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BY

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A PROFESSIONAL PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

BACHELOR OF ARCHITECTURE

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SPECIAL THANKS TO MY PARENTS
FOR THEIR SUPPORT

Peter Cook
Christine Hawley
Ron Herron

'I like my students to draw what they imagine.' This simple statement encapsulates both Peter Cook's attitude to architectural education and his vision of what it means to be an architect. He expounds no theory, he makes no rules and he sets no limits; he simply exhorts architects to transcend all these—and he loves drawing and drawings. For him the secret of architecture is not to be found in history books or academic treatises or technological manifestos. Indeed there is no secret, no underlying immutable truth waiting to be revealed, just the excitement and challenge of continual invention. Architecture is something that happens in the mind and on the drawing board. No matter how persuasive his polemic or eloquent his writings, an architect is only as good as his last building or project.

INTENT OF THESIS

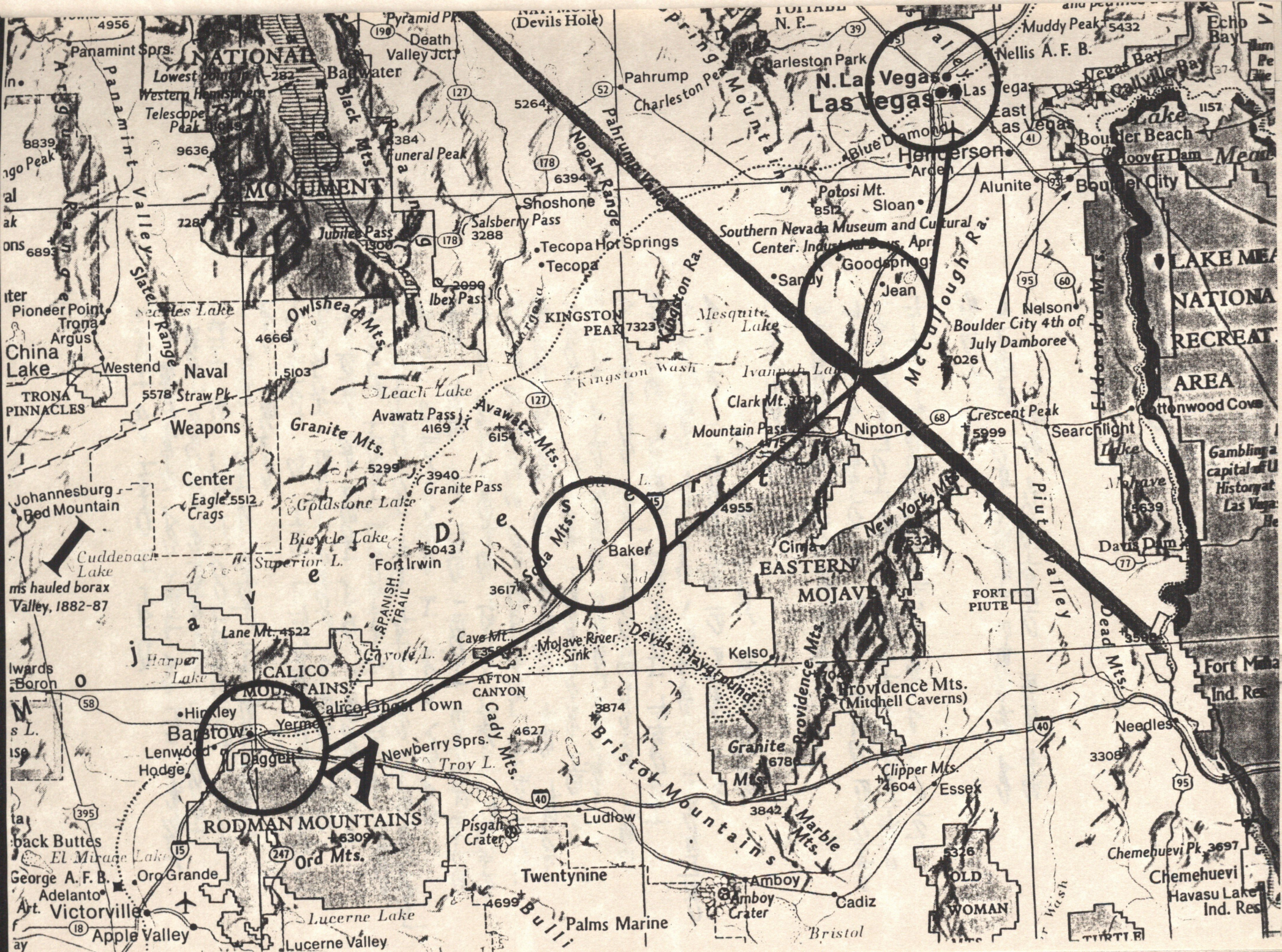
- PURPOSE
- FOCUS
- SCENARIO
- GOALS

PURPOSE

THE INTENT OF MY PROJECT IS TO CREATE A MUSEUM WHICH COMMUNICATES THE "ENERGY & VITALITY" WHICH I FEEL IS SO EXPRESSIVE OF NEON. MY PROJECT, LIKE THE NEON ITSELF, SHOULD POSSESS THE ABILITY TO DEPICT AN IMAGERY WHICH GLOWS FROM WITHIN. AS A MUSEUM ITS PURPOSE IS TO EXHIBIT, DOCUMENT, AND PRESERVE THIS UNIQUE ART FORM; WHICH I FEEL IS SYNONYMOUS WITH AMERICA ITSELF. IT SHOULD FUNCTION AS A PLACE TO EDUCATE AS WELL AS ENTERTAIN THE PUBLIC, CREATING AN AWARENESS OF THE NEON ENVIRONMENT IN WHICH THEY LIVE, BUT LACK A KNOWLEDGE OF, FREQUENTLY ASSOCIATED WITH IMAGES OF CRASS COMMERCIALISM; I SEEK TO BROADEN THEIR AWARENESS OF NEON TO THAT OF AN ARTISTIC MEDIUM, AND IN SO DOING FORCE THEM TO QUESTION THEIR SURROUNDINGS.

FOCUS

THE FOCUS OF MY THESIS IS TO SET FORTH A NEW BEGINNING, ONE WHICH SPEAKS OF MY ARCHITECTURAL VALUES. I SEE IT AS AN OPPORTUNITY TO GATHER AND TRANSFORM ALL THAT I HAVE ACQUIRED AND FOCUS IT DOWN A PATH RICH WITH MEANING. IN THIS PROJECT I WISH TO COMMUNICATE TO THE USER THE MUSEUM OF NEON ART AS THE ORGANISM WHICH IT IS. ENTICING THEM TO DISCOVER ITS ROLE IN A CITY WHOSE ENTERTAINMENT STRUCTURE IS UNPARALLELED.


Pyramid Pk.
(Devils Hole)
Death Valley Jct.
Panamint Sprs.
NATIONAL
Badwater
Lowest point
Western Hemisphere
Telescope Peak
Panamint Valley
Black Mts.
Pahrump
Charleston Peak
Spring Mountains
Charleston Park
N. Las Vegas
Las Vegas
Muddy Peak 5432
Nellis A. F. B.
Las Vegas
East Las Vegas
Lake Mead
Boulder Beach
Hoover Dam
Blue Diamond
Henderson
Arden
Alunite
Boulder City
Nopah Range
Pahrump Valley
Funeral Peak
MONUMENT
Shoshone
Salsberry Pass
Jubilee Pass
Tecopa Hot Springs
Tecopa
Potosi Mt.
Sloan
Southern Nevada Museum and Cultural Center
Goodsprings
Sandy
Jean
Nelson
Boulder City 4th of July Damboree
McCullough Ra.
Eldorado Mts.
LAKE MEAD NATIONAL RECREATION AREA
Cottonwood Cove
Searchlight
Gambling capital of U
Historpat Las Vega
Ibex Pass
Owlshead Mts.
Slate Range
Panamint Range
Pioneer Point
Trona
Argus
China Lake
Westend
Naval
Searles Lake
KINGSTON PEAK 7323
Kingston Ra.
Mesquite Lake
Kingston Wash
Ivanpah La
Clark Mt.
Crescent Peak 5999
Nipton
Mountain Pass
TRONA PINNACLES
Straw Pk.
Leach Lake
Avawatz Pass 4169
Avawatz Mts.
Granite Mts.
Weapons
Center
Eagle Crags 5512
Granite Pass 3940
Goldstone Lake
Bicycle Lake
Johannesburg
Red Mountain
Cuddeback Lake
Superior L.
Fort Irwin
Soda Mts.
Baker
Cima
New York Mts.
EASTERN MOJAVE
Piute Valley
Davis Dam
FORT PIUTE
Dead Mts.
Fort Mo
Ind. Res
ms hauled borax
Valley, 1882-87
SPANISH TRAIL
Lane Mt. 4522
Harper Lake
Coyote L.
Caye Mt.
Mojave River Sink
Devils Playground
Kelso
Providence Mts.
Providence Mts. (Mitchell Caverns)
CALICO MOUNTAINS
AFTON CANYON
Calico Ghost Town
Hinkley
Boron
Barstow
Yermo
Lenwood
Hodge
Dagget
Newberry Sprs.
Troy L.
Cady Mts.
Bristol Mountains
Granite Mts.
Clipper Mts.
Essex
Needles
Ludlow
RODMAN MOUNTAINS
Pisgah Crater
Ord Mts.
Marble Mts.
Chemehuevi Pk. 3697
Chemehuevi Ind. Res
Havasu Lake
Twentynine
Amboy
Amboy Crater
Cadiz
OLD WOMAN
Bristol
Palms Marine
Lucerne Valley
Lucerne Lake
Apple Valley
Victorville
George A. F. B.
Adelanto
Oro Grande
El Mirage Lake
Buttes
Edwards

SCENARIO

THE SCENARIO FOR THE MUSEUM OF NEON BEGINS AS SUCH:

THE MUSEUM, WHICH IS A CONGLAMORATION OF BUILDINGS RATHER THAN A SINGLE STRUCTURE BEGINS IN BARSTOW CALIFORNIA.

BARSTOW:

THE HIGHWAY TRAVELER ALONG INTERSTATE 15 FROM LOS ANGELES TO LAS VEGAS IS INFORMED OF THE MUSEUM OF NEON, THROUGH A SERIES OF PROGRESSIVE ROAD SIGNS AND RADIO BROADCASTS. THROUGH THESE MESSAGES HE IS ENCOURAGE TO STOP AT THE TRUCK STOP OUTSIDE OF BARSTOW AND PICK UP A CASSETTE TAPE WHICH BEGINS HIS TOUR OF THE NEON EXPERIENCE WHICH CULMINATES IN LAS VEGAS. CONTAINED ON THE TAPE IS INFORMATION ABOUT NEON, BEGINNING WITH A BRIEF HISTORY OF NEON AND PROCEEDING THROUGH EACH STOP ALONG THE HIGHWAY TO HIS ULTIMATE DESTINATION LAS VEGAS.

THE TRUCK STOP IN BARSTOW WITH ITS GIANT COLLOQUE OF OLD NEON SIGNS SPEAKS OF BOTH ADVERTISING AS WELL AS ITS HISTORY WHICH GO HAND IN HAND.

BAKER

BAKER THE SECOND STOP ALONG THE EXSIT AND COME FIFTY MILES NORTH OF OUR STARTING POINT DEALS WITH NEON IN A MORE LIGHT HEARTED WAY THAT OF WHAT I WOULD CONSIDER RECREATIONAL NEON. CONTAINED WITH IN THE BUILDING FORM OF A ROADSIDE REST STOP NEON IS ADDRESSED IN TERMS OF A FORM WHICH IS NOT ADVERTISING YET WOULD NOT BE CONSIDERED HIGH ART. IT EXISTS UNTO ITSELF FOR PURE ENJOYMENT.

JEAN.

JEAN LYING JUST ACROSS THE CALIFORNIA - NEVADA BORDER DEALS WITH NEON THROUGH A RELIGIOUS ASPECT. THROUGH THE USE OF A WEDDING CHAPEL SITED BETWEEN NORTH AND SOUTH LANES OF THE HIGHWAY IT ADDRESSES NEONS ABILITY TO GLOW FROM WITHIN AND ITS VARIED USES IN RELIGIOUS STRUCTURES THROUGHT THE WORLD.

Las Vegas

Las Vegas the culminating point to the buildup of the Mech experience addresses Mech in its high art form, through a building which functions as a chamber of commerce and museum of Mech. The work contained within the museum is a variety of pieces done by ultimate Mech artists throughout the country. At this point the highway traveler would return the cassette while possibly continuing on with another tape addressing the Mech which is Las Vegas.

· GOALS

- TO CREATE AN ATTRACTIVE & DYNAMIC NEW MUSEUM FOR THE LAS VEGAS REGION.
- TO DESIGN A MUSEUM WHICH CAPTURES THE ESSENCE OF NEON.
- TO RESPOND TO THE ARID DESERT CLIMATE
- TO DESIGN A MUSEUM WHICH RESPONDS TO LAS VEGAS.
- TO PROVIDE A FACILITY WHICH ADDRESSES MATTERS OF CONSTRUCTION, SPACE, MATERIALS, & MOVEMENT.
- TO PROVIDE A FACILITY WHICH FORCES PEOPLE TO QUESTION THEIR SURROUNDINGS AND IN SO DOING ELEVATES THE ORDINARY TO THE EXTRAORDINARY.
- TO DESIGN A FACILITY WHICH TELLS A STORY ABOUT ITS EXISTENCE.
- TO DESIGN A FACILITY WHICH DOES NOT DIMINISH THE LANDSCAPE BUT ENHANCES IT.
- TO CREATE A FACILITY WHICH GROWS OUT OF THE MATERIALS & RHYTHMS OF THE PLACE.

THE HIGHWAY LANDSCAPE

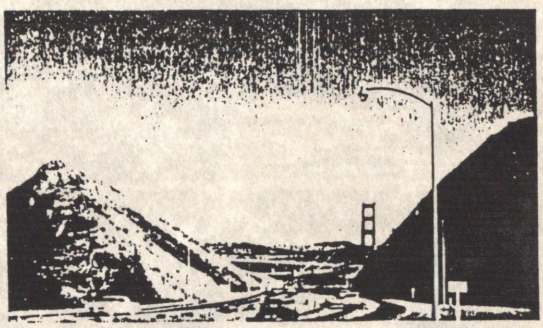
- HIGHWAY EXPERIENCE
- ELEMENTS OF ATTENTION
- SENCE OF MOTION
- SENCE OF SPACE
- GOAL APPROACH
- ORIENTION
- MEANING
- RHYTHM / CONTINUITY

1. The Highway Landscape

Ugly roads are often taken to be one price of civilization, like sewers or police. The boring, chaotic, disoriented roadscape seems to be the natural habitat of that useful but awkward monster, the American automobile. From this point of view, we spend too much of our lives in the car. It would be better to arrange cities so that everyone could walk to work, or to let automatic devices take the wheel, so that we could pull the shades and watch TV.

The authors take a different position: road-watching is a delight, and the highway is—or at least might be—a work of art. The view from the road can be a dramatic play of space and motion, of light and texture, all on a new scale. These long sequences could make our vast metropolitan areas comprehensible: the driver would see how the city is organized, what it symbolizes, how people use it, how it relates to him. To our way of thinking, the highway is the great neglected opportunity in city design.

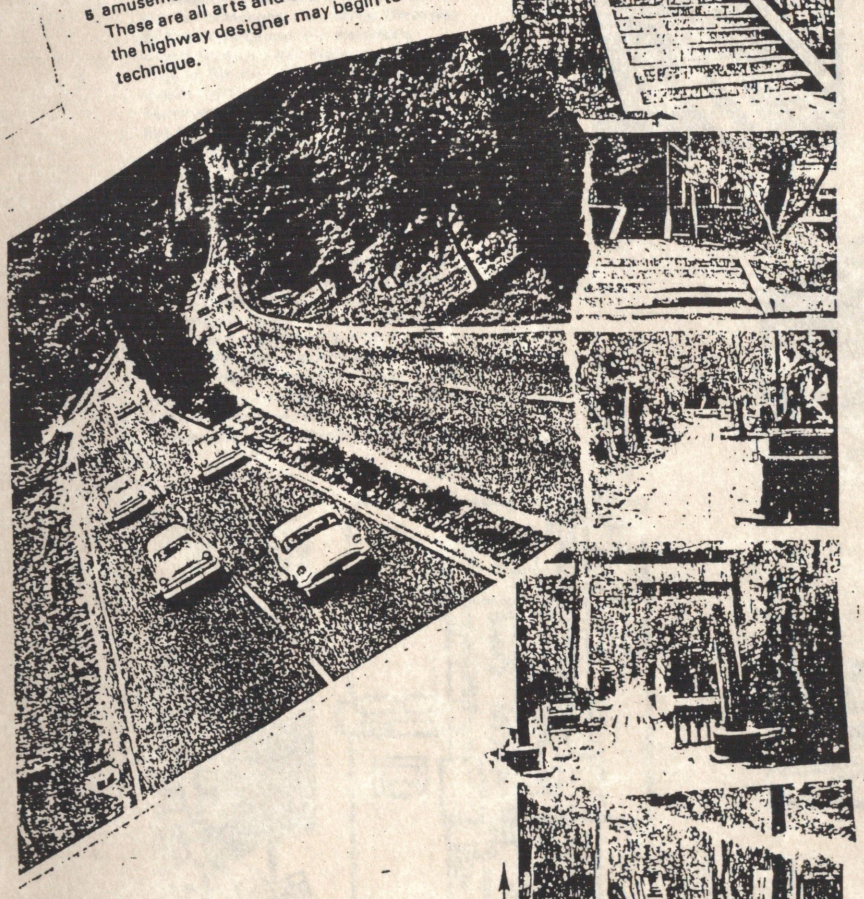
The first highway designers were railway men, who learned their trade when grades were flat and alignments straight, when the surrounding landscape was an obstacle to overcome, and cost, power, and safety were questions far too urgent to allow thought for looks. Only the engine driver had to watch the view, and he was paid for his trouble. This attitude is still widespread, even among highway users, who bear with resignation the vacant hours of commutation.

