Architectures of Time

Toward a Theory of the Event in Modernist Culture

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To my mother,
who taught me how to use tools

1.1
Surfer, 1960s. Photo: Dr. Don James.

1 The Complex and the Singular

Reality . . . is a perpetual becoming.
It makes or remakes itself, but it is
never something made.
— HENRI BERGSON

WHAT WOULD IT CHANGE in our arts, our sciences, and our technics if time were conceived as something *real*? Though over a century has passed since the first tremors of this fundamental question began to make themselves felt in philosophical and scientific debate in the Western world, the problem stubbornly remains, either largely intractable or willfully ignored. What is it about time's relentless fluidity, its irreducible materiality, that the modern mind finds so impossible—or repellent—to think?

"But Western Being," the voices of our institutions will protest, "*is* time, and has been so since the very dawn of modernity"—since the advent of rationalized accounting practices, the discovery of universal mechanical laws and constants, the application of systematic techniques for governing populations, the rise of humanistic disciplines and experimental method, the birth of the Cartesian or modern "self." But the forms of time expressed in these seemingly disparate historical developments are not, strictly speaking, "real" at all, but only chimeras of an emerging and very specific instrumental culture; they are, in a word, *abstractions*—ingenious tools contrived to distribute the senseless procession of events in nature within an external, thinkable space of measure, management, and mastery.

But nature itself is wild, indifferent, and accidental; it is a ceaseless pullulation and unfolding, a dense evolutionary plasma of perpetual differentiation and innovation. Each thing, it may be said, changes and arrives *in time,* yet the posture of externality that permits precise measure and perfect mastery can be struck and assumed only in space; one must first withdraw oneself from the profuse, organic flux in which things are given, isolate discrete instants as projected frozen sections, and then interpolate abstract laws like so much mortar to rejoin these sections from the new perspective. But the very gesture that carries thought away from the "event" and toward the "thing" abstracts and spatializes time in the act of instrumentalizing it; it subjugates the contingency and volatility of time by reconstituting it external to phenomena as a finitude and a regularity: it becomes a technique of measurement embodied in economic axioms and algebraic laws.

Real time is more truly an engine, however, than a procession of images—it is expressed only in the concrete, plastic medium of duration. Time always expresses itself by producing, or more precisely, by drawing matter into a process of *becoming-ever-different,* and to the product of this becoming-ever-different—to this in-

built wildness—we have given the name *novelty.* Yet exactly what is novelty, and from where does it come? What might thinking about it make possible in this world, in this civilization whose deepest religious and philosophical beliefs, and whose social and political institutions, are committed precisely to reducing, eliding, or denying the continual mutations and insistent mischievousness of unmasterable innovation and the wild becoming that drives it?

We might say that novelty is simply a modality, a vehicle, by or through which something new appears in the world. It is that ever-fresh endowment that affirms a radical incommensurability between what happens at any given instant and what follows. What has made it a problem for thought—and its problematic nature predates our own modernity, reaching back to the time of the Greeks—is the way it is seen to introduce a corrupting element or impure principle into the pristine and already full world of "Creation." The offending element here is no other than the principle of change, for in cosmological thought, change is either recognized as a first principle or not accepted to exist at all.[1] All change is change over time; no novelty appears without becoming, and no becoming without novelty. But more important, setting out to think about novelty, or "the new," might provide a way to revive our presently atrophied capacities of acting—practically, ethically, and politically—in this world, a world whose scope and complexity have effectively passed beyond grasp or measure. It is, in other words, our capacity actively to engage the *processes* of contemporary reality, a capacity that by most accounts is today so menacingly at stake, that might itself be brought into relief here, grasped, interrogated, and perhaps transformed.

The era of cultural production we are traversing is unarguably one of impoverishment and mediocrity—in art, philosophy, literature, even architecture, though to a lesser extent—an era whose inaugural segment was marked by reaction, an era in which innovation itself seemed all but to have collapsed and which neurotically lauded itself for a "criticality" that was little more than the impulse, which would normally discharge itself through the assembling and invention of new capacities, ensembles, and functions, become corrupted and turned inward as "critique." In the domain of architecture—the first to have declared its "postmodern" emancipation from avant-gardist modernity—this tendency to mediocrity was expressed, and only barely masked, by a decade of submission to the cult of historical styles, and subsequently to myriad, but often hollow neo- and antimodernist intellectual postures ("strategies" such as

1 This statement applies of course to systematic philosophy and classical science, not to the continually self-updating pseudo-axiomatics of Christian theology and Western capitalism.

collage, deconstruction, and the crypto-formalist revivals of computer-aided modeling). Though the parochialism of these especially recent developments is often obscured by the virtuosity of their results, they have never managed to hide their fundamental aimlessness, the inevitable result of cultures whose intellectual activity has become severed from its foundations in social, historical, and economic life.

Yet a return to the "critical" modes of the preceding period is no acceptable solution. For it is in periods like those that architects and artists, as well as writers and thinkers, are able to see the world only in the terms of a (real or imagined) oppressor's conventions—indeed of conventions *tout court*—for they have lost the thread, one might say, of their own reality or perspective, their own politic, their own "world-building." Critique is always a critique (and therefore an elaboration) of what exists already, implicitly reconstituting this preexistence as a static thing (both in its referential and *re*presentational forms). Clearly all critique is of representations and is, as many of its own most rigorous practitioners have claimed, at bottom no more than an elaborate *re*-representation. But what concerns us here is the concept of time that one finds bonnd up in these wedded practices of critique and representation. What type of intervention do these two practices actively effect in the world, and what type do they passively imply?

The two relationships—between representation and reality on one hand, and critique and representation on the other—may be understood according to the classical morphogenetic model that is determined by the relationship of the *possible* to the *real.* I use the technical term "morphogenesis" here in no gratuitous sense, but because it is precisely the problem of "the emergence and evolution of form" that I am proposing to discuss, and because it is precisely this problem that is indisputably at the heart of all formal aesthetic practice in general, and design practice in particular.[2]

How does one characterize the morphogenetic model of the possible in relation to the real? To begin, "possible" finds itself invariably placed in opposition to "real" as if it were some type of earlier stage; it has on its own, therefore, no reality in the strict sense, but takes this on only at a later stage, through the process of realizing itself. How does it do this? Two controlling rules or operators must intervene here to relate the two states or realms: The first is resemblance, the second limitation.[3] *Resemblance,* because what is real always conforms to, or matches, the image of the possible—the possible presents the preexisting *image* of the real whose attractive forces realize it. The possible—though it is but a phantom entity—is nonetheless a true and faithful copy. Second, *limitation,* because although anything whatever can exist as a "possible" (a phantom or image) clearly not everything that is possible can be realized. Were it the case, the world would become saturated in a clamoring instant and historical time would be annihilated altogether. Everything would not only happen at once, but would indeed already have "happened."

