located in a Chinese desert, is a giant cycloid "about sixteen hundred feet wide, six hundred feet high. Welded steel. Reinforced concrete" (16). As the pragmatically terse "scientist-administrator" Byron Dyne explains to Billy upon his arrival, the facility represents the throne of the will to (scientific) knowledge, "the fulfillment of mankind's oldest dream," and is to be paid for by the global network it will dominate: "One hundred nations are sharing the cost. Single planetary consciousness. Rational approach. World view" (21). This globalist "world view," in which a supra-national scientific elite stationed at Field Experiment Number One and projected similar ur-nodes serve as "beacons in the shit-filled night" (274), reduces cultural difference to the parodic multiculturalism of the project's scientists' names. This sardonically diverse collection includes, among others: Una Braun, Henrik Endor, Cheops Feeley, Viverrine Gentian, Rahda Hamadryad, Cyril Kyriakos, Orang Mohole, Bhang Pao, Othmar Poebbels, U.F.O. Schwarz, Robert Softly, and Hoy Hing Toy. In Billy's surreal encounters with these scientists in "Adventures,"

the faded exoticism of their names serves not to betoken actual cultural clashes but rather to invoke faint geographic resonances to further spatialize his adventures and blur the presumed linear trajectory of the "research problem" plot.

Indeed progress on the facility's highest priority research problem, the explanation and interpretation of a message of radio pulses from outer space, is oblique, deferred, and in the book's longer first section, "Adventures," usually off-stage. Billy works sporadically on discerning a number-theory-based method of interpreting the message of pulses in the interludes between his Alice-like encounters with one weird scientist after another, during which he is given reports of the current state of knowledge about the presumed source of the message, "Ratner's star." That there is indeed a message, that "signals were transmitted in irregular pulses. [. . .] [and] The transmission was fourteen pulses, a gap; twenty-eight pulses, a gap; fifty-seven pulses" (47) is consistently reiterated throughout, but each report on the actual source of the message tends to contradict and overthrow the previous one, such that the net "progress" of scientific inquiry into the nature of Ratner's star in "Adventures" is negative:

The star is a common G dwarf. It's called Ratner's star. [. . .] we believe the object in question is a low-mass planet that occupies the star's habitable zone. (50)

The star is part of a two-star system. [. . .] The star is binary. (93)

Ratner's star is on the verge of becoming a red giant [. . .]. Of less importance is the fact that the star is not binary after all. It is definitely one star. However it seems to have

two planets. (140)

Ratner's star is not about to enter the red giant phase as previously believed. It's a white dwarf. It'll remain so unless it degenerates further to the pulsar stage. [. . .] There's one planet, not two. A planet so large it seems to be radiating in the visible end of the spectrum.[. . .] So it's really not a planet at all but a dim star.[. . .] A red dwarf star. So what we've got out there is a binary dwarf. One red star, one white star. [. . .] Two hot gaseous spheres, completely uninhabitable. No message-senders, true. But there is a message. It didn't come from Ratner's star, however. It only seems to have originated in that part of the galaxy. This is because Ratner's star probably lies within the value-dark dimension, or mohole totality, as I sometimes call it. (179)

This sequence of contradictory positive statements whereby the epistemological status of the message source is degraded from a particular single planet orbiting a common star to an unlocalizable point within the formally unknowable realm of the "mohole" (a DeLillo invention with resonances of astrophysical "black holes" and "wormholes"), represents "progress" only in the Popperian sense of the progressive approximation to truth made possible by successive falsification of imperfect hypotheses. The only concrete progress in "Adventures" toward the solution of the overriding research problem, in the Boylean positivist sense of the logical accretion of irreversible "facts," is Billy's ignored insight that in the Sumerian sexagesimal system, or "notation by sixty," the pulse sequence fourteen/twenty-eight/fifty-seven "are not three numbers but a way of expressing a single large number. [. . .] [so] What was being transmitted then was the number fifty-two thousand one hundred and thirty-seven" (239).

In "Reflections: Logicon Project Minus-One," the strikingly



different concluding section of the novel, an even more elite scientific work-group, the "Logicon project," does succeed in identifying the message's content and roughly identifying its source, confirming the novel as a "scientist fiction," albeit one permeated with the discourse of discontinuity. In the last chapter of "Adventures" Billy is recruited by his mentor, Robert Softly, to participate in the Logicon project, an effort by a handful of "the very best people [. . .]. Every one a supersavant," working in "a state of total isolation" in a hollowed-out sub-basement (the "Antrum") beneath Field Experiment Number One (282), to construct a "universal logical language" as a necessary tool for interstellar communication (285). The work to construct the Logicon language, which Billy never participates in, is overshadowed by the independent discoveries of two other Logicon team-members, paleo-anthropologist Maurice Wu and exo-chemist Walter Mainwaring, that help identify the origin of the radio message, and by Billy's numerical decipherment of the message itself. Mainwaring shows that the Earth itself is inside a mohole, and that the radio messages had initiated from Earth and were somehow now being reflected back due to effects of the mohole. And Wu finds evidence of an extremely sophisticated human civilization well beneath the strata of primitive humanity, likely capable of having sent the radio pulses. Billy's contribution is to realize that the sequence fourteen/ twenty-eight/ fifty-seven signifies the time 2:28:57 p.m. (fifty-two thousand one-hundred and thirty-seven seconds after midnight). Thus

the full import of the radio pulses that serve as the engine of the novel's "plot," such as it is, is that an ancient but extremely technologically advanced human civilization has sent a message to future human societies to the effect that "something might happen at twenty-eight minutes and fifty-seven seconds past two p.m. on a day yet to be determined" (384). This "something" turns out to be a solar eclipse unpredicted by the novel's present-day global scientific community until scant hours before its shadow hits the Earth, a "noncognate celestial anomaly" that undercuts the authority of the scientific world-picture (434).

Wu's non-linear, or "contralogical theory of human evolution" (358) represents the novel's most direct engagement with the discourse of discontinuity, and a departure from the future-directed (whether utopian or dystopian) bent of much conventional science fiction. "Man more advanced the deeper we dig," Wu's "revolutionary thesis" based on archaeological findings "that at a certain layer of soil the signs of man's increasing primitivism cease abruptly, to be replaced by a totally converse set of findings," is revolutionary in that it directly contradicts Spencer's law of universal movement from the simple to the complex (321). DeLillo pushes this fictional "discovery" to the extreme not only of imagining an ancient human civilization "capable of beaming radio signals into space" (403), but one responsible for "a spontaneous nuclear reaction in a uranium deposit over a billion years ago" (404). Wu's resulting view that "our original evolutionary thrust was followed by a period of

degeneration that might have been connected to radiation diseases and such. [. . .] [After which] at a crude toolmaking level, things swing upward once again, taking us to the point we now occupy" is an exaggerated variant of the historical catastrophism later espoused by Judge Holden in McCarthy's *Blood Meridian*, in which the Anasazi are the now-absent advanced civilization that peaked and perished abruptly.

DeLillo underscores the importance of the anti-progressive or non-linear evolutionary scheme by directly linking it, in a novel obsessed with form(s), to the almost-totemic v- or boomerang shape that recurs both graphically and thematically throughout. After three other graphic appearances (twice inverted as the "stellated twilligon" [117, 241], a mathematical entity named in Billy's honor, and once in series as the ancient markings on a stone excavated in China by Wu, which he interprets as "bats in flight" [322]), the v-shape diagram appears again to illustrate Wu's thesis of human evolutionary decline from the earlier advanced civilization "Homo A" to a nadir of "pebble tools" and subsequent rise up to contemporary "Homo B" (388). As with McCarthy's parallel between the advanced but long-vanished Anasazi and a modern civilization nearing a violent apex, or "blood meridian," DeLillo's use of the v-shaped human historical trajectory suggests that contemporary "Homo B," now at an analogous level of development to "Homo A" right before their sudden hypothetically nuclear-related deterioration, is headed for imminent catastrophic decline, rather than continuing technoscientific

advance.

Despite the deferred but ultimately successful resolution by the Logicon team of the research problem of the origin and meaning of the radio message, the literal encroaching darkness of the novel's end bears out this reading of science-leveling pessimism, or acknowledgment of the utter, permanent vulnerability of human life. The novel's endgame is the unscheduled solar eclipse, the "noncognate celestial anomaly" that preempts further interest in Logicon's stated goal of creating a universal logical language, sending Billy and the novel's arch-rationalist and Logicon project-leader Robert Softly scurrying for shelter. The eclipse, which first touches Earth at 2:28:57 p.m. Greenwich time, evidently predicted by the Homo A civilization but unexpected by modern science until only a few hours before its shadow hits the Earth, wipes away the psychological edifice of centuries of techno-scientific progress. The elite scientist Softly is driven to "flight," in prehistoric terror of nature's contingency and force: "fear (perhaps) of eclipse per se. A wish to bang on hollow objects. A need to chew the fleshy leaves of aloe plants" (435). Softly's flight leads him in the direction of a previous resident genius scientist of Field Experiment Number One, Henrik Endor, who prior to the novel's outset, possibly having intuited the coming crisis, had abandoned everything to tunnel with bare hands and a coat-hanger in the desert earth, surviving in his hole on a diet of worms and grubs. The novel ends with Softly crawling into Endor's "rectangular" (grave-like)

hole and indeed over his corpse, clawing blindly at the earth like a mole rat, while Billy, reverting to childhood and beyond, comes toward the hole frantically pedaling a tricycle through "the shadow bands that precede total solar eclipse" emitting a "series of involuntary shrieks" (438).

The ending's reduction of the novel's leading scientific minds to rat-like hole-diggers represents the ironic full-circling of the novel's depiction of scientists as "ratners," or those whose profession consists of detached experimentation upon actual or symbolic "rats." Immediately after Billy hears the novel's first mention of "Ratner's star" in a briefing by U. F. O. Schwarz, he visits the center's "Zoolog Comp" and encounters a zoologist named Rahda Hamadryad who tells him of her "research in animalalia" involving communicating with rats "through a series of color-coded shock mechanisms" (52). Billy later finds that he himself is a highly coveted experimental subject, refusing the efforts of Cheops Feeley to implant "the Leduc electrode" underneath Billy's scalp and thereby link his mathematical ability directly to "Space Brain," the center's supercomputer. Subsequently, he abandons his room to descend into the Antrum with Softly shortly after learning that the room was an "experimental canister" or "giant sensor" recording "your heartbeat, your electrical brain activity, your oxygen intake, your eye movements, your cerebral blood flow and countless other functions" and thus that during his stay his every movement and pulse had "been recorded, measured and studied" (262-63). These

particular experimental uses of rats and human "guinea pigs" are made constitutive of all scientific activity as the novel's emblematic "scientific giant" (215), a wizened Nobel laureate astrophysicist kept alive, like "in vitro" science, inside an "ultrasterile biomedical membrane environment" (211), is named Shazar Lazarus Ratner, "the Ratner of Ratner's star" (199).

The "Ratner's star" of the novel's title, then, is not only the presumed source of an extraterrestrial radio message and as such the focus of much of the scientific inquiry of Field Experiment Number One, but also the idealized object of all scientists' (ratners') desire<sup>22</sup>, or will to power/knowledge. As the source of the message is revealed to be our own planet, Ratner's star is also the Earth, a place where ratners run rats through mazes, and are ultimately portrayed as rats themselves in a cosmological experiment beyond their comprehension, evincing "the notion of suffering as macrocosmic sport" (431). DeLillo does not hesitate to underscore the resonances of the scientific desire for omniscience and experimental control over helpless subjects with the same impulse in naturalistic fiction or film. Between a radio announcer's declaration of the foretold eclipse time "fourteen, twenty-eight, fifty-seven" and the concluding sequence of Softly's and Billy's flights into the desert, DeLillo inserts a "system interbreak" in which the narrative camera's focus is reset to naturalistic

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<sup>22</sup>The phrase "Ratner's star" thus becomes analogous to a phrase like "Dante's Beatrice," or "Petrarch's Laura."

omniscience (429). In providing the reader a wide-angle view of "eclipse track Asia," the narration shifts to a direct address in a suddenly lyrical prose to a "you" that conflates the reader with the naturalistic view-from-nowhere perspective of the ultimate outsider, a member of the presumed-alien but actually ancient-human race responsible for the radio messages (the Artificial Radio Source extants):

As hypothetical ARS extant (transferred, by whatever means, from your nonquantum state Outside), you have the benefit of an omnidirectional viewpoint and are able to observe, regarding this event, that the earth along the eclipse path and its outer borders of partial darkness resemble a charred immensity [. . .]. (430)

In the four-page passage told from this perspective the shadow of the eclipse can be seen creeping over India into Bangladesh and finally China<sup>23</sup>, but hand in hand with this wide view, the culture-specific (if orientalist), "realist," in-vivo particulars of the larger part of humanity, which the novel's Alice-like in-vitro abstraction everywhere else rules out, are zoomed in on lyrically as the eclipse-shadow passes through. The results of this "interbreak" of omniscience are grim but stoic, a partial overview of the earth highlighting beggars and burial grounds, and human "cruelty and fear," yet aiming to retain the affectlessness and abstraction of the outsider's perspective.

The tension within the interbreak and the novel as a whole between the science-leveling pessimism epitomized by the ending, and

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<sup>23</sup>This constitutes the novel's first and only identification of the location of Field Experiment Number One.

DeLillo's concomitant embrace of the patterning abstraction seemingly at the heart of the scientific ethos, is the crux of Ratner's *Star's* ambivalent and ambiguous status as a "scientist fiction." In the interbreak's address to the "hypothetical ARS extant" imagined as both an omniscient alien intelligence and the myriad of mysterious discontinuous intellectual accomplishments of the ancient human past, DeLillo voices his attraction to abstract mathematical space:

Mathematics is what the world is when we subtract our perceptions. In your earthly study of the subject, you went beyond its natural association with the will to live and found that it contained a painless "nonexistence," the theoretical ideal of  $n$ -space. And so you beamed into the heavens a clue to the limitations not only of (y)our science but of human identity as well, that very possession which the naked monk seeks to dissolve in his methodical swallowing of the world's offal and mold. (432)

This ideal mathematical space which represents the absence of human subjectivity or identity also somehow contains the key to the production of meaningful art, as evidenced in Endor's statement to Billy that "mathematics is the only avant-garde remaining in the whole province of art" (85). In his interview with LeClair, DeLillo stated that "pure mathematics is a kind of secret knowledge," and "in *Ratner's Star* I tried to weave this secret life of mankind into the action of the book in the form of a history of mathematics [. . .]" (86). Following up this lead in his own study of DeLillo<sup>24</sup>, LeClair unpacks and charts this buried history of mathematics in the

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<sup>24</sup>Tom LeClair, *In the Loop: Don DeLillo and the Systems Novel* (Urbana: U of Illinois P, 1987) 125.



novel as part of a larger argument that DeLillo novels are "systems novels," and that *Ratner's Star* in particular was more orderly and less an all-out ironic critique of science than previous criticism had allowed.

But the intricacy of *Ratner's Star's* construction and its formal and thematic investment in an idealized abstraction do not neutralize its catastrophist critique of scientific self-importance and long-term helplessness. DeLillo's reliance on what he terms the esoteric "language" of mathematics, and the novel's use of the scientific work-group and research-problem plot do qualify the work as a "scientist fiction," but as one in which the ideal is not the celebration of scientific progress but rather the attempt to access the atemporal inhuman plane of mathematics through art. DeLillo's intellectual challenge in attempting to render out of discrete particulars something approaching the continuity of mathematics is analogous to that expressed in the novel by the scientist Othmar Poebbels:

I have done work with discrete things. I have done other work with continuous things. How do discrete things relate each to the other? I have wish-ed to answer this question. [. . .] How to join together discrete with continuous. (95)

But only the hypothetical "ARS extants" are allowed the omniscient perspective such a connection would necessitate, while the novel's elite scientists are left fear-stricken by the inevitability of incomplete understanding and death's discontinuity. From his hole in the ground the scientific genius Endor muses "Einstein and Kafka! They knew each other! They stood in the same room and talked! Kafka

and Einstein"<sup>25</sup> (89); and in the novel science and art do meet, but remain discrete. Ultimately *Ratner's Star*, like the protean entity named in the title, is neither a simple critique of science nor a "systems novel" but a highly unstable scientist fiction, or patterned discourse of discontinuity.

### 3. The Earnest Music of Genetics: *The Gold Bug Variations*

The longest and most ambitious of the six novels published to date by the always-ambitious Richard Powers, *The Gold Bug Variations* goes beyond a surreal mutual introduction of science and art, instead attempting a grand synthesis or fruitful marriage of the two disciplines. In this work Powers is not interested in hybridizing scientific and non-scientific worldviews; rather he sets out to demonstrate how the complexity of Life, like that of music, can be iterated from the working-out of simple ordinary (scientific) laws. Powers's synthesizing intentions are announced in the novel's title, which collapses Poe's story *The Gold-Bug* with Bach's *Goldberg Variations* and the genetic denotation of "variations," to suggest a universal code-breaking impulse unifying language, music, and genetics, and revealing Life itself. If DeLillo's book aspires to the condition of mathematics, *The Gold Bug Variations* aspires, in a more properly Paterian sense, to the condition of music. The novel's

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<sup>25</sup>DeLillo is evidently alluding to the possibility that Kafka and Einstein may have met in the years before WWI when both were known to have attended Berta Fanta's intellectual salon in Prague. See Peter Mailloux, *A Hesitation Before Birth* (Cranbury, NJ: Associated University Presses, 1989) 93.

structure of thirty chapters between opening and closing "Aria"s directly mimics Bach's aria-bound set of thirty variations, and Powers, to a degree of fidelity known only to himself, even attempts to match the "tone" and internal structure of his individual chapters to those of their corresponding variations. Powers further develops an elaborate gloss on the structure of Bach's *Goldbergs* as minutely anticipating the numerology, or coding patterns, of molecular biology, a numerology that is carefully reiterated in the novel's own weaving of character-pairings and parallel plot lines.<sup>26</sup> In its obsessive patterning and synthesizing, and the utter earnestness of its rationalist effort to share, as opposed to merely display, its scientific knowledge, *The Gold Bug Variations* is the exemplary contemporary scientist fiction.

And yet as knowledgeable a lay science enthusiast as Powers is he does not attempt to synthesize in his fiction the cutting edge of contemporary bio-genetics, whatever that might involve. Instead, he involves his educated contemporary non-scientist urbanite protagonists (and readers) with the molecular biology of the late 1950's, at the "frontier" opened by "the legendary Watson-Crick article in *Nature*" (44) that is today long-settled and over-developed. For its core scientific tropes, *The Gold Bug Variations* essentially picks up the story of molecular biology where the

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<sup>26</sup>Although academic criticism of Powers's work remains sparse, a concise overview of his use of narrative patterning in *The Gold Bug Variations* and his other novels can be found in James Hurt, "Narrative Powers: Richard Powers as Storyteller," *Review of Contemporary Fiction* 18.3 (Fall 1998): 24-41.

breakthroughs recounted in *The Double Helix* left off, inheriting from Watson's (scientific and literary) work the structural icon of DNA's two helical strands composed of combinations of the four nucleotides: adenine, guanine, thymine, and cytosine.

Powers's novel ultimately presents itself as a helical composite of two "spliced" texts: reference librarian Jan O'Deigh's narrative of her interactions in New York City with art history ABD Todd Franklin and ex-molecular biologist Stuart Ressler from 1982 to the novel's concluding "present" of 1986; and the story of the 1957-58 scientific work of Ressler as part of the CYFER work-group, told (the reader learns at the end) by Todd. O'Deigh's narrative is distinctly sub-divided into three strands: a "present" narrative picking up from her 1985 hearing of Ressler's death ("word came today" (11), begins Chapter 1) to her 1986 final reunion with Todd; a separate strand representing her personal research project begun after Ressler's death to internalize the history of genetics (Ressler's field); and a third concurrent narrative of the "recent past" (1982-85) period when she was part of a "team" with Todd and Ressler at the mens' workplace "Manhattan On-Line," and romantically involved with Todd. After all three narrative strands, plus the fourth strand of Todd's Ressler text, have been introduced, they reappear in various combinations in most of the novel's chapters, like the recycling "four-note phrases" Powers avers to be elemental to the *Goldbergs*, or the "four secret letters" (nucleotides) whose combinations particularize living beings. The need for numerological

neatness results in a fourth major character, Ressler's Cyfer colleague Jeannette Koss, with whom in the 1950's narrative strand he engages in a love affair intended to parallel the 1980's romance of O'Deigh and Todd, such that the novel can fulfill its iconic structural patterns as neatly as a stanza of the opening "Aria" predicts:

Two men, two women, their requisite friends,  
acquaintances, strangers and impediments,  
two couples at arm's length of thirty years bend  
in ascending spiral dance around each other. (8)

Powers's conviction of the beauty and inevitability of these numerological resonances, his faith in the complete compatibility of life as rendered in art and as codified in life science, are evident from the Aria's opening and closing questions, "What could be simpler?" (7) and "How can we help / but hitch our all to these mere four notes?" (9).

