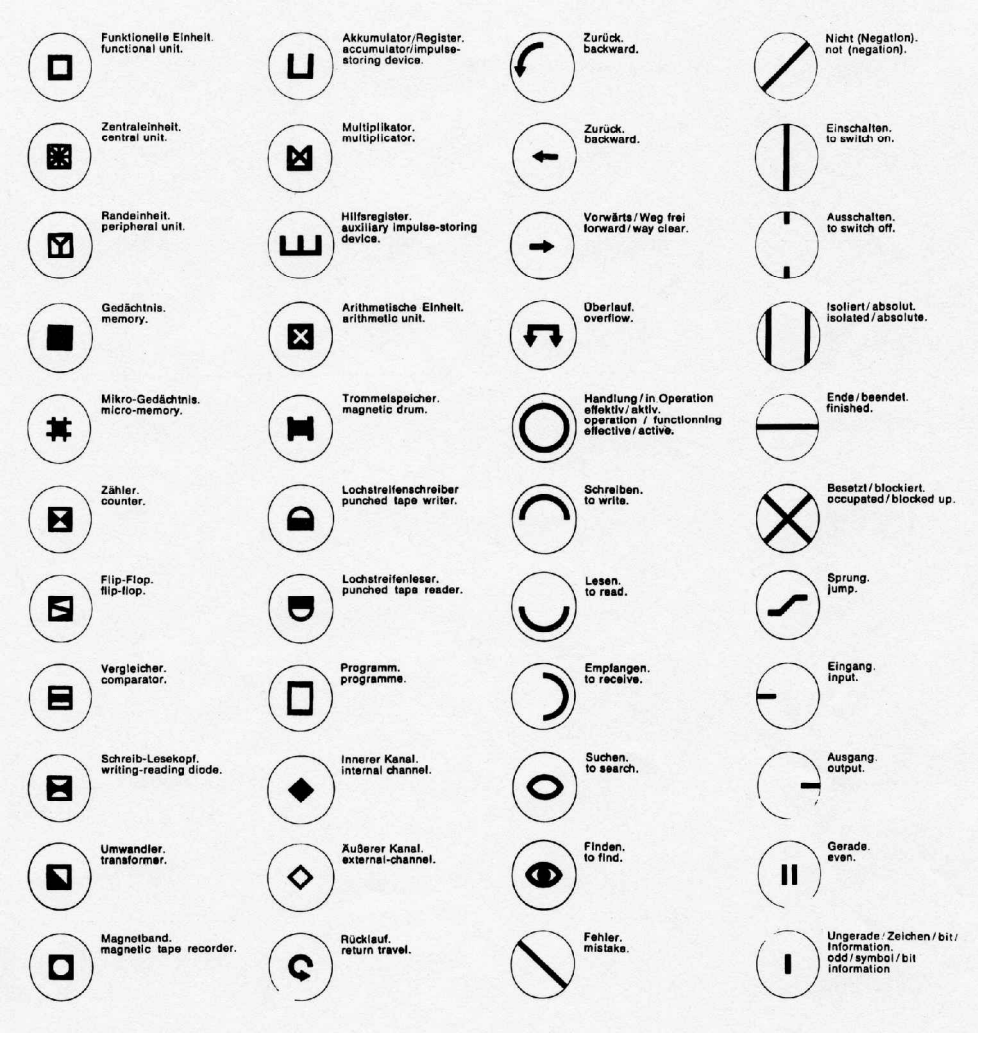
Tomàs Maldonado and Gui Bonsiepe. Sign system, 1961. Selected elements.



On the "Counter-Design" of Institutions: Emilio Ambasz's Universitas Symposium at MoMA

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In January 1972 Emilio Ambasz hosted a conference at New York's Museum of Modern Art entitled "Institutions for a Post-Technological Society: The Universitas Project." Sponsored jointly by MoMA's International Council and the Institute for Architecture and Urban Studies (IAUS), the event was conceived as the culmination of a first, analytical stage of a larger project, the ultimate aim of which was to establish in New York State an "experimental university" dedicated to problems of "environmental design."[1] In his opening remarks Ambasz referred to a "commonplace": the fact that "many institutions are looking today for a redefinition of their roles."[2] If the museum's traditional role, the young curator of design explained, had been aesthetic evaluation, the institution was now compelled to recognize a "shift in evaluative attitudes," one entailing both an epistemological and an ethical dimension. "The once all-pervasive attitude of formal certainty," Ambasz proclaimed, "is beginning to give room to an attitude of lucid perplexity." To somewhat clarify his statement, he pointed to a historical transformation from "universal constants" to "a more dynamic approach that requires that we constantly reformulate our doubts."[3]

Ambasz's introductory remarks did not further elucidate either the nature of this epistemological shift or the ethical imperative it entailed to rethink both the function and organization of institutions. But he did offer some clues when pointing to his concept of design. "By design," he explained, "I do not mean the narrow, professional specialty but rather the large enterprise whereby man creates structures and processes in order to give meaning and order to his surroundings."[4] Implied by this move from the specific to the systematic—whether, as in this instance, in a practice or beyond that in a pedagogical institution—was a conceptual logic informed by a larger transformation in the socioeconomic and technological realms, what Ambasz (following Alain Touraine, Daniel Bell, and others) understood as the transformation from an industrial to a postindustrial society.[5]

Grey Room 14, Winter 2004, pp. 46–77.

According to Ambasz, MoMA's Department of Architecture and Design was in a privileged position to address such transformations on account of the nature of its object of study. For, as he explained in his opening remarks, "we have to deal constantly with the objects that man makes, with his architecture and his cities—and we have to deal explicitly with the socio-economical context to which they pertain."[6] If the socioeconomic context had not in fact been central to the museum's concerns previously, it would be so for Ambasz because it was through the very conjunction of socioeconomic and design concerns that he traced a "complement between aesthetic and ethical evaluation." But it was also evident to him that neither the intellectual tools nor the pedagogical institutions of contemporary design could adequately deal with the constellation of forces deriving from this socioeconomic context—what Ambasz referred to as the new "technological milieu,"a dispersed if totalized environmental system that was inextricably connected to the administrative and commercial apparatus. The tropes informing his concept of design—structure, process, meaning, and order—derived, as we shall see, from an already expanded disciplinary matrix within which this turn from certainty to doubt, and from discrete objects to those continually in process, seemed more possible to formulate and address.

The implications, both practical and theoretical, of this historical transformation would inform much of Ambasz's work at MoMA (from the *Universitas Project* and his blockbuster exhibition *Italy: The New Domestic Landscape,* both of 1972, though to the *Taxi Project* of 1976).[7] And they would impact not only his conception of the object after modernism but, concomitantly, that of the designing subject now understood to be suspended within the institutions and structures of such a dispersed, technologically mediated system. If design products were more evident elsewhere, the Universitas Project served, however, as the primary critical and theoretical component of Ambasz's investigations at the museum.

While the experimental institution that was the ultimate aim of the Universitas Project did not eventuate, the symposia and its affiliated texts constitute one of the most extensive (and certainly ambitious) engagements between the discipline of architecture and other technological and theoretical discourses. Pursuing a formulation that might be described as "Architecture + Technology + Theory," the Universitas Project provides a platform upon which to investigate questions both of expertise and of disciplinary claims to proficiency at this moment in the early-1970s, and to do so with respect to institutional and ethicopolitical questions. The symptomatic nature of its response to the condition of the architect within postindustrial society

reveals, in the first instance, a field of historical forces at work on the discipline. If, simply put, architectural modernism had emerged in response to industrialization and an earlier phase of capitalism, how was the profession to respond to the conjunction of information technology and the socioeconomic forces of late capitalism? And this condition led to further questions: How was the designer, no longer afforded critical distance, able to act as an agent of transformation *within* this new "technological milieu"? Would any engagement with capitalist forces lead only to the discipline's recuperation into extant structures? Was architecture facing an irremediable critical impasse?

In the second instance, the Universitas Project implicitly problematized dominant fault lines within architectural discourse, offering a site through which to examine the discursive and institutional politics of the period. As K. Michael Hays has rightly argued, during this time the prevailing discourse shifted from Anglo-American positivist inquiries—behavioral sciences, operations research, and design methodologies—to what we now understand as architectural theory proper.[8] At stake was one's position within a disciplinary transformation that shifted the role of the intellectually motivated architect from the production of tools to enhance the discipline's functional role within the contemporary technological and socioeconomic condition (a sort of mimetic strategy of understanding and adopting its complex logic) to that of eschewing such a relation by assuming that architecture could escape its vicissitudes and be investigated at the level of its semantic and internal structures.

Rather than align himself along this axis of integration or autonomy, Ambasz remained at their crux, his project thereby producing a strange anomaly. Transgressing the prevailing dualities, he approached the increasingly totalized, if fragmented condition—which would come to be known as postmodern—by setting out to engage it and to articulate strategies of institutional and social transformation alternate to those of the discipline's historical avant-garde predecessors. Rather than formulating a withdrawal from the forces of late capitalism, through the Universitas project he set out to formulate a theory of institutions that might mediate a transformation from within this inescapable milieu.

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The Universitas symposium took place in the Member's Penthouse at MoMA over the weekend of January 8 and 9, 1972. It had been over three years in the making. In

1969 Ambasz put together a team of consultants and research advisers—including architects, legal theorists, art historians, sociologists, physicists, economists, and philosophers—to comment on a draft of *Working Papers* he had prepared.[9] Notable among this Advisory Board were Stanford Anderson, Rosalind Krauss, Carl Schorske, Peter Eisenman, Joseph Rykwert, Abraham Moles, and Suzanne Keller.[10] In July 1971 the final document, or "Black Book," was sent to an equally diverse group of potential conference participants with disciplinary backgrounds ranging from architecture and urbanism to general systems theory, behavioral science, and Anglo-American empirical philosophy to European philosophy, critical theory, and semiotics. Participants were asked to submit responses to the *Working Papers.* Their contributions formed the basis of the symposia discussion.