To these two operators of resemblance and limitation, then, something clearly must be added, something that actively filters and constrains what can pass into reality. Here we find the only trace of a time-principle borne by this model: Something divides into successive stages the passing of preformed phantom images into concrete reality. Reality, according to this model, would still be nothing but a picture of possibility *repeated,* and the world of possibility would be no more than an unchanging storehouse of images existing from time immemorial. This theory of appearance or morphogenesis supposes a sad and confining world already formed and given in advance. Yet this static view of things has dominated nearly all aspects of Western culture from the time of the Eleatics, though most significantly throughout its modern scientific culture. According to Henri Bergson, this fallacy—that there exists a "realm of possibility" underlying the world of actuality—is the one upon which Western metaphysics is based. Both the deep-seated mechanism of our scientific traditions and the implicit finalism of our theological, historical, and political traditions find their roots in this fallacy.

It is through the development of this argument that the problem of novelty takes on its full importance. For the very same principle that "corrupts," transforms, and diminishes Forms, evolving them toward disuse, decrepitude, and disappearance, also *gives,* produces, and creates. No object in nature—be it organic,

2 The term "formal" is used here not in the poor sense as in "formalistic," but in reference to the largely unthoughr dimension of all active patterning processes in the universe, comprising linguistic, social, political, and biological *behaviors* and *forms,* in addition to aesthetic ones.

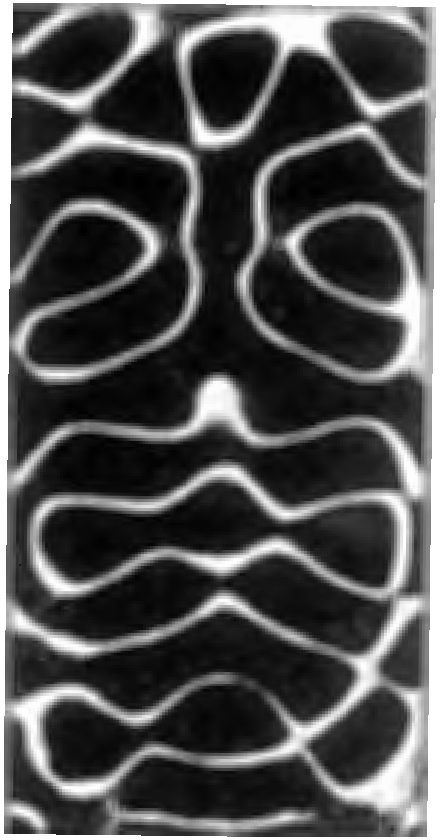
3 See Henri Bergson, "The Possible and the Real," in *The Creative Mind* (New York: Philosophical Library, 1946), *Introduction to Metaphysics* (New York: Philosophical Library, 1961); and Gilles Deleuze, *Différence et répétition* (Paris: PUF, 1968) pp. 272–275, *Le Bergsonisme* (Paris: PUF, 1968), chap. 5. See also the arguments of Alfred North Whitehead concerning the "Fallacy of Misplaced Concreteness," in *Science in the Modern World* (New York: Macmillan, 1925), chaps. 3 and 4.

mineral, or entirely abstract or immaterial such as an idea, a desire, or a function—escapes the perpetual onslaught of differentiation according to which objects are continually becoming different from themselves, undergoing transformation. It is true, that change may and ought to be seen as a type of movement—the flow of matter through time—but even the simplest mechanical movement of the classical translational type resisted scientific and philosophical assimilation until very late in our history. For "transformation" and "invention," I wish to show, are also twin and inseparable functions. Both are quality-producing processes that describe the coherent flow of matter through time, and it is time, and only time, that makes the new both possible and necessary.[4]

To think in this way, however, means developing a radically different theory and regime of morphogenesis. The so-called emergence and evolution of form will no longer follow the classical, eidetic pathway determined by the possible and the real.[5] Rather, it will follow the dynamic and uncertain processes that characterize the schema that links a *virtual* component to an *actual* one. What is most important to understand here is that unlike the previous schema where the "possible" had no reality (before emerging), here the virtual, though it may yet have no actuality, is nonetheless already fully real. It exists, one might say, as a *free* difference or singularity, not yet combined with other differences into a complex ensemble or salient form. What this means is that the virtual does not have to be realized, but only actualized (activated and integrated); its adventure involves a developmental passage from one state to another. The virtual is gathered, selected—let us say *incarnated*—it passes from one moment-event (or complex) in order to emerge—differently, uniquely—within another. Indeed *the actual does not resemble the virtual,* as something preformed or preexisting itself. The relation of the virtual to the actual is therefore not one of resemblance but rather of *difference,* innovation, or creation (every complex, or moment-event, is unique and new). Thus the following should be clear: realization (of a possible) and creation (through actualization-differentiation) are two intrinsi-

4 In *Creative Evolution,* Bergson argues the need for a science or "mechanics of transformation" of which our "mechanics of translation" would become but a particular case (New York: Henry Holt and Co., 1911), p. 32. Alfred North Whitehead, drawing a similar distinction, claimed in 1925 that "biology is the study of larger organisms; whereas physics is the study of the smaller organisms") (*Science in the Modern World,* p. 103). For Whitehead even the physico-chemical world could be understood only in terms of the (prehensive) "events" it undergoes, and to which it gives place.

5 Cf. Bergson's critique of Platonic and Aristotelian *eidos* in *Creative Evolution,* pp. 314–329.



1.2
Hans Jenny. Kymatic: *Wellen und Schwingungen mit ihrer Struktur und Dynamik,* 1967. Basel: Basilius Presse AG.

In these Kymatic images by Hans Jenny, standing waves are generated by sinus tones emitted across steel plates by crystal oscillators (in much the same manner as Ernst Chladni's eighteenth-century **Klangfiguren**). *A mixture of sand and superfine lycopodium powder forms the outlines of the resultant shapes as it is transported across the plate surface into virtual troughs between the more highly activated areas of the field. One can discern a specific and uniform underlying pattern or texture "beneath" the resultant figure that is a joint property of the metallurgy of the sounding plate and of the tone that moves through it. This underlying pattern is itself never reproduced, but remains* **virtual.** *The* **actual** *pattern (the sand-lycopodium figure) always expresses a variation or development of its virtual form—built on the template but continuously variable and varying. Both the actual and the virtual structures are legible in the same image, though their ontological status remains perfectly distinct.*

cally distinct and irreducible processes. The first programmatically reproduces what was already there, formed and given in advance, while the other *invents* through a continuous, positive, and dynamic process of transmission, differenriation, and evolution.

The crux lies here: Actualization occurs *in* time and *with* time, whereas realization, by limiting itself to the mere unfolding of what preexists, actually destroys novelty and annihilates time. In the first instance time is real; in the second it remains artificially derived and abstract in relation to events. In the one case time is a dynamic and perpetually activated flow, in the other, the result of an externally built-up succession of static images. Morphogenesis occurs either as a mechanical process of translation fixed once and for all and external to the specific morphogenetic moment-event, with its highly particular and unreproduceable conditions—or else, it is the very principle of life, that is, perpetual instability and therefore creation itself, and wedded to the ever-evolving particularities of time, or what one could call, in homage to mathematician René Thom, the minute and ceaseless procession of catastrophes. Clearly, if time is real, then the principle of morphogenesis (novelty) must be sought *in time,* within a mobile and dynamic reality riddled with creative instabilities and discontinuities.