*The Gold Bug Variations* is not only an exhaustively researched novel, but a novel that glorifies research as the most fundamentally human of activities, research conceived not as the sardonic manipulation of rats by ratners, but in the more benign aspect of code-breaking, puzzle-solving. All of the novel's main characters are committed researchers; Ressler and Koss are credentialed scientists on the Cyfer project, while reference librarian O'Deigh and art history ABD Todd are involved in a series of individual and joint research projects throughout the novel. Moreover Ressler and Todd work together as "data-keepers," or night-shift mainframe operators, at "Manhattan On-Line" (MOL), a non-descript but powerful

"node" in the global computer network of financial data. It is on one of her frequent visits to MOL that O'Deigh hears Ressler elaborate on the numerological resonances he had discovered between genetics and the *Goldbergs*, and is awed by his mind, "one that still drew connections between all things [. . .]. A mind that looked for the pattern of patterns" (192). This reverence that could be called "connectionist" (in anticipation of *Galatea 2.2*'s direct look at "connectionist" theories of mind) informs all the novel's formal pattern-making, and is underscored by the novel's world of intermeshing symbolic "fields." There is not only the specialized field of genetics and the patterns it espouses, but also the more democratic public domain of available facts represented by O'Deigh's library network of reference information, and the global electronic financial network engaged by MOL. Powers's encyclopedic aspirations to connect as much of contemporary knowledge as possible even includes incorporating familiar themes of the discourse of discontinuity, but situating them within an enveloping, neutralizing context of unified knowledge. The medium of this unity is the research process.

Before examining the novel's most direct engagements with the research process, namely the Cyfer narrative strand that literalizes the work's designation as a "scientist fiction" and the strand detailing O'Deigh's self-education in genetics, a brief overview of the series of research projects that drive the "recent past" and "present-day" narrative strands will effectively summarize

the novel's "plot." The friendship of O'Deigh, Todd, and Ressler, whose duration constitutes the "recent past" story arc, begins with Todd's first meeting with O'Deigh at the Brooklyn branch of the NYPL<sup>27</sup> where she works, and is initiated when Todd approaches O'Deigh at the reference desk and challenges her with an idiosyncratic research project--to uncover the notable accomplishment he is certain lies in the past of his mysterious older co-worker, Stuart Ressler. After weeks of open-ended index-searching with nothing to go on but Ressler's name and approximate age, O'Deigh hits on a 1955 *Life* magazine photograph identifying Dr. Stuart Ressler as "one of the new breed who will help uncover the formula for human life" (39), and his brief moment of fame as a geneticist is revealed. After Todd confronts Ressler with this discovery and O'Deigh subsequently becomes their frequent guest at MOL, the research project of educating O'Deigh and the reader about the workings of MOL takes over, followed by the trio's collective project to create a simulated network of financial data to replace the actual one in order to alter existing insurance coverage records for their co-worker Jimmy, a stroke victim. Meanwhile, the "present-day" narrative strand in the novel is identifiable as involving O'Deigh's attempt to deduce the whereabouts of Todd, absent since Ressler had left the group after being diagnosed with cancer, a research project

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<sup>27</sup>A rare example of flawed research on Powers' part, as the Brooklyn Public Library is now, and was in the early-eighties the novel describes, a separate entity from the New York Public Library, which operates branch libraries in the Bronx, Manhattan and Staten Island.

that involves forays into Todd's own research area, fifteenth-century Flemish painting, and ends only with Todd's reappearance at novel's end.

Despite Powers's encyclopedic ambitions, these research projects serve the "work of purification," narrowing the focus and limiting the narrative field much the way scientific work-groups wall out the "external" world from laboratories or in-vitro experiments. Through O'Deigh, Powers acknowledges that his expansive contemporary urban novel's focus on the sheltered interactions of three highly-educated "researchers" is hopelessly reductive:

We were a self-governing, city-free zone. What other way is there to survive the place? [. . .] Life at the megapole [NYC] required that I decide how many of the fifteen million adjacent catastrophes I could afford to feel. In those days--the brief bloom following a desert flash--I set my empathy at three. The calculus required consigning entire boroughs to misery beyond addressing, stepping gingerly over a baseball-batted body at the top of the subway stairs on the way to sharing whatever small delight one can save from mutilation.<sup>29</sup>  
(291)

The "city-free zone" of "delight" here alluded to is MOL, viewed by O'Deigh as an oasis of cultivation amid anonymous misery, and further analogized to Antarctica, a continent-sized "scientific preserve": "the digitized warehouse became a sovereign, unreachable polar province, a fair chunk of the world set aside for responsible experiment." In addition to MOL another symbolic "refuge" space in

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<sup>29</sup>Rare passages like this one, where Powers obliquely acknowledges social "misery" he will not examine more closely in this novel (but does dwell on elsewhere, *Operation Wandering Soul* in particular) are analogous to Ratner's Star's "system interbreak," where a tour of human suffering briefly interrupts the abstract scientist fiction.



the novel is the upstate New York cabin-in-the-wilderness where the trio go for a weekend getaway, a vacation that O'Deigh frequently recalls fondly. The entire 1950's Cyfer story arc is another such refuge from miserable nowness, but within that story there is a further remove of nostalgic isolation, as Ressler and Koss drive far enough away from the Urbana, Illinois campus where Cyfer is located to come across an Amish community, described as "a pristine almost-village, a time hole lost in the previous century" (501). But though the Amish village clearly evokes the novel's nostalgic yearning for simplicity, it cannot serve like MOL as a surrogate laboratory, as it represents an evolutionary dead-end, its inhabitants having chosen "to hold still in the workable niche while life floods around them into new pools, speciates." The novel favors the controlled fecundity of the lab to either the undiluted teeming "megapole" or the anachronistic "lost place" (502).

The narrative strand of Ressler's 1957-58 stint in the Cyfer research group represents the novel's most direct engagement with scientific work and the "in vitro" ethos, and begins, like its precursor *The Double Helix*, with the arrival of a young male prodigy/protagonist scientist at the lab where he will do his breakthrough work. Arriving at the U. of Illinois at Urbana-Champaign campus<sup>29</sup> to begin his post-doc with Cyfer, Ressler is

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<sup>29</sup>The U. of Illinois-Urbana recurs as a kind of Ur-site of refuge or fecund isolation for Powers--in addition to its role in *The Gold Bug Variations* it is his alma mater, the "U." wherein *Galatea 2.2* is set, and where he is currently Swansund Professor of English.

described as "twenty-five with no major contributions yet," already a year older than Watson when he and Crick hit on the double-helix model in 1953, and thus "under the gun" to measure up to the model of the scientific prodigy (44). But Watson's depiction of himself in the months directly preceding his own post-doc appearance at Cambridge is similarly self-deprecating, stressing his "laziness" and ignorance of chemistry, and yet within their first years at their labs both Watson and Ressler make the most notable breakthroughs of anyone in their respective work-groups.

Ressler's key methodological breakthrough comes down to the two words "in vitro" he excitedly blurts out to his Cyfer colleague Blake Tooney (255). Ressler analogizes Cyfer's previous efforts to solve "the coding problem" (determining how nucleotide combinations code the sequence of amino acids in protein synthesis) to the clumsy brute force system used by Legrand to decode a treasure map in "The Gold-Bug," arguing that they have mistakenly gone about it "like bloody Poe. Studying all known enzymes. Looking for patterns. Letter frequencies" (254). Instead of "combing amino sequences for some evidence of prior necessity" a back-tracking "in vivo" exercise comparable to Legrand's poring over letter combinations looking for the prior message he knows to be scrambled therein, they should be tracing protein synthesis forward via in vitro isolation. For the benefit of Tooney's non-scientist wife Eva, standing in for the reader, Ressler summarizes the "vitro/vivo dichotomy":

In vivo--testing with living things--is like Murrow's report from a street under fire. Firsthand information, but chaotic.

In vitro gives a coherent but dangerously simplified recreation, from the calm of the studio. A whole new can of helical worms. (255)

In responding to Ressler's proposed "cell-free system," Tooney is forced to confront and release his own residual vitalism, acknowledging "that a reaction's a reaction, that living things form no special domain," and therefore "reduction to constituents won't strip out emergent phenomena"(256). The in vitro strategy Ressler advocates, with its insistence on the preeminence of pattern over embodiment (deemed "the whole point of the last hundred years" [255] by the narrator), is a procedural gamble analogous to Powers's decision to carry out his experimental encyclopedic novel about Life in the form of a scientist fiction. In both cases the assumption is that the essential patterns revealed by the in vitro experiments will more than balance out the purported authenticity of any sacrificed in vivo (embodied) "emergent phenomena" or forfeited social realism.

Ressler's proposed in vitro method of solving the coding problem divides Cyfer into factions, generating for the narrative some of the competitive energy and suspense that distinguished *The Double Helix*, but also providing "eureka" moments far more rhapsodic than any included by the sardonic Watson. In the first of these epiphanies Ressler intuits why he and his like-minded colleagues Jeannette Koss and Toveh Botkin have been unable to make their cell-free system work:

Ressler, with the oceanic feeling of calm that makes investigation the most sustainable gratification available to

living things, conceives of what they are missing. A molecule amorphous but vaguely familiar, one of those UN simultaneous translators. At one locus, the molecule has a spot, an anticodon that matches a codon on the message string. [. . .] Once they season their [in vitro] preparation with this interlocutor, they will be able to make nature break her own code [. . .]. (471-72)

In communicating his insight to Botkin, Ressler learns that Francis Crick has mostly anticipated him in a recent paper<sup>10</sup>, and feels not the bitterness of defeat with which such realizations are received in Watson's book, but rather, as expressed in Powers's enthusiastic rhetoric, more tingly enchantment:

Crick is coherent, gorgeous. From beginning to end, he throws open the casements and floods the place with conceptual clarity. [. . .] It chills Ressler to lie there and read the piece [. . .]. The piece breaks his heart with poignancy. It is a beautiful late-twentieth-century pilgrim's narrative--exegesis pressing outwards, refusing to stay confined to the dark backyard. It makes the work his own era struggles to produce seem unmatched by any Renaissance: a time when anything might come to be anything at all. (481)

Resolved to continue his pursuit of the "adaptor molecule," Ressler goes on to have one more major epiphany, which Powers draws out for maximum effect by extending over two consecutive installments of the Cyfer narrative, separated by twenty pages of the 1980's material. Ressler's realization is that their cell-free system is "a working in vitro interpreter, an Enigma Machine that converts any nucleotide chain we feed it into the protein polymer it stands for" (567) and

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<sup>10</sup>Powers's allusion to "a paper Crick delivered last fall to the Society of Experimental Biology [. . .] employing the term 'adaptor'" (481) almost certainly refers to F.H.C. Crick, "On Protein Synthesis," *Symposia of the Society for Experimental Biology* 12 (1958): 138-163. Crick devotes a subsection of his essay to "The adaptor hypothesis" on 155-56.

that thus "they must feed the in vitro decoder a stripped-down signal of their own devising that will yield a message beyond ambiguity" (591). Both passages heralding this realization radiate the same infatuation with scientific discovery evident in the tribute to Crick's article:

Then, from nowhere, he sees himself staring at clarity, at the rarest most paradisiacal species. In that moment of visitation--arriving once in a life if lucky and requiring a further lifetime to recover--it comes to him. [. . .] Everything he is after, the last bit, the complete, documented map home, squarely in front of him. His. (566)

The last click of in vitro reverberates in his head with the clang of a meter-thick cell door being thrown wide open. [. . .] He cannot quite take in his breakthrough, cannot quite believe that his own mental construct--string-and-cardboard mock-up, manipulation of the available tools--has led him to this threshold. Research [. . .] has rewarded him with the one prize every researcher lives for but never expects: a chance to locate part of the palpable world's terrain, to summarize some fraction of the solidity that cares nothing for theory, to say something definitive about their real home, to speak some word about the grammar carried around in every oblivious mote, down there, inside. (591)

In these "eureka" passages expressing a profound yearning for "the solidity that cares nothing for theory," for some utterly objective, "palpable" scientific truth, and the paradoxically mystical elation attending the discovery of such truth, Powers provides the apotheosis of the ideology of discovery in contemporary (scientist) fiction.

In the resolution of the Cyfer narrative strand, Ressler, having had his glimpse through the magic threshold, withdraws from the fray of scientific competition and careerism, and leaves behind the vanguard of scientific discovery, elaborating anti-Progress

sentiments familiar to the discourse of discontinuity. In this way Powers is able to have his eureka moments yet dissociate his scientific protagonist and himself from the ecological and ethical problems of unchecked scientific advance. In the post-coital-like withdrawal of Ressler's epiphany, awareness of the dark side of scientific progress generally, and advances in genetics specifically, washes over him:

The future of his science sweeps over Ressler with physical certainty: in a very few years the Sunday-school work of cryptography will go public, enter commercial politics. Too much need always hinges on knowledge for it to remain uncorrupt, objective, a source of meditative awe. After wonder always comes the scramble, the applications for patents. [. . .] The thing the adaptor molecule has for billions of years tried to articulate will, in the last click of the second hand, be channeled into [. . .] trillion-dollar toxicity, terminal annihilation. A million species lost irretrievably by the time he dies [. . .] . Not research's fault per se, but tied to the same destructive desire to grow, be more. (592)

These sentiments, more in keeping than the rest of the novel with the general orientation to social issues in Powers's oeuvre and growing public persona<sup>31</sup> (particularly in the wake of his recent anti-corporate-America novel *Gain*), nevertheless insist on defending the distinction between science as the "Sunday-school work" of "meditative awe" and its manifestation as technology and "commercial politics." In a conversation between Ressler, Todd and O'Deigh in

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<sup>31</sup>See Richard Powers, "Too Many Breakthroughs," editorial, *New York Times* 19 Nov. 1998: A35. In this piece Powers reiterates both his commitment to keeping abreast of science "news" ("the age of biotechnology is upon us," he begins), and his cautionary counter-note ("We're running this experiment live, in vivo, on ourselves. Humanity's eternal and well-grounded fear is that our wisdom will fail to pace our expertise").

their cabin getaway in the woods, Ressler is asked about his objection to genetic engineering, and answers, "it's not science. Science is not about control. It is about cultivating a perpetual condition of wonder [. . .]. It is about reverence, not mastery" (411).

In direct contradiction to Latour's (and Lyotard's) blanket term "technoscience," the novel here and elsewhere maintains what Powers views as the crucial distinction between science's engagement of "wonder" and technology's domain of "control." Asked about this passage by Jim Neilson in an interview, Powers alludes critically to Latour et al in upholding his theme of commercial/technological misdoings being "not research's fault per se":

I like Ressler's distinction between the urge toward knowledge and the urge toward power. A current, somewhat cynical camp of science studies would deny this difference between the human capacity for reverence and the human desire for mastery. This camp suggests that science, in practice, is necessarily in the pocket of business and power. That may well be so, but if so, it is the fault of our ability to organize and regulate our social practices, not the fault of our wanting to know.<sup>12</sup>

Cyfer is never allowed to amass the kind of "power" of Watson's and Crick's Cambridge lab, or of Latour's subject the Salk Institute, or

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<sup>12</sup>Richard Powers, "An Interview with Richard Powers," *Review of Contemporary Fiction* 18.3 (Fall 1998): 8. Interestingly, in *Pandora's Hope*, Latour also chooses the term "Research" to positively oppose to the more pejorative "Science": "While Science had certainty, coldness, aloofness, objectivity, distance, and necessity, Research appears to have all the opposite characteristics: it is uncertain; open-ended; immersed in many lowly problems of money, instruments, and knowhow; unable to differentiate as yet between hot and cold, objective and subjective, human and nonhuman. [. . .] Maybe science studies is anti-Science after all, but in that case it is wholeheartedly for Research" (20).

DeLillo's Field Experiment Number One, as it disintegrates before cementing Ressler's insights.

The final aspect of the Cyfer story requiring attention here, and another way in which Powers differentiates his scientist fiction from *The Double Helix*, is the emphasis placed on Ressler's collaboration with his female Cyfer colleagues, Jeanette Koss and Toveh Botkin. Powers's narrator (Todd) acknowledges that Cyfer's team of seven having two female members is for the scientific community of the time "a statistical violation" (71)<sup>13</sup>. Indeed this anachronistic relative gender balance provides a sharp contrast to Watson's tale, in which the lone female scientist in the story, Rosalind Franklin, is depicted as a talented but uncooperative liability and castigated for her assertiveness and lack of attention to her appearance. Koss and Botkin are (after Blake's departure) the only Cyfer members receptive to Ressler's in vitro strategy, and act as key collaborators. Both provide Ressler with texts that catalyze his insights about the coding problem: Botkin informs him about the Crick paper, and Koss introduces Ressler to both of the novel's key intertexts, Poe's "The Gold Bug" and Bach's *Goldberg Variations*. Indeed Ressler's evolving working relationship with Koss exactly parallels his association with Cyfer. Before her overtures of

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<sup>13</sup>The large number of female researchers, intellectuals, and professionals in Powers's fiction (including Koss, Botkin and O'Deigh) has led one critic to assert that "each of his novels demonstrates the extensive influence of feminist critiques." See Sharon Snyder, "The Gender of Genius: Scientific Experts and Literary Amateurs in the Fiction of Richard Powers," *Review of Contemporary Fiction* 18.3 (Fall 1998): 85.



friendship he makes no headway on his work, but his first insights coincide with their growing mutual attraction. Then their consummation of an adulterous love affair immediately precedes (causes?) his "anticodon" epiphany, and ultimately her decision to leave Ressler and Cyfer to go with her husband coincides with Ressler's own choice to abandon his profession.

Powers's conjoining of his novel's most fruitful scientific collaboration and most passionate sexual coupling in the relationship of Ressler and Koss, symbolically culminating in the scene where they have purple-prosed sex on the lab floor, represents an un-queered or "safe" heterosexual working-out of the repressed homosocial energy that commentators like Limon identify in *The Double Helix's* depiction of the Watson-Crick collaboration. That the next installment of their story, picking up immediately post-coitally, with Ressler and Koss still on the lab floor, is entitled "The Adaptor Hypothesis," like the key subsection of the Crick article alluded to by Botkin in the very next Cyfer segment, supports this connection. Though neither the Ressler-Koss relationship nor the later O'Deigh-Todd affair result in children, both pairs generate collaborative intellectual "offspring," fulfilling the novel's ubiquitous helical patterning impulse and associated theme of heterosexual reproduction.

The Cyfer narrative, reconstructed by Todd from many conversations with Ressler and an ultimate visit to Urbana (where Ressler returns for cancer treatment after leaving MOL), provides

the novel with its literal scientist fiction of in vitro experimentation. But it is the "Jan O'Deigh Continuing Education Project" (124), the strand of O'Deigh's narrative focused on her efforts to learn everything she can about the genetic code, through which Powers downloads dozens of pages of artful paraphrase of his own scientific reading. The Cyfer narrative focused on Ressler paradoxically cannot serve as the awestruck science lesson Powers wishes to deliver, because its 1950's-era scientific discourse is already far too specialized to allow for the dramatically plausible incorporation of the considerable amount of background information needed for Ressler's work to be intelligible to lay readers. Thus, though the understated Ressler is much closer to the Boylean model than Watson or Crick or any of DeLillo's caricatured scientists, it is the reference librarian Jan O'Deigh who is the novel's crucial contemporary (of-the-day) "modest witness." More than three centuries after Boyle's first air-pump experiments, the challenge faced by O'Deigh is not the empirical demonstration/creation of elemental "facts" of nature in a pre-scientific culture, but rather the seemingly impossible task for an educated contemporary layperson of making sense of the blizzard of specialized data produced by the many nodes of the culturally entrenched scientific establishment. O'Deigh's "experimental scene" is the always-expanding universe of publicly available "information," and it is with her pilgrim's progress through the wondrous truths already generated by science that the reader is expected to empathize.

In O'Deigh's paraphrases of her scientific reading (often spiced with reminiscences of Ressler's MOL lectures on biology), Powers reiterates his central distinction between science and technology, wherein "the purpose of science was to revive and cultivate a perpetual sense of wonder," as opposed to "accomplishing the sadistic myth of progress" (611). Keeping a firm grip on science's baby of theory-free objective "solidity" while throwing out the bath-water of progress-ideology, Powers imports from the likes of Stephen Jay Gould the emphasis on contingency characteristic of the discourse of discontinuity. O'Deigh's first problem upon beginning her research, echoing social theorists of discontinuity like Giddens and Foucault, is "what scale to choose" (88). And in a bravura overview Powers moves her quickly through consideration of the "top magnification" (87) of cosmology through the narrowing lenses of astronomy, earth science, zoology, anthropology, political science, economics, psychology, physiology, and molecular biology, to quantum physics, which "drops off the edge of formal knowledge back into cosmology" (88). Having thus acknowledged that no particular scientific frame of reference yields the absolute final cause "down there, inside" that is the subject of scientific desire, O'Deigh sets her field of study as "the genetic code," both in its micro- and macro-evolutionary contexts.

