

ONE

Time, Pleasure, and Knowledge

A bob attached to a string fixed to a permanent point vibrates until, influenced by gravity, it rests at the lowest position—this short description sums up the plain mechanics of Galileo’s pendulum. Its material austerity was lush in sexuality as much as in mathematics. In the Neoplatonic worldview, the two do not exclude one another. Because of the fusion between pleasure and abstract rules, Galileo’s pendulum resembled the body of a Christian monk. Like the monk’s body the pendulum became abstracted substance by discursive rules, both desexualized and offered to the altar of a text. Gilles Deleuze’s claim that desexualization “had become in itself the object of sexualization,”¹ makes the two bodies even more alike. Just as the mechanics of monastic discipline in the course of depriving the monk’s body of pleasures resexualizes the mechanics of deprivation so the pendulum resexualizes Galileo’s mechanics by depriving the scientist’s body. Although mechanically ascetic, for some not even a scientific instrument only an object, Galileo’s pendulum caused, in the seventeenth century, a “paradigm shift”² and, already in the nineteenth century, with its attachment to a clock, provided a temporal matrix for industrial work discipline.

Not only was Galileo’s pendulum one of many instruments seventeenth-century science employed in the process of desexualizing the scientist’s body, it was also a contributing factor in the overall sexualization of the “society of the spectacle.”³ In this respect I argue that technologies of time, on the one hand, and sexual deprivation of the body of those who advanced technologies of time, on the other, coextend in history, performing an important transition from an economy of pleasure centered in the body to the discourse of rational discipline and mechanical contrivances. The pendular clock illustrates well this transition to the new economy of pleasure. When Dutch scientist Christiaan Huygens mathematically discovered along which part of the pendular arc the pendulum swings equitemporally and attached it to the back of a clock, he significantly improved the precision of measuring time, allowing the clock to be massively domesticated as an instrument of

self-regulation. Also, as a consequence of this mechanical improvement, the bodily routine changed dramatically from local and fragmented activities to a stream of synchronized activities, creating a new “automatism of habits.” This technical innovation changed forever our immediate perception of time. On the level of patterned sensation, time was no longer noticed as the sound of a bell in the middle of a long silence but rather, Stuart Sherman accentuates, as a persistent mechanical stream of sound, “Tick, tick, tick.”⁷⁴ Norbert Elias takes note of this change when he observes that, “Timing had been human centered. Galileo’s innovatory imagination led him to change the function of the ancient timing device by using it systematically as a gauge not for the flux of social but of natural events.”⁷⁵ “Physical time’ branched off from the ancient and heterogeneous social time into the matrix of a homogeneous standard of measurement. Instead of a concrete experience of time as a compelling force in social conduct—“as one can readily see if one is late for an important appointment”⁷⁶—“time” became highly abstract and measured by uniform mechanical operation. In a word, mechanical time had tremendous consequences for the birth of what Foucault called a “new disciplinary society.”⁷⁷

This new concept of time has not only introduced a higher order of discipline but, more importantly, has become a dramatic locus of modern subjectivity. Walter Benjamin describes the change in the conception of time as one from “messianic” to “homogeneous, empty time.” This change forced subjectivity, Benjamin argues, to find its “fullness” in the “emptiness” of time, as if to spin itself a web of “Tick, tick, tick.” Eric Alliez describes this drama as having a subjectivity “that is not ours but is time itself.”⁷⁸ Edward T. Hall, in a more poetic way, sees subjectivity as “complex hierarchies of interlocking rhythms,”⁷⁹ and Foucault captures, less poetically, the depersonalizing mechanisms of the production of modern subjectivity through the “silent” induction of temporal schemes of conduct, which, as “automatism of habit” transform “the peasant” into a “soldier.”⁸⁰ What had been the “time disciplines” arranged around the bell gradually, with the introduction of the pendular clock, now coalesced into what Foucault pronounces a “general method” of order and truth. Similarly Elias emphasizes this subjectification to the temporal grids of conduct as an important civilizational process of involvement through detachment.⁸¹ He writes:

The conversion of the external compulsion coming from the social institution of time into a pattern of self-constraint embracing the whole life of an individual, is a graphic example of how a civilizing process contributes to forming the social habitus which are an integral part of each individual personality structure.⁸²

Mechanical time makes what Jean-Joseph Goux and Alliez call “logic of universal exchange” intersect with Foucault’s “automatism of habit.”⁸³

THE HISTORY OF THE DESEXUALIZATION OF THE BODY AND RESEXUALIZATION OF TIME

Every civilization, according to Elias, rests upon principles of self-constraint. Native Americans, he points out, were trained from early childhood to sustain severe bodily torture without revealing signs of pain. Since every Indian could potentially have been captured by an enemy tribe and exposed to torture, he or she had to be prepared to preserve the tribal pride by detaching from bodily pains and so affirming the civilizational process of tribal society. Such a natural form of asceticism, lying at the foundation of any civilizational process, finds its equivalent in the sexual asceticism of the West, regulated by the mechanical paradigm of time.

Historically, the mechanical measurement of time belongs to the process of involvement through detachment. It came out of monasteries and the development of the “automatic habit” of monastic life. Monastic sexual discipline revolved around a tight schedule of prescribed activities all aiming at some form of detachment from the body that would separate subjectivity from the naturally occurring pleasures of the body and induce the erotics of the discipline: prayer, confession, fasting, etc. In this respect, the development of the mechanics of time is inseparable from the massive project of the Christian Church to desexualize the human body, or more precisely, to establish a disciplinary scheme for the production of a normalized identity. When Galileo used the pendulum as a “time keeper” in his inclined plane experiments or when he demonstrated the isochrony of pendular motion, “time” had been already resexualized and thus could be objectified, mathematized and mechanized. The rule of the disciplinary mechanics that led to the sexualization of “time” engendered the rules of the new mechanics. Galileo’s pendulum became a product, and a symptom, of this interlacing.

I am not suggesting that in the pre-Christian world time was not eroticized, only that it was not mechanized and subjected to mathematical discourse. We can read the Greek story of time and realize that although not mechanized, time was eroticized, too. According to Foucault’s account, the Greeks sought an internal connection between order and pleasure, and ascribed virtue to the art of proper timing for pleasure. “Timeliness” consisted of determining the opportune time, *kairos*, for the use of pleasure, by means of *askēsis*. “Right timing” for the Greeks had no prescriptive value, but was based on the individual’s context and an individual sense of time in relation to self-stylization. Foucault emphasizes the esthetical and ethical value of “timeliness” to the Greeks. In the *Laws*, as he points out, Plato emphasized that the fortunate person was one who could act “at the right time and in the right amount.”¹⁴ Failing to determine the “right time” was associated with a lack of integrity and of personal freedom. Those who acted, Plato states, “without

knowledge and at the wrong time” would live life without virtue.¹⁵ In certain instances, timing itself sets a norm. According to Xenophon, Socrates claimed that children born of incest would be punished by God not because of the parent-child intercourse, but because “the parents failed to respect the principle of the ‘right time’ mixing their seed unseasonably, since one of them was necessarily much older than the other; for people to procreate when they were no longer ‘in full vigor’ was always ‘to beget badly.’”¹⁶ There was a clear ethical connection for Socrates between timing and sexual pleasure, whereby timing itself determined ethical substance. “When” pleasure should be used the Greeks determined in their relation to themselves. They distinguished the time of *nomos*, the inner time of action, from the time of *phusis*, or the external time of moving objects.¹⁷ In Aristotle’s physics the external time of objects is “the number of motion,”¹⁸ but motion must be marked first by our senses, and by the inner experience of time. Thus Aristotle conceived external time only through and as an extension of the inner time of bodily action. The Greeks conceptualized time, pleasure, and moral order as relational categories, not external to the body but as its internal parameters.

