

The Ledoux Effect: Quasi-Autonomy in Architecture: The Search for an 'In-between'

Recurrently, anxieties arise around such issues as these: can architecture be other than a mere servant to commercial/capitalist/ideological forces? Each society gets the architecture it deserves! Is not autonomous production the only way to avoid submersion in the material conditions of one's time? How can a formally driven enterprise like architecture address social issues responsibly (or at all)?

In the fall of 1991, I was invited to join what was dominantly a faculty colloquium at Harvard's Graduate School of Design. The event seemed to be an attempt to surface, and perhaps to resolve, competing positions within the pedagogy of the school. Did not an eminent international school of architecture need to conceive and represent itself as concerned with the most fundamental levels of its discipline? Should not the school represent to its students an ethical drive to address the social issues that confound the smaller and greater environments in which it finds itself?

At that point, it was easy to assert that social commitment in architecture could not be found through a vulgar Marxism that treats architecture as a mere epiphenomenon fully circumscribed by its infrastructural base. Nor could it be in any other form of social determinism that accounts for architecture wholly by forces external to it. Still more implausible was an architectural determinism in which the physical environment causes social behavior. How could one avoid determinism without finding oneself supporting a view of architecture as autonomous – without, that is, embracing architecture as a game, however beautiful or challenging the game might be? The morning ended inconclusively, with a general anxiety about choosing between social and disciplinary responsibility – the latter exemplified by concepts of autonomy in architecture.

The editors of this issue of *Perspecta* began from a position more congenial to me, seeking to examine "architecture's location between autonomous discipline and cultural product." The poles of autonomy and product are present in their formulation and invite the anxieties already noted, but the word "between"

invites a discussion that does not remain polarized by those two positions. It invites a discussion that does not remain polarized by those two positions.

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Indeed, the editors anticipated the viability of an intermediate position when they referenced my article "Critical Conventionalism in Architecture" that opened the first issue of *Assemblage* in 1986.¹ One word from that essay, "quasi-autonomy," elicits the position to which I shall return here.²

In a polemical world, the exploration of positions away from the poles is often not welcome. Refusing to man the battlements at either pole appears, I suppose, wimpy. But our editors have risked entering such a discourse. In the portfolio section of this journal, K. Michael Hays recalls a time of polarization, around 1970, where he perceived a widespread concern with the instrumentalization of architecture, a concern that in turn elicited a significant reaction in the search for an autonomous architecture. In an aside, Hays noted that the editors, and even he, would not remember that time. With that prod, let me return to an unpublished essay that I presented at the Architectural Association in London and again at the ACSA Cranbrook meetings of 1966.

"Problem-Solving and Problem-Worrying" is a period piece to the extent that the problem-solving discussion illustrates the temper of the time and the instrumentalization to which Hays refers. That overt content of the essay sits recognizably in a more general sense of the malaise of architecture in the 1960s. The seeming triumph of architectural Modernism in the post-war years had by then degenerated to the rootless, decorative stylism of architects like Philip Johnson, Edward Durrell Stone, and Minoru Yamasaki. Those architects and theoreticians who proposed problem-solving methods may or may not have troubled with criticism of this degenerative Modernism, but their search for a reliable, even scientific, method certainly gained attention through their ambition for an architecture that stemmed from a fundamental process based on empirical information.

My alternative of "problem-worrying" sought an alternative path, one that was in sympathy with the reciprocities of form and design exemplified in the only American architectural work of that moment that appeared to deserve critical acclaim – the work of Louis I. Kahn. Kahn was as strong in rhetorical persuasion as in architecture, but he was not one to polarize arguments or his

discipline. He remains a model for the value of inquiry between the poles.

So much for the setting of the 1966 essay.³ In its critique of problem-solving, it already engaged the early developments in computation and design, at least some strains of which still seek to instrumentalize our discipline. In any case, the essay dwells on the "between" theme that has been a constant in my thought – and the reason for my participation in *Perspecta* 33. Since this historical piece is unpublished, and serves both as witness to a moment and grounds for a continuing position, we include the essay here in abbreviated form.

PROBLEM-SOLVING AND PROBLEM-WORRYING (1966)⁴

The notion of problem-solving, especially as architects have encountered it, is imbedded in a desire for justification. In stronger instances, there may be a belief that problem-solving routines will lead to justifiable results; in weaker instances there may be the belief that one's activity can be justified merely through using powerful, if misappropriated, techniques.