Though they are structured so as to broadly retrace the historical development of the field, lending the self-education narrative a Spencerian resonance (O'Deigh's individual education, or

"ontogeny," recapitulating the "phylogeny," or group development of the study of genetics), the prevailing content of O'Deigh's lectures on genetics are very contemporary conclusions about the centrality of chance and contingency in evolution. This shift from the culturally embedded Spencerian assumption that non-biological phenomena such as the study of genetics are also entities subject to the "law of organic process," evolving immanently and continuously, to a more current analogy to populational evolution, is seen at the outset of the inaugural installment of O'Deigh's self-education project:

The more I read of the first twentieth-century science, the clearer the chain of ideas about heredity stretches continuously back through speculation to the start of thought. The scenic overview leaves me nursing a metaphor: the idea of chemical heredity is itself an evolving organism, subject to the laws it is after. Or better: the field grows as a living population, a varying pool of proposals constantly weeded, altered by selection. (90)

The contemporary neo- or arch-Darwinist Richard Dawkins coined the term "meme" to signify just this notion of an idea being, like a gene, subject to natural selection. And O'Deigh's later comment that "the gene is a self-promotion, a blueprint for building an armed mob to protect and distribute its plan throughout the inhabitable world" paraphrases Dawkins's own equally successful meme, the "selfish gene."<sup>34</sup> But elsewhere O'Deigh is more swayed by Dawkins's rhetorical opponent Stephen Jay Gould, shifting the emphasis from Dawkins's

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<sup>34</sup>See Richard Dawkins, *The Selfish Gene* (London: Oxford UP, 1976), and Andrew Ross's critique of this worldview in *The Chicago Gangster Theory of Life: Nature's Debt to Society* (London: Verso, 1994).

micro-evolutionary focus on the gene as the key unit of competitive selection, to Gould's populational approach.

O'Deigh sets aside "survival of the fittest--Spencer's phrase," and produces sentences that could have come directly from Gould's *Wonderful Life* or one of his many earlier books<sup>15</sup>:

Now I find that evolution is not about competition or squeezing out, not a master plan of increasing efficiency. It is a deluge, a cascade of mistaken, tentative, branching, brocaded experiment [. . .]. It is about one instruction: "Make another similar something; insert this command; run; repeat." [. . .]. "Struggle" carries too much individual emphasis. Selection deals in the economy of individuals, even individual traits. But evolution deals only in populations, demanding not that they struggle but just that they procreate faster than they perish. No upward march, no drive toward perfection. Evolution's move is lateral, spreading out, diversifying until every spot on the nearest-fit curve, every accidental juggle, has been auditioned against experience. (250-51)

The last sentence of this passage in particular evokes Gould's counter-icon of life as a "copiously branching bush" rather than a ladder of progress. Further, echoing the anti-uniformitarian or neo-catastrophist theme of Gould's and Eldredge's theory of Punctuated Equilibria, O'Deigh goes on to assert "evolution is the exception, stability the rule" (333). And when evolution does occur, it is due to genetic mutations, more frequently the cause of suffering than progress:

Mutations cause cancer, stillbirth, blindness, deafness, heart

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<sup>15</sup>*Wonderful Life* appeared in 1989, which is later than O'Deigh's narrative is supposed to have been written (1984-85), but Gould has expressed similar views about evolution in books, technical articles, and popular essays for *Natural History* for decades. Powers's *The Gold-Bug Variations* was published in 1992.

disease, mongolism--everything that can go wrong. Yet faulty copying is the only agency for change. Random tinkering, the source of all horrible mistakes, remains the "hopeful monster" [. . .]. Life doesn't spring to new complexity. But small bugs, fed back into executing procreation, produce wrinkles, differences [. . .]. At bottom, no cause: only the life molecule, copying or failing to copy. (330-31)

Taken together as samples of the dozens of pages of straight scientific paraphrase O'Deigh's narrative contains, the above passages demonstrate the earnestness and literalness of Powers's science lessons, his straightforward rationalist effort to communicate his learning to his readers (and in much greater detail than is found in any of the influential science-bites in the works of his precursors Gaddis, Pynchon, and DeLillo). But as the mutations passage suggests, Powers's science boosterism, if less subject to the pessimism and corrosive irony of these precursors' works, does not translate into simple optimism.

As in the novels by McCarthy and DeLillo that we have already examined, Powers's intellectual engagement with the discourse of discontinuity results in the insinuation of catastrophism into the body of the narrative. But unlike the quasi-apocalyptic *Blood Meridian* and *Ratner's Star*, "disaster" in *The Gold Bug Variations* is understood as an arbitrary internal mutation, statistically impossible to eradicate but at times (through combinations of chance and knowledge) manageable. Disaster and entropy ("loss of signal") flare up in the novel, but in a concentrated, isolatable form like a tumor; Powers renders in Chapter 25 a paradoxical orchestration of converging accident in which all the narrative strands are faced

with sudden obstacles and threatened with derailment. The destructiveness of this thematic outbreak of disorder is kept in check by the formal order of its orchestration, which Powers signals is meant to echo its corresponding Goldberg Variation: "Five-sixths of the way through the Goldberg set--variation twenty-five--is the most profound resignation to existence ever written" (554).

The chapter opens with a brief research report by O'Deigh on the subject of "Disaster," followed by an installment of the "recent past" narrative in which Ressler's and Todd's genial co-worker Jimmy is hit with a stroke, bringing the shock of disaster directly into the sanctuary of MOL. O'Deigh's visit to the hospital allows another fissure of scandalous suffering into the narrative's enclosure: "I knew the dirty secret. Individuals were woundable, sickly, inconvenient, contemptible in every way except numerically [. . .]" (539). Jimmy's disaster is followed by a segment of the Cyfer narrative, "Losing the Signal," in which a Cyfer team-mate (and rival) of Ressler's named Joe Lovering abruptly gasses himself and all Cyfer's laboratory animals to death in his garage. This ultimate gesture of rejection of science's "ratner" vivisection ethic is treated as a mutation-like momentary lapse of reason: in Koss's memorial speech she concludes Lovering was "a scientist going after the code" who "lost the signal. Read the message wrong" (551). In their confusion after the funeral Ressler and Koss argue and their affair comes to an end, marking the start of Ressler's long withdrawal from a brief in vivo blossoming of social engagement into

solitary isolation. And finally, in the "present" narrative O'Deigh reads over what she has written so far (presumably all the reader has seen up to that point, minus Todd's not-yet-interwoven Cyfer sections), disparaging it as "a little lay chemistry, evolution in outline, amateur linguistics padded out with [the story of her and Todd's] kiss-and-tell" (556), and adjudging her project "in crisis." But this convergence of misfortune is not ascribed to the agency of some malevolent external Fate, as in *Blood Meridian* or *Ratner's Star*, but to mutation, faulty copying. Listening to the *Goldbergs*, which had been Koss's gift, in the wake of her departure, Ressler "hears in this scalar mutation what called Lovering away, what tortures Jeannie [Koss]: a sorrow that does not exist in its parent sarabande" (555). Bach's and Powers's respective twenty-fifth variations evoke disaster, Powers implies, because the more unpleasant of life's permutations are statistically bound to come up sometimes; but life's collective variations need not end there, even though all individuals are mortal.

*The Gold Bug Variations* conceives of itself as an experimental, in vitro interweaving of the dual-helical strands of art and science into a kind of universal language<sup>16</sup> for decoding Life, as an earnest but artful textbook. Its rationalist effort to make the clashing scales of scientific discourse about the very large and the very small compatible with the human-size discourse of

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<sup>16</sup>A much more user-friendly, thus more nearly universal language than the abandoned "Logicon" of *Ratner's Star*, or that novel's embedded mathematics.



art is not without friction, however. Powers's in vitro impulse to focus his novel on only "four desire-trapped bodies in the thick / of a species-swarmed world" (9) foregrounds the novel's conventional character-dramas and relegates the implications of "swarm" to the technical science passages. The resulting tension between traditional humanist concern with individual lives (and empathetic "realistic" fictional characters) and Powers's inner scientist's insistence that "an individual's death [is] Just a permutation put to rest" (334), and "the individual is a myth of scale" (496), is never fully resolved. The plot resolution of the MOL story, in which to restore Jimmy's wrongly denied health insurance coverage, Ressler, Todd and O'Deigh patch together a simulated version of the vast financial network of which MOL's mainframe is an important node and run it in place of the "actual" network, is acknowledged by O'Deigh to be "an absurd mismatch of scale--the notion that the entire community was accountable to the infinitesimal principle of a single life" (613). Moreover the novel's entire spliced text is presented as the interwoven meditations of O'Deigh and Todd on the meaning of the recently deceased Ressler's life and work.

In the end, the novel's over-arching science lesson--that the deaths of individuals should be understood in the larger context of Life's profusion--is realized by way of the most traditional literary consolations for mortality, the immortality made possible by reproduction. When Todd returns after over a year's absence and he and O'Deigh are reunited, he tells of having gotten from Ressler

"a trunk packed with handwritten full scores," demonstrating that the retired scientist was also a composer, and will be survived by his works (637). Further, Todd reveals that his long-deferred art-history dissertation has evolved into the Cyfer narrative, which he proposes merging with O'Deigh's narrative: "Let's make a baby" (638). But the reproduction here suggested turns out to be more than the creation of the text of the novel itself as a surrogate child for both the long-separated Ressler and Koss and for O'Deigh and Todd, both of which affairs were foiled in part by the females' inability to conceive. In response to this apparently metaphoric suggestion O'Deigh recalls Todd's past disgust upon learning of her having had a tubal ligation, and their subsequent break-up. Todd's rejoinder, "Why do you think the Good Lord invented sperm bank donations?" invokes the man-made scientific innovation of in vitro fertilization as proof of the continuing viability for them of biological reproduction, and an actual baby. So the proper artistic genre designation for Powers's earnest and determinedly educational synthesis of art and science is ultimately comedy, and not solely the bleak comedy of the macro- and micro-cosmic scales of science rendering absurd the human scale, as in *Ratner's Star*. *The Gold Bug Variations* is a comedy about the impossible but (re)productive marriage between these disturbing scientific frames of reference and the more familiar and conventional human-scale ontologies of individuals and their everyday lives.

#### 4. Toward a Self-Reproducing Fiction: The Virtuality of *Galatea 2.2*

In *Galatea 2.2* the marriage of science and art, or more precisely, science's thorough domestication of art, is a *fait accompli*, and the focus has shifted to the rearing and education of their synthetic offspring. The novel's premise is that Powers's quasi-autobiographical narrator, writer "Richard Powers," has won (thanks in large part to *The Gold Bug Variations*) "a year's appointment to the enormous new Center for the Study of Advanced Sciences," as the "token humanist."<sup>17</sup> And there he is drawn into a project to develop an artificial intelligence program capable of passing the same kind of English department Master's Comp exam that Powers himself passed years earlier at Urbana (the model for the novel's campus-town of "U"). In other words, the writer "Powers" is the representative of art as a kind of trophy-spouse in the wealthy estate of science, primarily tasked with bringing up the virtual baby. Moreover, the confusing readerly work of distinguishing "actual" author Richard Powers from protagonist "Richard Powers" is a function of the novel's own aspiration to virtuality. The inscribed "Richard Powers" (hereafter called "Rick" in this study) can ultimately be read as the retrospectively patched together virtual author generated by the autobiographical resonances and thematic patterns of the earlier novels of the actual Richard

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<sup>17</sup>Richard Powers, *Galatea 2.2* (New York: Farrar, 1995) 4.

Powers.<sup>36</sup> Powers subtly presents *Galatea 2.2* as a virtual fiction created by the self-reproducing reinforced associations of its predecessor novels.

Both *Galatea 2.2* itself and "Helen," the artificially intelligent "baby" to which the title alludes, are conceived as "implementations," as the latest, most up-to-date models of their respective product-types, yet with the built-in obsolescence of all manufactured products. Just as Helen is the latest in a series of implementations (A through H) constructed by Rick's scientist colleague Philip Lentz and trained by Rick, she is also an updated version of the mythical Pygmalion's beloved and enlivened statue Galatea, and of the Eliza Doolittle educated by Henry Higgins in Shaw's *Pygmalion*. And Powers's version of her story updates and recycles not only these precursor stories but many other literary texts, including all of his own earlier novels. In contrast to Ratner's *Star's* surreal near-future and *The Gold Bug Variations's* interwoven reconstructed and recent past settings, *Galatea 2.2* is set squarely in the present, and is determinedly current in its information-dropping, efficiently referencing contemporary trends in Artificial Intelligence ("connectionism" and "neural networks") and literary theory, while including what must be one of literature's first paeans to the Internet. And in contrast to the monumental ambition of those novels *Galatea 2.2* flirts with the built-in

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<sup>36</sup>The choice of "Rick" to distinguish more smoothly the inscribed "Powers" from author Powers follows Hayles's practice in her treatment of *Galatea 2.2* in *How We Became Posthuman*.

obsolescence that frequently attends such topicality, threatening to render the novel "as useless as a three-month-old computer magazine," (a danger evidenced by the already-dated feeling of Powers's rhapsodizing about the then-infant World Wide Web) (36).

The opening pages situate the novel within the familiar laboratory literature dynamic of node and network, describing the "Center" as a giant node representing "fifty million dollars of real estate filled with several hundred million in instruments" (10) devoted primarily to research on the brain, and itself "a block-wide analog of that neuronal mass it investigated" (6). And linking the Center to the world's other nodes more thoroughly than was imagined when Latour described the node/network dynamic a decade earlier, is the burgeoning Internet, which realizes transcendentalist effusions of universal connectedness to the point that Powers dubs it the "emergent digital oversoul" (10). "Advanced science, of course, profited enormously from the web. [. . .] Instant telemessaging produced an efficiency that fed back into steeper invention. And invention accelerated the universal linkup" (9).

In addition to its scientific value, the "world web" thrills Powers's connectionist sensibility, affording him a perceptual overload updating Emerson's "transparent eyeball" experience in "Nature." While Emerson had described periodically leaving behind his books to commune directly with nature, Rick sits at his desk taking in not only the collective conversation of other minds ("book reports from Bombay") but also electronic simulations of natural

vistas ("Alaskan aurora sightings"):

I browsed the world web. [. . .] By keying in short electronic addresses, I connected to machines all over the face of the earth. [. . .] The town [Urbana] had been knitted into a loose-weave global network in my absence. The web seemed to be self-assembling. Endless local investigations linked up with each other like germs of ice crystal merging to fill a glass pane. The web overwhelmed me. (7)

But the web's currently much-touted democratic aspect fails to enthuse Powers, who has Rick complain that "People who used the web turned strange. [. . .] disguised their sexes, their ages, their names," echoing Thoreau's sour reaction to the invention of the telegraph with the comment that once everyone is able to "say anything instantly to everyone else in existence, it seemed to me we'd still have nothing to say to each other and many more ways not to say it" (9). As with much transcendentalist writing, the trope of universal connectedness in *Galatea 2.2* provides a validation of the universal relevance of the nodal "local investigation," in this case the *in vitro* experiment of the scientist fiction, rather than inspiring a fictional rendering of a wider swath of the network itself.

Having brought the reader into the Center, Powers next introduces the story's main scientist, Philip Lentz, evoking *Ratner's Star*, and subsequently reveals the defining research problem, by way of *Pygmalion's* conceit of "the bet." Rick, the narrator, describes his preference for after hours at the Center, when the place was populated only by "a handful of sallow, animated faces [. . .] [who] piloted the halls, feverish, indifferent to

clock time" (10). In this surreal atmosphere reminiscent of Field Experiment Number One, Rick meets Lentz, whose comic grotesque description as "the lemur-like man" and "the owl-man" with a head tapering from "freakish frontal lobes" to "a monstrous beak" evokes DeLillo's cartoonish scientists (12-13). Lentz's field is identified as "neural networks," or "connectionism," a controversial middle ground in brain research between deductive philosophers and empiricist neurochemists. Or as Rick puts it, "the young connectionist Turks lived on a middle level, somewhere between the artificial-intelligence coders, who pursued mind's formal algorithms, and the snail-conditioners, who sought the structure and function of brain tissue itself" (29).

In one of the novel's passages of technical language suggestive of *The Gold Bug Variations* (which are rarer and more efficiently deployed in the later book), Rick elaborates on connectionist techniques:

Neural networkers [in contrast to A.I. coders] no longer wrote out procedures or specified machine behaviors. They dispensed with comprehensive flowcharts and instructions. Rather, they used a mass of separate processors to simulate connected brain cells. They taught communities of these independent, decision-making units how to modify their own connections. Then they stepped back and watched their synthetic neurons sort and associate external stimuli. [. . .] Nowhere did the programmer determine the outcome [of signals fired between neurodes]. She wrote no algorithm. The decisions of these simulated cells arose from their own internal and continuously changing states. (14-15)

Friendly debate between connectionist Lentz and his artificial intelligencer and neurochemist colleagues at the Center leads to a bet (updating *Pygmalion's* Henry Higgins's wager that he could pass

off the "so deliciously low--so horribly dirty" flower girl Eliza Doolittle "as a duchess at an ambassador's garden party")<sup>39</sup> that Lentz and Rick would in ten months "have a neural net that can interpret any passage on the [English department's] Master's list. [. . .] And its commentary will be at least as smooth as a twenty-two-year-old human" (46).<sup>40</sup>

In essence the bet reduces to another dramatized battle-test of the methodology of in vitro simulation against its naysayers, the adherents of in vivo "mystic mumbo jumbo" who in Lentz's view traffic in "'irreducible emergent profusion' malarkey" (42). Exactly how the approaches of Lentz's opponents in the bet, artificial intelligencer Harold Plover and experimental neurologist Diana Hartrick, justify Lentz's description of their work as "non-computational emergent Berkeley Zen bullshit" is left uncharacteristically unexplained by Powers, who allows Lentz's antagonists only the one jibe that connectionism is "mechanistic make-believe" (47). But Lentz's approach to understanding the brain-

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<sup>39</sup>Ever-scrupulous in citing sources, Powers mentions the initial linkage between *Pygmalion* and artificial intelligence work, "AI's early darling ELIZA" (87), the "psychoanalyst" program created in the sixties (and accessible on the WWW, as is the text of *Pygmalion*).

<sup>40</sup>Late in the book "Powers" discovers that the bet was initially intended merely as a test by the scientists of his own humanist gullibility, but this echo of protagonist/"agent" Billy Twillig's discovery of his own status as fully-electroded scientific "subject" in *Ratner's Star*, and of Tyrone Slothrop's Pavlovian preschooling in *Gravity's Rainbow*, is tossed off in passing not as justification for anti-scientific paranoia, as in these precursor examples, but rather as an easy hit on the fecklessness of literary types.



-starting up a simulated "neural network" and watching it "learn," rather than working with actual brain tissue or writing an elaborate set of codes programming every move--is clearly another iteration of Ressler's "in-vitro decoder" in *The Gold Bug Variations*. Plover's view requiring the researcher "to lay out the rules and specify all the computations" (85) is another example of the inelegant brute-force method Ressler attributes to Poe's Legrand and faults in Cyfer's work. Playing the humanist foil to Lentz's in vitro ideologue within their work-group, "Powers" despairs over the impossibility of transferring into their evolving Implementation an understanding of the phenomenal or sensory base of human experience, arguing that "reading knowledge is the smell of the bookbinding paste. [. . .] [And more broadly,] Human knowledge is social. More than stimulus-response. Knowing entails testing knowledge against others. Bumping up against them" (148). Lentz reminds Rick that "Imp E" is indeed bumping up against Rick himself, whose role in the experiment is to choose the texts to "feed" to the network, and do the feeding. Dismissing Rick's half-hearted in vivo lyricism, "We take in the world continuously. It presses against us. It burns and freezes," Lentz sums up the mechanist view of human perception, "We 'take in the world' via the central nervous system. Chemical symbol-gates."

"Imp H.," whom Rick designates "Helen" (and thus as a she) when she asks her name, emerges as a plausible consciousness, validating Lentz's in vitro approach, while allowing the latter half

of the novel to focus on the more conventionally literary simulated social intercourse of Helen and her teacher/parent Rick. Helen's simulated consciousness is important not solely for what her operations can teach her makers about the human brain, but as a true evolutionary leap; she represents a milestone in the effort to defeat death through artificial or simulated reproduction already underway in *The Gold Bug Variations*. The intolerable contingency of corporeal life is shown in *Galatea 2.2* by the cruel contrast between Diana Hartrick's two children (the prodigy William, and the Downs Syndrome child Peter), and by Lentz's wife Audrey, an English professor permanently brain-damaged and hospital-bound by a "cardiovascular accident." The possibility of a child with a birth defect had led Jan O'Deigh to her tubal ligation, and other examples of bodily breakdown in *The Gold Bug Variations* include Jeannette Koss's infertility, Jimmy's stroke, and Ressler's terminal cancer. Surviving death through one's works, as in Ressler's musical scores, or through reproduction via in vitro fertilization, as O'Deigh and Todd consider doing, are *The Gold Bug Variations*'s strategies for beating death through simulation. In *Galatea 2.2* Rick realizes, after Lentz takes him to see Audrey in her hospital room, that the underlying motive behind Lentz's participation in their apparently frivolous "bet" is a much more ambitious thwarting of death:

I knew now what we were doing. We would prove that the mind was weighted vectors. Such a proof accomplished any number of agendas. Not least of all: one could back up one's work in the event of disaster. [. . .] We could eliminate death. That was the long-term idea. We might freeze the temperament of our choice. Suspend it painlessly above experience. Hold it

forever at twenty-two. (170)

That Helen's challenge should be a literature exam, and her consciousness itself catalyzed by Rick's months of reading literary texts to her (or feeding her "directly" by scanning texts) is thus explained as an attempt to produce a simulated mind akin to Audrey's own before her accident. Disembodiment, or virtuality, is here pursued by Lentz as a means of immortality.