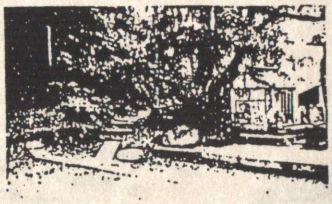


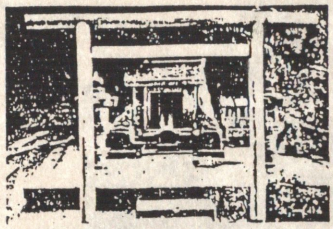
The Golden Gate 1

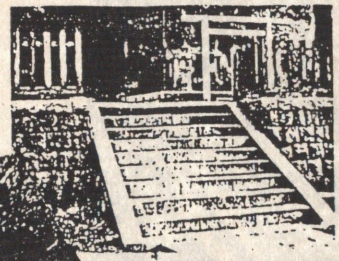
Highways have special visual qualities if we consider them as art. We will discuss them from the standpoint of the driver and his passengers, ignoring the issue of how the highway looks from the outside. We will also restrict ourselves to the limited-access highway in the city, although much of our material will be applicable to other roads. We make this restriction because urban highways seem to pose the greatest problems and to promise the richest visual returns.

The Highway Experience
If the highway is a work of art, what are the raw materials of that art, and what are its principles? The sensation of driving a car is primarily one of motion and space, felt in a continuous sequence. Vision, rather than sound or smell, is the principal sense. Touch is a secondary contributor to the experience, via the response of the car to hands and feet. The sense of spatial sequence
2 is like that of large-scale architecture; the
3 continuity and insistent temporal flow are
4 akin to music and the cinema. The kinesthetic sensations are like those of the dance or the
5 amusement park, although rarely so violent. These are all arts and situations from which the highway designer may begin to learn his technique.



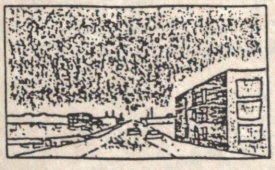






Read Up

2 A simple organized sequence in the approach to a Japanese shrine (Goshojinja, Kamakura). Come upon obliquely, the entrance gate stands alone, then reveals the path ahead and some distant steps as an intermediate goal. Recurrent statues mark one's forward progress, and the steps develop into a double flight, partly in shade. Midway through this double flight, above and beyond a light screen, the final goal appears obliquely once more. A small replica of the entrance gate frames the shrine, and behind this begins another sequence. Rhythmic succession, progressive revelation, continuity, recall.



The Highway Experience
If the highway is a work of art, what are the raw materials of that art, and what are its principles? The sensation of driving a car is primarily one of motion and space, felt in a continuous sequence. Vision, rather than sound or smell, is the principal sense. Touch is a secondary contributor to the experience, via the response of the car to hands and feet. The sense of spatial sequence
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5 amusement park, although rarely so violent. These are all arts and situations from which the highway designer may begin to learn his technique.

While the road makes a dynamic impression on the driver and his passengers, it also exists
6 as a static, bulky object in the landscape, a substantial piece of the urban scene for those who live along its borders. This presents a two-faced problem, much as if a theatrical
7 designer had to be concerned with the visual
8 form of his backstage apparatus. However important, it is a problem that we will not consider here.

Even among the users of the road, there are several different kinds of audience. The tourist sees the landscape with a fresh eye; he attaches relatively few personal meanings to it, but is urgently engaged in orienting himself within it. The commuter, or other habitual user of the road, is more likely to ignore larger landscape features in favor of activities, new objects, or the moving traffic of the road. The driver must watch the scene constantly; his vision is confined to a narrow forward angle and focuses on the events in the road itself. His passenger is freer to look or not to look, has a wider angle of vision, and is not necessarily concerned with immediate traffic. Both driver and passenger are likely to be an inattentive audience, whether through the compulsion to watch only a small part of the scene, or conversely through the very freedom to let attention wander. They may be partially preoccupied with conversation, squabbling among the children, or private worries.

Yet at the same time both are a captive ...and too audience who cannot avoid remarking ...ases, vision if only subconsciously. The fact which provides the events of a scene with a means of directing attention. dangerous ... In both cases, there is an undertone of risk, which may be fearful or stimulating.

9 The modern car interposes a filter between the driver and the world he is moving through. Sounds, smells, sensations of touch and weather are all diluted in comparison with what the pedestrian experiences. Vision is framed and limited; the driver is relatively inactive. He has less opportunity to stop, explore, or choose his path than does the man on foot. Only the speed, scale, and grace of his movement can compensate for these ...mitations.



9

The highway experience has some further special characteristics. It is usually reversible: people may traverse the road in either direction. It is as if a movie or a recording had to be enjoyed when played backward as well as forward. This limits possible effects, or demands some technique of masking the "backward" form while the "forward" form is being sensed.

from be… …nter… leave the highway at intermediate points, even if these points are as limited in number as they are on a superhighway. The sequence must therefore be interruptible.

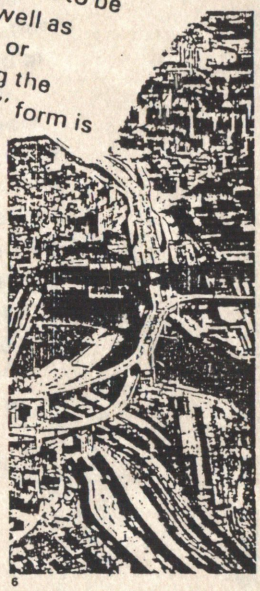
The driving experience can now be described as being a sequence played to the eyes of a captive, somewhat fearful, but partially inattentive audience, whose vision is filtered and directed forward. It is a sequence which must be long, yet reversible and interruptible.

This sequence is made up of many elements; it is convenient to group them according to a presumed progression in the process of visual perception. The incoming light rays evoke immediate perceptions of intensity and color, of textures, motions, and outlines. These perceptions are organized into identifiable objects, which are then interpreted as moving in space. The observer locates these moving objects and spaces in a total structure, orienting himself with regard to the world around him. In addition, he reads meanings into this world. When perceived over an extended period of time, these identifiable objects, motions, spaces, oriented structures, and meanings are organized at an even higher level as complex sequences.

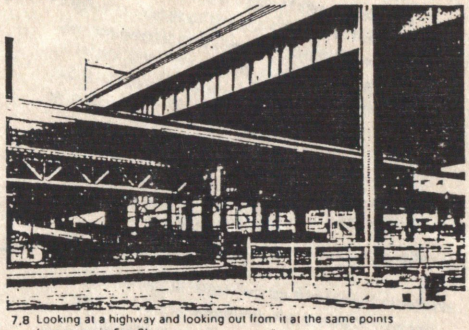
Perception does not in fact operate in such neatly divisible successive steps. The processes are highly interrelated and may be occurring simultaneously. But this analysis singles out the fundamental actions, and arranges them by successive levels of organization. It makes a convenient framework for discussing the highway experience, using the conclusions and speculations which arose from the studies described in Chapter 3.



5



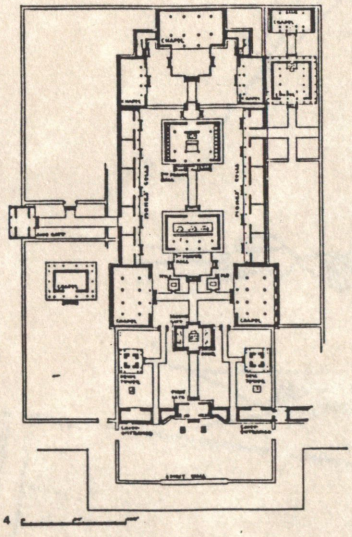
6



7,8 Looking at a highway and looking out from it at the same points (see arrow in Fig. 6)



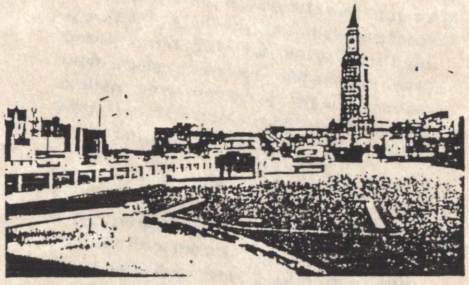
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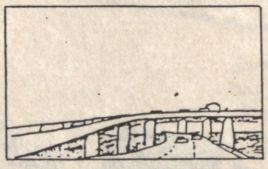


4

3 Spatial Sequence in Architecture. The Shah Zindé, Samarkand.

4 Spatial Sequence in Architecture. Bo Lin Ssŭ Temple, Peiping.





The driving experience can now be described as being a sequence played to the eyes of a captive, somewhat fearful, but partially inattentive audience, whose vision is filtered and directed forward. It is a sequence which must be long, yet reversible and interruptible.

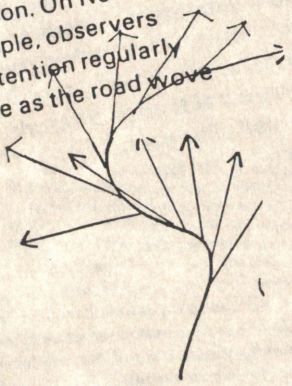
The Elements of Attention

Let us look first at the kinds of identifiable elements which capture the attention of a front-seat passenger. It is clear that these objects occupy a rather limited part of the potential visual field. Along one route on which reactions were tested by us, two-thirds of all objects sighted were straight ahead, and only one-third were to either the right or left. Even then, almost all things seen to the side of the road were obliquely forward rather than perpendicular or backward to the line of travel. On another very open and straight-forward route, one-half of all sightings were straight ahead. The view of the passenger, as well as that of the driver, is strongly focused.

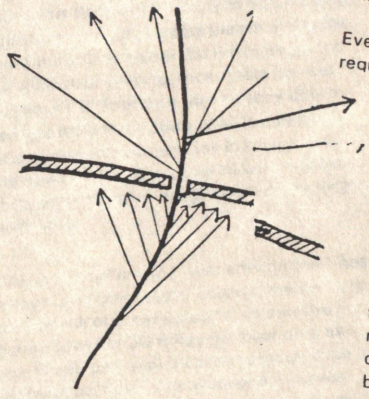
10 Tipping and pointing the road is a powerful way of directing his attention. On New York's West Side Drive, for example, observers noted that the focus of attention regularly switched from side to side as the road wove back and forth.

The Elements of Attention
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10 Tipping and pointing the road is a powerful way of directing his attention. On New York's West Side Drive, for example, observers noted that the focus of attention regularly switched from side to side as the road wove back and forth.

Not only is vision directed forward, but it is also attracted to the immediate environs of the right-of-way—the near and apparently "moving" objects, rather than the larger number of distant, seemingly "stable" ones. Again, on one route, two-thirds of the impressions noted were caused by things in or adjacent to the road itself. The color and texture of the road surface, the shape and rhythm of the objects at the shoulder (signs, guard rails, retaining walls) set the visual tone. In the forward view of the multi-lane highway, most of the visual field is filled by the pavement and the sky. The differentiation of lanes, shoulders, and medians by texture, color, and width will articulate and enliven this scene.



10



11

Even in periods of wide scanning, attention regularly returns to the ro[illegible]. This is the moment for visual revelations, when one is sure of an audience attentive to large effects.

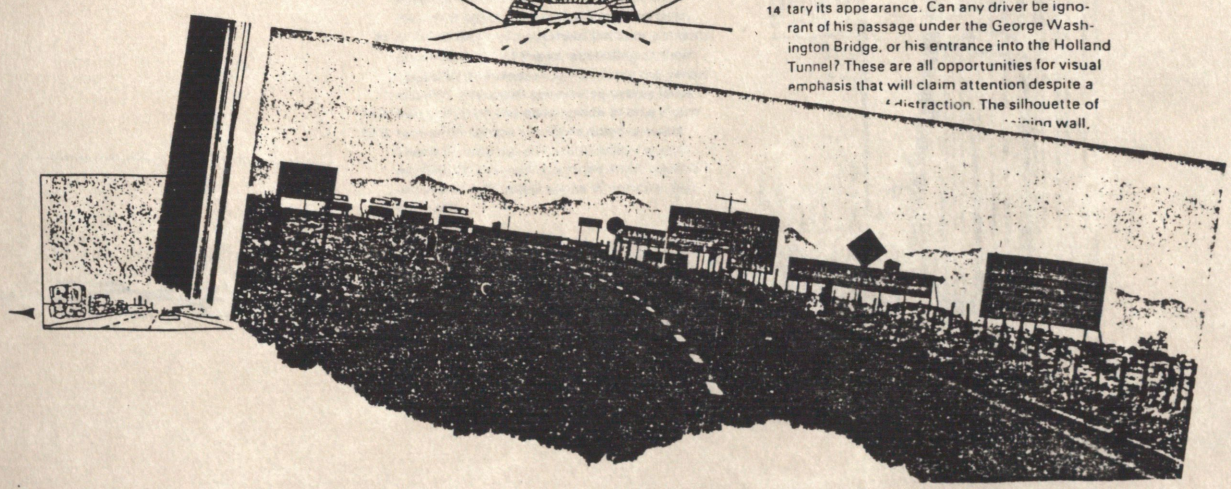
11 [illegible]ntive to large effects.

But all this is modified by the speed at which the vehicle is traveling. As speed increases, attention is confined to a narrower forward angle, since coming events must be predicted further ahead. As near objects rush past more rapidly, they are harder to perceive and attention may shift to more distant and relatively more stable elements. Landmarks are seen in clusters rather than singly; larger spaces and bigger land forms take command. The scene shifts from detail to generality.



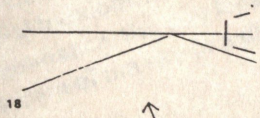
12

12 Attention is concentrated at the points of decision, such as at the beginning [illegible] they are ramp. The details of the obj[illegible]at points of con- the ramp from the main ro[illegible]ur when the space is very large in the driver's [illegible]proach the road closely distant landmarks. [illegible] an apparent sidewall, can- yon, or tunnel, nor does he miss any overhead 13 structure, such as a bridge, however, momen- 14 tary its appearance. Can any driver be ignorant of his passage under the George Washington Bridge, or his entrance into the Holland Tunnel? These are all opportunities for visual emphasis that will claim attention despite a [illegible] distraction. The silhouette of [illegible] wall,

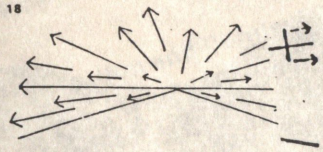


The Sense of Motion

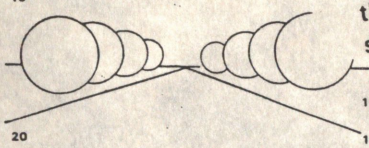
Beyond the concentration on near detail, the fundamental sensation of the road, continuously referred to, is the visual sense of motion and space. This includes the sense of motion of self, the apparent motion of surrounding objects, and the shape of the space being moved through. These factors are all intertwined, since the visual judgment of motion is based on the apparent motion of exterior objects and is interpreted as being motion in relation to the enclosing spatial form.