Although inheriting the Greek conceptualization of time in relation to pleasure and order, Christians, because of their negative eschatology, reformed this relation and by doing this they also reformed time and pleasure. Christian time starts with Adam’s fall into carnal pleasure and ends with a purification from all carnal pleasures; it therefore has a *telos* that begins with the negative use of pleasure. Because in Christian theology salvation is measurable by means of time, the rational problems of mechanics—of how to have the most precise measurement of time and therefore identify “right time”—held the key to the mechanics of salvation. For example, it has been said that God comes to visit souls in the “right time.” To be ready for God’s visit is both a moral and a mechanical problem for the Christian; the laws of mechanics and morality necessarily had to merge. “The unfolding of the human race” through time also unfolded two kinds of sexual disciplines, austerity and procreativity, both of which emerged out of the Christian interpretation of time. While it was interpreted that a celibate person made the clock of human time stop in his or her heart by abandoning marriage, allowing the person to be “on the frontier” of another world,” those who opted for marriage and procreation “sought,” Peter Brown argues, “frantically to soften the somber tick of the clock of death by . . . [the] begetting of children.”¹⁹ In both cases, however, the choice for procreation or abstinence rested on one’s interpretation of time. The clock in a monastery or a bedroom, then, was not only symptomatic of modernity, but also of the intricate relation between the conceptualization of time and the regimentation of pleasure.

While Christian eschatology connected time in a general sense with sexuality, the ascetic relation of the Christian monk to his or her body and the sex-

ual disciplines of monastic life laid the groundwork for both the conceptualization of mechanical time and the desexualization of the body itself. Some historians locate the birth of temporal discipline in the church's fundamental ambivalence about emotions aroused by intense mystical experience of the early monks. In their first five centuries, early Christian communities were characterized by ecstatic dancing animated by deep mystical experience, not by orderly and subdued ceremonies. Spontaneous and uncontrolled bodily expressions of religious enthusiasm certainly had contributed to the development of the strong collective effervescence among the Christian congregation, but often, this amorphous mass of mystical ecstasy would erupt into full riots, violence, and even killings, as with Hypatia, one of the famous Neoplatonic philosophers, at Alexandria in 415. Such violence, however, disturbed the Church authorities less than the erotic dimensions of religious enthusiasm. In the fourth century St. Ambrose of Milan mourned the sensuality of exotic dancing, even though he recognized its spiritual function, and recommended that rituals take place in the mind, not in the body. In the next century, St. Augustine expressed his concern about the possible sexual arousal of ecstatic dancing. His ascetic ideals prevailed in the Church and they took the form of the first monastic rules laid in the sixth century by St. Basil and St. Benedict, which set the norm for transforming erotics of ecstasy into ascetic discipline.²⁰ Historian William H. McNeill writes:

duly constituted authorities constrained nearly all Christian monks to live together in monasteries and conform to rules, thus ending public outbreaks. . . . Congregational singing, processions, and other stately forms of worship played a conspicuous part in the new monastic rules, supplementing most of the private, trance-inducing exercises that individual monks had formerly engaged in. This strengthened public and ecclesiastical order by damping back the unruly emotions associated with a direct and personal encounter with God.²¹

In the context of the de-ecstasization and desexualization of the monk's body, time played an important role in controlling and transforming erotic enthusiasm into a disciplined conduct. Emphasis on discursive rule and its interpretation replaced bodily expression with discourse and bodily discipline. Asceticism in the form of "the Pauline ideal of continuous prayer," historian David S. Landes observes, "in conjunction with ascetic diet" aimed to "promote a state of light-headedness, conducive to enthusiasm and hallucinations, or, euphemistically, to illumination and visions."²² As enthusiasm shifted from the bodily expressions to disciplined expressions so did the body space become more regulated by time. Similar to the way that pews were introduced in Western Christianity to restrain spontaneous body expressions, isolating one body

from another with wooden barriers and reconnecting them through the codes of new public piety, the time schedules of the monastic rules, and later, mechanical clocks, decomposed a bodily sense of time and re-composed and connected bodies through schemes of mechanical time.