It is imperative that we do not warp human well being just for the sake of exploiting a technique – especially when the technique is a powerful one. As I shall argue in more detail, the concepts of problem-solving that interest architects involve either problems of achieving definite goals or problems of synthesizing from a body of established facts. Due to these characteristics of either definite goal orientation or inductivism, these notions of problem-solving are neither descriptive of the traditional behavior of the best architects nor applicable to the current problem situation of architecture. In contrast to "solving the problem," I will present another attitude toward problems – "problem-worrying." Let me attempt to characterize the notion of "problem-worrying" with words of a more positive connotation: architecture is concerned with structuring our environment to facilitate the achievement of human purposes where the purposes are incompletely known at the outset and cannot be extrapolated from known purposes. Indeed, human purpose is altered

by the very environment that is created to facilitate it. The structuring of the environment must be accomplished, then, through the exercise of tentative foresight and critical examination of that foresight and the actions to which it leads. According to this description, neither the human purposes nor the architect's methods are determined in advance. Consequently, if this interpretation of the architectural problem situation is correct, any problem-solving technique that relies on explicit problem definition or distinct goal-orientation will distort the human purposes involved.

In architecture, the demand for systematic design arises from a situation that is quite generally recognized. Increasingly, it seems, the works of even our most renowned architects are open to serious criticism, and regardless of the severity of the criticism, architects are incapable of justifying what they do. Systems-oriented architects appear to interpret this situation in the following way: If our building were to fit its problem perfectly, then there could be no criticism and we could justify both method and product. Such a perfect fit, they continue, can only be achieved if we have a well-structured, detailed description of the problem and then generate the solution from the problem statement. It is fortunate, they suggest, that we have new sciences and tools that can aid the designer in this program of the complete definition of the problem and synthesis of the solution.

Certain recent developments in the United States that treat architecture as systematic problem-solving may be of interest. There are now signs that the exploratory studies in the adaptation of electronic communication and data processing, of systems analysis, and other new techniques are about to receive generalized, semi-official support from the architectural establishment. Recently, The American Institute of Architects and Princeton University entered into an agreement to study the key problems of the architectural profession and of the professional education of the architect. The principal intention is that the study will result in educational reform. Included in the first document from Princeton was "A List of Key Problems in Architecture." The list began with a problem stated as question and answer, as follows: 1) How can we improve competence in environmental programming? a) Develop more effective techniques of problem-stating and problem-solving. Top priority is given to the role of the program in architecture, to problem-stating, and this leads on to the satisfaction of the program, problem-solving.

I do not want to go too far in pre-judging the A.I.A./Princeton project, which is only getting underway.⁵ However, I think their proposals do illustrate the second justificational approach to problem-solving that is more common among architects. Rather than seeking a clearly-defined goal (the first justificational approach), this approach is inductive, seeking to define the problem carefully in order to have a fixed standard against which to judge any proposed problem solution.

The desire to justify one's actions on the basis of their conformity with the original program statement denies consideration of the fact that any concerted set of design proposals and evaluations will alter the architect's understanding of the problem. There can also be no exploration of the fact that any proposal will entail unintended consequences. To whatever degree these can be foreseen, the problem should be reconsidered.

This approach can be criticized, then, in at least two serious ways: 1) the usual problem of inductivist methods is that they can never be sure of adequate data from which to synthesize, or even adequate data to check against; and 2) that the process of creative design is artificially simplified in order that it may be viewed systematically and its results justified by their consistency with an initial statement.

Systematic problem-solving design is not, of course, the only possible alternative to the current, easily criticizable situation of architectural design. If, then, systematic design is not the only alternative and is itself open to serious criticism, why should the adoption of these techniques seem to be imperative?

Our society certainly encourages an enthusiasm for new techniques, but such a compulsion is especially deeply rooted—explicitly and implicitly—in the thinking of architects. This compulsion stems from the acceptance of the nineteenth-century doctrine that architecture is the physical expression, and perhaps the fullest expression, of the spirit of the time. Once this notion is accepted for past times, and once it is realized that we live in a different time, the necessity arises to discover the spirit of our time and the forms that will express that spirit. Such a search for spirits and expressions can lead to various situations, but one compelling interpretation claims that the architect must express the spirit of the times through the use of the newest materials and techniques. The irony of the topic we are discussing is this: the search for a spirit of the times is a kind of historical phrenology that distracts one from actual problem situations. Yet in our instance the very spirit-expressing technique is one of problem-solving.

