

By Way of the Highway

Douglas Van Pierson

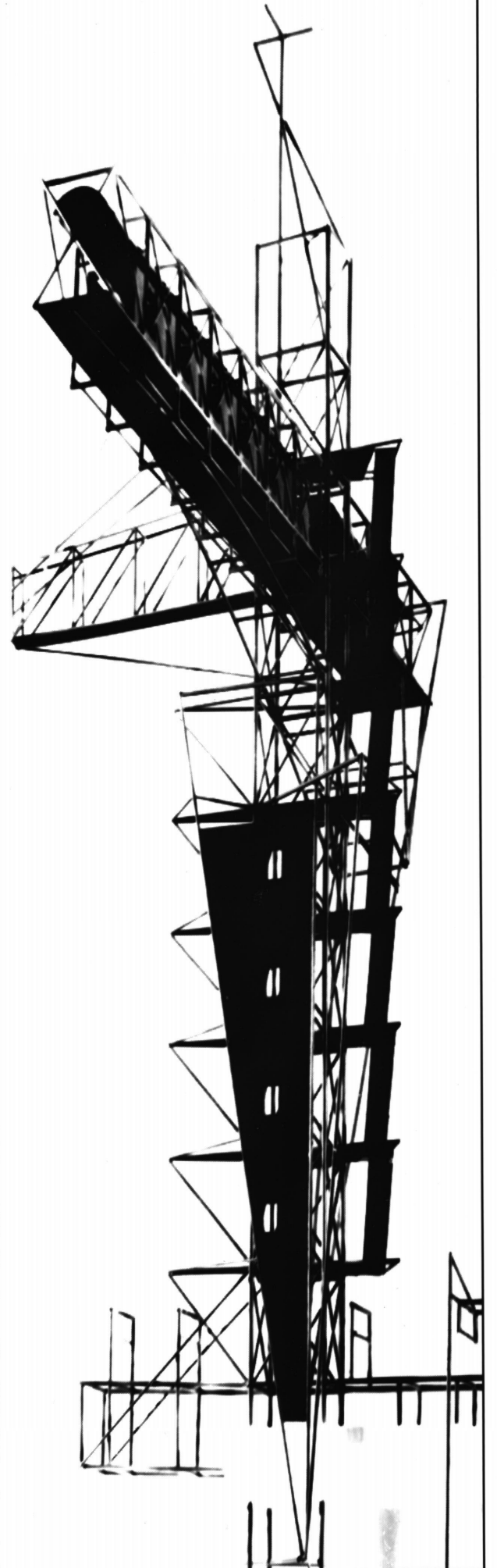
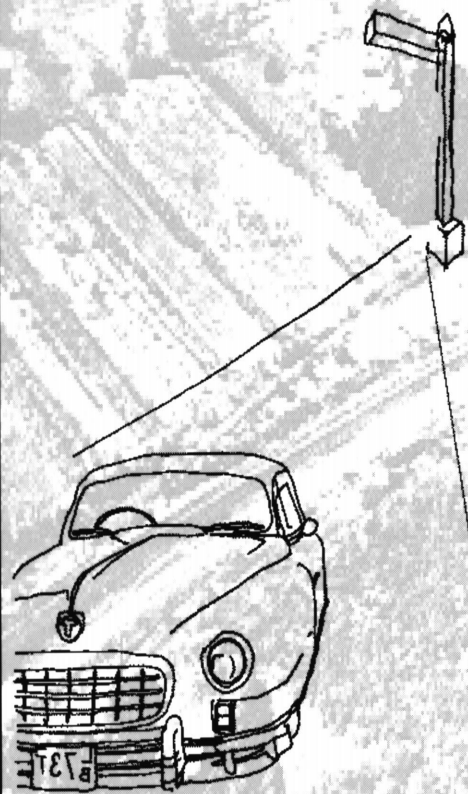
a collection of towers

approved by:

Salahuddin Choudhury
(chairman)

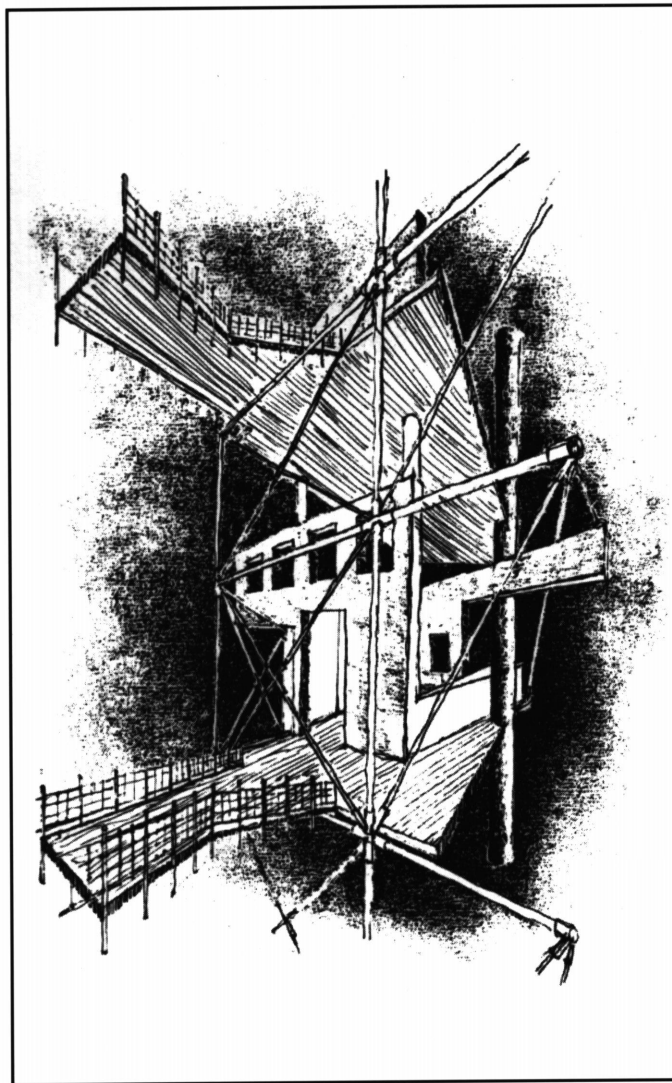
Hans Rott

Frank Weiner



by way of the highway : a collection of towers

Thesis submitted to the Graduate Faculty of the Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of Master of Architecture



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Abstract

A questioning of methods: If we are to accept existing American culture as an entity, should design not embody the spirit inherent in that culture? In Europe, architecture has been afforded the luxury of time. There, the concept of dwelling has encompassed the questions of man's position as a rational being separated both from his surrounding environment and his divinity. A sense of alienation from such a universe forced him to search beyond his immediate environment. The role of architecture thus became a mediator, a departure point where man could dwell between heaven and earth. Sanctity, purity, proportion, centrality, and hierarchy all became building blocks for an architecture striving for a transcendental perfection. In the United States, however, architecture has been adjusted to accept its surrounding environment as a formal model. Space is defined either by the existing condition of the environment or by the will of man existing within his surroundings. Man, no longer alien or subservient, now does not need a mediator but instead a throne on which to share in the government of perfection within his surrounding environment.

As a result, the American conception of space (i.e. the 'tradition of the way we view our landscape') has evolved into something different from that of our European counterparts. In a sense, America is the embodiment of the rational enlightenment in a new society. Its history lies not in the hearts and minds of its citizens, but on the other side of the ocean. Because of this unique occurrence where history loses its proximity, America has been able to develop into what Jean Beaudrillard describes as truly modern: a "utopia achieved".¹ It is a space where random meets rational and the limitless becomes a limit, a space which rejects European conceptions of centrality and hierarchy.

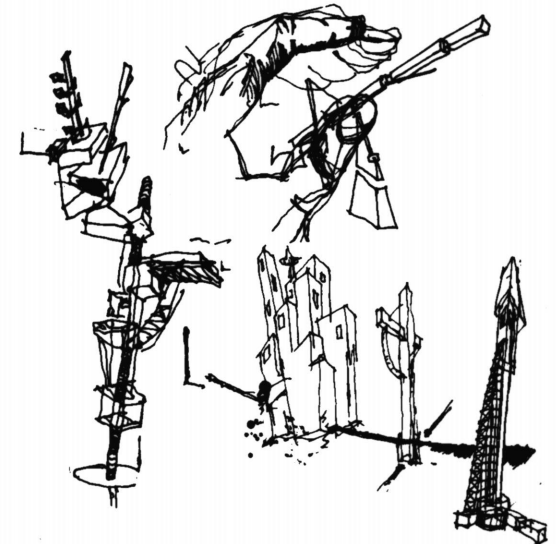
If the foundations of Europe lie within the philosophy of Aristotle, than those of North America lie within the theories of Newton. Whereas Aristotle revealed the parameters of a perfect sphere of geometry and space, Newton's limitless universe of absolute space contradicted a perfect order, along with its ensuing hierarchy and centrality.

In Dice Thrown, Benjamin Gianni investigates both early American farmsteads as well as the development of its cities (the rural and the urban) and compares them to European types. In the rural comparison, the European farm seems to be organized around a courtyard, creating an order of symmetry and proportion. The American farm structures, however, are arranged loosely in a cluster, their relationship being functional necessities and a common way of building (the doghouse is designed to look like the shed, which is designed to look like the main house). Moreover, Gianni draws similar contradictions in the urban comparison. In Europe, the city is autonomous, walled off from the outside and arranged in a hierarchy with the most important structures at the highest points and in the center. Conversely, in American cities the countryside is brought into the city at its center in the form of parks to remind the people of their link with their natural origins.² For traditional Europe then, purity and perfection lie in the symbolic harmony of formal relationships, where a center defines the elements around it and provides a place for man between nature and the heavens. For America, however, purity and perfection lie in the vast expanse of the natural surroundings. No longer a symbolic mediator between heaven and earth, architectural forms confront the world around it as it is.

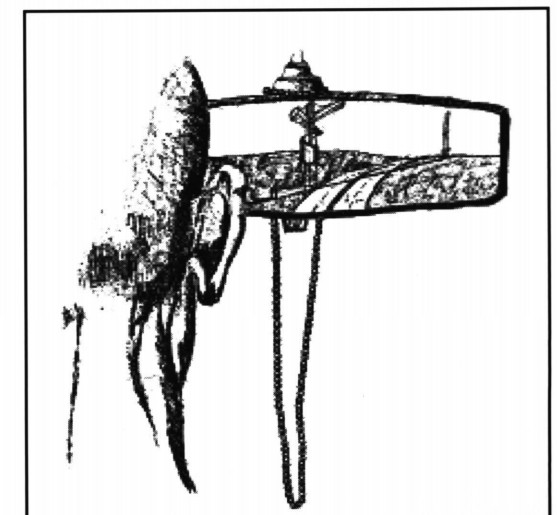
Without the guidance of formal relationships in culture, we have developed a conception of arrangement (or an American type) which combines the classical adaptation of a rational imposition by a grid system with the limitless aspect of horizontal space. So important in the United States is the sanctity of individual freedoms. This suggests that the individual has the capacity through rational thought to intervene in nature and dictate his or her destiny. In early America, cities were built modeling the roman grid system. The urban plan was derived rationally as an egalitarian way of dividing space.³ Also inherent in the American mind set, however,



Modernism in America did not represent a break from the past (as was the case in European society) but was well within the 'tradition' of the way we view ourselves and our landscape. The politics of modernism do not suggest that we abandon our proclivities in favor of European imports, but investigate our architecture on its own terms and so discover the existing alignments.⁴



America ducks the question of origins; it cultivates no origin of mythical authenticity; it has no past and no founding truth. Having known no primitive accumulation of time, it lives in a perpetual present. Having seen no slow, centuries long accumulation of a principal of truth, it lives in perpetual simulation, in a perpetual present of signs. It has no ancestral territory.⁵

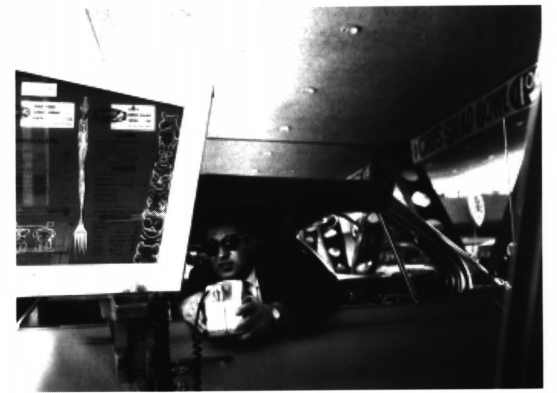


was the perception of boundless opportunity and individual freedom which promoted a dimensionless unregulated horizontal expansion of the built environment. The grid emerged as a way of organizing town centers. No sacred truths of the heavens and the earth were revealed, no ritual was carried out in which a place became a departure point for the transcendental; instead, a rational organization occurred as a means of confronting an environment as it existed in its own state, just as earlier settlements had developed a seemingly random order based on the boundless opportunities of a providing landscape as a means of confronting nature in its own state. An interesting paradox emerged between two orders. One looked as if buildings and places were dropped from the sky, left to be dwelled within depending on how they tumbled and lied to rest on the landscape; a celestial game of jax played on an uneven surface. The other depended on a complete and unyielding imposition on the landscape where every thing, place or building was measured or monitored. As a result cities would emerge, each with their own rational imposition, with no relationship to each other. Today, a certain randomness permeates their rational existence. The result has been deformative. That is the realization of something completely different from original intention. It is a combination of an upward extrusion with the introduction of a diffusive horizontality which re-orders its existence. It is, in a sense, a changing of definition. Even New York, with its density and strictly imposed grid, has a kind of deformative dis-order which defines its place as a totally American (though unique in and of itself) phenomenon. Rem Koolhaas identifies the madness of piling up chaos on chaos in a rigid system which creates its “delirious” effect.⁶

Even language, signs, and meaning have become deformative, setting in motion a wave of paradoxical relationships. Intention dissolves over time, history becomes representative or imitative, the immutable becomes alterable, and new definitions are formed to re-explain existence. The universal, the transcendental, they are the spiraling center which decomposes and recomposes, leaving sometimes only a shell from which to decipher meaning and existence. Umberto Eco, in his essay “Travels in Hyper-reality”, examines the relationship in American culture between the sign, the thing, and that which links them together, history. The sign is not a means for understanding the thing it symbolizes but rather is an object which “aims to be the thing, to abolish the distinction of the reference. This is the mechanism of replacement.”⁷ In doing so, the sign becomes more real (or hyper-real) than the thing because it is identified by and more tangible to the existence of our culture.

This explains our fascination with historical reenactments, dramatizations, wax museums, escalators, and Disney main streets. All are hyper-realities which have taken over and become “more real” than the things they represent. They are “better” because they excite the senses and give material evidence of our place in history. In doing so the hyper-real in American culture has successfully performed an about face in the way we define things, creating the perfect irony: “the completely real becomes the completely fake”.⁸

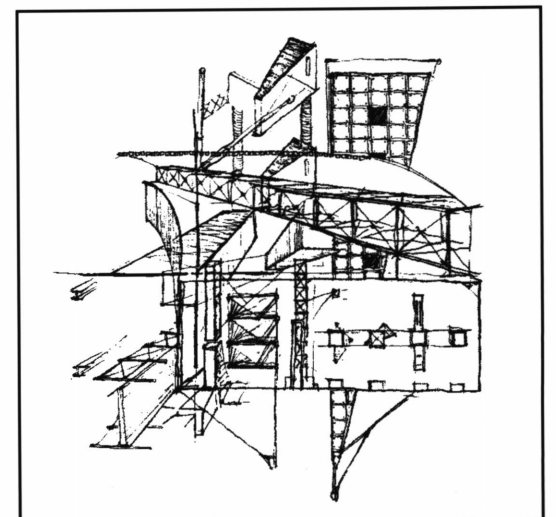
If modernism lies within the tradition of the way we view ourselves and our landscape, if we live in Newton’s limitless universe of absolute space independent of perfect geometry, if we live devoid of origin with no primitive accumulation of time, if architectural space does not always necessitate the symbolic harmony of formal relationships but rather seeks to confront its natural surroundings, if the arrangement of space is deformative, lying somewhere in between rational intervention and the application of the limitless, and if irony is the result of our application of language and meaning, should these conditions not become tools for design in architecture? Does this not suggest that the modern conception of space has deformed itself into something completely different from that of our European counterparts?

