



mapping  
Michel  
Serres

NIRAN ABBAS, EDITOR

Abbas, Niran. *Mapping Michel Serres*.

E-book, Ann Arbor, MI: University of Michigan Press, 2005, <https://doi.org/10.3998/mpub.17450>. Accessed 30 Jul 2020.

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# MAPPING

*Michel Serres*

*Edited by* Niran Abbas

THE UNIVERSITY OF MICHIGAN PRESS

*Ann Arbor*

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The University of Michigan Press  
Manufactured in the United States of America  
⊗ Printed on acid-free paper

2008 2007 2006 2005 4 3 2 1

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*A CIP catalog record for this book is available from the British Library.*

Library of Congress Cataloging-in-Publication Data

Mapping Michel Serres / edited by Niran Abbas.

p. cm.

Includes index.

ISBN 0-472-11438-7 (cloth : alk. paper) — ISBN 0-472-03059-0  
(pbk. : alk. paper)

1. Science—Philosophy. 2. Serres, Michel.

I. Abbas, Niran, 1969— II. Title.

Q175.M347 2005  
501—dc22

2004020270

ISBN<sub>13</sub> 978-0-472-11438-2 (cloth)

ISBN<sub>13</sub> 978-0-472-03059-0 (paper)

ISBN<sub>13</sub> 978-0-472-02496-4 (electronic)

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## THE DESIRE FOR UNITY AND ITS FAILURE

*Reading Henry Adams through Michel Serres*

PHILIPP SCHWEIGHAUSER

In *McTeague: A Story of San Francisco* (1899) and *Sister Carrie* (1900), Henry Adams's younger contemporaries Frank Norris and Theodore Dreiser evoke a soundscape<sup>1</sup> of noise that captures the acoustic world of an America at the height of its industrial expansionism and in the midst of rapid urbanization that would change the quality of city life forever. In Dreiser's novel, the apprehensive narrator tells us that it is the noise of the city that lures the impressionable Sister Carrie from her quiet hometown Columbia City, Wisconsin, to the bustling city life of Chicago:

A blare of sound, a roar of life, a vast array of human hives appeal to the astonished senses in equivocal terms. Without a counselor at hand to whisper cautious interpretations, what falsehoods may not these things breathe into the unguarded ear! Unrecognized for what they are, their beauty, like music, too often relaxes, then weakens, then perverts the simplest human perception.<sup>2</sup>

In Norris's *McTeague*, an acoustic onslaught of far greater proportions tears apart the "vast silence"<sup>3</sup> of the Californian desert, to which McTeague flees after he has killed his wife:

Here and there at long distances upon the cañon sides rose the headgear of a mine, surrounded with its few unpainted houses, and topped by its never-failing feather of black smoke. On near approach one heard the prolonged thunder of the stamp-mill, the crusher, the insatiable monster, gnashing the rocks to powder with its long iron teeth, vomiting them out again in a thin stream of wet gray mud. Its enormous maw, fed day and night with the carboys' loads, gorged itself with gravel, and spat

out the gold, grinding the rocks between its jaws, glutted, as it were, with the very entrails of the earth, and growling over its endless meal, like some savage animal, some legendary dragon, some fabulous beast, symbol of inordinate and monstrous gluttony.<sup>4</sup>

Norris and Dreiser define the American landscape at the turn of the century as a site of ever-present noises. As Norris suggests, the noises of civilization have penetrated far into the western wilderness. By 1900, industrialization and urbanization and their attendant noises define the experience of an ever-larger portion of the U.S. population. It is in this historical as well as literary-historical context that the absence of representations of noise in Henry Adams's *The Education of Henry Adams* (1907/1918), first published in private seven years after Dreiser's *Sister Carrie*, must strike us as an anomaly.

Several explanations for this conspicuous absence suggest themselves. As the strongly autobiographical text<sup>5</sup> of a progeny of one of the richest and most powerful American families, *The Education of Henry Adams* registers a wholly different range of experiences than Dreiser's and Norris's texts, with their working-class or middle-class protagonists.<sup>6</sup> Even though he professes to stay away from such occasions as often as possible, Adams is more accustomed to the acoustics of society receptions, where "the tone was easy, the talk was good, and the standard of scholarship was high" (194), than to the bustling life of the poorer parts of cities, where "[o]ne heard the chanting of street cries, the shrill calling of children on their way to school, the merry rattle of a butcher's cart, the brisk noise of hammering, or the occasional prolonged roll of a cable car trundling heavily past, with a vibrant whirring of its jostled glass and the joyous clanging of its bells."<sup>7</sup>

Norris's evocation of the acoustic world of Polk Street, San Francisco, betrays his naturalist interest in the daily trials and tribulations of human lives. This suggests a second reason for the absence of noise in *The Education*. The far greater geographical, political, and historical scope of Adams's text—which covers some of the major geopolitical events between 1838 and 1905—largely excludes attention to these more mundane affairs. The worlds of experience Norris and Dreiser attend to are in more than one way the noise that remains at the margins of Adams's discourse. In this context, Adams's choice of a symbol for the increasingly accelerated process of modernity is significant. He chooses the "silent and infinite force" (361) of the dynamo, which he first encounters at the 1893 Chicago World Fair, rather than the steam-powered "clacking, rattling machines"<sup>8</sup> Sister Carrie works at in the din of a shoe factory.<sup>9</sup>

Still, as a narrative charting almost seventy years of turbulent American history, *The Education* remains surprisingly devoid of the noises that

accompanied the massive changes wrought by industrialization and urbanization. Adams traveled extensively and visited most American and European metropolises, witnessed the prodigious expansion of the railway system, and worked as a bearer of dispatches in Rome during the Italian Risorgimento. But, even in his condemnation of the horrors of industrialization as he witnessed them in England's Black Country, Adams does not give us any acoustic impressions. He lets us see its gloomy darkness but does not make us participate in its auditory turmoil (73).

