

Architectural Drawing as Depiction and Proposal

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As architects we often regard drawing as a vehicle for communication. For some drawing is a means to illustrate an idea or solve a technical problem. Throughout history, architects have used drawing to represent building. Various techniques and projections have emerged over time to render three-dimensional form on a two-dimensional surface.

Orthographic projection, one of the oldest drawing conventions, describes an object by projecting an image of that object onto a plane which is parallel to the image. This describes an elevation of the object. Plans and sections are generated by similar projections, in which the plane of the imaginary cut is parallel to the surface onto which the image is projected. The orthographic projection represents form in a two-dimensional medium in which all of the elements are in measurable proportion to one another. However, because orthographic projection represents only one projection at a time, the understanding of the form in its entirety is fragmented and partial.

Perspective drawing, developed in the Renaissance, occurred simultaneously with a new way of seeing in art and architecture. While none of the relative measurements in a perspective drawing are true, unlike the orthographic projection, the perspective is easily comprehended because it represents form and space as it is seen by the human eye. The drawing is less 'objective' than the ortho-

graphic projection as the viewer's point of view is determined by the drawing.

Axoneometric drawing came into use relatively late. It became popular in the 20th century concurrent with the emergence of Cubism in art and a development of the notion that space and time cannot be separated in perception. The axonometric drawing depicts form and space in a way in which simultaneity and transparency are expressed and perceived. Thus, temporal and spatial perception can be represented in the axonometric drawing.¹

Each of these drawing projections is constructed in a particular way and each projection represents form differently. By the use of these projections a building may be represented and, as types of drawings, each projection is important at some level for communicating information about a building. However, these two-dimensional projections are no more than means of representation. They are not inherently meaningful in themselves. For a drawing to explore and express meaning, as a poem might, there must be within it a multi-dimensional idea capable of development, manipulated to create meaning and not merely illustrated in a projection.

But how are conceptual ideas manifested? Certainly theory plays a role in the development of architectural design, but while theory is important and surely a

component in the design process, the theoretical concept does not possess the power to effect design. The arrangement and organization of pure concepts, revealing some hierarchy of being and the world, cannot generate form. In order to transform chaos into order, to determine the undetermined, one cannot simply choose a conceptual solution to depict, for architectural design is not accomplished in the medium of thought, but in the medium of form.

It is said that building is the medium of the architect; however, drawing is really that which he makes. Drawing is that which connects his mind and his hand. As human beings we make, shape, alter and fabricate, thereby exploring our own existence and our materiality. Making, in this sense of creating, constructing and shaping, can occur in the drawing. But, just as design cannot be accomplished purely within the realm of theory, it also does not emerge as merely formal composition. Concept and form must define one another. Form is not something physical only. Concept has, and is, form. The philosophical concept of a piece of architecture is its most abstract form manifestation; it could be said to be the first manifestation of the whole.

If form and concept define one another as two sides of the same coin define the coin, imagine drawing not as a tool for communication, illustration or technical problem solving, but as a means to ex-

plore architectural ideas. Making and the transformation and development of ideas could occur simultaneously, then, in one construction - the drawing. If we learn by making, and drawing is a medium which architects can employ easily, drawing might be seen as a means to investigate what could be, instead of as a means to depict and represent what is known.

There are drawings which distinguish between depiction and proposal. By the use of different media, depiction may be enhanced and ideas developed in ways which are essential to their making and production. Drawing and thinking become simultaneous operation and expression. Ideas can be manifest in the form, order and character of the drawing. The medium is important as the means of depiction. Exploration through drawing of what could be is a way of manipulating ideas, not architectural form, per se; such explorations on paper might propose and not represent. This shift in emphasis for drawing suggests a kind of architectural drawing which is perhaps more akin to art.