"Among those coming to New York," MoMA's press release announced, "are the French sociologists Henri Lefebvre and Alain Touraine, the French philosopher Michel Foucault, the English architectural critic Martin Pawley, the Mexican poet Octavio Paz, the Argentine design theorist and educator Tomás Maldonado, [and] the Italian Critic Umberto Eco."[11] Other participants included Jean Baudrillard, Christopher Alexander, Gyorgy Kepes, Manuel Castells, Gillo Dorfles, Ronald Dworkin, Meyer Schapiro, Hannah Arendt, Sheldon Wolin, Anatol Rapoport, and urban systems theorist Richard L. Meier. Those who reluctantly declined the invitation on account of other commitments included Louis Althusser, Roman Jakobsen, and Roland Barthes.[12] The event included a carefully selected audience of architects, scholars, administrators, and press and was divided into four working sessions: the first addressed problems of "value" and how to establish provisional norms for design; the second focused on semiotics and urban structures; the third dealt with "planning and forecasting"; and the fourth turned to social and political issues related to the role of the university in society.[13]

This field of consultants was brought together to discuss the prospect of a "'synthetic' system of thought capable of designing the man-made milieu according to a dynamic notion of order." No longer structured by traditional fields of academic or professional specialization but by an organizational paradigm informed by general systems theory, such a "dynamic system" of thought could, Ambasz believed, offer critical and reflexive strategies in the face of the vicissitudes of the emergent technological milieu. It was a model that did not undermine the role of design or the particular expertise of the architect. In fact, quite the opposite. Ambasz's system recast the role of the architect, and of architectural pedagogy, as not only a point of relay within a postdisciplinary structure but as *the* moment in which new prospects were

forged. Thus, if in the first instance the interdisciplinary scope reads as symptomatic of the failure of design and its institutional framework to adequately address the technological milieu, design was ultimately positioned as the means through which to address the "environmental crisis" brought on by the emergence of the postindustrial age.[14]

To understand what is at stake in the proposed conjunction of "Architecture + Technology + Theory," it is important to situate Ambasz's eclectic project within the institutional context from which it arose, for this bears not only on his interdisciplinary formulation but in turn on his critical and theoretical "prospects" for design.

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On November 22, 1968, Arthur Drexler, director of MoMA's Department of Architecture and Design, announced Ambasz's appointment as associate curator of design.[15] One striking aspect of the accompanying biographical commentary was the young curator's multiple institutional affiliations. Having completed his graduate studies in architecture at Princeton University in 1966, Ambasz began teaching at the school, which was then undergoing significant changes under the direction of Dean Robert Geddes.[16] He had also taught at the Hochschule für Gestaltung in Ulm, Germany, in the spring of 1967, followed by a semester at Pittsburgh's Carnegie Mellon Institute. At the time of his appointment to MoMA, at age 26, he held a two-year preceptorship at Princeton, along with a Graham Foundation Fellowship at the recently founded Institute for Architecture and Urban Studies. Finally, the press release noted that Ambasz was preparing a book entitled *Institutions for a Post-Technological Society,* then bearing the subtitle: *The University of Polis Development*.[17]

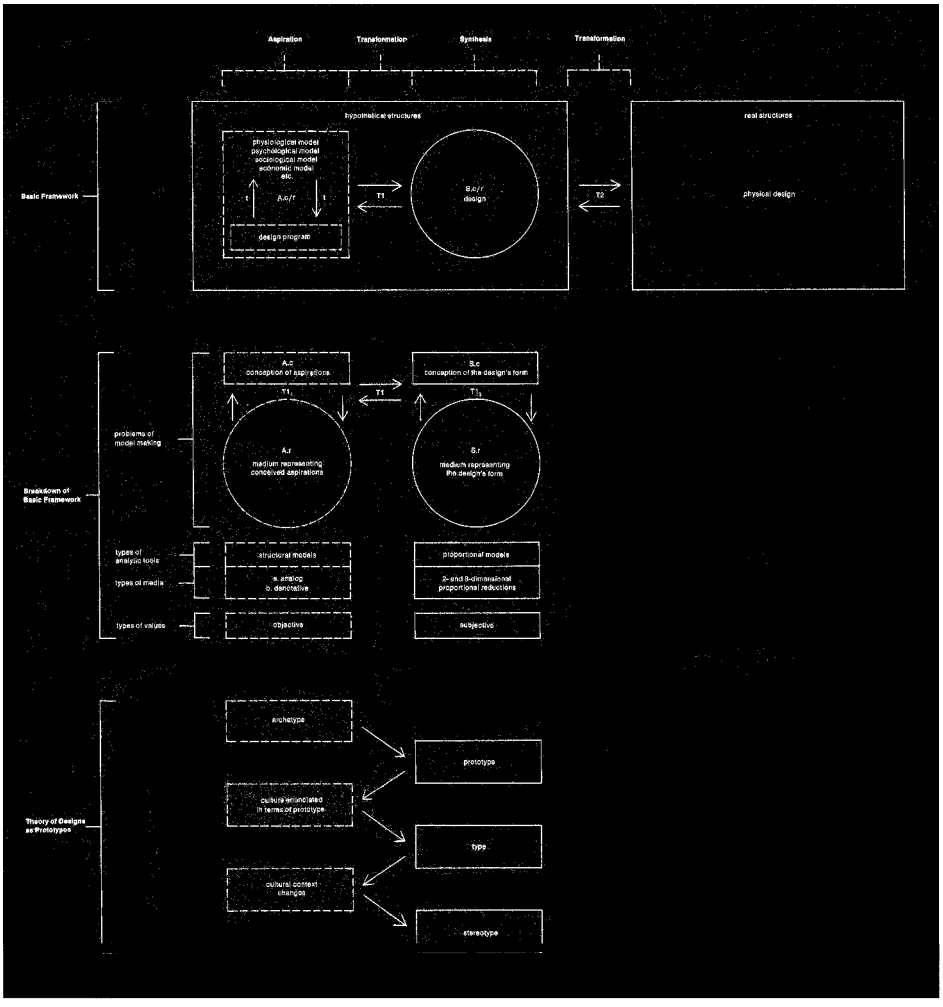
In 1969, aspects of the research Ambasz was pursuing at the Institute appeared in *Perspecta* under the title "The Formulation of a Design Discourse." Here he recalled that a paradigm shift in design had occurred: "configuration" and "(formal) proportions" had given way to "processes (behaviors, operations, tendencies, relations, changes, etc.)."[18] Ambasz then offered a method to bridge the "gap" between aspirations and actual "synthesis" in design work under such conditions, an intuitive gap in decision making otherwise crossed by "lonely jumps."[19] Design programs, he argued, distinguishing his method from modernist ideals, would no longer "determine a design's aesthetic form" but rather set out "the level of operational performance that the design's form is to satisfy." This would take place accord-

ing to "an *operative notion of indeterminacy* in design methodology," for which the designer's role would be to set out "hypothetical structures"—representational devices described initially as "media" then as prototypes and "iconic agent[s]." Far from autonomous, these iconic agents were supposed to strategically engage "real structures (zoning laws, traffic ordinances, social systems, geopolitical boundaries, technological procedures, etc.)" in order to implement change.[20]

A rather late contribution to architecture's embrace of behavioral psychology and systems theory, extended through an idiosyncratic reading of the semiotics of Charles Sanders Peirce, this methodologically oriented approach had also been occupying Ambasz at Princeton, where as a faculty member, we are told, he was credited

> with introducing an innovative design course in which the emphasis was on heuristic exercises—or the problem solving process in design—combined with formal design problems. The course had a strong semiological basis, according to which design is analyzed with reference to the various philosophical levels of meaning of visual signs and symbols.[21]

To these scientifically informed inquiries would soon be added the distinctly European set of discourses found in the Universitas symposium, discourses that would destabilize the programmatic nature of these earlier, more positivist, formu-



lations. Informing this shift was, in the first instance, Tomás Maldonado (on whom more below) and, beyond him, the appearance of Mario Gandelsonas, whom Ambasz brought to New York from Paris in 1970 to edit a book on architecture and semiotics.[22] Many of the European participants of the Universitas Project were close to the Parisian intellectual milieu informing the work of Gandelsonas and, importantly, his collaborator Diana Agrest.[23]

The Universitas Project both emerged from and harbored implicit critiques of the three American institutions at the intersection of which Ambasz worked: MoMA, Princeton, and the IAUS. By proposing transformations of the discipline of architecture and its pedagogy, each had challenged earlier modernist paradigms: MoMA on account of Drexler's obsession with postindustrial technology and other modernisms;[24] Princeton through Geddes's embrace of the human and social sciences; and the Institute both through its neo-avant-garde historicization of modernism (manifest for instance, in the early houses of Peter Eisenman), as well as its engagement with European theory (from Marxist and ideological criticism to structuralist and semiotic analysis).[25]

That Ambasz's project was in dialogue with each of these institutions, while perhaps not immediately evident, can be traced in his writings and will lend the Universitas Project not only its theoretical framework but also its polemical cast. In a notebook from the late sixties he suggested that "the intellectual capital on which the M[useum] was founded is exhausted, [it] has lost its value/currency."[26] As Drexler too had come to believe, the industrial paradigm and conception of the discrete object upon which MoMA's collections were based had been rendered historically inadequate by the advent of the information age.[27] Ambasz foresaw two options: first, that MoMA could "institutionalize its memory and become M[useum] of a [past] time"; or, second, that it "define itself in [a] function of search rather than findings and assume a prospective role." Following the second alternative, he proposed a total restructuring of the institution in which MoMA would emerge not as the repository of historical modernist artifacts but as "empressario *[sic]*, initiator, producer."[28] This would involve developing a research arm—the "International Study Center"—which would "develop programs and establish or help establish institutes (p.e.) and/or sponsor experiments, special projects."[29] This research arm would, furthermore, entail both a critical or retrospective function and a postulative or prospective function, the latter directly contradicting Drexler's understanding of the curator's role.[30] While this total restructuring did not occur, Ambasz would found a "Program on Environmental Design" within the department, a semi-

Emilio Ambasz. Diagram of design methodology from "The Formulation of a Design Discourse." Originally published in *Perspecta* 12 (1969). Courtesy: Emilio Ambasz.

