From Ritual To Science

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"Contrary to what is always said, science does not cancel out non-science. . . . Myth remains dense in knowledge, and vice versa."[1] Thus, we must not believe in the dogma of the "two cultures," almost foreign to one another—the first vigorous, utilitarian, but "deprived of imagination," the second useless, imaginary, gratuitous, always free to go where it likes.

There is something disconcerting in this, first of all for the scientists who want science to be taken seriously. It is in an antiscientific spirit, until now, that attention has been called to the proximity of science and myth, in order to cancel out science in the preliminary nullity of mythology. Of course, there is no question of doing this. The growing efficiency of scientific models is not denied, but, between the most recent state of knowledge and all that precedes it, the famous "epistemological break" is always there. That is to say that it is never there, and that it is a part of myth in the most ordinary sense. Scientific ideology sees fecundity only in rupture with the past. It is from continuity, on the contrary, that science draws constantly renewed forces, but this continuity also renews the literatures and other cultural artifacts that are often at the same level of elaboration as science. There are also time lags, but not always in the interest of the scientists. We cannot count on the inevitable lateness

1. Michel Serres, *Feux et signaux de brume. Zola* (Paris: Grasset, 1975): p. 32, 49. [Translators' note: unless otherwise indicated, all translations are ours. Whenever possible, original editions of the works cited are indicated.]

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of literature under the pretext that literature is necessarily impressionistic and regressive.

It is literary people's turn to be worried. More than anything else, they do not want literature to be taken seriously. For a century, they have wanted as prophets only people who say to them: art and literature, that's zero. Sudden menace to the derisory autonomy of the zero. "Literariness" and "scientificity" vacillate together. Serres disturbs. It is better not to listen.

In Zola, the point of contact between science, literature, and myth should not escape notice because it is everywhere. It is the essence of the oeuvre, and Serres brings this out well. However, the authors of theses on "Zola and science" have never seen it. They think according to epistemological breaks, or rather they let themselves be thought by them. They have been taught that the literary person and the scientist can meet only in a conscious reprise and repetition of certain results already perceived as "scientific." The scientific and the novelistic are opposed to and repel one another—while in Serres, they are one; beauty would serve as proof if only those who make a profession of the latter could see the former. To say of the novel that it functions here as a machine is to tell the strict truth in terms of aesthetic effect as well as scientific rigor. To make this unity other than an abstract truth we must rediscover, with Serres, the grand principles of thermodynamics. If Zola's novel invokes the locomotive, it is not for superficial reasons that belong above all to modernist demagoguery. Before any allusion to the railroad, Zola's text already operates like a steam engine:

> the practice of the stoker, of the locomotive engineer, puts them in close contact with Carnot's great principle. We know that a steam engine could not function if it did not have at its disposal, simultaneously, a hot source, here the firebox-boiler complex, and a cold source, here the condenser or the outside atmosphere. Their *difference*, experienced as an *opposition*, modeled as a *fall*, from a reservoir in general to its consumption, *produces* work and thus movement. Zola's beasts are plunged into this difference, men, women, locomotives, objects, world. And it is this difference that produces the narrative, that develops it. Globally speaking, everything functions like the steam engine: the novel, its loves, and its crimes.[2]

If we observe the thermodynamic function in part of Zola's oeuvre and in many other writers, philosophers, and so forth, we find a relation to myth and above all, I think, to rite. Far from opposing rite to myth, as is done today, we must bring them together as was

2. Ibid., p. 131.

always done before. We must recognize in the rite the operation of mythological speech, but without seeking to make the latter the original of the former, or vice versa. The original is elsewhere.