A graphic analysis of Daniel Burnham's Plan of Chicago for the City Beautiful Movement distinguishes between depiction and architectural proposal. Burnham's scheme was an exploration through drawings of what the city of Chicago could become. He manipulated ideas through the medium of drawing. By examining the ideas which Burnham was

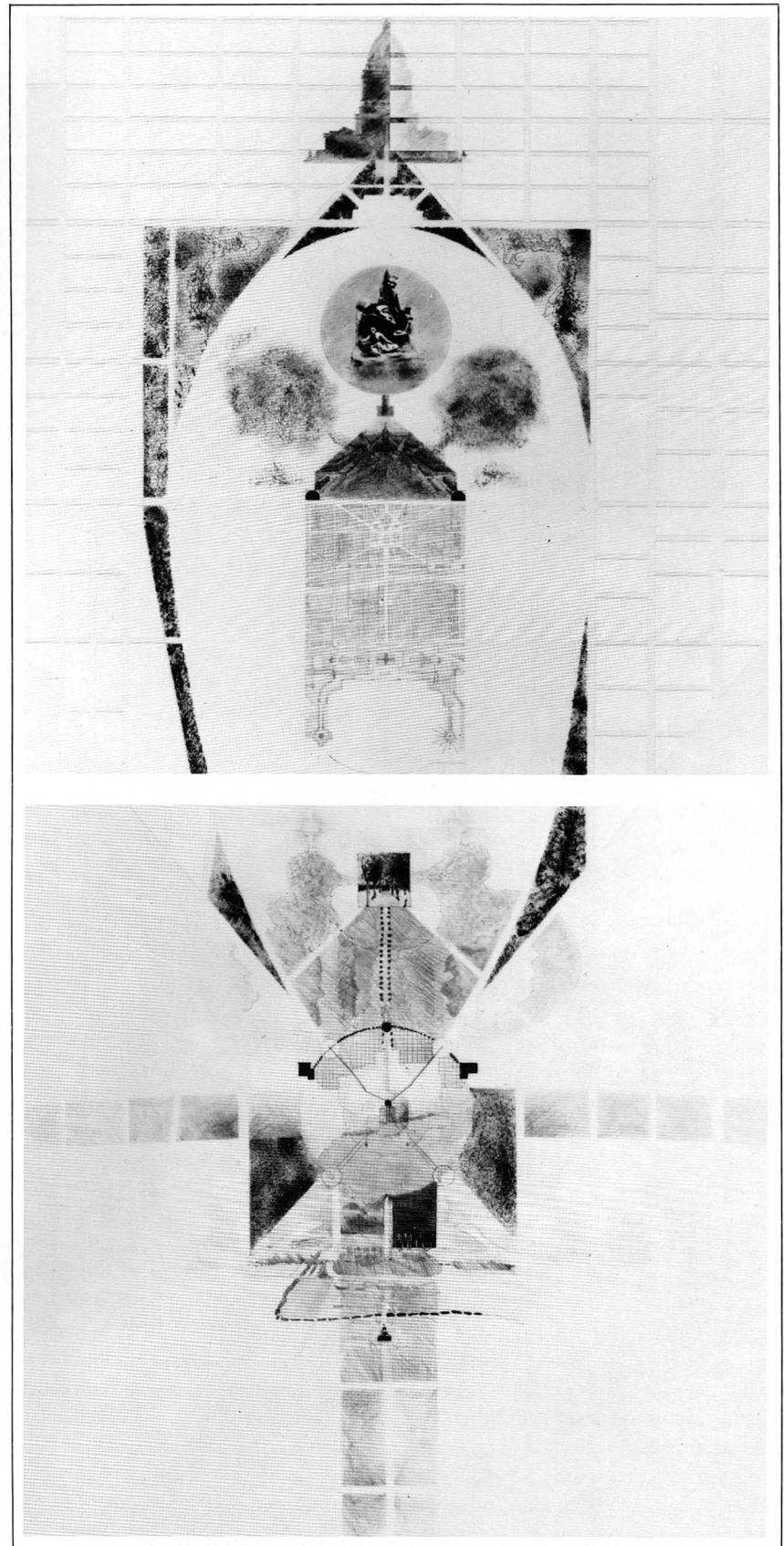
exploring, in terms of architectural content, this drawing relies on graphic means to reveal both architectural idea or intention and depiction of the ideas.