independent program allowing him to pursue "prospective" aims and for which he would act as director. It was under the auspices of this program, furthermore, that he continued the museum's relation to the IAUS, of which he was at the time associate director. The Universitas symposium was one such "special project," as was a project then entitled "The Street as a Component of the Urban Environment."[31]

In a brief report for the *Members Newsletter* published in 1970, Ambasz situated the founding of the IAUS as MoMA's first step toward recasting its institutional role.[32] Drexler had been instrumental in the Institute's founding and served for a number of years as the chairman of the board of trustees. Through Eisenman's involvement in the 1967 exhibition *The New City: Architecture and Urban Renewal,* the two began to collaborate, from which emerged the idea to found the Institute as an independent forum for architectural discourse—a "halfway house," in Eisenman's terms, between the academy and the profession.[33] According to Ambasz, the Institute served as a "bridge between the theoretical world of the university and the practical world of planning problems," but what was important to him was that in so doing it had "been testing design proposals against the actual, political, social, and economic constraints of implementation."[34] Between 1969 and 1970 Ambasz codirected, with Eisenman, the New Urban Settlements Study for the New York State government, a project that aimed to develop new organizational systems for urban development capable of accommodating nonlinear patterns of growth.[35]

But the Institute was by that point beginning to turn away from pursuing large-scale, state-sponsored commissions and toward research and teaching, and ultimately to the founding, in 1973, of its journal *Oppositions.* Projects such as the New Urban Settlements Study would, however, remain the model of engagement for the Universitas Project. From the beginning Ambasz worked toward collaborating with institutions such as City University of New York and State University of New York with the interest of founding an actual university in the context of an "experimental city": a "univercity."[36] Ambasz also shared the commitment to theory that became an important legacy of the Institute. Indeed, in 1970 he argued that architectural theory had all but eclipsed traditional modes of practice as the most cogent site of advancing the discipline, even announcing a book series entitled *Prospectives of Design* that would publish "the most important theoretical writing of the last decade."[37] While this series did not eventuate, this commitment to theory was manifest initially in the Universitas Project and continued in *Italy: The New Domestic Landscape* (most notably with the inclusion of Manfredo Tafuri in the catalog), a prescient instance of the introduction of European theory to architectural discourse

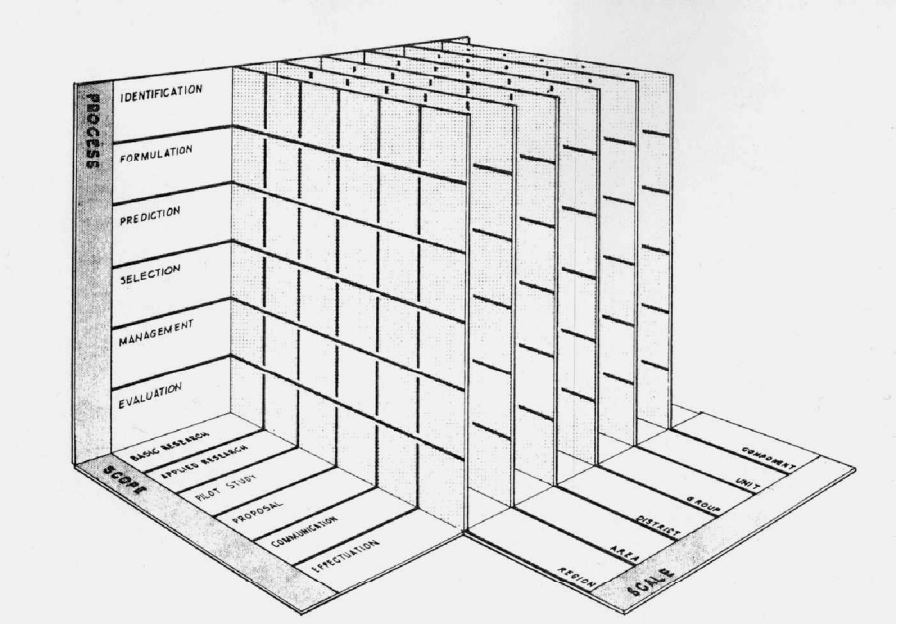
Model of the Definition of the Environmental Design Task. Diagram from "A Study of Education for Environmental Design," report codirected by Robert L. Geddes and Bernard P. Spring (Princeton University, 1967).

in the United States.

With respect to the third institution, Princeton, a spiral notebook dating from the early formulation of the Universitas Project indicates a questioning of Geddes's 1967 "Princeton Report," a document sponsored by the American Institute of Architects and bearing the title "A Study of Education for Environmental Design."[38] The Princeton Report was not only one of many precursors that recast the disciplinary framework of architecture as environmental design, it also provided a model for integrating "architecture" into a matrix of professional, technical, scholarly, and "general science" parameters. Predicated on a "modular, jointed framework," as Geddes later explained, it was also the model that had informed, to some extent, Geddes's rethinking of pedagogy at Princeton.[39] But according to Ambasz, this model (as, Ambasz posited, with the Bauhaus, Vkhutemas, and Ulm before it) had simply substituted new terms for old ones, the institutional framework and role of design remaining essentially unchanged.

> [O]ld courses with new labels; or structural changes which are not substantiated by meaningful design philosophies and do not present a wholistic approach to the design of our environment can only be imputed either to cultural naiveté or to a deliberate attempt to protect the status-quo while simulating change by means of a novel jargon.[40]

A more positive resource for Ambasz was the mentorship of fellow Argentinian Tomás Maldonado, who arrived at Princeton from Ulm in 1965.[41] Geddes later noted the influence of Maldonado's Princeton seminars on Ambasz's 1969 essay "The Formulation of a Design Discourse." Maldonado's eclectic seminars were later published as *Design, Nature, and Revolution,*[42] and were the subject of a critical response by Alan Colquhoun, "Typology and Design Method."[43] Maldonado also accounts for Ambasz's teaching in Ulm, a school that, following the departure of information theorist Abraham Moles and Maldonado himself, would shortly close.[44] Maldonado's legacy can be traced not only in Ambasz's diverse theoretical tools (from Henri



MODEL OF THE DEFINITION OF THE ENVIRONMENTAL DESIGN TASK

Bergson to C.S. Peirce to cybernetics and even to his residual utopian and Marxist tropes) but also in his ambitions for the foundation of a "University of Design," an idea, as Ambasz later noted, he first heard Maldonado speak of in 1967.[45] Moreover, many of the Universitas participants—Althusser, Barthes, Touraine, Rapoport, Lefebvre, Eco, Dorfles, Enzensberger, and so on—were referenced by Maldonado.[46]

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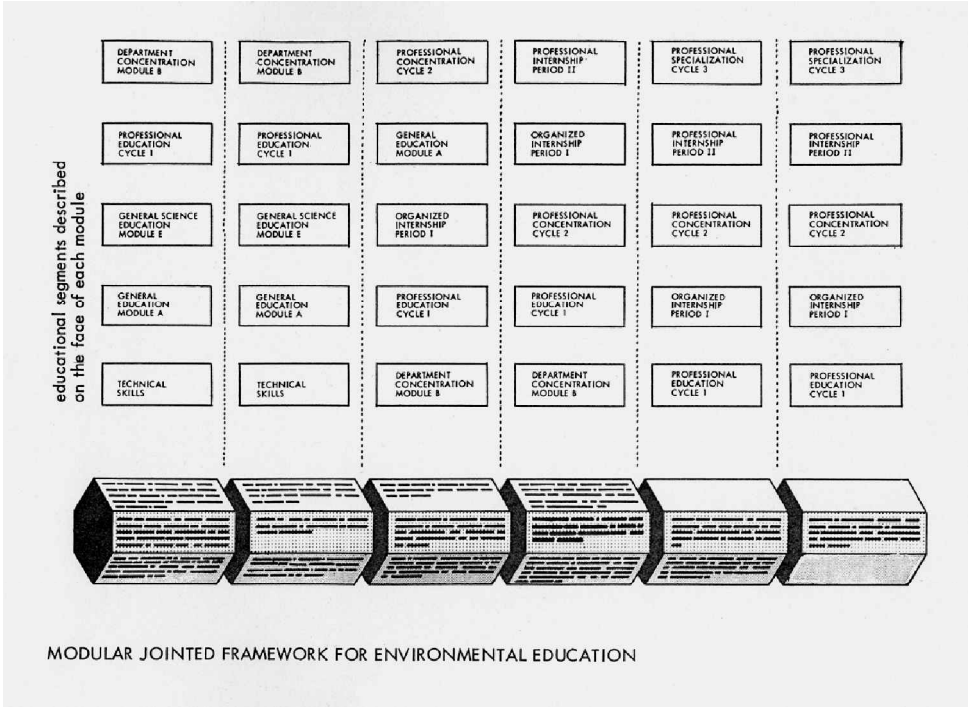
What, then, would characterize Ambasz's University of Design, his institution for a "post-technological" society? Three texts included in *Working Papers* offer the most extended, if characteristically oblique, explication of his agenda: "The University of Design and Development," "The Designs of Freedom," and "Manhattan: Capital of the Twentieth Century."[47] In "The University of Design and Development" Ambasz set out his position on technological determinism, rejecting both the optimistic embrace of technology—the "happy ending" view—and its pessimistic, fatalistic, counterpart. To him, both simply followed a logic in which "the future will provide only a continuation of the present." Technology *had,* he clarified, fully colonized the subject's milieu and was as such an inescapable force impacting design. "It is a fact," Ambasz remarked with respect to the "complex adaptive systems" of new technology, "that all our economic, social, political, and cultural phenomena are situated in this technological content, and that all our choices are, therefore, based on ideas, judgments, values, beliefs, and myths which are, to a great extent, functions of this technological society."[48] Within this condition, however, an opportunity opened for the designer, one that mobilized his or her specific form of expertise. For if the positions of both the techno-optimist and the techno-pessimist entailed a form of futurology (manifest in their fatalistic "refus[al] to evaluate strategies for action"), Ambasz insisted that the technological apparatus *could* be captured and diverted, thus enabling the scope for design as a form of "positive" action.[49]

To clarify this point—and particularly the term post-technological—one has to



MODULAR JOINTED FRAMEWORK FOR ENVIRONMENTAL EDUCATION

make a detour to a detailed letter written to Herbert Simon at the Graduate School of Industrial Administration of Carnegie Mellon University on August 9, 1968.[50] With reference to Jacques Ellul, Ambasz argued that a technological society was one that "sees the creation of its environment, not as an eminently cultural act, but as nothing more than another sphere in which to apply continually improved [technical] means to carelessly examined ends."[51] For Ambasz the term post-technological implied a notion of the future that was not predicated on a model of technological determinism (a notion attributed to Thorstein Veblen) nor on positioning technology as a second nature. He argued, in a seemingly paradoxical manner, that indeterminacy could be traced in the inherent logic of techniques. "Although we have not been able to control them," he explained, "techniques are determining forces." Yet, as he went on to argue, he did not believe "that techniques are *deterministic*" in that "we cannot escape them." Techniques, he proposed, again following Ellul, "are just blind forces."[52] Thus in opposition to the embrace of the "self-generating tendencies" of techniques (which Ambasz characterized, in distinction to forging differentiation, as a form of inertia) he recast the role of design as a critical redirection of these forces.