Can there, then, be an ethics of material culture free from the bureaucracy of critique, of the negative, of the spatial-visual, and of the static? Can there be a politics of form based on the productive, the positive, the mobile, and the new? Might concepts such as "novelty" and "movement" still be politicized and placed at the heart of cultural production? Clearly, the concept of "new" as it is used here is deeply indebted to modernist philosophies—that is, philosophies that are bound up chronologically with those same movements whose claim at another level to "newness" is so often reviled by contemporary critical cultural practices and theories. I use such a concept both without apology and without taking sides in this debate—its purpose is to underscore why it may be interesting and fruitful to reject the very terms and conditions in which such a debate is posed.

The late nineteenth-century prescription to remake oneself *absoluement moderne* was inseparable from a more systematic and generalized historical need to discover—or to invent at any cost—a principle of absolute novelty and a correlative river of time to bear it along. For Nietzsche, the punctuated violence of the *Unzeitgemäßliche,* or the untimely, was wedded to the infinite spiral—not circle—of eternal recurrence, in order that the Will to Power might circulate freely, unfettered by the sclerosis of a false memory tainted by "morals." Bergson's enlightened vitalism may certainly be seen as a development of Nietzsche's radical "biological philosophy," albeit in a more temperate, systematic mode. Bergson's principles of an ever-individuating élan vital and of becoming, both cast and unfolded within an irreducible actualizing duration, would resurface nearly a century later combined with those of Nietzsche to produce Deleuze's philosophy of difference, and Foucault's philosophy of power/knowledge and philosophy of will. These philosophies each develop in their own way the principle of a mobile ground of continuous production of the real as the basis of history and life. They reject the static field of eidetic Forms and representations as so many sources of illusion, bad faith, or at the very least, as hostile to movement and arresting of an irreducible *living* dynamism that drives existence from within.

To approach the problem of "the new," then, one must complete the following four requirements: redefine the traditional concept of the object; reintroduce and radicalize the theory of time; conceive of "movement" as a first principle and not merely a special, dismissable case; and embed these latter three within an all-encompassing theory and politics of the "event." This presents us with five areas of interrogation: novelty, the object, time, movement, and event. We can consider the problem of novelty only by confronting the question of determinations or causes: What makes something new emerge? Where does that which did not exist before come from? How does it continue to persist in being? and especially, What is its relation to matter?:—for clearly the "new" is significant only to the degree that it is concrete, And finally, how does that which is just a pure difference take on a body? These questions apply with their own urgency and specificity to the social and perceptual field—the realm in which objects aud architectures of all types are assembled and circulated.

The question of the object may well be even more complex than the previous. On one side it calls for a systematic investigation of physical theory: What is an object's relation to the space immediately surrounding it, to its own component parts, to the other objects with which it is combined; what are the forces—both historical and physical—that traverse it, compose it, and bear it along; and what are the adjacent activities and behaviors it makes possible, the so-called meaning systems it partakes of, the spaces and temporalities it carves up (one thinks especially of technical objects and their correlative "modes")? On the other side, it forces to the surface the corresponding panoply of questions regarding the status of the subject as well.

The problematization of *time* entails a challenge to the primacy of the role of space, and the reintroduction of the classical problem of *becoming* in opposition to that of Being. With movement is introduced the larger problem of dynamical

and evolutionary systems and complexity, and the more remote question of a "middleness" that is opposed to essential or foundational beginnings and ends. (Since movement can be caused and modified only by other movements, the problem of origin and initiation must either be reconfigured or pass away.) Next emerges the problem of nonlinearity and indeterminacy (what is cautiously referred to as "deterministic chaos"), understood not only as a heuristic and cosmological model but also as an ethos. And finally, in the "event" it may be possible to discover a vantage point from which all action is understood as political in the positive (i.e., not critical) sense—because after all, in both the social and subjective realms, politics is arguably nothing more than the production of new possibilities.

What follows will proceed schematically to develop two pathways along which design thought and practice might move today—pathways that would have as a role to restore to architecture specifically the active, and not merely reactive, role it once had in shaping cultural and social life. This will be done without forgetting or denying the fundamental fact that is often seen to hamper social and cultural activity today: the perception that the world is finally composed of systems so extensive, so dense, and so complex that it is no longer a question of representing them in their totality/globality—through images, concepts, theorems, or maps, all spatial models that today arguably have fallen into disuse—but rather of engaging these systems at certain specific and local points along their lines of deployment or unfolding. It is as if today one were forced into a new type of intellectual and cultural warfare, forced to accept the mobile and shifting nature of the phenomena that make up our social and political world, and by this same token, forced to discover within this slippery *glacis* of largely indistinct swells and flows, all the ledges, footholds, friction points—in short, all the subtle asperities that would permit us to navigate, and negotiate life, within it.

The first pathway entails a revision of the concept of the object. Here architecture may be said to have a natural and privileged role, owing first to its natural function as an institutional, social, and instrumental operator (it must not be forgotten that within every concrete architecture is embedded an abstract institutional "machine"); and second, because once we accept this machinic role and the behavioral (motor) modalities it regulates and entails, it is impossible not to consider architecture in an expanded sense as a technical object, subject to the same rules and dynamics as all other technological historical development.

The second pathway attempts to conceive of movement as a first principle—though it secondarily both engages the theory of time (treating time as something *real*) and develops a theory and praxis of the "event." This will be done in allusive adjacency to a body of recent developments in physics and experimental mathematics—those proposing the use of new types of geometry (phase space, fractals, attractor dynamics, scaling), new types of algebra (nonlinear equations, recursion, genetic algorithms), and new types of modeling tools (principally the interactive cathode ray tube and the desktop microcomputer).

These last developments are particularly important, first, for having reoriented contemporary science toward the consideration of dynamical phenomena or dynamical morphogenesis, toward geometries or patterns that are not static but appear only *over time;* second, for their role in the study of complexity—the study of phenomena no longer in analytic isolation but as embedded within a rich and unstable milieu of multiple communicating forces and influences; and third, for having introduced into popular discussion the technical concept of "singularities," referring to those critical points or moments within a system when its qualities and not just its quantities undergo a fundamental change. It is possible that this latter development alone—the incorporation of *qualities* into the numerical continuum of mathematics—is as radical in its implications today as was the renunciation of qualities at the end of the sixteenth century (Kepler, Galileo), the decisive event—itself a historical singularity—that gave rise to modern scientific method. The concept of singularities provides us with the chance to revise our understanding of the role of time and the event in both historical and physical processes.