Burnham was commissioned to examine the city of Chicago and make a proposal. An entire book of his ideas and drawings was published by the Commercial Club of Chicago, in which the drawings seem to, in a single composition, embrace both the ideal and the real simultaneously? They seem to read as both diagram and plan. He explored the notion of a city as a collection of monuments which puncture an imaginary plane of six and seven story buildings comprising the fabric of the city. He attempted to incorporate and control nature in his plan. He proposed a park system whose arrangement is highly ordered and controlled. The depictions which accompany the park proposals are often perspectives, which determine the position of the viewer as well as the viewer's relationship to the park. One enhances the other. Burnham's attitude is one of order. He seeks to establish control, through his designs, of man's relationship to nature. Nature is allowed into the city only in particular ways.

The drawing attempts to explore and explain not simply Burnham's master plan for Chicago, but his ideas and attitudes and how these are depicted in a way that effectively communicates his point of view. The project is however not merely

a dissection of Burnham's work, but simultaneously a dissection and a reconstruction of Burnham's intentions, depicted in a way that Burnham himself might have summed up his intentions.

Examining a parallel phenomenon in literature (which is generally recognized to have the capacity to express ideas through metaphor, allusion and symbol) may yield a clearer understanding of the relationship between architectural drawing projections as devices for communication and illustration and drawing as a means to explore and express architectural ideas. Tracing the Greek mythological figure, Prometheus, in literature over the last 2500 years, we find the character and his rival Zeus the subjects of many interpretations of the original Prometheus legend. The character Prometheus, initially a projection of a form within the material universe, has been continually reshaped as he has been depicted by different authors, until he no longer is cast as merely an analogy to a material object, but eventually as a symbol of subtle philosophical abstraction. It is this symbolic rendering in which modern writers attempt to depict in their characterizations of Prometheus, another order, communicating a slightly different message in their work than that of the early Greeks. The casting of the characters of Prometheus and Zeus in Western literature reveals continual reshaping, at times almost distortion, of the characters in order to convey, with an



Drawing of Daniel Burnham's 1909 Plan of Chicago

articulate symbol, a specific human value or pattern.³

This reshaping in the form of a poem or a play is, like a drawing, a concrete manifestation of an idea. In poetry, the shaping and the imagery neither emerges from nor leads to a taxonomic classification and hierarchy, presenting and illustrating the world and being in degrees of generality. Instead, the poetic construction creates images which arise from and are inspired by the creative imagination through which they exist. Goethe said that poetry shapes the monotonously flowing stream of events "in an enlivening way so that it moves rhythmically." Perhaps this could be said of other artistic production as well. The rhythmic movement, a function of artistic outlook, occurs within the medium from which it is generated, whether dance, poetry, architecture, music or drawing.

In the preface to "Prometheus Unbound," Shelley notes an interesting fact concerning mythological legends which, here, can be applied particularly to the present subject: "The Greek tragic writers, in selecting as their subjects any portion of their national history or mythology, employed in their treatment of it a certain arbitrary discretion. They by no means conceived themselves bound to adhere to the common interpretation or to imitate in story as in title their rivals and predecessors."⁴ The Greek tragic writers, however, were not the only ones to employ this discretion, for modern writers do so as well, as another comment from Shelley's Preface exemplifies: "Had I framed my story on this model (the fragmentary "Prometheus Unbound" of Aeschylus) I should have done no more than have attempted to restore the lost drama of Aeschylus; ..." ⁵ In recognizing the authors' intent to twist the basic Prometheus legend to achieve an image suitable to accommodate their message, one no longer feels the frustration of trying to reconcile every Prometheus story with the basic legend.

The legend itself comes from a common stock of mythological stories known to almost all. The Titan Prometheus, endowed with rational and moral qualities, as well as the gift of forethought, helped Zeus and the other Olympian gods to overthrow the ruling Titan generation, and thence forward rule the universe. Although Prometheus was an immortal, he was also the son of Earth and consequently felt a natural sympathy with the earth's mortal inhabitants. Prometheus knew this race of mortals, which Zeus despised and planned to destroy, was capable of infinite development. So, he stole fire from heaven in a hollow tube and gave it to man and taught him how to extract its usefulness. In so doing, he thwarted Zeus' plan to replace man with a more perfect race. The vindictive Zeus punished Prometheus for this presumptuous deed by binding him in chains to a bare mountain crag in the Caucasus where, daily, an eagle consumed his liver, which grew back each succeeding night.