It appears that in the 1960s there is a double imperative for the use of problem-solving techniques; first, because we have what are perceived to be acute problems, and then because the very use of these techniques is taken to express our times. This combination of inductivist and historicist ideas, open to criticism in so many ways, encourages the use of problem-solving techniques as an end in itself. If the problem-solving routines should be inadequate to handle the complexity of the problem and therefore generate an environment that distorts human purpose, one can interpret the distortion as expressive of the times. This inadequacy must be embraced and solace found in knowing that another appropriate step of destiny was fulfilled. Under the historicist prejudice of modern architectural thought, what results from the use of a new technique is less important than the claim that use of these means is demanded historically. In such an inflation of means, there is the danger that a humanly important activity, providing physical environment that will facilitate the achievement of human purposes, will be artificially and detrimentally simplified in order that it fit the available techniques.

My argument may now be reformulated to say: There is no imperative that we must use any given technique. There is, however, an imperative that we attempt to better understand architectural activity, the problem situation within which it works, and the reasons for its often rather bad performance. At any rate, it is only through such an understanding of architecture's relation to its problems that we could come to know when and where to use which new techniques.

To achieve such an understanding of the architectural problem situation and of the response of the best architects to these problem situations will be anything but easy. I shall attempt to do this through an example and then deduce what appear to be some of its implications. What immediately concerns me is that an important human activity should not be artificially and detrimentally simplified in order to fit an extant mechanical routine. The danger of such an over-simplification stems both from the enthusiasm for mechanization and from the impoverished understanding of architecture fostered by modern architectural theory.

Architects see that any solution, any form, has implications beyond those that were intended, including implications for the reformulation of the original problem or need. Consequently, architects are as interested in the form as in the problem; they see a dynamic relation of form and problem as of the first importance. It is this reciprocity of form and problem that is not sufficiently recognized by the problem-solving designer.

This idea may be clarified by paraphrasing M.C. Beardesley's description of creativity: "...as the artist moves from stage to stage, it is not that he is looking to see whether he is saying what he already meant, but that he is looking to see whether he wants to mean what he is saying."⁶ We can test the adequacy of architecture conceived as problem-solving and the universality of such conceptions as the frictionless fit of form and context by examining Le Corbusier's Carpenter Center for the Visual Arts at Harvard University. The Carpenter Center has been often criticized for being anything but effortless in its relations with people, with its adjoining neo-Georgian buildings, and with the Cambridge street pattern. However, it is important not to look for a well-oiled solution here, but rather for the way in which a problem was developed and left open to continuing development.

Harvard University had discovered that, in its own words, "colleges graduate visual illiterates."⁷ Harvard then decided to conceive a teaching program that called for active participation in the visual arts. This program required a building; since the involvement was with the visual arts, the site chosen was near the Fogg Museum.

Teaching at the Visual Arts Center has the opportunity to be the most important factor in Harvard's program of education in the arts. As a complement to that didactic program, however, Le Corbusier and his building brilliantly reformulated the original problem. Any teaching program reaches only a small part of a university community, and very few people outside that community. If universities are to be concerned with general artistic illiteracy, they must instruct the entire community. The building itself must reach out and engage every person in such a way that even people who will never be formally enrolled at the Visual Arts Center have the opportunity to achieve new realizations about the potential of architectural form as a shaper of life. I had the memorable experience of observing such a realization. Without prior instruction, we brought some MIT freshmen to visit the Carpenter Center. A young woman completely untutored in architecture explored the Le Corbusier building. After she moved through the building for some time, she timidly explained that when she came to the top of the ramp, she felt herself to be all over the building at once. One could at least begin to analyze the objective qualities of the building that contributed to her reaction.

But for now, the important thing to note is that she had come to realize a potential in architecture that she had not even suspected. That she made her discovery by means of actual movement through the building is one of many indications that Le Corbusier reshaped the original problem in at least two ways. First, he made the building itself an active participant in the problem situation rather than a retiring, effortless framework. Secondly, the visitor and Harvard are forced to recognize that illiteracy about art is not a matter of vision alone. In this building art is not a spectator sport; all of one's senses and the whole of one's perception are engaged. One feels that the Carpenter Center is a world, a context, a problem, and we have the happy opportunity to form ourselves against it. That is, Le Corbusier's building may be seen as a complete inversion of the idea of frictionless, efficient design. It also stands in sharp contrast to any simple notion of problem-solving. Harvard still has not defined the original problem, nor solved it; but they have entered into the problem situation more fruitfully than anyone with a hard definition.⁸

