PROJECTIONS TOWARD THE CULTIVATION OF A SITE
BY THE SINEPUXENT BAY

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ABSTRACT

These design projections are for a site in West Ocean City, Maryland. The scenario is that an oceanographic research institution wishes to master plan the site to accommodate their activities and to expand the nearby harbor and fishing community.

Some ideas on collective form, character, and site development are explored and discussed.

Thesis Supervisor: Jan Wampler
Professor of Architecture
Art is a verb, not a noun.

Fred Eichenberger
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I began this thesis project hoping to explain and explore various organizational principles in general. Some of this remains but what has come to me through working on the design is that general principles are only tools towards clarity and that the particular conditions of the problem are most important. Notions about the behavior of form comprise a range of strategies to be understood in order to make clearer decisions.

This thesis consists of bits and pieces of essays, conversations, drawings, and photographs. I would not claim that it is a thorough documentation of a design process nor a presentation of a carefully constructed design theory. It is my intention that certain patterns, attitudes, and questions emerge and that these constitute a thesis.
A part of this thesis, then, is directed at strategies towards the collective. What is critical to note is what is being embodied or expressed. The point is that it is not "complexity towards the difficult whole" which is desirable for its own sake but in what way the situation is represented or organized.

In a village or town the collective form is understood through characteristics of buildings, relationships between them in space, and characteristics of the intermediate things which connect and associate various parts. This implies the ability to read a situation in forms, at least one of control and agreement. Themes may be identified and variants observed. Clues to public and private space may be understood. It may even be speculated which groups exist within the community; who shares what.

In the case of planning or architecture the question arises as to which patterns should be established in a particular situation and which should be prominent. In this activity relationships are not read but projected. The accommodation of some functions and groups are clearly understood while other uses remain speculative. The question of the

Plurality and diversity are now esteemed. I would like to accept many of the criticisms of early modern and contemporary corporate architecture and enter a discourse which places little value on either purity or uniformity.

What is interesting is the great variety of actions which occur under the sanction of diversity. What is represented today ranges from human relations, to popular culture, to metaphysical pessimism. The isms, ics, and ologies of architecture run rampant under the auspices of diversity and differences. I would like to temporarily dismiss those ideas and things which embrace anarchy or schizophrenia in order to deal with the idea of making connections amongst these differences.
building task arises. Form and means are subservient to purpose. The relationship between collective use and collective form must be understood.

Beside this capability of form, aspirations may be understood as characteristic of the patterns which are projected. Although it is often stated that certain architecture represents life, death, anxiety, democracy, etc., the problems of phenomenological and semiological inquiry hinder any direct correspondence. At best, tendencies and intentions may be approached. Too often similar words are employed to defend various formal solutions. Only existing places, or at least representative drawings or photographs, can offer any positive assertion. Nevertheless, a short essay on structure and character is included.

In the projections here toward a new community the primary concern is conceived of as a sort of institutional and public framework. The intention is to provide the organization of specific activities
while allowing for others to develop and to establish a built character which not only allows but encourages growth of increasing diversity and richness.

This attitude toward a sort of cultivation of the site is seen as intermediate to typical architecture and planning. The notion of cultivation is meant to imply the existential concerns of gathering individuals as a community, sheltering and accommodating them, and understanding the presence of the site. The concrete side is a concern for materials, methods of construction, and patterns of built forms.

The way to cultivate is to establish these patterns amongst which places can grow.

board of directors

..."We would like the institution to be integrated with the community, but we need some means to prominence, some form of identity. We need people to understand us as a stable and perhaps powerful institution, capable and curious. This will attract qualified staff and help in seeking funding. In general, we need a strong image.

"On the other hand, we don't want to alienate the existing community and fishing industry. We don't want to reinforce the inevitable town and gown conflict."

the planners

"On the surface you seem to have antagonistic goals. The former is an attitude towards centralization of form and activity and presumably leads to something like a monastic organization which clearly establishes a dichotomy. This usually is accompanied by powerful forms; tall, symmetrical, complete, and so on. A great symbol is desired.

The other attitude is more complex and must be fleshed out. Even up in Woods Hole where the institution is fairly distributed through the town I've heard there are some bad feelings. Perhaps they
still feel the presence as an invasion of an existing town. You will be establishing a pattern in this place, in proximity to the fishing community, but not in it."

"We had hoped to provide more docks for the local industry. We feel we could benefit from a close relationship with the local fisherman, crabbers, and clammers. As a matter of fact our program will include fisheries studies."

"It seems like a potential conflict, especially if you try and tell them not to take fish."

"They must realize that they stand to benefit as well as everyone else. In the short run we may be able to increase their capabilities and profits. In the long run, we need some regulation if we wish to have the fullest range of food available in the future. We must work towards a sustainable future world in greater harmony with Nature."

"It may work out... What about this provision for shops and stores, do you want to make a shopping village like Shanty Town, a cute commercial place
with old buildings clustered on a boardwalk. Do you wish to attract tourist trade from Ocean City?"

"We had pictured shops and stores as part of what we hope might be more an authentic community. We believe they can be of service to the local fishing industry and residents, provide for the institution, and perhaps attract visitors and shoppers as well. We thought that this might be subdivided and sold to developers, and some lots for houses as well, in order to give over some initiative to the locals and facilitate this integration. We are cautious about relinquishing control, however, we are concerned about the setting we establish for the institution. We hope to be here for some time to come."

"Well, we must continue to clarify what you want to do, but generally two ways you can influence the development are by construction and management. By construction you can establish binding or suggestive frameworks of various sorts; from sidewalks and streets to complete buildings. In between lies the influence of terracing, bulkheading, foundations, built structures, and service cores as clues towards subsequent development. Management, too, can have significant effects on the character of the place. The recent popularity of restrictive covenants seems to allow sellers some great power to control the development of places by specification or review..."

Real sparing is something positive and takes place when we leave something beforehand in its own nature, when we return it specifically to its being, when we "free" it in the real sense of the word into a preserve of peace. To dwell, to be set at peace, means to remain at peace within the free, the preserve, the free sphere that safeguards each thing in its nature. The fundamental character of dwelling is this sparing and preserving.

Heidegger
Robert Venturi

1. Nonstraightforward Architecture:
A Gentle Manifesto

I like complexity and contradiction in architecture. I do not like the incoherence or arbitrariness of incompetent architecture nor the precious intricacies of picturesqueness or expressionism. Instead, I speak of a complex and contradictory architecture based on the richness and ambiguity of modern experience, including that experience which is inherent in art. Everywhere, except in architecture, complexity and contradiction have been acknowledged, from Gödel's proof of ultimate inconsistency in mathematics to T. S. Eliot's analysis of "difficult" poetry and Joseph Albers' definition of the paradoxical quality of painting.

But architecture is necessarily complex and contradictory in its very inclusion of the traditional Vitruvian elements of commodity, firmness, and delight. And today the wants of program, structure, mechanical equipment, and expression, even in single buildings in simple contexts, are diverse and conflicting in ways previously unimaginable. The increasing dimension and scale of architecture in urban and regional planning add to the difficulties. I welcome the problems and exploit the uncertainties. By embracing contradiction as well as complexity, I aim for vitality as well as validity.

Architects can no longer afford to be intimidated by the puritanically moral language of orthodox Modern architecture. I like elements which are hybrid rather than "pure," compromising rather than "clean," distorted rather than "straightforward," ambiguous rather than "articulated," perverse as well as impersonal, boring as well as "interesting," conventional rather than "designed," accommodating rather than excluding, redundant rather than simple, vestigial as well as innovating, inconsistent and equivocal rather than direct and clear. I am for messy vitality over obvious unity.

I am for richness of meaning rather than clarity of meaning; for the implicit function as well as the explicit function. I prefer "both-and" to "either-or," black and white, and sometimes gray, to black or white. A valid architecture evokes many levels of meaning and combinations of focus: its space and its elements become readable and workable in several ways at once.

But an architecture of complexity and contradiction has a special obligation toward the whole: its truth must be in its totality or its implications of totality. It must embody the difficult unity of inclusion rather than the easy unity of exclusion. More is not less...

...First, the medium of architecture must be re-examined if the increased scope of our architecture as well as the complexity of its goals is to be expressed. Simplified or superficially complex forms will not work. Instead, the variety inherent in the ambiguity of visual perception must once more be acknowledged and exploited.

Second, the growing complexities of our functional problems must be acknowledged. I refer, of course, to those programs, unique in our time, which are complex because of their scope, such as research laboratories, hospitals, and particularly the enormous projects at the scale of city and regional planning. But even the house, simple in scope, is complex in purpose if the ambiguities of contemporary experience are expressed. This contrast between the means and the goals of a program is significant. Although the means involved in the program of a rocket to get to the moon, for instance, are almost infinitely complex, the goal is simple and contains few contradictions; although the means involved in the program and structure of buildings are far simpler and less sophisticated technologically than almost any engineering project, the purpose is more complex and often inherently ambiguous...
strategies towards the collective

I take collective form to be that which somehow is linked or associated, particularly in the way built patterns affect and represent relationships among individuals and groups. The connections I understand range from complete to partial, actual to virtual, and elemental to spatial.

In 1964 Fumikiko Maki and Masato Ohtaka, in Investigations in Collective Form, distinguished three approaches to collective form: compositional form, megastructure, and group form. They characterized compositional form as "static and complete physical statements," the manner in which much work is still conceived today. The second two, however, presented a range of approaches to deal with the understanding of society as a "dynamic field of interrelated forces." This leads to the concept of master program over master plan. Design becomes strategy oriented vs. goal oriented.
...The compositional approach is a commonly accepted and practiced concept in the past and at present. The elements which comprise a collective form are preconceived and predetermined separately. In other words, they are often individually tailored buildings. Then, proper functional, visual, and spatial (sometimes symbolic) relationship would be established on a two-dimension plane.

It is not surprising that this is the most understandable and used technique for architects in making collective form, because the process resembles the one of making a building out of given components. It is a natural extension of the architectural approach. It is a static approach, because the act of making a composition itself has a tendency to complete a formal statement...

...The megastructure is a large frame in which all the functions of a city or part of a city are housed. It has been made possible by present day technology. In a sense, it is a man-made feature of the landscape. It is like the great hill on which Italian towns were built.

Inherent in the megastructure concept, along with a certain static nature, is the suggestion that many and diverse functions may beneficially be concentrated in one place. A large frame implies some utility in combination and concentration of function...

...Group-Form is the last of the three approaches in the collective form. It is form which evolves from a system of generative elements in space. Some of the basic ideas of the group-form can be recognized in historical examples of town buildings. Urban designers and architects have recently become interested in them because they appear to be useful and suggestive examples in making large scale form. For instance, medieval cities in Europe, towns in Greek Islands, villages in Northern Africa are a few examples. The spatial and massing quality of these towns is worth consideration....
Urban design is ever concerned with the question of making comprehensible links between discrete things. As a corollary, it is concerned with making an extremely large entity comprehensible by articulating its parts.