The above changes introduced a temporal discipline of the body around which time, before mechanical instruments, was known and measured. Perhaps the central component of this discipline was self-surveillance. The monks' surveillance of their inner predispositions to carnal pleasures had been mediated for centuries by the simple "mechanics of the bell." The sound of the bell reminded monks about the time of prayer, penitence, confession, and any other method of excluding the body from pleasure. The monks' interest in mechanical time comes from improving bodily discipline. Landes, for example, claims that the bell was part of a larger process of depersonalization and deindividuation in closed monastic space, which was collectively and panoptically occupied so that everybody's movement was seen at *all* "times" and as located in *our* "time." Time, in this disciplinary context, was an index of both social discipline and bodily mechanics. Landes concludes:

there was "only one time, that of the group, that of the community. Time of rest, of prayer, of work, of meditation, of reading: signaled by the bell, measured and kept by the sacristan, excluding individual and autonomous time." Time, in other words, was of the essence because it belonged to the community and to God; and the bells saw to it that this precious, inextensible resource was not wasted.²³

Similarly, Lewis Mumford characterizes this relation as setting the stage for the future disciplinary order of the industrial society. He observes:

the monastery was the seat of a regular life, and an instrument for striking the hours at intervals or for reminding the bell-ringer that it was time to strike the bell, was an almost inevitable product of this life. If the mechanical clock did not appear until the cities of the thirteenth century demanded an orderly routine, the habit of order itself and the earnest regulation of time-sequences had become almost second nature in the monastery. . . . So one is not straining the facts when one suggests that the monasteries—at one time there were 40,000 under the Benedictine rule—helped to give human enterprise the regular collective beat and rhythm of the machine; for the clock is not merely a means of keeping track of the hours, but of synchronizing the action of men.²⁴

By virtue of the bell and, later, of the mechanical clock, the mechanical production of temporal units became an external scheme of the monk's tech-

niques of sexual austerity essential for the formation of Christian identity. The rules of mechanics became embedded in the monk's practices of subjectivity and also through timely confession into a discourse on sexuality. Christian communities were organized around a rhythmical order, perceived as both objective and cosmic, until eventually bodies were eclipsed by the ever-increasing order of mechanical time. "Canonical hours" were the first disciplinary relation between standardized time and ascetic pleasures.²⁵ As J. D. North describes them, the hours "were struck eight times daily on a tower bell which, in summoning the monks to prayer by day and by night, was heard far beyond the confines of the cloister."²⁶ Standardization of the monk's relation to his own pleasures allowed for the *synchronization* of the actions of the others. Benedictine monks, through their daily discipline, gave "human enterprise the regular collective beat and rhythm of the machine," or acted as a human clock that synchronized actions and humans beyond the cloister's walls. The mechanization of the monastic life and its visibility beyond the cloister's walls pressed the idea of order through the temporal uniformity of practice, observance, and enforcement of bodily discipline.

With the introduction of the mechanical clock, monastic discipline—that is, the surveillance and interdiction of carnal pleasure—was strengthened. As the monastic discipline became more instituted around the tenth century with the Cluniac order, the nature of the discipline and the monastic identity changed as well. With the Cluniac order, discipline consisted exclusively of praying. In the eleventh and twelfth centuries, with the Cistercians and particularly the Benedictines, work, in addition to regular praying, also became part of monastic discipline and regulation. As Landes comments, "Discipline in turn had at its center a temporal definition and ordering of the spiritual life: *omnia horis competentibus compleantur*—all things should be taken care of at the proper time."²⁷ Perhaps the most important consequence of the restoration of monastic discipline and the transformation of the monk's identity came from the invention of "confessional manuals." The extroverted pastoral schedules, as historian Jacques Le Goff observes, "introverted apostolic instruments oriented toward the discovery of internal dispositions to sin and redemption, dispositions rooted in concrete social and professional situations."²⁸ In confession, "sex" became the most observed sin and at the same time because of it became the code of all bodily pleasures. Foucault comments on this: "A dissemination, then, of procedures of confession, a multiple localization of their constraints, a widening of their domain: a great archive of the pleasures of sex was gradually constituted."²⁹ "Sex," as a code of pleasure, became a discursive effect of the amalgamation of the mechanization of time and confession. Moreover, as the body became ever more colonized by a moral code, for the monks, night became the new frontier of ascetic pleasure. Forced to practice surveillance over their pleasure, the monks prayed into the

night, or practiced “nocturnal offices.”³⁰ They stayed awake and remained vigilant over the flesh, simply by watching the clock making precise time, a task not easy for all to follow.³¹ This mechanization of ascetic practices became second nature in monastic life.