Of course it could be argued that the buildings where we value such an assertion from architectural form are unusual. As a matter of degree, this may be so; here I only want to demonstrate that we cannot accept problem-solving and effortless fit as universal concepts in architectural design. Elsewhere I suggest that a resistance to efficient design can be important in something as prosaic as housing for married students.⁹

In contrast to problem-solving design, I see the architect's approach as a sequence of activities encompassing at least the following stages: generalized understanding of the problem; various formal proposals; study of the implications of the proposals; successive reformulations of the problem and proposals; and the final selection of a form for its appropriateness to the reformulated problem. In this case, one must judge not only the fit, but also how the problem has changed. And one must judge the fit not in terms of frictionlessness, but in terms of whether the friction is suited to the new problem formulation. Does the whole — reformulated problem and form — resist criticism?¹⁰

But now it may be objected that I am describing architects as they exist rather than a potential figure with new capacities. Furthermore, in claiming that we have no clear statements of architectural problems, no axiomatic system for design, no specification of elements, no specifiable identification of a solution, and that the problem shifts with the form adopted, am I not forced to the awkward position that everything is relative, and to the admission that architects can justify nothing (and thus anything)? However, I think the understanding of architecture toward which my argument points not only conflicts with the notion of architecture as problem-solving, but also structures traditional architectural activities somewhat differently. The strongest and most flexible, rational system available should give the creative person free reign subject only to responsible, reasonable, and sensitive self-criticism, and the public tests of performance and criticism.

We return to a generally recognized situation that I mentioned earlier. Much of recent architecture is open to serious criticism, and architects have no way to justify their actions. Systems-oriented architects adopt new techniques and seek to analyze the problem into a rationally unassailable assembly of bits that can then be synthesized into an unas-

sailable solution. I contend that in most cases humans, their activities, and the environment itself change over time – the time of the day as well as a more epochal sense of time. Consequently the analysis of any problem involving more than artificially limited aspects of our being cannot be complete, nor can it be free of ambiguities and tensions. In analyzing the problem, we cannot know all of the bits, nor can we be sure of the unassailability of the bits or of our analytical structure. Neither can we be sure of our heuristics of synthesis. If we take the problem-solving approach, we certainly cannot do this haphazardly, but if we go through that process conscientiously we will never succeed in even stating the problem, let alone solving it. But since the environment will still have to be manipulated, certain aspects of the problem-solving system will be irrationally slurred over in the interest of achieving some result. Not only does this reintroduce irrationality, but the method is then built on a very curious assembly of some carefully researched data, loose assumptions, personal hypotheses, and particulars developed in relation to other hypotheses.

The reciprocal relation of problem and form I have advocated is indeed quite different from the concepts of problem-solving. In defense of the problem-solving approach, however, one should acknowledge that the continuing development of feedback systems appears to be providing models that more closely simulate the activity of architectural design. I only wish to express some reservation whether even a very refined feedback mechanism can compete with the human mind in such an improbable, controversial domain as that of environmental design for the facilitation of human purposes.

Thus, the call is not for artificially precise problems, rigorous systems, friction-less solutions, or justification of one's actions. Growth of architectural learning and practice rather calls for a relentless rational and sensible criticism that "worries" the problem, striving for a better problem – especially a better problem – and then also for a relation of problem and form that is resistant to criticism.

Along with our complex problems, we have complex techniques and many people with naive conjectures. We should be more systematic in recognizing these factors in setting up the conjectures, in criticizing them, and thereby learning and growing. But such an approach is not systematic in the sense of imposing a manageable structure; rather it seeks to discover the structure through an interesting situation of multiple conjectures and criticism.

Since we don't know what the situation is until we are involved in the process, it is no use later asking if we are saying what we meant. We learn through the process and therefore want to ask: "Do I mean what I am saying?"

In that paper of thirty-six years ago, I was clearly exercised about "instrumentalization." But resistance to instrumentalization, and even the form of my resistance is, I believe, still pertinent. In the paper I did not mention the other pole of Hays' concern, "autonomy," either as a response to the problem-solving position or as another position I sought to confront. Nonetheless, autonomy was present in the setting.

