

INTRODUCTION: Practice vs. Project

I must say that what interests me more is to focus on what the Greeks called *techne*, that is to say, a practical rationality governed by a conscious goal... if one wanted to do a history of architecture, I think that it should be much more along the lines of that general history of the *techne*, rather than the histories of either the exact sciences or the inexact ones.

Michel Foucault

Art and architecture are practices, not sciences. The constructions of science aspire to universal application. Pictures and buildings need only work where they are.

Dave Hickey

CONTINGENCIES

A

Most unique among creative practices, architecture's objective is given from outside. Architects, unlike painters, sculptors, or poets, depend on clients and patrons to execute their work. As a consequence, they are likely to work across a wide array of scales, building types, climates, economics, and building cultures. Architecture is of necessity a discipline of circumstance and situation. Even in the most ideal careers, many decisions are beyond the control of the individual architect. The process of design and construction is characterized by constant tactical adjustments made to the demands of clients, codes, consultants, budgets, builders, and regulatory agencies, not to mention the complex logistics of construction itself. Moreover, architects today practice far from home, and each new site presents unfamiliar conditions. As creative subjects, architects react to these demands, inventing in response to the occasion of the commission, specifying and particularizing a given set of abstract variables. The practice of architecture tends to be messy and inconsistent precisely because it has to negotiate a reality that is itself messy and inconsistent.

Against this landscape of contingency, architectural theory has traditionally served a unifying function. Without a larger ideological framework, it is argued, the architect runs the risk of reacting passively to the multiple and often contradictory demands of context, clients, regulating agencies, media, or economics. Architecture, it is argued, needs a grand narrative in order not to be entirely consumed by these small narratives of opportunity and constraint. And so, in order to legitimate its mechanical procedures, practice appeals to a *project*: an overarching theoretical construct, defined from someplace other than the studio or the building site, and expressed in a medium other than buildings and drawings. Detached from the operational sites of technique, theory stakes a claim on a world of concepts uncontaminated by real world contingencies. Theory needs distance for its reflections; but as a consequence of that detachment, the possibility of incremental change from within is held in check. Theory's promise is to make up for what practice lacks: to confer unity on the wildly disparate procedures of design and construction.

This tension is only partially offset by the tendency of conventional practice to repeat known solutions. Too often, contemporary practice oscillates between mechanical repetition and shallow novelty. Conventional practice renounces theory, but in so doing, it simply reiterates unstated theoretical assumptions. It works according to a series of enabling codes, which themselves comprise a random sampling of the dictates of professional practice and the learned habits of normal design culture. It is these unexamined codes that give practice a bad name. The protocols of normal practice may be modified or adapted in response to circumstance, but are rarely challenged. Design is reduced to the implementation of rules set down elsewhere. If theory imposes regulated ideological criteria over the undisciplined heterogeneity of the real, the unstated assumptions of conventional practice enforce known solutions and safe repetitions. In both cases, small differences accumulate, but they never add up to make a difference.

If conventional practice and theoretically driven critical practices are similarly structured, it cannot be a question of going beyond theory, or of leaving theory behind. What is proposed here is instead a notion of practice flexible enough to engage the complexity of the real, yet sufficiently secure in its own technical and theoretical bases to go beyond the simple reflection of the real as given. Not a static reflection of concepts defined elsewhere (either the codes of professional practice or the dictates of ideologically driven theory) but a rigorous forward movement, capable of producing new concepts out of the hard logic of architecture's working procedures. Paradoxically, practice, which is usually assumed to be unproblematically identified with reality, will discover new uses for theory only as it moves closer to the complex and problematic character of the real itself. Practice necessarily respects the verifiable laws that govern matter and forces, but it is also attentive to the fact that these laws operate without regard to consistency or established conventions of rational expression. This attention to the gaps and inconsistencies in theory's fit to reality is, as T. S. Kuhn has pointed out, a tremendous source of invention and creativity.¹ It is precisely when practice and experimentation turn up inconsistencies in the "normal science" that new theories are produced.