Let us begin with the first pathway revising the concept of the subject. Among the important developments in design discourse over the last few years has been the architectural profession's discovery of the appeals of an intellectual cosmopolitanism that had for several decades already come to characterize many of the other humanities disciplines. The architectural object today nonetheless remains strangely unmolested by this putative but still superficial cross-fertilization of disciplines. One important reason for this has to do with architecture's strange and problematic relation to history. Is architecture simply a branch of traditional art history—the history of movements and styles, the successive aesthetic solutions through which epochs, cultures, and entire civilizations express their indomitable "will to form"—or does it, by virtue of those intrinsic characteristics outlined above, belong to history in another way? If architectural thought and practice is to break out of narrow academicism on one hand, and aestheticism on the other, it must conceive of itself as belonging to a different series of developments—to what recent parlance sometimes calls the "history of practices." This approach is already opening architectural thought

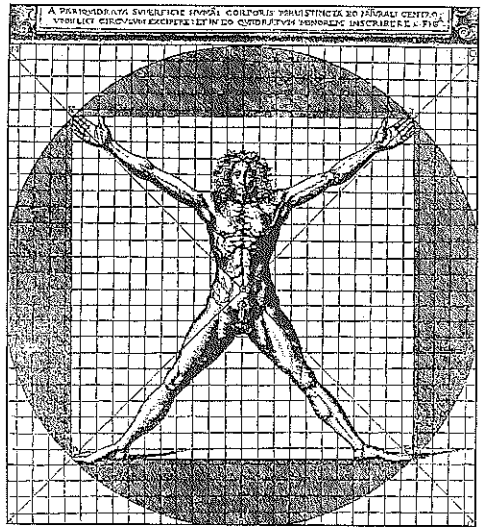
and practice to a new series of relations, both historical-theoretical and material-practical, indeed to a *field* of relations in which many of the accepted unities of classical architectural thought are coming to lose their sovereign and constitutive status. Architecture would then be seen in its full proximity and intimacy with the system of forces that give shape and rhythm to the everyday life of the body. Thus the object—be it a building, a compound site, or an entire urban matrix, insofar as such unities continue to exist at all as functional terms—would be defined now *not by how it appears, but rather by practices:* those it partakes of and those that take place within it.

On this reconception, the unitariness of the object would necessarily vanish—deflected now into a single but doubly articulated field (relations, by definition, never correspond to objects). What comes to the fore are, on the one hand, those relations that are smaller than the object, that saturate it and compose it, the "micro-architectures" for lack of a happier term, and on the other, those relations or systems that are greater or more extensive than the object, that comprehend or envelop it, those "macro-architectures" of which the "object," or the level of organization corresponding to the object, is but a relay member or part. Furthermore, these particular clusters of action, affectivity, and matter—what I am calling "practices"—correspond less to formed and distinct objects than to *a specific regime* (of power, of effects) that for a given time inhabits the social field. A regime can be said to impose a configuration on such a field insofar as it organizes, allies, and distribntes bodies, materials, movements, and techniques in space while simultaneously controlling and developing the temporal relations between them. There is nothing forced in characterizing these two planes of relations as "architectures"—they are every bit as material, as constructed, and as imperious as any building. Nor is the building or object conjured away or repressed, as some will want to claim, but is rather reconceived as a hinge produced at (and producing) the intersection of these two systems of articulation. It would therefore be a mistake, I would argue, to limit the concept of "architectural substance" to building materials and the geometric volumes they engender and enclose. Just as the meaning of a sentence differs depending on who is speaking, to whom it is addressed, the time and place in which it is uttered, the infinitely complex interplay of will, desire, and systems of legitimation, as well as on these same conditions applied to the referents of each and every element of the sentence, so any proper understanding of architecture must also confront *its* character as an *illocutionary event,* or at the very least as an element inseparable from and in constant interface with the world of force, will, action, and history.

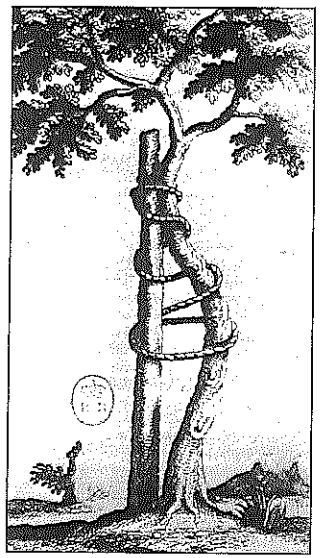
In his book *Discipline and Punish*—today commonly recognized as the canonical analytical work of this type—Michel Foucault demonstrated in considerable detail how the domain of "architectures"—*social* technical objects—forms the principle hiuge or conductive relay permitting abstract, incorporeal (i.e., discursive) formations of power to enter and permeate the adjacent material realm of human flesh, activity, and desire. Architecture's proper and primary function, it could be said—at least in the modern era—is the instrumental application of mastery, not only to an external, nonhuman nature, but to a *human*—social, psychological—nature as well. This method in no way excludes a guerilla architecture of subversion and resistance, such as the active "resingularizing" of the familiar and precoded, amplifying the transformative power of the contingent through an ethics of flexible, or "opportunistic" vigilance, or tapping the history-producing forces of the emergent and untimely. On the contrary, this vision of the technical world as a constellation of *active* agencies (rather than fixed or sedimented constructs) invites intervention as a détournement of moving, flexible processes.

No genealogy of the body in relation to Western architectural mastery is possible, even today, that does not begin by reviving, at least in passage, the convention of Vitruvian man splayed out and mathematically embedded in a reticulum of regulating lines like a proud trophy honoring the Idea and geometric exactitude. This familiar image still stands at the ceremonial head of a complex and many-stranded procession through Western history in which the histories of the body itself, of architecture, and of the even more basic "will to order" are inseparable from one another. The role of mathematics especially must be underscored here, in its relation to the anexact formalism of the sensuously and infinitely varying body: the Vitruvian hammerlock of quantitative-numerical reduction appears here as the forerunner of a relation that would grow only deeper, a deepening that would be made possible only by diversifying and reinsinuating itself in ever new institutions and practices.

Among the most significant developments in the history of Western modernization was the emergence of the European monasteries of the early Middle Ages, in particular (as Werner Sombart, Lewis Mumford, E. P. Thompson, David Landes, and others have argued) those of the Benedictine order. There, for the first time, a periodic system of bells was used to punctuate the day—seven bells corresponding to the seven canonical "hours" or devotional periods—contributing immeasurably to the already staggering discipline and regimentation of monastic life, all the more notable in an era still centuries away



1.3
Vitruvian Man



1.4
N. Audry, *Orthopaedics*, 1749

from the appearance (in Europe) of the first mechanical clocks. This development represents the insertion of a new "template" or plan at three levels of cultural organization: (1) at the macroscopic, geopolitical level, these routines activated a wide range of adjacent processes through the broader social-historical function of the monastery, whose ostensible task was to provide for the welfare of souls and to supply sanctuary—in effect, however, and more pragmatically, its function was to provide a capture or *refixing point* for the human overflow that had been set precariously adrift by the chaotic, destabilized conditions of post–Roman Empire Europe; (2) at the level of the formation of collective subjectivity, one witnesses the first institutionalization of the Christian contempt for the body and its unruly affects and sensations, all of which are forced to submit to a rigid, even protomechanical aridity, regularity, and rule; and (3) at the level of behavioral morphologies or "motor patterns," one notes the incipient mathematization of the day and the body's temporal activities (meals and sleeping schedules in addition to the devotional activities), reinscribed by a complex system of spatial organization that includes the monastery walls, the distribution of cells, common rooms, meditation yards, and so on. These latter are, after all, the medium and vehicle through which the action of the bell and the intervals it scoops out of the continuum of duration are made to penetrate into, and reorganize, the bodies they seize.