In 1964, Peter Eisenman, then a young professor at Princeton, invited a group of young architects (plus two modestly elder ones, Colin Rowe and Robert Venturi) to spend a weekend in Princeton discussing the state of architecture and how they might collectively intervene. Out of that meeting came an organization called Conference of Architects for the Study of the Environment (CASE). Among those who came to be involved (with their then affiliation) were Eisenman (Princeton, then New York), Kenneth Frampton (London, then Princeton), Michael Graves (Princeton), Donlyn Lyndon (University of Oregon), Richard Meier (in practice in New York), Henry Millon (MIT), Gio Paganella, Jaquelin Robertson, and Richard Weinstein (all of Columbia and Mayor Lindsay's Lower Manhattan planning office), and myself (MIT).



The five years of the effective existence of CASE (there was no formally recognized termination), coincided with the turbulence known as "1968." That turbulence was recognizable in the results of another project initiated by Eisenman in 1966: the development of ideas for the urban transformation of Harlem culminating in the "New Cities" exhibition at the Museum of Modern Art at the beginning of 1967. Four university-based teams were involved: the architects just identified from Columbia; Rowe, Thomas Schumacher, Jerry Wells, and Fred Koetter from Cornell; Graves and Eisenman from Princeton; and Anderson, Millon, and Robert Goodman from MIT.¹¹

The work of none of the "New City" teams would illustrate "instrumentalization." On the other hand, at least the Cornell and Princeton projects could be characterized as explorations toward an autonomous architecture. Large portions of Harlem were eliminated in favor of abstract, often handsome exercises in form and/or figure/ground manipulation.¹² In contrast, the MIT project began with a series of developmental stages on the undeveloped islands in the East River and on filled land in the East River itself. Early stages also involved infill housing to transform the environmental character of the existing large social housing projects. Only after years of the development of such new resources was the incremental upgrading of the Harlem fabric contemplated. Within the membership of the CASE group (not so identified for the MoMA exhibit), a split appeared: a dominant position moving toward autonomy versus one that saw architecture as an enterprise that did, indeed, have its own discipline, but had also to subject itself to material, social, and political criticism.¹³ In 1969, together with MIT students, I organized an exhibition at MIT's Hayden Gallery (the predecessor to the List Gallery) titled "Form and Use in Architecture." The title is enough to say that the thesis of the exhibition engaged the issues of the problem-worrying essay. The closing event of the exhibition in early 1969 was only the second public event of CASE.¹⁴ It was also the demise of CASE, as most of the members saw the MIT exhibition as supporting both "instrumentalization" and (more from the MoMA experience) naive social causes such as "advocacy planning." In contrast, one should think of these as also the years in which Peter Eisenman embraced the autonomy of "cardboard architecture" and designed his series of numbered house projects.¹⁵

I consider the MIT contribution, in both these exhibitions to have been exercises in "problem worrying." Within this approach, there was an effort to recognize the internal demands of the discipline of architecture as well as the "problem." The architectural example within the problem-worrying paper was, after all, of Le Corbusier's Carpenter Center. The "Form and Use" exhibition featured a section devoted to de Stijl architecture and design, including materials on loan from Truus Schröder-Schröder whose famous house in Utrecht (1924), by Mrs. Schröder and Gerrit Rietveld, is often taken as the apotheosis of abstract form translated into architectural space. In the leaflet that accompanied the exhibition, I discussed the house somewhat differently:

While Le Corbusier spoke of mass and the play of primary forms in light, the Dutch artists and architects of the de Stijl group undertook the exploration of form in a quite different manner. Rather than speaking of mass and Platonic forms, they attacked the problem of design armed with what they considered the fundamental elements of artistic construction: straight lines, planes, primary colors, black and white. In furniture and architecture, sticks of unit cross-section and planar constructions simulated the fundamental elements. The formal system required the preservation of the integrity of the element – even when used in larger constructs; this was accomplished by having the elements pass by one another with only tangential connections. Such a formally derived relation of part-to-part is obviously the antithesis of the organic-functional analogy exemplified by the Richard Riemerschmid chair [in the exhibition; or one could think of furniture by Henry van de Velde].

In the Schröder House, spatial and utilitarian concerns are imbedded in the development of the de Stijl formal system. Direct experience of the Schröder House reveals the intellectual, formal principles that concerned the

de Stijl group; it is the embodiment of a set of ideas in substantial form. However, unlike buildings that embody a formal idea in whole, object-like volumes, the de Stijl forms of the Schröder House were generated additively. In this way the perceptual experience of the house and the demands of use contribute to the construction of the whole that is consistent with the formal intent but not wholly preconceived. Visiting the house, one becomes aware of the formal system behind the design, and simultaneously aware of the use-implications of the formal organization.