The city is combinations of discrete forms and articulated large forms. It is collective form—the agglomerate of decisions (and abnegations from decision) in the past concerning the way in which things fit together, or are linked. Linking, or disclosing linkage (articulating the large entity), are invariant activities in making collective form.

linkages ... a collective vocabulary

Maki's larger concept for what I call sharing or commonality toward the collective is "linkage" ..."to make the large entity comprehensible by articulating its parts." Given that the "primary motive is to make unity from diversity" he describes several operational categories.

* to mediate ...to connect with intermediate
* to define ...to surround
* to repeat ...form, material, or function
* to make a sequential path
* to select

It is important to note that Maki's concept includes both a system of materials and methods and a system of arrangement of buildings and elements which are in some ways vital, or generative, providing both coherence and a non-repetitive growth pattern.

These ideas are addressed by Tom Chastain in his thesis. He discusses the ideal of making "a place for human experience ...a rich variety of forms and spaces... a structural framework which permits the expression of the individual and the participation of many."
... All of these villages have a range of understandable sizes and a sense of sharing or an exchange between definitions. They establish larger continuities which provide for spatial and physical organization of growth, exhibit a range of assemblage within a set of building materials and methods, and grow additively in a way where there is increased complexity and information. They are literally the form of a community...

... It is this finding of common elements, dimensions, and uses, which make an environment understandable as a whole. Additionally, it is the way in which elements are transformed and accept meaningful differences that make the possibilities and multiplicity of life known and useful...

Out of a clear statement of values which express a rather democratic ideal, Chastain proposes a collective vocabulary by which to understand Maki's "group form" and proceeds to make observations of villages which exhibit some of these characteristics. The suggestion is that Maki's categories represent good intentions but we need to understand them in more concrete, formal terms.

The linkage to mediate is illustrated by the stoop, i.e. the 'functional transition'. I would further expand the definition of mediated spaces as 'zones of exchange' where territories are created that are part of both 'worlds'.

To define, is as to surround with wall in the fashion of a monastery or a medieval walled city. This can be thought of as a gathering of territories (places) through containment.

To repeat, means to introduce a common factor; either form, material, or function. This continuity is exemplified in qualities of repetition within building method, or as in a formal property such as direction. The use of similarity is one of the basic ways people learn to associate things.

'To make a sequential path' implies a continuity of events, movement and orientation.

The linkage of 'to select or establish unity in advance of the design process by choice' is illustrated by Maki with the Greek Peninsula's towns of Miletus and Priene. He states "the designer can make use of a prominent piece of land... that will both affect his design and be a unifying visual force."
The key to creating reciprocal definitions is the degree of completion. Once an object is complete it is no longer able to generate a reciprocal relationship with anything around it. One only has to think of this principle as it applies to human relationships to understand its importance. When such completion does occur the object becomes disassociative with the environment...

By gathering the landscape's structural properties, such as direction, a larger domain or field is established. This field is an extension of movement, form, and use. Dwellings retain a sense of identity, but through their aggregation build this field, reinforcing the primary direction and understanding of the public continuity.

Growth occurs within the "unity" or directional structure of the field, thus providing for a collective association through orientation within the field.

A field then, is a distribution of similar elements in space, which through their aggregation form a direction and provide an understandable domain within a boundary. A directional field then, allows options for the organization of movement, space, growth, and privacy...
"in these circumstances nothing is required of the planner but a watchful eye to make sure the present unbroken line of surrounding buildings is not interfered with. The planner can, however, intensify the existing character of the amphitheatre of buildings by seeing that they are given maximum visual coherence. An obvious way of doing this is to whitewash them."

Cullen

Collectiveness may be apparent in material and color as much as dimension or position. Phenomenal aspects are directly related to both form and light. It can be said, however, that formal aspects are more permanent than decisions about color. A coat of paint goes on relatively easy.

Building materials are more or less amenable. The less amenable materials establish the more permanent, and therefore, more important orders.
megastructure; armature, and group form

One way to understand megastructure and group form is that in the former the organization tends to be large, structural, and implies some centralized authority while in the latter the regularity is decentralized yet systematic, emphasizing the collective association of individuals. Some in between proposals include support structures which are variable and composed of human scale parts and group forms which exhibit large scale collective actions.
Although they offered only "dubious deliverence" from the modernist dilemma, some of the mega- and support-structuralist ideas and projects are interesting. During the mid-sixties architects arrived at speculations of formal control at the largest scale possible, that of the city. The largest framework ever proposed has got to be the Comprehensive City.

Many ideas germinated at this time have lasted beyond the early concepts of scale and technological appropriateness. Some are concerns for the diversity of human existence, the construction of incomplete structures as a means to represent this, and the use of generative, occasionally non-hierarchical, systems of organization. An unfortunate consequence is a continuing tendency to "brutal," or large scale, heavily structured architecture which has little concern for flexibility or human scale.
City Hall, Boston, Massachusetts. The image seems too coercive and unwelcoming for a building which should express government as servant of the people. An articulated, heavy and formidable structure, influenced by Le Corbusier's 'freezer image' as in the monastery of Le Charron, it is placed in a vast plaza nearly devoid of shelter except for a small rise entrance. The uniformity is the expense of brick paving that a hand-made pattern done by one man costs.

Even the trees in a small sitting area in one side and the intentionally few access to the building are not enough to dispel images of an unprotected citizenry facing a building that speaks of centralized, authoritarian power rather than of participation by citizens. (Photo by Vincent D'Agostino.)

Herb Greene
Despite the fact that the word "hypostyle" means under columns, most modern persons, following Schopenhauer and the functionalists, tend to think of the column in relation to what is above it, or to the load it carries. The ancients, on the other hand, knew that the principal element in those halls is the floor. It was upon the floor plane that members of the community came together periodically in order to reaffirm their common agreement—or their common understanding, as we sometimes put it, in a word that reveals in itself the connection between agreement and the possession of a place that is held in common; for if I say I understand you, I mean that I can stand where you stand, or that we share the same "standpoint." It was upon the communal floor, then, that the interchangeable columns stood, working together to maintain a sheltering and enduring structure that was the chief symbol of the body politic.

Many of the megastructures establish multiple level ground associations or circulation networks. The significance of this issue shouldn't be overlooked. The importance of sharing common ground has often represented peer rather than authoritarian relationships. With multiple levels comes hierarchical social and psychological situations. Presumably some megastructural concepts include the ground as a displaced surface with familiar clues given at the various levels. Also there are arguments that the everpresent structure provides the datum common to all members of the community in the way the ground served archaic societies.

Norris Kelly Smith
Tange's early projects often consisted of a megaform into which discrete, rapidly changeable functional units might fit. His large scale decisions seem to be based on a uniform repetition of some large geometry, usually adding up to a larger, presumably organic form.
The removal of built barriers and the mixing of disciplines is not enough. The group is meaningless when there is no place for the individual.

The relationship of group and individual must also be considered. Areas of activity and areas of tranquility must be provided. If the group is everywhere, there is no group because there is no individual.

The proposals by the Candilis group are somewhat different. They include a greater range of differences within the structural framework itself. The design for Berlin Free University by Woods is one of these. With the program of “city as university” the basic organization is a “mat building” or “groundsoaper” with a primary pedestrian network built in a rigid orthogonal but directional geometry.

The possibility of community and exchange are intended as well as the "tentative use of a minimum structuring system where individuals and groups may determine desirable relationships." The original organization of the Massachusetts Institute of Technology is a model, but the powerful public image the M.I.T. building projects is intentionally avoided. Many critics point to the problem of a lack of identity and see this as bland or indistinct. It is particularly remarkable in light of the fierce overall form conceptions of Tange, Soleri, and Archigram.
It may, however, be possible to consider teaching and learning as the 
"cultural" base of the city, in much the same way as we consider 
industry and trade as the economic base. In both cases we would hope, 
insofar as possible, to distribute the basic activities as equally as can be, 
throughout the entire urban world, and to optimize their accessibility... 

...We shall develop non-structures to organize our various activities in ways, places and 
bUILDINGS that relate more directly to a society which is in a state 
of becoming, that is, in ways that exhibit great potential for change... 

Shadrach Woods,
A related project in bold plan geometry and relatively incomplete structure is housing project designed by Jan Wampler for San Juan, Puerto Rico. Both of these are of a group I would consider stemming from Corbusier's Algiers project and related to many of the Dutch "support structures." With the rhetoric of social sensitivity and the conception of society in a "state of becoming," these architects projected propped up structural slabs, strong in plan geometry but often neutral in image. The primary concern is given to the public circulation network with few clues provided otherwise for the subsequent inhabitation of the "warehouse space." An infill system is designed in some cases, manipulated either by the architects or by the inhabitants. What is designed as moveable and tractable is often much more permanent than originally conceived.
Paolo Soleri's visionary proposals and work at Arcosanti seem to be related but combines a much greater variability with the overall organic form conception. In this way they may be seen as megastructures of unity rather than uniformity. Whether this massive structure is either desirable or necessary remains questionable. It certainly serves to build one sort of cohesive community.
If structure and man:
The opposition of a compass.
 initiate universe to a structural universe is one which was seeking for homoecentricity
to evolve in upon a creator.
If structure was the inward to pursue, then man is a view.
superfluous accident, nature will always be the universe's sed structuralizing force.
The fashionable structuring of man is a surgery, immediate plagiariaism of the sophisticatedly effortless productivity of nature.
The soul whatever it may be is the first lexicon happening
in a telesoric universe.
Those first tears, premonitors
of an eye that will see me
the post structural
abstractionism of an
an structural
reality,
the physiological platform on which
the building of
compassion now the man
will try to
immitate the
hypothetical universal
evolution for a complete
ensive transfiguration
dynamics greatness and
worship.

From The Sketchbooks of Paolo Soleri and Arcology
Southeastern Massachusetts University, designed by Paul Rudolf, is a systematically and massively structured institution.

Sitting out in a great field, ring road surrounding ring field surrounding ring building surrounding vast open space.

The structural system is interesting, even generative in ways, but the monotony of one system building a place this large is overwhelming. The perceptual presence of the entire place from any point of view reinforces this.

If the same buildings were deployed along something more like streets or smaller plazas it would be better. The addition of more human scale secondary elements or systems or even some anecdotal parts would help, too. This type of structure as a composition seems humanly devastating, however, if it
is understood or used as an armature it could provide a spatially interesting unifying system which could accommodate further, more particular, action.
Another approach is apparent in Herb Greene's concept of armatures. This is a proposal towards large bits of sorts of ruins which don't ever become overriding or dominant things in themselves, but provide clues for subsequent inhabitation, a place for civic art, and lend stability to the environment.

The concept of an armature is not, of course, completely new. A few contemporary architects have designed structural and utilitarian frameworks which can be added to by users. Many examples of folk building show satisfactory and even beautiful building stock which has evolved over the course of time. One role of an armature is the recovery of the malleability and human scale of this preindustrial vernacular.