But in becoming an individual in her own right Helen has to forgo immortality, as both Powers's literary "programming" and his inner scientist agree that all individuals die, though genes and memes, which are more patterned or virtual, may be perpetuated a while. Deducing from the various conflicts portrayed in her literary diet that there was something missing in her education, Helen asks to be filled in, and Rick gives her twenty-five years of news abstracts on CD-ROM, and eventually concedes the bad news:

I admitted that the world was sick and random. That the evening news was right. That life was trade, addiction, rape, exploitation, racial hatred, ethnic cleansing, misogyny, land mines, hunger, industrial disease, denial, disease, indifference. (321)

After clamming up in horror for a time at this puncturing of her in vitro isolation from "reality," Helen "returns" to take the exam, responds briefly to its passage from *The Tempest*, and then, Rick reports, "undid herself. Shut herself down" (326). Helen's withdrawal from the world into which she had been educated is a more extreme version of Eliza Doolittle's declining of Henry Higgins's marriage proposal and departure from his household at the end of

*Pygmalion*. But the novel's local echoes of *Pygmalion* in its implementation of Helen are most interesting not in and of themselves, but as evocations of Powers's motif of literary evolution.

Helen is an important model for the literal conception of literary evolution announced in Powers's title's suggestion of an implementation number--"2.2". Speaking of Helen's precursor implementations, Rick argues that "E's weights and contours lived inside F's lived inside G's, the way Homer lives on in Swift and Joyce, or Job in *Candide* or the Invisible Man" (171). Going beyond the mere recasting of the hoary notion of "literary tradition" into technospeak, Powers imports into *Galatea 2.2* capsule summaries of all his previous four novels with apparently guileless descriptions of the autobiographical circumstances attending and motivating their writing. These odd narrative reminiscences, which do not impact upon the Helen story directly until Rick begins to share with Helen letters and stories from his own life, ostensibly fill in the gaps in the public record of the life of the reclusive author Richard Powers. These autobiographical revelations appear "guileless" not because their utter factuality is established, but because the motivation behind their inclusion seems to be Powers's characteristic earnest rationalism.

The most sustained subject of this autobiographical sub-narrative is the history of the author's relationship with "C.," an American woman of Dutch parentage whose emigration to Holland with

Powers in tow is presented as the explanation behind the previously puzzling ubiquity of Dutch material in his prior novels (as in the oddly unintegrated subplot of Todd's work on Dutch painting in *The Gold Bug Variations*). The focus of much of the story of "C." is the importance of her family's rich history on both sides of the Atlantic as a source for the author's first novel (*Three Farmers on Their Way to a Dance*), and her centrality as addressee and ideal reader for all his fiction. Counterpointing this melancholy story of love gone wrong with C. is that of Rick's growing infatuation with "A.," the brilliant graduate student against whose performance on the improvised Master's exam Helen will be measured. A.'s rejection of Rick's clumsy romantic attentions provides a more literal, (as flesh-and-blood) analogue to Eliza's rejection of Higgins, and updates the story, as A.'s thorough self-possession and intellectual self-confidence renders Rick a laughable anachronism (a tipping of the balance Eliza doesn't quite manage). The factuality of these "disclosures" as autobiographical truth is less significant than their impression of guileless self-accounting, and their undeniable entangling of art's imitation of life and life's imitation of art in the context of the "local investigation" of Powers/Rick and his novels.

Further entangling this investigation are the disclosures pertaining to Powers's science background, notably his description of *The Gold Bug Variations* as "a long vicarious re-creation of the scientific career I never had" (5) and admission that he had given

up physics while at Urbana to study English, to his father's dismay. Further, he describes his mentor, a literature professor named Taylor, as having died from cancer, and serving as the model for Ressler. He reports another brush with technoscience after college:

In a previous life, I had brushed up against machine intelligence. For a few months, I wrote code that turned consumer goods artificially lucid. [. . .] I made appliances expert in their own use. I built the rule base and tuned the reasoning. I linked a table of possible machine states to a list of syllogisms that told the device how to respond in each case. I hooked the device to sensors that bathed in a stream of real-world data. These dispatches threaded a given appliance's inference engine like rats in a behaviorist's maze. (27)

Rick's past as a ratner of simulated (virtual) rats, and *Galatea 2.2*'s many other autobiographical tableaux directly linked to specific novels, are intended perhaps, like much other American post-war "metafiction" written by English professors, to render criticism of his text(s) superfluous. Certainly these "confessions" help point to the origins of Powers's novels' unique consummation of science and literature, and attest to his long-standing preoccupation with virtuality.

In contrast to my positioning of Powers relative to the other writers considered in "Simultaneous Diversity" as a spokesperson for science and virtuality, Hayles's reading of *Galatea 2.2* instead stresses Powers's more conventionally literary misgivings about virtuality. For example, she emphasizes the cognitive dissonance suffered by Helen as a result of her lack of a body through which to take in her environment viscerally:

In *Galatea 2.2*, humans' physical capacities that evolved

through interaction with the environment are juxtaposed with the evolving inscription that constitute Helen as an intelligent being. Human language grows out of embodied experience, whereas Helen must extrapolate back from human language to embodied experience. This fundamental difference makes evolving incorporation, for all its frailties, finally more robust than evolving inscription. (281)

She further asserts that "for Powers, the answer to failed embodiment is not to leave the body behind. The dream of achieving transcendence by becoming an informational pattern is a siren call he resists" (271). Hayles's discussion of the limitations of virtuality and her attention to Powers's ambivalence about technological transcendence are points well taken. But the differences between her reading of the import of *Galatea 2.2* and my own stem from the different domains our respective studies frame. In Hayles's study of "information narratives," which extends to consider ordinary documents of the emergent science of "information" and straight science fiction, Powers's novel represents the most "literary" (read "ambiguous," or "ornery") text included and as such its pole of resistance to virtuality. Powers and Hayles are analogous in this respect, both grounded in the literary but so fascinated by scientific discourse that they are willing to immerse themselves in its worldview and vocabulary. In "Simultaneous Diversity," which attempts to move in and out of the domain of science and does not use direct engagement with virtuality as a litmus test for a work's inclusion, *Galatea 2.2* by contrast represents the most "virtual" novel under consideration. Here the greater sensitivity to contingency and richer tonal depth relative

to nonliterary texts that *Galatea 2.2* certainly displays is taken as the common trait of all the examined novels, while its distinguishing feature is shown to be its unusually thoroughgoing encounter with virtuality.

Moreover the novel provides ample figurative invitation for a radical reading of its autobiographical material arguing that *Galatea 2.2* is not merely an ambivalent tale of a failed experiment in artificial intelligence, but is itself figured as a virtual text (or text-tube fiction). One odd effect of *Galatea 2.2*'s merging of science and literature in the spectacle of a novel that contains clearly identifiable "inherited" traces of each of Powers's previous novels, is the sense that the novel is to be understood almost literally as the synthetic evolutionary outcome of the patterning of its predecessors. The novel's "ratner's star," or focus of scientific desire, is the evolution through simulation and simulated reproduction represented by neural networks. Though Powers is too polite a rationalist to trumpet such a reading, the analogy between neural networks and Powers's own novels triggers the reading that the "Richard Powers" of *Galatea 2.2* is the inferred author computed collectively by the earlier novels, if these are imagined as burgeoning individual synthetic "consciousnesses" like Helen, interwoven. The neural networkers Powers admires so, it is worth recalling, "taught communities of these independent, decision-making units how to modify their own connections. Then they stepped back and watched their synthetic neurons sort and associate external



stimuli." The spread of these now-independent synthetic offspring is in the novel's symbolic economy much like the "self-assembling" "world web," "local investigations linked up with each other like germs of ice crystal merging to fill a glass pane."

Read conventionally *Galatea 2.2* is an instructive example of scientist fiction and a useful retroactive decoder of the autobiographical resonances of Powers's earlier novels; there is no reason to forgo this reading. The reverse approach, however, also yields a pertinent reading, namely that *Galatea 2.2* is figured by Powers as the synthesized neuronal network generated by the weighted vectors of its precursor novels's reinforced associations. As such *Galatea 2.2* becomes the simulated offspring of these self-reproducing automata, the earlier novels, a virtual fiction created independently of the contingently embodied living author of its "parent" works. Such a reading, obviously requiring a sympathetic suspension of disbelief<sup>41</sup>, pushes *Galatea 2.2* closer to the realm of applied science than *The Gold Bug Variations*, despite the latter work's denser dramatization of scientific work.

All three of the scientist fictions discussed in this chapter are examples of "laboratory literature," directly engaging with scientific work. However, the three novels present a spectrum of

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<sup>41</sup>A comparable suspension of disbelief is expected in reading the folk tales, myths, and children stories Powers often incorporates into his work, as in *Galatea 2.2*'s use of the Pygmalion myth, or the centrality of the "Pied Piper" story to *Operation Wandering Soul*. *Galatea 2.2* first words are what Powers identifies as a traditional folk tale opening, "it was like so, but wasn't" (3).

different attitudes about science, together tracing a kind of arc toward virtuality, an evolutionary construction "Simultaneous Diversity" elsewhere eschews that is nevertheless appropriate to the in vitro experimental domain of scientist fiction. *Ratner's Star* austere attempts to bring art and science together "in the same room," by accessing through avant-garde writing the mathematical plane that encompasses both. DeLillo's novel is an unstable scientist fiction, aspiring toward the abstract patterning of mathematics while disparaging the purported evolutionary directionality of science. *The Gold Bug Variations* goes further, marrying art and science, music and genetics, indulging the comedy of the clash of scientific and humanistic frames of reference while earnestly aiming to fill in the cracks. Powers's major opus to date, the definitive scientist fiction, uses traditional realistic "in vivo" character development to illustrate his scientific principles, rather than hybridize them. The drier, more distilled ontology of *Galatea 2.2* accepts literature's fate as perennial insecure tenant in the world of science, but nevertheless, given the vocabulary and tools of science, tries to use them to make a home there and raise their simulated offspring, even going so far as to posit itself as a virtual fiction. Despite the feeble attempts of Rick to champion literature's resistance to Lentz's scientific hegemony, he is a willing collaborator in the scientific effort to overcome the discontinuity of corporeal death by way of virtuality. None of the scientist fictions examined here substantively counter the

scientific worldview with non-scientific ontologies. Such work of hybridization, however, comes to the forefront in the three "fighting fictions" to be considered next--Toni Morrison's *Beloved*, Leslie Marmon Silko's *Almanac of the Dead*, and William T. Vollmann's *The Rifles*--all of which do dramatize ontological conflict.

## CHAPTER IV

### One World, Many Tribes: The Fighting Fictions of

Toni Morrison, Leslie Silko, and William Vollmann

Another tentative taxonomic grouping that can be coaxed from the turbulent simultaneous diversity of contemporary American fiction is composed of novels that focus on the clash of disparate world-views and ontologies, highlighting but attempting to contain discontinuity. In contrast to both the hermetic disregard of new technologies and ideologies of nowness evident in the catastrophist fictions of Cormac McCarthy, and to the oppositely inclined scientist fictions of Don DeLillo and Richard Powers, these overtly political fighting fictions foreground the continuing historical struggles of minority cultures and populations in North America against the dominant scientized culture variously designated as Western, European, Anglo, and/or White. With varying degrees of thematic and formal inclusiveness, each of these three novels more directly engages with the work of hybridization than do the other fictions examined in "Simultaneous Diversity." Very different from one another in form and tone, Toni Morrison's *Beloved* (1987), Leslie Marmon Silko's *Almanac of the Dead* (1991), and William T. Vollmann's *The Rifles* (1994) all historicize their catastrophist materials so as to situate them in the world of ongoing political struggle rather than the realms of metaphysical and/or scientific speculation.

The outlines of both the similarities shared by these fighting fictions and their individual differences emerge when each is

considered as an example of "contemporary American fiction." The shared authorial commitment in the three novels to the unavoidable presence or present-ness of history represents their main commonality with respect to their understanding of time and the nature of the "contemporary." *Beloved* is of the three novels the most straightforward example of historical fiction, inspired by an 1856 news account about Margaret Garner, a runaway slave who killed her daughter to prevent her return to enslavement. Set in 1873, but employing a fractured narrative chronology underscoring the inescapable temporal and existential derailing caused by the past tragedy and the historical institution of slavery it emblemizes, *Beloved* emphasizes the contemporaneity of slavery's bite without direct recourse to a contemporary scene-setting. Moreover, as a recent text that has already generated more critical and popular response than have the rest of the novels in this study collectively, *Beloved's* current status as cultural icon and commodity endows it with an automatic contemporaneity, and encompasses it in a critical force field affecting all interpretive approaches to the novel.

*Almanac of the Dead's* voracious narrative sprawl unites many disparate settings and characters within a present that is aggressively framed as only the fleeting current face of the "five hundred year map" of Native American resistance to European invasion, which is itself to be understood as a mere hiccup in the eternal symbiosis of the Americas and their indigenous peoples.

Silko's book not only insists on the persistence of history, as does *Beloved*, but also proffers huge swaths of contemporary political, scientific, and cultural "news," creating a much broader and more determinedly current literary ontology than Morrison's.

Lastly, Vollmann's *The Rifles*, the most recent installment of his hugely ambitious planned seven-volume saga of the history of clashes between Native Americans and Europeans in North America from the Norsemen's first voyages to the present, mutually implicates and conflates the story of English explorer Sir John Franklin's nineteenth-century Arctic expeditions with the present-day Arctic fact-finding excursions of the authorial alter-ego "Captain Subzero." Vollmann's dual excoriation and romanticization of both the nineteenth and twentieth century white adventurers' interactions with the indigenous populations of the Canadian Arctic creates an expanded, history-dense present as politically charged, if more ambiguously so, as those of Morrison's and Silko's novels.

Given their commitment to historical and political themes, it comes as no surprise that these three fighting fictions all demonstrate the complexity inherent in the term "American." Each of them underscores both the dramatic geographic and ontological diversity of American settings and also the ceaseless political and cultural turmoil implicit in the ongoing collective definition of the "American" nation(s) and its/their people(s). *Beloved*'s geographic scope is the most restrained of the three, limited primarily to Cincinnati, Ohio and the nearby Kentucky plantation

where Sethe and her family had been enslaved, but is broadened by evocations of the Middle Passage and of the historically overdetermined North/South movements of escaped, freed, and recaptured slaves. And the novel's focus on the lives of African slaves and their descendants before and after legal Emancipation clearly interrogates the historically tortured relation of the two terms in the contemporary designation African-American.

Meanwhile the more explicitly continental geographic scope of *Almanac of the Dead* and *The Rifles* makes the confoundingly inclusive term "American" seem parochial. The more expansive world of Silko's novel, as diagramed on the "five hundred year map" included in the novel's prefatory material, radiates out from Tucson, Arizona to the East and West coasts of the United States and down into Mexico and South America. The map's text insets announce the ongoing struggle between Europeans and Native Americans for control of "the Americas," where "the Indian Wars have never ended." Similarly *The Rifles*'s contribution to Vollmann's saga of continental history ranges widely in the Canadian Arctic, and includes set-pieces in nineteenth-century London and present-day New York City. Vollmann's continental saga here focuses on the interactions of the Inuit (and other indigenous peoples of the Canadian Arctic) with European explorers in the nineteenth century, and more recently with the Canadian government and visiting Americans like Vollmann/Captain Subzero himself.

Formally, these fighting fictions are quite distinct from one

another. Morrison's lyrical "free indirect discourse" narrative voice in *Beloved* clings closely to the consciousnesses of its relatively small cast of characters, principally Sethe's, even while jumping around in time. With the exception of the four consecutive extended monologue chapters, by Sethe, Denver, Beloved, and the three of them together, respectively, this style is maintained throughout, and no "extraneous" material interrupts the story. Morrison's sources and historical research are fully integrated into her characters's unfolding stories. And all these developed characters are African-American, and thus on the sympathetic side of the slavery divide; the appearances of the villainous white "Schoolteacher" and his kin are few and brief, as are those of the token benign whites.

*Almanac of the Dead* presents a dramatically different fictional ontology. Silko's novel, the angriest and hungriest of the fighting fictions, is vast and diffuse, three times as long as *Beloved*, with at least three times as many characters. There is no protagonist, and precious few characters who are not noxious; Silko's blunt, unforgiving prose sweeps up the thoughts and surroundings of all the characters in her sprawling battleground of the Americas, most of whom are the enemy. As noted above, the novel's geographic range and temporal scales are wide-ranging, and it is not only filled with undigested contemporary news-bites and historical anecdotes, but also studded with "external" addenda such as the "five hundred year map," and historical chronologies of



Native uprisings in the Americas and of slave unrest in the United States.

*The Rifles*, though closer in length to Morrison's work than to Silko's, is an even more multifarious mash than *Almanac of the Dead*. Vollmann's novel blends and conflates lyrical fictional scenes set in the present, flatter historical fiction, and autobiographical memoirs, and is further bedecked with appendices including transcripts of journalistic interviews, official correspondence, several glossaries, hand-drawn maps, a bibliography, and an annotated equipment list from Vollmann's own northernmost Arctic expedition. *The Rifles'* self-implicating metafictional and journalistic dimension endows it with a uniquely personal aspect that manages both to acknowledge the socioeconomic subject-position of its gadget-happy globe-hopping white author/protagonist and provide a well-researched, empathetic evocation of the contemporary ontology of the Inuit "other." With differing amounts of formal and thematic inclusiveness, then, the fighting fictions of Morrison, Silko, and Vollmann struggle to express valued difference contained within a historicized present reality, as "One World, Many Tribes" (the section-heading for *Almanac's* final Part), in opposition to a postmodern conception of the present as a pastiche of discontinuous, incommensurable parallel universes.

#### **1. The Communal Supernaturalism of *Beloved***

*Beloved's* famous dedication to the "Sixty Million and more"

black African victims of the slave trade<sup>1</sup> immediately proclaims the novel's status as a fighting fiction, an explicitly political holocaust novel, and the novel itself and the consensus of its critical readings bear out this identification. Given Morrison's nineteenth-century setting and her tight focus on an almost exclusively African-American cast, however, it is less obvious how *Beloved* fits in with *Almanac of the Dead* and *The Rifles* as a fiction highlighting the ongoing clash of different ontologies. *Beloved's* place in this grouping does not derive from any effort of Morrison's to apportion equal time and attention to representatives of both the clashing cultures in question, but rather depends upon her problematization of the identity and reality of the title-character, and the predominant critical reification of a supernaturalist interpretation of this theme. Certainly white society, literally present in the novel only in brief glimpses of token villainy and charity, is everywhere implied as the malevolent force responsible for the unutterable trauma its characters cannot escape.<sup>2</sup> But the

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<sup>1</sup>Morrison's explanation of this figure to a *Newsweek* reporter is paraphrased as "the best educated guess at the number of black Africans who never even made it into slavery--those who died either as captives in Africa or on slave ships" in Walter Clemons, "A Gravestone of Memories," *Newsweek* 28 September 1987:75.

<sup>2</sup>Morrison elaborates Paul D.'s thoughts on this subject when he, Sethe and Denver first come upon Beloved, and see her as another "young colored woman drifting" (52) from slavery's ruination. Such as her are said to be "Silent, except for social courtesies, when they met one another they neither described nor asked about the sorrow that drove them from one place to another. The whites didn't bear speaking on. Everybody knew" (53). Toni Morrison, *Beloved* (New York: Penguin, 1988).

more important arena for the clash of ontologies in the novel is the question of *Beloved's* identity, for which Morrison provides competing viewpoints: a rationalist and individualist explanation representing the dominant scientized white discourse, which is inverted into a hidden "minority" position; and a symbolic, folk, vernacular supernatural reading validated by the weight of communal (and critical) opinion. The coexistence of these opposing discourses, or distinct "collectives" of humans and nonhumans (ghosts, for example, are valid nonhumans only in the latter collective), represents Morrison's understated participation in the work of hybridization.

The vast amount of critical and popular attention *Beloved* has garnered (including the release of a film version in 1998 produced by and starring Oprah Winfrey and directed by Jonathan Demme), likely greater than that generated by all the others fictions examined in "Simultaneous Diversity" collectively, is alone sufficient to mandate approaching the issue of *Beloved's* identity by way of the existing horizon of criticism on the topic. Yet such an approach is particularly crucial to the treatment of *Beloved* as a fighting fiction, for Morrison's subtle entanglement of her opposed ontologies is only sporadically made explicit within the novel, and rises to the level of open conflict most clearly in the critical responses engendered by the novel. "Beloved's Identity" is indeed the heading for a section of Barbara H. Solomon's introduction to a critical anthology on *Beloved*, in which she illustrates "the

willingness of scholars to entertain multiple and overlapping views of [the origin and identity of] Beloved"<sup>3</sup> with an overview of a dozen critical treatments of the subject. At the extremes of the spectrum of critical receptivity to the novel's supernatural material, among these articles, are those by Deborah Horvitz, who celebrates Beloved as the "ghost-child-mother-sister" (102)<sup>4</sup> focalizing all the novel's beneficent symbolic energies, and Elizabeth B. House, who doggedly outlines the case for understanding Beloved as a flesh and blood escaped slave whose evocation of Sethe's dead daughter is coincidental.