Ambasz noted that art and science might at first glance have seemed the most likely candidates to give new direction to techniques. But, he continued, art remained too subjective and science too abstract. "Only design, whether physical or political," he reasoned, "is all things at once." Positioning techniques as the very "medium" for design (design, for Ambasz, being the process of turning the quantitative aspects of techniques into qualitative ones), he went on to "announce the advent of the post-technological society." It was to be a "design society" in which "techniques will serve human values" through physical and political institutions and in which "the citizen should be educated to achieve the form of environment, ecological as well as cultural, in which he wants to live."[53] That citizen would, of course, be the inhabitant of the Universitas or, as Ambasz remarked to Simon, its "Universistadt."

It is important to clarify that Ambasz's engagement with scientific and technological discourses cannot be easily reduced to what Kenneth Frampton has called—in response to the "positivist, functionalist dogma" of late modernism—a "totalitarianism of technique."[54] Rather, and perhaps all too optimistically, he aimed at the critical redirection of any rationalizing, quantifying, or deterministic operations. To reiterate: although he recognized that the architect had to operate within contemporary consumer society and its technological milieu, for Ambasz it was

Modular Jointed Framework for Environmental Education. Diagram from "A Study of Education for Environmental Design."

imperative that in so doing the designer did not assume an attitude of quietude in the face of the "blind forces" of techniques.

But to return to "The University of Design and Development": Ambasz questioned how one might identify positive goals (values) for design without falling into another form of technological or socioeconomic determinism. He argued that such a formulation of goals could be achieved by setting out a preliminary ethical framework, one subject to contestation and constant renegotiation and adjustment through an internal feedback mechanism predicated on doubt. It was within a system, understood as a cybernetic system, that the designer, who was trained to deal with "what ought to be," could play a central role.[55] Unlike the scientist who, Ambasz claimed, "seeks a grasp of the actual," the ethic of the designer was to project an alternative (and better) future. "The future of the man-made milieu," Ambasz insisted, "does not merely unfold from the present; one cannot predict it from a set of initial conditions as one predicts the future state of a mechanical system." Alternate futures, he explained, distancing himself from futurology, are not contained in the present but must be "created."[56]

The Universitas would be conceived according to this same logic. "The conceptual scheme of such an institution," Ambasz explained, "would benefit from a dissolution of nineteenth-century notions of deterministic systems," which held that "human organizations . . . could be planned, rigid and finite." It would entail, rather, a "dynamic concept of complex system; indeterministic, designed to operate in a constant state of reform and adaptation to other systems."[57] The designer's role within such an institution would not be to formulate a representation or final concept of its form but, working as an "existential operator," to engage "the fully active, open, and transactional nature of man" in order to set out the parameters of that "self-modifying ethical system."[58]

To achieve a state of indeterminacy within the Universitas required a radically interdisciplinary organizational structure. As set out by Ambasz, the institution would no longer conform to "the highly rigid and compartmentalized structure of our universities" or be predicated on "arbitrary disciplinary boundaries." It would be closer, in fact, to the "medieval concept of the university: the Universitas: the whole; i.e., the institution of higher education structured with a view toward an ultimate concern."[59] Here the ultimate concern would be to produce, in Ambasz's words, "an institution explicitly concerned with the ethical framework of our society, and conceived toward developing the system of thought capable of designing our man-made milieu." The medieval concept would thus need to be reformulated

"according to the needs of a post-technological society."[60] To do so Ambasz proposed not an organic synthesis but that it take on a heterogeneous character, that it "encompass the constellation of the different Western concepts of the university."[61]

In "The Designs of Freedom" Ambasz expanded on the role feedback played in developing the institution's ethical framework. That framework would rely on a constant "decoding of messages [through] a dynamic self-modifying network" and, in turn, a "process of *code-making* or icon invention."[62] Here he turned again to Peirce, explaining that:

> the artifact resultant from (a) design (process) is considered, in Charles S. Peirce's terminology, as an icon, whose symbolic content is conceived as an internal system of codes which must be decoded, i.e., brought up to a semantic level for further information and interpretation on the goals of the individual code-maker and those of his socio-cultural environment.[63]

To further explain such a process, Ambasz set out an empirical "working model" based on four primary functions: "monitoring," "postulative," "decision making," and "regulatory." The Universitas would assume two of those roles: monitoring and postulating. Decision making, he noted, "must remain with the individuals of the community; otherwise what we get is a dictatorial arrangement—the Universistate."[64]

The third key text from the Universitas Project's *Working Papers* was "Manhattan: Capital of the Twentieth Century," written in 1969 and less method oriented than the former two. I have dealt with this text in detail elsewhere but want to point to the model of anticipatory structures it sets out.[65] Ambasz situated Manhattan as a symptomatic urban artifact of the postindustrial age: "unencumbered by permanent memory, and more interested in becoming than in being." Manhattan, he wrote, could "be seen as the city of that second technological revolution brought about by the development of processes for producing and controlling information rather than just energy." Beyond being merely a product of information technology, Manhattan, Ambasz argued, manifested that technology's very organizational structure. It could thus be read, allegorically, as a series of interconnecting "networks." Concomitant to this was a logic of indeterminacy and an inherent, systematic capacity for transformation. The networks, he explained, had "been repeatedly charged, on and off, with different meanings."[66]

Following his idiosyncratic reading of Peirce's semiotics, Ambasz attributed Manhattan with the status of what he termed a "structure," a conceptual device that could mediate between human beings and their technological milieu at the level of

Peirce's "icon." Conceived in terms of a relation of similitude between signifier and signified, Peirce's icon was distinct from both the relation of contiguity that defined the index and the conventional rule of a symbol.[67] For Ambasz the icon could thus be understood as an emergent semiotic figure that operated at an open-ended and presymbolic stage of meaning, thereby offering a "new beginning."[68] (This is not entirely strange when one recalls that Peirce's "diagram" was the icon of relations for Gilles Deleuze and Félix Guattari or that his semiotics has been read by Samuel Weber as a precursor to a deconstructive notion of difference.[69]) For Ambasz the role of the designer within such a system (one parallel to the agent of the Universitas) was that of forging new "icons," transactional devices that would be set out in a provisional state for a process of evaluation and feedback.

What I want to emphasize here is how Ambasz's formulation once again entailed a critique of futurology. His proposed "City of Open Presents" was not identical to the already existing "emerging city"—of which Manhattan was an instance—because it would "not merely unfold from the present." Even if changing, the "emerging city," as with any reformist ideal, remained tied to extant institutions and systems of thought. Indeed, as Ambasz argued, its structure and processes were "isomorphic" with them. An open present, by contrast, would arise only when that emergence was coupled with "structural transformations" that he believed could be forged through new interdisciplinary institutions—the "Univercity," he noted, required the Universitas—and it would only arise when "design" did not determine the final form but, rather, merely set forth an open structure.[70] In this sense Ambasz's "structure" can also be read as having affinities with a Bergsonian, or even Deleuzian, "virtuality." For it is precisely from such a virtual structure or multiplicity that numerous, differentiated actualizations might be created without being predetermined. The City of Open Presents was to be a city unfolding in duration through a process of "creative evolution."[71]

Ambasz was not of course alone in questioning either futurology or the ability (or even desirability) of the architect to make "plans" within postindustrial society. Such tropes were central to many postwar critical reassessments of modernist and utopian ideals.[72] More specifically, aspects of his conceptualization of futures had precedent in a 1966 conference at MIT, "Inventing the Future Environment." Organized by Stanford Anderson, this conference was sponsored in part by "The American Institute of Architects–Princeton Educational Research Project" (source of the Princeton Report). Published in 1968 as *Planning for Diversity and Choice: Possible Futures and Their Relations to the Man-Controlled Environment,* the event

involved (like the Universitas Project) participants from a diversity of disciplinary backgrounds, and it questioned both the existing professional role and expertise of architects and the nature of the discipline's pedagogical institutions in the face of historical transformations.[73] Yet Ambasz would add to the distinctly Anglo-American framework of this event European discourses that would later come to characterize American "theory."

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Ambasz's concept of design was perhaps less efficacious as a theory for establishing a new form of expertise for the design profession than it was as a theorization of a mode of operating within late capitalism. His postulation that an "open" model of design and design pedagogy could only operate successfully within an inter- or post-disciplinary institutional framework was, moreover, premised on harnessing a complex intersection, and even heterogeneity, of intellectual discourses affiliated with this larger sociopolitical and economic system. Seemingly paradoxically, it was also on account of this need to enter an interdisciplinary realm that design had to formulate its own specificity. How, Ambasz had queried in 1968, "can we establish an operative and effective dialog with the related social and behavioral sciences" when "as a profession, physical design lacks a systematic approach" and had "failed, so far, to organize its accumulated body of experiences into a structured and transmittable body of theory." Design pedagogy had also suffered and failed to effect "the transmission and generation of an accumulated body of theory and practice structured by the profession into a discipline."[74]

The issue at stake was thus how to recast the discipline of architecture not through the shifting of its disciplinary boundaries but by "tracing a different kind of borderline."[75] Ambasz's response in 1972, as we have seen, was to forge a systematic alliance, a "synthetic mode of thought" that would coordinate architecture, technology, and theory. In so doing, Ambasz engaged multiple distinct fields of postwar intellectual work, two of which had, in very different ways, responded to the need to theorize the increase of uncertainty and complexity characteristic of the postwar condition and its information technology; that is, cybernetics and systems theory on the one hand and poststructuralism on the other (the latter cast in polemical relation not to the former but to Marxism). Both had addressed new structures of information and recognized in them not determinate systems but quite the reverse.