One of the few exceptions is Adams's description of New York, to which he returns in 1905 after almost forty years of absence, and is confronted with a cognitive, visual, and acoustic uproar of apocalyptic dimensions:

The outline of the city became frantic in its effort to explain something that defied meaning. Power seemed to have outgrown its servitude and to have asserted its freedom. The cylinder had exploded, and thrown great masses of stone and steam against the sky. The city had the air and movement of hysteria, and the citizens were crying, in every accent of anger and alarm, that the new forces must at any cost be brought under control. Prosperity never before imagined, power never yet wielded by man, speed never reached by anything but a meteor, had made the world irritable, nervous, querulous, unreasonable and afraid. . . . Everyone saw it, and every municipal election shrieked chaos. . . . The two-thousand-years failure of Christianity roared upward from Broadway, and no Constantine the Great was in sight. (471–72)

We may here catch a glimpse of the significance of noise in Adams's discourse. Even though this passage does capture something of the city's soundscape, noise is here less a physical, acoustic phenomenon than a trope for the fragmentary, uprooted, chaotic nature of human existence at the beginning of the twentieth century. Adams is less interested in the realist representation of the auditory manifestations of trains, city streets, city crowds, and factories that writers like Dreiser and Norris execute with such precision, than in using noise figuratively to evoke an atmosphere of disorder and disorientation:

Every day nature violently revolted, causing so-called accidents with enormous destruction of property and life, while plainly laughing at man, who helplessly groaned and shrieked and shuddered, but never for a single instant could stop. The railways alone approached the carnage of war; automobiles and fire-arms ravaged society, until an earthquake became almost a nervous relaxation. (467)

In Adams's figurative use, noise is aligned with multiplicity, chaos, and the dissolution of traditional values. While his patrician family background



certainly conditions his exposure to, as well as his perception of physical noise, it is this topological association that accounts for the role of noise in Adams's system.

As a resigned critic of his times, Adams sought to tame the noise of modernity, to impose order on chaos and unity on multiplicity. In the editor's preface, Adams juxtaposes thirteenth-century unity, which he sees embodied in the Virgin as represented in the Cathedral of Notre Dame at Chartres, and twentieth-century multiplicity, with the dynamo as its symbol. Adams leaves no doubt about his allegiance to the principle of unity:

Since monkeys first began to chatter in trees, neither man nor beast had ever denied or doubted Multiplicity, Diversity, Complexity, Anarchy, Chaos. . . . Chaos was a primary fact even in Paris—especially in Paris—as it was in the Book of Genesis; but every thinking being in Paris or out of it had exhausted thought in the effort to prove Unity, Continuity, Purpose, Order, Law, Truth, the Universe, God, after having begun by taking it for granted, and discovering, to their profound dismay, that some minds denied it. The direction of mind, as a single force of nature, had been constant since history began. Its own unity had created a universe the essence of which was abstract Truth; the Absolute, God! (431)

The text of *The Education* registers neither a denial of multiplicity nor a nostalgic longing for a unity that, Adams knows, has been irretrievably lost. Instead, it couples a profound sense of loss with a determined and fully conscious effort to establish unity in the face of multiplicity and chaos. In conceding that “Chaos was the law of nature, Order was the dream of man” (427), Adams betrays an awareness of the constructedness of ideals of unity in the age of “the new multiverse” (433). This awareness does not, however, deter him from attempting just that.

Adams's desire for unity is most clearly visible in his arguments for a dynamic theory of history. Expounded at length in the second half of *The Education* and in his “Letter to American Teachers of History,” the dynamic theory of history is an attempt to construct a scientific theory of history on the basis of the second law of thermodynamics, which, in its simplest formulation, states that “the entropy of any closed system increases until it reaches a maximum at equilibrium.”<sup>10</sup> In its recognition of the irreversibility of most physical processes, the second law of thermodynamics introduced a temporal dimension, an “arrow of time” into physics. The implications of this had reverberations far beyond physics. In 1854, Hermann von Helmholtz stated that the world, as a closed thermodynamic system, would continually move toward a state of maximal entropy, at which all energy is converted into heat and rendered unavailable for further work.<sup>11</sup> This idea of the “heat death” of the universe, of an irreversible increase in

entropy, informs Adams's gloomy vision of the world as progressing toward a state of total disorder (or maximum entropy). What Adams attempts with his dynamic theory of history is therefore not to deny multiplicity and disorder, but to make it manageable, to cope with it by incorporating it into a unified scientific doctrine.<sup>12</sup>

Adams sees his own quest for unity safely embedded in a long line of philosophical thought:

He got out his Descartes again; dipped into his Hume and Berkeley; wrested anew with his Kant; pondered solemnly over his Hegel and Schopenhauer and Hartmann; strayed gaily away with his Greeks—all merely to ask what Unity meant, and what happened when one denied it. Apparently one never denied it. Every philosopher, whether sane or insane, naturally affirmed it. (409)

Readers of Michel Serres's oeuvre will beg to differ. In his valorization of multiplicity over unity, Serres defines himself precisely against a tradition of rationalism that includes Adams's scientific approach to historiography, and is dominated by reason and commands through reason. Like Adams's *The Education*, Serres's *Genesis* can be read as an extended reflection on the relationship between unity and multiplicity. But right down to the details of rhetoric, Serres differs on almost every single point Adams makes. Serres abandons Adams's pursuit of a unified scientific doctrine in favor of a "noisy philosophy" (*G*, 20) that accounts for background noise as "the basic element of the software of all our logic" (*G*, 7) and for which "the work is a confident chord" while "the masterwork trembles with noise" (*G*, 18). As is already hinted at in their contrary inscriptions of noise, the differences between the two thinkers are accentuated on the level of rhetoric. This becomes especially clear if we consider the range of tropes they share to sketch out the relationship between the one and the many.

One of Adams's preferred symbols for unity is "woman," not in the flesh-and-blood existence of individual women but as a female principle:

She did not think of her universe as a raft to which the limpets stuck for life in the surge of a supernatural chaos; she conceived herself and her family as the centre and flower of an ordered universe which she knew to be unity because she had made it after the image of her own fecundity; and this creation of hers was surrounded by beauties and perfections which she knew to be real because she herself had imagined them. (434)

Adams continues by quoting from the beginning of Lucretius's *De rerum natura*, identifying the female principle with Lucretius's Venus: "Even the

masculine philosopher admired and loved and celebrated her triumph, and the greatest of them sang it in the noblest of his verses” (434):

O mother of the Roman race, delight  
Of men and gods, Venus most bountiful,  
You who beneath the gliding signs of heaven  
Fill with yourself the sea bedecked with ships  
And earth, great crop-bearer, since by your power  
Creatures of every kind are brought to birth  
And rising up behold the light of sun;

.....  
Since you and only you are nature’s guide  
And nothing to the glorious shores of light  
Rises without you, nor grows sweet and lovely,  
You I desire as partner in my verses.<sup>13</sup>

Serres in *Genesis* makes not a single reference to Adams’s writings. But to Serres, Adams’s reading of Lucretius’s Venus as a symbol for unity would be a perfect example for “our regular misconstruals of Lucretius, and the road down which these misconstruals have misguided us right up to the present” (*G*, 107). The misconstruals of Lucretius were of at least two different kinds. On the one hand, *De rerum natura* was read as the work of a poet-philosopher whose combination of the two discourses was—considering its status as an Epicurean didactic poem and Epicurus’s aversion to poetry—sometimes seen as problematic,<sup>14</sup> sometimes as congenial,<sup>15</sup> but whose findings bear little or no significance to contemporary science. Contrary to this tradition, Serres decides to read Lucretius literally, as “a treatise on physics” (*H*, 98).

On the other hand, *De rerum natura* was read as a justification of scientific rationalism. In the celebration of Bacon’s ascendancy over “authority” and superstition in his ode “To the Royal Society,” Abraham Cowley pictures the battle of reason (Bacon) against its/his adversaries (authority, superstition) in terms that betray his debt to Lucretius’s lines on Epicurus’s victory over *religio*.<sup>16</sup> In Lucretius, *religio* is painted as a giant who “from heaven’s firmament / Displayed its face, its ghastly countenance / Lowering above mankind” and spread terror up to Epicurus, who was “the first to break apart / The bolts of nature’s gates and throw them open.”<sup>17</sup> In Cowley, authority is pictured as “some old giant’s more gigantic ghost” who managed to “terrify the learned rout” until Bacon “broke that monstrous god,” with the result that “[t]he orchard’s open now, and free.”<sup>18</sup> In Cowley’s reading, Lucretius shares his celebration of reason over a more powerful adversary, whose dogmatic rigidity had prevented human access to the true knowledge of nature.<sup>19</sup>

It is to this second kind of reading that Adams's recourse to Lucretius belongs. In Serres's re-reading, *De rerum natura* is neither irrelevant to the natural sciences nor a harbinger of scientific rationalism. On the contrary, in Lucretius's vision of the clinamen, Serres finds a model alternative to the mechanistic and determinist worldview of scientific rationalism. Lucretius imagines the beginning of the world in the slightest atomic swerve from the straight line of atoms falling through space. In its departure from the uniformity of the fall of atoms, this swerve or clinamen provokes the collision of atoms, which initiates the birth of all things:

Now here is another thing I want you to understand.  
 While atoms move by their own weight straight down  
 Through the empty void, at quite uncertain times  
 And uncertain places they swerve slightly from their course.  
 You might call it no more than a mere change of motion.  
 If this did not occur, then all of them  
 Would fall like drops of rain down through the void.  
 There would be no collisions, no impacts  
 Of atoms upon atom, so that nature  
 Would never have created anything.<sup>20</sup>