In rites, as in Zola, the work of difference presents itself as an opposition, and even as a conflict between participants. But the conflict itself tends to suppress differences and to efface them in the symmetry and the reciprocity of all confrontation. In the initial stages of rites, to summarize, as in the thermodynamic machine, differences wear out and exhaust themselves. This exhaustion should tend toward complete immobility, the pure and simple absence of energy, the irreducible inertia of the second principle. And this is indeed what happens, I repeat, in part of Zola's oeuvre. In another part, on the contrary, difference undoes itself and dies in work and conflict, only to be reborn and to remake itself at once, more lively and different than ever. Everything works as though indifferentiation, far from bringing itself back to a simple energetic zero, constituted a sort of spring, more and more tense and capable, on its own, of setting off the differentiating process all over again.

There is in this a principle of revival, inexhaustible because it is linked to the very exhaustion of the system. If we imagine it in the direct prolongation of the religious, this principle of revival is suddenly suspect. It is one—this is evident—with the religious fecundity of death itself for resurrection. It looks too much like everything that not only precedes supernatural ascensions and assumptions but determines them and sets them off under the name of "descent into the underworld" or "initiation ordeal."

In a thermodynamic context, this perpetual motion is conceivable only in a system that recharges itself automatically from the very fact that it exhausts itself—one thinks of a sort of thermostat—by an inexhaustible source of energy: the sun, naturally, which nearly always shines a discreet ray on resurrections. This thermodynamics of the eternal return is a final solar culture and must extinguish itself along with our confidence in the eternity of the stars, a little like those burning asters that accompany the Hugolian Satan in his fall. But in Hugo, as in Zola, suns may die without interrupting, elsewhere (or even here), the cycle of resurrections:

> The sun was there, dying in the chasm.
> Coal of an extinguished world, torch blown out by God![3]

The God who blows out suns can relight other ones. This is still the old fecundity of death for life, and of disorder for putting back in

3. Victor Hugo, *La fin de Satan* (Paris: Gallimard, 1984 [1886]), p. 43.

order. Our ex-metaphysicians employ an incredible zeal in chasing away, everywhere, the traces of this guilty metaphysics. For centuries, it has been thought to be simply the product of a childish belief, a primitive tendency, well rooted in man, to take his desires for realities. Panicked fear of death would be sufficient to forge the myths capable of exorcising it. Serres does not always directly oppose this old formula, but all his works, it seems to me, call it into question.

In a perspective that gives priority to order and difference—that of thermodynamics without solar eternity—Zolaesque resurrections appear as an unjustifiable religious relic. Everything changes in the perspective of the other great scientific model, that which gives priority to disorder. On Michel Serres, I think, and perhaps also on Zola, this model exerts an attraction even stronger than does the first. It has its own fecundity and it does not cease to reappear, alternating with the other model, especially in our time, against the positivism that is perpetuated among us thanks to the linguistic and differential taboo of a certain structuralism: "How could order come from disorder?" Lévi-Strauss asks rhetorically at the end of *L'homme nu*.[4] It is understood that the answer can only be negative. Ridiculous, indeed, in the context of an order that always has priority, which is that of a science outdated today; the question becomes legitimate again in a more current context, that of *La distribution*, or of Prigogine's research:

> Order is a rare island, it is an archipelago. Disorder is the common ocean from which these islands emerge. The undertow erodes the banks; the soil, worn, little by little loses its order and collapses. Elsewhere, a new archipelago will emerge from the waters. Disorder is the end of systems, and their beginning. Everything always goes toward chaos and, sometimes, everything comes from it.[5]

Even if everything only recommences "elsewhere," the endless alternation of disorder and order is no stranger to the mythico-ritual play of the "undifferentiated" always prior and posterior to each differentiation. The endless wheel of deaths and resurrections is simply a particular translation of this play, and it too can demand the "elsewhere" through metempsychosis.

The proximity of all these types of play had to lead Michel Serres to *De Rerum Natura*. More than any other, Lucretius's text is born of the "spaces of communication" between several cultural varieties.

4. Claude Lévi-Strauss, *L'homme nu* (Paris: Librarie Plon, 1971); in English: *The Naked Man*, trans. John and Doreen Weightman (New York: Harper and Row, 1981), p. 562.