In Horvitz's "Nameless Ghosts: Possession and Dispossession in *Beloved*," Beloved's identity is not a subject for deduction or controversy; Beloved is clearly an all-embracing "collective being" (100) who serves as a sort of feminist godhead, radiating solidarity. For Horvitz the supernatural component of Beloved's characterization explodes the constraints of individual identity in time so as to replace either/or thinking with a unifying ontology of and/and:

The powerful corporeal ghost who creates matrilineal connection between Africa and America, Beloved stands for every African woman whose story will never be told. She is the haunting symbol of the many Beloveds--generations of mothers and daughters--hunted down and stolen from Africa; as such,

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<sup>3</sup>Barbara H. Solomon, introduction, *Critical Essays on Toni Morrison's Beloved*, ed. Barbara H. Solomon (New York: G. K. Hall, 1998) 22.

<sup>4</sup>Deborah Horvitz, "Nameless Ghosts: Possession and Dispossession in *Beloved*," *Studies in American Fiction* 17.2 (Autumn 1989):157-167. Reprinted in Solomon, 93-103.

she is, unlike mortals, invulnerable to barriers of time, space, and place. She moves with the freedom of an omnipresent and omnipotent spirit who weaves in and out of different generations within the matrilineal chain. (93)

Beyond her symbolic resonance, *Beloved* is to be understood literally as "this inter-generational, inter-continental female ghost-child"; she is "not only Sethe's two-year-old daughter, whom she murdered eighteen years ago; she is also Sethe's African mother" (94). The unquestioning assumption that *Beloved* is in fact Sethe's daughter is a critical commonplace, but Horvitz's unusual further conflation of *Beloved* with Sethe's mother derives from her interpretation of *Beloved*'s first monologue.<sup>5</sup> The monologue consists of impressionistic first-hand reminiscences of the Middle Passage; since neither Sethe nor her daughter could have crossed the Atlantic themselves, given what we are told of their lives, Horvitz concludes *Beloved* must be channeling a member of the previous generation who did make the Middle Passage--Sethe's mother. And the woman who resembles the speaker and for whom she yearns, must then be "Sethe's grandmother" (99). The presence of the supernatural in *Beloved* enables Horvitz's anti-objective but oddly specific reading of *Beloved* as a "collective being" healing the breaches wreaked by slavery upon inter-generational feminist African-American

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<sup>5</sup>An odd triangulation of House's and Horvitz's readings occurs in Jennifer L. Holden-Kirwan, "Looking Into the Self That Is No Self: An Examination of Subjectivity in *Beloved*" *African American Review* 32:3 (Fall, 1998) 415-426, where House's reading of *Beloved*'s Middle Passage experience is used to positively identify *Beloved* as solely the spirit of Sethe's mother, rather than mother and daughter both (as in Horvitz), or just the daughter (as in the majority view).

solidarity.

If Horvitz's article represents an extreme formulation of the majority view that "*Beloved* is Morrison's most unambiguous endorsement of the supernatural" (205)<sup>6</sup>, House's "Toni Morrison's *Ghost: The Beloved Who Is Not Beloved*" is the definitive expression of an alternative reading emphasizing the novel's understated "objective" explanation of *Beloved*'s identity. Marshaling evidence from an extended close reading of the two monologues featuring *Beloved*'s voice (the fourth and fifth chapters of Part II), House argues "that the girl is not a supernatural being of any kind but simply a young woman who has herself suffered the horrors of slavery" (117)<sup>7</sup>. *Beloved*'s descriptions of the Middle Passage are simply her own memories, rather than inter-generational channelings, and the woman she loses on the ship her own African mother. House notes that the intervening years between the ocean passage and *Beloved*'s appearance at Sethe's house are adequately explained by Stamp Paid's suggestion--"Was a girl locked up in the house with a whiteman over by Deer Creek. Found him dead last summer and the girl gone. Maybe that's her. Folks say he had her in there since she was a pup" (235)--which is further corroborated by *Beloved*'s comment that a white man "was in the house I was in. He hurt me" (215). In

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<sup>6</sup>Denise Heinze, *The Dilemma of "Double-Consciousness": Toni Morrison's Novels* (Athens: U of Georgia P, 1993). Reprinted in Solomon as "Beloved and the Tyranny of the Double," 205-210.

<sup>7</sup>Elizabeth B. House, "Toni Morrison's *Ghost: The Beloved Who Is Not Beloved*," *Studies in American Fiction* 18.1 (Spring 1990):17-26. Reprinted in Solomon, 117-126.

this reading the initial common sense assumption Paul D. and Sethe shared upon first seeing Beloved, that she was another "young coloredwoman drifting," is borne out, and the apparent supernatural family reunion is merely a coincidence inflated by mutual longing.

Another way of expressing the contrast between Horvitz's and House's readings of *Beloved* is their respective emphases on continuity versus discontinuity. Horvitz's "ghost who creates matrilineal connection between Africa and America" and is "invulnerable to barriers of time, space, and place" is an emblem and engine of historical continuity. The massive historical rupture of slavery is subsumed in Horvitz's reading into the "cycle of mother-daughter loss, perceived abandonment, betrayal, and recovery [that] is inherent in and characterizes each mother-daughter relationship in the novel" (94). As the "multiple-identified" (98) Beloved is both Sethe's dead child and lost mother, her reappearance empowers inter-generational healing and continuity.

In sharp opposition to this picture, House views the novel as "a story of two probable instances of mistaken identity" that, fed by mutual longing for lost family, lead to a poignant pathology of miscommunication and misunderstanding (122). Examples of miscommunication between Sethe and Beloved abound, but a succinct occasion occurs in the last of the "monologue" chapters (which becomes multivocal when Beloved's voice is joined by those of Sethe and Denver), as Sethe asks "Didn't you come from the other side?", meaning the afterlife, and Beloved responds "Yes. I was on the other

side" (215), referring to Africa and her experience of the Middle Passage. Indeed, once Sethe at last succumbs to the notion that Beloved is in fact her dead daughter returned, the time of joyful "play" soon gives way to the deterioration of her self and household. Denver becomes the objective witness of this deepening malaise, and the agent of its eventual reverse through her reestablishment of ties between "124" and the community. Sethe's "recovery" from the trauma of generational discontinuity effected by slavery, is thus to be realized not through her confused "reunion" with Beloved, which is itself a symptom of the trauma, but through Beloved's departure and Sethe's reintegration into present-day social life.

House's restrained, literalist interpretation of Beloved's identity, and her stress on the miscommunication among the novel's main characters, contributes to a reading of the novel's supernatural discourse as deriving from the communal folk beliefs of its characters, as opposed to representing the novel's "authorized" ontology. *Beloved*, in other words, is taken to be a novel/collective about a household and a community that believe themselves to be haunted, rather than a "ghost story," or novel/collective that believes itself to be haunted. Despite its social emphasis, then, this reading can be described as a rationalist and individualist view, distinguishing the ex-slave Beloved from her folk supernatural identification, Morrison's views from those of her characters, and



House's stance from the consensus of critical response to *Beloved*.<sup>3</sup>

For *Beloved*'s community of nineteenth-century African-American characters, the reality of the supernatural is an undeniable part of life, independent of the question of *Beloved*'s identity; Paul D. immediately perceives 124 to be haunted upon first entering the house, for example, before having heard about the death of Sethe's baby. To the extent that Morrison's "free indirect discourse" narrative voice absorbs this communal worldview, the supernatural is an "authorized" kind of knowledge in *Beloved*. Further, Morrison's unstinting depiction of the physical and psychical horrors suffered by African-American slaves and their descendants is explicitly political, and invites equally "ideological" response. So the majority view of *Beloved* as an oppositional fiction flaunting an anti-scientific ontology is itself self-evidently authorized. But the critical leap from these premises to the unhesitating identification of *Beloved* as the inter-generational daughter-mother trickster ghost is not self-evidently justified. As a fighting fiction *Beloved* includes within itself an "objective" or non-supernatural explanation of *Beloved*'s identity, as House as

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<sup>3</sup>Examples of the proliferation of supernatural readings of *Beloved* include the following excerpts: "Beloved, part ghost, zombie, devil, and memory" (Heinze, 205); "Beloved is the nursing baby that Sethe killed" (211), Jean Wyatt, "Giving Body to the Word: The Maternal Symbolic in Toni Morrison's *Beloved*," *PMLA* 108:3 (May 1993) 474-488. Reprinted in Solomon, 211-232; "The character *Beloved* is not just the ghost of Sethe's dead child; she is a succubus, a female demon and nightmare figure that sexually assaults male sleepers and drains them of semen" (193). Pamela E. Barnett, "Figurations of Rape and the Supernatural in *Beloved*," *PMLA* 112:3 (May 1997). Reprinted in Bloom, 193-205.

suggested, and thus embodies a conflict between "Western" and non-Western ways of knowing and being in an inverted fictional space in which the latter worldview is the entrenched majority position.

The novel's opening lines, "124 was spiteful. Full of a baby's venom. The women in the house knew it and so did the children" (3) enact this reversal, anthropomorphizing a number, which is soon identified as a (haunted) house address. Morrison's immediate endorsement of supernatural assumptions establishes the narrative voice of "free indirect discourse," recalling Henry Louis Gates Jr.'s discussion of the way Zora Neale Hurston in *Their Eyes Were Watching God* innovatively captures "the speaking black voice in writing" by blending "the direct discourse of the novel's black speech community" with the narrator's "standard English"<sup>3</sup>. "Together they waged a perfunctory battle against the outrageous behavior of that place; against turned-over slop jars, smacks on the behind, and gusts of sour air" (4). This nearby sentence not only illustrates free indirect discourse (with its combination of the authorial "perfunctory" with the colloquial "smacks on the behind"), but also demonstrates how this mode authorizes the poltergeist it describes.

The further assertion in the opening lines attributing knowledge of the reality of the supernatural specifically to the relatively powerless, "women and children," introduces the first political note in a chapter that goes on to allude to all the

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<sup>3</sup>Henry Louis Gates, Jr., *The Signifying Monkey: A Theory of African-American Literary Criticism* (New York: Oxford UP, 1988) xxv, xxvi.

novel's shocking scenes of cruelty and degradation. Sethe's ugly experience of "rutting" for a headstone (5), the unspeakable event responsible for the "baby's fury at having its throat cut," Baby Suggs's loss of all eight of her children, Schoolteacher's kinsmen's violent theft of Sethe's mother-milk and subsequent whipping of her (6), and Paul D's eighty-three day lockdown when part of a slave chain-gang (18); all are previewed in the novel's opening chapter. In this way the first chapter presents a microcosm of the novel's main story line, climaxing with the narrator's most unambiguous (though still screened somewhat through Paul D's perspective) presentation of supernatural events, the house-quaking and "temporary" exorcism of the ghost. Having established the novel's characteristic framing of historical suffering within a communal ontology of the supernatural, the chapter ends with the ghost seemingly gone, Paul D. and Sethe together, and Denver resuming practical affairs, much as the novel does.

What is absent from the first chapter, and absent from or misread in many critical responses to the novel, and in the recent film version of the novel, is the inner life of Beloved, which elsewhere in the novel leads to a plausible case for Beloved's ordinary and unrecognized humanity. Along with Stamp Paid's suggestion that Beloved might be the girl who "was locked up in the house with a whiteman" (235) and Sethe's independent initial impression that "Beloved had been locked up by some whiteman for his own purposes" (119), Beloved's status as an escaped slave draws

support from her own cryptic (to Denver and Sethe) admissions that her name originates from the words of white men sexually using her. She tells Denver "in the dark my name is Beloved" (75), and tells Sethe that in the past white men "stuck their fingers in her and said beloved in the dark and bitch in the light" (120). None of these textual details mesh with the notion that Beloved is simply the reincarnated ghost of Sethe's dead baby, and they are ignored by supernaturally inclined critics (and filmmakers), or explained a la Horvitz by way of labeling Beloved as "multiple-identified." The information contained in the monologue sections is yet more decisive, as ably demonstrated by House and misread by Horvitz (and left out altogether of the filmed *Beloved*).

The consecutive dramatic monologue chapters (by Sethe, Denver, Beloved, and lastly by the three of them together), the novel's most interesting formal flourish, seem at first a joint rhapsody of reunion, but in fact reveal the awful absences at the core of each of the three characters' inner lives. Slavery's destruction of families and individuals is the specter of discontinuity that haunts *Beloved*, and, poignantly, each of the three individual monologues, for all their strongly-felt rhetoric of reunion, memorialize people who remain absent. Sethe's insistent claim, "Beloved, she my daughter. She mine" (200), begins a monologue that is an extended great gasp of relief from the long-borne, deranging guilt of having killed her own baby. But the Middle Passage reminiscences of Beloved's monologue plausibly confirm the reading that she is not,

in fact, the ghost of Sethe's child, despite Sethe's mistaken assurance, and that thus the child the trauma-ridden Sethe welcomes back remains gone.

The real revelation of Sethe's monologue is the insight it provides into the full scope of her suffering before, and especially after, her tragic decision to kill her child, and the crucial acknowledgment by Sethe herself that her troubles have pushed her over the edge into madness. Denver and Paul D. say as much at various times in the novel, and the long isolation of the household from the community, both before and after Beloved's appearance, attests to it, but the reader empathetic to the travails of the novel's "heroine" may overlook the severity of Sethe's derangement. She only narrowly avoided a fall into prostitution or suicide, says Sethe, as indeed, "my mind was homeless then" (204). Mistakenly convinced her dead daughter has returned, Sethe is relieved to now escape active anguish to "sleep like the drowned." Only after Beloved's departure, and with the aid of Denver's and Paul D.'s nurturing, can she awaken through acceptance of the harsh reality of her daughter's permanent absence.

With "Beloved is my sister" (201), Denver's subsequent monologue extends the misidentification, conflating Beloved with the ghost of her older sister she has always believed to inhabit 124. But what is notable about Denver's section, aside from its stark acknowledgment of her lifelong fear of her mother's capacity for murder, is the gravitational force exerted on Denver by the absent

father she has never met. The ghost's importance to Denver was as a companion who "helped me wait for my daddy" (205). In a childhood in which Denver's days were shared with Grandma Baby and her brothers Buglar and Howard, nighttime was nevertheless best, as then "everybody was quiet," letting her "dream my daddy better" (207). Denver mentions her disappointment, upon the sudden appearance at 124 of Paul D., that it was not her father. The bulk of Denver's monologue then reverently reports the second-hand stories she heard from Grandma Baby about the "angel man" daddy whose eventual return is Denver's core desire (208). Denver's monologue, like Sethe's, thus also revolves around not the present adult Beloved referred to in its opening and closing lines, but on another still-absent victim of slavery's harrowing, Halle.

Beloved shares the misidentification, thinking Sethe is the mother from whom she was separated on the slave ship, and her monologue repeats the pattern of opening and closing references to a present figure (Sethe) bracketing an extended memorialization of a still-absent loved one, her African mother. House's reading of the monologue is persuasive; the monologue describes a nightmarish but historically typical Middle Passage voyage in which the ship's hold is packed with ailing, dying, and dead Africans tormented by (white) "men without skin" (210). Among the imprisoned is "the woman with my face" (211), Beloved's mother, who goes into the sea amid corpses pushed overboard by the slavers. But importantly, "they do not push the woman with my face through she goes in they do not push her

she goes in" (212). Either as a doomed last attempt at freedom, or a concession to the inevitable, Beloved's mother goes overboard willingly, and was thus still alive when last seen by Beloved, who thereafter yearns to reunite with her until eventually meeting Sethe, and believing Sethe to be her mother regained. The interval between the Middle Passage and Beloved's appearance along a creek near 124 Bluestone Road is compressed, and repressed, into an obscure paragraph in which Beloved is sexually used by an unidentified "he," who is plausibly the "whiteman over by Deer Creek" Stamp Paid later reports as having kept a girl locked up until people "found him dead last summer and the girl gone" (235). After years of stunted development spent in slavery and abusive confinement, punctuated presumably by unwanted sex with the men from whose nighttime cries she takes her name, and with only the memory of her mother to fortify her, Beloved's mistaken conflation of her mother with Sethe is not far-fetched, and her "demonic" lack of socialization understandable. But her monologue, like the preceding two, revolves around another absent victim of slavery.

In the monologue sequence, culminating in the chapter in which the voices of Sethe, Denver, and Beloved join together and question one another, the mutual miscommunication is at least balanced by their mutual desire for togetherness, the poignant effort of the survivors of torn families to form new solidarities. But the backward-looking false reunion of Sethe and Beloved cannot hold, and its malaise is dispersed only when Denver breaks out of the

household into the wider community, leading to Beloved's departure (or, from the supernaturalist perspective of that community, her "exorcism"). The novel proper ends with Sethe and Paul D. agreeing to embark on a new forward-looking relationship, oriented toward "some kind of tomorrow" (273) rather than the oppressive past.

In the obscure and often-overlooked epilogue to the novel, Morrison returns to the misunderstood Beloved and the theme of absence, this time uncushioned by the compensations of community. The opening paragraph distinguishes personal loss, such as that felt by Beloved over her mother's absence, the "loneliness that can be rocked," from discontinuity on a historic scale, like the rupture caused by slavery, the "loneliness that roams" (274). Critical reifications of the supernatural discourse in *Beloved* interpret the character Beloved as the dramatic embodiment of the latter, historical absence, a collective being supercharged with symbolic energy through Morrison's transgressive rejection of a scientific worldview. But the epilogue insists on returning the focus to the scale of the individual Beloved, highlighting the forgetting or erasure of the individual symptomatic of a supernaturalist reading, and reorienting the novel in a disenchanted world of "just weather."

Not only does everyone forget the individual Beloved, says Morrison's epilogue, but none of the novel's characters ever knew the truth of her origins at all: "they never knew where or why she crouched, or whose was the underwater face she needed like that" (275). These final evocations of Beloved's Middle Passage



experiences are followed by allusions to the subsequent time spent locked up:

Where the memory of the smile under chin might have been and was not, a latch latched and lichen attached its apple-green bloom to the metal. What made her think her fingernails could open locks the rain rained on?

This passage suggests that the scar on Beloved's neck, which Sethe took as final proof Beloved was her daughter, may have come from her time of abusive confinement in a now-abandoned and rusted structure she had once struggled to escape. Beloved's unutterably sad life story remains obscure, "not a story to pass on," more nearly outside of history than Sethe's story, which is a local scandal involving the media of the day and the legal system. So as Morrison's novel revives Margaret Garner's story, it also acknowledges the unavailable forgotten stories of individual victims of slavery, some of whose horrors cannot even be directly imagined in the novel, but only suggested, like Beloved's. The epilogue concludes with the final puncturing of the novel's supernatural discourse, as the anthropomorphizing of the natural world is dropped, and "the rest is weather. Not the breath of the disremembered and unaccounted for, but wind in the eaves, or spring ice thawing too quickly. Just weather."

The final word, of course, is "Beloved," a name contested by the novel's conflicting worldviews and interpretations. The novel ends with a last remembrance of the cruelly wronged and overlooked individual who was cynically given that name by her abusers, and poignantly misidentified with a nameless dead baby whose headstone

coincidentally carried the same word. Or the novel ends with a last loving evocation of the inter-generational healing feminist trickster spirit who symbolically and even literally represents the "Sixty Million and More" lost to slavery, including a particular dead daughter. Both worldviews and both readings are "authorized" in the novel, and Morrison acknowledges in the epilogue and assents to the inevitable sway of the majority view emphasizing the supernatural and solidarity after suffering. Just as Beloved's identity remains unknown to the other characters in the novel, and she herself is forgotten when "they made up their tales, shaped and decorated them" (274), so is her most plausible identity and the epilogue memorializing it overlooked in most critical and popular retellings of the novel. In the Demme/Winfrey film, Beloved is merely the ghost of Sethe's dead daughter, and Sethe the noble sufferer of slavery's horrors. In this retelling both the existence of the individual human being Beloved is erased, and the full force of slavery's literal derangement of its survivors is diluted, as Morrison's acknowledgment that this was "not a story to pass on" proves prescient. Unwilling to sacrifice the particulars of individual lives lost to slavery, yet sympathetic to the communal supernatural narrative embodying inter-generational solidarity, Morrison allows the opposing ontologies to coexist in *Beloved* as they do in the outer world.

## 2. "The Indian with a Camera": Visible Politics in *Almanac of the Dead*

There is nothing abstract about ontological conflict in *Almanac of the Dead*, for to Leslie Marmon Silko, who is of mixed Laguna and white ancestry but whose politics are militantly pro-Indian, "the Indian Wars have never ended in the Americas."<sup>10</sup> The novel's prefatory "Five Hundred Year Map" describes a centuries-long ongoing war between Europeans and the indigenous peoples of the Americas. In an odd echo of *Beloved's* dedication, a text inset announces that "sixty million Native Americans died between 1500 and 1600," and "the defiance and resistance to things European continue unabated." But in the novel and elsewhere Silko refutes the idea that science and technology are inherently "things European" to be opposed to a primitivist view of Native American peoples. Instead she emphasizes the independent scientific and technological achievements of indigenous Americans, and their pragmatic openness to the adoption of Western technologies. The Map's other text insets contrast the greatness of pre-Columbian civilizations ("When Europeans arrived, The Maya, Azteca, Inca cultures had already built great cities and vast networks of roads") with the intrinsic rottenness of the European-settled city of Tucson, Arizona, the nucleus of the novel's geographic sprawl ("Home to an assortment of speculators, confidence men, embezzlers, lawyers, judges, police and

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<sup>10</sup>Leslie Marmon Silko, *Almanac of the Dead* (New York: Penguin, 1992) 15.

other criminals, as well as addicts and pushers, since the 1880s and the Apache Wars"). Silko's Indians are not history's victims, but rather the once and future rulers of the Americas whose collective(s) embrace both natural and supernatural nonhumans, and her Europeans are simply soulless invaders whose doom is foretold by prophecy.