Such a synthesis of discourses was not, of course, so easy to produce, and led in

fact to a more productive model of interaction among the symposium participants—that of contestation. From the beginning, Ambasz's interdisciplinary dialogue caused confusion as participants were faced with the irreconcilable nature of competing discourses. Foucault registered a sense of mistaken identity regarding the very nature of Ambasz's request in a letter of August 1971. After noting his interest in the Universitas project, Foucault continued:

> I must confess that I don't really understand which kind of paper I am supposed to write as a contribution to this project.—Do you expect very large and philosophical considerations about design and science, nature and man-made milieu, values and technology, etc? In this case, I am ashamed to say that I am not in [the] mood to write anything about those abstract and difficult problems.[76]

Foucault proposed, instead, sending research about "'social repressors' in our 'man-made milieu,' (police, justice, etc.)."[77]

The conflicts of interdisciplinarity also loomed large during the conference. At one point, as Edward Logue was busy interpolating the project into the task of training designers and planners for his Urban Design Corporation, Christopher Alexander registered his confusion, appealing to Ambasz for clarification.[78] Ambasz replied in the negative regarding any immediate practical vocation, noting that "Even in a very great contribution to surrealism," his Universitas Project could not be understood as providing professionals for the UDC. He later clarified that people had been brought together to discuss each others' contributions and that "whether they're contradictory or not is not the point."[79] Many of the brief "postscripts" Ambasz invited participants to submit as a follow-up to the event addressed the disorienting effects of this peculiar setup.

That such contradictions were structural to the Universitas Project was pointed out by Lefebvre, who noted that it proposed "to unify two schools of thought which are generally distinct and often opposed: Anglo-American empiricism and philosophical rationalism, which we could call 'European.'"[80] The former, he explained, was premised on efficiency and pragmatism; the latter on abstractions, "general theories," and concepts without any immediate "operational capacity." Although it is beyond the scope of this paper to trace the participants' differing responses, I want to briefly mention one problem raised by both Lefebvre and Sheldon Wolin, one that in some senses overcame Lefebvre's neat epistemological divide: that of control.[81] This is not intended to mark the historical limitations of the Universitas Project—although with thirty-years' hindsight such disclosures are inevitable—but to trace

symptoms of the different theoretical responses to the emergence of new forms of power. Fault lines quickly appear.

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Lefebvre acknowledged the desirability of the Universitas Project's attempt "to bridge the gulf and to achieve a cross-fertilization" of divergent schools of thought. But for him there were methodological reasons why these discourses had "crystallized in mutual distrust." First was the historical context of European philosophy. Not only, he argued, was Cartesianism opposed to logical empiricism and positivism, but it was foundational to Hegelian dialectics and, in turn, to what for him remained the preeminent theoretical framework in Europe, Marxism. Attempts at "grafting" Marxist discourse had been unsuccessful, Lefebvre recalled. "Everything happens as though empiricism was forcefully resisting the domination of the theory which is upsetting Europe."[82] (Here Lefebvre revealed symptomatic anxieties, for there was, of course, another theoretical discourse then more virulently upsetting Europe and even finding its way to the United States: poststructuralism.[83]) Beyond that were what Lefebvre situated as "semantic obstacles" to any such cross-Atlantic conversation. His primary examples were Ambasz's peculiar use of tropes such as "superstructure" and "ideology," on the one hand (he noted, for instance, that in the Manhattan parable *superstructure* "denotes now that part of the city which emerges from the surface of the earth"), and the use of Peirce's concept of "iconic structure" on the other. If he was acquainted with the work of the American semiotician, here the formulation remained unfamiliar. "Can it be said," Lefebvre queried rhetorically, "that the *iconic* is defined by the non-predictable (momentarily or permanently)?"[84]

It was not, however, just the creative use of theoretical concepts that concerned the French philosopher but what he regarded as their ideological implications. For Lefebvre the problem was particularly manifest in the "accent put on *design*," on its "demiurgic connotation." He clarified that he "agreed enthusiastically" with the project of reshaping the milieu, and of increasing its aesthetic merit. Yet to him there remained an uncritical relation to the accumulation of "capital, information and technique, machines and equipment" found in the United States. "Would this not be entering the post-technological era," he posited, "by concentrating on a single individual or group of individuals all the virtualities of technology, or acquired wealth thus creating Super-Technocrats?"[85] For Lefebvre, in addition, the fractured subject of such a technological milieu was no substitute for the proletariat as an agent

of historical transformation.

Rejecting as insufficient the logic of "feedback," as well as the indeterminacy posited by Ambasz's "antecedent 'artefacts,'" Lefebvre insisted on adding to the Universitas's lineup of "informative, postulative, decisional, and regulative" functions a critical one: "I know that one could reply that European and French criticism tend towards hypercriticism, toward a systematically negative attitude," he wrote. "Could be, but the danger in substituting a certain 'positiveness' [for] radical criticism is an even more preoccupying threat." For, in a dialectical manner, "feedbacks would absorb all the disturbances, divergences and variations" overcoming any oppositional tactic. Within such an expanded network of control no dialectical figure of an outside remained. Noting that "conceptual thought which assumes critical negativity, derives from globality or from the concept of a totality,"[86] Lefebvre questioned how in such a condition *any* radical or utopian prospect was possible at all. "Is it possible to plan the construction of a post-technological University on an ambiguous foundation? What values and what ethical system could we in such a way transport into the future?"[87] For Ambasz, as I have argued, this condition was given but need not lead inevitably to melancholy. At stake was finding other ways of operating within the dispersed and ambiguous structures and hence tracing alternative critical or utopian prospects within this multiplicitous milieu.

Wolin would have an altogether different, if equally critical, response. In his paper "Whose Utopia?" Wolin recognized a social project premised not on protesting injustice or inequality but on facilitating "the power and influence" of those most directly connected to "emergent possibilities of society" and hence producing a new class of technocrats. Wolin also saw a project in which the ameliorative character attributed to science and technology had been formulated without adequate reference to underlying structures of power.[88] Wolin regarded this elision as the product of the adoption of systems theory. Drawn from cybernetics and communications theory, systems theory, he argued, was a "thoroughly technological way of thinking. . . . By a kind of transformative grammar [it] divest[ed] words [such as *alienation* or *existentialism*] of their radical connotations."[89] Operating without a concept of history (but only one of states, such as equilibrium or homeostasis), systems theory thus could not address the "age-old problems of social and political dominations."[90] The past came to be understood simply as a state of technological development to be overcome. Memory was reduced to a problem of "storage and retrieval" rather than of significance.

According to Wolin, the Universitas Project harbored a "conception of the future

blended from the ameliorative elements of liberalism and the power-potential of science and technology."[91] And it was such a neoliberal position that for him had enabled the *Working Papers* to "discuss the 'design' of cities and universities without realizing that 'design' is a professional euphemism for control over people and things, a euphemism, that is, for power."[92] If Lefebvre's response was to call for dialectics, Wolin would take another tack: he strategically mobilized the central analytical and operative terms of the Universitas Project: *structures, processes, technologies of communication,* etc., to other ends. Yet he did so by further explicating new forms of power: those, he explained, "uniquely dependent on the economies of large-scale [*sic*], on the efficient organization of hierarchical structures of domination and control, and on the widespread dissemination of bureaucratic attitudes and values."[93] Implicitly rejecting Ambasz's model of structural transformation, Wolin saw "contemporary utopian thinking" as tied to extant, and immobile, structures of power, and hence "merely a variation on the theme of dynamic growth, another way of projecting the forces immanent in recent history, another form of the futurism which has obsessed Western society since the seventeenth century."[94] Caught within a condition that had "render[ed] blueprints futile," Wolin proposed "not a blueprint but a strategy . . . the strategy of de-structuring."[95] Premised on extricating the subject from those structures of domination and control, and on "dismantling bureaucratic complexes," Wolin's radical alternative was a "politics of reversal" that would take place at the local level. Adopting a critique of totalizing logics and grand narratives, he set forth "an alternative form of utopianism," one that required a "vow of hostility toward the major forms of concentrated power—political, economic, educational, and cultural—and a commitment to seeking new forms of decentralized, localized autonomy. What is at stake," he concluded, "is a post-bureaucratic future."[96]

Defeated by such critiques, Ambasz did not push ahead with the Universitas Project. As forcefully addressed by Lefebvre and Wolin, this ambitious project had very real limitations with respect to relations among design, new technology, and the emergence of a society of control. If such critiques were perceptive and even justified, the Universitas Project nevertheless harbored implicit and prescient responses to certain of their claims (for instance on the count of futurism) and warrants a historical revisiting. The heterogeneous manner in which it occupied a crux of positivist science and theoretical discourses in architecture is fascinating not only from a historical perspective but for the manner in which it points to the need for the discipline to continuously dispute and refine its theoretical tools rather than fall

into older polemics (witness, for instance, the return of a polarized autonomy versus integration debate within the current "postcritical" turn). Moreover, if the formulation of institutions for a posttechnological society fearlessly—all too fearlessly perhaps—engaged the discipline in a transformation from one socioeconomic and technological paradigm to another, it did so self-consciously and precisely at the moment in which the regime of control became clear. In this sense it served as a theoretical testing ground for speculations about the always difficult conjunction of the discipline and its economic and sociopolitical context, an ongoing professional bind that, as Ambasz recognized, requires an ethicopolitical framework to mediate. And here we find additional lessons regarding the potential of architecture's disciplinary and discursive character. Rather than leading toward complacency ("its outside of our domain, let it remain so"), or the assumption of inevitability ("that's just the way it is, let's celebrate") in the face of historical forces—whether they be technological, economic, aesthetic, or social—the Universitas Project took another route. Its focus on institutions suggests a vocation for a theorization of what Samuel Weber has termed the "enabling limits" of a discipline (in this case architecture), a potentially difficult theorization that could also assume a politically engaged form of, and role for, practice.