5. Michel Serres, *Hermès IV: La Distribution* (Paris: Minuit, 1977).

We exhaust ourselves in vain in distinguishing what might prefigure science, in this text, from what still belongs to myth. Gaining access to the scientific model means gaining access to the structure of myth, and vice versa.

Everything begins, ends, and begins again in the atoms that drop in an ever-freer fall, vertical and parallel, undoing what exists and preventing any new junction of atoms. Circulation becomes "laminar," and this must be so in order for the *clinamen*, somewhere, to come forth—the first departure from equilibrium, and the first difference that permits atoms to agglutinate. A new world constitutes itself, destined to end as the previous one did, and so on. The obvious absurdity of the *clinamen* comes from the fact that it has always been imagined in the framework of a solid mechanics. In the framework of a fluid mechanics, Serres shows, "the declination is the germ of a vortex in a hydraulic flow."[6]

What is important here is not only disorder's anteriority to order, but also its genetic function. There is no new *clinamen* without the prior destruction of all that the previous *clinamen* has sustained as to both world and existence. This genetic function of disorder dominates the ritual, and we are mistaken about the nature of the latter from overlooking the former. In so-called seasonal rites, for example, the disquieting modifications of natural order set the religious process in motion. When the weather "goes bad" (*se gâte*) or "is rotten" (*pourri*), as we have been saying for the past few years, one might believe that nature itself is decomposing. Far from working against the forces of corruption, the rites hold out their hand to them, one might say, and collaborate in the subversive work. This strange paradox must be accepted: the community actively participates in the disorder that it dreads. We bustle about in all directions, we break laws, we mix what, according to the rules, should be differentiated. Observing this vain commotion, the ethnology of pure difference concludes from it, quite falsely, that the rite "takes pleasure in the undifferentiated."[7] Rites never have any other goal than difference and order, but they always take place as though the (re)generative principle of order were found in disorder itself. To assure the best possible, the most vigorous order, disorder must first be overactivated, a paroxysm of disorder must take place.

Rites of initiation work by the same principle as seasonal rites. The initiation ordeal is a loss of difference, a veritable immersion in

6. Michel Serres, *La Naissance de la physique dans le texte de Lucrèce* (Paris: Minuit, 1977).

7. Ibid. p. 124.

conflictual disorder, and it must be as prolonged, as painfully as possible, to ensure an adequate metamorphosis, one that corresponds to the status sought by the postulant.

Our examples, up to this point, are not of a nature to modify the universal conception of the religious as superstition. This conception has not changed since the eighteenth century. Saying "phantasmatic superstructure" is but a more complicated way of repeating "superstition." Neither rites of initiation nor, above all, seasonal rites really cut into the real. To achieve its cycle, nature has no need of these men who absurdly gesticulate. Serres affirms, let me repeat, that *myth*—rite—*remains dense in knowledge, and vice versa*. It is the first part of this proposition that is always illustrated in the superior regions of science, those we visit with Michel Serres, as tourists often frightened, always marveling. The inferior regions do not have the same prestige, but it is to them that we must look, in order to illustrate the second part of the proposition, the *and vice versa*. Where does the reciprocal complicity between knowledge and the mythico-ritual begin? Serres's oeuvre suggests, it seems to me, that it is already there at the most rustic and most archaic level. For Serres to be completely correct, knowledge would have to be consubstantial with ritual. But we will not show this, I repeat, with the examples of rites *that come to mind*, even if we read them with the extreme goodwill of a Malinowski or, more recently, of a Victor Turner.