The code of sexual conduct, which ensured the purity of the soul, depended ever more on the mechanical clock. Out of this dependency came a new professional knowledge and new pleasures. This was evident in the increasingly public displays of reverence for clocks, which were gradually placed closer to God, as in the house of Austin: “The clock was set up alongside a great painted crucifixion scene, with attendant images of Mary and John, on the rood-screen and loft, or gallery.”³² This dependency demanded that the citizens maintain public clocks, invent a profession of clock-makers, and develop the theory of mechanics. Within the church, timekeeping—which had at first been no more than an aid to the regulation of worship—soon became an “honorable occupation.”³³ The two books by the Venerable Bede, a respected scholar of time-measuring, *De temporibus* (On Time) in 703, and *De temporum ratione* (On the Reckoning of Time) in 725, marked the beginning of the discursive control of the skills related to measuring time. While timekeeping once signified the drama of a mechanical cosmos it soon became, with the profession of clock-makers, surrounded by a wide range of more earthly amusements: striking jacks, jousting knights, wheels of fortune—even pornography, as I shall discuss below. The immediate point, however, is that the mechanical clock was from its inception the object of both moral power and ascetic pleasure.³⁴

Mechanics served to illustrate and to envision a divine order of disciplined bodies subjugated to the universal order of conduct. A moral philosopher, Dasypodius, wrote that through the making of the clock, people are educated not only in astronomy and mechanics, but also in morality, which should in his view allow them to have pleasure in their contrivance.

For just as philosophers examine by observing the nature, force, and effects of things, so do mechanicians bring about with the work of their hands, their industry, talent, and skill those things which are either necessary for life, or made for pleasure, or benefit daily use.³⁵

The introduction of a mechanical clock in monasteries, whereby confessions and penitence were standardized, played an important role in the forming of both a Christian identity and a modern social order based on large-scale planning, thinking, and the production of a civilization that tracks time.³⁶ The clock, according to Mumford, laid the matrix for industrial capitalism:

The clock, not the steam-machine, is the key machine of the modern industrial age. For every phase of its development the clock is both the

outstanding fact and the typical symbol of the machine: even today no other machine is so ubiquitous. . . . But here was a new kind of power machine, in which the source of power and the transmission were of such a nature as to ensure the even flow of energy throughout the works and to make possible regular production and a standardized product. In its relationship to determinable quantities of energy, to standardization, to automatic action, and finally to its own special product, accurate timing, the clock has been the foremost machine in modern technique: and at each period it has remained in the lead: it marks a perfection toward which other machines aspire.³⁷

Not only other machines but also subjectivities and their “imagined communities” have looked to the clocks to see themselves in a new way. Sherman points to the birth of new literary technologies, which emerged as a consequence of the change in the sensual perception of time by the pendular clock. An experience of time as a stream of miniature measured units has changed the way that the self experiences itself through time. Time became the omnipresent matrix around which a new prose genre was invented. “It structured” Sherman writes, “not only diary and newspaper, but also periodical essay, journal-letter, and travel book.” The use of the diurnal form enabled authors to write about themselves and see themselves in a new way through the hearing of the “new time,” and enabled “readers to recognize, interpret, and inhabit the temporality by which the whole culture was learning to live and work.”³⁸ This new literary technology conveyed a sense of “simultaneity” among the people in time as a means for structuring personal and group identity. Benedict Anderson notes that Benjamin’s notion of “homogeneous, empty time” is of fundamental importance for understanding “the obscure genesis of nationalism.” “Empty time,” Anderson insists, provides a shared matrix of conduct; fostering a sense of “simultaneity” among numerous individuals who have no way of knowing each other and yet may imagine a community with them in time.³⁹ For Dr. Iwan Bloch, a scholar of sexual science, this simultaneity in conduct or nations produces a patterning of sexuality. He writes,

Mantegazza certainly is right in asserting that there is a national love, that every people offers something original, peculiar in its sex life. Thus we find a predilection for active and passive flagellation undeniably more widespread among the English than among other nationalities. The great scatological literature of the French points to a remarkable sexual perversion which was already spreading in France in this respect. The same is true of sadism in France. Yet these peculiarities indicate the cumulative effect of purely external factors, like imitation,

seduction, etc., rather than an influence to be explained by national character alone, even if one nationality took up these peculiarities before any other did.⁴⁰

Not only has new time provided the structuring of an identity along the empty schemes of time, but also its empty schemas have gleaned individual sexual practices and “accumulated” them “over the period of time” into a single collective pattern in which a nation acknowledges its own birth as a sexual pattern and in relation to which it organizes its “bio-power.”