In *Almanac of the Dead's* relentless recording of Euro-American depravity, cruel and perverse uses of science and technology are centrally featured, including a travesty of the in vitro ethic as damning as any in contemporary American fiction. But mastery of modern technologies is equally important to the novel's indigenous "resistance" forces. Silko's depiction of clashing ontologies, elsewhere more dependent on the positive articulation of Indian cultural beliefs and practices (notably in *Ceremony*), essentially reduces in *Almanac of the Dead* to a Manichean political philosophy, wherein technology itself is portrayed as neutral.<sup>11</sup> One form of modern technology she repeatedly returns to in her non-fictional writings, and associates in *Almanac of the Dead* with both European

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<sup>11</sup>This shift of focus on Silko's part from positive articulation of Indian cultural difference toward grim sweeping indictment of negative Euro-American hegemony is no doubt partly responsible for the relative lack of critical response to the huge and sprawling *Almanac of the Dead* compared to the steady stream of critical studies addressing *Ceremony*. There are at least two useful articles that tackle this problem by addressing *Almanac's* bleakness head on: Janet St.Clair, "Death of Love/Love of Death: Leslie Marmon Silko's *Almanac of the Dead*" *Melus* 21:2 (Summer 1996) 141-156; and Ann Folwell Stanford, "'Human Debris': Border Politics, Body Parts, and the Reclamation of the Americas in Leslie Marmon Silko's *Almanac of the Dead*" *Literature and Medicine* 16:1 (1997) 23-42.

perversity and indigenous resistance, is that of photography (both still and video). The figure of "The Indian with a Camera," which Silko elaborates in an essay by that name, is ultimately a reflexive description of her own authorial stance in *Almanac of the Dead*, pitilessly documenting with her restless two-dimensional prose the sick, violent, loveless flatness of the dominant but doomed Euro-American culture.

The astonishing and quickly numbing cruelty, greed, and heartlessness Silko's narrative camera portrays in its sweep of Euro-American depravity is too diverse to recount here. But Silko's contemptuous indictment of western civilization, in both its local manifestation (Tucson) and globally, is visible in the figures of Trigg and Serlo, the two characters most implicated with the industry and ideology of technoscience. Trigg is the novel's most energetic capitalist and most exaggerated grotesque, a vampiric sex-obsessed paraplegic slumlord/entrepreneur and would-be emperor of the growing global market in "Biomaterials--the industry's 'preferred' term for fetal-brain material, human kidneys, hearts and lungs, corneas for eye transplants, and human skin for burn victims" (398). Trigg displays an almost mathematical (trigg-onometric) acuity for generating money from bio-materials, manipulating zoning laws and real estate deals to create a flourishing business collecting and distributing blood, plasma and human organs. Exemplifying the entrepreneurial (money-grubbing) spirit Silko depicts as endemic to Tucson's history and development, Trigg dreams

of an imperial "conglomerate" diversifying laterally and vertically from bio-materials into hospitals, human-organ transplant research teams, addiction treatment centers and even a pornographic "Pleasure Mall." As with Silko's characterization of the novel's myriad other white villains, Trigg's greed and corruption spill over into unmitigated evil, as the core of his enterprise (a metonym of the West's booming health-care[-of-the-self] industry) is shown to be murder; both the small-scale, albeit serial, literal vampirism of bleeding drugged hitchhikers to death in his van while distracting them with fellatio, and the large-scale murder of "harvesting" bio-materials from down-and-out locals and victims of civil war in Mexico. Through Trigg Silko characterizes modern medicine, the poster-child of Progress, as the murderous harvesting of the underclass on behalf of white upperclass greed and bodily need.

If Trigg is the white-trash dark heart of Tucson, controlling the circulation of its tainted blood supply, Serlo is the cosmopolitan European arch-aristocrat, guarding the sanctity of his "sangre pura" or pure "blue blood" with the demented logic, unlimited resources, and global reach of a James Bond villain. Silko uses Serlo's obsession with eugenics to travesty the in vitro ethic of scientific research. Serlo's isolated ranch on the plains of Argentina is to be the classic scientific node, a well-funded place "to conduct research in complete seclusion," capable of self-sufficiency even amid political chaos because stocked with underground vaults full of money, water, wine and dehydrated foods

(542). Driving her point literally out into orbit, Silko elaborates on Serlo's extension of the scientific node concept into a biosphere, or "Alternative Earth unit [that] contained the plants, animals, and water necessary to continue independently as long as electricity was generated by the new 'peanut-size' atomic reactors":

The Alternative Earth modules would be loaded with the last of the earth's uncontaminated soil, water, and oxygen and would be launched by immense rockets into high orbits around the earth where sunlight would sustain plants to supply oxygen, as well as food. Alternative Earth modules would orbit together in colonies [. . .] [and] The colonies in earth's orbit would periodically be recharged with water and oxygen from earth, but the Alternative Earth modules had been designed to be self-sufficient, closed systems (542-543)

But Serlo is not content to be part of an orbiting elite vampirically siphoning resources from the Earth but otherwise leaving the masses to their own devices.

Indeed, while following his grandfather's addled eugenicist practice of freezing all his own sperm "so the masses of Europe might someday be upgraded through the use of artificial insemination," Serlo hopes to take in vitro fertilization a step further, supporting research "to develop an artificial uterus because women were often not reliable or responsible enough to give the 'superfetuses' their best chance at developing into superbabies" (547). And as "there was little use in bringing a genetically superior man into a world crowded and polluted by the degenerate masses" (546), Serlo is "a charter member of a secret multinational organization with a 'secret agenda' for the entire world" (545). This genocidal secret agenda is covert biological warfare, including

the successful recent "international collaboration" to develop the AIDS virus, HIV, specifically for the "targeted groups" of "the poor, the nonwhite, the addicted, and the homosexual" (548). The collective efforts of the Western scientific elite, then, as focused in the novel through the aristocratic amateur Serlo, amount to a plutocratic, racist, gynophobic and homophobic international conspiracy to genocidally re-engineer the human race, while developing Alternative Earth modules as guaranteed zones of biological and racial purity.

The focus of Silko's criticism, however, even in the exaggerated cases of Trigg and Serlo, is the political evil she deems inherent in Euro-American uses of science and technology, rather than the intrinsic wrongness of scientific inquiry and/or modern technology. That Silko's approach to technology is in no way primitivist or neo-Luddite is evident throughout the novel in the activities of the indigenous characters who comprise the forces of resistance to European hegemony in the Americas. This is made clear from the outset, in the novel's opening scene-setting in the kitchen of the ranch of the sixty-year old Indian woman Zeta, where "pistols, shotguns, and cartridges [are] scattered on the kitchen counters, and needles and pills [are] all over the table" (20) and "remote-controlled garage doors and security gates light up the control panel on the kitchen wall" (21). Weapons, drugs, and surveillance technology, modern products all put to dastardly ends by white characters in the novel, are first associated with



indigenous agents.

Indeed many of the novel's resistors are armed with modern weapons: from Zeta with her ranch arsenal and the 44 Magnum in her purse; to the Cuban Marxist insurrectionist Angelita La Escapia, who plans to arm the Indian masses poised to flood the American border from the South; to Clinton, the black veteran heading the Army of the Homeless, who "still believed in the M16" (411), and envisions his homeless veterans attacking the authorities with "mortar and missile launchers" (748); and to the radical group "Green Vengeance, eco-warriors in the defense of earth" (727), who use explosives to destroy the Glen Canyon Dam. The novel's preeminent technoscientific genius, far outstripping the businessman Trigg and amateur Serlo, is the Asian-American expert computer hacker Awa Gee, whom Zeta counts on to infiltrate and bring down America's grid of electric power, creating havoc. Fired from his position at the University of Arizona working on "the government's secret space-laser project" (684), Awa Gee steals the highly powerful lens he had developed for the project, turning it into a portable "solar war machine" capable of the "purity of destruction" (683) he is devoted to, as demonstrated by his casual incineration of a police car with the device's beam of redirected sunlight. Clearly, Silko cumulatively spends as much or more time describing the weapons stockpiles and technological expertise of the novel's indigenous resistance forces as she does detailing evil Euro-American abuses of technology.

But photography is the crucial technology for Silko, both for

illustrating white depravity and effecting indigenous expression and uprising. In her essay collection *Yellow Woman and a Beauty of the Spirit*, Silko notes that her interest in photography dates back to the many hours she spent watching her father, a professional photographer, at work in his darkroom, and came to fruition when she enrolled in a beginning photography class in 1971, after dropping out of law school.<sup>12</sup> In the collection's introduction she describes buying "a wonderful Toyo field camera" in 1976 (22), and then in 1978 changing to a more portable and spontaneous "autofocus 35mm camera for \$99," and spending several years photographing the local desert around Laguna, and experimenting with "the electronic photography of copying machines" (23). For Silko photography is neither an intrinsically modern nor Western medium but an extension of the ancient art of storytelling, and her collection "is caught up with representation and visualization of narrative, of storytelling; Mayan folding books, murals, and finally photography with narrative are explored" (21). *Almanac of the Dead* is also clearly intended to reprise the Mayan folding books, most literally in its transcriptions by Lecha and Zeta of Yoeme's notebooks, wherein the existing Mayan folding books, the "Madrid Paris [and] Dresden Codices" (136), are mentioned. Silko says of *Almanac of the Dead*, "by 1982, I was writing the novel in sections, much as a movie is filmed for later editing; the sections also resembled the fragments

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<sup>12</sup>Leslie Marmon Silko, *Yellow Woman and a Beauty of the Spirit: Essays on Native American Life Today* (New York: Simon, 1996) 167.

that remained of the ancient Maya codices" (140). So both *Yellow Woman* and *Almanac* are conceived as visual narratives continuous with both ancient indigenous American storytelling and contemporary motion pictures.

Furthermore, even as Silko reframes photography as an extension of indigenous American tradition, she enlists a postmodern take on the science of photographic processes on behalf of her larger political argument, which stresses the importance of the "spiritual integrity of the person behind the camera" over and above the neutral technology itself (183). In a piece called "On Photography" (which originally appeared as the "Preface" to *Partial Recall*, a collection of "essays on photographs of native North Americans" edited by Lucy R. Lippard), Silko reports feeling "amazed and delighted to see how Japanese I appeared" in a photograph taken by her Japanese translator, and suggests a quantum physical explanation to corroborate her hypothesis of the influence of the photographer's subjectivity:

The more I read about the behavior of subatomic particles of light, the more confident I am that photographs are capable of registering subtle electromagnetic changes in both the subject and the photographer. [. . .] Perhaps photographs register ambient bursts of energy in the form of heat or X rays as well as light. Thus photographs reveal more than a mere image of a subject, although it is still too early for us to understand or interpret all the information a photograph may contain. (180-181)

Though none of the essays in *Partial Recall* pursue Silko's scientific speculation, many of the volume's contributors agree with her underlying

contention that the ethical and artistic worth of a photograph (particularly a photograph of Indian subjects) derives from the moral and spiritual strength, or lack thereof, of both the photographer and her picture's subjects.

Indeed, her assertion that "there is a difference between [Uruguayan-born photographer] Jo Mora's intimate depictions [of Indian subjects] and photographs by voyeurs/vampires like [canonical white photographers Edward] Curtis, [H. C.] Voth, and [Adam Clark] Vroman [and] that difference is love" (184), refers to her reading of the volume's selections, which repeatedly critique these figures, especially Curtis. Exemplary of the volume's recurring theme that the work of Curtis, who often supplied his subjects with supposedly authentic traditional Indian costumes, all-too-successfully perpetuated a retrograde stereotype of Indianness, is Rayna Green's dismissal of "the Curtis boys dripping dentalia and fur--the sepia kings, shot through spit and petroleum jelly, Lords of the Plains, Potentates of the Potlatch, the Last-Ofs".<sup>13</sup> *Almanac of the Dead* consciously presents an alternative portrait of contemporary Indians as technologically savvy citizens of the modern world, and ironizes the traditional portraiture of Native Americans by white photographers. Silko's designation of Curtis, Voth, and Vroman as "vampires" not only recalls her characterization of Trigg and Serlo, but also coincides with her portrayal throughout *Almanac of the Dead*

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<sup>13</sup>Rayna Green, "Rosebuds of the Plateau: Frank Matsura and the Fainting Couch Aesthetic," *Partial Recall*, ed. Lucy R. Lippard (New York: New P, 1992) 47.

of ghoulish Euro-American abuses of still- and video photography.

The career of the Apache leader known as Geronimo as a photographic subject is used by Silko to represent both indigenous tricksterism and fortitude, and Euro-American "blindness." In the novel the Indian character Calabazas is present at a group narration by tribal elders of the story of the U.S. Army's laughable confusion concerning the identity of the much-feared, most-wanted Geronimo. The story contends that as "to whites all Apache warriors looked alike," "there came to be at least four Apache raiders who were called by the name Geronimo," including the individuals known as Red Clay, Sleet, Big Pine, Wide Ledge, and Old Pancakes, all of whom were photographed at various times as "Geronimo" (224). This comic parable of European "blindness to the world" highlights both white obtuseness and successful Indian tricksterism, but is stopped short of full-fledged historical revisionism, as it is pointed out that the photographs of the different Geronimos, when looked at together by the Geronimos themselves, all do in fact depict the same Apache warrior. Ultimately Silko's Yaqui storytellers offer an explanation allowing for the coexistence of the multiple-Geronimo story with the fact of the clear identity shared by the official "Geronimo" pictures in the historical record, namely that a Yaqui ancestor spirit had interposed himself into the camera lens, the "polished crystal in the black box," to protect the souls of the Apache warriors (232). This finesse maneuver prevents the novel's multiple-Geronimo gambit from being overly contradicted by Silko's

straightforward tribute in "On Photography" to the fortitude demonstrated by the historical Geronimo in the official photographic record, where she approvingly cites the Cherokee artist Jimmie Durham's article on Geronimo in *Partial Recall*. Writing about a striking 1904 photograph accredited to Walter Ferguson entitled "Geronimo at the Wheel," which depicts Geronimo in modern formal dress in a new car with his fellow (imprisoned) Apache leaders, Durham there argues:

Geronimo, as an Indian "photographic subject," blew out the windows. On his own he reinvented the concept of photographs of American Indians. At least, he did so as far as he could, concerning pictures of himself, which are so ubiquitous that he must have sought "photo opportunities" as eagerly as the photographers. [. . .] He is demanding to be seen, on his own terms. [56]:<sup>4</sup>

The self-determination of the Indian subject, agree Silko and Durham, can fool and overpower the lamentable "blindness" of Euro-American photographers.

The depiction of Euro-American uses of photography everywhere else in *Almanac of the Dead* is withering; the hapless ignorance of the U.S. army photographers is gentle comic relief in comparison to the novel's predominant association of photography in American culture with profiteering aestheticism, political surveillance and torture, and outright pornography. The novel's key practitioner of "art" photography is David, whose first experience with cameras comes as the subject of pornographic videos shot by his clients when he is working as a prostitute. With the financial support of his

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<sup>4</sup>Jimmie Durham, "Geronimo!" in Lippard, 55-58.

wealthy lover Beaufrey, David develops a career behind the camera, which culminates in his hugely successful "Eric" series, a set of photographs taken "Police Gazette style" (106) of the fresh corpse of David's and Beaufrey's shared lover Eric moments after his suicide. This cruel and opportunistic voyeurism is lionized by the Euro-American culturati: "Influential international critics agreed; at last David 'had found a subject to fit his style of clinical detachment and relentless exposure of what lies hidden in the flesh'" (108). Meanwhile Beaufrey is a connoisseur of suffering and gore on film on a larger scale, and is "in partnership with a rare book seller in Buenos Aires with a complete line of dissection films and videotapes for sale," specializing in films of "atypical or pathological abortions" and of "sex-change operations" (102). Beaufrey's interests extend also to videos of torture by Mexican police interrogators, which were shot with equipment bestowed with compliments of the United States government, and distributed by an "Argentine pornographic film company" (342).

The only mildly redeeming Euro-American camera-eye amidst all this is that of Seese (sees), the novel's least execrable white character, who does not take pictures but who in her passive witnessing is a kind of camera herself. Of Seese Silko writes that "when she closed her eyes, mental images out of the past kept running through her brain like a high-speed movie" (57), adding later that Seese "felt like a cartoon figure with a human body, but with a camera where her head should be" (105). "For a face she had a

wide, glassy lens that brought all she saw into focus so cold and clear she could not stop to shiver." The relative benignity of Seese's character and hence her vision is testified to by her initial misreading of the prints of her estranged husband David's "Eric" series as representing a double exposure of "the nude human body innocent and lovely" amid a field of bright red and purple flowers, rather than Eric's white corpse on his blood-spattered white sheets (106). Seese, like Sterling, the equally passive and inoffensive Laguna character who crosses her path in the novel's opening and parallels her as an innocent "survivor" through to the novel's end, is essentially a bystander in the novel's ongoing "Indian Wars."

Sterling's greatest life-crisis was his exile from his community as a result of his perceived failure as "Laguna film commissioner" to prevent a "Hollywood movie crew" (35) from filming an odd stone formation believed by the local Laguna to be a "giant stone snake" messenger-spirit. He is therefore hardly a shining example of the heroic and heraldic "Indian with a Camera" Silko's later essay of that name describes. But his contemporary sensibility, shaped by movies, television, and popular magazines, does prefigure Silko's argument there that "Pueblo people today are quite sophisticated about film and video technology" (178).<sup>15</sup> In the

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<sup>15</sup>Sterling's sharp contrast from Cooperesque stereotypes of the Indian as noble savage outdoorsman is evident in his unheroic desert crossing on a bus, during which he gazes at "utility poles" that turn out (when he puts on his glasses) to be giant cacti familiar to him from cartoons and Lash LaRue and Tom Mix cowboy movies.



essay, one of the pieces included in *Yellow Woman*, Silko writes that "the Pueblo people did not fear or hate cameras or the photographic image so much as they objected to the intrusive vulgarity of the white men who gazed through the lenses" (175). Indeed, in the novel it is the Laguna elders's long grievance about the past Euro-American misappropriation of Laguna "stone idols," rather than any "fear" of the spirit-snake's vulnerability to technology, that motivates their anger at the film crew's "capturing" of the site.

Silko's essay "The Indian with a Camera" begins by invoking a history of indigenous involvement in "man-made visual images" dating from the ancient petroglyphs left along the San Jose River by "the paleo-Indian ancestors of the Pueblos" up through her own childhood experience of witnessing that "many of the homes of the most traditional and conservative Laguna people included a great many photographs of family members" (176). Stressing indigenous pragmatism, she affirms that "Pueblo cultures seek to include rather than exclude" (177). "The Pueblo impulse is to accept and incorporate what works, because human survival is so arduous and risky." In *Partial Recall*, the Comanche journalist Paul Chaat Smith independently echoes this point: "Contrary to what most people (Indians and non-Indians alike) now believe, our true history is one of constant change, technological innovation, and intense curiosity about the world"<sup>16</sup>(97). To Silko, the fact of Native American

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<sup>16</sup>Paul Chaat Smith, "Every Picture Tells a Story," in Lippard, 95-100.

resilience and adaptability is inherently threatening to white society:

The Indian with a camera is frightening for a number of reasons. Euro-Americans desperately need to believe that the indigenous people and cultures that were destroyed were somehow less than human; Indian photographers are proof to the contrary. The Indian with a camera is an omen of the time in the future that all Euro-Americans unconsciously dread: the time when the indigenous people of the Americas will retake their land. (178)

In *Almanac of the Dead* the stirrings of the indigenous deluge of American borders from the South, which represents a major prong of Silko's fictional scenario for this inevitable revolution, are recorded on film (by a German television crew), redoubling the movement's momentum. The publicity brings additional funding and support for the efforts of the Mexican Indian twin brothers Wacah and El Feo, avatars of the "spirit macaws," to lead an unstoppable surge of indigenous masses across the American border.

The figure of "the Indian with a camera" is both a trope of indigenous technological sophistication and a description after the fact of Silko's authorial persona in *Almanac of the Dead*. In *Yellow Woman* Silko reports that "a giant stone snake formation was found one morning in the spring of 1980"<sup>17</sup> near the Jackpile uranium mine on the Laguna Pueblo reservation (126). This "biomorphic configuration [. . .] was more than thirty feet long and twelve inches high, an eccentric outcropping of yellow sandstone mottled

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<sup>17</sup>The two consecutive essays in *Yellow Woman* discussing the "stone snake" differ as to whether it appeared (and was seen by Silko) in 1980 (126,132), or in 1979 (138,144).

and peppered with darker iron ores"; "the head of the snake was pointed west, its jaws open wide." Pueblo religious people interpreted this phenomenon as the reappearance of "Ma ah shra true ee, the sacred messenger" spirit (134). Silko herself saw the "snake" at the time, while acting as a location scout for an indigenous-made film (rather than as an Indian agent protecting the snake from Hollywood, like Sterling). Silko goes on to say that upon completing *Almanac of the Dead* in 1989 she "realized that the giant snake had been a catalyst for the novel from the start. [. . .] I had to write this novel in order to figure out for myself the meaning of the giant stone snake" (144). The novel itself ends with Sterling's resolution of this question: "Sterling knew why the giant snake had returned now; he knew what the snake's message was to the people. The snake was looking south, in the direction from which the twin brothers and the people would come" (763).