This is the case because the behaviors officially recognized and labeled as religious are preselected by virtue of their very absurdity. Always prior to all analysis, the definition of the religious as superstition or superstructure requires, unbeknownst to us, the partitioning of cultural data. We only recognize as essentially ritual, in other words, the conducts that have not led (and can never lead) to a technique we perceive as useful, to a knowledge that would truly be knowledge. In archaic societies, for example, the grape harvests and the making of wine almost always have a ritual character, but we immediately separate the technical aspect of the affair from its religious aspect. The latter thus always seems as useless, adventitious, and superfluous to us as in the example of the seasonal rites. Precisely because they are useful, technical gestures seem to us necessarily motivated by this utility—foreign, by the same token, to the religious; yet, on the contrary, only the religious can furnish the motivation and the type of behavior capable of leading to the discovery of these techniques.

In the invention of foodstuffs such as wine, bread, or cheese, chance must have played a part. Chance sometimes does things well, but spirits prepared to take advantage of it are still needed.

Contrary to appearances, the ritual framework is the only one that makes this thinkable. The categories of the pure and the impure have always dominated the religious mentality. The spontaneous alterations of animal and vegetable secretions, like milk or fruit juice, must have struck humans as an impure phenomenon. They must have seen there something analogous to all that falls under rigorous interdiction: rotting corpses, gangrenous wounds, excrement, and so on. They must have reacted, at first, with mistrust and avoidance.

Behaviors of avoidance, relative to the impure, can degenerate into veritable religious phobias, and this is the case of the Nietzsche of the *Antichrist,* as of a certain Christianity. Serres quite justly opposes to these opposed but analogous Puritanisms the scientific truth of caseation, foreign to the sinister image it has been given. One must see, however, that the religious is equally distanced, in its principle, from the Puritanism stigmatized by Serres and from the delirium of innovation that also characterizes us, and that doubtless constitutes the other side, symmetrical and inverse, of our religious decomposition.

The religious spirit never goes without terrified repugnance toward the impure, but, in its balanced forms, it gives man the audacity to overcome this initial reaction and to intervene in the process of corruption—not at all in order to work against it, but in order to accelerate it. Noticing, or believing it notices, a loss of differences, the beginning of baneful confusion between things that should remain distinct, the rite overexcites the crisis and precipitates the mixtures in order to bring about a favorable resolution.

In order to regenerate order, in sum, disorder must be made to give all that it can give in the order of disorder (one might say). In the case of natural alterations, like those of milk or of flour, ritual intervention will doubtless strive to further alter the substances. It will perhaps multiply the unnatural mixtures. It will push us, in sum, toward experimentation on the rotten, the spoiled, the fermented; it alone has this power, for above the disorder whose accomplice it never truly is, religious vision holds out the shining hope for an order as good as or better than the original order. The manipulations and the mixtures suggested by the religious are not always hollow mimicries in the sense of the old "imitative magic," they are oriented toward a result about which everything is unknown except that it might be favorable—and that is precisely what is needed to awaken the spirit of discovery. Metamorphoses are dreaded; almost all of them are monstrous, but there often exists at least one good one, and in order to guide the sacred fermentation toward this one, it is enough to discover the appropriate rites, under the aegis of the

divinity. Wherever possibilities of useful transformation are real, rite ends up taking them over with consequences so decisive, even in our desacralized culture, that they blind us to the ritual origin of bread, of wine, of cheese, and so forth. We admit the centrality of rite only where its technique remains unproductive, without noticing that there is no fundamental difference here between productive procedures and unproductive ones. In order to understand this, the comparisons must be multiplied. We must establish a connection between the behaviors whose ritual nature seems doubtful to us, because they lead to true techniques and to veritable knowledge, and the behaviors whose ritual nature seems indubitable to us, because they lead to nothing. This is what I tried to do in *Des choses cachées depuis la fondation du monde*.[8] We do not wish to recognize, in the religious conduct of the Ainu toward their bears, a behavior analogous to that which visibly led to the domestication of certain animal species by the pastoral population. Results that are too positive hide the ritual origin of our butchered meat from us.