This narrative is the subject of many pieces of literature, among them the poem, "Prometheus" by Johann Wolfgang Goethe. Prometheus is depicted as an antagonist of Zeus, although in this poem a different relationship between Prometheus and Zeus is established than in past interpretations of the legend. The Prometheus of Goethe is the sole speaker in the poem and while he does not attempt to elevate himself, the insults he hurls at Zeus convey a different balance of power between them than the original story suggests. An important aspect of this poem is that Zeus is given no opportunity to refute the accusations Prometheus makes. This is a deliberate mechanism Goethe employs to cast the role of Prometheus as an intelligent revolutionary posed against the old established tyrant. Where in previous depictions Zeus' power dominated Prometheus, this is now ineffective against Prometheus' persistence and Fate. Zeus' power in this poem is likened to that of "...a boy beheading thistles..."

PROMETHEUS

*Shroud up your heavens, Zeus
With cloudy mists
And wreck your wrath as would a boy
Beheading thistles,
On oak trees and on mountain tops;
Still you have to let
My earth exist,
And this, my hut, which you did not build,
And also my hearth,
Whose glowing fire
Fills you with envy.*

*I know nothing sorer
Under the sun than you, Gods!
You nourish wretchedly
On sacrifices
And on prayer-breath
Your own majesty,
Starve you would, were there not
Children and beggar folk
Credulous fools.*

*When I was still a child
Now knowing my way around,
Toward the sun I looked
As if there were above
An ear to hear my lamentation,
A heart like mine
To pity the oppressed.*

*Who helped me
Then against the titan's arrogance?
Who rescued me from death,
From slavery?
Did you not this yourself accomplish,
Holy glowing heart?
And young and good you glowed,
Deceived, salvation-thanks
To him asleep above you?*

*I, you honor? For what?
Have you ever assuaged the sorrows
Of the heavily burdened?
Have you ever stilled the tears
Of the fearful one?
Did not the forge of all-powerful time
Make me a man?
As did eternal fate,
My masters and yours?*

*Did you imagine perchance
That I would hate life,
That I would flee to deserts
Because not all
Blossom dreams would ripen?*

*Here I sit, shaping humans
In my own image,
A race that shall be like me
To weep and to suffer
To feel joy and ecstasy
And not honor you,
As I.*

PROMETHEUS

*Bedecke deinen Himmel, Zeus,
Mit Wolkendunst
Und uebe, dem Knaben gleich,
Der Disteln koepft,
An Eichen dich und Bergeshoehn!
Musst mir meine Erde
Doch lassen stehn
Und meine Huette, die du nicht gebaut,
Und meinen Herd,
Um dessen Glut
Du mich beneidest.*

*Ich kenne nichts Aermeres
Unter der Sonn als euch, Goetter!
Ihr naehret kuemmerlich
Von Opfersteuern
Und Gebetshauch
Eure Majestaet
Und darbtet, waeren
Nicht Kinder und Bettler
Hoffnungsvolle Toren.*

*Da ich ein Kind war,
Nicht wusste, wo aus noch ein,
Kebrt ich mein verirrtes Auge
Zur Sonne, als wenn drueber waer
Ein Obr, zu hoeren meine Klage,
Ein Herz, wie meins,
Sich des Bedraengten zu erbarmen.*

*Wer half mir
Wider der Titanen Uebermut?
Wer rettete vom Tode mich,
Von Sklaverei?
Hast du nicht alles selbst vollendet,
Heilig gluehend Herz?
Und gluehdest jung und gut,
Betrogen, Rettungsdank
Dem Schlafenden da droben?*

*Ich dich ehren? Wofuer?
Hast du die Schmerzen gelindert
Je des Beladenen?
Hast du die Traenen gestillet
Je des Geaengsteten?
Hat nicht mich zum Manne geschmiedet
Die allmaechtig Zeit
Und das wiege Schicksal,
Meine Herrn und deine?*

*Waebntest du etwa,
Ich sollte das Leben bassen,
In Wuesten fliehen,
Weil nicht alle
Bluetentraeume reiften?*