Hence it is of little use to see theory and practice as competing abstractions, and to argue for one over the other. Theories and practices are both produced in definable spaces, by active, conscious subjects. Intelligent, creative practices—the writing of theory included—are always more than the habitual exercise of rules defined elsewhere. Practice is not a static construct, but is defined precisely by its movements and trajectories. *There is no theory, there is no practice.* There are only *practices*, which consist in action and agency. They unfold in time, and their repetitions are never identical. It is for this reason that the know-how of practice (whether of writing or design) is a continual source of innovation and change. Tactical improvisations accumulate over time to produce new models for operation. But these new patterns of operation produced in practice are always provisional. Inasmuch as they derive from experience and data, they are always open to revision on the basis of new experiences, or new data. Deliberately executed, architecture's procedures are capable of producing systematic thought: serial, precise, and clinical; something that resembles theory but will always be marked by the constructive/creative criteria of practice.

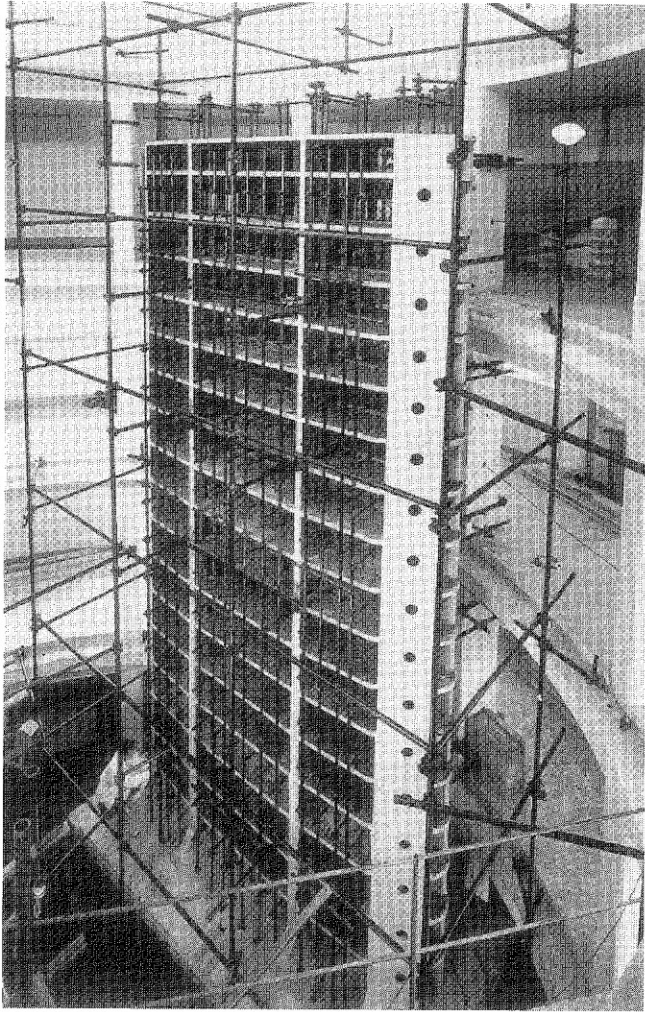
Pragmatism unstiffens all our theories; it limbers them up and sets each one at work.

William James

MATERIAL PRACTICES: AN 'EROTICS OF DOUBT'

Instead of opposing theory and practice, imagine competing categories of practice: one primarily textual, bound up with representation and interpretation: a hermeneutic, or *discursive* practice; and the other concerned with matter, forces, and material change: a *material* practice. The consequence of this would be to say that there is no fixed category called "practice," no fixed category called "theory." There are only practices: practices of writing, which are primarily critical, discursive, or interpretive, and material practices: activities that transform reality by producing new objects or new organizations of matter.