In the case of cheese, or of fermented foodstuffs, in order to reinforce the probability of a ritual origin, one could turn to certain funerary rites that include two quite distinct stages. The first begins with death and lasts as long as the decomposition of the corpse; it may require manipulations of more or less decomposed flesh, and altogether repugnant daubings. The second cycle, with a more serene tonality, is centered on the bones of the deceased, carefully bleached, polished, and scoured. Reading Robert Hertz leaves no doubt, I think, as to the meaning of these double funeral rites.[9] The death and decay of the corpse are perceived as a crisis of differences, an invasion by disorder. Ritual intervention has the same meaning here as everywhere else: it aims to encourage and to overactivate the process, in order to lead as rapidly as possible to "good" differential stabilization—and it is this stabilization that it believes it recognizes in the metamorphosis of the corpse into bones. The dried-out skeleton presents, indeed, all the characters of the structuralist ideal finally realized. It is truly the return to order, and also to that solid mechanics which traditional commentators instinctively adopt when faced with the Lucretian model.

The only difference between these manipulations of more or less decomposed corpses and cheesemaking lies in the illusory character

8. René Girard, *Des choses cachées depuis la fondation du monde* (Paris: Grasset et Fasquelle, 1978); in English: *Things Hidden Since the Foundation of the World*, trans. Stephen Bann and Michael Metteer, with revisions by the author (Stanford: Stanford University Press, 1987).

9. See Robert Hertz, *Sociologie religieuse et folklore* (Paris: PUF, 1970).

of the first operation and the real character of the second. In the first case, the faithful believe they direct a metamorphosis that, in reality, would be accomplished without them (as in the case of seasonal rites); while in the second, they really do direct it. This is indeed what fools us and makes us believe in two behaviors of different natures, entirely foreign to one another, while in reality they are one and the same. It is still the illusion of the "epistemological break" that dominates our way of thinking, the illusion that Michel Serres denounces, and it is very difficult to uproot because it plays an essential role, at all levels, in the flattering, aseptic image that we create for ourselves of our history and of our origins.

The funerary practices that I have just evoked inspire a distaste in us that gains in intensity when we compare such practices with cheese and its fabrication. We must reflect on this distaste, which visibly perpetuates in us the separation of the pure and the impure. We vomit out the sudden proximity of an evidence that should elude us: evidence of a ritual origin common to institutions and customs that we wish to think of as incompatible.

Georges Bataille was not insensitive to this relation between cheese and funeral rites. In his preface to *Les larmes d'Éros*, J.-M. Lo Duca describes to us Bataille's ecstatic hesitation before a particularly strong-smelling piece of cheese: "His eyes bright with admiration, he murmured: 'It's almost a tomb.'"[10] What remains, in Bataille, in the state of aesthetic intuition, of Baudelairian correspondence, is not impenetrable. The time has come for ethnology to put it to use (*d'en faire son fromage*). The Puritanism of difference recoils, horrified.

Certain peoples manipulate their corpses; others bury them; still others "pass them through the fire"—always in order to put them back into order, or to resuscitate them (which comes down to the same thing). Similarly, there are peoples who manipulate milk, others who bury seeds, still others who pass flour through the fire—and this is also in order to put these substances back into order or, what comes down to the same thing, in order to provoke the astonishing "resurrections" that are called cheese, bread, wine, germination, and so forth.

To complete the analogy between funerary techniques and all that the English language designates as "food processing," we must also think of the attitude that is the opposite of the one that occupies us here and that also figures in religious behaviors—as much in funerary rites, where it results in mummification, as in the alimen-

10. Georges Bataille, *Les larmes d'Éros,* (Paris: Jacques Pauvert, 1961); in English: *The Tears of Eros*, trans. Peter Connor (San Francisco: City Lights Books, 1989), p. 3.

tary sector, where one speaks of processes of preservation. The insect-like stubbornness with which men often carry out their ineffective practices reveals a prodigious source of energy without which the perfection of effective techniques—those which make us what we are—cannot even be conceived of. It is in ritual that the origin of work must be sought, and not in slavery, as Georges Bataille, fooled (on this point as on so many others) by a Hegelianism that sterilized his best intuitions, believed.