*Hier sitz ich, forme Menschen
Nach meinem Bilde,
Ein Geschlecht, das mir gleich sei,
Zu leiden, zu weinen,
Zu geniessen und zu freuen sich,
Und dein nicht zu achten,
Wie ich!⁶*

Goethe's rendering of the Prometheus legend retains the fervor of the Prometheus-Zeus conflict, as the symbol of rebel against tyrant and as the symbol of knowledge against force. In addition, Prometheus appears in this poem as the champion of human kind, raising man through the gift of intelligence, against Zeus who is wont to destroy man. This meaning is overwhelmingly emphasized as Prometheus relates, in a monologue, all that he has suffered and endured, creating a ludicrous image of Zeus in the process. In so doing, Prometheus does not exalt himself, he simply states the punishment he has endured since, being immortal, he had no choice but to endure his slavery. Prometheus is given the title 'champion of man' by the reader who has felt similar injustices. The power of the poem lies in its ability to move the reader to identify with Prometheus and then to bestow this title on him, thereby of course, revealing man's own vainglory.

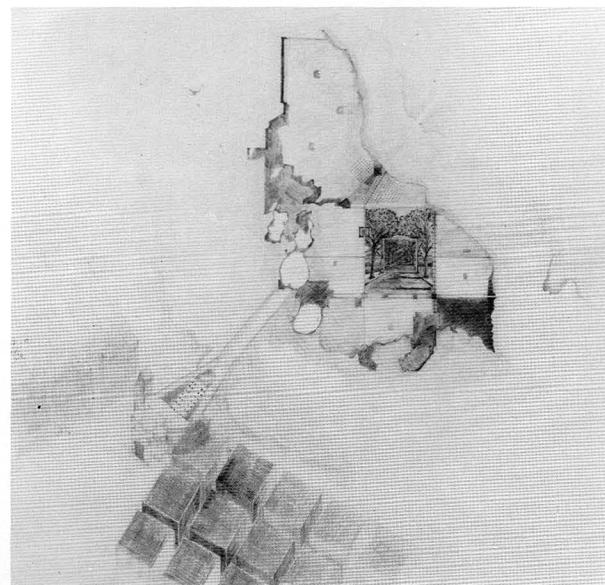
The poem is not a faithful restoration of the Prometheus legend, but a deliberate distortion, embodying a new rhythm and a new order. The legend provides a framework within which the poem explores and manifests its own vision in the language of poetry. The poem, as artifact, pursues this new order by means of a well-known story transformed by the author to reveal its meaning. Similarly drawing, as construction and artifact, can reveal meaning through the exploration of ideas and patterns.

In a project for the 1992 Chicago World's Fair, an investigation of the notions of 'boundry' and 'passage' within and to the fairgrounds commenced in a drawing. In dealing with the significance of boundary and passage, the drawing focused on an architectural and spatial phenomenon, namely, the role of the wall. The traditional wall has, in addition to its obligation to carry the vertical loads of a building, also been subject to architectural manipulation with surface expression and spatial definition. As boundary, the wall divides spatial realms. Passage through a wall connects spatial realms.