With his notion of the clinamen, Lucretius not only departs from the Democritean model, which allows for no disturbance of the falling atoms,<sup>21</sup> but, as Serres argues convincingly in *La Naissance de la physique dans le texte de Lucrèce* and "Lucretius: Science and Religion,"<sup>22</sup> Lucretius also anticipates the twentieth-century movement in the natural sciences commonly known as "chaos theory"<sup>23</sup> rather than the rationalist tradition in science—precisely because it disturbs (in the most literal sense) the more rigid models proposed by rationalist thinkers like Descartes or Laplace:

Without declination, there are only the laws of fate, that is to say, the chains of order. The new is born of the old; the new is only the repetition of the old. But the angle interrupts the stoic chain, breaks the *foedera fate*, the endless series of causes and reasons. It disturbs, in fact, the laws of nature. And from it, the arrival of life, of everything that breathes; and the leaping of horses. (*H*, 99)

More specifically, in Lucretius's vision of the turbulent beginning of all things in the slightest atomic swerve, Serres detects an anticipation of what "chaos" theorists call sensitive dependence on initial conditions and what has become popularly known as the "butterfly effect": "In this area, the least error as to the initial position makes for an immense uncertainty as to the final position" (*G*, 109). And indeed, contemporary Russian physicist

Ilya Prigogine and philosopher Isabelle Stengers (1984) explicitly take recourse to Lucretius, also reading him against a rationalist tradition:

The clinamen, this spontaneous, unpredictable deviation, has often been criticised as one of the main weaknesses of Lucretian physics, as being something introduced ad hoc. In fact, the contrary is true—the clinamen attempts to explain events such as laminar flow ceasing to be stable and spontaneously turning into turbulent flow. Today hydrodynamic experts test the stability of fluid flow by introducing a perturbation that expresses the effect of molecular disorder added to the average flow. We are not so far from the clinamen of Lucretius!<sup>24</sup>

It is the image of the creation of things in an originary moment of turbulence and multiplicity that Serres also discerns in Lucretius's evocation of Venus at the beginning of *De rerum natura*. In Lucretius as well as Serres, Venus rises and is born from the noise of the sea. But to ally her with unity, as Henry Adams does, is to deny her turbulent origins, to appropriate her for a philosophical discourse of unity, in which “[w]e know only Aphrodite, if that. We turn away from the waves to admire the wave-born” (G, 25). Serres, however, wants to attend precisely to the noise of the sea and give multiplicity its due. In Serres's rereading of Lucretius, Venus does not stand for unity but for “Turbulence . . . born of the *noise*” (G, 121), turbulence conceived of as an intermittent state between unity and multiplicity, between order and chaos, forever oscillating between the two: “One must imagine Venus turbulent, above the noise of the sea” (G, 122).

In his preference of multiplicity over unity and chaos over order, Serres does not celebrate irrationality, and his passion is not aimed against the pursuit of rational unity as such,<sup>25</sup> but against the arrogance of a rationalist discourse whose desire for unity turns violent in its exclusion of everything that does not fit its rigid order. In his “Literature and the Exact Sciences” (1989), Serres speaks out against a science with hegemonic claims, against a science whose ascendancy over other forms of knowledge today “strongly resembles those divisions of territory at the end of great battles where the victor takes everything, leaving only vanquished miserable reserves and strange, savage speech.”<sup>26</sup> It is this aspect of scientific rationalism that has allied itself with the bourgeois project of the mastery of nature, in which the desire to know is put in the service of the desire to dominate. We may return to Cowley's ode “To the Royal Society” to see this logic at work:

From you, great champions, we expect to get  
These spacious countries but discover'd yet;

Countries where yet in stead of Nature, we  
 Her images and idols worshipp'd see:  
 These large and wealthy regions to subdue,  
 Though learning has whole armies at command,  
 Quarter'd about in every land,  
 A better troop she ne're together drew.<sup>27</sup>

Lines such as these lend weight to Serres's conviction that, in its inextricable conflation of an epistemophilic discourse and a discourse of power and domination, the discourse of rationalism is ultimately a violent discourse, a discourse of death:

The stable chain of the rationalists only expresses, I think, their desire for domination. . . . This chain is a chain of reason, this chain is a chain of death. . . . My predecessors were fascinated by dominating reason, the clerical alliance of empire and ideas, of which the chain of reasons was the emblem and the tool. . . . They loved only the order fit to invade the world. . . . I have understood at last why the endeavor that was no doubt born in the classical era had to end in the Los Alamos desert, at the place where all the grains of sand look alike, where the work of men still vitrifies them. Rationalism is a vehicle of death. Science must dissociate itself from it. (*G*, 72–73)

The spatial metaphors both Cowley and Serres use (“spacious countries but discover'd yet,” “large and wealthy regions to subdue,” “empire,” “fit to invade the world”) gain a decidedly literal weight once we recognize that rationalism's bid for unity is analogous to and reproduced in the violent processes of unification that accompany the formation of empires. As Serres asks with regard to the Roman Empire: “There is the Roman mob, turbulent, restless, powerful, magnificent, there is the throng and the multitude, there is the population, what chain of circumstances made it glide along its history?” In his answer, Serres draws attention to the violence inherent in the unifying impulses of empire: “It is to forget the press of the throng in fury, to repress the multitude and the population, that the furious hero and the orderly army are made ready, constructed, represented” (*G*, 54). Serres's prime example is Rome, but examples drawn from the books of history are legion, and the imposition of the Christian faith on the multitude of Native American peoples and religions is only one of the bloodier proofs of the dark underside of *e pluribus unum*.<sup>28</sup> Serres's valorization of multiplicity and noise therefore defines itself both positively, in its celebration of the birth of things out of chaos and noise, and negatively, in its dissociation from the death-dealing discourses of unity.