Even though the de Stijl group consciously suppressed the nature of materials, they do stand as one of the few exemplars of a solution to the form-use problem. De Stijl objects and environments attest to the possibility of conventions accommodating, even encouraging, patterns of use that are convincing in both intellectual and utilitarian terms.¹⁶

Within the concept of quasi-autonomy there is a wide range of contributive work, some approach autonomy while others are deeply engaged in the material and social conditions of the environment. I saw Eisenman's early work, notably the Toy Museum in Princeton, in the same light that I sought to cast on the Schröder House. The de Stijl and early Eisenman works are of fundamental importance to the discipline of architecture. They project new ways of conceiving material form, space, light, and, at least to my mind, implications for use and meaning. Significantly, these "new ways" are deployed in such a manner as to give as much or more attention to their generalized potentials as to the specifics they initially served. It is in this that they approach autonomy and establish new references within the discipline.

One reason that works such as these by the de Stijl group and Eisenman remain within the domain of quasi-autonomy is their intimate scale. Also, a particular use is not defined. One is acutely aware of one's own body in, and in relation to, these environments – and with this, also the anticipation of one's occupation in various modes. Pure geometric forms, or even conventional architectural forms inflated to grandiose proportions – as one may see in the so-called Revolutionary architects of the late eighteenth century – cross another threshold in the question of the autonomy of architecture. We arrive at an autonomy that deserves its place in our conceptualization of architecture, but less assuredly belongs in our built environment.

I say only "less assuredly," for we might adopt Adolf Loos's position that architecture rarely enters the realm of art – perhaps only in confronting death.¹⁷ So there may be a place for a gigantic cenotaph for Newton, but, despite its size, this is an infinitesimal part of what we want or need in our environment. De Stijl and Eisenman works, alone, also cannot comprise our environment. Even very clever architects do not conceive transformational formal

systems every time they pick up a pencil or mouse. Rather, it is also a high calling to comprehend the formal systems available within the discipline of architecture and then to bring these to bear fruitfully on our environmental needs and the materiality of building. *Indeed, it is this broader task that could yield the larger architectural and urban environments in which we would choose to live.*

When we broaden our focus in this way, less austere inventions also emerge as significant contributions to the discipline of architecture. In Le Corbusier's renowned Five Points, modern material and processes of construction are imbedded within the disciplinary proposition. Despite this complexity in material and time, the Five Points also opened significant general propositions about space, light, and environmental organization. The Five Points are as much or more a contribution to the discipline of architecture as are the concepts of *de Stijl*. But it is also the case that the Five Points could not have been conceived without the availability of reinforced concrete. There really is no technological invention in the Five Points; they are rather a significant architectural discovery within a recently available technology.¹⁸ Stated thus, Le Corbusier's achievement invites the commentary: no invention is significant unless it is also a discovery. It is the element of discovery that saves an invention from being merely arbitrary. The formalisms of the *de Stijl* and Eisenman examples may be more purely disciplinary inventions, but personal experience of the arti-

facts shows that they too are discoveries of space, light, and organization.

As in the example of the Five Points, the notion of quasi-autonomy is not limited to flights of high architecture and theory. Indeed, I have explored the concept in relation to city form (Savannah)²⁰ and workers' housing (Krupp at Essen and the Gutehofnunshütte at Eisenheim).²¹

As may be seen then, there is a significant range within the concept of quasi-autonomy. Some instances approach the austere; they provide those special, rare explorations within the discipline of architecture exemplified by *de Stijl*. Of course, the formation of the *de Stijl* group and its set of concerns can be convincingly explored within a particular historical setting. But its elemental propositions in matters of visual form do indeed have a high degree of autonomy. Whether in Mondrian's paintings, Rietveld's furniture, or the Schröder house, we recognize a physical tour de force to exemplify those elemental principles – and yet our minds can entertain the quite different levels at which we are addressed. The tactile qualities of Mondrian's paintings do not destroy their ideality. I think it is for the same reasons that, when we see a *de Stijl* work, we do think of Holland circa 1920, but can also grant these principles a generality that is not tied to that moment alone.