Discursive practices work in the space between texts, and they produce more texts. Material practices often involve operations of translation, transposition or trans-coding of multiple media. Although they work to transform matter, material practices necessarily work through the intermediary of abstract codes such as projection, notation or calculation. Constantly mixing media in this way, material practices produce new concepts out of the materials and procedures of work itself. The vector of analysis in hermeneutic practices always points toward the past, whereas material practices analyze the present in order to project transformations into the future. Discursive practices look critically at what already exists ("things made"), while material practices bring new things into being: "things in the making."²



Gio Ponti—Eleven Meter Structural Test Model, *Pirelli Tower*, Milan, 1956

Architecture, I want to say right from the beginning, is a material, and not a discursive practice, and by being clear about what this means, we can steer around much of the obscurity that characterizes debates today. If you understand architecture as “built discourse” it becomes very easy to forget about the specificity of building and begin to compare architecture to other discursive practices such as writing, film, new media, or graphic design. And if you do so, you begin to notice that, compared to these other practices, architecture is relatively inert as discourse. It cannot approach the transparency and speed of these other media. And so, if discursive communication (commentary, critique or explanation) is your ultimate criterion, there is a great temptation to leave architecture behind, and to move toward these other practices. If you try to make architecture do something that it does not fundamentally do very well, you may decide in the end that it’s not worth the trouble. (And practicing architecture is, if nothing else, a troublesome pursuit.) In contrast to this attitude, which sees architecture’s materiality as an impediment to be overcome—something that is slowing it down in a world of speed and communication—I have consistently tried to look more openly at the specific opportunities presented by architecture’s material and instrumental properties. Visual culture and material practices have their own rules, and those rules are different from those that govern texts.

It is for this reason that architecture has never been particularly effective as a vehicle of criticism. It is, on the contrary, insistently affirmative and instrumental. Material practices do not comment on the world, they operate in and on the world. They produce ideas and effects through the volatile medium of artifacts, short-circuiting the established pathways of theory and discourse. This is architecture’s attraction: its source of creativity, operational power, and—not the least—pleasure. Today, the most interesting practitioners no longer ask what architecture is, or what it means, but rather what it can do. From a theoretical point of view, it is less a matter of arguing in favor of architecture’s instrumentality as it is acknowledging that any theoretical approach that cannot account for architecture’s intrinsically instrumental character is going to fall short.

One of the urgent consequences of this more pragmatic approach would be to move us away from the private world of the architect’s design process, and its preoccupation with questions of meaning, and the politics of identity, to an open discussion of architecture’s agency in the public sphere. It would necessarily shift attention away from the architect as the producer of meaning, and pay closer attention instead to the life of buildings in the world. It might help to get us beyond the fiction that meaning is the result of something that happens in the course of the design process. Meaning is not something added to architecture; it is a much larger, and a slipperier, momentary thing. It is not located *in* the architecture: it is what happens to and around architecture as part of a complex social exchange. It happens in the interval, as the result of an encounter between architecture and its public, in the field.

A material practice, therefore, would have little to do with the easy acquiescence to existing norms and conventions of agency and instrumentality. It would be instead persistently skeptical and contrary, a stubborn practice that would hold those generic norms to strict performative criteria, and leave them

behind when they fall short. When the only certainty is change itself, practice can no longer depend on stable rules and conventions. Tethered to a fast-moving reality, material practices need to be agile and responsive, which often requires that they leave behind some of the weighty baggage of received ideas. This is a more uncertain, but also more optimistic program. Conceived as a material practice, architecture achieves a practical (and therefore provisional) unity *inferred* on the basis of its ensemble of procedures, rather than a theoretical unity *conferred* from without by ideology or discourse. Such a notion of practice maintains a deep respect for history, and for architecture's past. The accumulated catalog of architecture's rules and procedures is accepted as a starting point, a common language that serves as a basis for any conversation. And yet, unlike the conservative project that would see the structure of the discipline as a limit, historically defined, the pragmatic know-how of technique does not necessarily respect precedent.³ The criterion of productivity simply bypasses outmoded working strategies, leaving the discipline open to new techniques, which may in turn be incorporated into the catalog of architecture's working procedures.