While much world architecture has expressed the historic continuum with rich and memorable forms, the armature, in addition, will foster an aesthetic egalitarianism not found in either past or present architecture, but which is necessary as an expression of democratic and pluralist societies. Democratic expression in armatures is not limited to aesthetics. An important distinction between the armature way of building and a megastructure approach to the design of cities is that armatures embody guidelines to produce a public form of architecture amenable to community participation and group consensus in determining and perpetuating the long-lasting framework. While an armature can become a large-scaled container of architectural space which organizes and houses a variety of functions, it can also be as small as the service gatehouse of a residential neighborhood. It can incorporate and preserve a block of scattered historically-valued buildings; it can be a comprehensible form designed to identify an important urban space; and finally it can be the principal organizer of a district or town. In each case it must invite modification and the accretion of citizens' works.
While a megastructure is generally designed as all-of-a-piece by one architect, it is expected that more than one architect will design or add to an armature. It is open to collaborations and requires additions to its frame as well as its surfaces and spaces. An armature, being designed to be added to, will have financial support from numerous sources as it opens itself to additions by smaller users and grass-root involvement by local people. Unlike a megastructure which often suggests control and financing by big institutions and usually interrupts the fabric of the city or town, an armature with its generally smaller scale, regional references and user additions is intended to respect its surroundings. Although an armature can be a formal element in organizing urban design, I am not proposing it as a planning panacea to solve the functional problems of the city but as a new building strategy to enrich architecture and foster a public loyalty toward buildings that is lacking in modern society.

Herb Greene
American precedents tend to be either pre-Columbian or literally exotic. James Marston Fitch, to cite a conspicuous example, applies the term mud masonry megastructure to Bedouin villages in the Moroccan Sahara, but almost identical phrases can be heard applied conversationally around US architecture schools to such domestic constructs as the pueblos of Taos, Pueblo Bonito or Mesa Verde. What brings these Indian megastructures within the canon is their visible extensibility and adaptability, their lack of obvious regular geometry in spite of the fact that their overall form is usually easy to grasp and their small parts extremely regular. For these reasons, no doubt, pueblos ancient and modern were seen as a corrective lesson against the incomprehensible disorder of present American cities. Vincent Scully, for instance, has spoken of the ancient pueblos as our only native school of urbanism.
In the sense of structure this brings us full circle from the metabolist concepts. The age old idea of "unity in plurality" underlies the whole range. The physical strategies towards a unity range from dominant, large scale structures to decentralized elemental or spatial systems. Examples of both geometric and organic orders are available although megastructures tend to the former and group form, the latter. The questions of meaning associated with various means to collective form begin to come into light.

Greene's ideas and Maki's notion of "group form" connect. In many of his examples, particularly in masonry cultures, the place has been built up over time incorporating bits of the old. In other cases the "armature" is merely the societies' developed attitude towards the arrangement of buildings and social situations. In cultures where less permanent materials are used it is often the conventional spatial structure and methods of building which are continued or gradually transformed.

Ine Kama Yama, from Chastain
Alperobella, from Rudofsky
Some of these means are noted by Maki as being characteristic of interesting towns and villages. "Many have rich collective form... they have not been designed, but simply evolved..." He points out that this "group form" evolves from a system of generative elements in space and advances examples of towns and villages in various cultures.

There seems to be some relation here to the discussion of generative, or transformational grammars by Noam Chomsky in *Aspects of the Theory of Syntax*. He quotes Humboldt in 1836... "Language makes infinite use of finite means..." and posits the creative aspects of grammar. A "generative grammar must be a system of rules that can iterate and generate an indefinitely large number of structures (syntactic, phonological and semantic)." There may exist an analogy to some vernacular settlements but it is very difficult to propose that architects may operate in this mode. In language, Chomsky points out, it is nearly impossible to know the rules (or if there are rules) which guide the linguistic intuition of the native speaker.

The transformations, substitutions, and other structural or formal operations are incredibly complex.
In the settlements under consideration the order appears complex also, but many display obvious guiding regularities with systematic variation. In comparison to these places, however, many attempts to create rules to generate architecture suffer from a sort of dryness or lifelessness. Some efforts have been more lively than others. There have been attempts to incorporate inhabitants to generate diversity such as those by the SAR group, Wampler, and Woods. Others have explored the juxtaposition of various building methods and systems in relationships which are non-hierarchical.

At Ine Kama Yama the buildings have been built of a simple system yet a great deal of individual variation occurs. The result seems to evidence a unity. The similarity of materials, dimensions, elements, building methods, and direction of roofs all contribute to this. The buildings define a public way of a very continuous edge to the inland and a more partial one on the ocean side allowing frequent glimpses and access to the water. This way varies to accommodate use changes, such as the town center, and topography.

Ine Kama Yama, from Chastain.
Alperobella, from Rudofsky
Group-Form

Group-form is the second of collective form ideas. It is a form which evolves from a system of generative elements in space. Traditionally, human activities, attitudes toward beauty, feelings about space and techniques in construction have evolved the styles which mark the history of man's aesthetic search. Each of the historical styles had a form, or a concept of form as its substructure.

The human quality which determines form has to do with way of life, movement, and relation of persons in mass society. Group-form is an effort to create a new total image in order to express the vitality of our society, at the same time embracing individuality and retaining the identity of individual elements. It is worth noting that group-form evolves generally from the people of a society rather than from its powerful leadership. It is the village, the dwelling group, and the bazaar, which are group-form in the sense we are using this term, and not the palace complex, which is compositional in character.

The idea of the responsiveness of forms in group-form has been seen by John Voelker, in his CIAM Team X report, in the context of an "open aesthetics." He comments that "in an open aesthetics, form is a master key, ... capable of reciprocating the constant change of life, ... Open aesthetics is the living extension of functionalism." Forms in group-form have their own link, whether expressed or latent, so that they may grow in a system. They define basic environmental spaces which also partake of the quality of systematic linkage. Group-form and its spaces are prototype elements, and they are prototypical because of implied system and linkage.

The elements and the system are reciprocal, both in design and in operation. The elements suggest a system, and that, in turn, demands further development of the elements, in a kind of feedback system.

Though geometry is a tool of the search for group-form, it is not an end in itself. One cannot seek group-form in hexagons, triangles, and circles, in Neoplatonic fashion. One finds the source of generative form in dynamic human terms, such as gathering, or dispersal, or stop. Le Corbusier limits generative human qualities in urban architecture to "air," "green," and "sun," while exponents of group-form find a myriad of suggestive activities to add to that list of elements.

Addition of activities to physical qualities in a search for form determinants in the city suggests a new union between physical design and planning. We have long deplored the separation of architecture and planning. Perhaps the static, compositional methods of the past have been completely outmoded now by the rapid demands of a new technology and a new social organization. For thousands of years, architects have endeavored to build perfect buildings. The idea of a single structure, independent of other structures, has come from the Pyramids, the Parthenon, the Gothic cathedral, to the Seagram Tower, and the monumental building is an event, a pause, in the dynamic pattern of the city. One makes static compositions of individual buildings, and only subsequently can they become aspects of the grain of the city. The vital image of group-form, on the other hand, derives from a dynamic equilibrium of generative elements— not a composition of stylized and finished objects.

Faki and Ohtaka

It has been suggested that in many traditional towns a conventional set of dimensions are present. In observations of Iberian towns this assertion has been made by Smith, Hille, and Mignucci. The similar dimensions of various buildings has been recognized by many as lending unity to these places. This notion is that the system of sizes frequently occurs in between buildings also, and this conditions the experience of the place with a particular spatial familiarity.
observation by Smith, Hille, and Ignucci
In recent architecture some interesting attempts to work within a "generative" grammar or building method have been made by the so-called Dutch structuralists.

In the orphanage by Van Eyck various bits are understood as deployed in a generative manner although the roof is controlled by a rigid geometry. Some aspects of the form repeat while others vary to accommodate particular conditions. A sort of a footprint, trace, or composite bit of plan is evidenced.
The first of these is that which we may term the additive method of composition, Van Eyck's "labyrinthian clarity." Within the contradictory development of Team 10, we are able to identify a moment when the lineal systems initially proposed by the Smithsons in their Golden Lane housing failed because they were unable to go beyond the functionalism of the Athens Charter—the categories of dwelling, work, recreation, and transportation. The next model to be proffered by Team 10 appeared with the continuous grid and reached its apotheosis in the projects for Frankfurt (figs. 5, 6) and the Free University of Berlin by Candilis, Josic, and Woods. But something very similar to this last had already been attempted by Van Eyck in his orphanage in Amsterdam built between 1957 and 1960. Following his notion of "labyrinthian clarity," he had devised an additive system of analogous cells in which the spatial continuity was ordered on a modular basis. At the same time, this modular system was arranged "labyrinthically" in an attempt to rediscover a "natural" reality. After the realization of the orphanage, the additive method became a recurrent theme in the Van Eyck "school," although this method often manifested itself in diverse ways.

Geometry is the principal tool for insagation of the organization of design. It provides the framework for procedure and ultimately emerges in the structure of the building. The final form reflects this controlling device, sometimes in an evident but more commonly in a masked manner. One characteristic of this work is that while a model, plan, or aerial view shows a clear, repetitive pattern, in the experience of the buildings the order is often sensed rather than seen. The evident discipline must be viewed in the light of van Eyck's comment, "Order has no function. This side of evil, other than to make what is essentially chaotic work."
Frampton has made a comparison between the work of Hertzberger and Kahn. He claims their similarities are:

- the rationalism of structure and construction
- logic of geometric form
- articulation of structural procedure

I would add that they both express a concern for representing human existence on some level. The differences which he cites are:

- Kahn's use of honorific materials
- Hertzberger's repetition of cellular units or elements which erode the mass in an informal and haptic way...a random expression.

This demands consideration. I don't think that it is random. It may be informal in the sense of formal as complete, but not systematic or geometrical. The manipulation of pieces, whether cellular or not, displays less overall unity of form but builds a complex order, perhaps closer to Norberg-Schulz's concept of classical order as an "additive grouping of individual places."
While Kahn's buildings don't suffer from uniformity they are not made of diversity...in a way they may be thought of as unity building unity. There is less sense of the building grammar as generative, less "messy vitality."

The Exeter Library, for example, is built of complete squares and circles. The stability and non-directionality of the building confuse orientation but yield a very stolid place. Actually, vertical orientation is made clear by relation to the great circles of the inner court, but on any floor most everything looks the same. The librarians admit the difficulty of sending the users to particular places.
In general Kahn’s buildings are more static than dynamic, complete than partial, and composed rather than generative. They represent stability and refinement, the whole reigns over the parts. It is not evident, in Utrect or Hertzbergers recent schools or housing projects, that this has been the influence of Kahn.
In Oppositions 9 Peter Eisenman suggest that there is no longer a correspondence possible between social relations and built form, hitting at a core of the Dutch work. Runaway technology and the angst of modern life are cited as concerns against any social or anthropological base for architecture. I believe this acceptance of the inevitability of the bomb is essentially pessimistic. I would rather believe that we have a greater conscience and his concerns are to be overcome rather than submitted to.