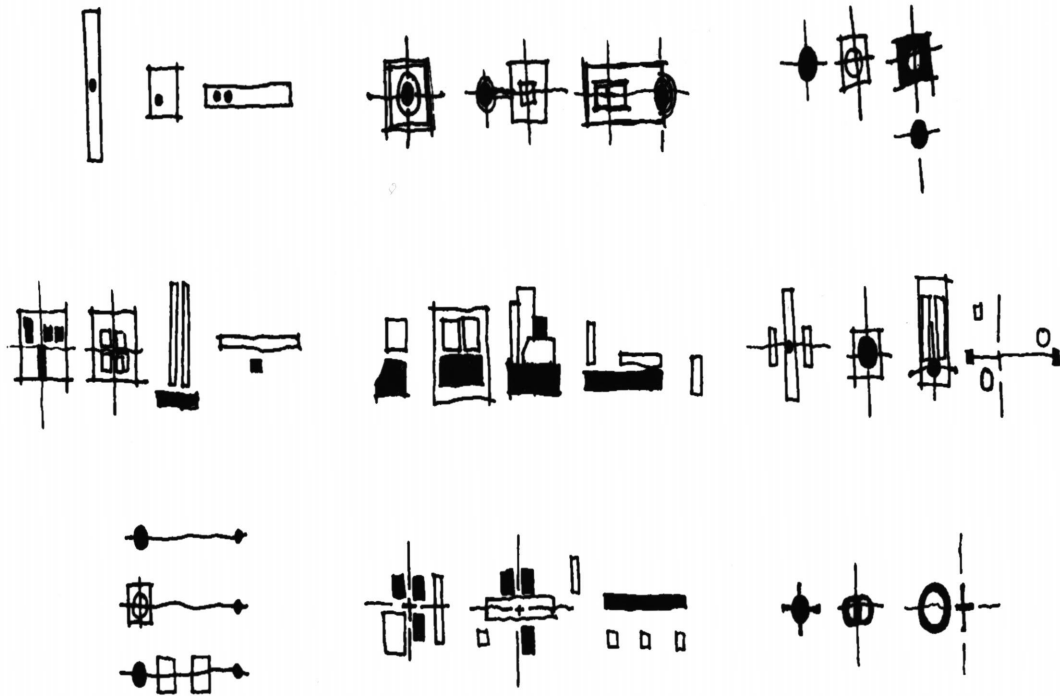


*If nature were perfect apart from the deleterious effects of human intervention, architecture might well aspire to Nature - substituting natural and nostalgic allusion for conceptual and/or geometric manipulation as its modus operandi. The operative set of references would no longer be vertical (heavenward) but lateral (historical and nature); architecture could confront the world around it, not for what might be latent in it or distilled from it, but as it was. In so doing, architecture could open itself up to the idea of landscape.*⁹

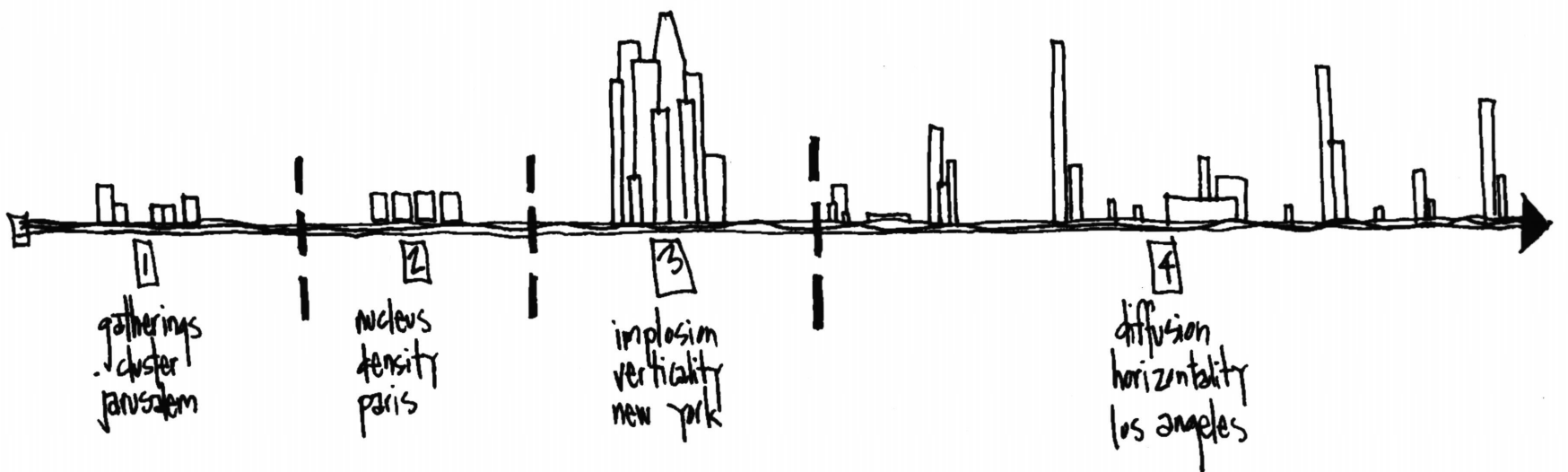


*America is the original version of Modernity. Europe is the dubbed or subtitled one. . . Europe has a crisis of historical ideals facing up to the impossibility of their realization. America has a crisis of an achieved utopia, confronted with the problem of its duration and permanence. . . It has allowed itself to imagine it could create an ideal world from nothing.*¹⁰

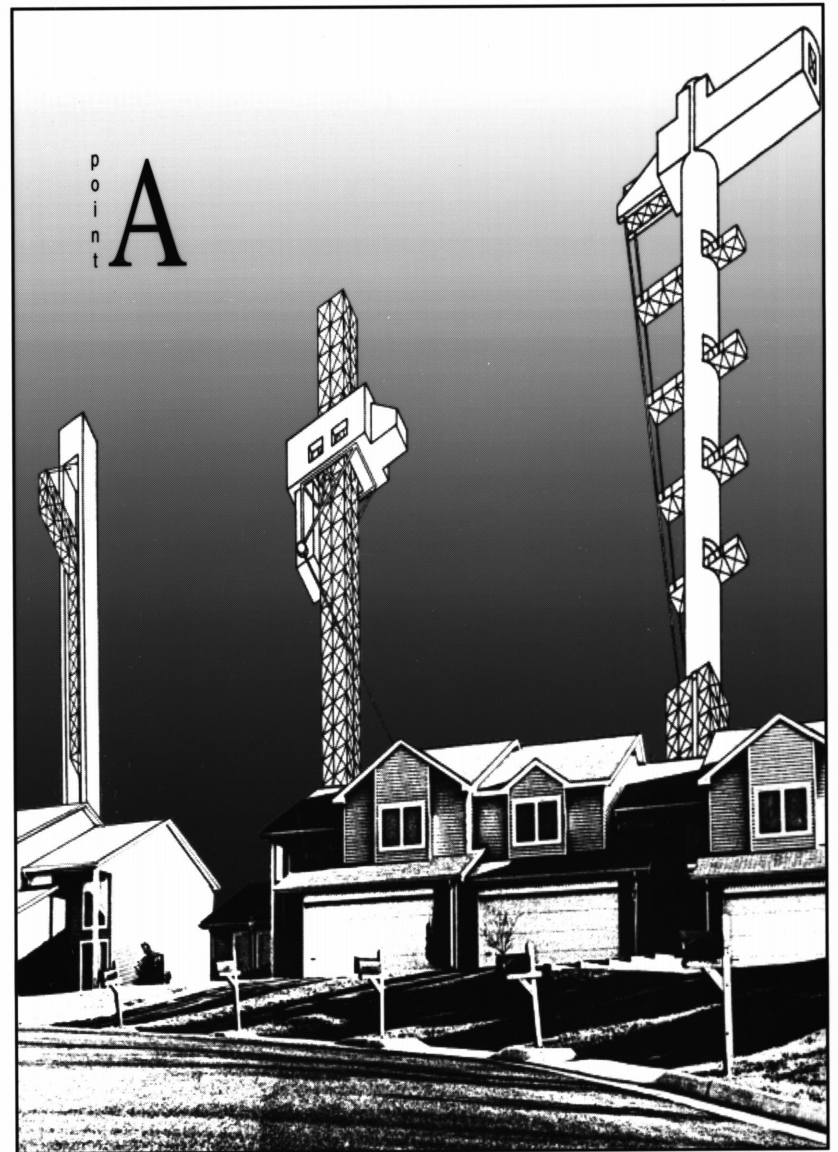
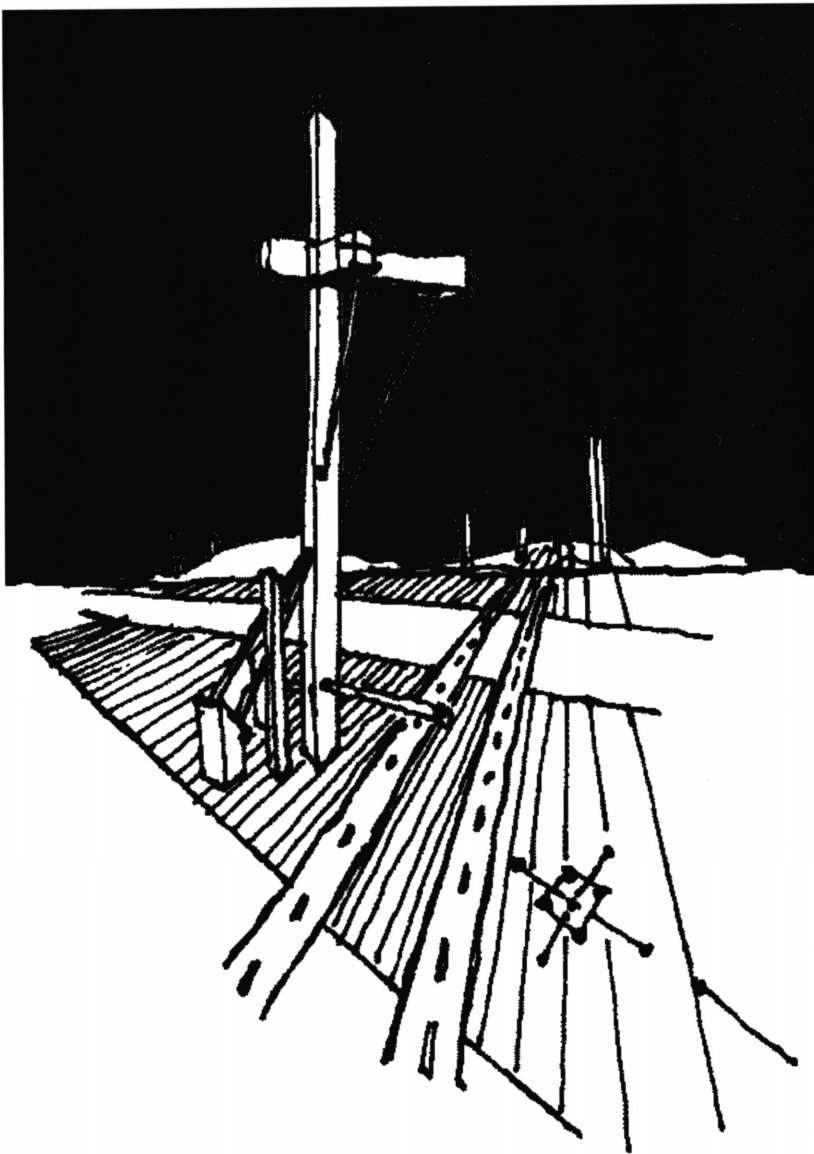




<p>first there were cities then there were suburbs now there are malls</p>	<p>first there were mules then there were horse and buggies now there are cars</p>	<p>first there was history then there was memory now there is representation</p>
<p>first there were clusters then there was density then there was verticality now there is horizontality</p>	<p>first there was brisalem then there was paris then there was New York now there is Los Angeles</p>	<p>first there were gatherings then there was a nucleus then there was implosion now there is diffusion</p>
<p>first there was remembrance then there were monuments now there is the monumental</p>	<p>first there were paths then there were roads now there are highways</p>	<p>first there was science then there was invention now there is technology</p>