Material practices unfold in time, with a full awareness of the history of the discipline, but never satisfied to simply repeat, or to execute a system of rules defined elsewhere. Architecture's limits are understood pragmatically—as a resource and an opportunity—and not a defining boundary. The practitioner looks for performative multiplicities in the interplay between an open catalog of procedures and a stubbornly indifferent reality. Constraint is not an obstacle to creativity, but an opportunity for invention, provoking the discovery of new techniques. Under the pragmatics of material practice, the fixed structure of the discipline is neither rejected nor affirmed. A hardheaded skepticism is applied as much to the dictates of theory as to the inherited conventions of normal practice. They are subject not to critical interrogation, but to an “erotics” of doubt:

The space of doubt differs from the space of certainty in that doubt narrows the distance between theory and the world. If theoretical reflection entails being at a certain remove from the world, doubt returns thought to openness before the world; it involves a loss of mastery and control which places thought in a more vulnerable relation to the world than before.⁴

Material practices are tools to open architecture to the world; refusing the safety of theory's disembodied distance, a material practice is marked by the uncertainty of an ever-shifting reference in the world itself. Not a Cartesian doubt that works by process of elimination to arrive at a core of unshakable propositions, but a tactic for dealing with an imperfect reality with a catalog of tools that is itself always incomplete, imperfect, and inadequate.

amples of principles enunciated elsewhere, or cases to be tested against the rule of theory's law. Particular instances are met with particular solutions. Consistency and rationality are guaranteed by the hard logic of structure, and by the indifferent behavior of materials themselves. In the case of Wright, the rational behavior of structure is not an absolute fact to be given material expression, but an opportunity and a resource—a point of provisional stability to be freely handled.⁵ The measure of Wright's "mastery" of the terms of building is as much his knowledge of where and when to compromise, as in any mythic appeal to integrity and the "truth to materials." This is a way of working that assumes that the ability of architecture to generate perceivable experiences and sensations in the world—practical consequences and effects—is more important than its conformance or non-conformance with some abstract set of theoretical criteria.

To claim that architecture is a material practice, working in and among the world of things—an instrumental practice capable of transforming reality—is not to lose sight of architecture's complicated compromise with techniques of representation.⁶ Inasmuch as architects work at a distance from the material reality of their discipline, they necessarily work through the mediation of systems of representation. Architecture itself is marked by this promiscuous mixture of the real and the abstract: at once a collection of activities characterized by a high degree of abstraction, and at the same time directed toward the production of materials and artifacts that are undeniably real. The techniques of representation are never neutral, and architecture's abstract means of imagining and realizing form leave their traces on the work. To understand representation as technique (in Foucault's broader sense of *techné*) is therefore to pay attention to the paradoxical character of a discipline that operates to organize and transform material reality, but must do so at a distance, and through highly abstract means. To concentrate on the instrumentality of drawing is to pay attention to the complex process of what Robin Evans has called "translations" between drawing and building. It is this effort to understand the traffic between geometry, imagination and construction that has motivated the three essays on drawing techniques that open this volume.

The characterization of architecture as a material practice deserves one final qualification. These translations between drawing and building today take place within a larger flow of images and information. Architecture's culture of instrumental representations cannot help but be affected by its intersection with this dominant media culture. Architecture has always maintained a mechanism of explanation and normative description alongside material production: treatises, catalogs, journals, conferences, and texts. In the past this was related to pedagogy, and the dissemination of professional information. Today there is an accelerated, spiraling motion whereby materials from outside architecture (most notably, the immaterial effects of film, new media, or graphic design), have been cycled back through the discipline to enlarge architecture's catalog of available techniques.