If his contention was only that there should not be a one to one correspondence between functional or social situation and a built fabric I would agree. If he means that buildings and places should be more optionally useful I would again agree, but this is not apparent in his writings and buildings.

The subservience of human being to "deep structure" seems exclusive and arbitrary.
Commentary

While for the architects of the fifties and sixties there was a continuing belief in a programmatic and social evaluation of the city, for those of the seventies the city became only one component of an internal search for a structural and typological essence of built form at all scales. The acknowledgment of this difference—fundamental to any analysis of architecture today—is particularly pertinent to an assessment of the work of Van Eyck or Herman Hertzberger.

The importance of the Dutch participation in the history of the Modern Movement is unquestionable. During the time of their neutrality in World War I, their contribution was reflected in two parallel yet divergent movements: the one, De Stijl, was an abstractionist and metaphysical tendency; the other, Wendingen, was a more expressionist and realist tendency. Underlying these seemingly divergent tendencies, however, was a singular and particularly Dutch preoccupation. This might be characterized as mystical anthroposophism, and it is hardly surprising that this latent condition would eventually bring about a fusion between these two tendencies in the late 1950's, a fusion that came with the work of Aldo van Eyck and the work of the so-called new Amsterdam School and Herman Hertzberger. The new Amsterdam School seems to have substituted a new mysticism of anthropological belief for the old mysticism of anthroposophic abstraction. But in this fusion there was also an attempt to conflate a certain social idealism with a form of Kahnian 'constructivism'. That this elision has been received without so much as a stir by the critical establishment deserves our attention; and moreover, underlying this apparent anachronism is an even more serious problem.

While it may be easy to trace, and thus supposedly to understand, the origin of Team 10's postwar anthropological critique of CIAM, such a pedigree is not in itself important. Indeed, that Team 10's revision of the CIAM grid would occur soon after its recognition of the failure of the Modern Movement was surely to be expected. At this juncture, Kahn, an American, became a seminal figure in the development of Team 10 because his polemic of "structure is the space" provided a concrete idea with which to counter the abstractions of the free plan of the Modern Movement. This, in turn, permitted the third generation of architects such as Van Eyck to begin to clear new ground. At the same time, Kahn's work contained a kind of messianic idealism with which the Dutch architects in particular could easily identify, and, in fact, underlying the work of Van Eyck and Hertzberger, there is a version of Kahn which parallels the De Stijl idea of Constructivism.
The force of the argument, from Van Eyck's Orphanage to Hertzberger's Old Age Home, manifests itself both in the ideas, which tend to define a conceptual spectrum, and in the architecture, which is based on a belief in the power of unitary geometry and its capacity to create an intense imagery through repetition. The argument is that geometry will create a scale of reality at once modulated and comprehensive. This geometry produces a polemical energy, which includes an assault on modernism, on the free plan, and on the supposed abstractions of the twenties. However self-contradictory, it relies on a device similar to that used by the architects of the free plan. For the form-making is clothed in the mythology of a social idealism—now derived not from the machine imagery of the twenties but from man's own presence. Thus the geometric order becomes invested with that same aesthetic neutrality which characterized the Modern Movement. Van Eyck and Hertzberger now speak of an anthropological and sociological essence, an entity that relies solely on the force of words for its projection into realized form. This rendering of what is in fact no more than a geometric determinism with the rhetoric of a latter day humanism is symptomatic not so much of Dutch architecture as of the architecture of the fifties and sixties. But even in the new light of the regenerated social realism of the seventies, it is not the virtue of the rhetoric which gives the geometry of Van Eyck and Hertzberger its anachronistic presence. It is rather their implicit denial of a new consciousness which has existed in most disciplines since the nineteenth century and which, since the events of 1945, has seemed to preclude in architecture especially the continuation of a progressivist view of man and his technology.

With the ultimate corruption of the technological metaphor, the architect is forced to search outside of the machine for his imagery. But even beyond this, the dual calamity of 1945 finally forces into question the value of the objects of man's conception that have traditionally marked his existence. This crisis suggests that the relationship of man and his object world may no longer be sustained by the anthropocentrism of a unitary geometry. The old hierarchical belief in the efficacy of man as creator and in architecture as the embodiment and representation of man's aspirations seems now to have been replaced by a new, more relativistic, more fragmented, and more discursive relationship between man and object.

This seems to be the central issue, which separates the architecture of today from architecture of the recent past. It is surely one that should be faced by Van Eyck and Hertzberger, and one that should certainly concern their present apologists.
Often arbitrarily chosen or generated forms satisfy both the design problem and the senses. On the other hand, consciously reasoned forms often fall short of either.

It is here that Eisenman's criticism again demands consideration. The "anachronistic presence" of various forms of the structuralists and the claim that they represent a human reality are challenged as a "geometric determinism with the rhetoric of a latter day humanism."

The question which arises is of the difference between association and representation. The former suggests that deep patterns of human nature are available or at least that clues might be established by various associations to a clearer, understandable environment.

The latter suggests that particular forms or their arrangement are understood as metaphors or are evidence of some transcendental idea.

While the generative deployment of form is understood as a strategy towards a unity of diversity, the origin of particular forms and the specific transformations which occur are both the most significant issue and the hardest to substantiate in a design.
The site is a small point of land which projects into the Sinepuxent Bay, a part of a rather continuous backwater behind the barrier islands of Ocean City and Assateaque. The bay is generally shallow and meanders into many tidal creeks on the mainland side.

This place is adjacent to the West Ocean City harbor, a small commercial fishing haven. A community has grown near the harbor of single family homes, workshops, a small motel, several restaurants, and a few fish markets.

Looking to the south over the bay one sees the north end of Assateaque Island, a national and state preserve which is undeveloped except for a campground and park about five miles away. The island is flat and sandy with some scrub forests, and some wild ponies live there.

To the north and east is Ocean City, the summer
playground of Washington and Baltimore. A sleepy
town in winter, it is the second largest city in the
state during the summer. Downtown the boardwalk runs
about four miles along the beach.

Nearby in the countryside are many farms,
cottages, and scattered residential areas. With the
exception of the tourist trade, the county is
essentially poor, rural and agricultural with an
economy based on soybeans, corn and chickens.
Many birds inhabit the brush on this sandy spit; gulls, ducks, geese, ospreys, herons, pipers, and others. The bay is alive with fish, crabs, clams. Nearby the inlet to the Atlantic, the point of exchange for bay and sea life. The point is currently popular for fishing and as a night time party spot for kids as is clearly evidenced by the smashed beer cans and bottles which abound.

Bayberry, holly, saltgrass... In time small cedars and pines will grow. The progression will include gum, maple, wateroak, willow... The abundance of life is breathtaking.

The sky is imminent... Ocean City at night is a carnival... and the water all about often mirrors everything.
Shells in the sand hint at both the life they were a part of and the relation of sizes... sand comes from the shells worn over time. Stones and pilings from an old road and dock leave some weak patterns discernable. Even the small pieces of stone seem a durable presence in relation to the fragility of the rest of the site. The pilings are rotting rapidly... driftwood on the shore...
It rains...northeast storms are fierce and frequent, southwest thunder-storms are typical in summer, and tropical storms occasionally hit the area. In all these cases rain is nearly horizontal. Everything, no matter what is done, leaks.

Cold winds come most often from the north and west. These are mostly accompanied by clear skies. Snow is infrequent but typically wet and very heavy.

Cool sea breezes blow often from the southeast and occasionally the northeast to provide relief from the summer heat. The diurnal effect of land and sea masses effects offshore, or westerly breezes in the late evening and early morning.

The challenge of this climate is that it ranges from very hot and humid in the summer to cold and windy in the winter. These conditions effect conflicting desirable building configurations if either comfort or energy efficiency is valued. Attempts have been made to deal with this in buildings by compromise massing schemes, thermal zoning (seasonal use areas), and by mechanical devices.

In general twenty or thirty days are uncomfortable in the summer and three months of winter are difficult to deal with by simple passive methods. General massing is affected by a desire for good ventilation (extension and openness) and a desire for minimum surface area (gathering and closedness). Several patterns deal with the climate well. Up to a point maximizing south exposure (wall or window area) and reducing east and west exposure...
reduce summer and increase winter heat gains. Sheltering the north and west side of buildings by vegetation or low roofs buffers buildings from the coldest winds. Porches can be effective shading east and west sides and closed in porches may be valuable buffers on north sides as well. South porches often shade desirable sunlight in winter, greenhouses and solariums are more desirable.

Insulations, orientation, massing, zoning, positions of windows, mass of materials, and mechanical devices all must be balanced with means of construction, desired uses, and other non-technical aspirations. High ceilings and a moderate amount of thinly distributed thermal mass seem reasonable but need more research and built substantiation. Thermal chimneys and fans for hot times and small radiant heaters for cold times can provide a comfortable thermal environment almost all of the year round.

For the days when they can't, however, more substantial backup mechanical systems are needed to condition at least some places. New window, dehumidification, insulation, and thermal storage technology are promising means to deal with this type of climate in a low energy consuming manner, but for now the designers control of building configuration and siting is the most effective way to respond positively to the situation.
The natural conditions of a region are an obvious ground and limit to its sensory form: its geology and topography, its climate, its ecologies. Of course, topography can be modified by heavy machinery, and change in the microclimate is created by any settlement. Moreover, the ecological system is perforce reordered. But these changes have their costs, and the basic climate and geography of places remains relatively immutable, at least within our human scale of time. We are learning some sad lessons about the hidden costs of circumventing a site rather than adapting to it.

Specifications for the preservation of environmental character are well known. Specifying a character to be created is more unusual and difficult. In fact, it is a new way of designing.

K. Lynch
geology

Most of the land is sand. Under this is either clay and sand, or layers of organic muck. The former provides a very stable foundation, the latter provides none. Test drilling must be done on any major building site.

The water table is very high, often about one foot under the surface of the ground. Below grade construction is unheard of in the area, it is rarely economical. Underground heat storage and plenums are not reasonable, the wet ground gets very cold in winter.

Foundations are usually piles, concrete footings, or grade beams although some people have experimented with floating slabs and "mushroom columns."
local farms

In travelling about the area I have always been interested in these "families" of buildings. The seasonal change that crops make in the surrounding of the farm buildings has always been interesting as well as the feeling that these buildings belonged to each other. Some regular patterns I noted are as follows.

1. Most significant to the collective is the proximity of the buildings, standing as a cluster in an open field. The typical group consists of a house, main barn, various work and storage sheds, chicken houses, and corn cribs.

2. The outbuildings are generally rectangular in plan and minimally framed. Roofs are simple gable/shed combinations.

3. The house is generally multi-rectangular; that is, more particularly articulated and often of a certain style, usually Georgian or Elizabethan. Every house has a special place to sit outside. This is never in the workyard. It is generally under a tree on a side of the house near the kitchen.
The workyard is partly defined by the cluster of buildings. The use of this is to accommodate vehicles and farm machinery.

It only occurred to me after sketching several farms that in every case the buildings establish, or are controlled by an orthogonal field. They are generally oriented in the same way, a direction generated from the road rather than climate or view.