The monastery, then, is nothing if not a prototype clock; yet the clock and the advent of homogeneous, mechanical-numerical time are rarely considered as more than incidental technical devices, and, even when they are recognized for the cataclysmic effect they have had on every aspect of Western culture they are certainly not commonly thought of as being the province of architects or architectural thought. Yet the clock appeared in culture, initially as a form of pure rationality and as a pure *function*, at once invisible and inseparable from the continuum of bodies, behaviors, building-apparatuses, and the social life that they carved up. If an independent clock mechanism was abstracted later from this empirical arrangement of elements (naturally monks figured prominently in the subsequent development and specialization of this new technology), it was only to affect the body/architecture continuum in an ever deeper and more generalized way. For example, the clock was soon transposed from the monastery to the town marketplace (from the domain of private faith to that of commerce, an invisible but active connection that Western capitalism has never sought to sever); and when the modern clockface was invented, it allowed time to be dissociated ever further from human events, at once spatially projected in vision and displayed in a marvelously rationalized notational form.

It is all the more curious, therefore, that architectural thought in the last two decades should have seized so willingly upon another "device"—Jeremy Bentham's *Panopticon* and the associated role of the mathematical *quadrillage* (sectoring or gridding)—despite the fact that it was never built and exists, as Foucault himself has clearly underscored, only as "a figure of political technology that may and must be detached from any specific use." This same tradirion of design philosophy remains nonetheless unwilling to accept the general role played by architecture in the history of technique, and that which technique plays in the history of architecture. Yet the issue is more extreme than this: technique itself, I am arguing, must be seen as an inseparable link in the continuum joining architecture and all other aspects of design to the world around it (to bodies and human motor-fields in particular), for technique is the foundation of all overcoding, indeed, technique is the architecture of architectures.

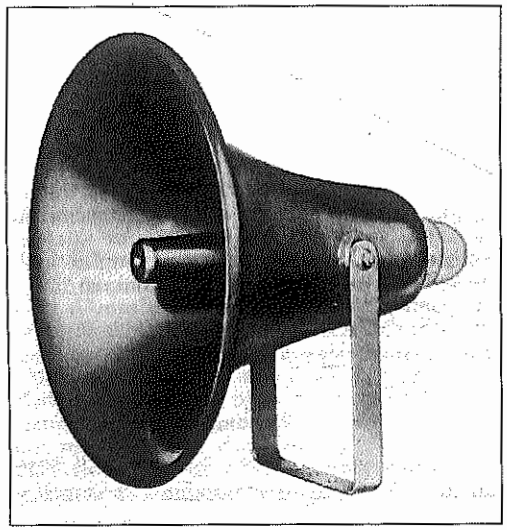
The clock may be said to have made possible not only the historical renascences of the fifteenth and sixteenth centuries, but the whole of what we call the modern world—by introducing the use of quantitative methods for ordering and correlating the episodic fluxes of nature into the cultural equation. It is well known how these methods came to be generalized in painting, science, cartography, music and economics. Interest in mathematical proportion, anatomy, rational orders, and so on was also revived at this time in architectural and aesthetic discourse and practice. Yet historical thought, applied to material culture in general and to architectural culture in particular, has not fully confronted these developments as processes of *longue durée,* bound up with the evolutionary production of *new* domains: the universal optical theory of space; the evolution of battlefields, their science and design; the triadic nineteenth-century assemblage of the city, the factory, and the mines; the formation of the modern domestic household and the bureaucratic workplace. Indeed management—or rather *logistics*—may well represent the preeminent, and perhaps only real, modern architectural "object," albeit an object with a mutable and elusive shape.

Before turning to the twentieth century, we must pause for another moment to consider Bentham's Panopticon and Foucault's analysis of it. What we have presented before us is the plan, or at least the idea, of a building in which we are supposed to understand there to be expressed a total and abiding vision that a society produced for itself—a vision *that never came to be incarnated in the building in question* but that was inserted rather into the social body all the more effectively and surreptitiously at a level, or number of levels, at which architectural objects in the classical sense simply do not appear. For this very reason Foucault provides a self-motivating, capillary action theory of the social field, a microphysics of power corresponding to a micropolitical domain. It is a characteristic of Foucault's analysis to direct attention at each turn to an always different level of reality—away from the plane of (obvious and therefore misleading) *objects* and toward a more fundamental and complex plane of *relations.* The Panopticon, his argument clearly suggests, may already have been the last time that the constitutive relations of a society would be articulated at this particular, and traditionally architectural, level. The implication is not that the discrete and unitary building or building-complex had or ever could become dismissably trivial or obsolete; rather it is that the constituent body of relations that determine it is simply no longer to be found at this level. It is one of the central tasks of Foucault's study to develop—to flesh out, as it were—the new microphysical continuum where architectural and human multiplicities mingle as if two modes of a single substance.[6]

If it is possible to conceive of architectural practice and the field of architectural objects in intensive and extensive (or micro- and macrophysical) terms rather than uniquely at the level of formed objects, then what I am calling *practices* and *techniques* fall squarely into its domain. If the Panopticon—insofar as it represents a technique rather than a building—could figure as an emblem for an entire epoch and as an intensifying relay for that era's power-effects, what figures, it might be asked, serve analogous functions in the twentieth century? Clearly, one must resist the habit of thought that would propose the midcentury Gulags or concentration camps themselves. Indeed the real meaning of these sinister architectures can be found only in the macroscopic systems of which they are a part—the insidious, bureaucratic, molar, political formations whose microphysics is still surreptitiously evolving (or else is once again even in Europe overtly and barbarously being explored).

But where, for example, would one situate such a banal technical object as the loudspeaker, an apparently mundane appliance that played such an important role in both Hitler's and Mussolini's rise to power in the 1920s and 1930s (long before it successfully revolutionized musical aesthetics through the electroacoustic

6 The work's last three chapters (those that follow the one on Panopticism) are those to which the attention of architectural and design thought would most fruitfully be turned today. With the example of delinquency, for instance, one witnesses the direct and invisible incarnation of a complex motor-spatial ordering mechanism in the social sphere *without the mediation of objects.* Here again, the actualization of virtual forms is apprehensible only in a temporal continuum. See Michael Foucault, *Discipline and Punish, The Birth of the Prison* (New York: Pantheon, 1977).



1.5
Loudspeaker, 1930s

experiments of the 1950s and '60s). The loudspeaker's electrical amplification of the voice made possible the staging of vast, live aural spectacles, the amassing of unprecedented crowds of people, which gave literal and palpable expression to the concept of "mass culture" and "mass movement." The logistical achievement that underlay these spectacles was redoubtable, and the extension of military techniques of planning and control to the civilian multitudes was undoubtedly but a felicitous side-effect from the viewpoint of the ascendant fascist regimes. Leni Riefenstahl's documentary film of the 1934 Nazi Party rally at Nürnberg rhythmically intercuts from crowd to marching army and back, underscoring the progressive annihilation of the distinction between military regimentation and civilian life. What it must have felt like to have been among all those other bodies, grouped, organized, and maniacally disciplined into precise geometric configurations, resplendently arrayed between Albert Speer's liquid columns of light, riveted by the literally electric voice of the Führer, is a feeling that today we can only imagine—and tremble. But the loudspeaker brought with it other developments as well: the capacity to appeal to the masses bodily and in person (here an electric technology serves to *create* literal contact with the interlocutor, not to diffuse or destroy it); the capacity to appeal to those sectors of the electorate who do not or cannot read; and the capacity to appeal to baser and more common sentiments in a contagion-prone setting, a technique that invariably favors demagoguery and hysteria.