This image culture belongs to the new ways of thinking and seeing that have emerged with modernity: shifting mental schemas that mark our uncertain position in the modern world, and force us to see how the practice of architecture has been constantly revised by the complex currents of twentieth century thought.⁷ Michael Speaks has proposed that the exercise of what he calls *design intel-*

There can be no difference which doesn't make a difference—no difference in abstract truth which does not express itself in a difference of concrete fact, and of conduct consequent upon the fact, imposed on somebody, somehow, somewhere, and somewhen.

William James

TECHNIQUES: DIFFERENCES THAT MAKE A DIFFERENCE

When speaking of techniques of construction, it is important to remember that the architect is not a builder, but a specifier of construction technique. The architect works with a knowledge of the methods and materials of construction in both design and implementation, but the impact of this knowledge is indirect. What is more significant is the way in which the variables of construction are factored into the calculus of architecture's procedures. This leads away from a theory of "truth to materials" toward an examination of consequences and experiential effects. The claim, for example, that Le Corbusier, in the Carpenter Center (Chapter 6) is able to achieve a sense of mobility and lightness with a material that is not in itself intrinsically lightweight turns on a detailed discussion of some of the technical aspects of the building's reinforced concrete construction. Innovation and technical constraint are shown to be closely bound up with formal expression.

The design history of the Guggenheim Museum is significant in this regard, and was crucial for me in defining the notion of practice outlined here. In 1991, I wrote that Frank Lloyd Wright could "deploy multiple structural principles with effective operational freedom precisely because he was committed to structural rationality as *practice*, not as *project*" (Chapter 5). What I meant was something like this: early models showed the spiral ramp of the museum propped up on thin columns, a solution clearly at odds with the organic continuity Wright desired. In time, Wright devised an integrated structural solution that did not distinguish between supporting structure and enclosing envelope. While architecturally compelling, this solution proved impractical from a constructional point of view. Wright in the end accepted a solution that, while literally inconsistent with the conceptual unity originally proposed, was itself logical and efficient. What is revealing, and speaks as much to Wright's tactical flexibility as to his intimate knowledge of building technique, is that, while literally segmented, the experience of the building is still one of integrated structure and smooth flow. In practice, the desired continuity is in no way compromised by the apparent structural expedient.

The difference between practice and project is therefore marked by the pragmatic idea of "differences that make a difference." It appeals to concrete differences of performance and behavior and not to abstract relations between ideas and discourses. For Wright, as for most of the architects that interest me, buildings are always more than individual components of a larger project. They are not ex-

ligence, enables architects to navigate more effectively in this new, information-dense context.⁸ Speaks' suggestive formulation plays on two meanings of the word "intelligence." On the one hand, it recognizes that architects and other design professionals possess a specific form of expertise, a synthetic and projective capacity unique to their own discipline. Design intelligence in this sense implies the thoughtful application of that expertise to problems specific to architecture. On the other hand, just as military intelligence is necessarily composed of rumors and fragmented information, from often suspect sources (a high noise to signal ratio) it implies that architects need to be open to the "chatter" of the world outside of their own field, and alert to new ways of interpreting, and putting that information to work. As in intelligence work, with immense quantities of information now simultaneously available, it is no longer access to information that counts, but the ability to process, organize, and visualize information that is crucial.

And so, if I maintain a provisional distinction between the instrumental consequences of representation within the discipline of architecture, and architecture's complex interplay with social and cultural representations, it is not to ignore the moments of intersection and overlap. Material practices must be robust, information-dense, and open to change and revision. Its practitioners realize that the new reality of technology and the city is one of continual obsolescence, and that the only way to survive change is to change. Moreover, material practices trust in the intelligence of architecture's audience, understanding that architecture has many publics, and that the significant work of architecture is one that allows continual revision and rereading, teasing out new meanings as the context changes. This necessitates a close attention to the material effects and worldly consequences of *all* of architecture's matter—semantic *and* material—while maintaining a strict indifference as to the origin of those effects.