The yard is evidently a positive space, albeit partially defined. They range from being implied by only two or three buildings to being two-thirds contained (in plan) by buildings. Trees, hedges, flower beds, fields often contribute to the definition.
What reinforces the notion of positive space is that the buildings line up, or register, with each other in a way that implies the control of the space over the buildings, rather than vice-versa. This space is generally a rectangle in plan. Sometimes the direction is stronger laterally and sometimes front to back.

The outbuildings are often of a variety of materials, sizes, roof pitches and age. Despite this a unity of a sort seems to be established by this positive outdoor space, the farmyard, as well as by the isolation of the buildings in the field. It may be that in such a "cosmic," flat landscape the creation of an orthogonal microcosmos is appropriate. In other words, the establishment of a directional field in a non-directional landscape provides an existential centering and a clear sense of orientation for the inhabitants. A centroidal organization would provide perhaps a stronger centering but front, back, and sides would be less clear. I believe the existential center of these places is about the kitchen and work yard clearly representing the life of a farm family as laborious and pragmatic.
This is quite literally a concretization of the very natural walk along the beach. It is under the control of local authorities, determined by zoning ordinances: setback, height and use regulations. The place is a procession, an embodiment of movement, a pedestrian promenade along a very continuous built edge. There are controlled zones of various dimensions mediating the entrances to buildings. Across the boardwalk is a continuous strip of white sand and an occasional service building.

The strongest collective aspects of the boardwalk are the strong connecting path of the
wooden walk itself and the strong registration of the edge of building along it. This edge is nearly completely built for four miles... the walkway is continuous.

There is also a repetition of use patterns. There are commercial and residential zones as well as hotels and amusements. Each has particular edge conditions and types of buildings associated with it. None of these patterns extend the entire length—only the beach and waters edge form a larger, encompassing place.

The absence of the auto is noted and appreciated. The pattern and variety of porches, railings, and decks provide the greatest visual interest as well as screen the buildings from the low east sun and harsh glare off the ocean and beach.

In distinction to the farmyard, the boardwalk is a celebration of leisure. The character of the place changes drastically with both season and time of day. Sometimes frantic, often meditative, a built edge along the sea, accessible to all.
WATCHING THE BATHERS, OCEAN CITY, MD.
..."My point is not that there be no standards; but that the standards do not have to precede the event."

"That makes me very uneasy. Then I, as a designer, would be at the mercy of every happenstance situation which came my way.

Certainly, designers should develop principles so that they can act quickly to make design decisions. They must carry their values to a problem."

"Not if it means obliteration of the life of the problem. Not if they are overwhelming..."

from V. Shogren
- Living quarters for 150-200 people; with associated support facilities
- Classrooms and auditoria...... 20,000 indoor
  20,000 outdoor
- Laboratory...... 150,000 (+150,000 expansion)
- Offices, private studies, libraries.............. 30,000
- Maintenance and shop facilities................... 40,000
- Administration................ 15,000
- Docks and marine facilities for........... 4 research vessels 100'-150'
  50 small boats
- Fish tanks, aquarium, aquaculture pools
- Commercial, retail supply & service
- Docks and marine facilities for commercial fishing
- Development of some non-institutional housing
principles

"One questions the motivating forces at work in such an institution. They seem to have a generally socially benevolent bent but I wonder about romantic tendencies on the one hand and power trips on the other."

"Yes, but you must agree, the Ocean City area could really benefit. This could help round out the community, adding something stable to rapidly changing resort. The studies they propose on beach erosion, fisheries and the local estuarine environment are certainly valuable..."
"The challenge seems to be to provide a sort of authentic decentralization of activity and form but provide for the identity and operative power of the institution..."

..."So you think that making some figural buildings for the institution but distributing them throughout a community fabric is the answer to this problem?"

"Well, buildings and spaces. I think this could represent the institution-ness of the situation, embodying the authority which they wish to be, serving to provide an image for them in the community, not against the community."

"As a town hall or church normally would?"

"Although the community is small, the town hall would be the better analog of the two... the idea is that generally these buildings must be the most public of the institution, the spaces must be accessible to the general public. So it is not a
governing town hall, or especially not sanctified as a church, but public buildings or places open to the community and visitors."

"Won't the administration want to be there?"

"Yes, but I think I can swing this board of directors. They seem to be a rather liberal, understanding lot."

"I was wondering if and when people recognize large figural things as such. It seems at some size, and from certain perspectives, the figural aspects of form becomes imperceptible. There are those who say that the strength of the ordering as such is somehow apparent and effective anyway. To others it is of little phenomenological consequence beyond the particular nearby definition of light and enclosure."

"I believe that these buildings will be viewed from wide vistas across the water and sand. In fact, it also seems a natural response to a rather undifferentiated "cosmic" landscape. Many historical examples support both the ideas of power and identity that come with this."
"But other examples may be brought out which show how prominent, often public or collective, places have grown out of a field like fabric, often having nothing of a figural nature."

"Nothing of a figural nature is not possible. With all due respect, sir, at some size symmetry is present. The questions again are obvious; in what form and material, at what size, for what use? What is termed positive outdoor space is often the partial definition or suggestion of a more complete figure. So while they are more or less pure, they cannot lack everything of a figural nature."

So engaging the building in the community fabric or the spaces in the community network may be a way to work at this dual program. Perhaps these are not polarities, but I still feel they are each compromised somewhat, the institution not having a cloister and the community having to live in this shadow..."
site plans
proposals
land and water

..."One of the most significant aspects of the project lies in the relationship between land and water. The point is one of many of various sizes and formations. Along the mainland edge, coves, creeks, and bays are reciprocal with peninsulas and points. In contrast the ocean-beach interface is a much straighter edge with less exchange between the two; that is, they don't interpenetrate each other: their boundary is minimal, given two surfaces."

At the largest site size the issue is whether to attempt to build or interrupt the continuation of the bay. The curious formation has occurred due to the westward migration of the north end of Assateaque Island. Before 1933, this was continuous with Ocean City. The creation of the inlet by a hurricane at that time allowed the fishing industry to begin. Now the Army Corps of Engineers and other authorities fight an expensive battle to maintain the inlet as
well as the beach in Ocean City. By our actions we may emphasize either the division of the bay, its connection, or perhaps both in some way.

Another major issue is the movement of people to and within the site. In the surrounding area ways are established to both points and bays. Presumably, this comes from desires for prospect, or visual advantage, and refuge, the harboring of boats. Roads often bend to avoid marshes, but otherwise connect places directly. Some more recent subdivisions have been based on loops and grids. Both seem to have some advantage as regards ease of movement but the power of particular places seems to erode..."
density on the site

"...It is desirable to build more intensely along the southern edge of the site and to try and preserve much of the existing vegetation and landscape north of this area."

The life is at the waters edge. The community should grow mostly out of the harbor. The fact that it is an edge with southern prospect makes it all the more desirable.

We considered the possibility of a sister harbor and two things are apparent. One is that if it becomes an "institute harbor" it will serve the dichotomy rather than reciprocity. Secondly, most of the site is stable land. It seems a shame to displace this when other, marshy sites may be more suitable. We really can't grow out into the bay or harbor much because the boating channels need to be respected. By building these short wharfs we seem to be able to accommodate many boats while minimizing the amount of soft edges which are transformed into bulkheading..."
a public waters edge
"... A strong feeling of ours is to make the
waters edge continuously public, but there are
problems encountered in the harbor area. The
institution and some commercial fishing operations
need to have secure outdoor space along the boats.
Also, it seems to be quite nice that people could
observe the work on boats and unloading of the catch
but we don't want to put the fishermen on stage."

"It seems to work out okay at the Nantucket
Harbor. The scallopers, townfolk, and tourists
share the wharfs. It does have the air of a show a
bit, but it's obvious these people are working hard
for a living. At least they don't seem to show much
resentment. I'm afraid all the platforms and
observation decks you are planning reinforce the
worst aspects of this situation, though. Shouldn't
the people just be able to stroll out on the dock if
they're interested in what's going on?"

"Yes, most of the raised levels are aimed at
seeing places where access on the ground is
restricted. The big observation tower combines an
overview of the main institution wharf with a larger
panorama. It also contributes to the aspect of
identity we have been discussing. Other places are
organized for a good vantage point out of the way of
the activity but I don't think it comes off as
staged..."
One of the questions which came up early was what uses are appropriate for this lower area for surely it will be flooded occasionally, most likely during severe winter storms. Seasonal markets, small boat storage, workshops, fish packing, and storage have been suggested so far..."
There has been some difference of opinion as to what should happen at the point. This undoubtedly is some sort of goal. The panorama from here of the town, inlet, Assateague, and the bay is magnificent.

We come with two proposals to discuss. What is common is that this should be the most public part of the site, that the institution should not be "out there." In the first proposal we suggest an extension of some sort, a dock or wharf, which is accompanied by a gradual lessening of building density as it gets over the water. Near the end we propose a library, or some sort of reading room, a very public use. We see this as a punctuation of the exchange with the setting rather than a uniform dematerialization into the bay.
But, the question was raised in an office review whether this domination of the landscape was appropriate, or moral even. It was seen as analogous to building on top of a mountain, setting up a defensive position or at least a distinctive one. Many towns we see as picturesque or intensifications of the landscape were situated for either the capability of resisting attack or a desire to approach the heavens. At this review these folks proposed a park at the end, similar in nature to the beach which now exists. They said the land should win; we should keep our position on the "slope." We felt that these possibilities and attitudes should be brought to your attention.

"Yes, I can see the value of each in a way. We would very much like to achieve the prospect which the pier affords. I think it would be particularly nice to have another tower out there, or maybe get on the roof of the building. I think the library needs to be more accessible to the institution community, though so I'm not sure what purpose a building out there might serve.

But, the gist of the other proposal strikes deep. The walk around the point is a strong experience. I think the continuity of the shoreline is valuable and a park or public beach sounds like a wonderful idea. Do you think you could come up with something which does both...?"
The concept of order has something to do with those of logic, civility, process, structure, and, above all, reason.

The main questions I have been trying to deal with this semester in studio are: "How much order is necessary? . . . desirable? . . . for what purpose? . . . How much restriction and constraint is established by particular types of order, or conversely, how much freedom exists within a given framework? . . . What is the difference between civilization and constraint of the individual?" . . . The questions lead inward and outward to those of human nature and political systems, respectively . . .

Initiative of the individual, elements which they can control, a balance in the exercise of power, patience and care, and change within civilized frameworks all seem to have something to do with the ideal which is expressed in the organic metaphor of the "cultivation" of a site . . . It seems that ideally the range of relationships of building systems to thematic systems might achieve this harmony. That the technical concerns, the regulatory constraints and the balance of public framework and individual expression could be integrated.

May 1982
from term paper in Transformations of the Site
strategies ... a "framework design"

"...I am suggesting that a way to develop your institution and the community you desire is by a process akin to cultivation. Some call it a framework design.

The idea of a "cultivated" site stems partly from studies of unselfconsciously built settlements where growth and change has occurred with conventions of various sorts. Often these places gather the natural and societal forces and elegantly integrate these into rich patterns of form, a "concrete" setting for life."