18



19

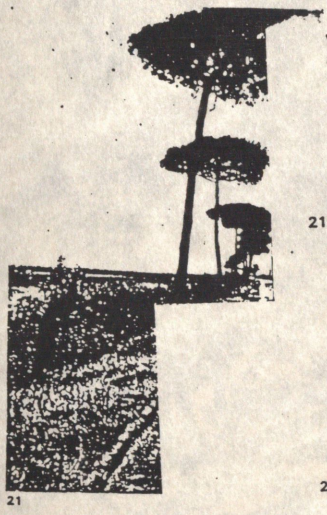


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The sense of motion of self is perhaps the primary feeling. True kinesthetic sensations are slight in a steadily moving car on a modern highway. The driver receives some cues through his controls, but if the passenger shuts his eyes it is very difficult for him to [illegible] steadily held turning movements, [illegible] ged, or even gentle climbs or [illegible] some strong

18 the apparent rotation of near objects around far objects, the seeming outward radiation of
19 detail and textures from the point dead
20 ahead, and the illusion of growth as objects

very elevated hig[illegible] of direction are gauged alignment which have ba[illegible]s. Occasionally, Such a sensation may be a rel[illegible] lude, or as an opportunity to see things of special interest. But our superhighways can induce sleep, frustration, or excessive speed, simply because of this long-continued visual torpor, this apparent inability to reach a goal.

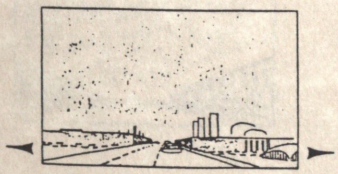


21

21 Objects might therefore be placed along the road simply to reassure the driver about his real motion, or even to accentuate his real motion, if it is desirable that he slow down. Perhaps most frustrating of all is a sense of local aimless movement (as in humping up and down), when it is coupled with this lack of apparent forward progression in the larger landscape.

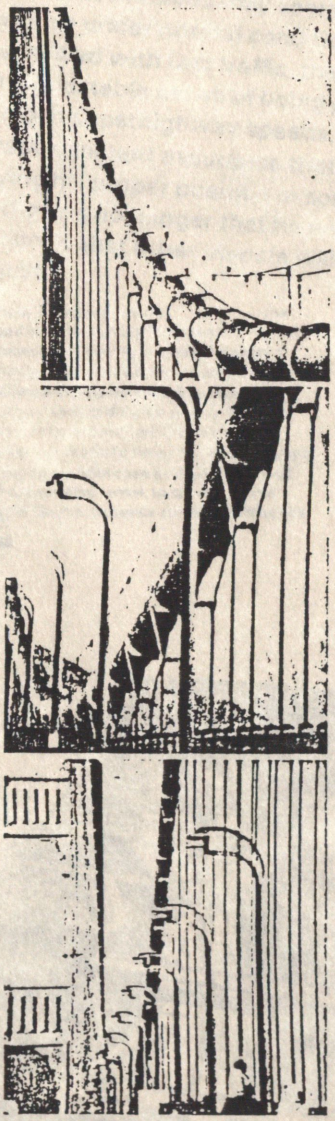
Conversely, where the near environment has
22 many highly articulated objects, the sensation may be one of great velocity, so that the apparent speed at 30 miles per hour on a narrow forest road may be much greater than at 60 miles per hour on a wide open freeway. Things passing overhead are especially re-

Conversely, where the near environment has
22 many highly articulated objects, the sensation may be one of great velocity, so that the apparent speed at 30 miles per hour on a narrow forest road may be much greater than at 60 miles per hour on a wide open freeway. Things passing overhead are especially remarkable, but the detail close at hand—at the roadway edge or on the pavement—is also effective: the textured walls of a cut, the rhythm of lights, pickets or telephone poles,
24 or the passage of pavement joints or patterns underneath. All of these, according to their frequency and closeness, reinforce the sense of speed. Apparent speed also seems to be
23 A heightened on the downgrade or on a sharp
23 B turn, while tempo slackens going upward. Thus a curving dip occurring where speed-marking detail becomes close and frequent will impart a doubled sense of velocity, and vice versa.



ed motion is inherently en-
ous and not too violent. A
n was one of the memo-
one route. An amusement
this by creating an entire
notion sensations. Similar
f a milder sort, may be
or instance, the rhyth-
lew Jersey Turnpike,
ng turns of the ap-
e Mystic River

satisfactory if
ually but vis-
ne are minor
p, it should
; if it sinks,
g or be
If the
thing or
it di-
mething. These
motion, make it explicit and
seemingly easier to perform. Although they
may be relatively insignificant in size, they are
crucial in the driver's view.



22

Confinements are always notable, whether made by cuts, tunnels, tall buildings, or the
39 sides of hills. Overhead enclosures, such as bridges or even overhead signs, seem to be especially significant. So are the moments of spatial freedom, as when the road rides up over an eminence, the city falls away, and the driver is aware of the sky or a distant panorama.



The Sense of Space
The visual field is interpreted not only as series of remote views, or a collection of objects in motion, but also as a space, a void within which the observer can move, visually or physically. The basic sensation of space is one of confinement and of the dimensions of that confinement. But this sensation may be modified in many ways: by space
38 form or its proportions, by the character of the defining elements or objects in the space, by the position of the observer. One can be low down in a concave shape, or high up in a convex one. A space can be narrow or wide, with solid or jagged, opaque, netted, or transparent walls. It may open out in front or to the side.

The sensation is modified by the speed at

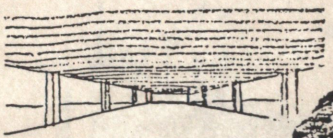
or transparent walls. It may open out in front or to the side.

The sensation is modified by the speed at which one is traveling, so that an opening which is readable at 60 miles an hour is formless and vast at 3 miles an hour. Similarly, perception is affected by the circumstances under which the driver is moving: a road which is open at the sides may seem pleasantly spacious under normal conditions, but if that road is filled with fast traffic, there will be an uncomfortable sense of being pushed off. Moving at superhighway speeds, the driver needs constant assurance that he is occupying his proper position in space, and that there is no danger that he will lose that position or that other objects will intrude upon it.

finally bursts out into the . The road in Philadelphia's Fairmount Park and the Rockefeller Parkway in Cleveland share a simple effect of this kind: the repetitive experience of passing under a succession of bridges, each of different quality. The East River Drive in New York City subjects the driver to a dramatic series of riverside spaces, progressing from open to sidehill, to tunnel, to open-walled tunnel, to cut and sidehill again. Such a sequence can be a thrilling one.







38

Goal Approach

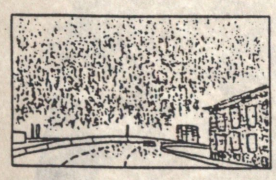
At the next level of organization, the driver is engaged in building a locational image of his environment, and in orienting himself within this image. In the most direct sense, movement along the road consists of a succession
42 of approaches to goals. These are the prominent landmarks or focal points which the observer moves towards, attains, and passes by, or which represent his final destination. By them he measures his progress and foretells his future. They may be distant goals which symbolize the final destination and change only slowly. Or they may be nearer
43 objects, which are approached more rapidly and which divide the road into visual segments.

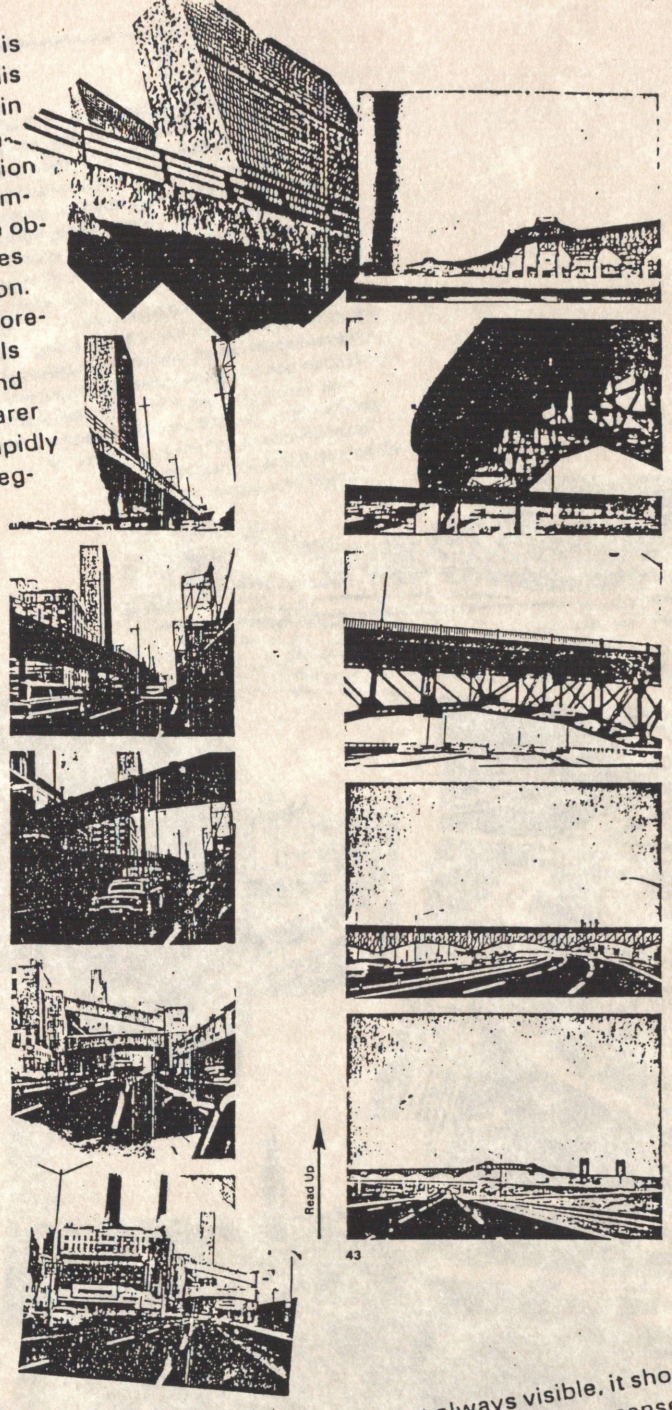
overlap: a
pass a whole series of nearby
44 C goals while he is still within sight of a more distant one.

On the Northeast Expressway approaching Boston, as one goal is attained, the following one is already in sight. The approach interval is roughly the same for each, and this provides a basic rhythm. Within these intervals are several smaller approaches, and overlapping them are two longer ones indicating the final goal. In a similar way, the towers of Manhattan indicate the eventual destination of the New Jersey Turnpike, which is meanwhile maneuvering through a monumental industrial landscape. There is a pleasurable tension, on both roads, between the persistent view of the distant goal and the succession of events that pass along the immediate roadside.

These goals may be disappointing, however, if they are not visibly attained. On the Northeast Expres... Hill is satisfying be... ...ings and disappointed passed ... But
46 Masking the goal temporarily may add to the excitement of the trip, if when the goal is revealed again it shows a new face or a new intensity. But where a dip in the road blots out the main landmarks and their return to view reveals nothing new, the effect is one of disappointment. Similarly, it is an anticlimax when the Central Artery breaks through the "edge" of Boston at North Station, only to find itself still in a peripheral region.

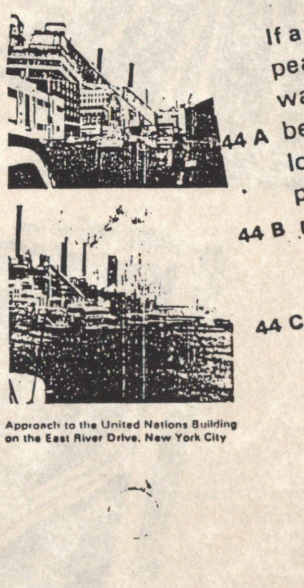
Other kinds of prolongation of the approach
47 may be interesting, such as the way in which the Boston road seems to search for a way to reach the Mystic River Bridge, or to cut through a hill. The railroad approach to Manhattan from the east, over the Hell Gate Bridge, has a similar quality: the train sweeps in a wide arc around the Manhattan towers, approaching them indirectly.





Read Up

43



Read Up

42

Approach to the United Nations Building on the East River Drive, New York City

If a goal is not always visible, it should reappear consistently, so that the sense of forward progress is not long absent. Goals may
44 A be organized as a simple succession, one following another in a continuous chain. On the prairie, a road may go from one tall silo to the
44 B next. Or the sequences may overlap: a driver may pass a whole series of nearby goals while he is still within sight of a more
44 C distant one.

Orientation

Beyond the sense of direct progression to a goal, the driver and his passengers are orienting themselves in the general environment, locating its principal features and discovering their own position with relation to them. In part this is a practical, and in part an esthetic, activity. Finding a way through the intricacies of a modern city is a demanding performance, and one cannot depend entirely upon such conventional aids as directional signs, at least not without some emotional insecurity. When not aware of general location with respect to the landscape, a driver is likely to make mistakes and is sure to be under stress.*

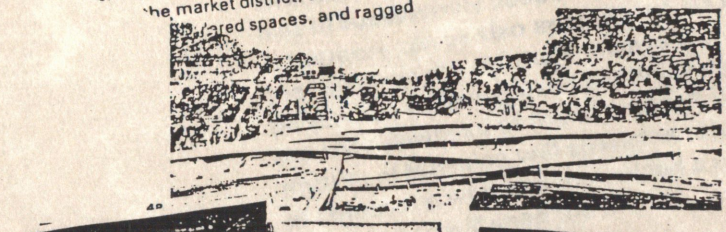
In addition, there is a positive pleasure in being able to recognize the urban scene and to fit it together.** The fast highway is a new means for making the structure of our vast cities comprehensible to the eye. If consciously designed for the purpose, they could present the city as a vivid and well-ordered image.

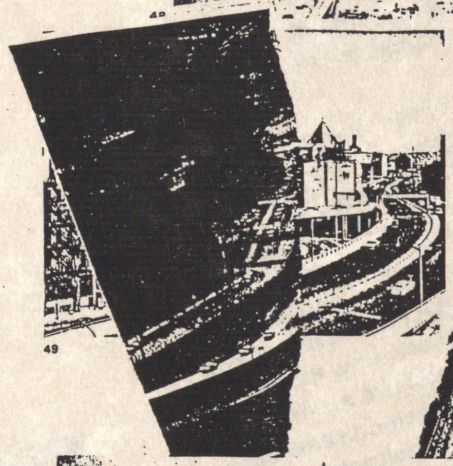
The shapelessness of central Boston, as presented to the driver approaching via the Mystic River Bridge, is disappointing, and the frequent periods of orientation blindness are disquieting. New York's East River Drive, on the other hand, is satisfying just because it is so visibly located along the river at the very edge of a great city.

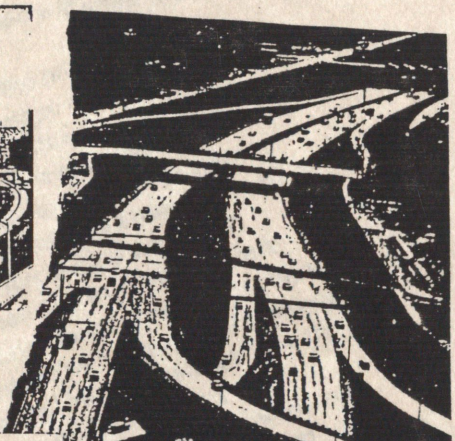
The image of the highway itself may also be clarified. Successive sections may be visibly differentiated so that they can be recognized as distinct parts. Thus the motorist can see that he is "in the hilly part," as well as "approaching the center." The general alignment may be made to appear as a simple geometric form. Continuities of edge, surface, or rhythm may be used. Typical sequences and gradients may be developed, and the sequence in one direction may be made recognizably different from the sequence in the other. The road ahead may be exposed, and strategic points may be articulated. The form of intersections may be clarified, so that turning decisions become self-evident, and the shape is congruent with the principal flow of traffic. Applications of many of these ideas are illustrated in the imaginary designs in Chapter 4.

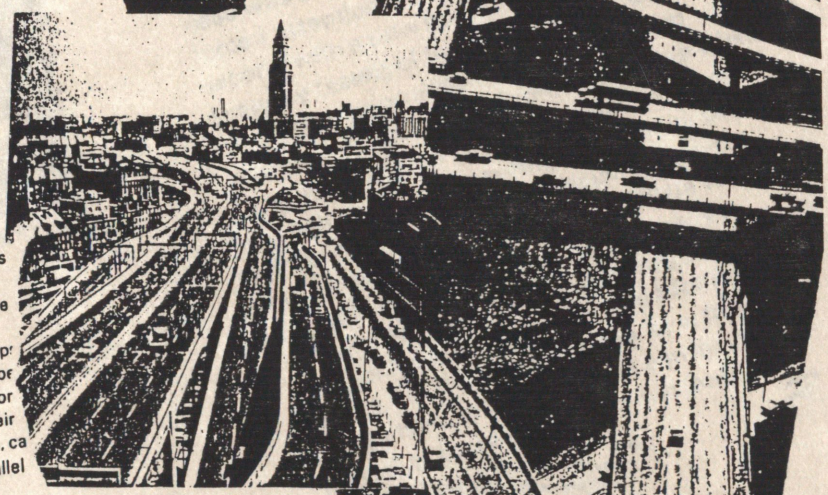
Even where the general images of the city and the highway have been clarified and their interrelation established, there still remains the difficult task of linking the road to its immediate environs. This is most crucial where the driver is about to make the transition to the local landscape of streets and buildings. The highway and the city street are two separate worlds, mysteriously connected, and coming off the ramp of a modern highway is [illegible] a moment of severe disorientation. The highway should be carefully connected [illegible] separate worlds they are leading to; the coming off the ramp of a modern highway is usually a moment of severe disorientation. Ramps should be carefully connected to the visual destination they are leading to; the transition must be prepared for, and perhaps prolonged. For example, off-ramps might be rather long, projecting out from the road for some distance and be directed toward their destination. On-ramps, on the other hand, can be clear even when short, if they run parallel to the expressway being entered.