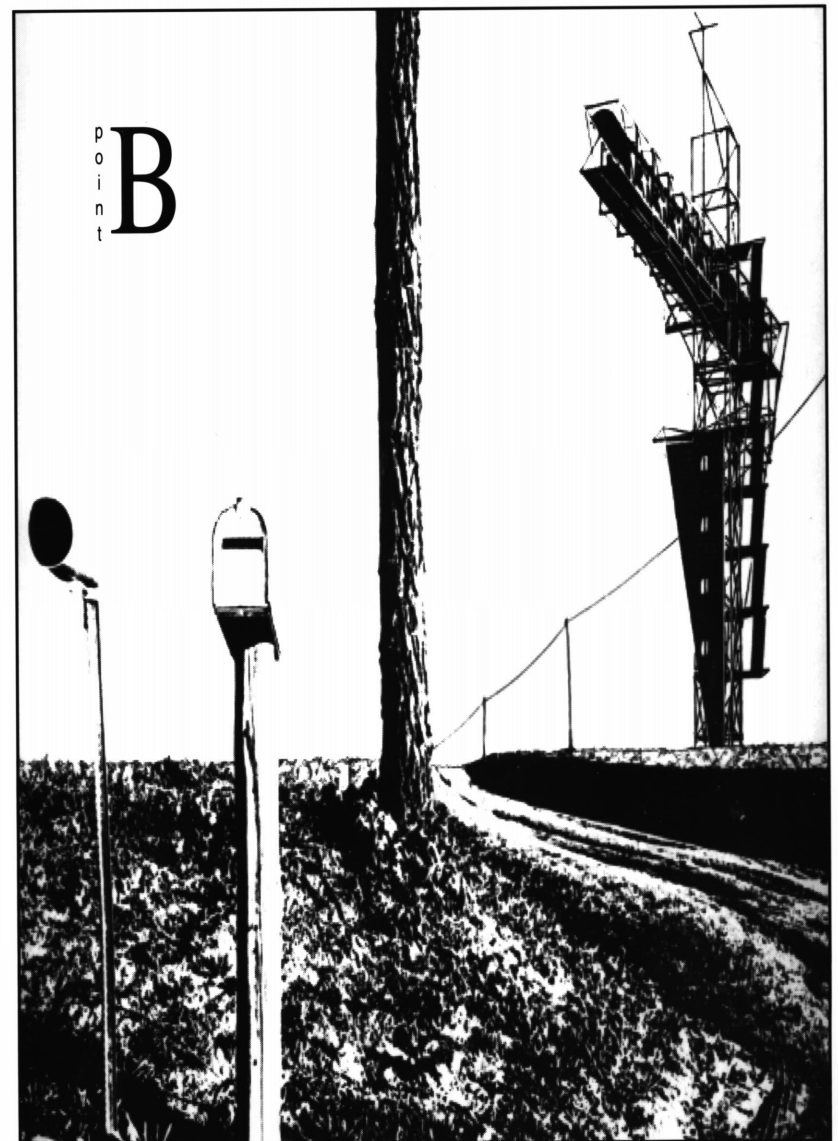


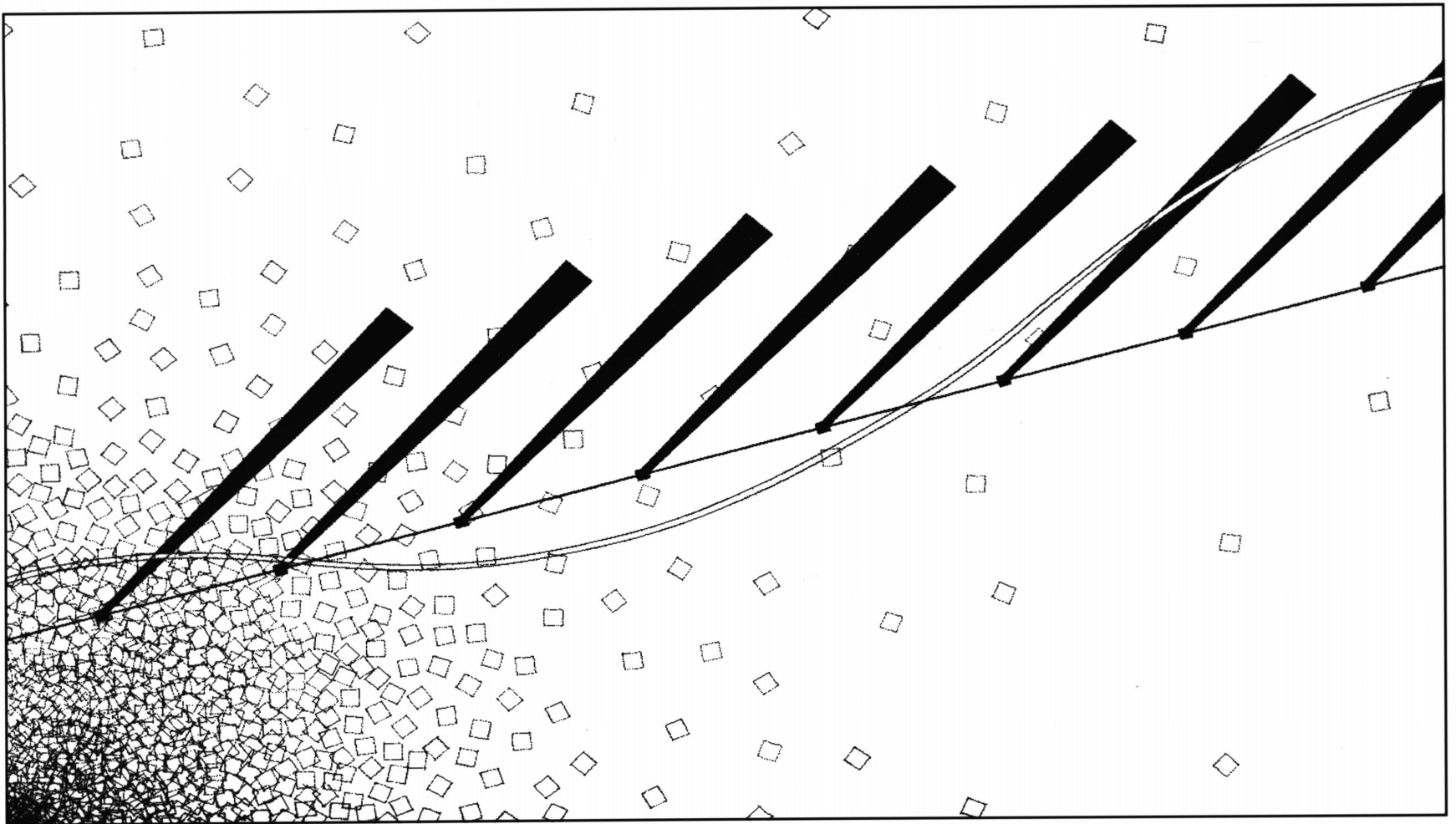
a deformative progression



from A to B

Point A, land of diffusion. Towers begin at the edge of the city where the decaying center meets the suburban sprawl (the vertical city lying down on its side). They continue into the countryside adjacent to the highway in a rigid two dimensional geometry. As the curve of the highway wraps around the landscape, searching for the most economical means of reaching its destination, the towers, aligned linearly from beginning to end, disregard topographical mappings and continue on a direct path. Often the curve and the line intersect. At these points the driver feels not the adjacency of the towering objects, but rather the confrontation, as they are met face to façade. The towers are arranged at a distance one-half of a mile apart. As the driver passes one tower, its image slowly diminishes in the rear view mirror. Just before it disappears, however, another tower in front of the driver emerges. The cycle continues from tower to tower, constantly reminding the driver of his or her placement between them. As the towers end, the line is terminated while the driver continues on the highway, left to replay the scenario as he or she reaches **Point B**.



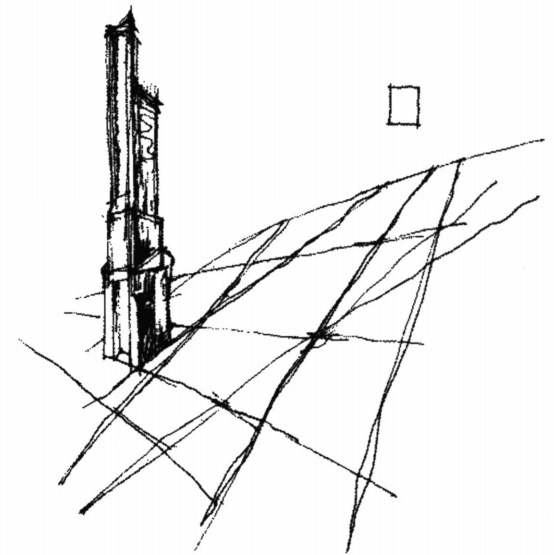


A Curve, Points, and a Line

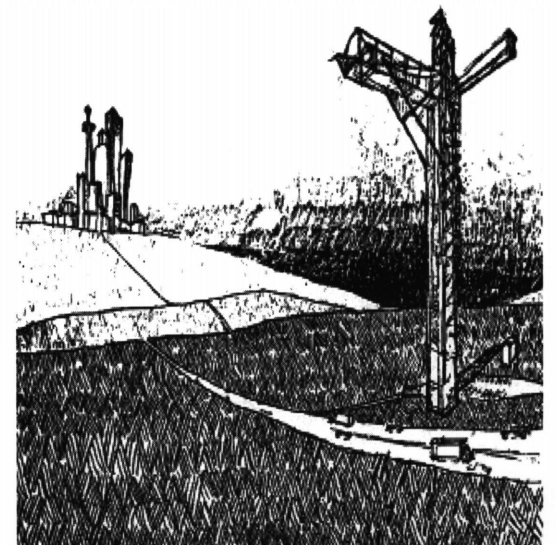
The highway is my site. The site is a curve. It is: that which links two non-aligned cities; that which mimics the landscape with its topographical lines of progression and defies it with its bridges and tunnels; the means of seeing without experiencing, a place to view within the confines of an automobile, a relationship once removed; a routine of constant velocity, a departure point acted out by the commuter; man's only collective existence.

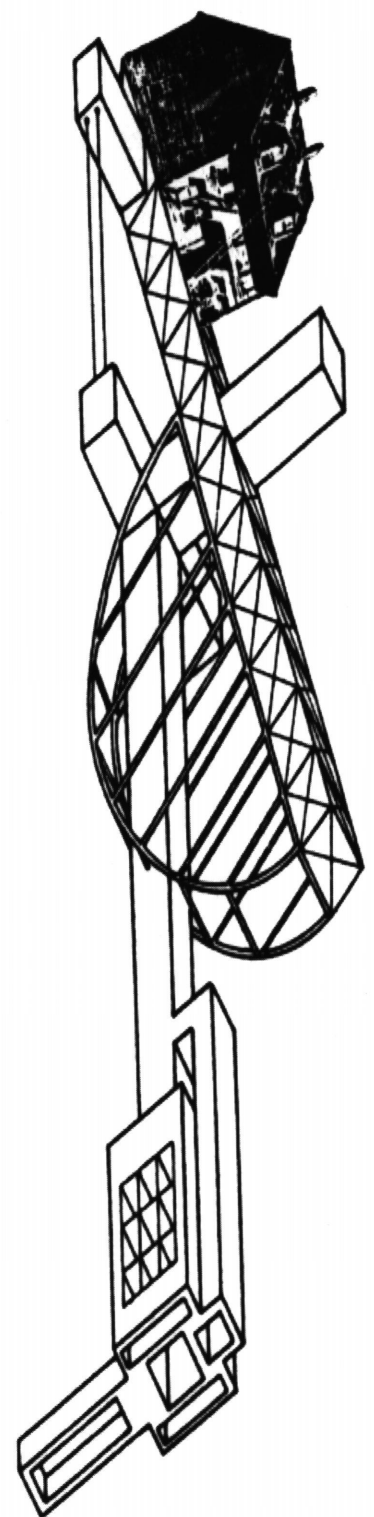
There are towers adjacent to the highway. The towers are points. They are the markers which reference the highway. They paint a scenario of progression and reveal daily routines. They are of a meta-human scale, immense and vertical, seen not in the scale of man but in the changing scale viewed from the driver's seat. They approach slowly, growing as they break the horizon line; they reveal themselves, confront the driver, then loom behind in the rear view mirror. They are monumental non-monuments. They exist not in memory of time but in limitless space, anchored by the highway. They mark the highway's place and follow its path. They define the curve and give it relevancy in its placelessness. Vertical points on a horizontal plane.

The towers are arranged in a straight line. The line regulates the towers. The line: confines them to a system; makes them equidistant; gives them responsibility and imposes upon them a limit; generates within them a relationship to which they must respond; creates an interdependence between the towers (the points) and the highway (the curve); is rational and does not yield to the contours of the landscape; is exact and drawn with a straight edge; is a one-point perspective that aligns the towers so that they disappear in the horizon. It does not change. It is constant.



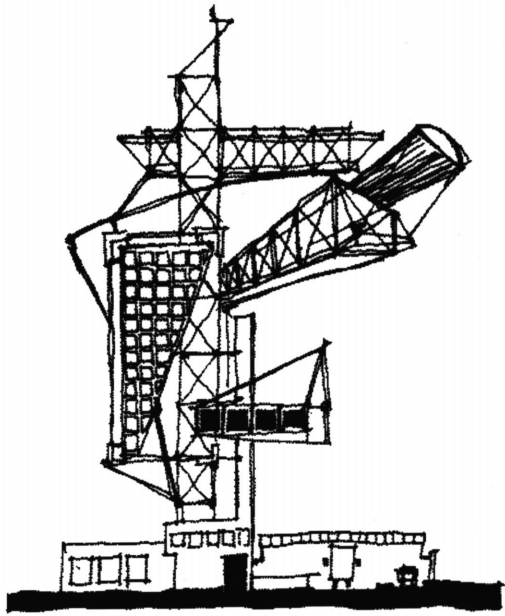
The highway is ritual being acted out; it is the charm of ceremony: You have the whole of space before you, just as ceremonies have the whole of time before them."





Christina's Turnpike

The landscape is violated by the introduction of a progression of towers which mark the path of the highway (on the other side of the hill).

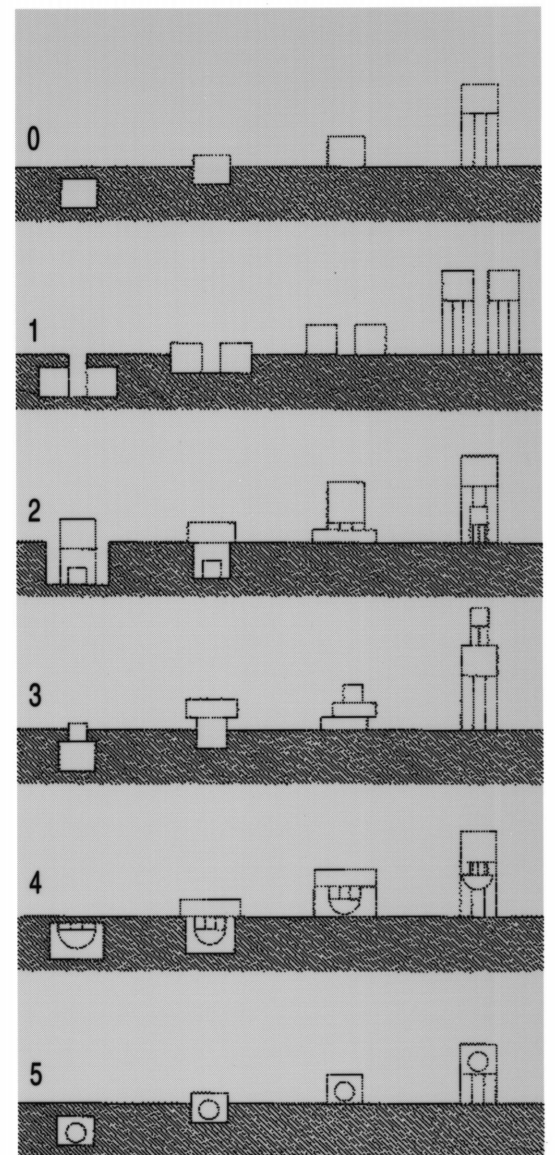


Design

As criteria for design I have used three deforming elements as a means of generating an architecture of the collective memory. They are deforming because there is no central hierarchy from within the design. Each element creates a relationship which is used as a way of defining a meaning and discovering an order rather than implying them from the beginning. The first element, Basic Relationships, is one of imposition: various descriptions of a fundamental relationships are used as a means of imposing a limit and challenging a design to take on new proportions within the restrictions. The second element, Absurd Relationships, confronts the first: by using the two dimensional drawing or sketch in its “fantastical” capacity, a design must search within its limitless possibilities to discover a consistent order. The third element, Pop Relationships, acts as an anchor for the placement of an order separate but originated from the two previous elements and associates that order with objects of its own culture.

1. Basic relationships - limit: If purity of form alone does not constitute the foundation of decision making, then something else (something other than complete arbitrariness, for that severs the head from the hand) must be applied to generate an idea into an architectural thesis. Steven Holl uses correlation charts of fundamental geometries not to order them into a euclidian relationship of perfect geometries, but to realize their complexities when arranged together much like the arrangement of a modern city with all its complexities and disruption. He uses such relationships to discover a form type for the dynamic qualities and in between spaces of a modern urban environment.

Because of the use of formal complexities and the in between instead of a formal centrality, the relationship adopts a different language than that implied by form alone. Therefore, it can not be considered harmonic and suggests a disregard for “purity”. It is a deforming relationship. Thought and design arrive at a point of discovery through vague and seemingly meaningless acts. At this point, these acts become valuable tools. A recognition occurs where order emerges and the design is deformed into a valid architectural relationship. With the towers, I have set up an arrangement similar to Holl’s. Basic relationships of objects are investigated in tower form in order to make discoveries about the overall form. Steel and concrete are applied as two separate entities which collide to form one tower. However, unlike Holl’s example, the investigation does not search for new urban discoveries by revealing the inbetween but rather uses the collision of materials in the tower as a way of recognizing a basic metamorphosis into a formal relationship within itself. As a result, the tower changes from a basic relationship to a formal relationship. Ultimately, as the tower is deformed, the formal tower becomes the primary force and the basic relationship becomes secondary. The method produces an arrangement of towers with a like arrangement and a sense of regularity, but with a different set of formal implications within each tower. It defines a limit and acts as a challenge to go beyond, forcing the designer to search outside of its rational system in order to discover a meaningful order in the imposed relationship.