And indeed, it is easier to walk with music than without it. Of course, it is just as easy to walk while talking up a storm, when the act of walking disappears from our consciousness.

Viktor Shklovsky

TRAJECTORIES

Michei de Certeau employs the figure of the walker in the city to describe the errant trajectories of everyday practices among the systematic space of the proper. For de Certeau, "the geometrical space of urbanists and architects seems to have the status of a 'proper meaning' constructed by the grammarians and linguists in order to have a normal and normative level to which they can compare the drifting of 'figurative' language." Within his schema, the wandering course of the pedestrian is compared to the enunciative function in language: "The act of walking is

to the urban system what the speech act is to language or to statements uttered.”⁹ This free movement that de Certeau describes (“a Brownian variability of directions” in Deleuze and Guattari¹⁰) is guaranteed by the tactical improvisations of multiple individuals. De Certeau understood that there can never be a perfect correspondence between the regulated geometrical structure of the planned city and the unruly practices it supports. The city’s inhabitants are always ready to take advantage of this mismatch between structure and performance. This in turn suggests that the control exercised by any disciplinary regime can never be total. Resistance will find other pathways around, or under, or through, the constraints imposed from outside, pathways that lead away from transgression, catastrophic overthrow, withdrawal or retreat.¹¹

De Certeau describes a series of “tricky and stubborn procedures that elude discipline without being outside the field in which it is exercised.”¹² He has confidence that there will always exist fissures and cracks that provide openings for tactical reworkings. Making opportunistic use of these footholds, the creativity of everyday practices can often outwit the rigid structures of imposed order, and outmaneuver the weighty apparatus of institutional control: “The long poem of walking manipulates spatial organizations, no matter how panoptic they may be: it is neither foreign to them (it can only take place within them) nor in conformity with them (it does not receive its identity from them). It creates shadows and ambiguities within them.”¹³

What is not immediately obvious in de Certeau’s writings is a subtext that would associate the geometrical space of the planned city with the systematic constructs of theory. A concept of theory as regulated space (oblivious to the complex babble of enunciative practices taking place within it) precedes and undergirds his description of the regulated space of the planned city, indifferent to the multiple trajectories unfolding in its spaces. The idealized constructions of theory mirror the panoptic spaces of geometrical urban planning: “Within this ensemble,” de Certeau writes, “I shall try and locate the practices that are foreign to the ‘geometrical’ or ‘geographic’ space of visual, panoptic or theoretical constructions.”¹⁴ And so, by analogy, just as the active citizen might manipulate and refigure the space of the city—which is given to her from without—so too creative intellectual subjects can put into play the rigid codes of inherited ideological systems.

Two important senses of the word *practice* intersect here: *practice* designating the collective and peripatetic improvisations of multiple inhabitants in the city connects to *practice* as the creative exercise of an intellectual discipline by an individual. De Certeau’s cunning optimism suggests a notion of practice capable of continually reworking the limits of a discipline from within. He offers a way out of the either/or dilemma of practice seen exclusively as mechanical repetition (agent of institutional authority), or the neo-avant-garde positions of transgression or critique. His view affirms that practices always unfold in time, moving on multiple and undisciplined trajectories. At the same time it is a realistic vision, recognizing that it is impossible to effectively operate outside of any discipline’s “field of operations.” Just as the walker in the city produces “scandalous” figures out of the geometric space of the city, there are tactical practices—nomad practices of writing, thinking

or acting—that are capable of manipulating and reforming theory's proscriptive spaces. When de Certeau speaks, in this context of an "opaque and blind mobility" inserted into the "clear text of the planned and readable city," I would suggest that it could also be read as a way to practice theory, a call for mobile and improper reworkings of the "clear text" of a given theoretical formulation. "Be on the edge," Deleuze and Guattari write, "take a walk like Virginia Woolf (never again will I say *I am this, I am that*)."¹⁵ The itinerant path of the walker in the city, or the nomad thinker in theory, is precisely that which resists systematization, and makes room for the tactical improvisations of practice.