The invention of personal watches during the Reformation deepened the level of temporal discipline and personalized it even more—it is not a coincidence that it was contrived within the Calvinist milieu—the institutions of the temporal discipline, monasteries, prisons, or factories, were individualized inside a single body. Furthermore, with the invention of the personal watch, timekeeping became not only the profession of some, but part of every profession. That is to say, it played an important role in professional self-discipline. “Necessity,” “benefits,” and “pleasure,” as Dasypodius has argued, were all merged in the mechanics of time. Having a watch was a pleasure of a mechanical order, the pleasure of a work schedule, of a daily ascesis; owning the watch created the possibility of synchronizing the use of pleasure with others, and mechanical time became a new object of pleasure. Calvin saw it as a “marvelous instrument,” and “accepted the watch as a useful instrument and thereby enabled the jewelry trade of Geneva to save itself by reconversion.”⁴¹ What the clock was for monastic life in terms of group discipline, so was the personal watch for reformed Europeans, for the in-the-world, individualized ascetics of Post-Reformation Europe.

In the eighteenth century, after anticlericalism opened the way for the erotic imagination, personal watches became not only a disciplinary tool but also objects of erotic pleasure. An eroticized personal watch usually showed sexual acts among monks and nuns. As Landes describes:

These were still paintings, usually crude, but sometimes very well done; the Geneva erotica were the best. In the early nineteenth century, however, the new vogue for automata led to a logical transformation; from stills to animation. The rhythmic oscillation of the balance wheel was peculiarly suited to these simulacra, whose resemblance one to another would indicate that a few specialist suppliers cast the moving figurines. The tiny crudeness, even grotesqueness, of these representations would seem to limit their erogenic value: they are more amusing than arousing. But they must have made marvelous openers for conversation between the sexes, and I suspect that many a Casanova used his secret pocket peep show—these scenes were usually concealed behind special panels or covers—to test his partner’s interest and open-mindedness.⁴²



Photo 1

The above account lends itself to multiple interpretations: first, that the erotic watches involved a sharp Protestant criticism of the Catholic sexual hypocrisy; second, that discourses on “sex” and “time” are interchangeable. In any event, one observes that with the development of mechanics the symbolic meaning of time transformed into a pure measure of a mechanical operation and through the body-instrument link gradually became a disciplinary scheme of the body. Mechanical time became the measure of a body’s movement, a matrix of synchronized actions, a condition of rhythmical gestures. Through time, the body became a scheme of quantity, a choreography of publicly synchronized ascetic conducts. The temporal beats of the mechanical clock had unified monks and nuns into a synchronized and rhythmical communion of sexually sanitized bodies carrying out a vision of a pure community of negative pleasures, or the pleasure of the mechanized asceticism. Thus the erotic

watch involved a sharp irony related to the above economy of negative pleasure. Those who renounced sexuality through strict sexual discipline here are represented as having sex and pleasure generated by the mechanical operation of the watch.