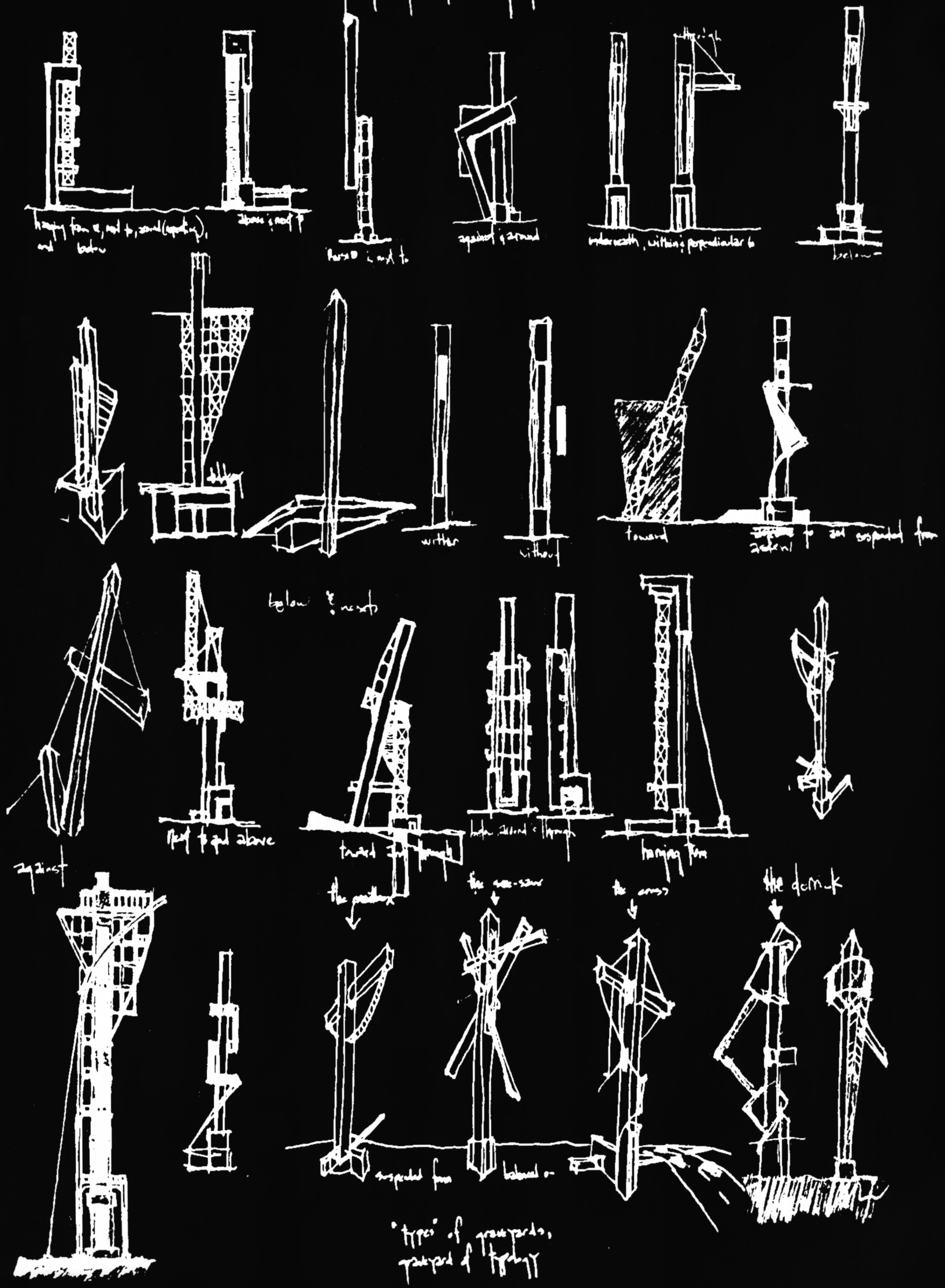


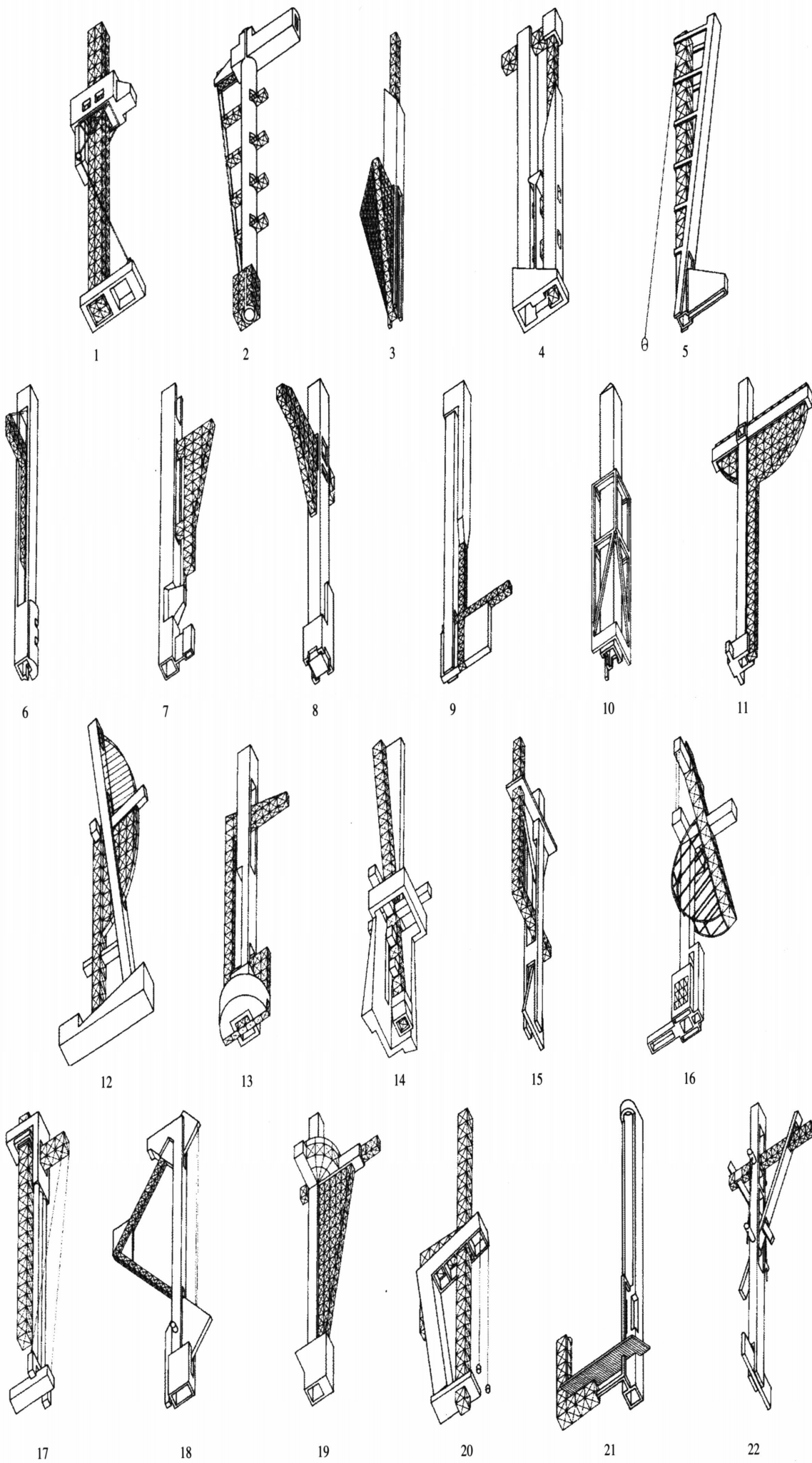
Holl's Correlational Charts:

- 0. Primary relations
 - 1. Near
 - 2. Over
 - 3. Atop
 - 4. Under
 - 5. Within

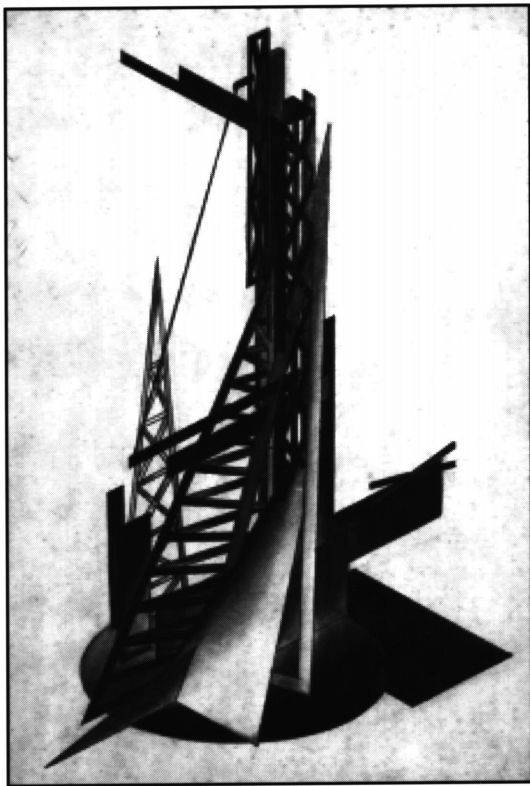
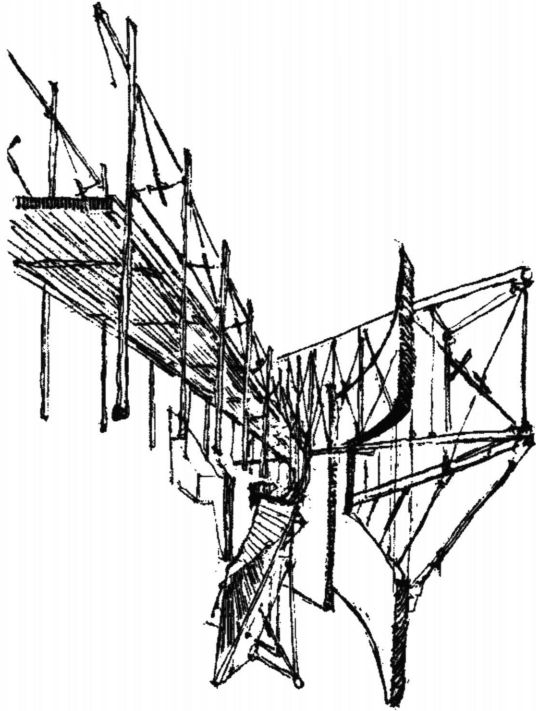
We would not call for a new disordered architecture to match the disorder of culture; such duplicity achieves no other dimension, but simply expresses an affirmation of the chaotic. Rather, we would propose experiments in search of new orders, the projection of new relationships.¹²

prepositional architecture



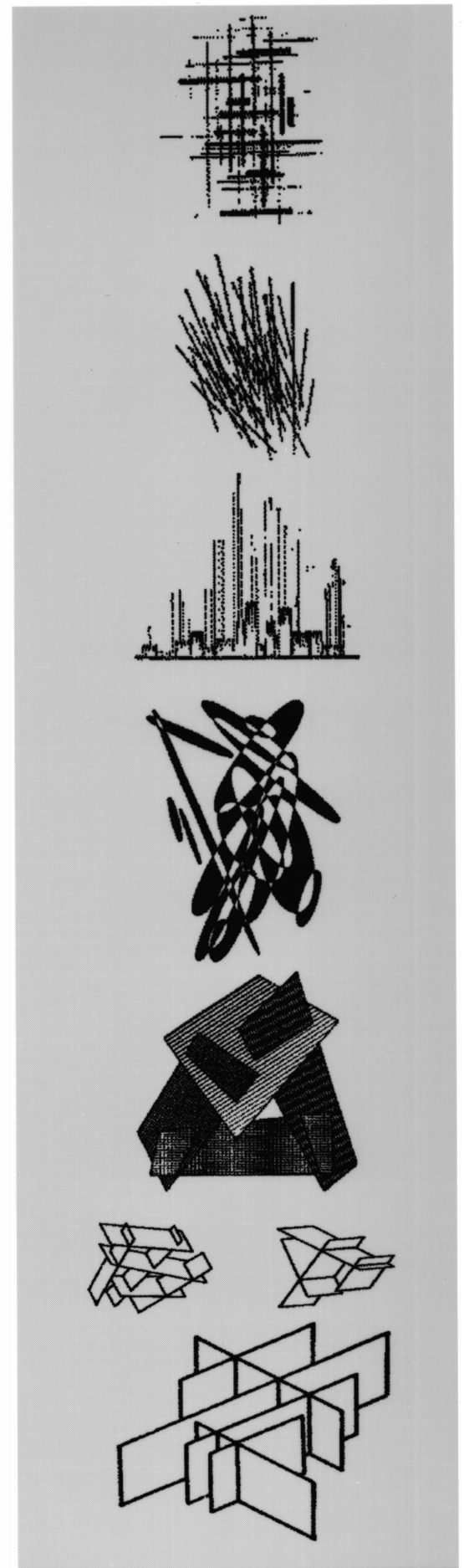


1. through
2. on top of
3. below
4. next to
5. against
6. within
7. without
8. perpendicular to
9. intersecting
10. around
11. alongside and below
12. toward and through
13. underneath and through
14. toward and around
15. next to and above
16. rotated from
17. hanging from
18. askew from
19. on top of and next to
20. against and around
21. below and across from
22. balanced on

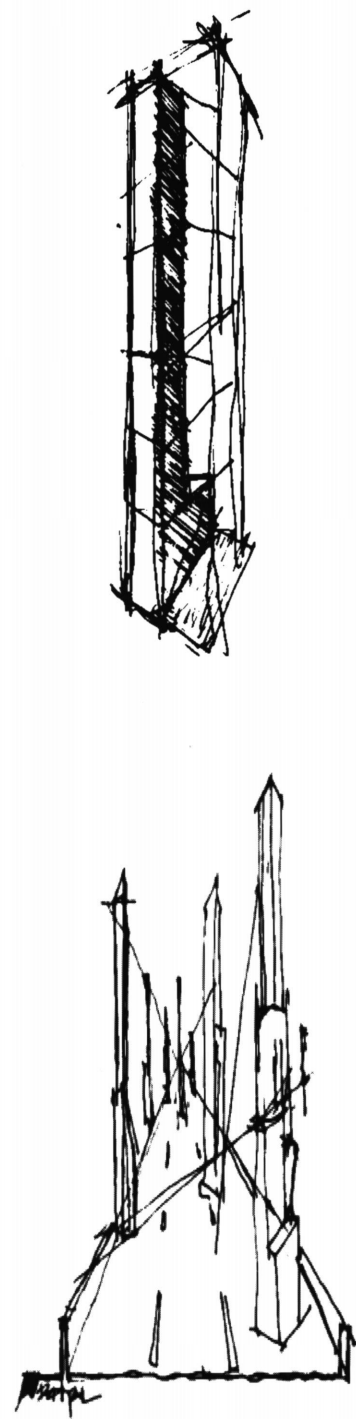
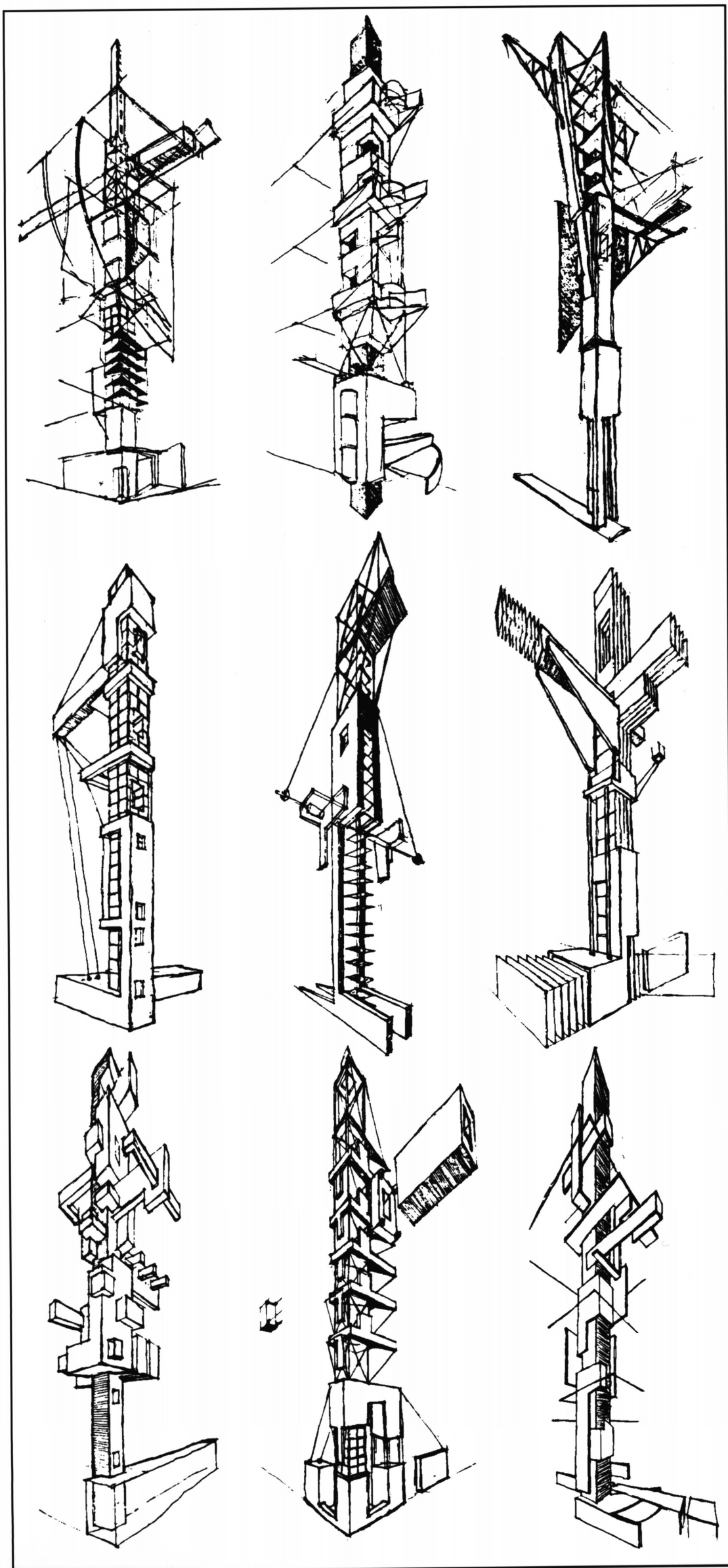


2. Absurd relationships - limitless: Conversely, the opposite of an imposed relationship is the use of the limitless. If the architect must search beyond a rational system for a new order, then he or she must look within an absurd or incidental relationship for meaningful discoveries. In his essay "Teaching Design" Chernikov stressed the use of the "non-objective" abstract drawing or sketch (devoid of specific functions or subject matter) as a method of making formal discoveries within the two dimensional medium.