The loudspeaker is but a single element in a century of exhaustless innovation and complexity, yet it arguably had a greater effect on, and may reveal more about, the workings and aspirations of an entire social and political conjuncture than perhaps any visionary building of the era—Vladimir Tatlin's Monument to the Third International, Le Corbusier's La Ville Radieuse, or even Italy's Mussolini/Piacentini EUR-city notwithstanding.

The ultimate site of all political and social mechanisms, and the power-effects they engender, is today often said to be the collective or individual body. Yet as Foucault's study shows, the literal body has for a long time ceased to be the *immediate* site of these. If power seizes the body it does so with an increasingly sophisticated *indirectness*—an indirectness in which architectural and design practice is always implicated in the deepest possible way. As design practice and thought are deflected away from the traditional and largely "aesthetically" constituted *object* and simultaneously reoriented toward a dynamic macro- and microscopic field of interaction, an entirely new field of relations opens itself to the designer, theorist, or artist.

A nondogmatic approach to this "field" and to the politicization of design practice today would be to consider all architectures as technical objects and all technical objects as architectures. By technical objects, I mean simply this: that around each and every object there may be associated a corresponding *complex* of habits, methods, gestures, or practices that are not attributes of the object but nonetheless characterize its mode of existence—they relay and generalize these habits, methods, and practices to other levels in the system. Thus it is not in the object that analysis ought to be interested but in the complex, and if indeed it is to practices and to the life of the body that we wish to open architecture up today, then we must be vigilant and rigorous in keeping the two entities conceptually distinct.

Each of the three technical objects or architectures presented above (clock, panoptical system, loudspeaker) shares one important feature with the others: each is part of a more or less generalized Western technical apparatus of mastery—an apparatus whose power derives from its capacity to vanquish time by spatializing it. How paradoxical, one may think: the origin of the clock as the *demise,* rather than the invention, of time! But the clock, we must remember, did not produce time, it merely standardized it and permitted, or rather *forced,* it to be correlated. The clock reduces fraught, immanent time to a single transcendent time, it relates all events to a single, "thin" duration that is general—the same for

everyone, for all processes, and so on—not specific or local. Clock time fixes in order to correlate, synchronize, and quantify, renouncing the mobile, fluid, qualitative continuum where time plays a decisive role in transformative morphogenetic processes. What is more, real time is not a unitary strand distributing homogeneous units of past, present, and future in a fixed empirical order, but is rather a complex, interactive, "thick" manifold of distinct yet integrated durations. Events belong to a class known as "emergent phenomena"—the product and expression of sudden communicative coherences or "prehensions" (Whitehead) of converging qualities inexplicably interweaving and unfolding *together,* even though they may originate at vastly different temporal and phenomenal scales.

The modern process of reduction and spatialization began in the Benedictine monasteries of the Middle Ages and was definitively and substantially reinforced in the fourteenth century with the invention of double-entry bookkeeping practices. Soon after, the invention of linear perspective and the rise of quantitative methods in science completed the epistemological hold of space over time. By the seventeenth century the modern system was in place, and from that time it would remain merely a question of increasingly fine tuning. Everything that needed to be mastered—after all, capitalism needed a comprehensive system of global correlation, where time could be transformed into standardized units of value, units of value into goods, and goods back into time—could be mastered by spatialization and quantification. Time, forced now to express the false unity and rationality of all being, ceased to be real.

By their very nature, temporal phenomena cause disturbances and irregularities—what scientific experimentalists call "noise" in regular, linear, quantitative systems. They pollute data with continual fluctuations and instabilities. They are untrackable by conventional linear equations because mathematicians have not discovered how to give equations autonomous flow or "life"—the capacity to absorb or be sensitive to unforeseen changes in material conditions. Indeed, classical linear equations are often compared to clockworks—they are set in advance and continue to run out their program according to conditions that held only ideally at the moment the initial programming took place. They cannot, and do not, receive additional input regarding changing conditions—they cannot even be reliably updated by input they themselves generate or gather up.

What is needed—but which is by definition impossible—are time-sensitive equations. These would be less like clockworks and more like engines that carry their own independent, mobile reservoirs or motive sources with them, along with second-order servo-devices (governor, gas pedal, or steering assembly) to manage the shifting information fluxes of communication and control. Whereas a clockwork or a linear equation can transmit only a prior or initial motion along a predetermined path (from the possible to the real), a non-linear equation or servo-device is able to produce novel motion and pattern-breaking and to update itself from within its trajectory—it remains, in fact, perpetually sensitive to its surrounding milieu.

Scientists first became aware of this problem in the nineteenth century, particularly through the science of thermodynamics, when it became necessary to track the flows of heat through a continuum of matter. As changes of state and *qualitative* transformations began to impose themselves as significant problems for scientific investigation, matter increasingly came to be seen as active, and space as plastic, flexible, sensitive, and organic. James Clerk-Maxwell used partial differential equations as a means to begin to plot these movements. Einstein borrowed these same techniques in 1905 when developing the field concept in relativity theory.[7] But these were still reductionist methods that just happened to suffice to solve the specific problems at hand. *Real* time (and movement) remained a problem, for nobody knew how to construct an organic equation that could flow along with the phenomena and chart all of their moment-to-moment transformations. Indeed, there were actually two problems. A human tallyer with paper and pencil could certainly attempt the task (at least experimentally), but he could certainly never reckon quickly enough; nor could he ever account for the avalanche of interactive complexity (nonlinearity) that would be introduced in the first billionth of a second.

From the moment a system is understood as evolving over time, what becomes important are the transformations it undergoes, and all transformation in a system is the result of energy—or information—moving through it. As energy courses through a system it induces three general types of transformation: (1) It imports information from outside the system. (In addition to changes provoked internally within the system, this also transforms the external milieu in such a way as to affect the type of information it will, in subsequent stages, channel into the system.) (2) It exports energy from within a system to its ambient milieu, producing this same double effect now in asymmetrical reverse. (3) *It transports information from certain levels in the system to other heterogeneous levels*—producing morphological events that are often dramatically unpredictable with respect to location, causal sequence, and magnitude of effect.

7 Einstein himself liked to describe space-time as a "mollusc."

1.6
Steam Engine at Crystal Palace

Any model that would attempt to account for the behavior or patterns in such systems must continually account for the millions of interdependent transformations occurring within the system at a given moment. The equations must perpetually feed information back into themselves, information that can be made available only *in time,* not in advance, and *across* temporal scales, never within a single temporal plane. That classical mathematics, and its corresponding tradition of Western technics, should need now to become time sensitive is an ironic reversal of its deeply spatialist history. But let us return to these dynamical or complex systems. I have said that what characterized them is that they cannot be understood by their spatial relations of configuration alone, but only through the events and qualities—transitions of phase or state—produced as a result of the flows of energy and the informational gradients that move through them. Values are perpetually redistributed throughout such systems, but the specific behavior of this "cybernetic" redistribution is neither determinable in advance nor entirely random and continuous. There exist parameters, limits, border or catastrophe states, and these always gather in basins around singularities.