Adams, on the other hand, while clearly aware of the fragmentary nature of human existence at the beginning of the twentieth century, never

renounces his quest for unity. This is evident in the details of his rhetoric. Maria L. Assad's discussion of the "topological space"<sup>29</sup> Serres lays out in *Genesis* offers us a model to bring the two thinkers' differences into a dialogue. As Assad points out, a word like *noise* or the figure of *la belle noiseuse* functions in *Genesis* and later writings as tropes that do not "stand for" chaos but point in its direction, not unlike the word *time*, which points in the direction of something that cannot be defined and cannot ultimately be known.<sup>30</sup> If we follow Serres's assertion in the first chapter of *Genesis* that the object of his book is "the multiple as such" (G, 6) and consequently direct our attention to multiplicity rather than chaos, we realize that the topological space of the multiple is even larger and includes noise, dancing, time, the clinamen, the parasite, the crowd, the sea, and the collapsed tower of Babel, all of which function as tropes gesturing toward the black box of the multiple. Serres uses these tropes in order to approach the idea of the multiple without ever ultimately "knowing" it and turning it into a concept. In his own reflections on multiplicity, Henry Adams opens up a similar topological space. Adams shares many of Serres's tropes, but in Adams's text, these tropes all acquire decidedly negative connotations.

One of the more striking differences between Adams's and Serres's figural inscriptions of the same word concerns the sea. Adams repeatedly associates the turbulence of the sea with war. In Adams's discourse, the American Civil War becomes "the surf of a wild ocean" in which young soldiers of Adams's age are "beaten about for four years by the waves of war" (110). Likewise, the Franco-Prussian War of 1870–71 figures in Adams as a historical event that slips out of the hands of human actors and is abandoned to the vagaries of the sea: "Mr Gladstone was as much astounded as Adams; the Emperor Napoleon was nearly as stupefied as either, and Bismarck himself hardly knew how he did it. . . . Under one's eyes France cut herself adrift, and floated off, on an unknown stream, towards a less known ocean" (277). For Adams, the turbulence of the ocean serves as an appropriate metaphor for the chaotic nature and unruliness of war. Like the sea, war is a force that eludes and threatens human desires for control.

In Serres, the sea is turbulent, too, but, as in Lucretius, it is the source from which Venus and all life springs: "Aphrodite, beautiful goddess, invisible, standing up, is born of the chaotic sea, this nautical chaos, the *noise*" (G, 25). It is not for nothing that Serres's *Genesis* begins with "A Short Tall Tale," in which the shipwrecked narrator constructs a raft out of countless bottles, each with a little message inside, colliding noisily on the Sargasso Sea. The sea, the noise, and the multiple are not only at the beginning of things, they are also at the beginning of Serres's text: "Before language, before even the word, the noise" (G, 54). The chaotic, noisy sea is the originary space of a "chain of contingency" that "emerges from the sea

noise, the nautical noise, the prebiotic soup” (G, 72). As in Adams, the turbulence of the sea gestures toward a lack of control, toward indeterminacy. But for Serres, this is precisely why the sea offers an alternative and a redemption to the stable chain of the rationalists, at the end of which he envisions nothing but “the tomb of an immense transparent and burning pyramid” (G, 72).

War, on the other hand, is for Serres a decidedly orderly affair. It is this conviction that enables him to state that Hobbes uses the wrong term when he describes the original state as one of war of all against all:

War is decided, it is declared, ordered, prepared, institutionalized, made sacred, it is won, lost, concluded by treaty. War is a state of order, a classic state of lines and columns, maps and strategies, leaders and spectacle, it knows friends, enemies, neutrals, allies, it defines belligerence. . . . The primal state, the primitive state, before any contract, is a pre-ordered state, undecided, undeclared, unprepared for, not stabilized in institutions. No, it is not war, it is *noise*, no, it is not war, it is the multitude in a fury. (G, 83)

War and its attendant noises therefore do not provide Serres with a model to think about multiplicity. In Serres, it is much rather the crowd, “the multitude in a fury,” that becomes, like Lucretius’s clinamen, a trope for multiplicity beyond the historical specificity of the Roman mob: “The *turba* of Lucretius, a stormy mass of diverse elements in disorder, given over to shocks, to impacts, to the fray, a chaos given over to jostling, is a crowd, is a mob” (G, 100). Serres celebrates the fury and the noise of the crowd as an originary moment: “Background noise is the first object of metaphysics, the *noise* of the crowd is the first object of anthropology. The background noise made by the crowd is the first object of history” (G, 54).