Even these special cases become instances within a universal notion of quasi-autonomy. Eventually they are tested and, if fortunate, given greater



effect by their performance. In speaking of a "universal notion," I claim that every environmental work (and other forms of human invention) participates in quasi-autonomous relationships. Nevertheless, this claim for generality does not give a meaningless whitewash to all works. We can make critical distinctions. Unlike the de Stijl example, Le Corbusier's Five Points participates quite directly in the material world. In contrast to the de Stijl case, there can be a relatively seamless relation between the disciplinary potentials espoused in the Five Points and a built work based on those principles. But for the same reason, the Five Points reveal a (valued) potential within certain material conditions: less general, more technically appropriate, than the De Stijl example; more technically and historically constrained than Le Corbusier acknowledged.

Even a banal work can be analyzed in term of quasi-autonomy but will be revealed as just that: banal. My own efforts at using the argument of quasi-autonomy to reveal a powerful example – and allow this to serve as a gauge of comparative works – is perhaps best demonstrated in my studies of the town plan of Savannah.²² It is not special that one can analyze Savannah from the perspective of quasi-autonomy. It is the distinctive features and the historical performance of Savannah, revealed through an analysis of its quasi-autonomy, that make it special and indeed a comparative test for other city plans.

Finally, I want to recognize that the notion of quasi-autonomy is in no way limited to architecture or matters of the physical environment. Conventions, whether touching on social or environmental issues (and, after all, these can never be wholly separate), can be examined in terms of their quasi-autonomous relations. An illustrative example is the social category of "teenager." The concept is so imbedded in our society that at first it seems the years from thirteen to nineteen must have some unity that is in turn characterized by some inevitable traits. There are always and everywhere people of these teen years, and they surely have traits that are different from those who are either younger or older. What we make of this population, however, is at least as much or more a matter of the social construct we make for them, and they for themselves.

This is my simple advocacy: the fruitfulness of recognizing the strengths and the claims of, on one side, our theories and conventions, that should not be held dogmatically, and, on the other, the realities, that are in some ways obdurate but often remarkably and fascinatingly malleable. To seek to live only a life of the mind at one pole, or of materiality at the other, or of coercive power from either, is to impoverish one's self, one's discipline, and one's smaller or greater community.