If the technological infrastructure of newly emerging forms of power was all too optimistically embraced as a site of subjective participation, the Universitas Project offers a historical example of engagement with new technology understood neither as a simple panacea to urban and social problems nor as that which replaces political contestation on the basis of technocratic "reasonableness."[97] It also offers an opportunity—albeit not a straightforward one—to mark out distinctions between neoliberal positions (such as that of Bell, an "ideologue of technocracy and an apologist for the system itself," in the words of Fredric Jameson)[98] and critical engagements with technological development. It is equally important to point out that even in its "positive" embrace of new technology the Universitas Project cannot be assimilated to a contemporary postcritical position, for at the time Ambasz insisted on maintaining a *political* vocation for architecture, one that (if remaining blind to certain forms of power) actively, critically, and precisely engaged contemporary institutions and historical forces in order to transform them.[99] In this sense we might recall that there are many forms of criticism beyond that to which Lefebvre had referred. It is through the specificity with which the Universitas Project attempted to recast architecture's relation to the economic, technological, social, and administrative codes of the time that (if through a strong reading) the project

remains singularly important in the history of the discipline for having approached a strategy of deterritorializing (if not quite destructuring) institutions and structures of power.

Moreover, if more evident with respect to *Italy: The New Domestic Landscape,* Ambasz's relation to late capitalism is better read through a paradigm taking the form of "inside and against," a paradigm of "post-political politics" formulated by the Italian New Left in the 1960s and virtually unrecognizable with respect to contemporary political discourse.[100] An important premise of this paradigm (as with the *Architettura Radicale* it informed) was that the agent of historical transformation was no longer the class subject of orthodox Marxism but a multiple and differentiated field of new social subjects that were emerging in this postindustrial milieu. Ambasz's *Working Papers* perhaps remain too overtly framed through Anglo-American scientific discourse (particularly systems theory) to clearly discern the political subject of such a multiplicity, and certainly such a political dimension remained illegible to many on the Left (notably Manfredo Tafuri). But the work remains open to further readings.

Although I have focused here on Ambasz in his role as impresario, the Universitas Project also existed as a larger and more heterogeneous amalgam of institutional, technical, discursive, and political forces. Moreover, if Ambasz initiated the project, as with any projectile he had not necessarily predetermined its destination. Within the heterogeneous terms can be traced interventions into, even lines of flight from, the regime of control at the center of his investigations. It is possible, for instance, to take seriously the immanent and multiplicitous (indeed, distinctly anti-idealist and nondialectical) strategies Ambasz pursued at this moment in response to the emergence of postindustrial society—strategies that, in pursuing structural transformations, were neither quietist nor entirely ignorant of questions of history and power. And participating in the shift from "formal certainties" and "universal constants" to uncertainty and the notion of a dynamic reformulation of doubt—as Ambasz noted in his opening remarks—were, as I have noted, postwar discourses premised not on appeals to truth but on the interpretation and theorization of that very indeterminacy. These were, however, part of a different intellectual trajectory to that of Lefebvre (or even Wolin), one including not only Peirce and Bergson, but beyond them a body of thought that informed, or was in dialogue with, poststructuralism. (Nine years after the Universitas symposium Jean-Fran ois Lyotard would strategically engage science and technology within his own explication of the impact of technological transformations—what he referred to as "the computerization

of society"—on language in what remains a landmark study: *The Postmodern Condition: A Report on Knowledge.*[101])

I want to return in conclusion to Weber's concept of "enabling limits," a concept set in dialogue with Gaston Bachelard's understanding of the impact upon traditional modes of thinking of "The New Scientific Spirit."[102] The uncertainty always and already operating within scientific inquiry had a counterpart, as Weber argues, in the humanities, producing tendencies that had "begun to modify the manner in which the humanities . . . are thought, taught, and practiced."[103] The demise of a "binary, oppositional logic" and the assumption of a "field that is self-contained" had led to a form of "identity crisis" as disciplines scrutinized their operative boundaries. Gone was the assuredness through which both academic and professional disciplines had formerly "demarcated their domains and consolidated their authority."[104] "The concern with foundations that characterizes traditional thought," Weber posits, "is thereby supplanted by a more practical, strategic approach involving an effort to extend or otherwise put into play what could be described as *enabling limits.*"[105]

For Weber there were additional lessons to be found in Bachelard's reading of scientific knowledge that also seem pertinent here. Articulating the connection between uncertainty and an "irreducible ambiguity," on the one hand, and the polemical nature of scientific debates, on the other, he read the always agonistic and conflictual status of disciplines as "an effect of what we call 'institutions' and of institutionalization."[106] That very indeterminacy, it seemed, was paradoxically driving a constant battle to "enforc[e] lines of demarcation," to "impose determinations." And this meant, in turn, that a discipline was always necessarily in formation, in process. Distinguishing the aspect of the "institution" that maintains the status quo (sometimes through a violent arrestation[107]) from "institutionalization" as "its dynamic transformative aspect," Weber articulates a relation to an ever-present if disturbing alterity that allows a discipline to "set itself apart." At stake in any polemical battle, then, was not the reconciliation or opposition of distinct positions but the recognition that one reading could radically destabilize the other—that, even as a battleground, such a dynamic functioned as a productive mode of spacing through which a discipline set itself apart.[108]

The Universitas Project forms part of the prehistory of the discipline of architecture's theoretical turn, and it does so as the site of an ethicopolitical investigation into such enabling limits. Premised on the ongoing production and transformation of a discipline and of its concepts—its theory, even philosophy—the project demon-

strates that intellectual work as well as architectural practice might continue to have a critical, even utopian vocation. Through the discipline's embrace of critical theory, moreover, one can trace archeologies of postwar architecture's engagement with political questions that are important to advance. Historical evaluation of this recent past provides a vehicle through which to research those sites of contestation and the critical strategies that emerged from them and from their reception and even to undertake certain forms of reconstruction in order to continue the articulation of a political project within the discipline of architecture.

Notes

This article was written for the conference on "Expertise" held at the Harvard Design School, 11–12 October 2002. I would like to thank the organizers, especially Mark Wasiuta and Timothy Hyde, for the opportunity to present in that context. I would also like to thank Emilio Ambasz for according me an interview in February 2001 about his work at the Museum of Modern Art, New York. For their help in facilitating my research at MoMA, I would like to thank Ambasz, again, as well as Michelle Elligott, Terence Riley, Rachel Judlowe, and Christian Larson.

1. The symposium examined "the idea of an experimental university in which a broad domain of inquiries would be integrated toward developing modes of thought and action which are better suited to dealing with" problems of "evaluating and designing the man-made milieu." Museum of Modern Art, Press Release no. 116B, 19 October 1971; phrases inverted.

2. Sound Recordings of Museum-Related Events (hereinafter "Sound Recordings"), no. 72.2, The Museum of Modern Art Archives, New York.

3. Sound Recordings, no. 72.2.

4. Sound Recordings, no. 72.2.

5. See Alain Touraine, *The Post-Industrial Society: Tomorrow's Social History: Classes, Conflicts and Culture in the Programmed Society,* trans. Leonard F.X. Mayhew (New York: Random House, 1971), which originally appeared in French two year earlier; and Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973).

6. Sound Recordings, no. 72.2. Ambasz also outlines the particular relevance of MoMA to this task in Emilio Ambasz, "Relation of this Research Project to the Museum of Modern Art," in "Working Papers" (New York: Museum of Modern Art, 1971, unpublished, bound report), n.p. (appendix).

7. See Emilio Ambasz, ed., *Italy: The New Domestic Landscape: Achievements and Problems of Italian Design* (New York: The Museum of Modern Art, 1972); and Emilio Ambasz, *The Taxi Project: Realistic Solutions for Today* (New York: Museum of Modern Art, 1976).

8. See K. Michael Hays, "Introduction," in *Architecture | Theory | since 1968,* ed. K. Michael Hays (New York: Columbia Books on Architecture, 1998), x–xiv.

9. "Working Papers" included texts by Ambasz, which will be addressed below, along with appendices outlining the relation of the project to MoMA and the IAUS, as well as information pertaining to "Working Procedures," contributors, research advisers, and the project group.

10. Out of these only Keller and Schorske spoke at or, it seems, even attended the final event.

11. Press Release, 19 October 1971. Maldonado in fact canceled prior to the event; Foucault, while appearing on the final schedule, did not attend.

12. Correspondence of September 1971 indicates that Barthes could not attend on account of having committed to a series of lectures at the University of Geneva. Jakobson accepted the invitation on 27 July 1971 but later canceled. Hans M. Enzensberger submitted a paper but refused to come to New York as a protest of U.S. involvement in Viet Nam. The protest was noted in Martin Pawley, "Universitas," *Architectural Design* 43, no. 4 (April 1972): 214–215.

13. As described by Ambasz in his introduction, Sound Recordings, no. 72.2. The sessions were

divided as follows. The first was chaired by Stuart Hamshire and was scheduled to include Ronald Dworkin, Michel Foucault, Hasan Ozbekhan, Octavio Paz, Anatol Rapoport, and Jivan Tabibian. The second was chaired by Thomas A. Sebok and included Jean Baudrillard, Manuel Castells, Gillo Dorfles, Umberto Eco, Gyorgy Kepes, and Meyer Schapiro. The third was chaired by Arthur Drexler and included Christopher Alexander, Hannah Arendt, Eric Jantsch, Arnold Kramish, Edward Logue, and Rexford Guy Tugwell. The fourth was chaired by Carl Schorske and included Suzanne Keller, Henri Lefebvre, Richard I. Meier, Martin Pawley, Alaine Touraine, and Sheldon Wolin. The distinction between planning and forecasting can be traced to Eric Jantsch, *Technological Forecasting in Perspective* (Paris: O.E.C.D, 1967).