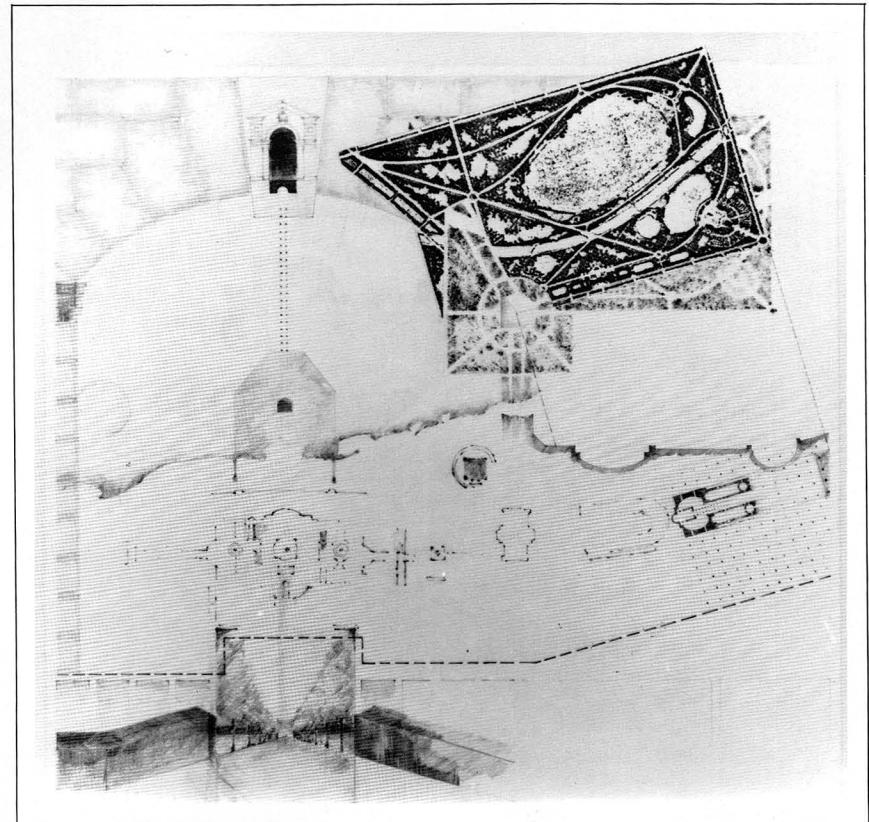
The exploration, as drawing, was intended to work conceptual ideas simultaneously with architectural or formal expressions. The project explored a range of scales from the city to the fair, to districts within the fair, to structures. This piece, combining descriptive and analytical drawing, became the work surface on which to examine an aspect of the fair.

An investigation of the city of Minneapolis looked at the city, not as so many objects, but as a community with character and personality revealing visions of the past and of the future. Explorations through drawing proposed what the city could be. By the use of different media the depiction itself enhanced and informed the ideas. The use of metaphor suggested means to think in a different mode. The exploration provided an opportunity to make an architectural proposal on paper, complete in itself.

One drawing, "The City of Nature" examined aspects of nature and water in the city, both in terms of echoes from the past and visions of the future. The drawing sought a spiritual integration of man, nature, and memory. The integration of these elements recalled the founding of a city and the development of a culture. Metaphorically the drawing proposed the city of Minneapolis as an island. The



"The City of Nature"