"This all sounds very well and good, but you can't tell me what we need here is one of the Italian hilltowns you have been telling us about, or even the Japanese fishing village you showed us pictures of. As nice as they looked, we have a very different set of needs. We have a much more complex society than they do, and an obviously different culture."

"Yes, yes, you are quite right... on all counts. What I am asking you to understand is not that you need these particular types of places, but that there are physical patterns here which might be beneficial to understand, patterns of growth and form."

"Well, it will take some convincing. They still seem like romantic, picturesque references to me. I'm getting wary... first all this about "the collective" and now "cultivation." They sound interesting but I'm not sure that they are either valuable in making buildings or that you really understand them yourself. Would you go on about this "framework." Now that sound like an idea of substance..."
Some of these policies can be expressed in "framework designs," that is, designs specifying the general location and sensory character of desired regional features, purged of all the physical detail that need not be fixed in advance.

Such a design may show that a future commercial center, for example, is to be a pedestrian precinct of low, open structures in a maze of narrow lanes, which contain a setting for neighborhood celebrations; that it is to be open to the sky yet sheltered, directly connected to its residential surroundings, and yet visible from specified points along the major routes of approach. Framework designs are highly abstract, flexible, large-scale site plans of a kind appropriate to management at a regional scale. Such designs call for definite public actions and place definite limits on private development; yet they can accept many different specific forms. Local groups may fill them out with more detailed programs. Designers engaged with particular sites can follow them with little loss of creative scope. These framework designs would necessarily be integrated with the more familiar land use and transportation plans.

ordinary design process is a dubious business at the regional scale. "Urban design" carries a dangerous germ of grandiosity: behind the concept of big architecture is a wish for big control. A hunger for the control of large-scale form is all the more dangerous because it coincides with strong contemporary trends toward large-scale investment. Big design requires substantial economic and political power plus a demanding technical effort to foresee and provide for everything. What is worse, it stifles local voice and initiative. The familiar result is a coarse-grained, inexpressive, mal-adapted habitat.
Keeping in mind the receding legal barriers, the agency would furthermore recommend regulations to control the sensory quality of private construction. Development regulations do not usually include explicit sensory objectives. But the familiar public controls—zoning, building codes, and subdivision rules—could deal with many things of that kind: the topographic siting of structures, their proportion, bulk, and visibility, their surface texture; the provision, proportions, and enclosure of open space; the preservation of fine settings, view lines, and sunlight access; the enhancement of natural features; the provision of seats, trees, shelter, toilets, and other amenities; the mix and transparency of street-front activity; pedestrian access and safety; the posting of information; and many more. Rules can be area-wide or be tailored to specific locations.

Kevin Lynch

"What sort of regulation may be necessary in all this? I suppose we need to budget some money to its administration."

"Well, besides the basic zoning and building type codes, which affect setbacks, height, use, and construction details, you may wish to regulate materials, colors, textures, solar access, ... even overhangs, roof pitches, and window types in the extreme."

From Building on Nantucket
amenities and spaces

"...The systems which we often design for places include pavings, fountains, fences, lights, signs, paths, public corridors, pocket parks, transit stations... why we have even designed events and processes. What I see as important is that we develop a particular attitude towards such things. For example, sign controls in various parts of the site, different types of lighting for roads and various walkways, paving patterns and drainage. At best, I think we could build up patterns of association, some which associate this place with the surrounding area, some which are found only in this area, and others which are peculiar to particular uses or areas within this site."

"You think light fixtures and benches will provide us with character then. I liked your ideas about several grand buildings better. How important are these minor details?"
"Well, sir this is only part of it. I think there is a great range between public amenities and prominent buildings. The sizes and patterns of space in this area provide the strongest framework. A range of outdoor and intermediate places for movement, gatherings, relaxation... In the current proposal they are organized by microclimatic considerations as well as by trying to make an appropriate public order. There is an attempt to make orientation clear; to make understandable public ways... Two main patterns appear, then, with some variations and alternatives. One is of spaces open to the south, sheltered from the cool north and west winds. The other is of open, straighter, and larger spaces being clearly more public. There are views and glimpses provided of the water and the natural landscape which could assist in the understanding of how one moves as well as to make the most of them visually. There are collective outdoor places of various sizes associated either with particular smaller groups of buildings, as in the housing schemes, or with the main public ways along roads and paths..."
"...Perhaps the most effective framework is provided by buildings or built pieces. Of course, the relationship of spaces and buildings are wholly interdependent, but the manner of approaching the different buildings tasks may vary widely.

As we discussed before, the range of possibility is from independent development of various parcels of land, either with or without restriction, to a complete, great design composition for the whole area. The suggestion here is somewhere in between. On the one end, we propose the designs of several prominent institutional buildings, some of the collective housing, and some marine facilities. At the other end we propose that some of the land be parcelled off for the development of individual homes and smaller commercial enterprises.

What is possible to control the development of these ranges from an architectural review board and a
published set of guidelines, to the hope that the plan and buildings we design will establish such patterns that the character of the community might grow quite naturally."

"Another approach, in between and more radical, would be to build incomplete structures on the site to be sold or long term leased. These have historically ranged from visionary megastructures, to smaller supports structures and various sorts of ruins to accommodate another level of intervention. In a way, most renovation and rehabilitation projects are similar. Each structure has implications as to the order implied, the datum which is evidenced, the connection which is established."

"Doesn't it seem, though, that surface characteristics and elemental detailing have more effect on town character than the primary structural systems; the types of windows and doors, the patterns of brick work, the style of buildings? How much does this underlying order affect the sense of the place?"

"Very much, I suppose, but the public space network, the streets and gathering places, the views and direction are probably most important. This leads us to introduce pieces of structure which define public places and zoning ordinances to control bulk and position of developed buildings. This strategy sounds like it could lead to some expansive headaches. Especially if the structure does not get rented or bought very quickly, or if it is too restrictive."

"Yes, in the case of houses I think there may be some problem. The stores could perhaps accept this more readily. They currently do so in both shopping malls and urban situations. They often have to build into a larger framework."
"It seems that what you are asking us to do is gamble. Because you think places which are designed are often dry, I must say... a strange attitude for an architect, you ask us to build a place which may be allowed some sort of controlled growth. But what is our advantage, why do we take this gamble... Because some old towns look better than new ones? I'm not convinced about this partially built stuff."
on structure and character

The architects projection is one of structure or organization. The difficulty of specifying character or sense of place is apparent. One has certain images, goals, and intentions. Presumably the ability to understand the correspondence of these develops with experience, but it remains one of the great mysteries of architecture, that is, whether or not certain patterns yield predictable character or identity. While structure, organization, and form may be understood elementally or topographically, questions of association and meaning remain.

These issues have been addressed by Christian Norberg-Schulz in several of his books. Particularly interesting are the notion of building as a "concretization of existential space" and attempts to make relationships between structure and meaning clear. These lead to an assertion of several types of order in  *Genius Loci* which are associated with natural landscapes and modes of individual and collective existence.

Starting from some points he had made previously, most notably in  *Existence, Space, and Architecture*, he discusses the concept of "existential foothold" as dwelling and points to a relationship with both perception and symbolization. In focusing on existential space as a matter of orientation and identification many of the issues of phenomenology and theories of meaning and representation become important. He states that it is a basic need of man to experience "life-situations" (represented by symbolization) as meaningful and it is the purpose of art to "keep and transmit meaning." Thus follows... a place is a space with character,... dwelling has to do with orientation and identification,... and  *Genius Loci* is the particular spirit of place.
existential space ... orientation and identification

One of the basic distinctions is of meaning of place and structure of place. Norberg-Schulz defines the latter as "the formal properties of a system of relationships" while the former "consists in the relationships" or is what an object gathers in the Heideggerian sense. Structure is related primarily to orientation as providing emotional security and imageability; in Lynch's terms, "vividly identified, powerfully structured, useful images of environment."

Norberg-Schulz points to the limitations of this to spatial function and says that it is only partially an understanding of dwelling. The other need is identification which he describes as "to become 'friends' with an environment," and gives a sense of belonging.

He proceeds to describe three types of order in terms of landscapes, built characteristics, and sense of place. He calls them Romantic, Classical, and Cosmic.

Romantic order is characterized by an indefinite multitude of different places, variety and mystery which cannot be understood on logical terms, a live and dynamic character. It is organized in a way resembling nature... topologically rather than geometrically with elements related by proximity or enclosure. In addition, relationships are usually complex and forms characterized by a serrate and mild massing. The built examples are medieval towns and some indigenous settlements. An example of the natural landscape is a Nordic Forest.

The ground is rarely continuous, but it is subdivided and has varied relief; rocks and depression, groves and glades, bushes and tufts cret a rich "microstructure"...the sky is hardly experienced as a total hemisphere but is narrowed in between the contours of trees and rocks, and is moreover continuously modified by clouds... As a whole, the environment seems to make a mutable and rather incomprehensible world manifest, where surprises belong to the order of the day.
A cosmic place, at the other extreme, is distinguished by uniformity and absolute order. It does not contain individual places but is rational and abstract. Its forms are static rather than dynamic, generally geometrical, orthogonal, uniform and isotropic. Settlements in cosmic landscapes, deserts and plains, tend to be inverted and aimed at necessity rather than expression. Surfaces and volumes are often "dematerialized" and active forces are not usually represented. Examples of settlement and building are given where the built landscape is a manifestation of a pre-established cosmic order.

The Classical landscape and settlement, finally, are characterized by a "meaningful order of distinct, individual places" and is "distinguished by imageability and articulate order." Settlements are characterized with the epitome of classical Greece as being a composition of distinct elements, clearly delimited, where each form has maximal sculptural presence. The ground is simultaneously continuous and varied. Generally, there is an order of individual places of particular personality.
spirit is an elusive presence

Norberg-Schulz very clearly exposes his bias to this type of landscape and settlement as the most interesting and beneficial. He makes the argument that this synthesizes the best aspects of the romantic and cosmic orders. It "unifies topological and geometrical traits and expresses democratic freedom." There is not a general dominant system, but rather an "additive grouping of individual places." Even the construction is an interaction of active and passive members built in a direct and intelligible way. His bias shows further in the assertion that "the classical landscape makes human fellowship possible...every part conserves its identity within the totality."

Of course many theorists have posited categories or types of order. Rarely is such a particular correspondence between phenomena and organizational principles offered. Likewise, the conception of landscapes evidencing these orders seems unusual.

While the distinctions of spirit as Romantic, Cosmic, and Classical are reasonable and potentially useful, I don't think that spirit can be fully captured in concrete, analytical terms. Objective distinctions, based on form, space, material, light, and order, may be useful to understand places and things. Spirit seems to be a more feeling notion, or perhaps even a higher order. I want to call it existence While Norberg-Schulz discusses existential space and dwelling these aspects cannot be clearly defined or articulated, in fact, they remain somewhat mysterious. Even at the level of perception there are questions which cloud any interpretation. At the higher level, the spirit of place seems as elusive as the spirit of man.