The ritual source, however, cannot be primary. Without truly being subordinate to what appears to us as the rationality of its ends, neither is the rite foreign to what we call reason. Behind all human activity, there must exist a unique model, always hidden from view by our furious appetite for absolute differentiation between the rational and the irrational. There is no question of effacing these differences (as a certain mysticism and a certain philosophism still do): they must be kept in mind in order to notice that men apply, at length, a single ritual technique to the most heterogeneous domains, without at first paying the slightest attention to what determines, in our eyes, the technical character of an activity, the rationality of the end and of the means. Depending on the domains of application, the ritual activity has revealed itself to be more or less fecund—but it has continued for a long time, with tenacity, even in the domains where it is (or seems to us to be) sterile, the only ones whose ritual character we admit today. The "epistemological break" permits us not to recognize in the rite our educator of all times, the initial and fundamental mode of exploration and transformation of the real.

As a unique model of ritual action, I have proposed the mimetic play of human relations, functioning in a regime much more intense than our own, and by definition unobservable in the societies that produce as well as in those that do not produce religions. The conflictual phase of this play—rooted in the mimetic character of the appropriation—would go, in its collective paroxysm, all the way to hallucinatory frenzy, easily detectable in the staging of numerous rites. This paroxysm would detach the mimesis from the disputed objects and attach it to the antagonists—but in an unstable manner, subject to substitutions and thus to unanimous polarization against any victim, due to the very nature of this mimesis which is contagious, cumulative, transferential.

This character explains and justifies the "disorderly" character of ritual action, sometimes so striking that it causes the desire for order, always present in ritual, to be underrated. If a spontaneous mechanism of autoregulation exists in unsettled communities, people will

wish to reproduce it each time something around them becomes unsettled or seems to become unsettled. We understand this without difficulty, and we also understand their desire to reproduce the phenomenal sequence in all its exactitude, in order to give it back its effectiveness. It is true that the regulatory mechanism only sets itself off at the paroxysm of unsettledness, but people have no need to know why. In order to regenerate, differences must first be effaced. In order to set off the unifying, restructuring mechanism, the community must first be destructured in mimetic hysteria. Sacrificial substitutions require this destructuration. People conform to this principle without knowing it because they have the spontaneous model of all ritual action before their eyes. This model is very strongly imprinted upon our memory because it brings into play the very existence of the community.

In the domain of human relations, and of the mimesis that governs them, disorder is really instrumental to all (re)placing in order. Ultimately, terms like "paradox" should not be pronounced, and the antinomy of end and means should not be spoken of. To speak in this way is still to perpetuate the misunderstanding of the representations sustained by the mechanism of victimization itself, the sacred representations that push people toward effective action by inciting them to reproduce the original sequence very scrupulously, but hide the rationality of this conduct from them. Precisely because it reconciles the community, the mechanism makes the victim, in reality powerless and passive, appear as the supremely active agent of the mimetic metamorphosis, the incarnation of a mysterious power, by turns malevolent and benevolent, destructuring and restructuring. At all stages of animality, mimesis tends to produce differences as well as to efface them, to make signs appear and make them disappear. When we interpret, for example, what we call the mimesis of certain insects now as "intimidation," now as "camouflage," it is in all appearances to this double property that our interpretation returns.

In the domain of human relations, there is a paradox only for a *doxa* still incapable of identifying the true model of the ritual and the role of paroxystic disorder in cultural organization. This *doxa* is visibly a tributary of the religious, which it denies in an abstract-fashion in order to consolidate, as does the religious, the differences that come from the mechanism of victimization. This is the rationalist, positivist, or structuralist model, which thinks exclusively in terms of differences and sees in attention to "the undifferentiated" only "dubious mysticism" and more or less camouflaged religious nostalgia. In reality, it will become possible to articulate rationally

the alternation of undifferentiated and of undifferentiation in all sorts of domains, beginning with that of human relations and of the mythico-ritual model that flows directly from them. This is indeed what mimetic theory does. Far from succumbing to mysticism and to the irrational, it constitutes the first veritable attempt at formalization in the two domains.