These essays have been constructed by following the trajectories of concepts unfolded in the course of working.¹⁶ I wanted to trace the emergence of ideas in and through the materials and procedures of the architectural work itself, and not as a legitimation from outside, in the form of written codes. Architecture works by means of a necessarily mixed assemblage of procedures, and requires multiple tactics of explanation. The purpose of writing is not so much to explain, or to justify a particular work or working method, as it is a continual process of clarification. In most cases, practical, experimental work comes first, and the writing down comes after. The activity of writing for me is part of the practice of architecture: something that happens alongside of drawing, building and teaching.

But the writing of an architect differs in significant ways from the writing of an historian or a scholar. In part, it is marked by the technical and instrumental concerns of a working architect, a kind of "shoptalk:" comparing notes and testing techniques, finding out what works and what doesn't work, constantly on the lookout for new techniques. To define these essays as part of an architectural practice is to recognize and accept the mixed character of architecture's procedures. To conceive this work as a practice is to work from examples, and not principles. It necessitates a continual reference to specific instances of buildings, cities, drawings or texts. But more significantly, it also means resisting the temptation to generalize the results in the form of a *project*. Theory needs a project: a static construct, a persistent template of beliefs against which individual actions are compared, and tested for *conformance*. In contrast, practices imply a shift to *performance*, paying attention to consequences and effects. Not what a building, a text, or a drawing means, but what it can do: how it operates in—and on—the world.