While the access ramps are the most crucial points at which connection must be achieved, the highway should have some general fit with the local landscape through which it is passing. In the city, this will mean paying attention to the "grain" of the surface streets; in the country, the road must be made to lie easily in the topography (or new topography may have to be built to fit the road). While this rule may not always be a practical one, and a designer may at times wish to break with the old mold, such breaks are bound to leave ugly and unusable pieces of ground and to destroy the relation between highway image and landscape image. The Central Artery of Boston, for example, tramples across the local [illegible] the market district, and the result is [illegible] ared spaces, and ragged









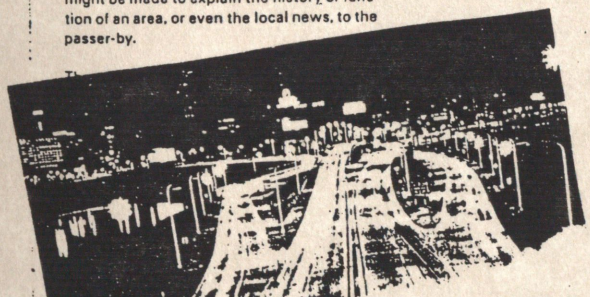


Meaning

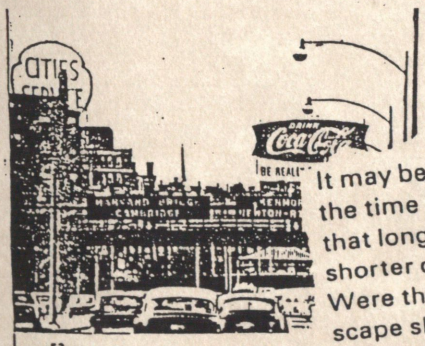
Finally the driver seeks to find meaning in what he sees: to relate the visible objects to the stock of ideas in his mind. The sight of activity, or a sense of the meaning and use of areas, is an important pleasure of the road. For the Sunday driver on the rural highway, the chance of seeing country people and country life may be a principal motive for his drive. Unfortunately, the sight of other people is a pleasure progressively denied to the highway driver. The colorful activity of Boston's food market is hidden from drivers on the artery almost overhead. New York's East River Drive, on the other hand, affords a clear view of fascinating river traffic. The Schuylkill Drive in Philadelphia visibly contrasts the meanings of park and dense city. The activity of an airport or the bustle of new construction may be the major events of a commuter's trip. The road itself serves the highly meaningful function of circulation: the sense of accompanying traffic may be made more vivid by hills, curves, amphitheater spirals, or the interplay of various lanes. One result of the current tendency to depress the urban highway, or to "buffer" it from the rest of the city fabric by landscaping, may be to reduce the roadside to dull meaninglessness.

to reduce the roadside to dull meaninglessness.

Would it be possible to use the highway as a means of education, a way of making the driver aware of the function, history, and human values of his world? The highway could be a linear exposition, running by the vital centers, exposing the working parts, picking out the symbols and the historical landmarks. Signs might be used for something more than giving directions or pressing a sale. They could point out the meaning of the scene: what is produced there, who lives there, how it grew, what it stands for. Even where they are used as advertisements, they may be grouped or controlled to enhance environmental meaning; advertisements may be favored which relate to the building they are attached to, or which herald the approach of some facility or service. Local broadcasts might be made to explain the history or function of an area, or even the local news, to the passer-by.



The ... is all too ..., and its goal a whiskey advertisement. On the other hand, a historic building, or the central stock exchange, cannot be seen.



52

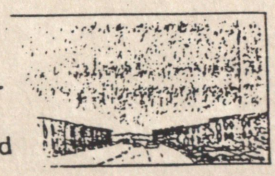
Rhythm and Continuity

Using all these elements, the basic artistic problem of the highway is the shaping of its sequential form. In such form, the principal aim is to preserve continuity while developing, embellishing, and contrasting the material. The road itself furnishes an essential thread of continuity, but it must be supported by successions of space, motion, orientation, and meaning which seem to be parts of a connected whole. An overlapping of goals may do this, or a repetition of previous movements on a new scale, such as the passing of similar hills in successively deeper cuts. Continuity in memory can be also appreciated, as when the buildings of a district known to the pedestrian are recognized and enjoyed from the new viewpoint of the highway. A basic rhythm of attention will strengthen the sense of continuity, whereas too sudden a change in the tempo will snap the thread.

Tempo and rhythm are the primitive essence of any sequence. The tempo of attention appears to be a sensitive index of the quality of the road. In most cases recorded by us, where this tempo was rapid, attention was concentrated on near objects straight ahead in the road; where this tempo was slow, observers were scanning from right to left, giving more attention to far objects. The first case was coupled with a sensation of rushing, forced attention, and heightened tension, the second with a slow floating quality—a leisurely tasting of the landscape. The periods of concentration added spice to the total experience, but they became oppressive when long continued, as in a tunnel. Uninterrupted scanning may be wearying, too, unless the general landscape is of particular interest. When there is a slow tempo and little to concentrate on but the road itself, there is a sense of torpid boredom. The long flat highways of the prairie are notorious for this quality, but it is shared by the new freeways everywhere, which suffer an alarming frequency of accidents due to inattention.

...s was
... that the frequency
...n incoherent manner. Multiple
...ions in a downtown area might
...s of visual events which come too
...hose frequency has been built up
...ly.

It may be that there is an optimum range for the time interval between strong impressions: that longer intervals cause boredom, and shorter ones bring on strain and confusion. Were this true, it would mean that a roadscape should have a basic beat, a regular frequency with which decisions and interesting visual impressions are presented. This beat could be varied, but the variation should be coherent and within the optimum range. Since it would be measured in time units, the actual location intervals would depend on the speed of travel.



SEARCH FOR ESSENCE

- DESIGN NOTES
- QUOTES

DESIGN NOTES

- THE APPROACH IS DECENTRALIZED & FRAGMENTED IN A SEARCH TO DETECT A HIDDEN WORLD IN IMBALANCE RATHER THAN IN BALANCE.

- CHAOS & DISORDER ARE SIMPLY MORE COMPLEX ORDERS NOT EASILY DETECTED

- ARCHITECTURE IS NO LONGER SIMPLY A MATTER OF FORMS & STYLES; IT MUST BE GRASPED IN TERMS OF IDEAS AND THOUGHT THAT LIE BEHIND IT.

- THE BUILDING SHOULD BE A PLACE WERE TUMBLEWEEDS AS WELL AS PEOPLE FEEL COMFORTABLE.

- THE HIGHWAY EXPERIENCE IN RELATION TO NEON MIGHT BE LIKE THAT OF A BLOWN SEMI TIRE WITH BITS & FRAGMENTS OF NEON SCATTERED DOWN THE ROAD, FORTELLING OF WHAT IS TO LIE AHEAD.

- TO UNDERSTAND WHAT IT IS TO BE FLUID ONE MUST FIRST UNDERSTAND WHAT IT IS TO BE FRAGMENTED.

· QUOTES

· MY ARCHITECTUAL INTERESTS ARE NOT SYMBOLIC OR INTELLECTUAL BUT RATHER TANGIBLE & EXPERIMENTAL

· FRANK O. GEHRY

· DESIGN IS THE FOURFOLD FUNCTIONS OF THE HUMAN PSYCHE -- INTUITION, SENSATION, FEELING, THINKING -- THESE DICTATE DESIGN DIRECTION.

· CARL G. JUNG ·

· IT IS UNITY THAT MAINTAINS, BUT ONLY JUST MAINTAINS, A CONTROL OVER THE CLASHING ELEMENTS WHICH COMPOSE IT. CHAOS IS VERY NEAR; ITS NEARNESS, BUT ITS AVOIDENCE, GIVE... FORCE

· ROBERT VENTURI

· NO ONE EVER TRAVELS SO HIGH AS HE WHO KNOWS NOT WHERE HE IS GOING

· R. M. PERSIG

· THE REAL CYCLE YOU'RE WORKING ON IS THE CYCLE CALLED YOURSELF

· R. M. PERSIG

·TO THE MAN WHO KNOWS NOTHING
A TREE IS A TREE
A RIVER IS A RIVER
A MOUNTAIN IS A MOUNTAIN
TO THE MAN WHO KNOWS A LITTLE
A TREE IS NO LONGER A TREE
A RIVER IS NO LONGER A RIVER
A MOUNTAIN IS NO LONGER A MOUNTAIN
BUT TO THE MAN WHO KNOWS ALL
A TREE IS A TREE
A RIVER IS A RIVER
A MOUNTAIN IS A MOUNTAIN

THE UNIVERSE IS THE SAME ONLY THE
PERSPECTIVE HAS ALTERED

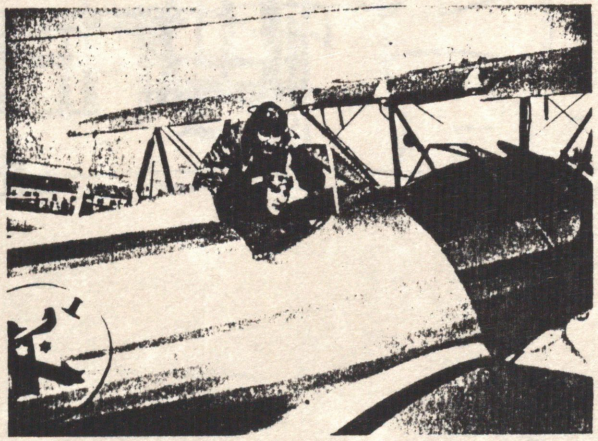
·ZEN POEM

PRECEDENTS

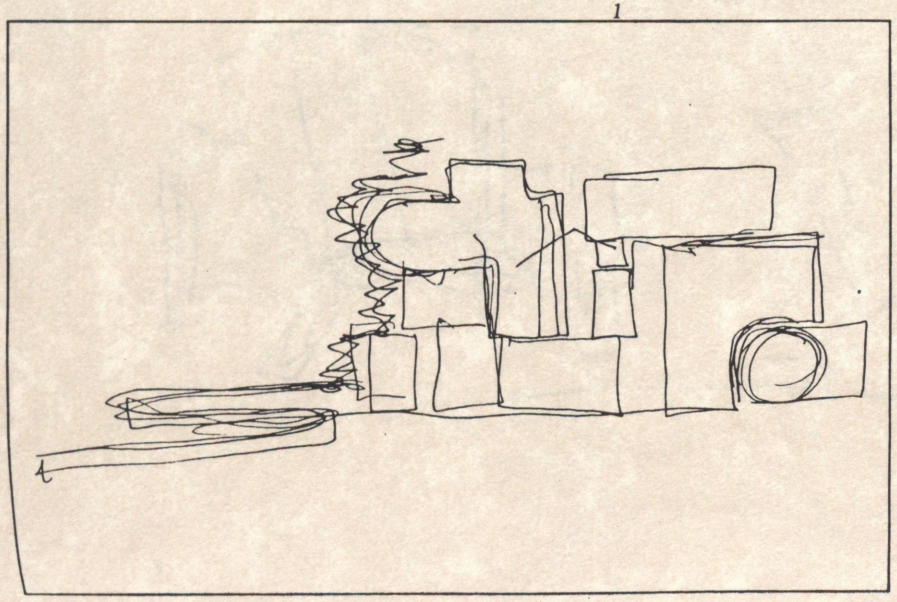
- CASE STUDIES
- INTRODUCTION TO NEOH

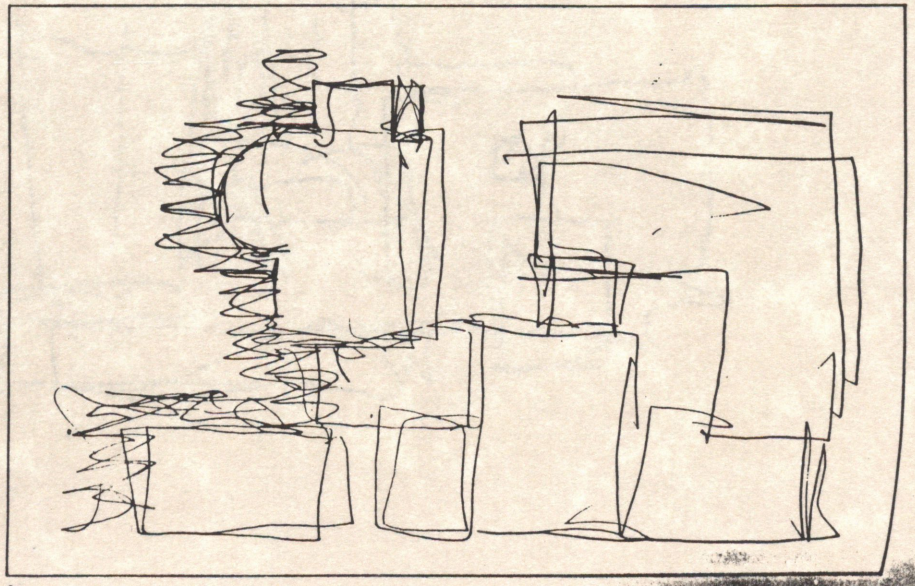
California Aerospace Museum
Los Angeles, California 1984

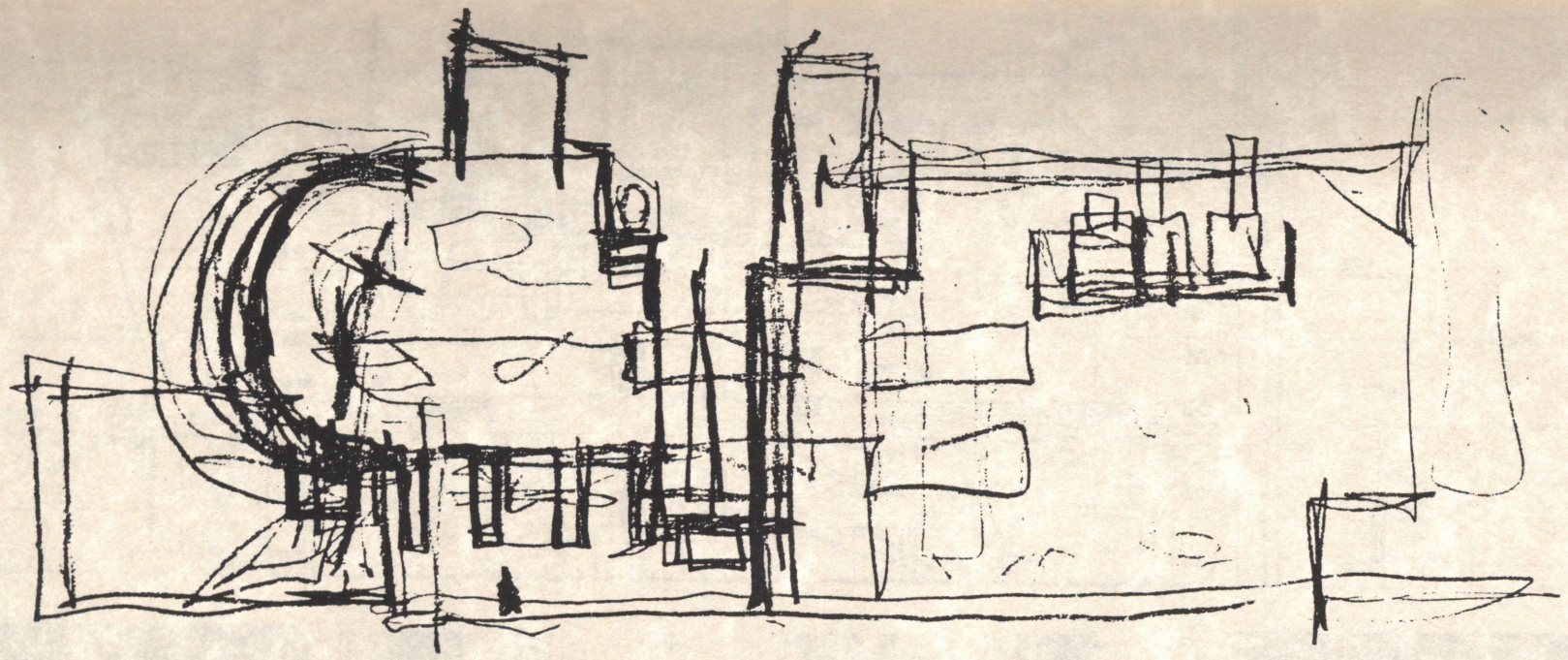
The coliseum which housed a majority of the events in the 1984 Summer Olympics is in an area called Exposition Park. In anticipation of the Games, site improvements, including the installation of two new museum facilities, were undertaken. The area allotted to the California Aerospace Museum was an old armory building set back slightly from the street. To co-ordinate with preparation for the Games—but in advance of full funding for all planned program elements, exhibits, and conversion of the armory—it was decided to construct a building on the narrow site between the old armory building and the street. The new building was designed to house the first exhibits, to be a gateway to the eventual complex of facilities planned in and around the armory, and to be a kind of exhibit itself—drawing support for, and conveying the spirit and excitment of, the institution's subject and plans. The building rises from its narrow 206-by-65-feet site up—and in places out over the sidewalk—to a height of 75 feet. It consists of two major volumes linked by a glazed wall. Above the latter a sheet metal sphere, which lies over the entry to the complex at the rear of the new building, is visible through a knife-shaped, metal-covered form. One volume is faced in white stucco surmounted by a cruciform skylight monitor. Hanging over the sidewalk is an airplane, suspended in mid-nosedive on a braced armature. The other volume is, above a height of 30 feet, sheet-metal clad, irregularly shaped, seven-sided polygon, part of which cantilevers over the street. A ramp curves up from the sidewalk around the polygonal volume and its attendant exit stair and leads to the museum's entrance. Surmounted by a ziggurat form which contains the building's circulation core, and crowned by the sheet-metal sphere, the entrance serves as a central element connecting the new building to the armory, and—by a walkway continuing between the two buildings—the outdoor exhibit area to the east. Inside, platforms at 12½, 27, and 45 feet overlook the 80-foot high exhibition spaces and the exhibits and furnishings designed by Joseph Wetzel and Associates. The ziggurat shape is reflected in the disposition of the viewing platforms immediately adjacent to the elevator core. The outdoor exhibit area to the east is also populated by an exit stair from the stucco-faced volume, and by an octagonal "IMAX" theater which hosts huge-screen presentations of aerospace film materials. The pylon which marks its entrance is an inexpensive construction of several layers of chain-link fencing. During a second phase of construction, the armory will be renovated for museum use. Gehry describes the building's enduring qualities in a fair assessment of much of his work: "A lot of people will read a lot of things into it—that's what will save it from becoming obsolete." One of the things Gehry himself reads into it is "a fantasy . . . a baroque space shuttle."