14. See Emilio Ambasz, "University of Design and Development," *Perspecta* 13/14 (1971): 360.

15. Museum of Modern Art, Press Release, no. 99, 22 November 1968.

16. Ambasz arrived at Princeton from Buenos Aires, Argentina, in 1963. The same year Ambasz arrived, the School of Architecture moved into a dedicated building (it had previously been affiliated with the Department of Art and Archaeology). In 1965, upon the retirement of Director Robert Mclaughlin, Robert Geddes was appointed as the first dean, a position he held until his retirement in 1982. It was under Geddes that Peter Eisenman, Anthony Vidler, Alan Colquhoun, Robert Gutman, and Kenneth Frampton, among others, came to the school. See Robert Geddes, "Commentary: Robert Geddes," in *Princeton's Beaux Arts and Its New Academicism: From Labatut to the Program of Geddes* (New York: The Institute for Architecture and Urban Studies, 1977), 29–36.

17. This dates Ambasz's work on "Institutions for a Post-Technological Society" to 1968.

18. Emilio Ambasz, "The Formulation of a Design Discourse," *Perspecta* 12 (1969): 57–70, 58. The biographical statement accompanying this publication notes that it was the first of four lectures presented in Ulm.

19. Ambasz, "The Formulation of a Design Discourse," 61.

20. Ambasz, "The Formulation of a Design Discourse," 61, 65.

21. Press Release, 22 November 1968.

22. Emilio Ambasz, interview by author, 24 February 2001.

23. See, for instance, Diana Agrest, "Design versus Non-Design," *Oppositions* 6 (Fall 1974): 45–68.

24. See, for instance, Ann Ferebee, "Technology, Yes. Industrial Design, Maybe," *Industrial Design* no. 6 (June 1963): 72–74.

25. See Joan Ockman, "Resurrecting the Avant-Garde: The History and Program of Oppositions," in *Architectureproduction,* ed. Beatriz Colomina (New York: Princeton Architectural Press, 1988), 188–199.

26. Emilio Ambasz, note in spiral-bound notebook marked "Green Manifesto," Records of the Department of Architecture and Design, The Museum of Modern Art, New York.

27. I argued this in the panel "Disrupting Modernism: Arthur Drexler and Exhibition Policy at MoMA," part of the series "The Seventies: the Formation of Contemporary Architectural Discourse," Cornell University, 3 April 2001. Drexler was also concerned with the state of architectural pedagogy, a barely recognized problematic of his controversial exhibition, *The Architecture of the Ecole des Beaux-Arts,* MoMA, New York, 29 October 1975–74 January 1976. In retrospect this concern with pedagogy

can be read as a response to the Universitas Project.

28. Ambasz, Notebook, "Green Manifesto." In the margins he noted, "Go prospective young man."

29. Ambasz, Notebook, "Green Manifesto." Presumably, given Ambasz's relation to the IAUS at the time, "p.e." stands for Peter Eisenman.

30. On Drexler's refusal of an instrumental role for the curator, see Arthur Drexler, "Response: Arthur Drexler on Transformations," *Skyline* (Summer 1979): 6.

31. Both projects were announced in Emilio Ambasz, "The Museum of Modern Art and the Man-Made Environment: An Interim Report," *Members' Newsletter,* Spring 1970, n.p.; issued as Museum of Modern Art, Press Release no. 116A, 19 October 1971. The "Streets" project was directed by Stanford Anderson, a member of the IAUS. It did not take place at MoMA but was later published as Stanford Anderson, ed., *On Streets* (Cambridge: MIT Press, 1978).

32. See Ambasz, "The Museum of Modern Art," n.p.

33. Cited in Franz Schulze, *Philip Johnson: Life and Work* (New York: Alfred A. Knopf, 1994), 330.

34. Ambasz, "The Museum of Modern Art," n.p. On the foundation of the IAUS, see Peter Lemos, "The Triumph of the Quill," *The Village Voice,* 3 May 1983, 98–99; and "The Institute for Architecture and Urban Studies," *Casabella* no. 359–360 (1971): 100–102.

35. The clients included the following New York State agencies: Metropolitan Transit Authority, Office of Planning Coordination, Pure Waters Authority, Urban Development Corporation, and University Construction Fund. See *The Institute for Architecture and Urban Studies* (New York: The Institute for Architecture and Urban Studies, 1979), n.p.

36. That this experimental city was central to the Universitas Project was noted by Ambasz during the conference. It was also noted in Henri Lefebvre, "Institutions in a 'Post-technological' Society," in *Writings on Cities: Henri Lefebvre,* ed. Eleonore Kofman and Elizabeth Lebas (Cambridge, U.K.: Blackwell, 1996), 198–202.

37. Ambasz, "The Museum of Modern Art," n.p.

38. Robert L. Geddes and Bernard P. Spring, "A Study of Education for Environmental Design" (Princeton University, Princeton, December 1967, unpublished report).

39. Robert Gutman credited Geddes with the introduction of the social sciences into the architectural curriculum, including environmental psychology and applied sociology. He also noted that Geddes's model involved a connection of the social sciences to the humanities. "Princeton, under Dean Geddes," he wrote, "has been one of the leaders in this innovation. This is the explanation for my presence on the faculty, as it also accounts in part for the presence of Anthony Vidler, Carl Schorske, Suzanne Keller, and in an earlier period of the school's recent history, of Kenneth Frampton." Gutman went on to clarify that "because of Geddes' cast of mind but also because of the orientations represented by the people just named, the social science emphasis is manifested in a primary concern for the role of the cultural and historical sciences in architectural education" (i.e., theory). Robert Gutman, "Commentary: Robert Gutman," in *Princeton's Beaux Arts,* 27–28. Geddes described the "modular, jointed framework" of the report, along with his model of "merging" the social sciences and humanities, during the session "Constructing New Pedagogies," part of the series "The Seventies: The Formation of Contemporary Architectural Discourse," Harvard University, 27 February 2001. Videotape consulted

at Frances Loeb Library, Harvard University.

40. Emilio Ambasz, letter to Herbert Simon, "draft copy," 9 August 1968, Department of Architecture and Design, Museum of Modern Art. Although the prose is cited from this letter, Ambasz outlined this critique in the notebook pertaining to the Universitas Project in the context of thoughts on the "Princeton Report."

41. The following year, 1966, Maldonado became a fellow in Princeton University's Council of Humanities, then from 1967–1970 he held the Class of 1913 Lectureship in Architecture, also at Princeton.

42. See Tomás Maldonado, *Design, Nature, and Revolution: Toward a Critical Ecology,* trans. Mario Domandi (New York: Harper and Row, 1972). Originally published as *La speranza progettuale* (Turin: Giulio Einaudi, 1970).

43. Colquhoun argued that the supposedly analytical and scientific methodology of Maldonado harbored an "untenable" "aesthetic doctrine," and explicated the nature of its iconographic elements with reference to semiotic and structuralist discourse. Alan Colquhoun, "Typology and Design Method," *Arena, Journal of the Architectural Association* 83 (June 1967): 11–14. Later published in *Perspecta* 12 (1969): 71–74 (alongside Ambasz's "The Formulation of a Design Discourse").

44. On Ulm, see Kenneth Frampton, "Apropos Ulm: Curriculum and Critical Theory," *Oppositions* 3 (May 1974): 17–36.

45. Ambasz, "University of Design and Development," 361 n. 11.

46. This is not to suggest that they were singularly important to the formulation of the Universitas Project but to note their presence as part of a larger intellectual framework, or at least an interpretation of it, through Maldonado.

47. These texts were published in *Perspecta* 13/14 (1971): 359–365 (in the section "Utopia and Anti-Utopia") and in *Casabella* 359–360 (1971): 87–99 (in a dossier of IAUS work). I cite the *Perspecta* publication throughout. Also that year Ambasz spoke about his "University of Design" at a conference organized by Peter Eisenman and held at MoMA in conjunction with the exhibition of Cooper Union student work, "The Education of an Architect: A Point of View." The symposium "Architectural Education USA: Issues, Ideas and People, A Conference to Explore Current Alternatives" was sponsored by the Institute.

48. Ambasz, "University of Design and Development," 360.

49. Ambasz, "University of Design and Development," 360–361.

50. Ambasz to Simon, 9 August 1968.

51. Ambasz to Simon, 9 August 1968. See Jacques Ellul, *The Technological Society,* trans. John Wilkinson (New York: Knopf, 1964), in particular the introduction by Robert K. Merton, which Ambasz paraphrases.

52. Ambasz to Simon, 9 August 1968; emphasis added. The distinction suggests that while techniques always have an impact on things around them, the nature of that impact can be regarded as open to change and is hence not fully predetermined.

53. Ambasz to Simon, 9 August 1968. Many of the issues and terms I am citing from this letter are discussed in Ambasz, "The University of Design and Development," but the letter version offers, in

many instances, a more extended explication.

54. Kenneth Frampton, cited in K. Michael Hays, "The Oppositions of Autonomy and History," in *Oppositions Reader,* ed. K. Michael Hays (New York: Princeton Architectural Press, 1998), xii.

55. This appears to be a reference to Hasan Ozbekhan (a Universitas symposium participant), "The Triumph of Technology: 'Can' Implies 'Ought,'" in *Planning for Diversity and Choice: Possible Futures and Their Relations to the Man-Controlled Environment,* ed. Stanford Anderson (Cambridge: MIT Press, 1968), 204–234. Ozbekhan notes that his title, assigned by Anderson, "means that in a technology-dominated age such as ours and as a result of forces and attitudes that have brought about this dominance, 'can,' a conditional and neutral expression of feasibility, begins to be read as 'ought,' which is an ethical statement connoting an imperative" (210).

56. Emilio Ambasz, "Design as a Mode of Thought," in "Working Papers," n.p.

57. Ambasz, "University of Design and Development," 361.

58. "In order to introduce systematic and rigorous theoretical methods," Ambasz proposed, "this mode of thought will also have to introduce into its logic as a real factor the notion of an existential operator (man, as the intuitive synthesizer and maker of symbols.)" Ambasz, "The University of Design and Development," 360.