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NOTES

1. Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970) 68.
2. William James, *A Pluralistic Universe*, eds. Frederick H. Burkhardt, Fredson Bowers, and Ignas K. Skrupskelis (Cambridge, MA and London: Harvard University Press, 1977) 117.
3. There would appear to be two dominant positions today with regard to this question of architecture's limits, and the regulating power of the discipline. On the one hand, a conservative position that says that architecture's fundamental questions of space, structure, materials, and the rituals of inhabitation change little over time. Issues that cannot be solved by reference to a known repository of techniques or forms are understood to be outside of, or "beyond," architecture. The most thoughtful of these "conservative" positions would appear to be Giorgio Grassi. See his *L'architettura come mestiere* (Milan: CLUVA, 1980) or the article "Avant-Garde and Continuity," *Oppositions* 21 (Winter 1981): 24–33. On the other hand, there is a neo-avant-garde position that sees the structure of the discipline as a limit to be interrogated. Working on the basis of ideological criteria, or in response to technological changes, neo-avant-garde practices set out to transgress disciplinary limits. The opposition of these two positions approaches parody in the issue of *ANY* that documents the confrontation of Peter Eisenman—representing the neo-avant-garde—and Andreas Duany and Elizabeth Plater-Zyberk—representing the neoconservative "New Urbanists" (*ANY* 1 (July/August 1993)).
Ironically, fifteen years later little has changed. Both of these positions share a similar notion of the fixity of architecture's limit; they simply situate themselves on opposite sides of its boundary. By contrast, a radically pragmatic position would maintain indifference with regard to the perceived limits of architecture. It feels itself under no obligation, either to affirm limits from within nor transgress them from without. Instead it would propose to work opportunistically, operating within the catalog of known solutions if productive techniques could be found there, and outside it as necessary. The dilemma of architecture's limit is faced by not choosing not to choose.
4. Norman Bryson, "The Erotics of Doubt," *New Observations* 74, eds. Jeremy Gilbert Rolfe and John Johnston (1990): 11.
5. What I mean here could also be explained by another reference. Robin Evans, in discussing the supposed "rationality" of Mies van der Rohe's Barcelona Pavilion, contrasts the ad hoc structure of the Barcelona Pavilion to Antonio Gaudí's Güell Chapel: "There are two reasons why we may think the Barcelona Pavilion is a rational structure: Mies said it was, and it looks as if it is. It looks rational because we know what rationality looks like: precise, flat, regular, abstract, bright, and above all rectilinear. This image of rationality is unreliable, however. The Güell Chapel has none of these attributes, yet it is consistent and logical in its structure. The entire chapel was to have been scaled up from an inverted funicular model made of wires draped with paper and fabric ... The model was wholly in tension. Turned upside down, it would produce a structure wholly in compression, thus avoiding persistent tension, against which masonry has little resistance. This is a rational structure. By contrast, the structure and construction of the Barcelona Pavilion is piecemeal and inchoate." Robin Evans, "Mies van der Rohe's Paradoxical Symmetries," *Translations from Drawings to Building* (London: Architectural Association, 1997), 243–244. In Mies, there is a "project" of rational construction, which is given visual expression by means that do not always coincide with its performative realities.
6. The claim that the practice of architecture has the capacity to transform reality is not a claim lightly extended to the conventional exercise of professional practice. Reality is only changed when something new is created. To build yet another suburban office building, for example, is not to transform reality. The stock of existing reality may have been added to, but not transformed; a certain piece of real estate may have been rearranged, but materially, nothing new is created. To give a counter-example from the context of these essays, for example, Frank Lloyd Wright's Guggenheim Museum innovates at every level—in form, space, program, construction, and context—and it does so not only in relation to normative practice, but also in relation to Wright's previous buildings.
7. For an extended argument for the impact of image culture on architectural modernity, see Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, MA: MIT Press, 1994). For Colomina, the engagement with mass media is precisely what defines modern architecture as such. While Colomina's arguments are convincing (indeed unanswerable at a certain level), at times she presents her case in extreme either/or terms that are for me less than productive. See, for example, Beatriz Colomina, "Mies Not," *The Presence of Mies*, ed. Detlef Mertins (New York: Princeton Architectural Press, 1994) 193–222.
8. Michael Speaks, "Design Intelligence: Introduction," *A+U* (December 2002): 11–18.
9. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven F. Rendall (Berkeley: University of California Press, 1988) 100.
10. See "1914: One or Several Wolves?," chapter two in Gilles Deleuze and Félix Guattari, *A Thousand Plateaus* (Minneapolis: University of Minnesota Press, 1987) 33. Deleuze and Guattari's notions of multiplicity could be read as a useful supplement to de Certeau's tendency to idealize individual freedoms against collective disciplines—see for example their discussion of Elias Canetti's *Crowds and Power*, trans. Carol Stewart (New York: Viking, 1963) 33–34.
11. There is also a relationship here to Deleuze and Guattari's concept of a minor literature. See Gilles Deleuze and Félix Guattari, *Kafka*:

Toward a Minor Literature, trans. Dana Polan (Minneapolis: University of Minnesota Press, 1986); through the example of Kafka, the Czech Jew writing in German, Deleuze and Guattari develop the concept of a minor literature, the "deterritorialization" from within the dominant language. A minor practice constructs a line of flight with the materials at hand—the impoverished elements of the dominant language, rather than resisting by retreat or confrontation: "A minor literature doesn't come from a minor language; it is rather that which a minority constructs within a major language" (16).

12. de Certeau 96.

13. de Certeau 101.

14. de Certeau 93.

15. Deleuze and Guattari, *A Thousand Plateaus*, 29 (emphasis in the original).

16. Writing over the course of eight years (1989–97), and later revising the essays for the current volume, I have noted some changes in my thinking. Briefly, the position of the earlier essays, which concern representation, has to some degree been rethought. Today, I would tend to insist even more rigorously on the instrumentality of representation in architecture, rather than see it as an end in itself. This is to some degree the result of the speculations advanced over the course of the essays on specific buildings. However, in the final section, which concerns cities and landscapes, I return to some of these questions of representation, but now within the "expanded" field of the contemporary city, where questions of media, technique, and representation intersect in new and increasingly improbable patterns.