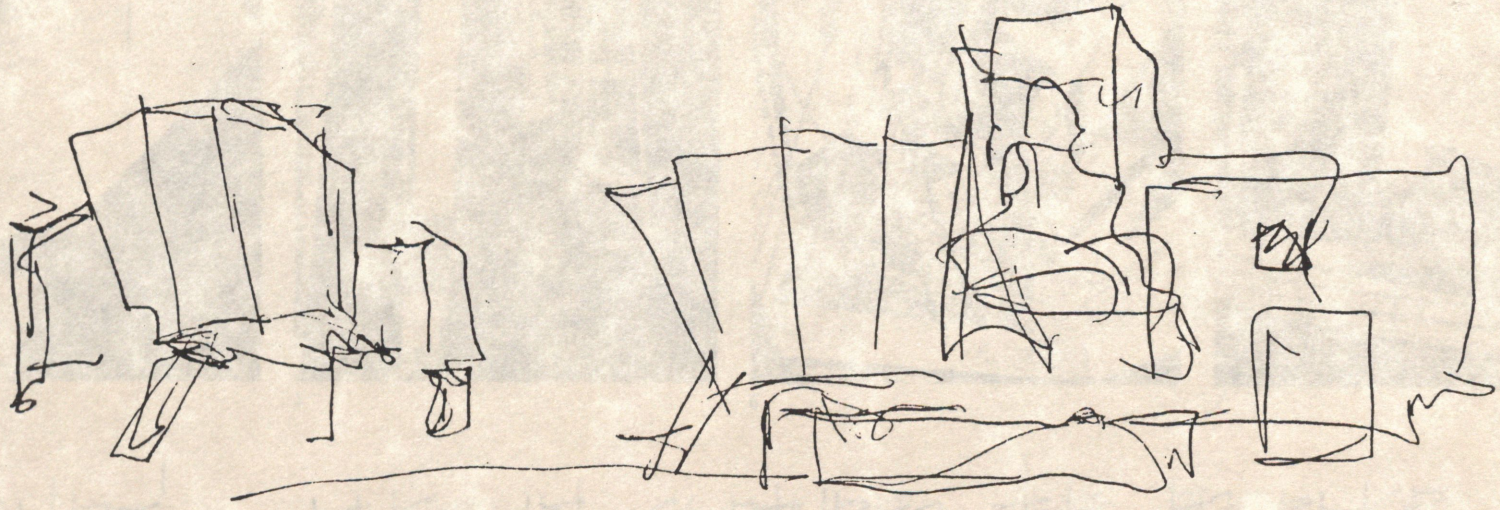
1.Frank Gehry in cockpit, 1948. 2–5.Study sketches



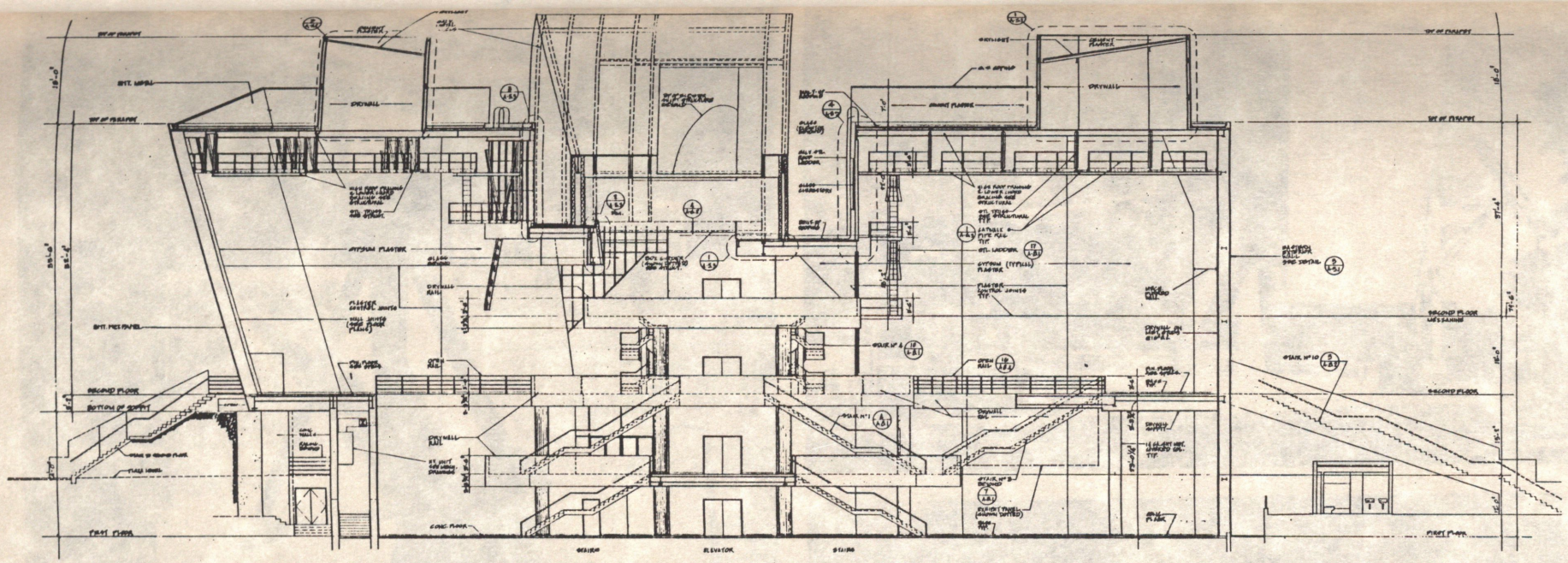




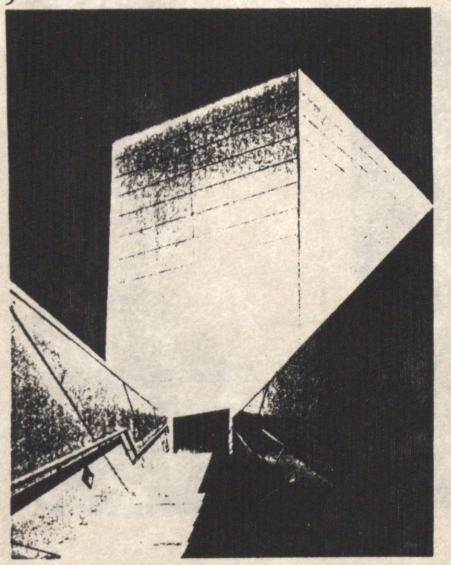
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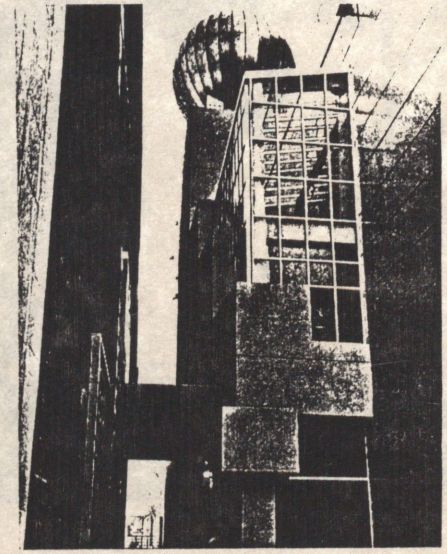
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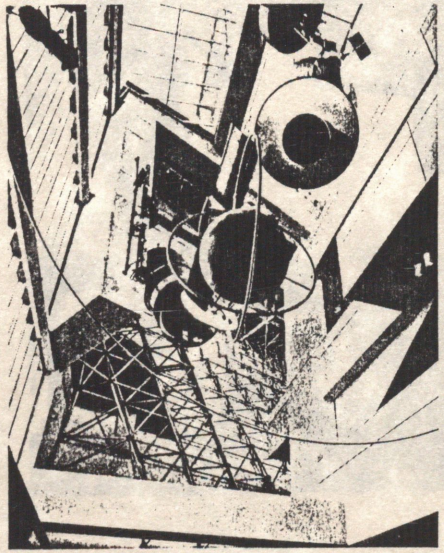
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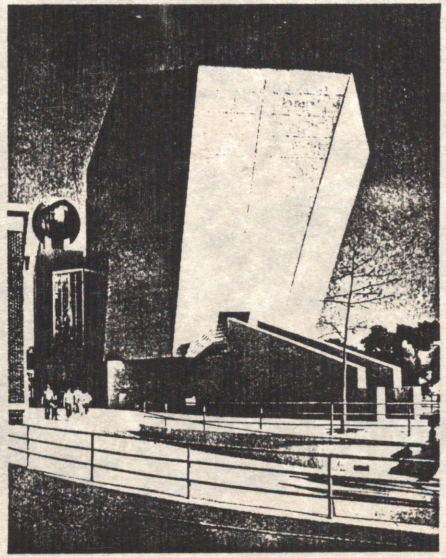
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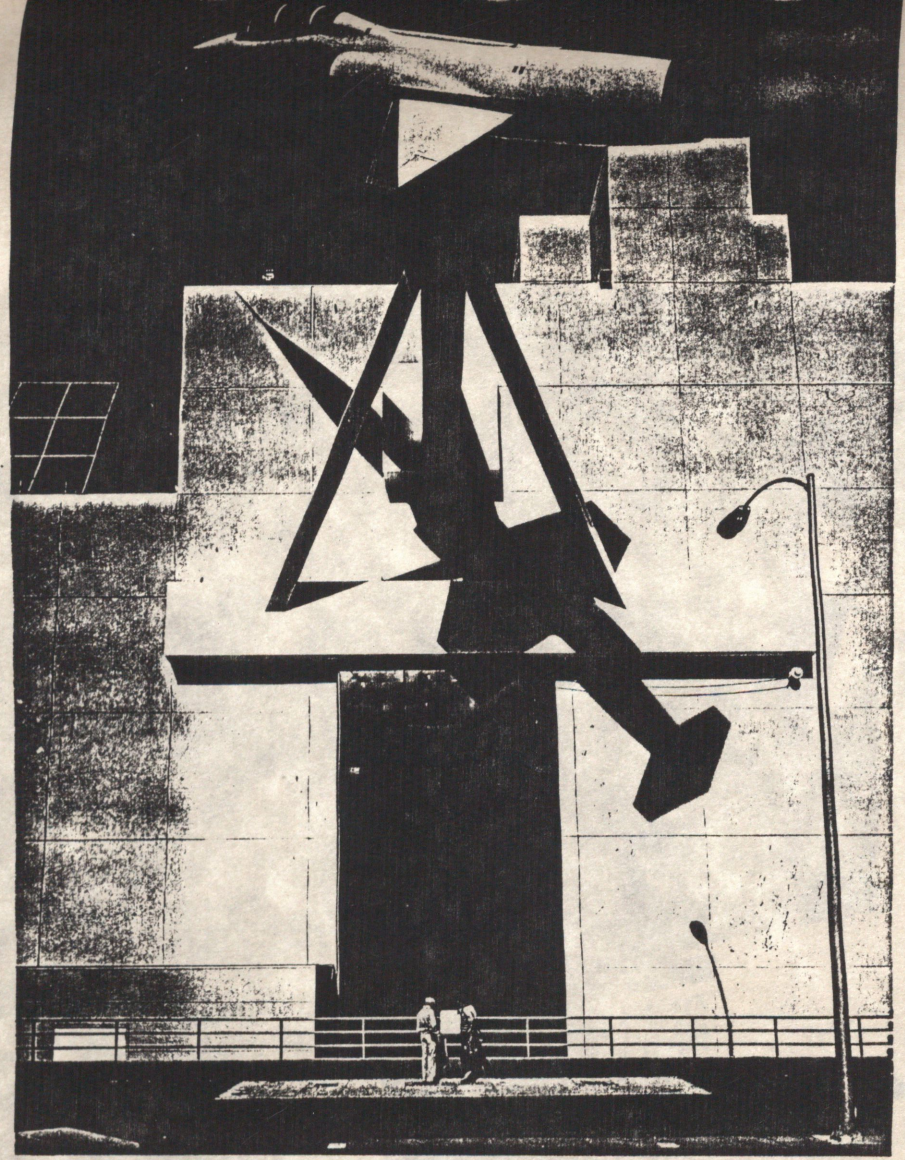


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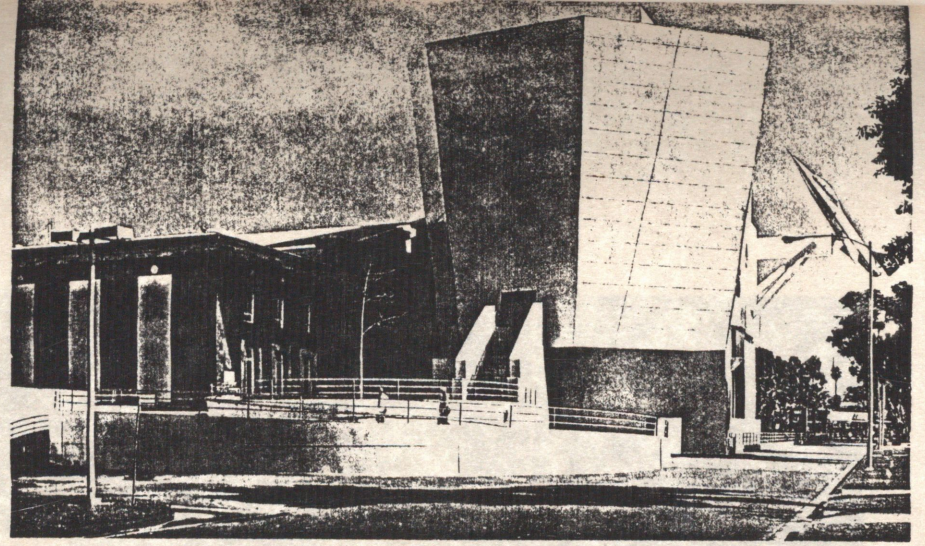