In a sense he claimed that the actual movement of the hand and pen to paper in a certain manner could generate new form types. He documented how a drawn line, plane, or volume could construct the student's imagination or 'fantasy' on paper. As a result, the elements of architecture would emerge through the limitless varying of these form types. Similarly, the towers have adopted (through the use of the sketch) the application of the limitless combination of lines, planes, and volumes in a 'non-objective' capacity in order to discover new formal variations. I call the relationship between this method and the towers as absurd instead of arbitrary because there is little or no lucidity limiting the application of the sketch; it is an idea in a direct relationship with the hand which reveals an architectural framework for design. The absurd relationship requires no limits and therefore forces the designer to make discoveries from within that may be applied to the overall entity of the thesis. The limitless therefore becomes a limit.



*The whole methodology is based upon the development of 'combinations' and 'assemblages' of lines, planes and volumes, independent of what the given elements may represent. Just as an appropriate assembly of sounds gives us musical products, so too we assemble a representation in which lines planes and volumes can be musically tuned. Thus we create a skilled composer of new forms.*¹³



towers of absurd relationships

GIVENS:

Project for the road

one uniform vertical slab of concrete.
 vertical
 effective
 stable: non elastic

The slab is taken apart. The pieces are relocated at different sites along the highway. Each is given a function:

welcome center
 rest area
 toll booth
 weighing station

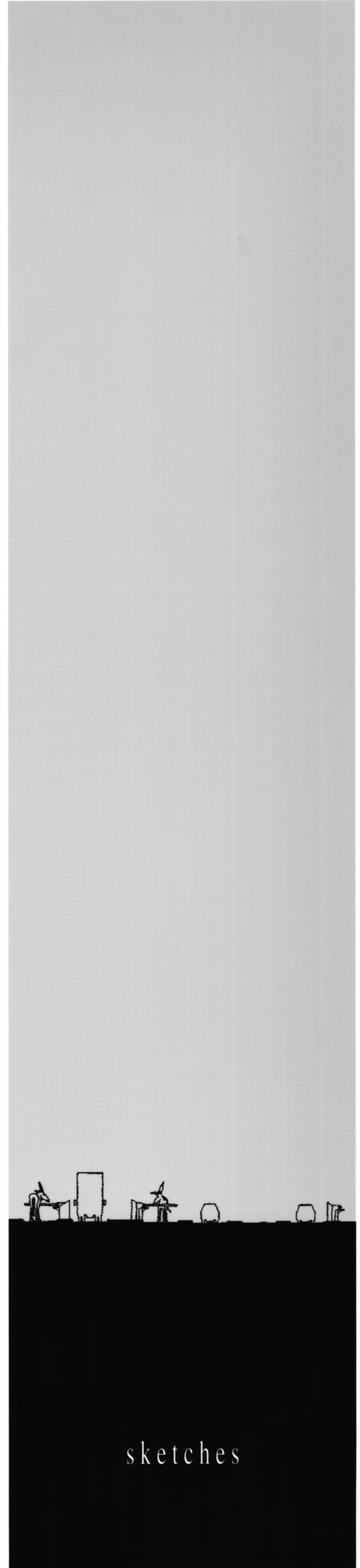
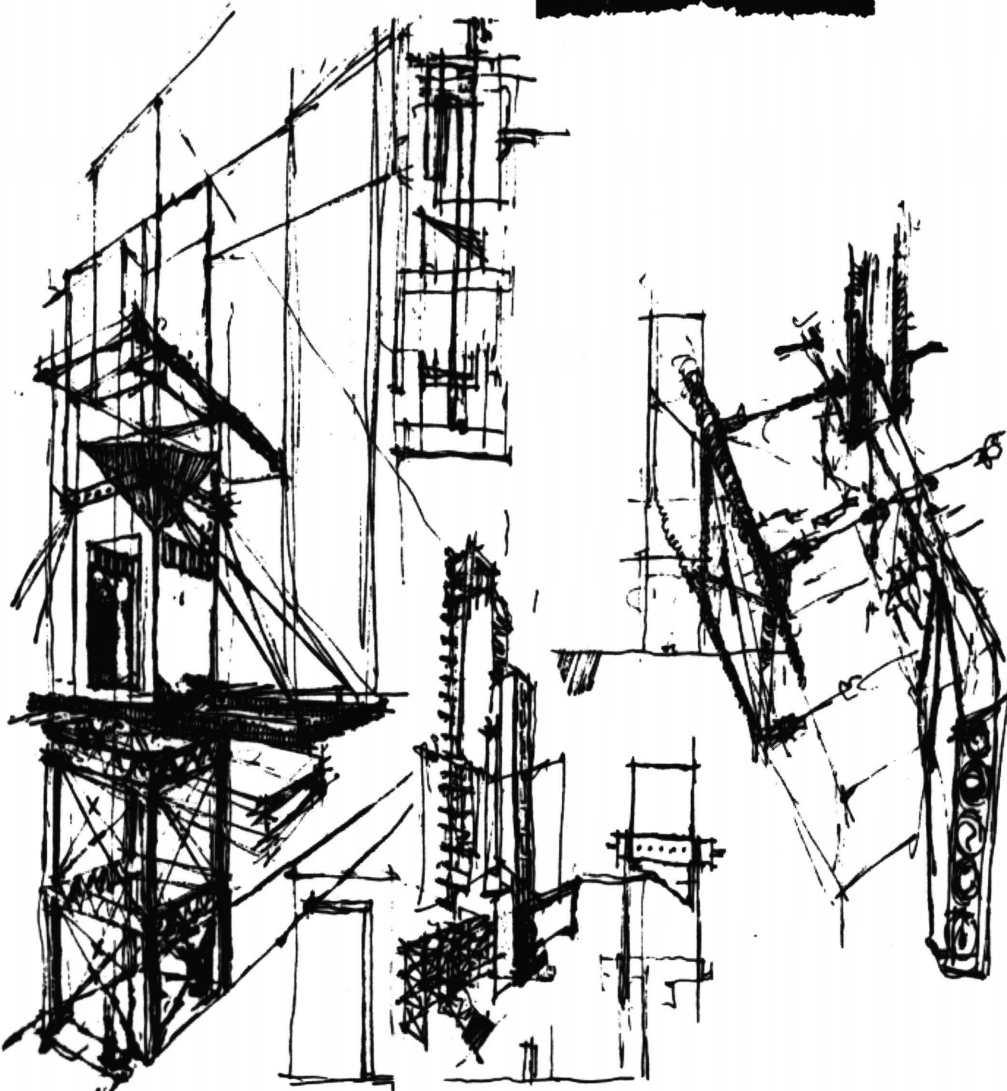
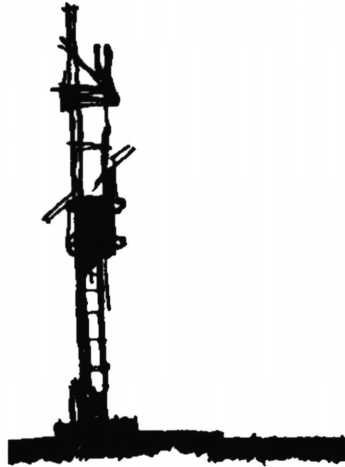
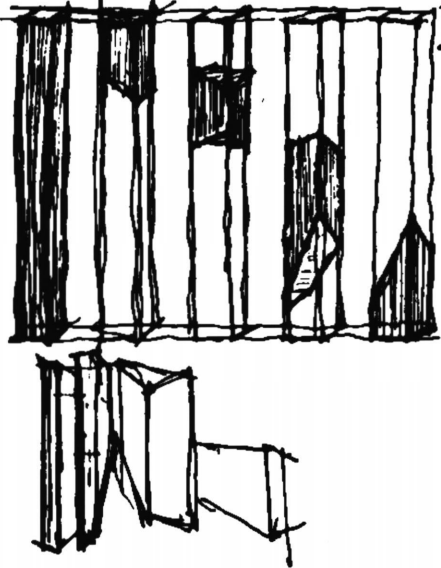
Does it do anything for it, or take away from it?

Its purpose is to mark the point of reference. Share verticality the created object on a human landscape gives an imposing place in the landscape.

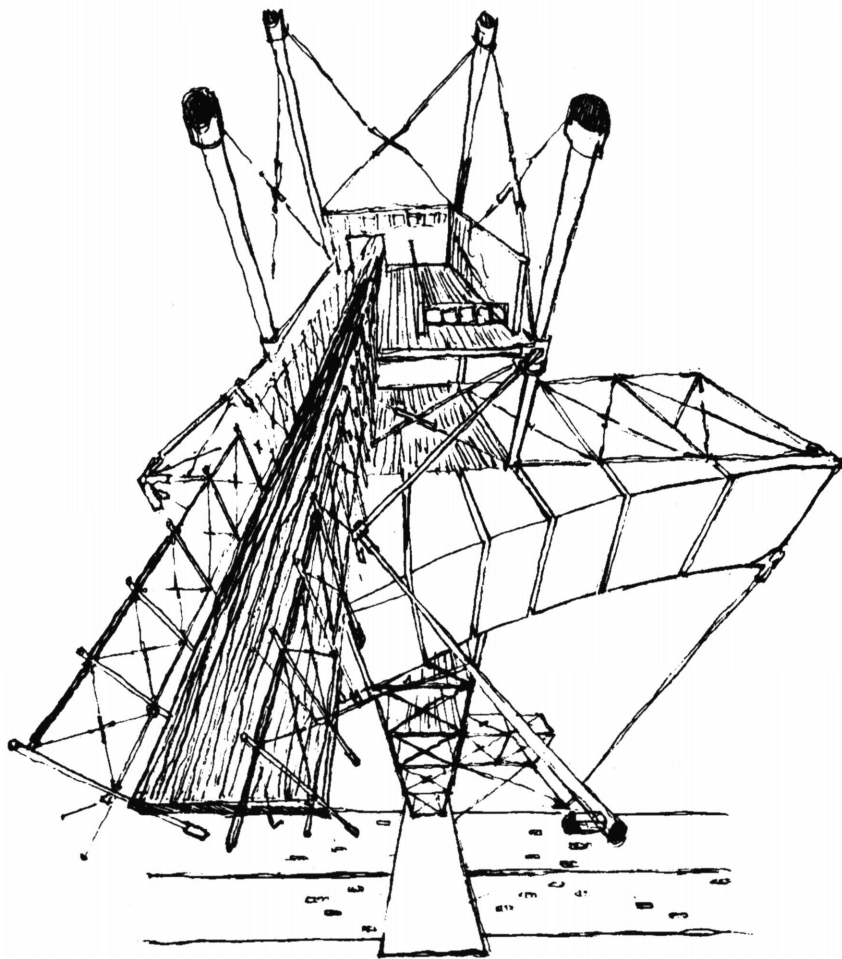
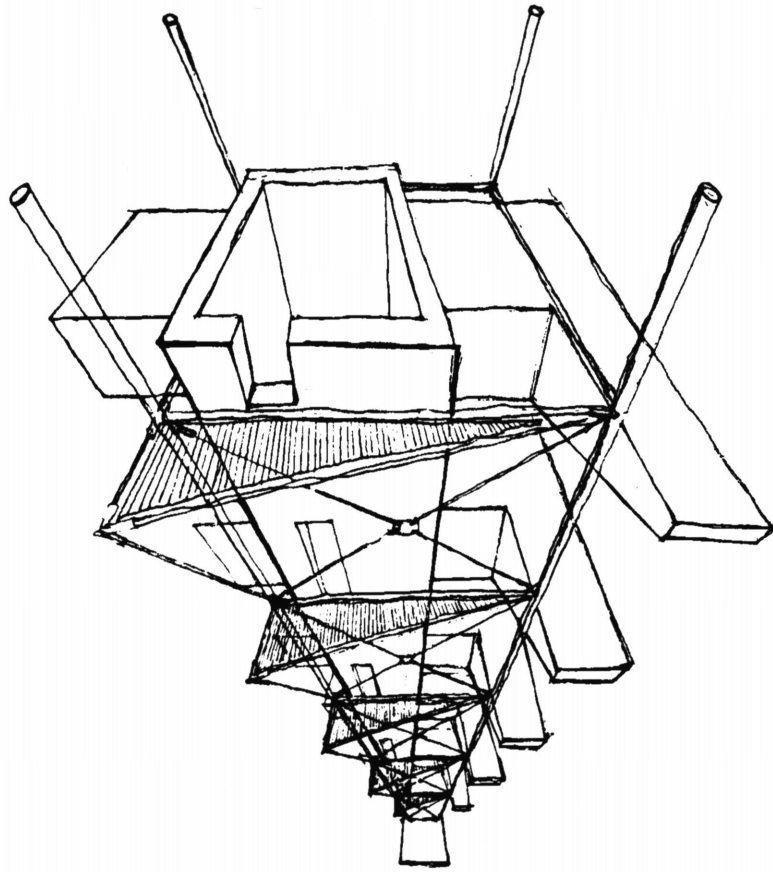
Concrete is the realm of the stable, unchangeable. → rational
 steel is the realm of instability. Transitions → absurd

→ ontologically rational. Events before the borders of the space. A-priori. Definitely forms. Past & future. Foundations & tradition. Symmetrical & plan.