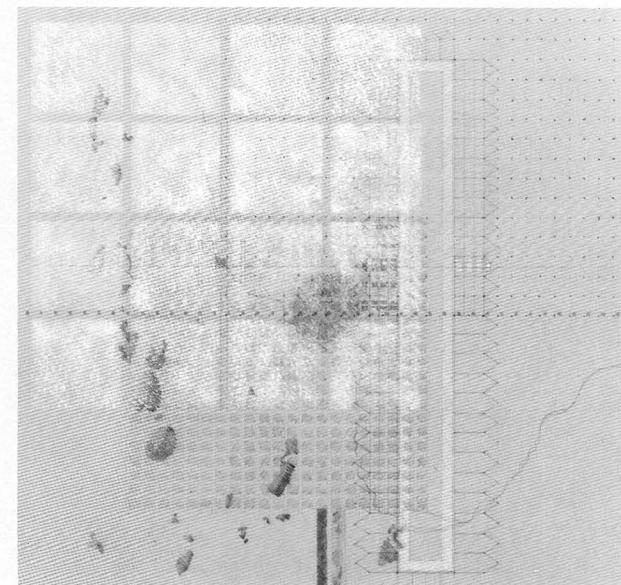


Boundary and Passage

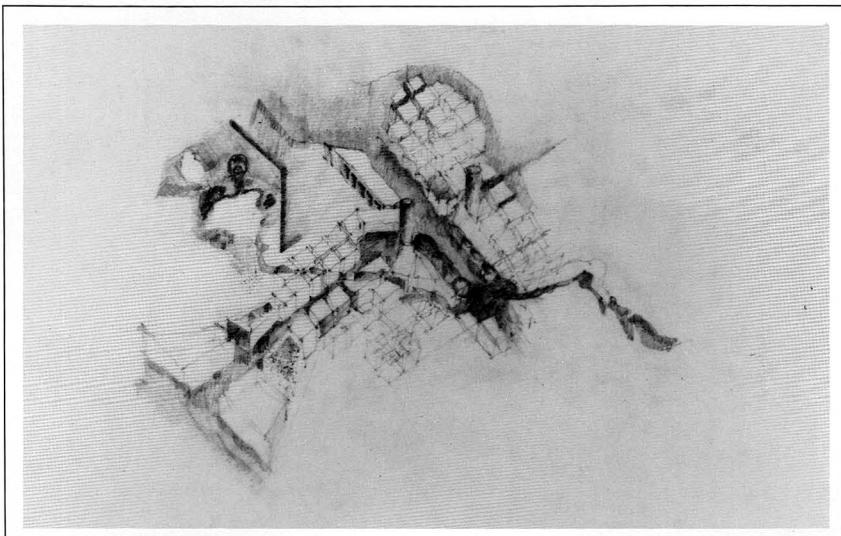
elements of nature become precious elements of finite quantity. Man carves into nature to make the city. The island, and hence the city, is utopia.

In another project entitled, "The City of Man" the city was explored as an en-

vironmental artifact — a cultural phenomenon. As a human being, man has a past and dreams and aspirations. Man imposed an order on the city — specifically the grid. However, it is not an undifferentiated continuous grid, but a hierarchical grid with imperfections and



"The City of Man"



"Images of a New Vision"

interruptions. Nature caused the grid to deform. Even the snow seemed to cover man's attempt to order the city, but only temporarily before a plow restored the grid. Although the grid appeared to be quite a strong force in the organization, the discontinuities comprise what was recognizably Minneapolis.

The notion of the city as ruin or artifact through which the river flowed and continually changed was the subject of the third drawing in this series, "Images of a New Vision." Water and stone were the primary elements which were

manipulated to explore motifs of permanence, change and erosion in the city. These two elements and their interaction served as a record of the passage of time. The city, on the edge of the river, was eventually transformed as the water carved away the rock.

It may be said that understanding is made possible by the work of art which reveals meaning in our existence. Nietzsche said, "It is only as an aesthetic phenomenon that the world and the being of man are eternally justified." Through the work of art the world can be given permanence

and escape transience and decay. There is salvation and validation for the world through a conversion of the world into an aesthetic phenomenon. Nietzsche used Greek music as an example of an artistic expression which is wholly unrepresentative, unique in its position as being separate from other arts and creating a world of its own by re-enacting the world in terms of its own medium. A particular rendering of a narrative in literature in the form of a poem which shapes events is also an artistic phenomenon. And, a drawing used not as a device for communication and illustration, but as a means to express architectural ideas could be an aesthetic phenomenon, as well.

In another project an abandoned, overgrown site was transformed into a place for performance, using drawing as a means to explore, understand and develop architectural themes of the place. A stone ruin, a walled garden, and a deciduous wood were three motifs which comprised the site. The role of drawing and depiction was significant as the prime medium for 'making.' Drawing was employed as the means to speculate about the nature of the formal intervention on the site, in place of selecting a conventional architectural program.

The motifs were manipulated in the initial drawings. The structure and order of the place, latent within the existing character of the site, began to emerge formally and conceptually, finding realization on the paper. Secondary themes were revealed in this process of making: man and nature, growth and decay, life and death, permanence and change. The content of the drawings as they were constructed, informed their making. This process of drawing which forms and informs, recovered the wholistic nature of making.

The ruin spoke of a place inhabited and a place abandoned. Man had built the ruin and left it; nature now resided in it. The walls were decaying and yet from the crumbling walls plants grew. Nature was seen as a force which was alive and moving. Ruins suggested both the passage of time and a prospect for the future.

In the garden man tried to control nature and make it work for him. A formal garden represented the world in an abstract sense. The garden constituted growth and decay. It was however, clearly the work of man — an artificial landscape. One could look at the garden as the first architecture. Man delights in moving earth, making terraces, providing views; hedges became walls, arbors became ceilings, lawns



Garden Entrance



Garden Terrace



Forest Path



Ruin Walls



Ruin Passage



Inhabited Ruin