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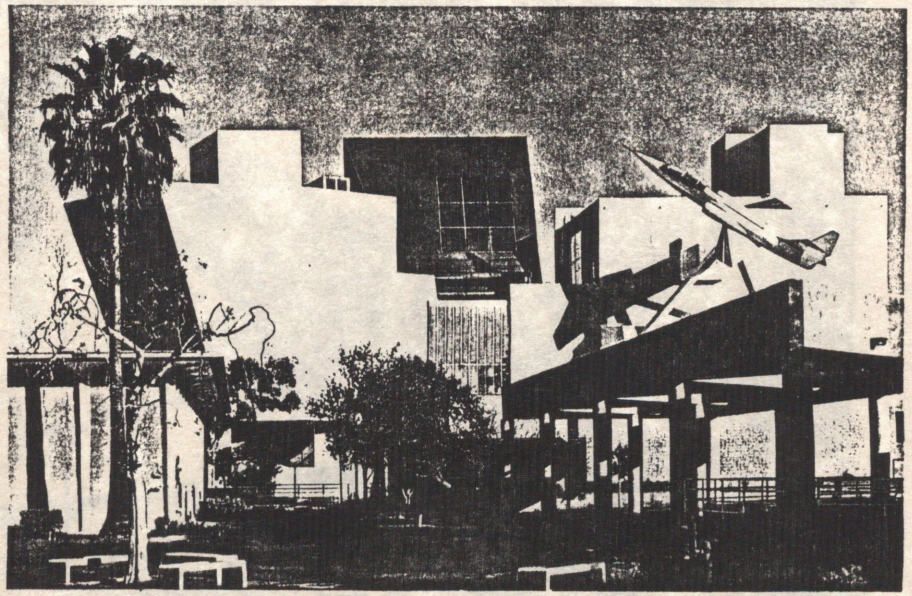
GEHRY'S MUSEUM CAPTURES THE ESSENCE OF FLIGHT



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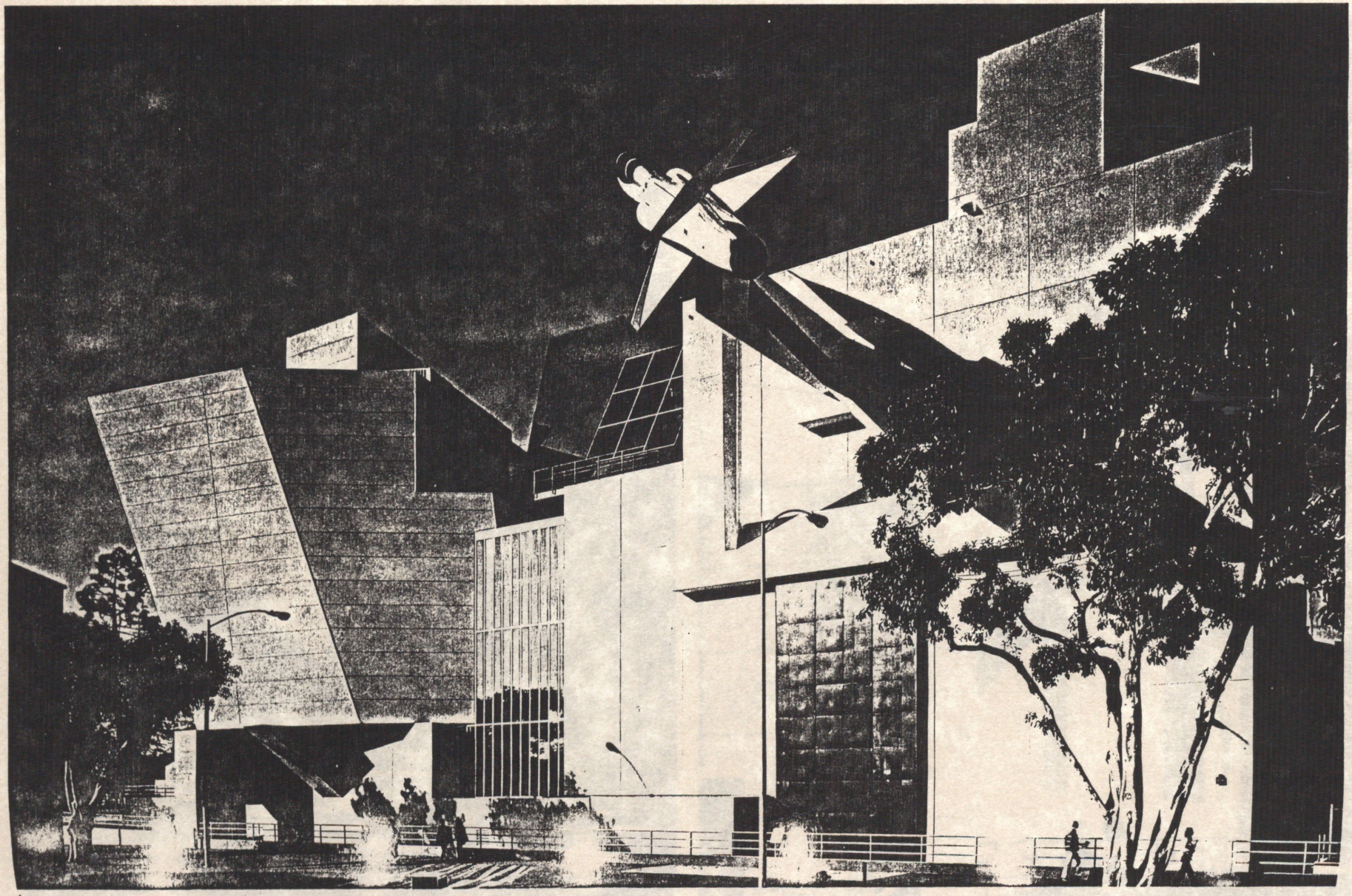


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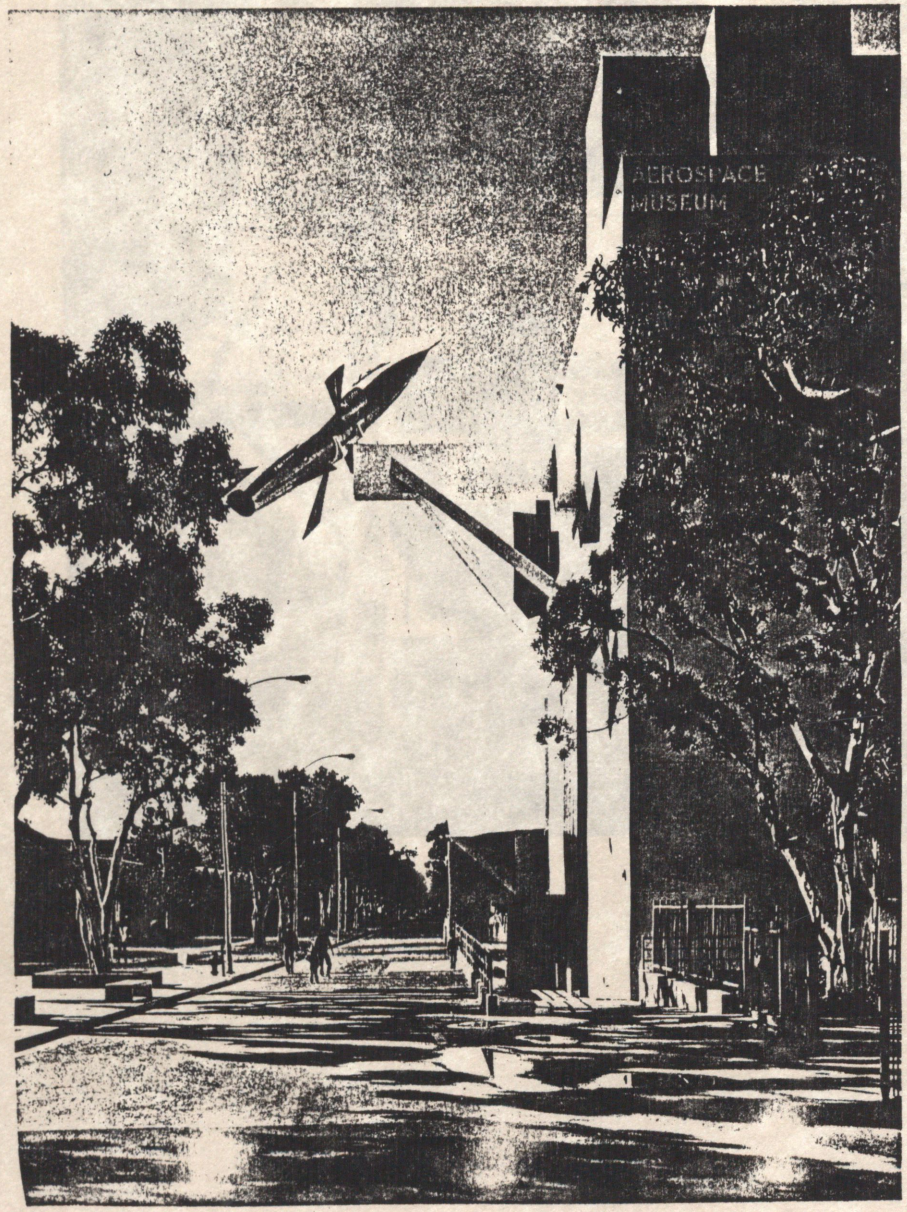
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1,2,4.Views of street front 3.Ramp to entrance between new building and arsenal

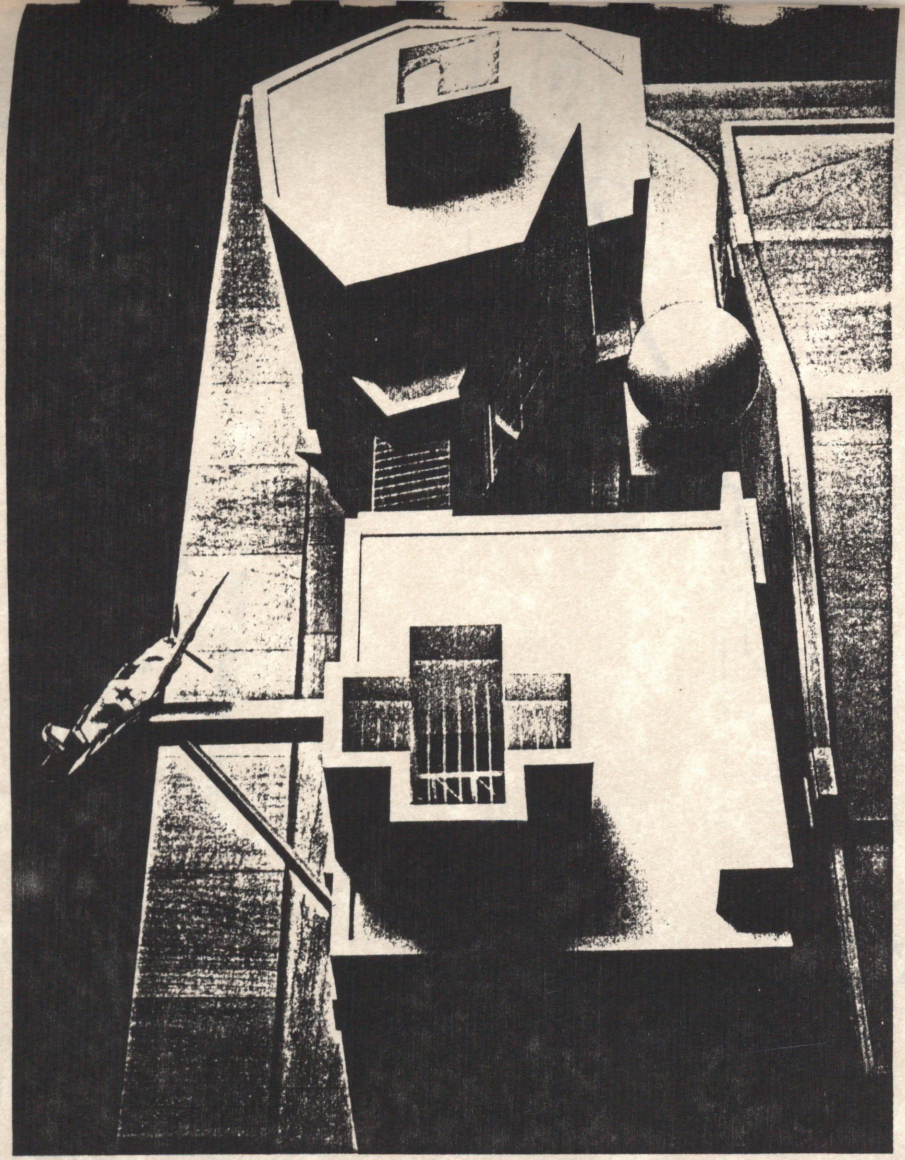


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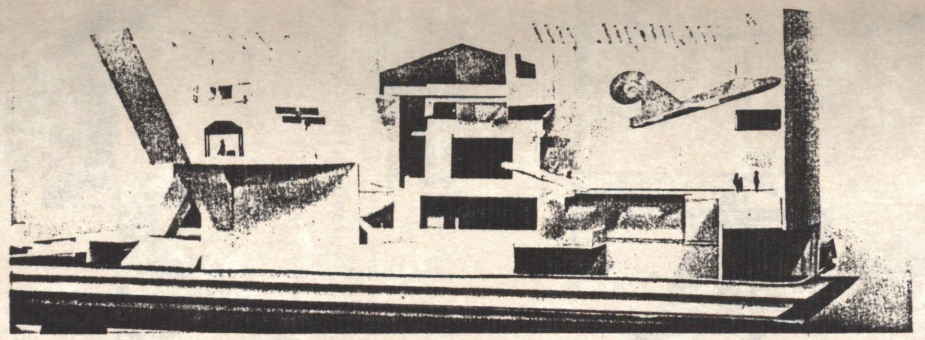
1,2.Front facade from sidewalk 3.Section 4.Exit from polygon 5.Entrance, between new building and arsenal 6.Interior 7.Ramp leading around polygon to entrance



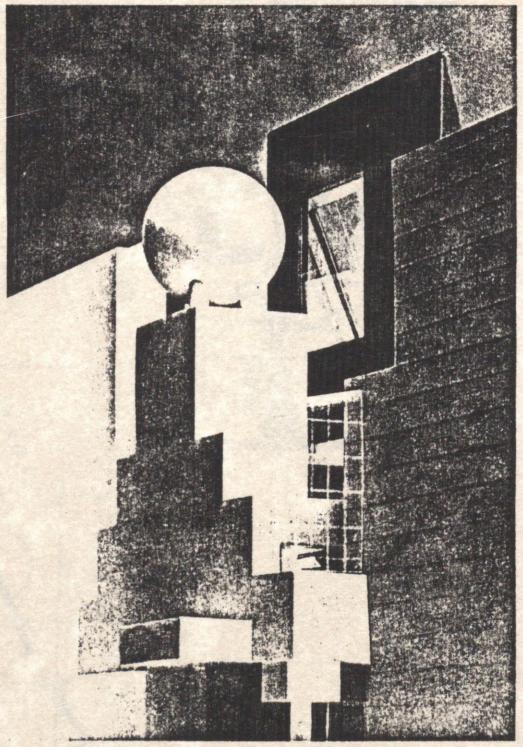




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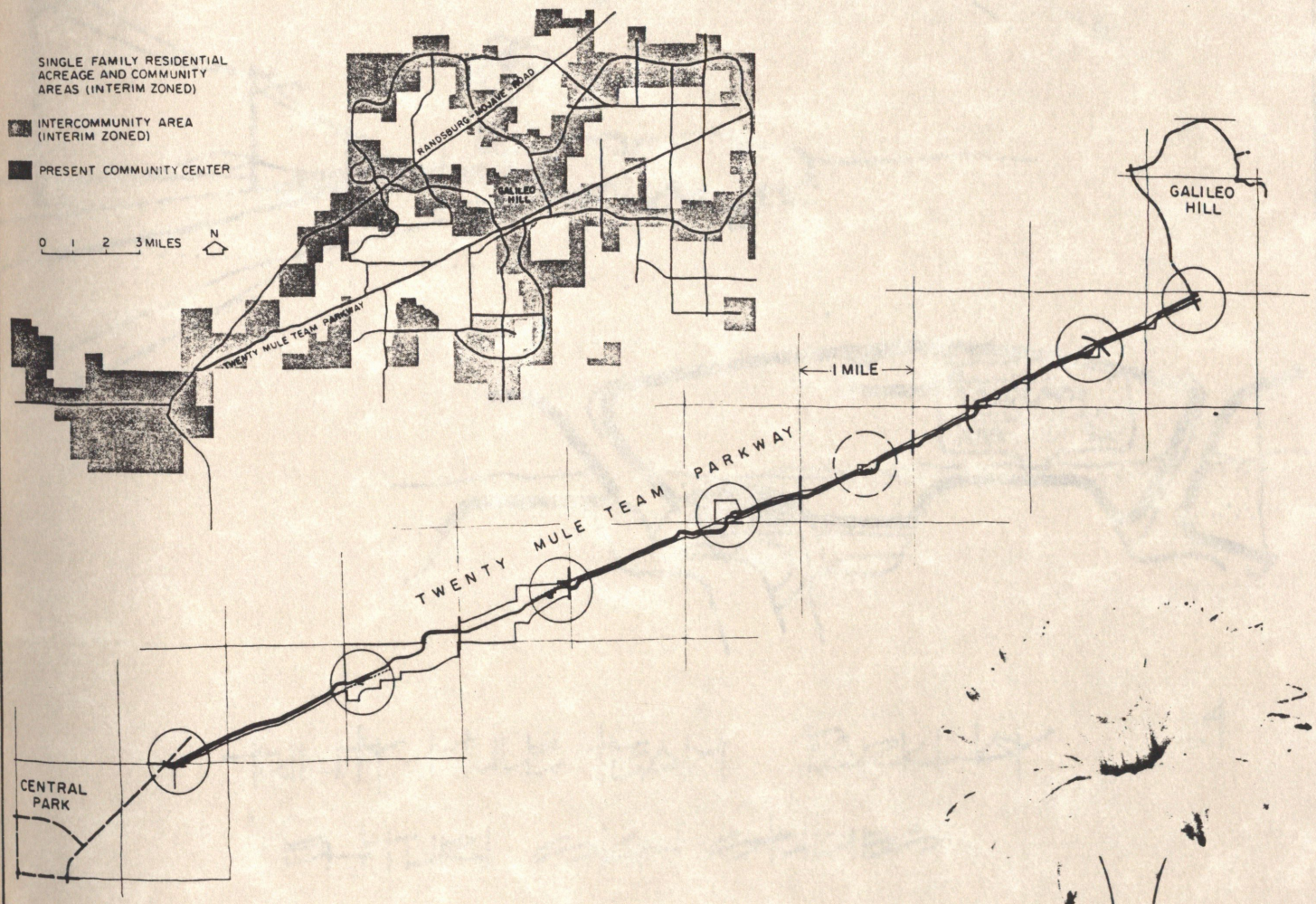