If time is real, then the world itself represents a complex, infinitely entailed, dynamical system or fluid manifold. As a manifold or flow phenomenon the world comprises not pregiven, ideal Forms but metastable shapes floating in a river of ever-generating differences. But there are differences of two kinds: There are random, or uncombined (incoherent) differences, which emerge and pass without leaving a trace; and there are those that are "singular" and give rise

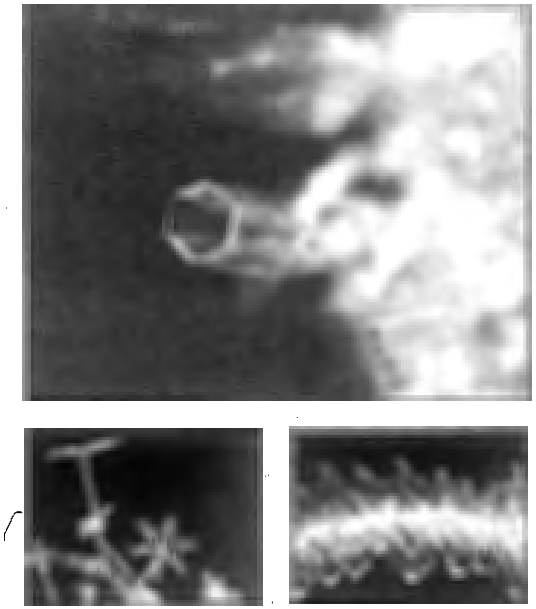
1.7
Preston, England; Cotton manufactory.

to potential or real morphogeneses within and across a system. A simple example is when the molecular phase transition of boiling water (conversion into gas) is combined with a mechanical piston-and-pressure-chamber matrix to form a steam engine. The steam engine, rising let us say, upward through the world-system to the next level, combines with an economic flow reaching its own critical point (conversion to organized industrial capitalism) and is then combined with the cotton gin to produce a more complex entity: mechanized labor. This third-level machine-complex now combines with others of identical type to produce a mobile, non-site-specific (because no longer dependent on naturally occurring streams, wind patterns, or ground-level real estate) production system—an early industrial (manu)factory—and this combines with the nineteenth-century social organization of the English town, giving rise to the first industrial urban centers, which in turn draw huge population flows from the countryside, as well as flows of capital and primary materials from remote investor, market, and supplier countries and regions. Each perturbation generates instabilities in the system one level up, which, once resolved, transmit the instability in turn to the next higher level. (In truth these cybernetic systems are computationally very powerful and do not require such step-by-step

procedures.) This "processing" continues until the system has either damped out the original perturbation entirely, or else has "used," "exfoliated," or "geometricized" it in order to transform its global dynamics in toto. Thus a singularity describes specifically that type of difference, in a world of perpetually engendered differences, that is produced at some point along a particular flow and that may be *combined* with another flow to induce a difference at another scale or level in the manifold.

To understand the precise mechanics of how a form may be "time- and difference-generated"—or *actualized* in the jargon of the present argument—consider the example of the domestic ice cube versus the free-form snow crystal. Is time *real* for the ice cube in the same way as for the snow crystal? How do their respective forms arise? In the former case a cubic slot is prepared and preformed in plastic or metal and filled with water. It is placed in an environment where cold is able to penetrate it from the outside, first fixing its boundaries in conformity with its geometric receptacle, later simply filling out its interior. Every ice cube resembles every other just as it resembles it own mother mold. There is no real time to be found in this system, as almost nothing is permitted to flow (save for heat, though along a rigidly controlled gradient); everything is locked into a static spatial system that reproduces a pregiven form. All the aleatory conditions, all of chance, hazard, all virtuality and sensitivity to other disturbances and changes in the environment—all wildness and openness—are scrupulously (i.e., by design) eliminated.

The snow crystal is different. Its genesis is dynamic and can be situated initially at the convergence of three distinct fluxes: mica and mineral particles; a moisture-saturated field; and a thermal flow of heat exchange. One does not know in advance where or when such a crystal will begin to nucleate or form, but one knows it will emerge—apparently spontaneously—from a flux or convergence of flows, not in a prepared form or space. The form of the crystal, however, is not fixed from the beginning—it is merely an incarnated singularity, a speck of dust-ice, that has been carried to a new level where it interacts with higher-order flows—gravity, wind, barometric pressure, humidity, other silicate dust, water, crystals, and thermal and even acoustic flows, plus electrical and magnetic gradients. All of these conditions vary continually in relation to themselves and affect the snowflake's trajectory. The crystal does carry some fixed information along with it—its preestablished molecular structure, developed within a rigid tetrahedral lattice of hydrogen and oxygen atoms, determines the even formation of hexagonal plates with six "inflections" or surface asperities. This apparently "regular" architecture produces a dynamically *ir*regular space, causing certain regions on the



1.8

Free crystal growth is a product of both complex nonlinear dynamics and specific constraints: geometric instabilities of water, air, temperature, and saturation gradients. Each design perfectly expresses not only the state of one of the universe's neighborhoods during a specific interval in time but also the snow crystal's own particular historical trajectory within it. Because the snow crystal is literally the product of "time," in it growth and design are one.

hexagonal matrix to catch more than their share of the external weather conditions.[8] The resulting build-up takes place disproportionately on these humps, so that the snow crystal will always have six sides.

Of course this inflexible part of its "program" may be said to transcend time; yet this aspect is hardly what is compelling about snow crystal morphology. What is interesting is that despite its partially fixed matrix no two results are ever alike. Each is different because the crystal *maintains its sensitivity* both to time and to its

8 These inhomogeneities are activated only by the particle's *movement* in time; the crystal inaugurates its *becoming* through a "symmetry-breaking" operation, or the introduction of an initial informatum of difference that frees the crystal from the monotonous regularity of the tetrahedral lattice and triggers a cascade of self-structuring pressures through the system. Processes of this type, and indeed the concept of "weather" in particular, were introduced into aesthetics by Marcel Duchamp and later systematically elaborated by John Cage.

complex milieu. Its morphogenetic principle is active and always incomplete (i.e., evolving)—the snowflake interacts with other processes, across both space and time; it belongs to a dynamical, fluvial world. As the snow crystal falls it absorbs, captures, or *incarnates* all the chance events, all the fluctuating conditions (magnetic, gravitational, barometric, electrical, thermal, humidity, speed) and builds them, or rather *uses them,* to assemble itself, to form its structure or edifice. The snow crystal creates itself in the middle of, and by means of the convergences of, flux. Thus snow crystal morphogenesis is less the result of specific, punctual external causes than a sympathetic but critical insertion within, and the subseqnent "cybernetic" management of, already present flows. This analytical model—based on developmental pathways, dynamical interactions, singular points, and qualitative movements in abstract, sometimes multidimensional space—arguably furnishes a far richer theory of "site" than most currently employed in orthodox aesthetic or architectural practice.