The patrician Adams, on the other hand, remains detached not only from the carnage of war, but also from the noise of the crowd. The great temporal gap in the *Education* between 1871 and 1892 not only eclipses his wife’s suicide in 1885,<sup>31</sup> but also extremely violent labor conflicts in 1876–77 and 1885–86.<sup>32</sup> *The Education* remains conspicuously silent on these noisy events. Even crowds of a more congenial nature are anathema to him. During his stay in London, Adams remains as far away from the madding crowd as possible: “He never felt himself in society, and he never knew definitely what was meant as society by those who were in it” (190). As a matter of principle, an Adams does not immerse himself in the noises of the multitude but remains detached and aloof from “the plainness of the crowd” (194).

In Serres, the crowd is always also a linguistic multitude, and the archetypal situation this many-tongued crowd evolves from is of course the story of the tower of Babel. In his reflections on Babel, we find the most



striking of Serres's figural reinscriptions. As Aleida Assmann points out, Babel has become a signifier for the loss of an originary unity, the loss, that is, of an original language shared by all of humankind.<sup>33</sup> Before Babel, the one: "And the whole earth was of one language, and of one speech" (Gen. 11:1). As Assmann goes on to explain, Babel has traditionally been interpreted in terms of human hubris and sin, a fact that relates closely to the values Christian religion attaches to unity and multiplicity respectively: "You will find that wherever you encounter in Scripture terms like plurality, chasm, division, dissonance or the like, they are evaluated as evil [*kakias*]. Where you meet unity and unanimousness, however, such terms are synonymous with goodness [*aretas*]."<sup>34</sup>

This value-laden discourse on Babel informs literary works ranging from the realist to the postmodernist period (and probably beyond, in both directions). Adams's evocation of Babel in *The Education* is no exception. While not implying religious notions of sin, Babel in Adams gestures toward a decidedly undesirable state of affairs, namely the confusing multiplicity of ideas and exhibits he encounters at the 1893 Chicago World Exhibition: "[S]ince Noah's Ark, no such Babel of loose and ill-joined, such vague and ill-defined and unrelated thoughts and half-thoughts and experimental outcries as the Exposition, had ever ruffled the surface of the Lakes" (324). It is no coincidence that it is also here, at the exhibition, where Adams first encounters the dynamo, which would later, in the context of the 1900 Paris World Fair, become his symbol for twentieth-century multiplicity.<sup>35</sup>

Contrary to Adams, Serres inscribes Babel not as a site of loss (of unity, of an originary language), but celebrates it as a redemptive moment of multiplicity. In Serres, Babel becomes a trope for the collapse of a rationalist edifice of ideas that is closed in upon itself, immune to change, and that only speaks the language of death: "Babel is not a failure, it is at that very moment when the tower is dismantled that we begin to understand that one must understand without concepts. . . . Babel is an unintegrable multiplicity, a sort of intermittent aggregate, not closed upon its unity" (*G*, 123). As in his reading of Lucretius, Serres's thinking on Babel attempts to reappropriate something of that which has been buried beneath centuries of readings linking Babel to a discourse of (lost) unity. In Babel, Serres finds a possible countermodel to Leibniz's *Theodicy*, that most perfect edifice of rationalist thought. Again invoking the image of the pyramid, Serres asks, "Could the tower of Babel, uncrowned above by the haze of languages, be the very pyramid of the *Theodicy*, upside-down?" (*G*, 128). In his celebration of Babel, Serres disassociates himself from the erection of Leibnizian edifices of reason, for he is convinced that "we shall inhabit the great pyramid only when we are dead" (*G*, 126).

Like Serres's *Genesis*, the text of *The Education* time and again registers

an awareness of the violence inherent in the imposition of unity: “True, the church alone has asserted unity with any conviction, and the historian alone knew what oceans of blood and treasure the assertion had cost” (408). But, contrary to Serres, this insight does not distract Adams from the steady pursuit of that unity. As he writes in the wake of the Civil War, “Law should be Evolution from lower to higher, aggregation of the atom in the mass, concentration of multiplicity in unity, compulsion of anarchy in order; and he would force himself to follow wherever it led, though he should sacrifice five thousand millions more in money, and a million more lives” (224). Even though he begins to understand that it is ultimately doomed to failure in a time of fully fledged multiplicity, Adams never abandons his quest for unity. Toward the end of his book and shortly after his evocation of Lucretius’s Venus, Adams still maintains, “He [man] sacrificed millions of lives to acquire his unity, but he achieved it, and justly thought it a work of art” (434).<sup>36</sup>

As it turns out, it is precisely Adams’s recognition of failure that must appear as a redemptive gesture. As Adams repeatedly insists, *The Education* reports a failure, “the shifting search for the education he never found” (180), an endeavor that leaves him “alone and uneducated” (340) at the age of sixty:

All one’s life one had struggled for unity, and unity had always won. The National Government and the national unity had overcome every resistance, and the Darwinian evolutionists were triumphant over all the curates; yet the greater the unity and the momentum, the worse became the complexity and the friction. One had in vain bowed one’s neck to railways, banks, corporations, trusts, and even to the popular will as far as one could understand it—or even further—the multiplicity of unity had steadily increased, was increasing, and threatened to increase beyond reason. (377)