This inversion of pleasure from the "sex" of the body to the "sex" of mechanical operation is not gratuitous, but suggests a resexualization of the desexualizing tools and also a transformation of the body. Mechanics shoots through the discourse on sexuality, and its logic produces and measures mechanical time, thereby codifying the body in the same way that "sex" codifies pleasure. "Bodies" and "pleasures" are set aside, codified, and ready for transaction and exchange. The "empty" forms of these two logics of "sex" and mechanics universally exchange here their equivalence; mechanical operation is exchanged for pleasure, and *vice versa*. The body is transformed by this exchange; no longer a stable and fixed natural object enshrined in senses and merged into sensual experiences, it is disassembled and reassembled along the standards of this exchange. This process allows for a "paradox" of body and pleasures created by the interchangeability of mechanics and sex, as discussed by Allucquere Rosanne Stone in her book, *The War of Desire and Technology at the Close of the Mechanical Age*. There she explains how it is possible to have "hetero phone sex" performed by a lesbian. She claims that through both the technology of phone sex and the exchange of senses and dramatic narratives during phone sex, the bodies and "natural preferences" do not restrain the process because technological mediation invents the body in accord to its rules of operation. She writes: "what was being sent back and forth over the wires wasn't just information, it was *bodies*."⁴³ Prior to "phone sex," the erotic watches had already suggested a shift in the perception about the referent of "sexual" pleasure. The referent, as Stone points out, rests no longer in the "body" but in the *mechanics* of "sex," that is, in the *coded operation* that allows the simulation of pleasure. It is this new referent, one might argue, that divulges "sexual" pleasure as not being fixed by the body but rather as a floating sign that is a universal standard for exchanging bodies for words. The *mechanics* of "sex," it follows, are transferable and interchangeable with the "sex" of mechanics. Paul Virilio observes that the contemporary Catholic Church's indignation about "telesexuality" strongly indicates sexual mutation from the erotic watch to the internet; the simulational virtues of high-speed technology, Virilio observes, eclipse bodily union by the flip of a remote, "pulling the plug on the animate being of the Lover."⁴⁴ And while the watch, this rudiment of the modern speed technology, could simulate "orgasm" by measuring time, "orgasm," no longer a code of using bodily erogenous zones, appears now in modern speed technologies as a code of electronic transmission.

The nascent *technophilia* of the erotic watch begins to expose *biophilia* as the dogmatics of pleasure.⁴⁵ One poet transposes this transferability of "sex-

uality” into a discourse of machine and pleasure when he says that “The plane is the only thing I’ve ever really loved” because, like a lover, “The plane tears you away, makes you live dangerously, offers you happiness, brings you back when it’s good and ready.”⁴⁶ Paul Virilio, in similar fashion, comments on this nostalgic love towards the airplane when he writes:

as with the nozzle on the jet engine of a machine capable of breaking the sound barrier, everything comes together in long-distance love, thanks to the power of ejecting others, to this ability to ward off their immediate proximity, to “get off on” distance and make headway in sensual pleasure the way jet propulsion propels the jet.⁴⁷

Following Galileo’s claim that distance is a function of time, one might point out that pleasure is a function of speed. By this logic, instruments of speed must also be pleasure inducing. In becoming speed, the concept of time, which started as a highly contemplative concept enhanced in symbolic meaning and sexual austerity, sinks even more deeply into one’s muscles, practices, and pleasures. As a consequence of this transformation, mechanical time has achieved a long-awaited monastic ideal about the eradication of pleasure from the “act of the flesh” and has installed pleasure into the pure code, not only for the religious elite, now, but for everyone. J. G. Ballard’s novel, *Crash*, about urban people who “get off” on speed, car crashes, and prosthetics, authenticates this ascetic vision of the body as a machine. Therefore a machine, such as a car, as a sexual force, may after all not be, as Ballard had hoped, only “an extreme metaphor for an extreme situation.”⁴⁸ As time, through modern mechanics, increasingly became pure speed, the desexualization of the body through the Western history, Ballard claims, is allied with the resexualization of speed technology. Speed, as Virilio argues, becomes “the coitus of the future.”⁴⁹ While *Crash* may be a bizarre story, it nonetheless implies that a modern technology of time harbors a discourse on sexuality, and allows us to see how mechanics and machines have replaced the ancient discourse on pleasure centered in the body.

The above account may seem irrelevant to historians of science who, while prepared to accept in general the above argument as a wide historical “background,” are less prepared to acknowledge a more direct relationship between sexuality and scientific “objectivity.” The clock, one may argue, still measures time, and still measures time regardless of whatever design appears on the watch’s face. In the next chapter, I will therefore examine how historians of science themselves have not incidentally obscured the role of the body in constructing “objectivity” properly, precisely because their relation to the body defines, to a large extent, their disciplinary relation to the historical body.