It would not be inappropriate to liken this approach to the artful shaping of a surfer's trajectory on the sea. Unlike more traditional (hunter-warrior model) sports, surfers do not conceive of themselves as exclusive or "prime motors" at the origin of their movements; they rather track, from within the flows, a variety of emerging features, singularities, and unfoldings with which they can meld. This style of "soft" intervention—primarily perturbation or inflection—is certainly emerging today with increasing frequency in a variety of domains—art, politics, mathematics[9]—though sports may well offer the most startling and salient examples. Since the early days of surfing (whose origins go back to the 1950s), one notes the appearance of other airstream sports such as skysurfing (carving freefall aerial trajectories between airplane and earth with a resistance board strapped to one's feet), deltaplaning, hang- and paragliding (motorless, "low-," or archaic "tech" sports), in which the principle is to slip oneself into moving columns of air,[10] to create formal and temporal intensities by gliding, weaving, and hanging—tracking and combining flows by apprehending and appropriating hydro- and aerodynamic singularities.

In more immediately adjacent domains there has also been an interesting proliferation—and fusion—of "cousin" board sports that deploy the same fluid "streaming" techniques combined with a rigorous ad hoc engagement of the surrounding milieu—namely, skate- and snow-boarding. As in surfing, the primary qualities valorized in these sports are fluidity of movement, intuition (a quiet body harmoniously in step with its milieu—"in unity with the wave"), and innovarion ("rewriting the rulebook," "exploring uncharted territory"),[11] though because these unfold in a solid landscape, the environing terrain too must now be made to pulse, flow, and break. This involves the selection and identification of "hits" (incidental barriers, obstacles or breaks) and "lines" (trajectories of particular velocity or shape) in the urban continuum or landscape—a staircase, half-pipe, railing, pool, or any incline or gap for a skater; and note the total promiscuity of the (early '90s) snowboarder who indifferently "skis" or "worries" trees, rockfaces, fences, logs, buildings, and service equipment, transforming any found space into a smoothly quilted interlock of disparately textured, twisting, quality-emitting, sequenced surfaces. The extension of the streaming ethos to landscapes and motorfields of *solids* may easily be identified as the primary engine of transformation of both technique and style in all sports of the last thirty years (track and field, basketball, tennis, martial arts, cyclo/motocross, dance).

These developments are perhaps most acutely exemplified in one particular sport rhat has also recently taken on a contemporary—some would say, postmodern—dimension: rock-climbing. Today, according to a new concept of purity and rigor, certain rockclimbers will attack a mountain with *no tools whatever.* The morphogenetic principle of the climbers' space is no longer susceptible to forms imposed from outside (the "assisted" ascent). The free-soloists must flow up the mountain, flow or "tack" against the downward gradient of gravity—but also must become hypersensitive tamers and channelers of the gravitational sink, masters at storing it in their muscles or making it flow through certain parts of the pelvis, thighs, palms, and this only at certain times; they must know how to accelerate the flow into a quick transfer that could mean the difference between triumph and disaster, to mix and remix dynamic and static elements in endless variation—for it is not enough to prevail over gravity but rather be able to make

9 Interventionist art, earthworks, hacking, terrorism, sampling, vogueing, "experimental" mathematics, computational biology, etc.

10 On the shift from the motor model in contemporary sports and society, see Gilles Deleuze, "Mediators," in *ZONE 6 Incorporations,* ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992).

11 "Shane Dorion turns the ultra-vertical lip-pierce into the cool and casual float. Not only is the modern-day surfer fusing sports—surfing, skating, snowboarding—but also manoeuvres. Cutback rebounds become 360s, reentries become reverses, and as we see here, lip smackers become floaters." Jamie Brisick, "Young Guns on the North Shore," in *Warp,* v. 1, no. 2, spring 1993. For a surprisingly sustained debate on the ascending role of novelty vs. the descending one of power in the surfing world, see also Matt Warshaw, "Power Outage," in *Surfer, The State of the Art: A Special Issue,* v. 34, no. 7, July 1993.

1.9
Photo: Simon Carter, Onsight Photography

it stream continuously through one, and especially to be able to generalize this knowledge to every part of the body without allowing it to regroup at any time—transcendent and unitary—as a spatialized figure in the head. Thus the body too must be broken apart into a veritable multiplicity of quasi-autonomous flows—conditions on the mountainface vary critically from centimeter to centimeter—no climber could afford a strategic command *center* that programmed the body to behave globally in response to fixed or, god forbid, *average* conditions. Every

square centimeter represents its own interdependent dynamical system continually cross-referencing with the others, but *locally* in relation to its own "micro-site-specificity."

Yet it is the mountainface itself whose flow is the most complex, the most intractable and problematic of all. The mineral shelf represents a flow whose timescale is nearly unfathomable from the scale of duration represented by the electrolytic and metabolic processes of muscle and nerves—but even at this timescale—nanometric in relation to the millennia that measure geological flows—singularities abound:[12] a three-millimeter-wide fissure just wide enough to allow the placement of one segment of one finger, and anchored by sufficiently solid earth to permit but eighty pounds of pressure for, say, three seconds but no longer; an infinitesimally graded basin of sedimentary rock whose erratically ribbed surface (weathered unevenly by flows of wind and rain) offers enough friction to a spread palm to allow strategic placement of the other palm on an igneous ledge a half meter above. This very rock face, until recently considered virtually slick and featureless—an uninflected glacis even to classical pick and piton climbers[13]—now swarms with individualized points, inhomogeneities, trajectories, complex relations. The site is brimming over with interweaving forces and flows—though without these the face's asperities and differences would fall back into a true near-featurelessness—and the climber's task is less to "master" in the macho, form-imposing sense than to forge a morphogenetic figure *in time*, to insert himself into a seamless, streaming space and to subsist in it by tapping or tracking the flows—indeed to stream and to become soft and fluid himself, which means momentarily to recover real time, and to engage the universe's wild and free unfolding through the morphogenetic capacities of the singularity.

12 The art of Robert Smithson of the late 1960s and early '70s developed this type of singularity beyond that of nearly any plastic artist of modern times. In literature, and in the more classical arenas of painting and sculpture, this program as we will see can already be discovered in the work of Franz Kafka and in the Italian Futurists respectively.

13 Cf. "Les Procédés artificiels d'escalade," in Gaston Rébuffat, *Neige et Roc* (Paris: Hachette: 1959), pp. 72 infra. Even a cursory pass through any of the great manuals of classical mountainclimbing is sufficient to note that this "ethic" that I have called recent and new has always been an integral part of the Alpinist's tradition, and that what is taking place today is a shift in emphasis. Witness the legendary Rébuffat: "There is an intimate pleasure in communicating with the mountain, not with its grandeur or beauty, but more simply and directly, with its sheer materiality, like an artist or artisan with the wood, stone or iron that he works." Rébuffat goes on to evoke the "rediscoverable kinship" between granite, ice, and flesh (p. 14).