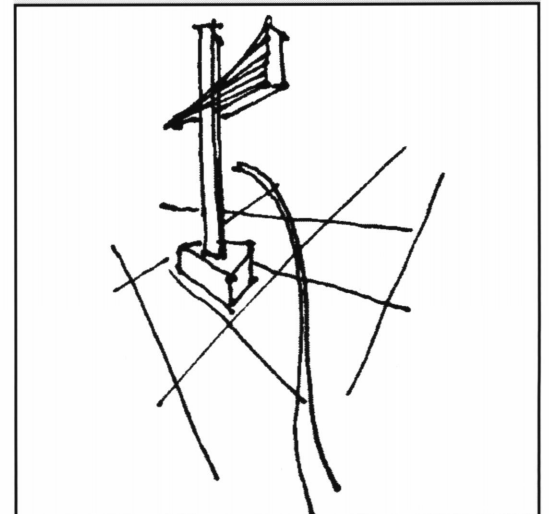
- different location of the concrete place demands different structural applications



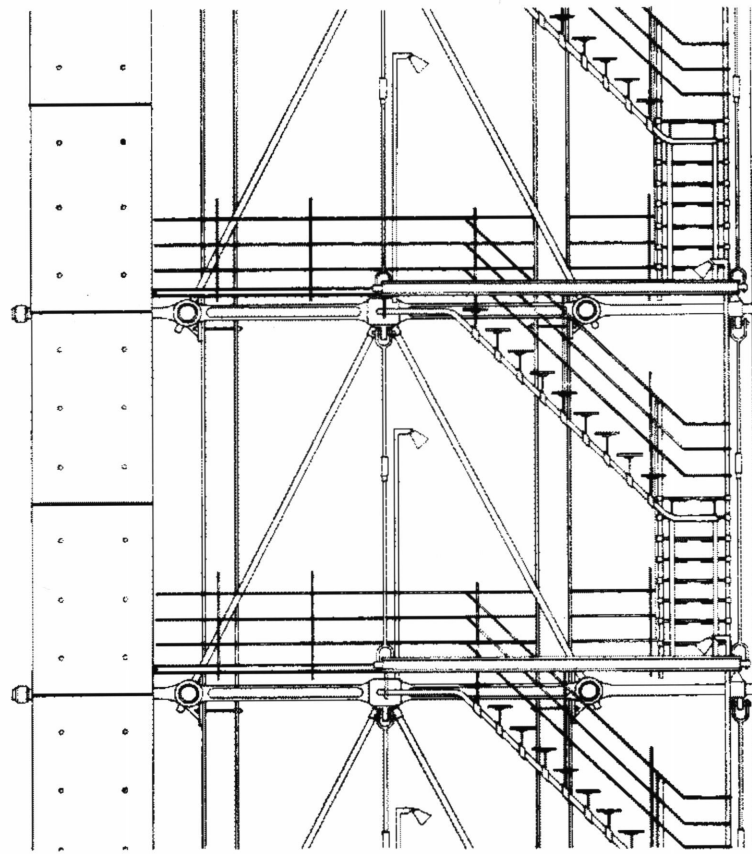
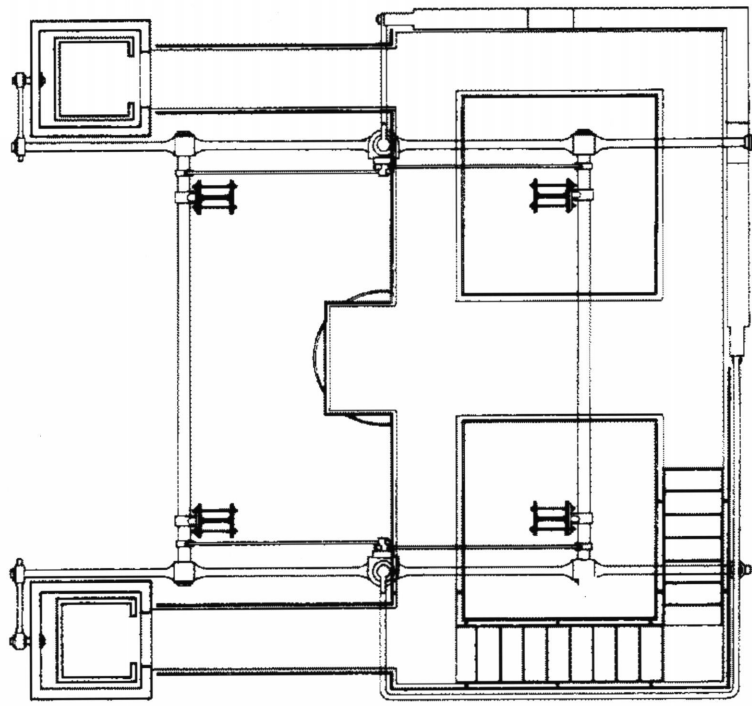
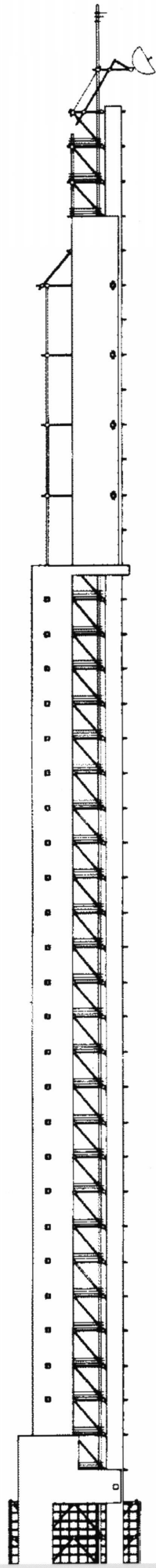
sketches



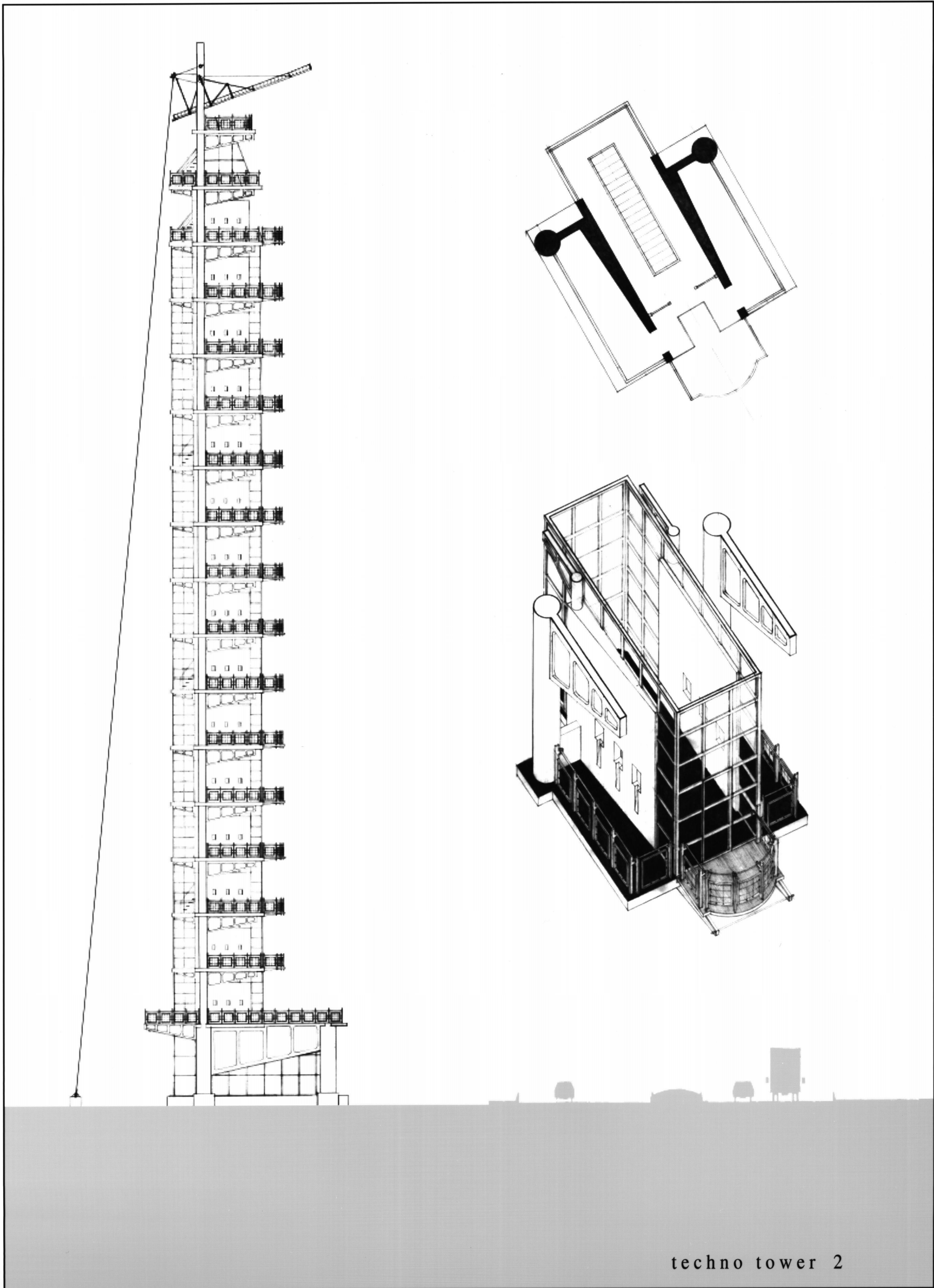
birdseye view sketches



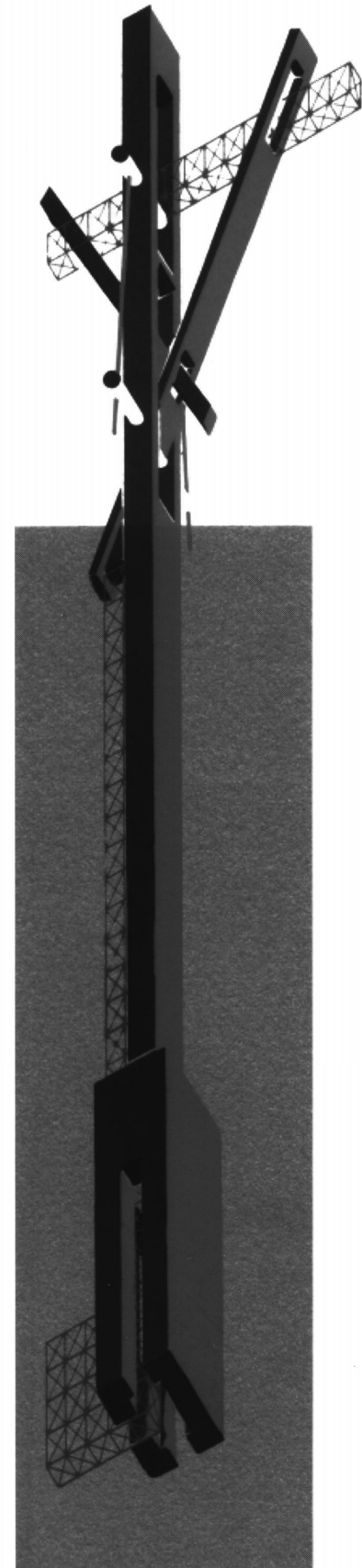
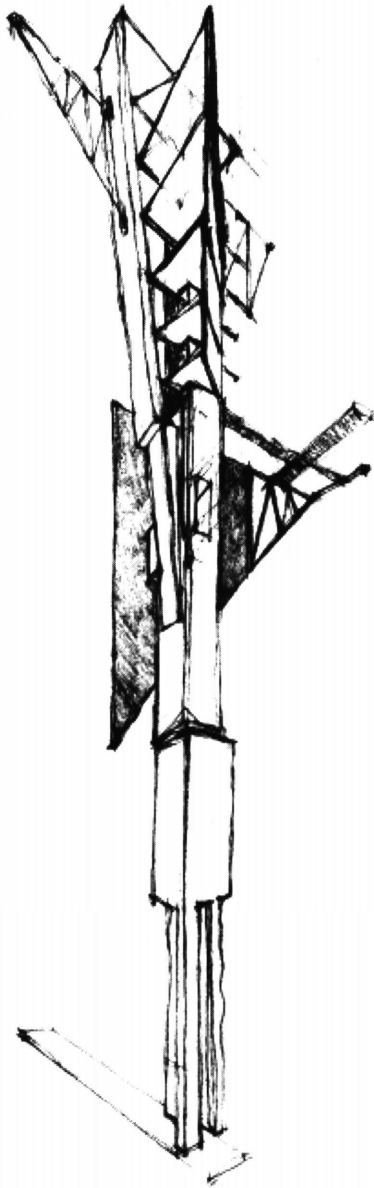
3. Pop relationships - association: As a by-product of rational thought, the mind has always had the capacity to associate objects in space with those which they are not; in so doing, there is a binding transformation that occurs between associative objects which allows them to be more than what their form alone defines. A nut cracker becomes a contorted head with workable jawbones, suburban mailboxes become miniature houses perched on poles, tool sheds in mobile home parks are clad in plastic formal Tudor gown, even technological buildings, stripped of any ornament, begin to look like the very machines from which they were constructed; the structure itself, therefore, becomes a representation. Often the association can be used as a barometer for tracing the most pertinent objects in a culture and thus acts as a direct reflection of that culture. As a third means of generating the tower forms, I have attempted to associate the highway objects with other objects of a different scale and utility, objects with more of a colloquial origin which might be witnessed on any given day; a common element in our culture. The means with which I have arrived at some of the objects are vague and the association is not always direct. It is much like that of discovering different images within the formation of clouds. One sees in the sky dynamic images of white, grey, and blue in a constant swirl of deformation, continually casting vivid scenarios. Within the movements are form associations perceptible sometimes only to one individual. With a form association, an object in space is formed through both the associative object and the individual making the association. As a result, the object may become more than just its association and has the opportunity to take on an identity in and of itself. It becomes a form generated by the idea of an object; it adds to the object an association with that which the object is not and becomes an architectural form on its own.

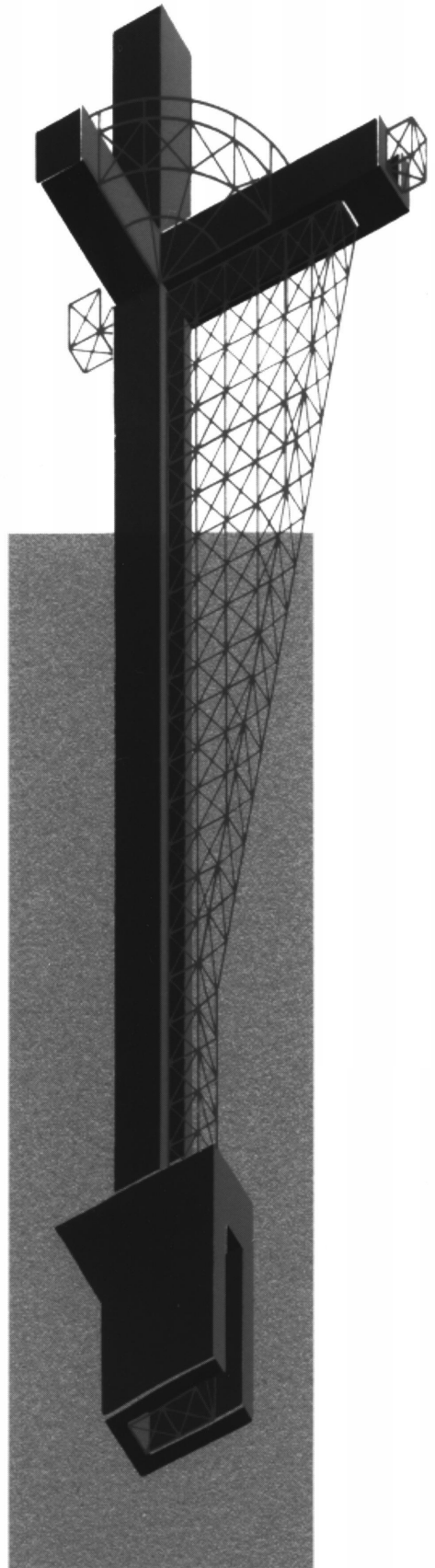
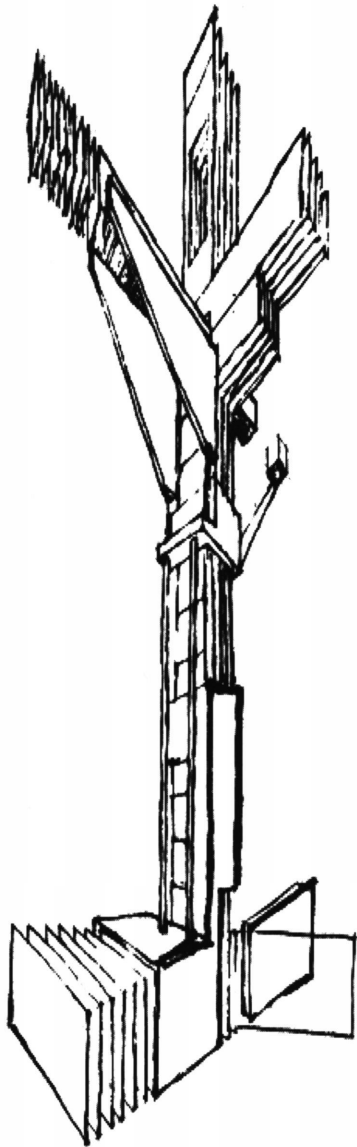