If we return to the funeral rites, we will see the indices of what I have put forth multiply. Aside from the phenomena already mentioned, these rites often include disorders and violences inside the group directly affected by the death of one of its members. We must not be too quick to see outrageous expressions of the pain caused by this death or theatrical manifestations of mourning in these conducts, even (and especially) if all that appears appropriate to us as mourning and susceptible of translating its suffering is ultimately rooted in this type of behavior. The slightest comparison reveals that mimetic rivalries, as always, are in question there—that is to say, the agitation and the destructuration indispensable to the triggering of the mechanism of victimization. Funerals are only one adaptation among others of the fundamental ritual and sacrificial process. If we resort to this process on the occasion of death as on so many other occasions, it is because death is clearly one of the disquieting phenomena that justify resorting to ritual. We know from experience that the decomposition of the community and the decomposition of the human body must go together.

The universal principle of organizing disorder governs the banal phenomenon of collective commotion in rites, funerary or other, as well as the apparently stranger phenomenon of the manipulations destined to accelerate the decay of the corpse. The different usages of the word "perturbation" cover the same sectors as do ritual practices and may help us to comprehend their proximity. Perturbation, from *turba*, the crowd, is quite literally collective agitation, but it is also atmospheric disturbance, which brings us back to the seasonal rites, and it is equally the alteration of any substance. The manipulations of the corpse strive to actualize the fundamental perturbation, which is that of the community, at the level of these easily perturbed substances which are cadaverous flesh, milk, fruit juices, flours, and so forth. This must not be dramatized by seeking particular explanations for ritual conducts that, in reality, are only distinguished by the apparent incongruity of their objects. Before the funerary rites that disconcert him, the contemporary *homo psychanalyticus* reacts a little like a belated Aristotelian. He pompously pronounces "phantasm of necrophilia" or something analogous, sincerely believing that he contributes an element of comprehension—while in reality

he reinforces, by cloaking it in a pedantic label, the illusory singularity of the phenomenon, its belated and misleading differentiation, which must on the contrary be dissolved in order to arrive at a true understanding.

If we renounce illusory singularities, we notice that we are always dealing in rites with a single behavior; but this unique behavior differentiates itself, little by little, into effective techniques and ineffective ritual relics. It is always a question of bringing the already perturbed back to calm and stability by way of a greater perturbation. From *turbare* comes as well, it seems, our *trouver* (to find) in French.

It is Michel Serres, in his book on Lucretius, who draws our attention to the revelatory character of the term "perturbation." In the Lucretian model, the laminar circulation of atoms corresponds exactly to the indifferentiation of the social group under the effect of mimetic rivalries. This is indeed why this laminar circulation is associated with the *plague*, whose role in the mythological translations of these rivalries is well known. The same correspondence is found between the mechanism of victimization and the *clinamen*, that first difference born from the destruction of all difference. The scientific model is no less mythical—more mythical, in truth—than many myths, since it makes a clean sweep of everything that could conjure up the victim. Lucretius himself believes in the innocence of a scientific activity that he opposes to the sacrificial violence of the religious. Lucretius is mistaken, and Serres shows us his mistake. The traces of the foundational victim are better hidden here than in the myths and the rites where the old lynching shows through, but they have not entirely disappeared: they are buried in the language, and in order to detect them the mimetic and religious signification of the atomic vocabulary must be brought up to date. It is the *perturbatio* that makes the declination. And in his reflection on the void and the atom—that is to say, on the elementary discrimination between something and nothing—it is not the sacrificial nature of science alone that Serres deciphers, but of all that can be called "perception," initial constitution of the object:

> The void, *inane,* has its root in the Greek verb *inein,* which means to purge, to expel, or, in the passive, to be chased by a purge. The void is part of chaos but is also a catharsis. . . . But the first object is a purge; *it is only the physical concept of catharsis*. The second object, the atom. The sacred solution begins with a division and separation of space. The temple is a dichotomized space; the word itself tells us so. Inside is the religious, outside is the profane. A two-valued logic, a two-valued geometry, a two-valued ontology, inside, outside; sacred, profane; matter, void. *The word temple is of the same family as atom*. The

> atom is the last or the first temple, and the void is the last or the first purge. The two objects are, in the balance, the physical concepts of catharsis and temple. . . . Nature is still another sacrificial substitute. Violence is still—and always—in physics. . . . It is not politics or sociology that is projected on nature, but the sacred. Beneath the sacred, there is violence. Beneath the object, relations reappear.[11]

This is the same foundational violence, it seems to me, that the comparison of the genesis of mathematics and the Platonic dialogue already brought forth, in *La communication:*

> Mathematics provides the example of a nearly perfect communication, of an information that is univocal upon both emission and reception. This is so true that it is not forbidden to think that its very origin resides in a dialogue in which the two interlocutors talk together against the powers of noise, that mathematics is established from the moment when victory is theirs. It is thus natural that Platonism presents at once a philosophy of the pure mathematon and a dialectics. . . . I have tried to show this above, by defining the role of a third man, or of a third party scrambling the dialogue, whose exclusion the entire Platonic effort tries to put into practice. . . . This exclusion . . . would be a condition of pure thought, in a transcendental intersubjectivity. Let no one enter here who is not a geometrist.[12]

In the Platonic model, the difference between noise and message is given, it is a priori. Why is there always noise? Why is there always someone to make noise? The two good desires to communicate suppose a third, bad one that must be reduced to silence. And what if noise were only the way in which the desire of others to communicate is communicated to each person? And what if all the desires were the same? In order to decide the difference between message and noise, an alliance of two against one would always be needed—perfectly arbitrary this time, but incapable of maintaining itself as such because the designation of the third as uniquely at fault for the noise constitutes the first successful communication. And this communication proves the truth of the division. It was indeed the excluded third who scrambled the messages, since excluding him was enough to begin to understand one another.

The foundational narrative always presents itself in the same way, except for a few variations. The correct understanding of messages rests, everywhere, on the same misunderstanding. Neither the scien-

11. Michel Serres, *La naissance de la physique* (above, n. 3), pp. 165–166; extracted in *Hermes: Literature, Science, Philosophy*, trans. Lawrence Schehr (Baltimore: Johns Hopkins University Press, 1982), p. 124.

12. Michel Serres, *Hermès I: La communication* (Paris: Minuit, 1968), p. 95.

tific text, nor the philosophical text, nor the mythical text ever enunciates, by definition, the misunderstanding that structures them. The hypothesis of this misunderstanding figures in none of the texts that we see as authoritative. It is thus thought possible to set it aside with a simple shrug of the shoulders. Authority is at one with the fundamental misunderstanding. The hypothesis is, however, far from being undemonstrable; it is even *only* demonstrable, indirectly and by as many structural crosschecks as one would like—that is to say, perfectly demonstrable, but nothing other than demonstrable.

Between the Platonic outline, for example, and foundational myths, the continuity is visible. Myths as such distinguish themselves only by the greater extension and, one might say, the perfection of the misunderstanding that makes the excluded third responsible not only for the impeded communication but also for restored or instituted communication. The sacred vision is this more total misunderstanding, perhaps still *intact*, but not without justice, since it makes this excluded third party who assures the clarity of the message, by its very exclusion, responsible for the intelligible at the same time as the unintelligible. There is communication thanks only to the incommunicable.