NOTES

- The essay had its initial form in a lecture for the conference "Conventions, Canons, and Criticism" organized by the author for MIT and held at the American Academy of Arts and Sciences in Cambridge, April 1989.
- Actually I wrote "semi-autonomy." I now prefer "quasi-autonomy," so I use that form throughout this essay, even where it involves changing an earlier text.
- On a different critical front, this was also the year of Robert Venturi's *Complexity and Contradiction in Architecture* (New York: Museum of Modern Art, 1966).
- As noted, this is an unpublished essay first presented at the Architectural Association, London, in March 1966. It was repeated on 5 June 1966 at the annual teachers' conference of the Association of Collegiate Schools of Architecture, meeting at the Cranbrook Academy in Bloomfield Hills, Michigan. As produced here, the text is changed in minor matters of felicity, the elimination of such usage of the time as "the architect . . . he," and abbreviation in accord with the current editors.
- In fact I was happy to pre-judge the Princeton project and won the resources to stage an MIT conference "Inventing the Future Environment" (1966) that explored other views of the situation of architecture and planning. The resulting book was S. Anderson, ed., *Planning for Diversity and Choice: Possible Futures and their Relations to the Man Controlled Environment* (Cambridge: The MIT Press, 1968), in German as *Die Zukunft der menschlichen Umwelt* (Friedburg, B: Verlag Rombach, 1971). The final report of the AIA/Princeton study was Robert L. Geddes and Bernard P. Spring, *A Study of Education for Environmental Design* (Princeton, NJ: Princeton University Press, 1967).
- M.C. Beardsley, "On the Creation of Art," *Journal of Aesthetics and Art Criticism*, xxiii, 3 (Spring 1965), p. 299.
- A.D. Trottenberg, "College Graduates Visual Illiterates," *Saturday Review* (Feb. 19, 1966), pp. 73ff.
- A similar argument for growth through "problem worrying" could be made for the way in which Le Corbusier, at the VAC, continued to transform the architectural problem that he had set out in the Maison Domino in 1914. S. Anderson, "Architectural Research Programmes in the Work of Le Corbusier," *Design Studies* (London), v (July 1984), pp. 151–158. Reprinted (without illustrations) in K. Michael Hays, ed., *Architecture Theory since 1968* (Cambridge: The MIT Press, 1998), pp. 489–505.
- "Sert's Concept of Living," *Architectural Design*, xxxiii (August 1965), p. 376.
- For reasons of time, the next two paragraphs were not read in London.
- The exhibition was under the guidance of Arthur Drexler, Director of the Department of Architecture and Design of The Museum of Modern Art. See *The New City: Architecture and Urban Renewal* (New York: MoMA, 1967).
- An interesting outgrowth of the exhibition has been the establishment, in New York City, of the Institute for Architecture and Urban Studies, through the joint efforts of The Museum of Modern Art and Cornell University. The institute will combine university, museum, and governmental resources as they may be brought to bear on what is now one of the most pressing questions of our time—what is to become of our cities? Arthur Drexler was a motivating force in this foundation. Colin Rowe played a role in the affiliation of Cornell University, but the quoted paragraph gives no indication of the central role, since again, of Peter Eisenman first in the foundation of IAUS and then as its leader (with Rowe as a sidekick in the first years). A major project of the Institute was one on streets sponsored by the U.S. Department of Housing and Urban Development (1970–1972). It resulted in a housing project in Brooklyn and a book, S. Anderson, ed., *On Streets* (Cambridge: The MIT Press, 1978). In Spanish as *Calles. Problemas de estructura y diseño* (Barcelona: Gustavo Gili, 1981), and in Italian as *Strade* (Bari: Dedalo, 1982).
- The MIT team worked without internal conflict, but there was a distinction within its members. Robert Goodman, who joined at my invitation, was a noted figure of the time in the political and social criticism of the architectural profession. Milton and I were more inclined to sustain disciplinary inquiry while sharing in Goodman's concerns. From the beginning of the project there was a bond to withdraw collectively if MoMA resisted the politicization of our project—a possibility that was always at hand and perhaps restrained only by the intense general politics of the time and notably in matters concerning Harlem. Perhaps it is of anecdotal interest that Michael Dukakis drew up the AGM partnership papers. On the politics of architecture and planning of that moment, see Robert Goodman, *After the Planners* (New York: Simon & Schuster, 1971).
- CASE meetings were private to the members and guests except for a public event at the University of Oregon and then this meeting at MIT.
- In his 1976 editorial for *Oppositions* 6, Eisenman dismissed autonomy, at least as he perceived it to have been represented, as a continuing humanist enterprise, in the "Architettura Razionale" exhibition at the Milan Triennale of 1973. Eisenman anticipated an achievement in architecture, belatedly, of what the "modernist sensibility" had properly been, a new, non-humanist cultural attitude. I believe there can be important distinctions between vulgar Zeitgeist arguments and the invocation (offered by Eisenman) of an *épistème* as conceived by Foucault. What these distinctions would be, and how they relate to Eisenman's continuing work cannot be attempted here.
- S. Anderson, "Form and Use in Architecture," photocopy leaflet for an exhibition of the same name, organized by Anderson at the Hayden Gallery, MIT (Jan. 28–March 2, 1969), pp. 8–10.
- Adolf Loos, "Architektur," *Trotzdem* (Innsbruck: Brenner Verlag), 1931; reprint (Vienna: Georg Praehner, 1982). Here and elsewhere Loos insists on differentiating the cultural roles of various artifacts, including buildings. Buildings typically do not fall in the realm of art, while an anonymous mound, of characteristic shape, may enter the realm of art. See Anderson, "Architecture in a Cultural Field," in Taisto H. Makela and Wallis Miller, eds., *Wars of Classification: Architecture and Modernity* (New York: Princeton Architectural Press, 1991), pp. 9–35.
- See note 8.
- I was moved to this commentary by a brief argument of Christopher Ricks, but I do not wish to make him responsible for my appropriation. Ricks, "The Tragedies of Webster, Tourneur and Middleton: Symbols, Imagery and Conventions," in Ricks, ed., *English Drama to 1710* (London: Sphere Books, 1971), p. 307.
- See *On Streets*, and "Urban Form and Society in the Great City: An Argument from the Quasi-Autonomy of Physical Form," in Luigi Mazza, ed., *World Cities and the Future of the Metropolises* (Milan: Electa, 1988), pp. 87–93; "Savannah and the Issue of Precedent: City Plan as Resource," in Ralph Bennett, ed., *Settlements in the Americas: Cross-Cultural Perspectives* (Newark, DE: University of Delaware Press, 1993), pp. 110–144.
- "Critical Conventionalism: The History of Architecture," *Midgård 1* (University of Minnesota), 1 (1988), pp. 33–47.
- See the previous note but one.