Though intended as the verbal equivalent of a photographic narrative,<sup>13</sup> *Almanac of the Dead* is not intended to represent mechanical, "objective" photorealism, like the ineffectual Seese's "cold and clear" but passive witnessing. Silko's stated preference, in opposition to the "goals of photographers of the realism school," is to produce "photographic images that obscure rather than reveal" (169). Hence her editorial reorientation of the sacred stone snake,

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<sup>13</sup>An anticipation of her later self-published book of narratives accompanied by actual photographs. See Leslie Marmon Silko, *Sacred Water: Narratives and Pictures*, 2nd ed. (Tucson: Flood Plain P, 1993).

which in "reality" faced west, to the more ominously symbolic southern bearing. Silko's writings return again and again to Native American stories and ontologies, such as that of the stone snake messenger spirit, that presume a non-Western, supernatural worldview, and *Almanac of the Dead* is no exception. But Silko's focus in her huge fighting fiction is not the evocation of a carnivalesque magic realist realm consigning minority status within the boundaries of the novel to the hegemonic modern scientific worldview, as in *Beloved*. Rather than a political reaffirmation of the existence of invisible spirits, *Almanac of the Dead* materializes a visible politics dedicated to the indigenous retaking of the Americas, putting all available modern technological resources to use in the realization of traditional Native American prophecies. *Almanac of the Dead's* wide-ranging mobilization of technological, animal, and supernatural nonhumans constitutes a much broader and more explicit engagement with the work of hybridization than that undertaken in *Beloved*, yet this effort is obscured by the novel's Manichean (albeit reverse polarity; black is good, and white is bad) politics, which partake of the work of purification.

### **3. Understanding *The Rifles*: The Ambiguous Landscape of Arctic Survival**

In significant contrast to the succinct, pointed dedication prefacing *Beloved*, and to *Almanac of the Dead's* explicitly partisan "Five Hundred Year Map," the diffuse and politically ambiguous

front-matter of William T. Vollmann's *The Rifles* initiates a distinctively open-ended, formally experimental inquiry into the history and meaning of the clash of Inuit and Euro-American ontologies in the Canadian Arctic. In Vollmann's fighting fiction it is the nature of the fight and the boundaries of the fiction that are contested; the political and ethical black-and-white-ness of *Beloved* and *Almanac of the Dead* is clouded in *The Rifles* by the Arctic landscape's prevailing grays. The book's bewildering array of apparently contradictory and/or gratuitous prefatory material and appendices betoken both the complexity of the Arctic situation and the formal hybridity Vollmann adopts for his narrative exploration of that complexity. Moreover Vollmann's multidirectional engagement with diverse peoples, animals, legends, texts, landscapes, and tools realizes Latour's goal for science studies of creating a "democracy" or "Parliament of Things."

The front-matter of *The Rifles* runs the gamut from sentimental evocations of harmonious, even romantic interactions between Euro-Americans and the Inuit, through affirmations of the exploratory impulse and the human inclination to challenge nature's extremest climates, to ironic ridicule of European malfeasance and rueful reminders of irreparable environmental damage caused by European rapacity. The book's opening end-pages are bridged by a hand-drawn map, which is centered on the Canadian Arctic so as to group the novel's primary settings (Resolute, Pond Inlet, Inukjuak, King William Island) near the crease, or join, of the two pages, a

placement whose symbolic intent is elucidated by the two pages's mirroring of Inuktitut and English phrases. The Inuktitut syllabics that would be transliterated as "nu-na-v-t" (Nunavut), on the left-hand page, mirror the English translation of this Inuit name for their home regions, "Our Land," on the right-hand page.<sup>19</sup> Similarly the syllabic and transliterated halves of a syllabary reflect one another, as do sketches of the Western-outfitted contemporary explorer "su-p-si-ru" (Subzero), Vollmann's alter-ego, and the Inuit woman he loves, "ri-pa" (Reepah). The romantic connection between the two sketched figures is emphasized with their further respective identification as "sallusautigiyattatuq = he never stop lying" (presumably an Inuktitut word for "author"), and "uitarivaa = she takes him as her husband"; turning the page makes the figures and phrases, and the different cultures they represent, touch. This graphic sentimentality is closely followed by the barbed ironies of Vollmann's long-winded neo-archaic title-page introducing *The Rifles* as the "Sixth Dream" in his projected seven-volume fictional history of European and Native American interactions in the New World:

SEVEN DREAMS ABOUT OUR CONTINENT IN THE DAYS OF THE RIFLEMEN  
Unthawing the Multi-Frozen Breeches of Starvation Guns in the  
Black-Mooned Days of Winter Whose Heroes (Aiming Straight or  
Wide), Smoothbored the Northwest Passage, CHECKED THE RAMPAGES  
OF WHALES, Relocated the Esquimaux; Who discovered Gold, Who  
WERE RIGHT ON THE MONEY; Who had SYPHILIS; Who \*\*\* Invented  
the Repeaters!\*\*\* As Disassembled From Diverse Gauges by  
WILLIAM T. VOLLMANN (Known in This World as "WILLIAM THE

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<sup>19</sup>On April 1, 1999, the Canadian government officially designated the central and eastern portions of the Northwest Territories as the new territory of "Nunavut"--the name the Inuit have always used for the region.

BLIND")

This mock-heroic rhetoric ironically memorializes the European explorers of the Arctic for their intentional relocation of indigenous peoples, for their unintentional decimation of native populations as carriers of European diseases like syphilis, for their vast negative influence on the wildlife of the region, and for their fundamentally commercial motives.

This critique of the baleful influence exerted upon Arctic life by Europeans and their rifles is extended in the nearby juxtaposition of the following quotes contrasting the traditional conservationism of native hunters with the thoughtless slaughter once favored by Europeans in the region:

Another rule we followed was never to kill an animal that we were not going to use for food or clothing.

Barnabas Piryuaq, 1986

Well, in those high latitudes we found such quantities of seals and walruses that we simply did not know what to do with them. There were thousands and thousands lying there; we walked among them and hit them on the head, and laughed heartily at the abundance which God had created.

Jan Welzl, 1933

But another epigraph, from Job--"Are not the days of my life few? Let me alone, that I may find a little comfort before I go whence I shall not return, to the land of gloom and darkness, to the land of gloom and chaos, where light is as darkness"--is more ambiguous, possibly endorsing the rights to solitude and self-determination not only of indigenous peoples but of European explorers like Sir John Franklin, and their present-day avatar, Vollmann himself. The book's mysterious dedication, to a person whose syllabic name would be

transliterated as "Tu-ra," and who is not mentioned again in the text or in Vollmann's obsessively detailed appendices and acknowledgments, may refer to, or at least suggest, a real model for Subzero's doomed lover Reepah, adding a sensational undercurrent of authorial complicity in the record of historically destructive interactions between Europeans and the Inuit.

The most substantial preliminary "paratext" (with which the book's pagination begins but that the Contents page identifies as also prefatory), is the "Rifle-Text," which opens with an extended set piece of Arctic landscape description that is clearly a metonym for the elusiveness of true understanding of the Arctic, and for Vollmann's own formal convolutions. In a direct address to "you," the first of many designations he uses to refer to his composite authorial persona (later alluded to in the list "there were Franklin, Subzero, you, yours truly, me, myself and I")<sup>20</sup>, Vollmann recalls one of his experiences with the infinitely deceptive and dispiriting Arctic landscape:

Walking south and south on Cornwallis Island with the sea always just over a little gravel ridge [. . .] you went wandering across a hard plain of stones, tan stones and grey stones, and the sea was just one more ridge away [. . .] but you remembered how the island had tricked you all the way, dangling ocean and ocean and ocean in front of your face for so long [. . .]. Indeed, just as it had happened with the seashore, so it happened with the source of the river that you followed inland [. . .]. [After days of walking] at last you found the source of your river [. . .] [only to discover] You were not at a definite place after all. [. . .] [After several more false river-sources] at last you understood that the

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<sup>20</sup>William T. Vollmann, *The Rifles* (New York: Penguin, 1994) 134.



river you had followed had no one source, that these lakes were from permafrost melt; the whole island was permafrost; when you were on the island you were in a world of rivers that came from everywhere. (3,6)

With its profusion of front-matter and eighty-odd pages of epilogues, glossaries, notes, and other appendices, all of which work to preclude closure and linear reading, to say nothing of the vertiginous temporal and narrative heterogeneity of the "novel proper," *The Rifles* is undeniably "a world of rivers that came from everywhere." Where are this novel's beginning and ending, really? To what degree are its sources textual, journalistic, autobiographical? What is the true orientation of its argument? Unlike many research- or information-driven, fact-filled fictions, Vollmann's novel does not present a thesis, nor, unlike *Almanac of the Dead*, provide the epistemological security of clear villains and resistance forces with an unimpeachable cause. The title-page's authorial attribution, "as Disassembled from Diverse Gauges," is meaningful beyond its extension of the rifle jargon conceit; Vollmann emphasizes his deconstruction of multiple existing sources rather than his positive construction of a cohesive new whole.

But the subject of "the rifles" does provide the novel's generative hypothesis, namely that the introduction of the European technology of the rifle (and more generally the European presence that attended it), has harmed or at the least irreversibly altered the indigenous cultures of the Arctic. Vollmann explains that the motivation behind his own multiple fact-finding trips to the Arctic was "To understand rifles (for you must understand that at this time

he was constructing a row of Seven Dreams in order to understand life, and because iron axes had almost decided things in Vinland<sup>21</sup>, because arquebuses had taken command at Kebec<sup>22</sup>, what must rifles have done here?" (35). Vollmann's project is wholly exemplary of Latour's vision of science studies, an immersion into the Arctic "imbroglio" of the human and nonhuman centered on the iconic "quasi-object" of the rifle, which entangles technology, animals, and the histories and traditions of different peoples. The results of his inquiry, which are scattered among the main body of the novel, its epilogues, and its notes, are complex, contradictory, and inconclusive.

The origin of the hypothesis, and its relation to the English explorer Sir John Franklin and his four Arctic expeditions in pursuit of the Northwest Passage (in 1818, 1819-22, 1825-27, and 1845-48), are elaborated when at length Vollmann endeavors "to get to the point of it":

Mr Franklin did not have so much to do with [the inauguration of "the Age of Rifles"]; the French in earlier times had known exactly what they were doing when they introduced firearms into Canada, but by Mr Franklin's time the rifles were spreading faster than smallpox and it was too late to be anything but a dupe; it was merely his weird death that brought us to the Arctic for good, first in the form of search parties, and then as traders, missionaries, police, resettlement administrators [. . .] and the only reason Mr Franklin is germane at all has to do with a certain coincidence of rifles and starvation that I cannot put out of

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<sup>21</sup>See the first installment of Vollmann's *Seven Dreams* series, *The Ice Shirt* (New York: Viking, 1990).

<sup>22</sup>See *Fathers and Crows* (New York: Viking, 1992), the second installment of *Seven Dreams*.

my mind (123)

Though a note to an earlier "firearms epigraph" strongly expands on this "coincidence of rifles and starvation," arguing that "the introduction of firearms among native American populations seems always to have produced the same effects: dependency, decimation of game, and resultant loss of liberty and/or life" (382), Vollmann's note for the above passage attempts to partially exonerate the rifles. Quoting the eminent anthropologist Franz Boas along with contemporary sociologists on numerous alternative reasons for the fluctuation of populations of Inuit food sources such as seals and caribou, Vollmann remarks that, "the rifles were not evil in and of themselves; nor were the white men who introduced them evil men. How inconvenient, that there are no villains to this tragedy!" (383). Another note further complicates the issue by deconstructing the prefatory juxtaposition of epigraphs contrasting indigenous conservationism with European waste, by quoting ethnographer Richard K. Nelson's distinction between the "well-developed conservation ethic" of the Athabascan Indians of Alaska, and the occasional "purposeless killing" of the Eskimo, who "above all hunts in order to be an Eskimo," rather than solely for sustenance (380).

The book's remaining commentary on the rifles is similarly conflicted. Vollmann's three-page history of the development of the rifle from the fifteenth to the eighteenth centuries emphasizes the "stupidity" (124) and irregularity of the rifle's discontinuous, highly contingent evolution. There follows a four-page collection of

nineteenth- and twentieth-century quotes on the subject of the rifle and Arctic hunting, which cumulatively stress the change wrought on indigenous hunting habits and habitats by rifles, but which end with Vollmann's admission that "we cannot say for certain which--if any--specific cases of starvation were caused by the abuse of repeating rifles" (132). And the novel proper ends with a gloomy narrative of starvation and cannibalism suddenly brightened by a life-saving rifle. In this sequence an unnamed lone survivor of Franklin's doomed Fourth Expedition, most of whose members starved to death afoot in 1848 after the ship was forced to overwinter in Arctic pack ice, is shown relying on cannibalism of the sporadically appearing corpses of his shipmates while struggling South trying to eke out a living with his rifle. Yet the story of this starving hunter, who at times shares the composite Franklin/Subzero/Vollmann consciousness, ends with his glorious discovery of a group of musk-oxen: "He stood sighting very carefully, knowing that as soon as he pulled the trigger the rifle would save his life" (324).

The quasi-object the rifle is paradoxically both an incredibly efficient tool for hunting in a landscape where everyone's survival depends on hunting, and as a function of its own efficiency also potentially the cause of starvation by way of catastrophic decimation of food sources. In one of his epilogues, entitled "Further History of the Rifles," Vollmann leaves the question unresolved:

What is there to say about the rifles, finally? Isn't it a lazy conceit that blames them for so many problems? They had

nothing to do with the [Canadian government's relocation of some Inuit from Quebec to harsher climes farther north] after all. We can't prove that they caused starvation or game reduction. [. . .] Just as the first time you say I love you in a new language you feel as powerfully as the first time you said it in your own, so the hypothesis of the rifles seems compelling at first, but there are always new languages to learn (339)

In the subsequent and final epilogue (preceding, nevertheless, the myriad glossaries and appendices), "Straight Shots," Vollmann makes a final sentimental appeal on behalf of the imperiled food supply of the Arctic's indigenous peoples, with a direct address to outside hunters: "I say to you others: As you crouch there with the stock against your shoulder, pray for the caribou. Pray that your shot is not true" (341).

What most distinguishes Vollmann's fighting fiction is his own garrulous, idiosyncratic, dual presence as author thinking aloud and openly addressing the reader, and earnest, fallible protagonist through whose subjectivity the thematic clash of Euro-American and Inuit ontologies is focused and personalized. The figure of "Captain Subzero," the authorial alter-ego whose several fact-finding trips to the Arctic in the late nineteen-eighties and early nineties are surely Vollmann's own, and whose intense personal relationships with Inuit such as Reepah are likely but ambiguously fictionalized, is a kind of tension-dissipating jester or fool moving between both cultures. Captain Subzero is introduced in the chapter by the same name, which describes his 1989 stay on Baffin Island accompanied by his American friend Seth, a botanist, and is immediately depicted wearing his motley "personal uniform, bedizened with the merit

badges of mosquitoes, guns, islands, seals and whores" (26), and trying unsuccessfully to establish a friendship with an Inuk girl. Subzero and Seth eventually succeed in making friends by tirelessly bribing Inuit children with the likes of "chocolate, rubber dinosaur noses, T-shirts and earrings" (30), leading to a temporary cross-cultural idyll of exploring, botanizing, and playing with local kids.

The end of this idyllic phase, and the introduction of complexity and historical complicity to Subzero's persona, is signaled by Subzero's break with the idealistic Seth. On a day in which Subzero and Seth find the rifle-shot corpses of a fox and a raven, Seth, who "had that kind of sensitivity which, deeply lobed like pedicularis leaves, remains no less pure for being only partly rooted in knowledge" (39) agonizes at this waste and the "degraded culture" it represents (38). Subzero is skeptical, and believes that Seth's "grief was in a way as artificial as Subzero's love-sadness for Reepah (who hasn't been introduced yet" (40). "From this day onward, as it later seemed to Subzero, Seth began to be uncompromising in his hardness against those who in his view hurt the world. [. . .] [and] in the process he drew himself into a species of orthodoxy; in effect, he'd joined the Party." Forsaking Seth's moralistic "orthodoxy," Subzero assumes a complicated blend of almost libertarian individualism and social responsibility, praying "to love others better and to be of service to them," while adopting the following self-asserting resolutions:

1. Don't try to be what I'm not.
2. Don't harm myself to please others.
3. Be free. (41)

Thus leaving behind Seth's sincere but cloistered virtue, Subzero is able to make much closer contact with the Arctic "other," pursuing his mysterious fascination with the Inuk girl Jukee, and learning through her that he is a "triplet," inaugurating the book's theme of empathetic composite identity. Subzero interprets "fissures and riddles in a lump of ice" as syllabic characters for "ja n va ra ng ka li n," or "John Franklin," and realizes "Franklin was his twin" (48), and is later told by Jukee that his third triplet is Reepah. Vollmann's earlier startling mention of "Reepah (who hasn't been introduced yet)" initiates the dramatically non-linear "time travel" that permeates the novel. That the following chapter features Subzero/"John" and Reepah together in 1988 reveals that Subzero's seemingly innocent 1989 Arctic visit with Seth is not in fact his "first expedition" but that he has been there before, an insistent reminder of the unavoidable European historical complicity in the present ontology of the Arctic.

Vollmann's urgent aim in *The Rifles* is to collapse all the dichotomies inherent in cultural clash, including European/Inuit, Self/Other, Male/Female, Past/Present, into one complex yet all-encompassing hybrid ontology of Life, or Love. Hence the time-roiling composite identity Subzero/Franklin and his/their obsession with Reepah. Discussing the Subzero/Franklin connection Vollmann writes:

you did not want simply to be someone else in space and time, which was a mere substitution, and if successfully accomplished, would have left you in an equivalent ontological state; no, you wanted to own alternate selves so that you could be both self and other. Having split your nature [. . .] you could flow from one spiritual bottle to the next with endless sexuality. (163)

And it is through sex that Subzero, like Franklin and innumerable other European explorers/colonists/soldiers/sex-tourists Abroad before Subzero, attempts to possess and be the Inuit "other."

Despite his sincere resolution not to complicate further Reepah's troubled life as an unwed Inuk mother who has been relocated to the far north outpost of Resolute--"just for today I will respect my own and others' boundaries" (70)--he fails to remove himself. The only sustained description of sexual intercourse in the novel is an attempt at transubstantiation, as Subzero desperately tries "to melt himself into [Reepah], all over her, as if his substance were butter in his hands that he needed more than anything else in the world to dissolve into her" (75). Actual penetration of Reepah, "whom he loved as he had never loved anybody," "would be the literal incarnation of himself in her, a change of being; he would become her then, alien, lovely and loved." The eventual consequences of this boundless incorporating extension by the western male Self of the indigenous female Other, as historically, are familiarly grim, as Vollmann later reveals with respect to

Reepah (who I forgot to mention had borrowed her uncle's double-barreled rifle, pressed her head against its nostrils, gripped the barrel with her right hand, leaned down, and jerked the trigger with her left) [. . .]. Somebody in Resolute had told [Mr Franklin]. She'd given birth to his child and become another of those women with babies gazing



down [. . .] and the women were weighted down; their babies yoked them (148)

Vollmann's description of the historical Sir John Franklin's character as "methodically feckless" (50) is equally applicable to the composite figure(s) Subzero/Franklin, whose well-meaning shared intention merely "to explore and to love" (158) leads in both of their temporal dimensions to irrevocable harm.

The novel's most sustained Inuit character, Reepah, object of Franklin's nineteenth-century attentions and Subzero's contemporary infatuation, embodies the temporal heterogeneity typical of Arctic, indeed of all modern life. Her indecipherable otherness, and the pidgin love-talk she and Subzero share, recall conventional portrayals by western white males (i.e. Hemingway, or Henry Miller) of exotic, inscrutable and alluring foreign women. This self-consciously shopworn and overdetermined motif of the romantic encounter between European and Other is related to Vollmann's theme of the present's recapitulation of the past. But despite the traces of sentimental attachment to the primitivist noble savage myth evident in some of Vollmann's excerpted quotes of Arctic life before rifles, Reepah, like Silko's indigenous characters, is portrayed as unequivocally comfortable with, and surrounded by, modern technology. In her first appearance in the book she is shown happily playing an electronic piano and watching television in her conventional contemporary home with its refrigerator and freezer, despite her evident poverty. The picture of modern Inuit life in *The Rifles* is fully consistent with the sentiment expressed by one of

Vollmann's sources on Arctic life that the "imposition of a traditional-modern dichotomy [pressuring indigenous peoples to be either one or the other] is irrational. All people live in both the past and the present."<sup>23</sup>

Vollmann's own feelings about modernity are ambivalent. In an interview he attributes the generative impulse of his massive *Seven Dreams* series to his interest in the anti-progressive view of history of Ovid's *Metamorphoses*--"from Ovid I got the idea that there had been a series of different ages on our continent, with each age being a little inferior to the age that preceded it" (12).<sup>24</sup> Claiming to have been disabused of his optimistic youthful aspiration "to make the world better," Vollmann goes on to elaborate his anti-progressive view:

But at a certain point you see more clearly that the world is obviously no better now than it ever was. [. . .] In fact, I'm pretty sure that it'll never be any better than it is now. Given that, all anyone can ever hope to do is either change a few specific things in a few specific ways (which will probably change again after you finish tinkering with them), or else help yourself and other people accept the fundamental viciousness and inertia of things. (17)

The exact cause of this historical decline is not specified either in *The Rifles* or the interview, but despite the novel's initial hypotheses about the negative effect of the rifles, Vollmann makes clear in the interview the culprit is not simply technology. The

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<sup>23</sup>Hugh Brody, *Living Arctic: Hunters of the Canadian North* (Vancouver: Douglas & McIntyre, 1987) 175.