59. Ambasz to Simon, 9 August 1968.

60. Ambasz, "University of Design and Development," 361.

61. Ambasz listed the "humanistic university" of the "Greek Academies, institutionalized by the Italian and Parisian Universities of the Middle Ages, and reformulated by Cardinal Newman in the last century," as well as the specialized notion envisioned by Bacon and Descartes and institutionalized by von Humboldt. Ambasz, "University of Design and Development," 361. Another model, Ambasz noted in his letter to Simon, was "that university of methods which, as Maldonado observed, was already advanced by Charles Sanders Peirce in 1882." Ambasz to Simon, 9 August 1968.

62. Emilio Ambasz, "The Designs of Freedom," *Perspecta* 13/14 (1971): 363.

63. Ambasz, "The Designs of Freedom," 364 n. 1.

64. Ambasz, "The Designs of Freedom," 364.

65. See Felicity D. Scott, "Italian Design and the New Political Landscape," in *Analyzing Ambasz,* ed. Michael Sorkin (New York: Monacelli Press, forthcoming, 2004). The Manhattan text was sent as part of the design program to designers invited to produce "Environments" for *Italy: The New Domestic Landscape.*

66. Emilio Ambasz, "Manhattan: Capital of the Twentieth Century," *Perspecta* 13/14 (1971): 362.

67. This succinct characterization of Peirce's semiotics is borrowed from Félix Guattari and Gilles Deleuze, *A Thousand Plateaus: Capitalism and Schizophrenia,* trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 531 n. 41. They note that Peirce's distinctions "are based on signifier-signified relations," which "leads him to make the 'diagram' a special case of the icon (the icon of relation)." Deleuze and Guattari strategically borrow Peirce's terms, recasting them not as signifier-signified relations but, as they note, through territoriality-deterritorialization relations.

68. In "Design as a Mode of Thought," Ambasz notes that "the notion of an iconic structure is really a matter of methodological convenience, a way of regarding the production of man, which can be

conceptual or material or, more often, a combination of both, so that they may point the way to new beginnings." Ambasz, "Design as a Mode of Thought," n.p. See Charles Sanders Peirce, "Division of Signs," in *Collected Papers of Charles Sanders Peirce,* ed. Charles Hartshorne and Paul Weiss (Cambridge: Harvard University Press, 1931–35), 134–155; and Charles Sanders Peirce, "The Icon, Index, and Symbol," in *Collected Papers,* ed. Hartshorne and Weiss, 156–173.

69. Attributing to Peirce the status of "an early forerunner of deconstruction," Samuel Weber proposes that the American semiotician had found his way to "the threshold of what, for want of a better term, I will provisionally call a 'deconstructive pragmatics of institutions.'" Samuel Weber, "The Limits of Professionalism," in *Institution and Interpretation,* expanded ed. (Stanford: Stanford University Press, 2001): 20. Weber also explicates the transformational nature of Peirce's thought, noting that when his theorization of "habit" as the goal of thought (within his writings on "pragmaticism") converged with his semiotics, the static notion gave way to one of transformation: *habit-change* (14–15).

70. Ambasz, "Manhattan: Capital of the Twentieth Century," 362. For a melancholic reading of the failure of the "Univercity," see Emilio Ambasz, "The Univercity (draft), 1972–74," part of "A Selection of Working Fables," *Oppositions* 4 (October 1974): 73–74. It is also important to note that the trope of "openness" was not Ambasz's own but a key term from the period. See Emberto Eco, *The Open Work*, trans. Anna Cancogni (Cambridge: Harvard University Press, 1989 [1962]), and Karl Popper, *The Open Society and Its Enemies* (London: Routledge & Kegan Paul, 1962).

71. The influence of Bergson on Ambasz's thought most likely came from Maldonado. See also Henri Bergson, *Creative Evolution,* trans. Arthur Mitchell (New York: Random House, 1944); Gilles Deleuze, *Bergsonism,* trans. Hugh Tomlinson and Barbara Habberjam (New York: Zone Books, 1988); and Michael Hardt, *Gilles Deleuze: An Apprenticeship in Philosophy* (Minneapolis: University of Minnesota Press, 1993), 1–25.

72. See, for instance, Manfredo Tafuri, *Architecture and Utopia: Design and Capitalist Development,* trans. Barbara Luigia La Penta (Cambridge: MIT Press, 1976).

73. "[I]s there a critical utopianism," Anderson asked rhetorically, "that would involve the creative imagining of possible futures, their critical evaluation, and an open-ended and flexible implementation of those possibilities which are most resistant to criticism?" Stanford Anderson, "Introduction," in *Planning for Diversity and Choice: Possible Futures and Their Relations to the Man-Controlled Environment,* ed. Stanford Anderson (Cambridge: MIT Press, 1968), 7.

74. Ambasz, "The Formulation of a Design Discourse," 57. Ambasz had also made these remarks in the letter to Simon. Ambasz to Simon, 9 August 1968.

75. Samuel Weber, "The Vaulted Eye: Remarks on Knowledge and Professionalism," in *Institution and Interpretation,* 213.

76. Michel Foucault to Emilio Ambasz, 31 August 1971, Department of Architecture and Design, Museum of Modern Art.

77. Foucault had just taught "History of Systems of Thought" at the Collège de France, in which he had argued that "Discursive practices are not purely and simply ways of producing discourse. They are embodied in technical processes, in institutions, in patterns for general behavior, in forms for transmission and diffusion, and in pedagogical forms which, at once, impose and maintain them." Michel

Foucault, "History of Systems of Thought" (1972), trans. Donald B. Bouchard and Sherry Simon, in *Language, Counter-Memory, Practice,* ed. Donald B. Bouchard (Ithaca: Cornell University Press, 1977), 200.

78. Logue was then president and CEO of the New York State Urban Development Corporation. Alexander was the director of the University of California, Berkeley's Center for Environmental Structure.

79. Sound Recordings, no. 72.4. This problem was also noted in reviews. See, for instance, Lawrence Alloway, "Art," *The Nation* 214, no. 5 (31 January 1972): 155–157. That this conversation continued during the lunch break was recounted in Martin Pawley's witty review. "Emilio Ambasz is answering skeptical questions about UNIVERSITAS. Is the whole project merely a front for a conference? For a book? A play even? Bob Gutman suggests that the conference really is the university of design, that the doors are locked and we are the faculty. Ambasz smiles and makes further remarks about the American surrealist tradition." Pawley, 215.

80. Manuscript of translation entitled "Communication from Professor Henri Lefebvre," Paris, 27 November 1971, Department of Architecture and Design, Museum of Modern Art. Lefebvre also published his response to the Universitas Project. See Henri Lefebvre, "Les institutions de la société 'post-technologique,'" *Espaces et sociétés* 5 (April 1972): 3–20; and Lefebvre, "Institutions in a 'Post-technological' Society."

81. See Gilles Deleuze, "Postscript on Control Societies," trans. Martin Joughin, in *Negotiations: 1972–1990* (New York: Columbia University Press, 1995), 177–183.

82. Communication from Professor Henri Lefebvre," 1.

83. See Samuel Weber, "Capitalizing History: *The Political Unconscious*," in *Institutions and Interpretation*, 40–58. See also Jean-Fran ois Lyotard, *The Postmodern Condition: A Report on Knowledge,* trans. Geoff Bennington and Brian Massumi (Minneapolis: University of Minnesota Press, 1984), esp. 12–14.

84. "Communication from Professor Henri Lefebvre," 2.

85. "Communication from Professor Henri Lefebvre," 5.

86. "Communication from Professor Henri Lefebvre," 6.

87. "Communication from Professor Henri Lefebvre," 4.

88. Wolin pointed to the fundamental assumption of the benevolence of modern science implicit to the formulation of values. "By not grappling with the problematic nature of modern science, one runs the risk of ratifying its present form, which not only includes a particular structure of values, but a web of interdependence with corporate capitalism and governmental bureaucracies." Sheldon Wolin, "Whose Utopia," paper submitted to Emilio Ambasz, 7 March 1972, 4. Records of the Department of Architecture and Design, Museum of Modern Art.

89. Wolin, "Whose Utopia," 2.

90. Wolin, "Whose Utopia," 5.

91. Wolin, "Whose Utopia," 4.

92. Wolin, "Whose Utopia," 5.

93. Wolin, "Whose Utopia," 8.

94. Wolin, "Whose Utopia," 8.

95. Wolin, "Whose Utopia," 9.

96. Wolin, "Whose Utopia," 9–10.

97. Such a neoliberal misuse of technology in the service of business (the "urban-industrial complex") is central to key arguments against technocratic rationality in planning found in Robert Goodman, *After the Planners* (New York: Simon and Schuster, 1971).

98. Fredric Jameson, "Foreword," in Lyotard, *The Postmodern Condition,* xx.

99. In this sense the "positiveness" that Lefebvre derided in favor of his own negative strategy is not necessarily symptomatic of the embrace of capitalist forces but involves an understanding of a discipline that requires "projection"—throwing forward.

100. See Scott, forthcoming.

101. See Lyotard, *The Postmodern Condition,* which was originally published in French in 1979. As he explains in his opening remarks, "for the last forty years the 'leading' sciences and technologies have had to do with language: phonology and theories of linguistics, problems of communication and cybernetics, modern theories of algebra and informatics, computers and their languages, problems of translation and the search for areas of compatibility among computer languages, problems of information storage and data banks, telematics and the perfection of intelligent terminals, paradoxology" (3–4).

102. Gaston Bachelard, *Le Nouvel Esprit scientifique* (Paris: Presses Universitaires de France, 1934).

103. Samuel Weber, "Introduction," in *Institution and Interpretation,* ix.

104. "In line with this *cognitive autonomy,* the initial and initiating concern of the established branches of learning has been to stake out territories and secure borders." Weber, "Introduction," x.

105. Weber, "Introduction," x.

106. See Weber, "Introduction," xiii–xiv.

107. See Weber, "The Limits of Professionalism," 20.

108. See Weber, "Closure and Exclusion," in *Institution and Interpretation,* 4.