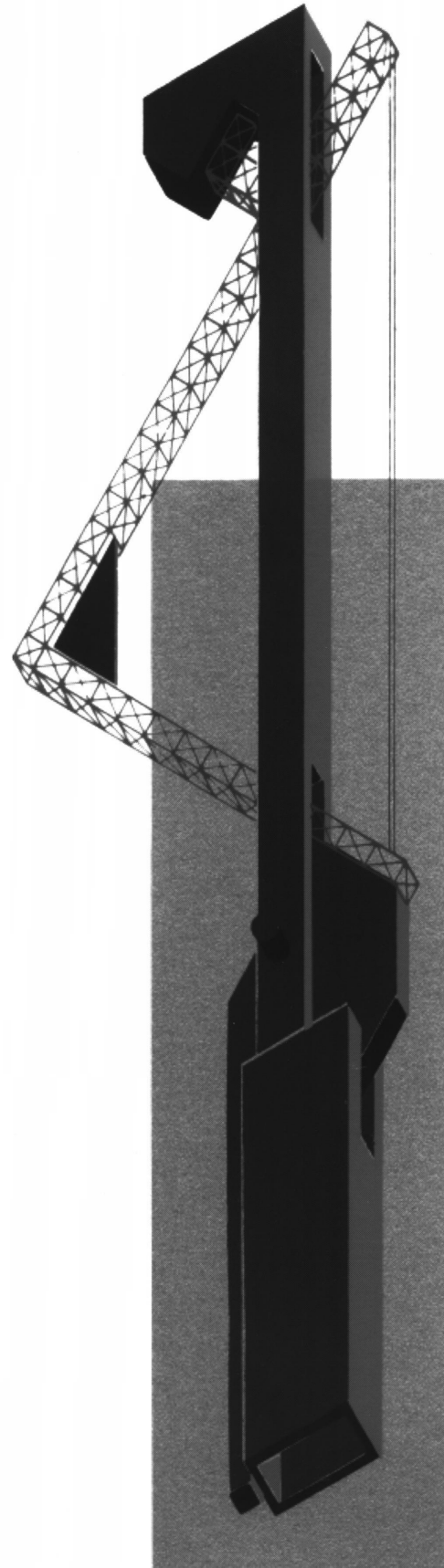
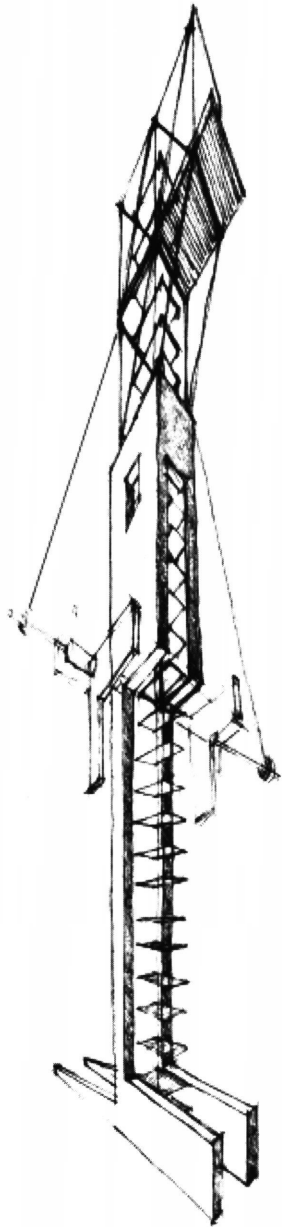
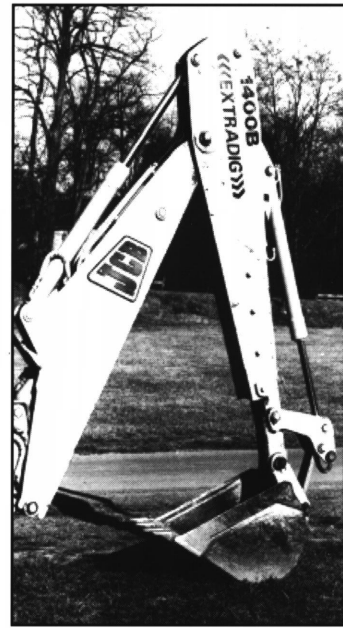
techno tower 1

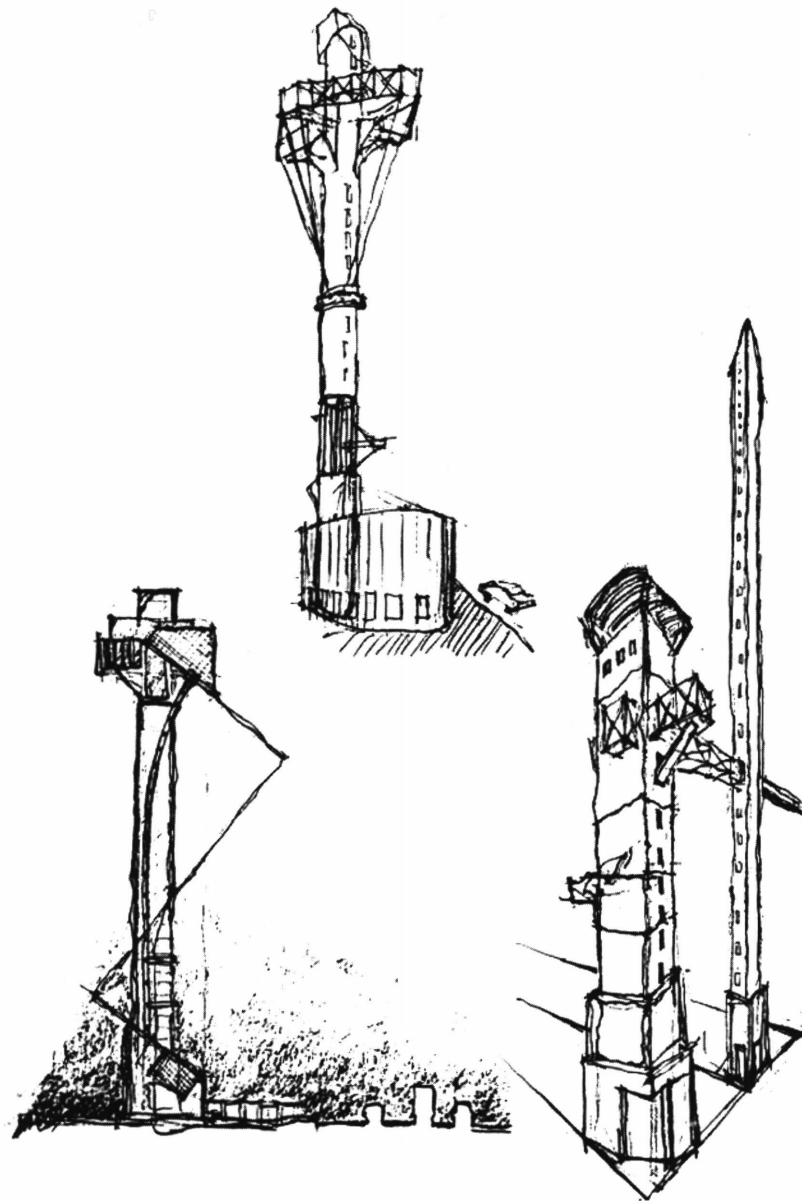


techno tower 2





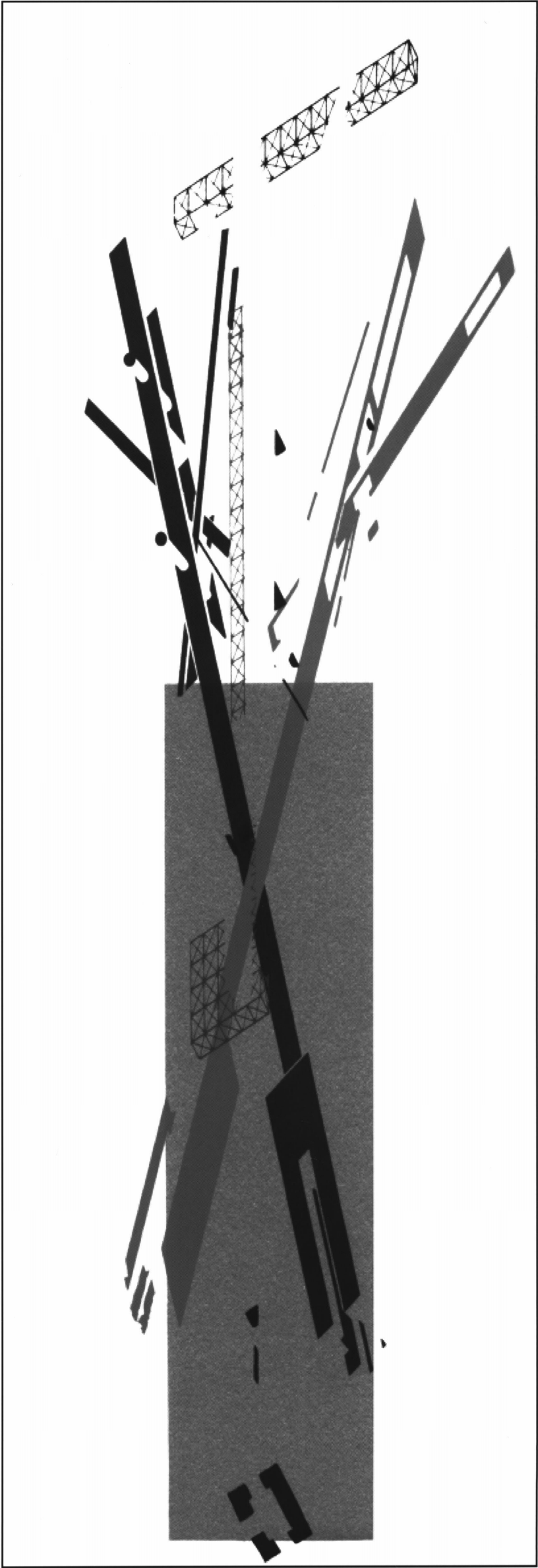
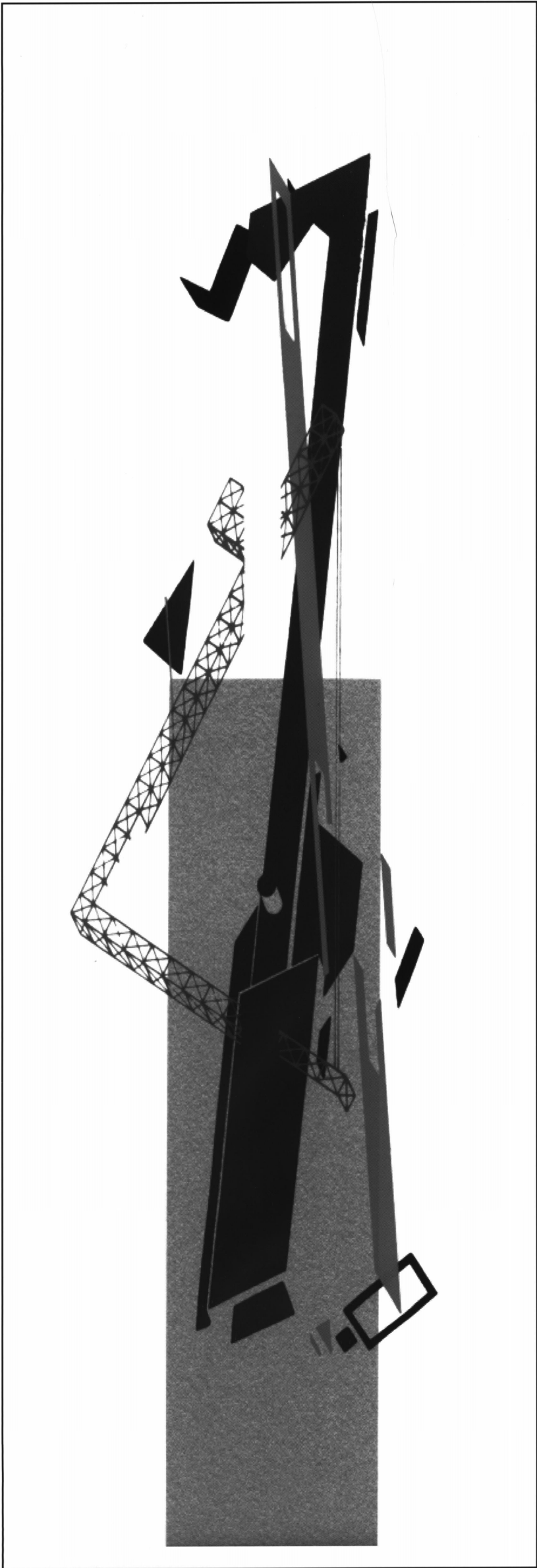