<sup>24</sup>Larry McCaffery, "An Interview with William T. Vollmann," *Review of Contemporary Fiction* 13:2 (Summer 1993) 9-24.

intensity of historical catastrophism that emerges as Vollmann makes this point is startling:

The problem, of course, is not technology itself (I don't buy that kind of determinism), but the economic system that abuses technology in repellent and deadening ways. I believe that these abuses will eventually lead the world into a crisis in which thousands or millions of people will be killed, and many more species will become extinct. I suspect that the only hope for humanity in particular is a massive decrease in our population. So I applaud the amoral technicians who are making new biochemical weapons. All I ask is that when we are killed, we not leave a mess behind us for hundreds of thousands of years. (22)

The apocalyptic pessimism Vollmann expresses here almost recalls that of Silko's crazed Serlo, but with the crucial distinction that Vollmann's ideal is not white supremacy or survival but the preservation of simultaneous diversity, "to have as many worlds as possible that are invested with meaning" (17).

In *The Rifles* the struggle between Vollmann's historical pessimism and his ample reserves of energy for conservationist advocacy results in a unique hybrid of fiction, journalism, and autobiography dedicated to expressing the complexity of Arctic survival. At the heart of that complexity is the difficulty of preserving simultaneous diversity, of rooting for the survival of all the competing interest groups in a region where Malthusian imperatives are magnified by one of the extremest climates on earth, and death alone litters the landscape. The ramifications of what Vollmann wryly calls the "inconvenience" of a story without villains are open-endedness, discontinuity, irresolution; he roots for the mutual survival of the Inuit and their cosmology of nonhumans, of

European adventurers and settlers in the region from John Franklin to Vollmann himself and their own respective divinities, and of the caribou, seals, and whales these peoples hunt. Decrying abuses of technology, he glories in the application of all available modern technology for survival in the Arctic. Thus *The Rifles* realizes a more inclusive approximation than any of "Simultaneous Diversity"'s other fictions of the work of hybridization's goal, what Latour calls "a democracy extended to things themselves" (*We Have Never*, 142).

Placing himself directly within the survival equation Vollmann (as Subzero) includes a forty-two page section detailing his own northernmost Arctic expedition, a 1991 trip culminating in a twelve day stay alone at an abandoned weather station called Isachsen on Ellef Ringnes Island, at the time the approximate location of the North Magnetic Pole. At an average temperature of thirty five degrees below zero Celsius, and out of radio contact due to sunspots, Vollmann's survival at Isachsen, like that of the Arctic's indigenous peoples and of previous European adventurers in the region, depends completely on using his wits to get the most out of his available equipment and technology. He nearly freezes to death despite his supposedly state-of-the-art synthetic clothing (and composes the ostensible epitaph "I died for the advancement of Vapor Barrier Liners" [275]), and in an echo of Franklin's crew's decimation by lead poisoning from their canned foods, and the deadly toll suffered by contemporary Inuit from gasoline-sniffing, is

almost caught in a fire caused by his diesel-fueled heater. But Vollmann, like Melville's Ishmael, survives to tell his tale, and provides an annotated "Equipment List for Isachsen Trip" critically assessing the performance of each component of his hi-tech gear, for the use of possible future adventurers. Adding a sustained dose of straight autobiography into the novel's winding-down of the story of the Franklin expeditions, Vollmann's Isachsen episode clinches his own identification with alter-ego Subzero and his historical "grave-twin" John Franklin.

Both thematically, as a prayer for the survival, against the odds, of all forms of life in the Arctic, and formally, as a diffuse oddball hybrid text, *The Rifles* is the most inclusive of the fighting fictions discussed here. The key to its inclusiveness is Vollmann's earnest reflexive presence within the text as the consciousness that mediates the Arctic's culture clashes into a necessarily limited and subjective, but open-ended, inquiry into the entanglement of diverse humans and nonhumans. As Madison Smartt Bell correctly notes, contrasting Vollmann's pre-*Rifles* works with the slick solipsism characteristic of most metafiction,

Instead of entering the work to declare it is a trick, he stands inside it as a witness--vouching for its authenticity. With all his open manipulations, Vollmann never tries to show you that he is a clever imagination who is inventing something. He always tries to show that he is a witness who has seen something. [. . .] Indeed, if he is the god of his own texts, he offers himself up for crucifixion every time. (44)<sup>25</sup>

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<sup>25</sup>Madison Smartt Bell, "Where an Author Might be Standing," *Review of Contemporary Fiction* 13:2 (Summer 1993) 39-45.

Vollmann the contemporary Euro-American researcher/adventurer writes himself into *The Rifles* as the reincarnation of John Franklin, who in Vollmann's view is in a small but real way directly responsible for the degradation of the indigenous cultures of the Arctic. His own propensity for exoticist sex-tourism, much documented in his journalism and stories about prostitutes, leads him to further implicate himself with the well-meaning, even loving, but careless destruction of lives like Reepah's. Subzero/Franklin's drive "to explore and to love" may be incompatible with Vollmann's wish for the preservation of simultaneous diversity, but *The Rifles* refuses to yield either impulse, remaining irresolute, unfinished, and embracing a radically hybridized "democracy of things."

The fighting fictions *Beloved*, *Almanac of the Dead*, and *The Rifles* all participate in the work of hybridization, variously attempting to contain contemporary ontological clashes within "One World," a historicized present reality, while preserving valued difference. Within its clearly delimited space as a historical novel dedicated to slavery's victims and survivors, Morrison's *Beloved* inverts the hegemonic scientized worldview into a minority position overshadowed by a communal supernaturalism. *Beloved* is the most polished of the three fighting fictions studied here, with the least direct engagement of contemporary life; in this respect it is figuratively, as the otherwise limited film version implies in its creditless opening shot tracking through a cemetery to pause briefly on the inscribed word "Beloved," a stark, memorable, dearly-

purchased gravestone. Silko's *Almanac of the Dead*, by contrast, is a living battlefield as big as the Americas enfolding centuries of historical struggle, recorded by an ideologically black-and-white camera signifying Native American resilience and technological pragmatism but registering mainly depravity and lovelessness. Silko's subjectivity, expressed precisely and lyrically in *Yellow Woman and a Beauty of the Spirit*, is subsumed in *Almanac of the Dead* to an ostensibly communal vatic voice prophesying the preordained reclamation of the Americas by their indigenous peoples. Vollmann's *The Rifles* is a fighting fiction formally modeled on the deceptive Arctic landscape itself, a world of rivers without clear sources or orientations. The limitations of Vollmann's perspective (for presumably Inuit hunters living in the Arctic would be more expert readers of said landscape), and its complicity in the continually destructive Arctic cultural clashes, are explicitly inscribed into *The Rifles* through Vollmann's distinctive reflexive presence in his hybrid fiction. *The Rifles*'s formal hybridity is mandated by Vollmann's larger commitment to depicting and furthering the world's work of hybridization, the spiraling non-assimilative entanglement of humans and nonhumans. In my Conclusion, I will emulate Vollmann's inclusive approach in reentangling or stirring back together many of "Simultaneous Diversity"'s distinctive ingredients, from its theorists of discontinuity to McCarthy's catastrophist fictions, DeLillo's and Powers's scientist fictions, and the fighting fictions of Morrison, Silko, and Vollmann.

## CONCLUSION

I conclude "Simultaneous Diversity" by briefly stirring some of Chapter I's theorists of discontinuity in with the six writers whose catastrophist fictions, scientist fictions, and fighting fictions are considered in Chapters II-IV. The resulting hotchpotch, like that of "Simultaneous Diversity" in its entirety, resides in an interdisciplinary (or undisciplined<sup>1</sup>) zone merely suggestive of the heterogeneity of the present, but more hybridized or conceptually "dirty" than that occupied by the already heterogeneous realm of "contemporary American fiction." Even after we consent to a democracy of collectives/texts and consider theorists and fictionists together as contemporary writers, or even go so far as to designate them all playfully as contemporary fictionists, it strains sense to speak of the texts of Giddens, Baudrillard, Latour, et al, as "American." So the domain of "Simultaneous Diversity" must remain a dynamic and undisciplined variety of literary criticism, differing from but entangling American Studies, Cultural Studies, and Science Studies. The Conclusion will approach that amorphous horizon first from within the literary realm, recalling how the examined nine works by six authors variously represent contemporary American fiction, and then from without, as Gould, Baudrillard, Giddens, and Latour are stirred back into the mix to yield differing alignments among the ten contemporary writers.

My first step in reiterating the ontological or chronotopic

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<sup>1</sup>See Gary Genosko, *Undisciplined Theory* (London: Sage, 1998).



diversity of this study's fictions is to revisit my methodological extension of Latour's "symmetrical anthropology" of "collectives" to the taxonomy of recent texts. Just as Latour's collectives, or "natures-cultures," all embody varying ratios and mobilizations of humans and nonhumans, different fictions are also distinct entanglements of humans, animals, machines, divinities, ghosts, landscapes, things. The mobilization of humans and nonhumans in a given novel yields insight into its particular construal of each of the terms in the phrase "contemporary American fiction." I have so far grounded each of my close readings of "Simultaneous Diversity"'s examined fictions in the particular ontologies and figural vocabularies of each work, even while corralling each fiction into one of three generic classifications--catastrophist fictions, scientist fictions, and fighting fictions. This variant of the discourse of discontinuity, necessary to evoke the distinctness of each of these recent collectives, can now yield to their entanglement, in the simultaneous consideration of their various mobilizations of humans and nonhumans into diverse contemporary American fictions.

What constructions of the contemporary are implied by the labels "catastrophist," "scientist," and "fighting?" Catastrophism describes a present that is unrelated to any progressive homogeneous temporal flow, and utterly subject to external contingency and, ultimately, death; the present moment may represent the meridian immediately preceding catastrophe, the trough following catastrophe,

or part of the long stasis in between brief periods of catastrophic change. Such a view places little value on novelty or progress, and in Cormac McCarthy's fictions, as we have seen, the characters (or humans) are generally uneducated castoffs from Progress (*Blood Meridian's* "kid") or educated drop-outs from Society who embrace the world but spurn its "news" (Ben Telfair, *Suttree*). Landscapes, animals, time-tested tools, and even ghosts (Papaw) and divinities (Holden/Death) are the predominant nonhumans, while newer technologies and medias are only glanced at or are ignored altogether. McCarthy's works privilege outdoor ontologies over the constricted indoor world of a Society construed as separate from the nonhuman world, but his outdoors always entangles humans and nonhumans; the iconic quasi-objects of stonework (*The Stonemason*), polluted rivers and forests (*Suttree*), and dried scalps and blood-drenched deserts (*Blood Meridian*) embody an always already humanized Nature.

By contrast, the label "scientist" invokes a vanguardist present that represents a cutting edge moving gradually and surely away from the past's putative confusion of humans and nonhumans toward the purer knowledge of the future. In a scientific laboratory the latest, most acute nonhumans (technology, facts, theories) are activated in fecund in vitro isolation to reproduce themselves in an accelerating evolution that is increasingly virtual, subsuming the slower embodied evolution of humans themselves. In the ontologies of scientist fictions such laboratories and patterning impulses replace

the outdoor landscapes of catastrophist fictions as the predominant nonhumans. Novelty and virtuality matter in scientist fictions. Even in an unstable scientist fiction like *Ratner's Star*, which is permeated with a catastrophist skepticism of Progress, decontextualized futuristic scientific settings and vocabularies are put at the service of Don DeLillo's patterning aspiration to mathematical form. Richard Powers's more openly boosterish epitome of scientist fiction, *The Gold Bug Variations*, aims to be an "encyclopedia of the present," modeling itself on the linked patterns of music and genetics and continuing the annunciatory work of *The Double Helix* in spreading the news of the coming of the epoch-defining nonhuman the DNA molecule to lay readers. The mortal curse of embodiment is partially overcome in *Galatea 2.2*, a virtual version of *Pygmalion* patterned after the fields of neural networks and artificial intelligence (and packed with other contemporary "information") that posits itself as a self-reproducing fiction.

Fighting fictions portray a contested present, in which scientific and more traditional non-western ontologies continue their age-old struggle. Moreover the fighting fictions are the most conflicted group, all stressing the presence of the past, but differing greatly from one another in their relative commitment to depicting the newness of nowness, in their respective mobilizations of humans and nonhumans, and in the futures they indirectly or directly evoke. Toni Morrison's *Beloved*, a historical novel that like McCarthy's novels is set entirely in the past, implicitly

asserts the contemporaneity of the historical rupture caused by slavery, but does not engage directly with the present. *Beloved's* cast of nonhumans includes a small number of physical settings, animals and possible ghosts, but logically excludes machines, scientific paraphernalia and other more recent media of virtuality. Its ontological clash concerns the problematic identity of the title character, for which Morrison provides both a majority communal supernatural interpretation and a hidden objective explanation, a conflict made manifest in the ongoing flurry of critical discussion of the novel.

Leslie Marmon Silko's more determinedly current fighting fiction *Almanac of the Dead* has a much broader collection of nonhumans, populating its diverse settings not only with animals, supernatural spirits, and sacred objects, but also with all manner of modern technology, including biological and conventional weapons, computers, and significantly, cameras. *Almanac of the Dead* ranges widely in time and space, framing the ongoing struggle between Euro-American and indigenous peoples for control of the Americas as one preordained by ancient prophesy to end with the hemisphere's return to Native American sovereignty, thus evincing a violent but non-catastrophist perspective. Vollmann's *The Rifles* has a similarly hybridized view of the present and possibly an even broader cast of nonhumans, obsessively detailing landscapes, wildlife, and ancient and modern technological objects, while also embracing supernatural spirits and Inuit and Christian divinities. Vollmann's perspective

on the future prospects of maintaining simultaneous diversity in the Arctic regions, whose ontological clashes between Euro-American and Inuit collectives *The Rifles* dramatizes, involves a *Suttree*-like persistence in the face of eventual doom. Our nine fictions' construals of the contemporary, then, are as follows: McCarthy's catastrophist fictions ignore novelty in their mobilizations of nonhumans; DeLillo's and Powers's scientist fictions, by contrast, privilege modern nonhumans in decontextualized in vitro settings; and Silko's and Vollmann's (and more subtly, Morrison's) fighting fictions entangle both older and newer nonhumans in their historicized presents.

The significance of the terms "American," and especially "fiction," for our examined works are more difficult to generalize at the level of our three generic classifications. But it is clear that the issue of explicitly or implicitly particularizing and/or problematizing American-ness is substantially more important in the fictions of McCarthy, Morrison, Silko, and Vollmann than it is in the scientist fictions of DeLillo and Powers. This issue can be conceived as a function of the relative diversity of each novel's cast of humans, and of the diversity and specificity of their settings (a type of nonhuman). The implicit definition of the American is more inclusive and contested in *Beloved* and *The Stonemason*, with their predominantly African-American casts, and amidst the multi-ethnic populations of *Suttree*, *Blood Meridian*, *Almanac of the Dead*, and *The Rifles*, than in the scientist fictions,

where the issues of race, class, and nationality are subsumed into the putative universality of science. All three scientist fictions feature a central cast of highly-educated Euro-American principals to which is added a background cast of nominally international scientists united with the principals by the shared vocabularies and goals of scientific research. Moreover, the specificity of the grounded American places and landscapes evoked in the catastrophist and fighting fictions (often explicitly addressing and transgressing American "borders"), yields in the scientist fictions to the artificial spaces of laboratory life, hypothetical mathematical space, and the virtual space inhabited by neural networks and by the Internet.

In now turning to the different realizations of the term "fiction" represented by each of "Simultaneous Diversity"'s examined works, it becomes necessary to shelve the tentative generic classifications I have heretofore employed and attend to new potential alignments of the individual works. Among the criteria with which we can consider the individual collectives are their differential deployments of history, information, autobiography, reflexivity, and outright fabulation. *Blood Meridian* and *Beloved* are straightforward "historical novels," set entirely in the past, entangling actual incidents and personages with imaginary ones, and told from an omniscient perspective by an "absent" author. *Almanac of the Dead*, and to a greater extent, *The Rifles*, haphazardly incorporate historical setpieces into their eclectic contemporary

tales. *Suttree* and *The Stonemason* take place in a completed past, but focus exclusively upon people whose lives fall beneath the radar of "history." Progress, or what Latour terms the history of nonhumans, is the type of history recounted in *Ratner's Star*, *The Gold Bug Variations*, and *Galatea 2.2* (in this regard still a resilient group), as in DeLillo's patterning of his book upon the history of mathematics, and Powers's inscribed lectures on the histories of genetics and artificial intelligence.

To a much greater extent than DeLillo, however, Powers liberally salts his works with un-moored or only partially contextualized "information," scientific and otherwise. This is also true of *Almanac of the Dead* and *The Rifles*, two novels supplemented by long, undigested chronological lists, and studded with floating factoids or news-bites (formal features which in *The Gold Bug Variations* succumb to the orderly arrangement of librarian O'Deigh and appear under recurring headings like "Today in History," or "The Question Board"). Alone among the nine fictions, *The Rifles* and *Galatea 2.2* notably display large chunks of insistently autobiographical information, explicitly situating the "actual" author within the fiction (and thus approximating a hybrid of Silko's *Almanac of the Dead* and *Yellow Woman*). This heightened, postmodernist reflexivity differs from the more impersonal traditional reflexivity of the fictional work intended as a statement of aesthetic purpose, of which our starting point, *The Stonemason*, is a prime example.

Needless to say, as long as the hotchpotch is thus variably stirred, analysis at the scale of the dynamic interrelation of individual texts (or "pragmatics of language particles" [Lyotard]) could proceed indefinitely, engendering both further discontinuities and further entanglements. Even without complicating the mix with additional literary authors, my initial distribution of these particular six authors to the generic categories of catastrophist fictions, scientist fictions, and fighting fictions could be destabilized if additional fictions by these same authors were included. For example, DeLillo's and Powers's other novels are not scientist fictions. McCarthy's three *Border Trilogy* novels (and *Blood Meridian*, for that matter) could be construed with some effort as fighting fictions. Some of Morrison's other novels, an example being *Jazz*, do engage with the present more directly than does *Beloved*. Therefore neither Morrison, nor any of the other authors considered in "Simultaneous Diversity," can be firmly fixed into a rigid taxonomical array based on the contingent positioning of one or more of their works here. Without belaboring this point--the intrinsic contingency or arbitrariness of critical approaches to the heterogeneity of the present--I will briefly illustrate it further, closing "Simultaneous Diversity" by considering some different potential alignments of our six literary authors (as represented by our selected texts) in combination with four of Chapter I's theorists, namely Gould, Baudrillard, Giddens, and Latour.

Hayles's index of proportional commitment to either embodiment



or virtuality is a pertinent criteria for entangling and sorting our ten contemporary writers. Most committed to embodiment and indifferent to virtuality are McCarthy, with his aesthetic ideal of stonemasonry, and Morrison, for whom the presence of the past outweighs the pattern of the future. Gould's paleontological perspective similarly privileges the diverse embodied permutations of macroevolutionary contingency over the reduction to molecular patterning in neo-Darwinist narratives of progressive refinement through natural selection at the genetic level. Giddens's elaboration of "the consequences of modernity," in his book by that name, describes the destructive effect of "disembedding mechanisms" such as "symbolic tokens" (i.e., money) and "expert systems," and he warns that the implications of such informational disembodiment are dire. McCarthy, Morrison, Giddens, and Gould, then, might be grouped as resisters of virtuality. Silko, Vollmann, and Latour all enact a hybridization of embodiment and virtuality, being both protective of diversity and fascinated by technological advance. Powers and Baudrillard (and Hayles herself) are cognizant of the costs of virtuality or simulation but willing to be immersed in it and explore its (in)significance from within.

A completely different alignment obtains if our writers are considered from the more stylistic perspective of comparative rhetoric. Giddens, Gould, and Powers are rationalists, whose patient and lucid prose aims to clarify and to teach. At the opposite end of the spectrum, Baudrillard, McCarthy and Silko, an otherwise odd

grouping of idiosyncratic individuals, are rhetorical extremists. They let it all hang out, and they aim to conquer rather than merely convince their readers. Latour, Morrison, and Vollmann are somewhere in between, capable of either modality, but generally proficient at rendering the extravagant reasonable, and the mundane dangerous. Stirred together in a contingent critical hotchpotch, these writers, even represented as selectively as they have been in "Simultaneous Diversity," powerfully evoke the heterogeneity of the present.

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