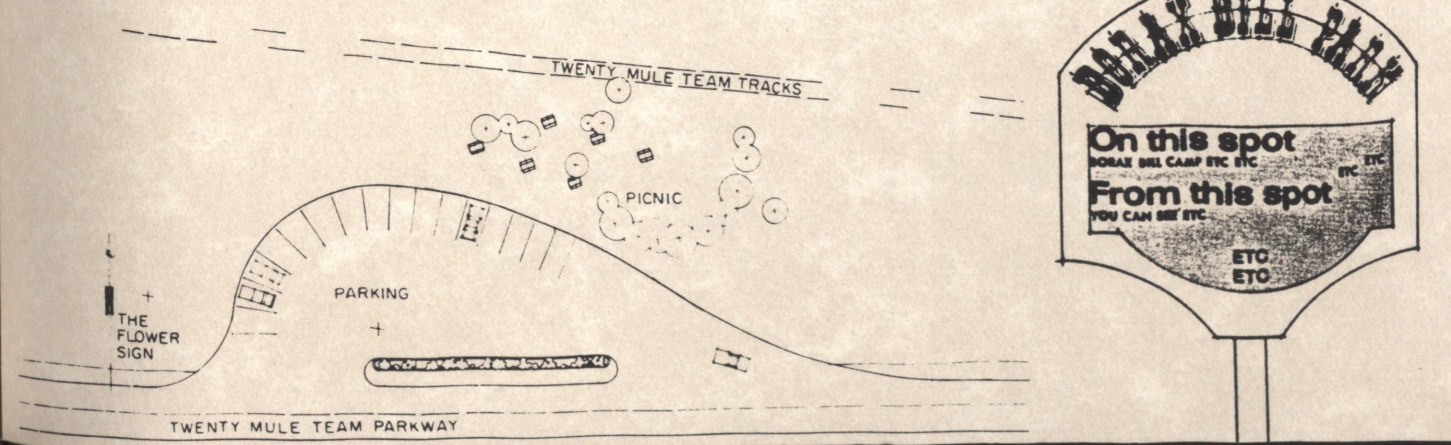
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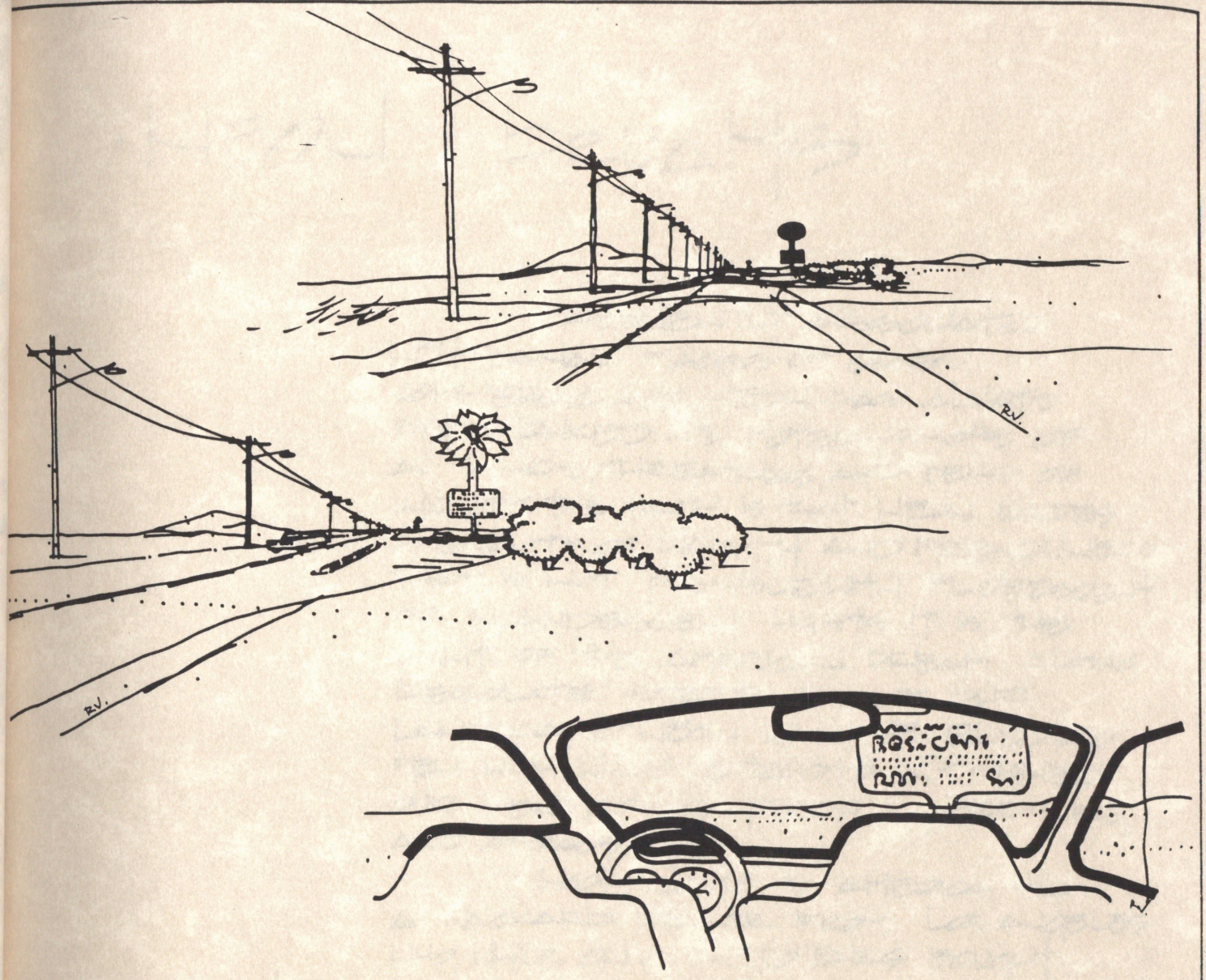


4


CAL CITY
NEON SIGN CO.
Paint
Wallpaper
REAL
ESTATE
INSURANCE
M.E.R.R


SINGLE FAMILY RESIDENTIAL ACREAGE AND COMMUNITY AREAS (INTERIM ZONED)
INTERCOMMUNITY AREA (INTERIM ZONED)
PRESENT COMMUNITY CENTER
0 1 2 3 MILES
N
RANDSBURG-MOJAVE ROAD
GALILEO HILL
TWENTY MULE TEAM PARKWAY
GALILEO HILL
1 MILE
TWENTY MULE TEAM PARKWAY
CENTRAL PARK


TWENTY MULE TEAM TRACKS
PICNIC
PARKING
THE FLOWER SIGN
TWENTY MULE TEAM PARKWAY
BORAX BILL PARK
On this spot
BORAX BILL CAMP ETC ETC
ETC
From this spot
YOU CAN SEE ETC
ETC
ETC



MULE TEAM PARKWAY .4

VENTURI SIGN STUDIES

NEON DREAMS

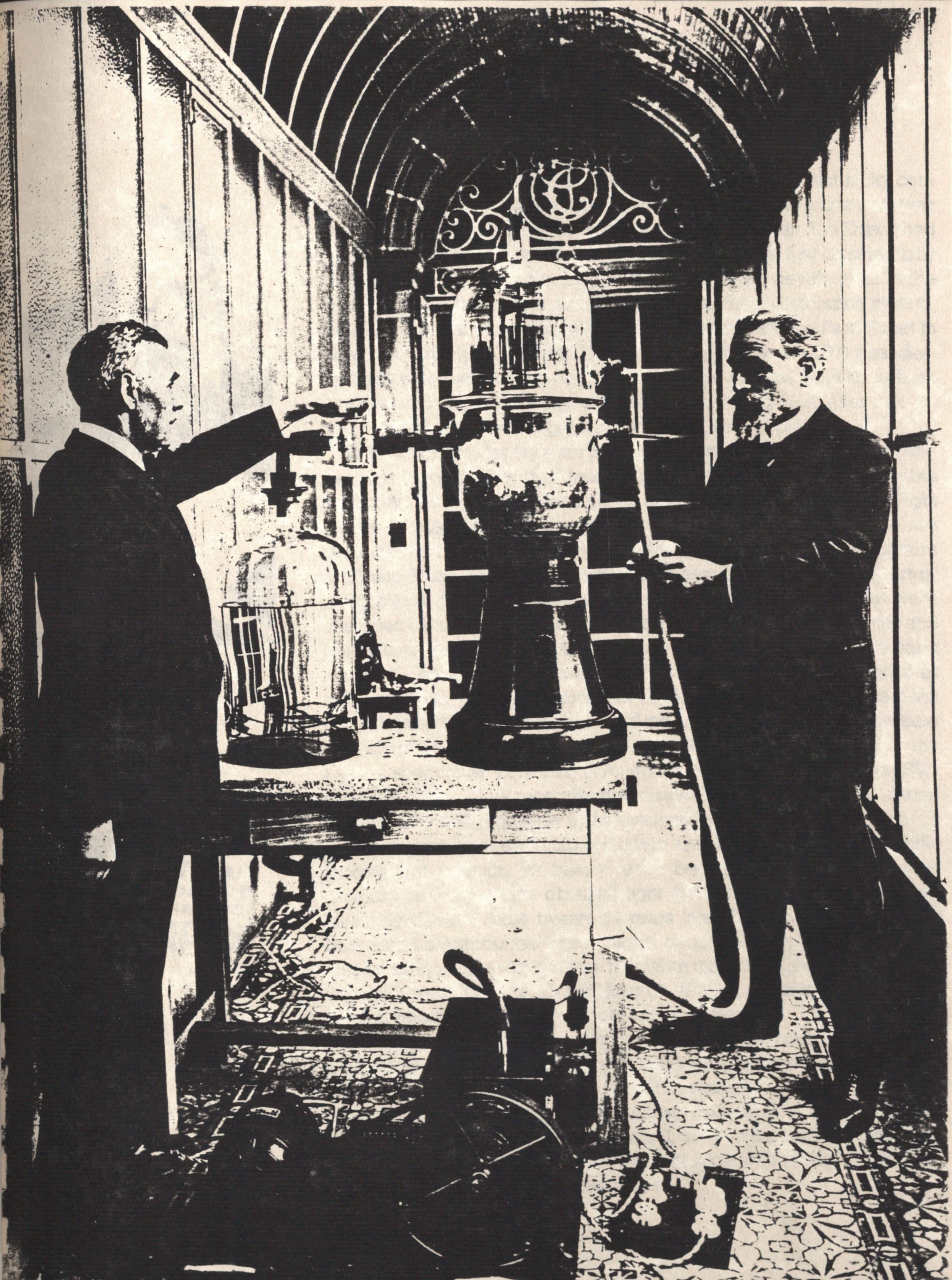
FREQUENTLY ASSOCIATED WITH BANAL IMAGES OF CRASS COMMERCIALISM, NEON HAS ALWAYS BEEN LINKED WITH MOTELS, SHOPS OF ALL KINDS, THEATRES, AND DENS OF INIQUITY. THE TRUTH IS THAT NEON EXUDES A QUALITY OF WARMTH AND FRIENDLINESS THAT IS NOT POSSIBLE WITH FLORESCENT OR INCANDESCENT LIGHTS. IT IS THE LIGHT OF THE AMERICAN DREAM ALONG DESOLATE STRETCHES OF OUR LANDSCAPE." NEON WAS THE ELECTRIC PEN WITH WHICH WE TRADITIONALY SIGNED OUR IDENTITY WITH PRODUCTS, SERVICES, AND ATTRACTIONS."[4]

NEON CAME TO AMERICA VIA A PACKARD DEALER FROM LOS ANGELES WHO, WHILE ON A TRIP TO PARIS BOUGHT TWO SIGNS FROM THE CLAUDE NEON FACTORY IN 1923.[5] STOPPING TRAFFIC IN DOWNTOWN LOS ANGELES, NEON TOOK CALIFORNIA BY STORM. ONE OF THE SIGNS REPORTEDLY STILL WORKS TODAY. BY THE LATE 1920's CLAUDE NEON FRANCHISES OCCUPIED NEW YORK, LOS ANGELES, BOSTON, CHICAGO, AS WELL AS CASABLANCA & SHANGHAI. MOVING EAST FROM LOS ANGELES THERE WERE SOON 2000 NEON PLANTS AND SOMEWHERE AROUND 5000 GLASS BENDERS BY THE TIME WORLD WAR II STARTED. THERE ARE NOW LESS THAN 200 PLANTS AND CERTAINLY FEWER

FULL-TIME GLASS BENDERS.

GOING TO THE MOVIES WAS AS MUCH A NEON EXPERIENCE AS A CINEMATIC ONE. PLACES SUCH AS TIMES SQUARE BECAME THE "NATIONAL KINETIC PLAZA". LARGE ELECTRIC MOSAICS, INFORMATIONAL GRIDS AND STREET THEATRES BECAME KNOWN "NEON SPECTACULARS!" FREE FOR THE VIEWING, THEY ENERGIZED MANY A DOWNTOWN. THERE WAS A TIME DURING THE 1930's WHEN NEON WAS A SUPER GROWTH INDUSTRY. DESIGNERS BECAME EMBROILED IN A BATTLE OF ONE UP MANSHIP AND TRADE SECRETS WHERE HIGHLY GUARDED. "NEON IN AMERICA MEANT PROGRESS, VITALITY, AND URBAN EXCITEMENT!"6

DESIGNS WERE ONCE PARTICULAR TO INDIVIDUAL ADVERTISERS. THE ONLY MASS PRODUCED PRODUCTS WERE NEON CLOCKS & BEER SIGNS. THE CRAFT PRIDED ITSELF ON CHALLENGES OF ONE-OF-A-KIND DISPLAYS WHERE ANIMATION BECAME AN ART FORM IN AMERICAN NEON. "AS ARTISTIC FEATS OF TECHNICAL VERTUOSITY, THESE ELECTRIC SCULPTURES WERE INDELIBLE FEATURES OF OUR AMERICAN LANDSCAPE".7 EVEN TODAY NEON SYMBOLIZES AMERICAS ETHOS BETTER THAN ANY OTHER ART FORM.





Georges Claude.

The cover of a Claude Neon advertising brochure.



The outdoor electric-light spectacular, which would transform city centers all over the world into nighttime wonderlands of kinetic excitement, was born in the Chicago Columbian Exposition of 1893. Thomas Alva Edison had made this possible through his invention in 1879 of the first commercially practical incandescent lamp. By the early 1880s he had developed all of the equipment and techniques for a complete electrical distribution system, leading to the first electric-light power plant in the world, on Pearl Street in New York City. By 1900, electricity was flowing into nearly 1,500 incandescent lamps arrayed on the narrow front of the Flatiron Building to form America's first electrically lighted outdoor advertising sign. After that, incandescent signage was to grow rapidly in public acceptance.