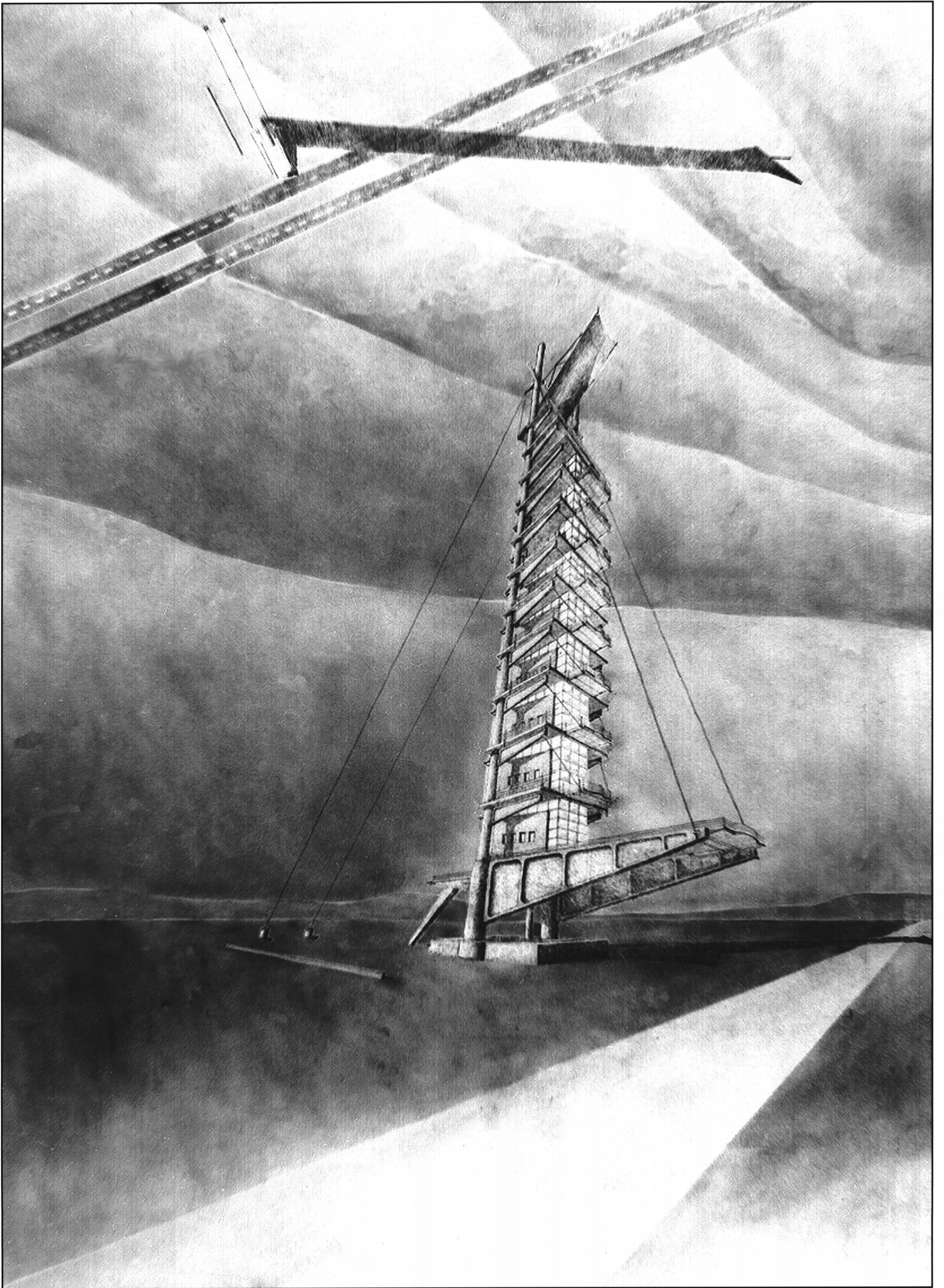


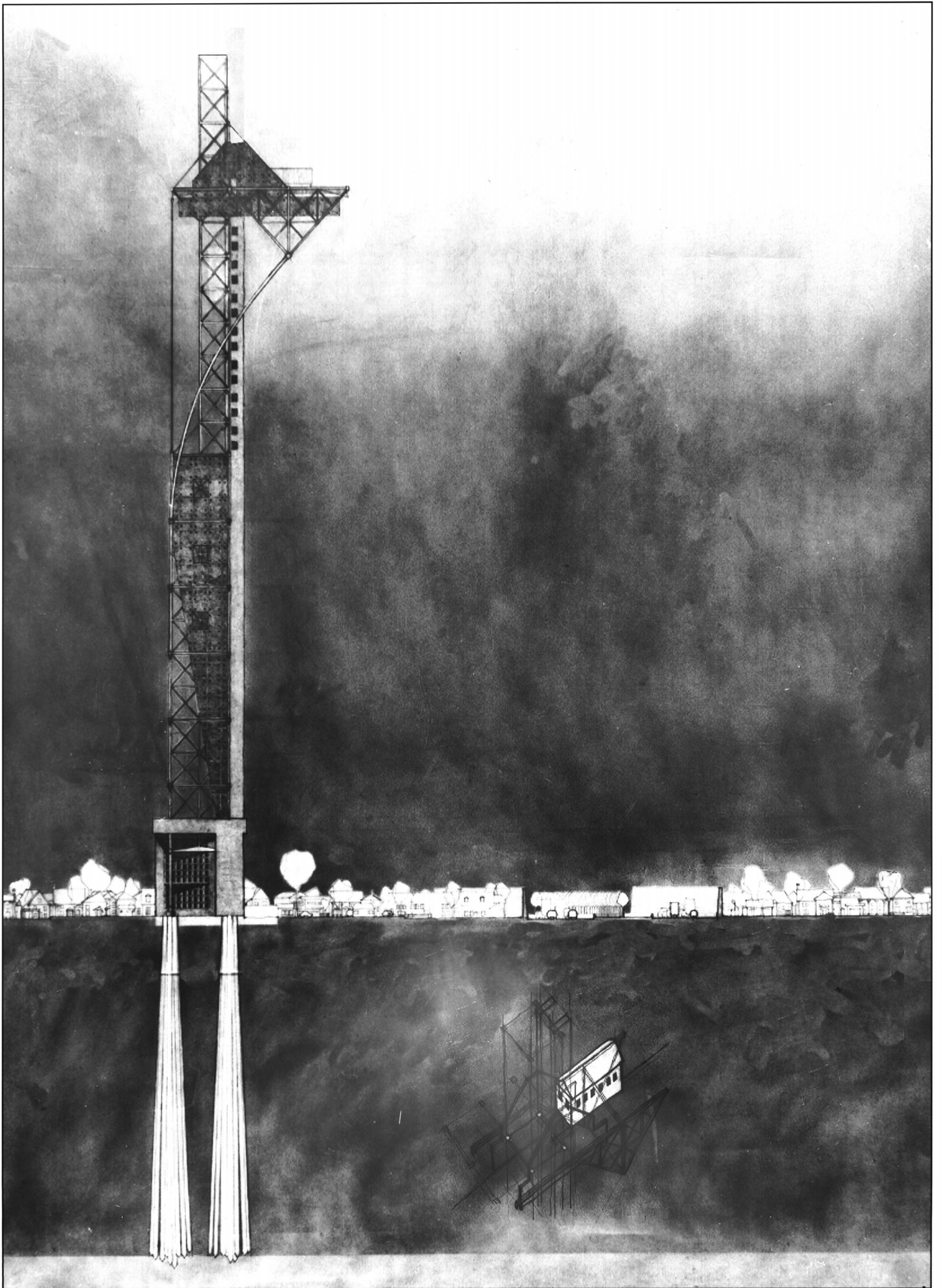
As might be considered universal in architecture, design must construct directional conditions in order to develop an acceptable foundation; however, the very premise of the foundation at times can be challenged by applying opposite assertions. If this is a method for design, then the intentional result must be a point of discovery; a realization that is neither what was started, nor what was altered but rather something that becomes itself. It is not surprising then that the Hegelian Dialectic can be applied. In architecture, a set of oppositions allows for a transformation of a thing. For the towers, I have attempted to use the rational, the limit, the vertical, and the real as the thesis; contrarily, the absurd, the limitless, the horizontal, and the hyper-real comprise the antithesis. The synthesis is the deformative. It is deformative instead of transformative because it welds contradictory conditions. The merging is not direct; before the conditions can be joined, they must break each other apart. As they are combined, they are dislocated from their origins and thus de-formed. Since they no longer belong to that from which they were originated, they can only belong to the order of the synthesis; a surrogate formation; a new order; a point of discovery. I would argue then that the historical conditions of the United States as a culture possess this dialectic in its language and landscape and provide a rich starting point for an architectural investigation.

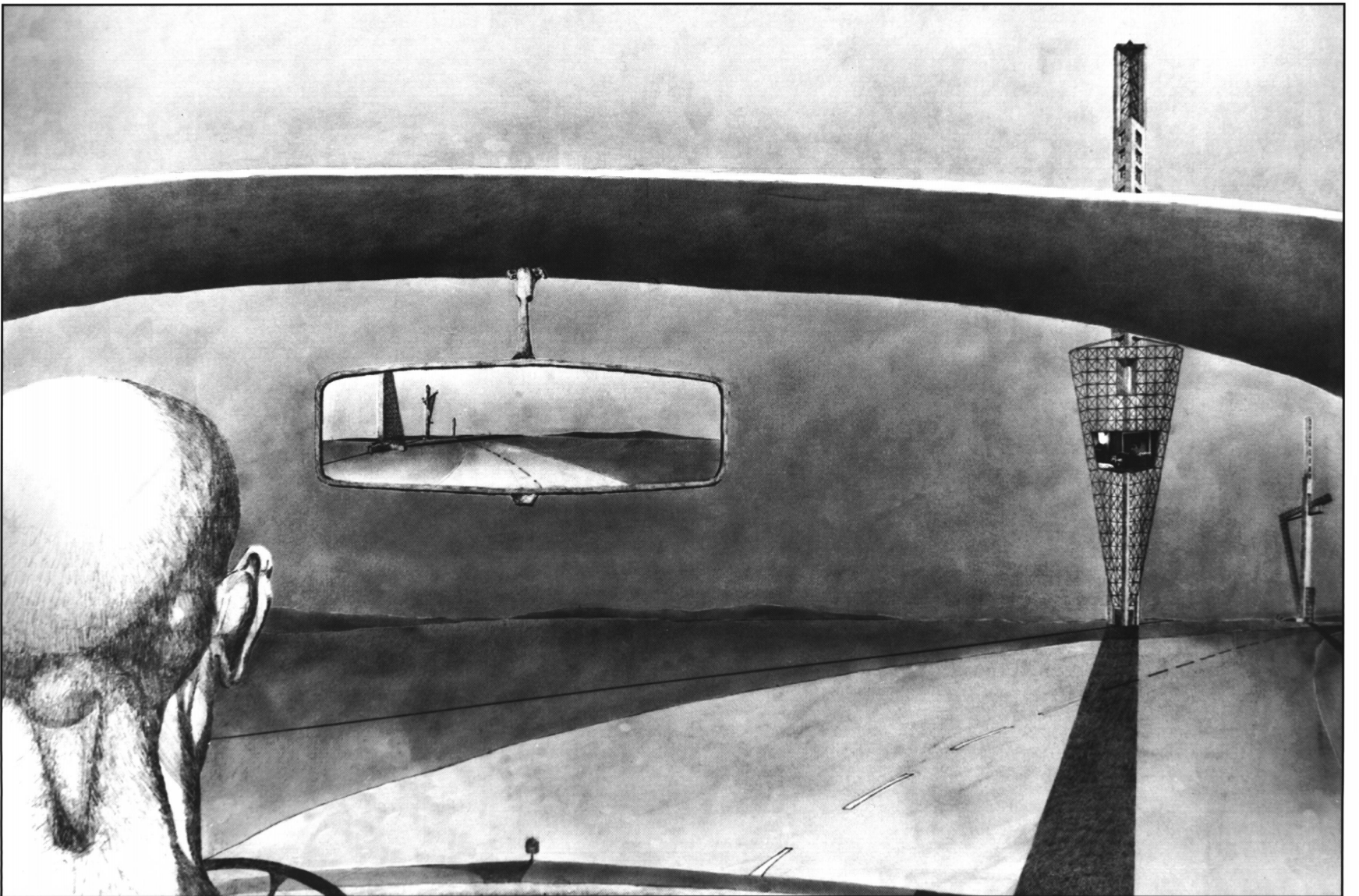
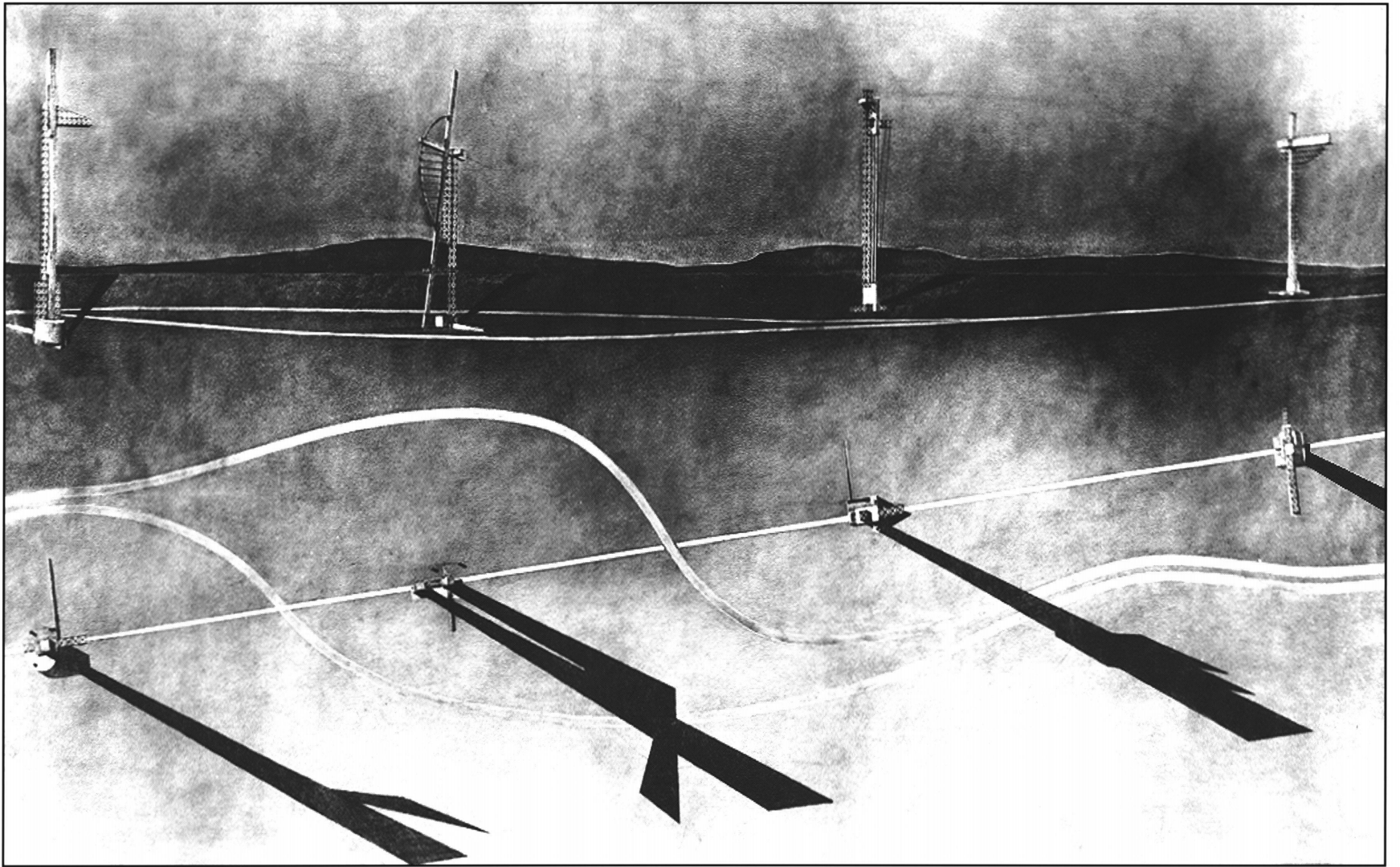
*Nothing exists in isolation. All things cross through each other, suffer and transform each other.*¹⁴

*The thesis and antithesis and their proofs represent nothing but the opposite assertions, that a limit is, and that the limit equally is only a sublated one; that the limit has a beyond with which however it stands in relation, and beyond which it must pass, but that in doing so there arises another such limit, which is no limit. The solution of these antinomies, as of these previously mentioned, is transcendental.*¹⁵









n o t e s

1. Jean Beaudrillard, *America*. page 81.
2. Benjamin Gianni, *Dice Thrown*. pages 13-14.
3. Ibid, page 15.
4. Ibid, page 31.
5. Beaudrillard, page 76.
6. Rem Koolhaas, *Rem Koolhaas OMA* page 165.
7. Umberto Eco, *Travels in Hyper-reality*. page 13.
8. Ibid, page 8.
9. Gianni, page 16.
10. Beaudrillard, page 76.
11. Ibid, page 54.
12. Steven Holl, *Within the City*. page 11.
13. Iakov Chernikhov, *Fantasy and Constuction*. page 22..
14. Panos Mantziaras, *Quaderns*. Page 100.
15. Hegel, *Science of Logic*.

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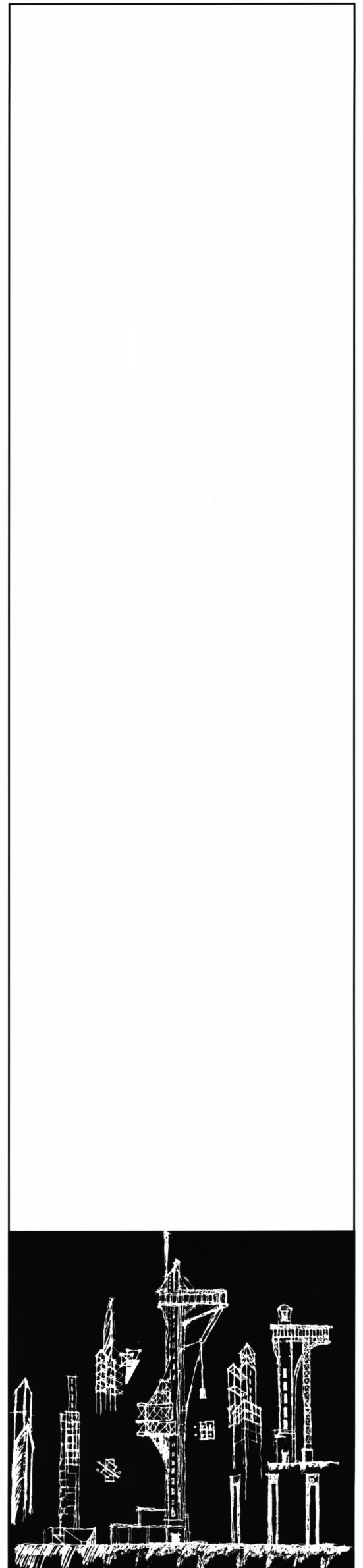
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1. Norman T. Newton. *Design on the Land*. page 616.
2. Garrett Ekbo. *The Landscape We See*. page 116.
3. Bruce Davidson. *Photographs*. page 104.
5. Morris Wright. *American Landscape*. Page 47.
7. Andrew Wyeth. *Christina's World*.



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