The limits of his conception seem to be the ideas of "imageability" and "understandability." This is particularly apparent in the elaboration on Classical landscapes and artifacts. That these have an "articulate order," "distinct personality," or "express democratic freedom" seems to leave a great range of interpretation and are vague. While being more clearly descriptive, "family of forms" and "additive grouping" still leave critical interpretation very open. Because the essence is not
available, Norberg-Schulz must surround the idea of spirit as best he can. The concept of spirit is indefinite due to the variability of experience, association, and emotion. While other aspects of character are often clearer, spirit is an elusive presence.

presentational immediacy and causal efficacy

Alfred North Whitehead addressed these issues in his book, Symbolism. His most relevant distinction seems to be between "presentational immediacy" and "causal efficacy." The first he describes as the immediate presentation of our contemporary world, by means of our projection of immediate sensations, determining for us characteristics of contemporary physical entities...what Hume called sense-data and others have called impression or information... "a vivid exhibition of regions and relationships." It is the way contemporary things are objectively in our experience as opposed to formally existing in their own completeness. Causal efficacy binds us from the outside. It is the "hand of the settled past in the formation of the present." Kant thought this intuition was fixed by categories of thought. Whitenead, like Norberg-Schulz, thinks that these symbolizations are changeable and changing...that symbols do not create their own meaning. He says,

Our experience arises out of the past; it enriches with emotion and purpose its presentation of the contemporary world; and it bequeathes its character to the future, in the guise of an effective element forever adding to, or subtracting from, the richness of the world... The components of experience are not a structureless collection indiscriminantly brought together... Mankind, by means of symbolic transference, can achieve miracles of sensitiveness to a distant environment and a problematic future...but it pays the penalty by reason of the dangerous fact that each symbolic transference may involve in arbitrary imputation of unsuitable characters... Codes, rules of behavior, and canons of art are attempts to impose systematic action which will promote favorable symbolic code and a fearlessness of revision...those societies which cannot combine reverence to their symbols with freedom of revision must ultimately decay either from anarchy or from the slow atrophy of a life stifled by useless shadows...
phenomenology and projection

To look at spirit as "meaning" has its limits. Norberg-Schulz claims that his three categories cover "objective environmental properties as well as human attributes" and that they "have been introduced because human identity consists in a particular kind of correspondence." Thus he implies that for an environment to be meaningful to an individual it must have a spirit, or identity, he or she can relate to. This seems both true and vague, again open to wide interpretation. If spirit is taken as identity in the simplest sense many of my problems disappear. But his concept of identification is more existential. It is tied into the complexities of the Heideggerian "gathering" of place and the associative issues of perception.

The problem with these ideas about structure and character is how to put them into action. It seems reasonable to interpret and observe the various meanings of places in phenomenological or symbolic terms, but to act in a reasonable way in the production of places is problematic. The call for an imageable built environment seems appealing but difficulties remain. Whitehead points out the problem of arbitrariness,... fearlessness of revision still doesn't lead one to what to do.

We are still left with the unresolved general issue of the arbitrariness implicit in the use of conventions and the degree of self-consciousness with which they are used as pointed out by Whitehead and Choay, respectively. This applies to both the production of artifacts (and their potential meanings) and to the establishment of frameworks for the analysis and interpretation of artifacts and places.

In this focus on sensation and association a fundamental problem is the conception of how these operate. Do we in fact "project our senses on the world" as Whitehead claims or have "a priori categories of the mind," a belief held by Kant. What
is the nature of causal efficacy in general and how does it vary in individual association? Even if the neurophysiological aspects are better understood, we will never understand the aspects of human emotion, spirit, and will in a specific way.

Langer has said that as a technique, the attitude should be taken that "I disengage myself from all such taken for granted beliefs, hence from all things presented as realities and their real relations—not to deny or affirm them but to study them as denied, affirmed, doubted, believed, loved, judged, and so on... I note their experienced status as realities, but now I remain neutral to that status in order to more clearly focus on mental life itself..."

In an unpublished paper titled "Phenomenology as a Search Technique," Vernon Shogren addresses the issue as being of primary importance in design.

If we as designers, as men of signs, are to integrate our own subconscious and conscious intentionality into a comprehensive world view, and then presume to do so for other human beings as well, we will have to look at them fundamentally, unfolding the layers of intentions until we arrive at the point of origin... what is obviously needed is the ability to formulate consequences of design acts in phenomenal rather than material terms... the designer must have some conviction that prediction about human response is to some degree possible.

To understand the complex relationships between people and places one would ideally like to understand pure perception and pure association, or fundamental human nature. There are two ways to approach this, intuitively and logically, and these support each other. Intuition is achieved partly from subconscious synthesis of thoughts but mostly from direct experience. This is not fully, or completely, or wholly, describable. Only in aspects can one attempt to understand, logically, some relationships... The path to logical understanding of phenomena is to explore a multitude of aspects of form and feeling with a focus on the latter...

From Theory & Method term paper
Fall 1982
the semantic fallacy

This brings out an important aspect of theories of meaning in architecture. Many theories are modeled on linguistic theories and based on contextual or intertextual references of form. This is Choay's explanation and is a general description of Norberg-Schulz's discussion of "semantics" in his earlier work, *Intentions in Architecture*. For me, this places too little emphasis on "presentational immediacy" as an aspect of symbolism. Norberg-Schulz seems to have moved toward this in his recent works. The problem of looking at architecture as language is that while language is usually expressed and perceived linearly, spatial experience is three dimensional. Words flow, thoughts come in order. Places are also experienced sequentially, but the whole is much more present and immediate than in the understanding of a procession of words or thoughts. The experiential, or phenomenal, aspect of symbolism, then, has to do with "the nature of an act as a perceptually existant event" and "its consequences in terms of direct lived experience."

the art of progress

On top of all the distinctions, I appreciate most of the values of Norberg-Schulz. Particularly his feelings about immediate landscapes as references for design and importance of continuity of places and culture. This is grounded in the belief that being rooted and self-governed are good, that change within a stabilizing framework is better than radical revision. He, too, quotes Whitehead,

The art of progress is to preserve order amid change, and change amid order... A living tradition serves life because it satisfies these words. It does not understand 'freedom' as an arbitrary play, but as creative participation.
discussion
discussions

the planners
tourists, travellers, and citizens

..."I think you're just making a tourist place, with this minor boulevard and fancy path along the water's edge. You wish to put the clammers in a fish bowl, so to speak... How would you feel if someone came in and watched you draw all day?... It's a funny reversal, though, a place like Shanty Town, so obviously for tourists, is organized much less clearly. It took me three or four visits before I began to understand the layout, and I rather pride myself on having a good sense of space and organization. If the distinction is that the way is
usually made easier for tourists than travellers or citizens, perhaps you are caught in a situation you clearly wanted to avoid."

"I'm not sure. First, it seems that at the size of Shanty Town this presents no real problem. Identity is achieved by the cluster of similar scale buildings standing in relative isolation."

"Then perhaps parts of this the scheme could be less orthagonally controlled, more areal or fieldlike? It seems awfully straight and tight."

"Yes, perhaps. But Shanty Town raises another question, and that is what is a reasonable town organization in relation to a flat landscape? Shanty Town represents a New England fishing village. First it's at minute scale, and more importantly, it's organized as a town on a hill, growing out of the rocks. It's closer to the organization of a hilltown, though the primary paths and ways aren't nearly as clear."
Around here the towns orientation seem to be generated by the directions which lead to nearby towns. Many were obviously crossroads which developed, others, commercial enterprises which generated enough population to warrant connecting roads to nearby towns. But most roads in the countryside run straight. Near the shore then bend only to avoid marshes.

Besides, it's only four or five blocks long. Ocean City is over 150 blocks long, nearly straight away."

"Yes, and it really is a place made for tourists..."
relations and representation

..."Granted, buildings can affect relations amongst people, but to claim they symbolize a situation in some absolute manner is questionable. All readings are subjective. There is no universal way for things to mean anything, no commonly understood language of space or material!"

"Quite the opposite, sir, the situations are merely made possible, not dictated by the physical world. The power of architecture lies in its embodiment of an ideal. This is the way buildings are seen in history. Various aspects are taken to mean something."

"But the audience is often tangled in a web of philosophical distinctions. They have theories which color their vision. The examples are selective. Cultural artifacts are constantly reinterpreted and understood anew."

"Isn't this the way we all operate in the world. Isn't this progress...learning...?"

"Come on, you're getting too vague."

"Give me an example, then..."

"Alright, take the Shakers in New Hampshire. You might say that they literally built into their buildings the belief that men and women are equal but to be separate, that their buildings represented this belief. Their actual life was much more communal, however. The quarters were shared much more than the architecture suggests. You say it is the suggestion that is important, I say it is the actual life, the lived situation."

"You probably believe that architecture can deal with deep feelings and fall back into this mystical "oneness" theory when pushed on it. I've always found your sort quite difficult to understand. There are too many physiological and ethical dilemas in the
phenomenological inquiry. Besides, what is more relevant to the current existential situation than the omnipresent destruction of the earth?"

"But, can't you see, that generates the greatest need for stability, for permanence of understandable patterns. I suppose, now, that you think we should intentionally build schizophrenia into the environment. Why don't you go back to New York and let us go about trying to build a peaceful world."

"Certainly your aim is heaven on earth. I thought William Blake put an end to such dreams. Don't you think Apollo would be meaningless without Dionysus? 'The only use of order this side of evil is to make what is essentially chaotic work.'"

"Ah, at least you admit a minimal commodity is necessary. Perhaps that distinguishes you and some of the others."
us and them

"One sense of order, often understood as classical, has to do with completeness, hierarchy, and symmetry. To act orderly in this sense means to be in line, not creating any disturbances; to be as expected. Its physical embodiment is usually reserved for high culture or colonialism. It comes in the form of great grids and geometrically ordered buildings and spaces."

"But don't grids sometimes represent a democracy both as a shared lattice and a pattern which can be extended without bias. Aren't many American towns based on this organization."

"I don't think so. This may be true at one level but I think it implies a greater control of the individuals by some authority as in the colonial examples. Its an easy solution to establish quickly."

"Yes, but how about issues of orientation. Surely you agree its easier to find your way about Manhattan than Boston?"

"But your attitude is one of designing cities for tourists. I really think it's quite uninteresting to the inhabitants. Maybe it's the size. New York is so large it needs some incredibly strong spatial structure. I would never be convinced that this should apply to the size of this institution."

"You're saying that grids have something to do with classical buildings and formal gardens? It seems to me that there is an incredible variety of organizational examples within this realm."

"Yes, but I think produced by the same mentality. The power pushers, the colonialists, high culture, the authoritarians..."

"And the other...?"

"Well some have called it organic order, some would say it's less order or no order at all. What's interesting is that it seems to be evidenced in many nice examples of indigenous architecture and conceptually supported by post-reality theory mathematics and physics."
"You mean the talk of spatial continuity and field theory."