Many readers have been baffled and some shocked by the persistent sense of failure and futility characterizing the text of a progeny of the finest of all American families.<sup>37</sup> But as readers of Serres, we are aware of the violence that inheres in the move from multiplicity to unity and must therefore read Adams’s admission of failure—particularly in the light of his own reflections on unity and violence—as a, however reluctant, step in the right direction. Henry Adams’s resigned admission that “order was an accidental relation obnoxious to nature” (433) foreshadows Michel Serres’s conviction that “[t]he multiple as such . . . is not an epistemological monster, but on the contrary the ordinary lot of situations” (*G*, 5). What Adams perceives as failure is what “chaos” theorists Prigogine and Stengers celebrate as a liberation from deterministic and reductionist conceptions of science. But what they found was essentially the same thing. Prigogine

and Stengers's account of their encounters with multiplicity and chaos in *Order Out of Chaos* (1984) would suit Adams's voice equally well: "We were seeking general, all-embracing schemes that could be expressed in terms of 'eternal laws' but we have found time, events, evolving particles."<sup>38</sup>

It would therefore be too facile to reduce Adams's position to that of a nostalgic longing for unity. What distinguishes the historian Adams from a conservative historian like Arthur M. Schlesinger Jr. is not only his recognition that processes of unification are inherently violent, but also his admission of the failure of unity in the face of multiplicity. Even though the topological spaces of Adams and Schlesinger converge in their negative inscription of Babel, the tone of Schlesinger's diatribe against multicultural politics in *The Disuniting of America* (1991) is far more nostalgic and disturbingly self-assured than anything we find in *The Education*: "The national ideal had once been *e pluribus unum*. Are we now to belittle *unum* and glorify *pluribus*? Will the center hold? or will the melting pot yield to the Tower of Babel?"<sup>39</sup> While Adams is certainly far from a Serrean celebration of multiplicity and would have been bewildered by Jay Clayton's manifesto for multiplicity and multiculturalism in *The Pleasures of Babel*,<sup>40</sup> a Serrean rereading of Adams allows us to tease out the redemptive moments in his argument. Reading Adams through Serres enables us to see Adams's exploration of an evolving "multiverse" (433) at the turn of the century as a first, hesitant and reluctant step toward Serres's headlong plunge into the rich world of what he calls the "diverse" (G, 111).

## NOTES

1. The seminal text on soundscape studies is Murray R. Schafer, *The Tuning of the World* (New York: Knopf, 1977). Bruce R. Smith expands on the concept of the "soundscape" in *The Acoustic World of Early Modern England: Attending to the O-Factor* (Chicago: University of Chicago Press, 1999), where he defines it as an ecological system that includes all the sounds, human as well as nonhuman, the members of a given community may hear (44–48).
2. Theodore Dreiser, *Sister Carrie*, ed. James L. West III (London: Penguin, 1995), 4.
3. Frank Norris, *McTeague: A Story of San Francisco* (London: Penguin, 1994), 423.
4. *Ibid.*, 380.
5. Henry Adams, *The Education of Henry Adams*, ed. Jean Gooder (London: Penguin, 1995). Subsequent references are given in the text. Even though Henry Adams insists that his text should be read as a treatise on education rather than an autobiography (8) and even though the subtitle "An Autobiography" was added for commercial reasons and against Adams's express wishes (Edward Chalfant, "Lies, Silence,

and Truth in the Writings of Henry Adams,” in *Henry Adams and His World*, ed. David R. Contosta and Robert Muccigrosso [Philadelphia: American Philosophical Society, 1993], 20–22), *The Education* is a highly autobiographical text that cannot ultimately be disengaged from its author’s life, the elevated social status of which goes a long way toward explaining the continuing appeal of the text.

6. Henry Adams’s great-grandfather John Adams was the second president of the United States, his grandfather John Quincy Adams, the sixth. For an account of Adams’s life and family history, see Ernest Samuels, *Henry Adams* (Cambridge: Harvard University Press, 1989).

7. Norris, *McTeague*, 250.

8. *Ibid.*, 36.

9. Of course, Adams’s choice is also historically the correct one, for the production of electricity enabled by the invention of the dynamo was the principle motor of the second wave of the Industrial Revolution in the second half of the nineteenth century, just as the invention of the steam engine had sparked off the first wave a century earlier. Manuel Castells, *The Rise of the Network Society* (Oxford: Blackwell, 1996), 38.

10. Henry Adams, “A Letter to American Teachers of History,” in *The Degradation of the American Dogma* (New York: Capricorn, 1958), 133–259; Peter Freese, *From Apocalypse to Entropy and Beyond: The Second Law of Thermodynamics in Post-war American Fiction* (Essen: Die Blaue Eule, 1997), 105.

11. Freese, *From Apocalypse to Entropy*, 99–105.

12. This helps to explain an apparent contradiction in Adams’s views on the nature of history. While he maintains that “[i]n essence incoherent and immoral, history had to be taught as such—or falsified” (287), he also stresses that “[h]istory had no use for multiplicity; it needed unity, it could study only motion, direction, attraction, relation. Everything must be made to move together” (359). What explains—though not quite defuses—the paradox is the fact that Adams is talking about historical events in the first passage and about historiography in the second. Historiography informed by the natural sciences is Adams’s tool to impose unity on the irreducible multiplicity of history.

13. Titus Carus Lucretius, *On The Nature of the Universe*, trans. Sir Ronald Melville, with an introduction and explanatory notes by Don Fowler and Peta Fowler (Oxford: Clarendon Press, 1997), 1.1–7, 20–23. The Latin original is quoted in *The Education* on page 434.

14. M. Patin, “L’Anti-Lucrèce chez Lucrèce,” in *Études sur la poésie latine*, vol. 1 (Paris: Librairie Hachette, 1868), 127.

15. Monica Gale, *Myth and Poetry in Lucretius* (Cambridge: Cambridge University Press, 1994), 1–2.

16. Abraham Cowley, “To the Royal Society,” in *Poems of Abraham Cowley*, ed. A. R. Waller (Cambridge: Cambridge University Press, 1905), 140, 267. Cowley’s familiarity with Lucretius’s work is asserted by Arthur H. Nethercot, *Abraham Cowley: The Muse’s Hannibal* (Oxford: Oxford University Press, 1931).

17. Lucretius, *Nature*, 1.62–73.

18. Cowley, *Poems*, 41–61.

19. Robert B. Hinman, who sees in Cowley “a kind of Christian Lucretius,” like-

wise places Lucretius firmly in the rationalist camp: “*De Rerum Natura* draws upon the science of its day to describe a universe of order and law” (*Abraham Cowley’s World of Order* [Cambridge: Harvard University Press, 1960], 32).

20. Lucretius, *Nature*, 2.216–225.

21. Warren F. Motte Jr., “Clinamen Redux,” *Comparative Literature Studies* 23, no. 4 (1986): 263.

22. Michel Serres, *La Naissance de la physique dans le texte de Lucrèce: Fleuves et turbulences* (Paris: Minuit, 1977), and “Literature and the Exact Sciences,” *SubStance* 18, no. 2 (1989): 3–34.

23. “Chaos theory” is actually a misnomer. Nonequilibrium thermodynamics as practiced by Prigogine and Stengers (1984) tries to trace the complex structures of order in what at first sight appears to be undifferentiated chaos. See David Porush, “Literature as Dissipative Structure: Prigogine’s Theory and the Postmodern ‘Chaos’ Machine,” in *Literature and Technology*, ed. Mark L. Greenberg and Lance Schachterle (London: Associated University Press, 1992), 289.

24. Ilya Prigogine and Isabelle Stengers, *Order Out of Chaos: Man’s New Dialogue with Nature* (London: Heinemann, 1984), 141.

25. Maria L. Assad, “Michel Serres: In Search of a Tropography,” in *Chaos and Order: Complex Dynamics in Literature and Science*, ed. Katherine N. Hayles (Chicago: University of Chicago Press, 1991), 291.

26. Serres, “Literature and Exact Sciences,” 20.

27. Cowley, *Poems*, 109–16.

28. See also Aleida Assmann, who discusses the Christian idea of mission as an attempt to confer unity of faith in the face of linguistic and cultural multiplicity. Aleida Assmann, “The Curse and Blessing of Babel; or, Looking Back on Universalisms,” in *The Translatability of Cultures: Figurations of the Space Between*, ed. Sanford Budick and Wolfgang Iser (Stanford: Stanford University Press, 1996), 89.

29. Assad, “Michel Serres,” 278.

30. *Ibid.*, 278, 294 n. 2.

31. Martha Banta, “Being a ‘Begonia’ in a Man’s World,” in *New Essays on “The Education of Henry Adams,”* ed. John Carlos Rowe (Cambridge: Cambridge University Press, 1996), 70–72.

32. Philip Jenkins, *A History of the United States* (London: Macmillan, 1997), 179–81.

33. Assmann, “Babel,” 85.

34. *Ibid.*, 88.

35. As has been argued above, Adams’s attempts to come to grips with the bewildering multiplicity of modernity converge in his dynamic theory of history. In the biblical account, it is the miracle of Pentecost that reinstitutes (spiritual) unity without denying linguistic multiplicity (Assmann, “Babel,” 86–90). Henry Adams’s dynamic theory of history represents a secular version of this desire for unity in the face of multiplicity.

36. My reading of *The Education* therefore only partially agrees with John Carlos Rowe’s in *Henry Adams and Henry James: The Emergence of a Modern Consciousness* (Ithaca, N.Y.: Cornell University Press 1976), which also registers Adams’s failure but argues that Adams renounces his quest for unity in the second half of *The Educa-*

tion: "The general outlook of the *Education* repudiates Adams's own desire for historical coherence and suggests a tentative pluralism" (110). Rowe is certainly correct in likening Adams to the Lévi-Strausseau *bricoleur*, who has to make do with what is available in a makeshift fashion, rather than the *engineer*, who authors his own designs (120–31), but Adams remains an extremely reluctant *bricoleur*, whose yearning for the role of engineer finds its most pronounced expression in his vision of a grand, unified, and unifying dynamic theory of history.

37. For a review of initial responses to Adams's *The Education*, see William Merrill Decker, *The Literary Vocation of Henry Adams* (Chapel Hill: University of North Carolina Press, 1990); and Samuels, *Henry Adams*.

38. Prigogine and Stengers, *Order*, 292.

39. Arthur M. Schlesinger Jr., *The Disuniting of America: Reflections on a Multicultural Society* (Knoxville: Whittle Direct, 1991), 2.

40. Jay Clayton, *The Pleasures of Babel: Contemporary American Literature and Theory* (Oxford: Oxford University Press, 1993).