"Yes. Yes. All that Cubism, DeStil, Supremetism, and Constructivism picked up on."

"But, even the materialists in the modern movement weren't after the classical order you posited this against. The Expressionists and Functionalists had long since rejected those notions. But aren't we past modern architecture now. It seems like a sort of formal symbolism is back, at least we're more comfortable building distinct rooms again."

"I never will be..."

...Large systems cannot be perfect unless they are formed at a snail's pace. Big gems grow slowly and are rare. Local symmetry and global repentence is all that a world of atoms can achieve. Symmetry almost always is broken by growth, as by destruction. Most often the system has to satisfy the minimal principle. But if it anywhere doesn't reach minimum, there's going to be a defect. The memory of a defect will force a defect somewhere else. The whole thing has got to work out in the long run...

...The world is governed by minimal principles which apply locally in every place. They cannot be expected to overcome the constraints imposed by time and topology. It is just as remarkable to see an absolutely perfect crystal as an assembly of the right atoms with no crystallinity at all. Neither could occur. The only way to have an absolutely perfect assemblage would be to have the whole thing formed at the absolute zero temperature—no randomness. But, of course, at true absolute zero the rates of formation would go to zero. Nothing would ever happen. Only an isolated world where nothing ever happens can be perfect. (Is that Nirvana?)

Broken Symmetry and Art

I am not justified in making a moralizing conclusion in aesthetics, but I can state a prejudice...

What we regard as highly satisfying works of art, even many natural things of beauty, contain broken symmetries. The symmetry is made manifest in some form, yet it is not carried out to perfection. The contrast, making visible both sides of the act of becoming, demands appreciation. A soap bubble is beautiful. Somehow everyone would agree that it has a kind of simplicity, a coldness, which bars it from the category of great beauty. In fact, the very reflections and color changes which make it something other than a perfect sphere enhance its beauty. A cube of glass, too, is a beautiful object but no work of high art. If you see the work of a lapidary, a rough crystal, the crystallinity plain on some faces, but hidden in the matrix of others, it is a more satisfying object. I suspect we react to the fundamental thermodynamic quality: an expression of symmetry, yet one not allowed to dominate exclusively, just as it cannot in the real world, for some feature always breaks every macroscopic symmetry in the end.
Christopher Alexander:

... the games of the Structuralists, and the games of the Post Moderns are in my mind nothing but intellectualisms which have little to do with the core of architecture. This depends, as it always has, on feeling...

Peter Eisenman:

... Of course, if you are a feeling type, you would think that feelings are the essence of the matter, and I cannot help thinking, as a thinking type, that ideas are the essence of the matter. It is not something that I can walk away from. We all have a shadow, and my shadow is my feeling. I accept that you are that way. I am asking you to accept me the way I am rather than dismissing what I say as not being at the heart of the matter. For you, feeling is the heart of the matter, because it is the only way that you can configure the world.

CA:

... The thing that strikes me about your friend's building—if I understood you correctly—is that somehow in some intentional way it is not harmonious. That is, Moneo intentionally wants to produce an effect. Maybe of incongruity.

PE: That is correct.

CA: I find that incomprehensible. I find it very irresponsible. I find it nutty. I feel sorry for the man. I also feel incredibly angry because he's screwing up the world...
Wherever we look, we find configurations that are either to be understood as patterns of order, of closure, of a tendency towards a center, cohesion and balance, or as patterns of mobility, freedom, change or opening. We recognize them in every visible pattern; we become aware of their existence as patterns of our motivations, feelings, states of mind. We respond to their expression in nature's configurations and in human utterances, gestures and acts. Cosmos and chaos, as the ancients called them, the Apollonian spirit of measure and the Dionysian principle of chaotic life, organization and randomness, stasis and kinesis, conscious and unconscious, inhibition and excitation, association and disassociation, integration and disintegration, the processes of the outer world and of the human brain are cast in this Janus-faced matrix.

When we are able to fit new occurrences into patterns learned from the past, we have a subjective experience of agreement, assurance and harmony; we accept what we are given and close ourselves to change. But when we cannot fit them into an inherited set of rules we have an experience of displacement and uncertainty; we are compelled to open ourselves to movement and change. If we are confident, we face issues squarely and, with the realism born of confidence, broaden our world. If we are timid, we mask the issues in a mystical garb and, retiring from the challenge, shrink from our world. One day we need symmetry, certainty, coherence, discipline; another day asymmetry, freedom and adventure.

It's all very well to say, "Look, harmony here, disharmony there, harmony here—it's all fine." But the fact is that we as architects are entrusted with the creation of that harmony in the world. And if a

PE:
Irresolution, to me, suggests a condition verging on but never reaching wholeness which we have to live with in life. This wholeness that you are talking about is inevitably something that is not quite whole, that we have to believe in in order to get up in the morning. Both are necessary. But I do not think we can return to a cosmology based only on wholeness. I think we have to understand the cosmology of absences and presences, differences and samenesses, and introduce structures that deal with those ideas. I am not convinced that either you or I have the answer. I feel the seriousness of your undertaking, but I feel it leaves me out, as I leave you out.
The concepts of twin phenomena, double function, and polar inclusion have been advanced by several folks, notably in criticism of the purism proclaimed by modern architecture, but the concept of a unity of plurality is as old as the hills.

"Wait a second, slow down, you've gotten by me with these...I'm vaguely familiar with the Van Eyck stuff about twin phenomena and it's always seemed questionable that places can be both open and closed or whatever. This is as preposterous as the talk of quasi-autonomy... Come on, something is either one way or another. Quasi-autonomy defies the very definition of autonomy. Semi-independence is no independence at all."

"Wait a second...now you're introducing another aspect, or rather, getting back to the figural issue. Let's discuss polarities."

You see, I think it is important to see them as interdependent rather than dichotomous. They are not a split, they are a range. It's like the human brain itself. The differentiated hemispheres operate in complementary fashion rather than one of mutual exclusion."

"Hold on now, you're getting into one of your cosmic interpretations again. Can you bring this down to earth."

"Surely, examples abound. There is a stairway in Sienna which leads both into the church and past it as a public way. It is both public and private, yet it is one thing."
Venturi calls these types of things "double functioning elements." He points out their existence throughout architectural history and in indigenous buildings. My problem is that he often looks for these as expressions of contradiction, and quite often in facades, while I believe they are more significant when they relate to fundamental existence in human terms."

"Where does that leave you with your ideas on this institute project, then. Wasn't your notion of the identity of the institute through prominent buildings a sort of expressive concern."

"It's hard to say, it's still just an idea. But the expression I seek I would hope is more fundamental than semiological, that is, it relates to topological effects which are naturally understood by people rather than meanings due to an acquired vocabulary..."
proposals

transformation of the site first order
"Shifts and overlaps of uses are important towards this community integration. The patterns of institution uses, commercial areas, and residential areas all indicate this. Most changes are not abrupt.

This doesn't mean that everything is randomly distributed. Each pattern has several strong areas, or concentrations. The institution has two zones along the harbor. The first and largest includes offices, labs, classrooms, administration, and the aquarium. The other includes the largest auditorium, some more offices, and the main library. Several types of institution housing, flats over stores, larger group homes, and cottage clusters, are distributed throughout the site. The commercial concentrations is along the main street between the two plazas. Here commercial activities occupy both sides of the street. Most of the zone is left to
future development, but two market structures are proposed, one at the street level and the other in a smaller plaza along the water.

The plazas are generally where two or more uses come together and where the most public activities are located. Smaller collective outdoor places, ranging from small plazas to bulges along pedestrian paths, are related to both concentration of particular groups or mediation between uses.

A sheltered walk, perhaps an arcade, is suggested along the north edge of the main street. This is more continuous, sheltered, and "harbors" more activity. A question is whether this should be built as an independent structure or managed so that each building is required to contribute in a more or less restricted way. The former may result in something like the Uffizi or Washington Street,
although the process is reversed. In these cases a uniform arcade structure binds a variety of buildings. The latter is based on examples like Bologna. Whether to specify dimension only or be particular about form and material remains a question. In this case a more integrated arcade could be expected, the space is the minimal linkage, and a great deal may be left to individual initiative. An in between armature approach may be possible. The building of some pieces which suggest and allow an arcade, but which are only partially built may be best in the long run...

"The key to success of these "armatures" is that they are strong enough to provide an understandable connection but restrained enough, or only partially built, to allow for subsequent inhabitation. In Herb Greene's theory this includes both construction on or along the armature as well as the embellishment of the structure itself, this becoming a center and depository of long lasting "civic art." This is not to say that they need to be neutral or lifeless to begin with. Quite the opposite, what is desirable is that they provide a richness and variety of clues for further action..."
institution collective "cottage" housing
waterside market plaza
transformation of the site
framework plan
site sections

topography

"...The pattern which controls this street is this, then. The north edge may be built fairly continuously except for two plazas at the intersections. On the water side, smaller buildings with some views and glimpses through are desirable. This pattern is found in many places which move along the water. In this case the southern exposure makes it all the more desirable. By terracing down to the water we can repeat the pattern at a lower level, that is, this pedestrian path may move along sheltered from the north winds, with only utility buildings out on the wharfs."
Some characteristics of spaces and elements have been established. The systems which have been developed to various degrees include:

- roads; with several systems of paving.
- walkways; of wood and various masonry surfaces.
- plazas and smaller collective outdoor places.
- bulkheading, larger terraces, and wharfs.
- zoning which controls the size, direction, and continuity of public space and natural landscape.
- zoning which establishes use/activity relationships.
- heavy concrete frame; related to the most public parts of the institution and commercial areas.
- masonry walls; related to the more private parts of the institution.
- medium concrete frame; as a support structure for retail uses and housing.
- wood frame; as trellises, porches, and roofs.
- ground form; planters, terraces, bollards, and low walls, surface drainage, pools and ponds; masonry and wood.
- attendant things; roadway and walkway lighting, benches, water outlets, electrical service, gasoline pumps.
Some of these establish actual built connections. The walkways, roads, long buildings, arcades, and larger terraces may all be understood as physically continuous armatures.

Other systems establish virtual linkages by repetition. The pervasiveness of the family of ground forms is intended to this end. They are generally of the same material and are built to several standard heights establishing a strong, low horizontal continuity throughout the site. Some are transformed into other materials, many find there way into the buildings. The other systems, especially the larger concrete frame and the attendant things also contribute to this sort of connection.
walkways; of wood and various masonry surfaces.
plazas and smaller collective outdoor places.

aquarium pools and plaza
Institution collective "cottage" housing
bulkheading, larger terraces, and wharfs.
• heavy concrete frame;
- wood frame; as trellises, porches, and roofs.
ground form; planters, terraces, bollards, and low walls, surface drainage, pools and ponds; masonry and wood.
attendant things; roadway and walkway lighting, benches, water outlets, electrical service, gasoline pumps.
commercial / residential above

auditorium

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site transformation  possible growth
Every disturbance has its counter disturbance. Every mound has its borrow pit. What is "added to" must be "taken from" and what is taken from must be disposed elsewhere.

Fred Eichenberger
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