Neon, which was to play a very important part in urban nocturnal spectacles, was introduced to the United States in 1923. By virtue of its flexible luminosity, neon could produce effects beyond the capacity of earlier light sources. It could create startling silhouettes, whether of figures or letters, in a range of color combinations that seemed infinite. In an advertising brochure of Claude Neon, the French firm of Georges Claude that held a virtual monopoly on neon tube manufacture in its early years, neon-tubes were described as "the latest and most artistic forms of electrical advertising and illumination. The light given is continuous, very distinctive, and peculiarly attractive. It has been described as a 'living flame.'" A European hybrid of art and technology, neon's elegance and refinement came from France, then the undisputed international arbiter of taste. However, neon soon became symbolic of American energy and inventiveness, its Continental roots giving rise to a spectacular flowering of American showmanship in the late 1920s and early 1930s. More recently, other countries expressed a sense of exuberant vitality and prosperity in the lavish use of neon illumination.

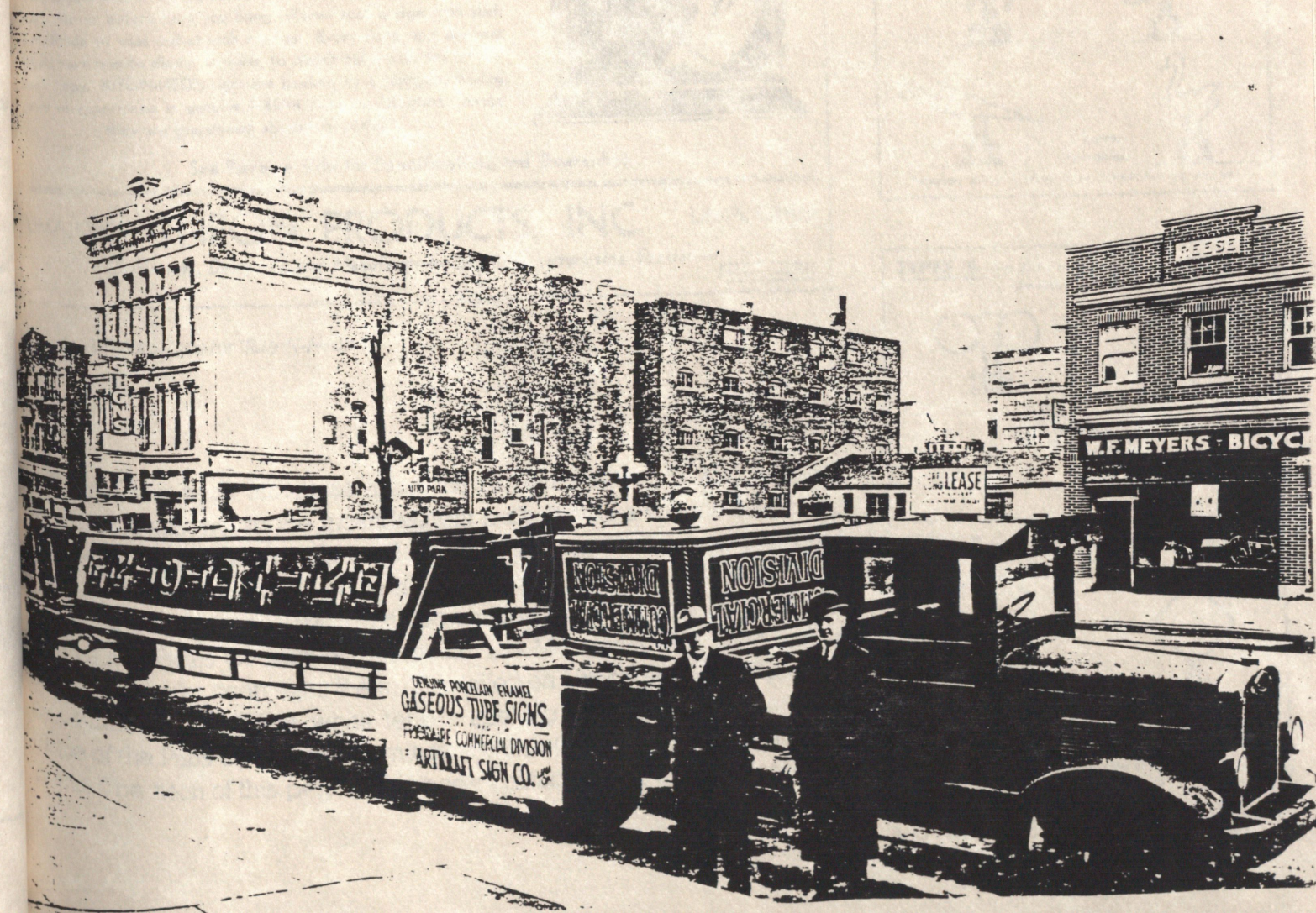
Like several other art forms of modern times, neon was first a scientific process and creation. Its history really began in 1683, when Otto von Guericke of Magdeburg obtained light from the discharge of a static-electricity device. Some twenty-six years later Francis Hawksbee, in his book *Physico-Mechanical Experiments,* described how he had produced light by shaking up a vacuum tube filled with mercury. A similar experiment was conducted in 1744 by Johann Heinrich Winkler, a professor of physics at Leipzig, who also heat-bent a tube to form a name.

The first prototype of the modern luminous tube did not appear until over a hundred years later. In 1856 Heinrich Geissler experimented with a sealed low-pressure tube in which he produced light using a high-voltage alternating current. Later experiments by Geissler, and still later ones by Michael Faraday and William Crookes in England, showed that all gases or vapors are capable of carrying a current but that some can produce light even more efficiently than incandescent lamps.

When Claude began his experiments, his aim was a cheap high-quality method of producing oxygen, then much in demand by hospitals and for oxyacetylene welding. In the process, however, he found himself with sizable quantities of leftover rare gases. Searching for a way to utilize these byproducts, he came across a Moore tube. By filling such tubes with neon and bombarding them with electricity he achieved a clear intense red; with argon he produced a grayish blue. He then found that by coating the interior surface of the glass he could increase the range of his basic colors.

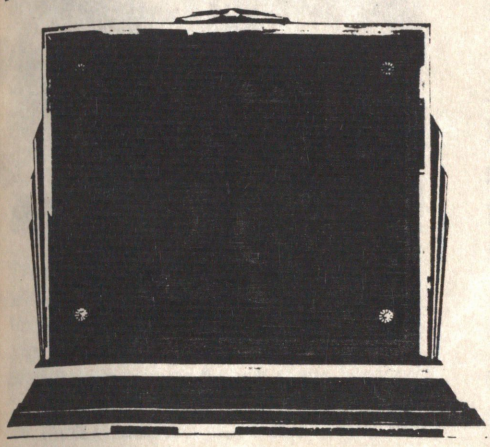
In 1910 Claude drew considerable attention by exhibiting at the Grand Palais in Paris a sign that employed neon gas. Five years later he received a patent for an electrode possessing high resistance to corrosion. This invention, simpler and far more practical than Moore's gas-supply valve, removed the final obstacle to widespread use of tube lighting.

The Artkraft Sign Company of Lima, Ohio, about to deliver and install an outdoor sign for Frigidaire in 1929. Lima produced most of the neon clocks in this country, and may well be the only town with a street actually named "Neon Street."



"Rite-N-Neon" Genuine NEON Sign

Now! You Can "Write Your Own" Message In NEON GLOW



On This Striking, Brilliantly Illuminated Genuine Neon Sign

Change Copy at Will

With Lettering Kit Supplied

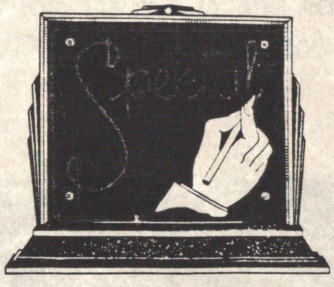
Visible NEON Tube Compels Attention to Copy and Window

Message Appears Illuminated in Brilliant Fiery Red

Now! A genuine RITE-N-NEON sign. The only sign on the market today having the double feature of a VISIBLE NEON TUBE, which through its brilliance, compels attention and illuminates the entire show window, and permits the owner to WRITE HIS OWN MESSAGE. This miraculous discovery makes the RITE-N-NEON sign adaptable to every line of business, for all the owner need do is write his message on the plate glass background and the vivid, genuine NEON tube reflects through the edges to illuminate it and give it the appearance of having been written in the brilliant NEON tube itself. Never before have you been offered such a sign with such a multitude of uses and at such a price. Every store and business should have one to display specials, to direct patrons or for institutional copy. RITE-N-NEON signs are backed by a company having years of experience in genuine NEON tube manufacture, hence they are guaranteed absolutely perfect.

Frame of Aluminum for Lightness Beautifully Finished in Genuine Black Kristokrack and Highly Polished Aluminum — Size 17"x20½"

Copy Change Easy as A B C



See Reverse Side for Specifications and Guarantee

LIMA, OHIO **NEON PRODUCTS, INC.** LIMA, OHIO

Originators, Designers and Manufacturers of Neon Advertising Specialties

BULLETIN No. 119

An early 1930s brochure for "Rite-N-Neon."

Claude saw neon lamps as a source of general indoor and outdoor illumination, superior to the incandescent bulb. It was a Claude associate, Jacques Fonseque, who recognized the potential of neon for advertising and thus determined the course of the medium's use for the next sixty years. In 1912 Fonseque sold the world's first neon advertising sign to a small barber shop called Palais Coiffeur on the Boulevard Montmartre A year later a more spectacular neon sign, the first installed on a roof, lit up the Paris sky with three-and-a-half-foot white letters spelling CINZANO. The main entrance of the Paris Opéra was illuminated with a Claude Neon construction in 1919. The neon of this period had been characterized by a juxtaposition

Below: A 1935 price list for "Silhouettes Artistiques Luminescentes" by the Novilux Company of Paris. The company sold stock designs and also "silhouettes" to order.

Tout autre modèle sera étudié à la demande
aux mêmes prix que ci-dessous
Maquette sans engagement

NOVILUX

TYPES SPÉCIAUX



750. »

Croix religieuse
En bleu : 625. »
En blanc rosé : 725. »

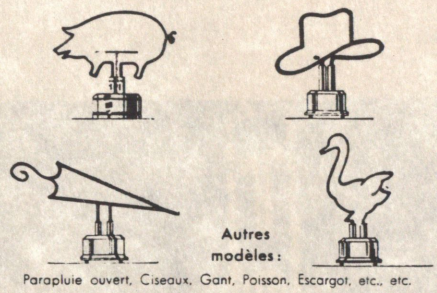
700. »

Autres modèles :
Fleur deux couleurs (bleu, vert) : **790** - Mannequin réduit 50 / **760**

NOVILUX

TYPES A (1.70 à 2 m. de tube) . . . . **Frs 650**

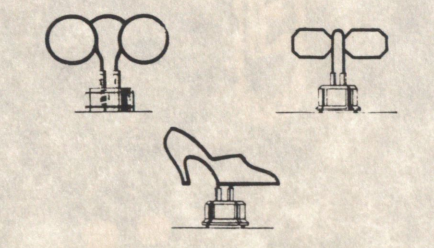
Quelques exemples :



Autres modèles :
Parapluie ouvert, Ciseaux, Gant, Poisson, Escargot, etc., etc.

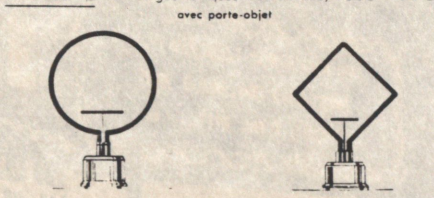
TYPES B (1 m. 25 à 1 m. 60 de tube) . . . **Frs 585**

Quelques exemples :



NOVILUX

TYPES C (formes geométriques 1.50 de tube) **Frs 490**
avec porte-objet



etc., etc...

NOVILUX

Les prix ci-dessus s'entendent pour tubes de couleur bleue ou rouge.
pour vert majoration de 10 / .

• • •

ENSEIGNES EXTÉRIEURES voir au dos s. v. p.



"The Empire has reappeared on the fateful hills of Rome," Milan, late 1930s. Benito Mussolini used neon to proclaim the new imperialism of his Fascist state. Every large Italian city had neon signs erected by the government. Albert Speer in Inside the Third Reich *had plans that "along the Grand Boulevard neon signs were to be employed profusely."*

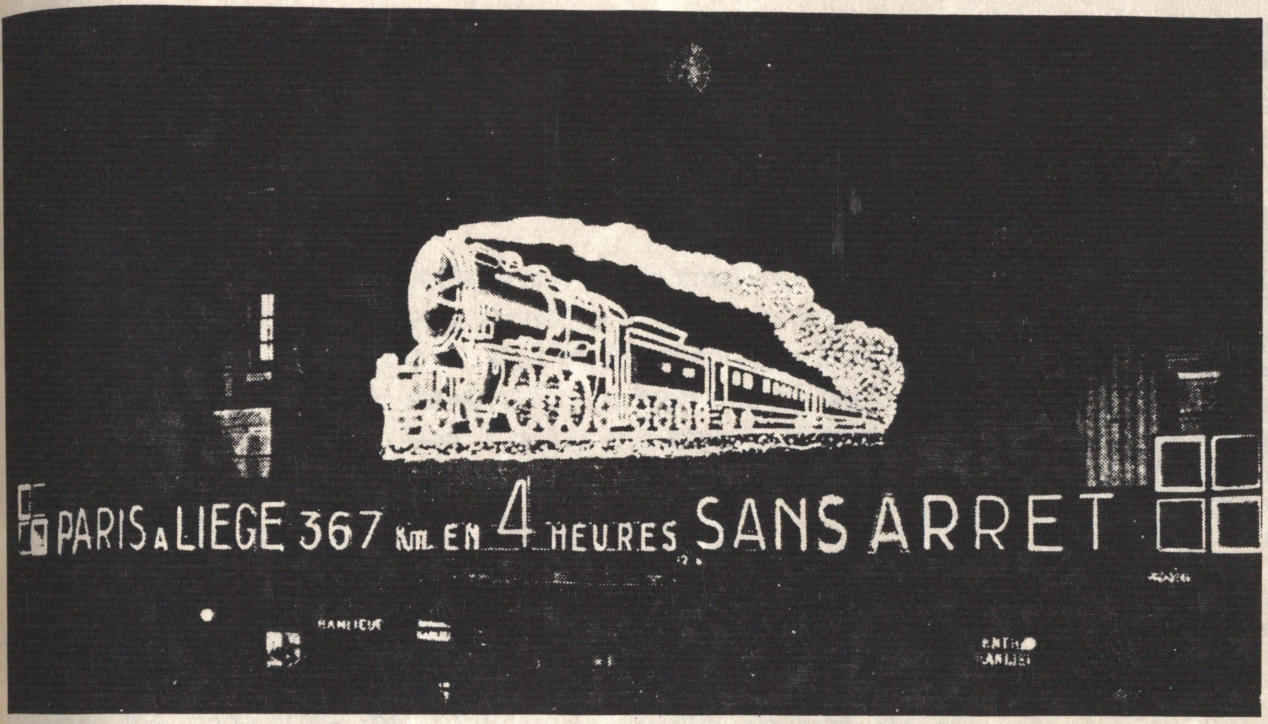
of orange-red (neon-filled) letters against scintillating green metal backgrounds, but the Opéra sign boldly combined orange (clear red) and blue tubing to create an effect that came to be known as *couleur Opéra*.

It was in this color combination that neon was first seen in the United States. In 1923 a Los Angeles car dealer named Earle C. Anthony visited Paris and met the enterprising Fonseque. As a result, neon came to California in the form of two identical blue-bordered signs with the single word PACKARD spelled out in orange neon letters. The signs literally stopped traffic in Los Angeles, which upset the police. One sign is still functioning, having outlived the Packard automobile.

But Claude Neon would not have become an important international organization had it depended solely on chance visits from abroad. The means undertaken for expansion was an early form of franchising, which was made possible by Claude's patent on the long-life electrode. After an unsuccessful attempt to sell G.E. an exclusive license, Claude Neon in 1924 began offering territorial licenses outside France. They were bought throughout the world, but nowhere in such numbers as in the United States. Soon there were licensees in New York, Chicago, Los Angeles, San Francisco, Detroit, Pittsburgh, and Boston, among other cities. Each agreed to pay $100,000 plus royalties for their franchises.

RKO Theatre, 1937. Note the interchangeable neon letters on the marquee.







Top: A Parisian spectacular of 1930 at the Gare du Nord for the new Paris-Liège Express. Bulbs simulated the belching smoke and the speeding wheels. It was conceived and executed by Paz & Silva, an offshoot of Claude Neon.

Above: A landmark when it was installed at the corner of the Champs Elysées and Rue Pierre Charron in 1930, this was one of the earliest Claude Neon displays. Three hundred meters of tubing were used in this sign which was addressed to English-speaking viewers.

From the beginning there were problems with infringements. As the popularity of neon spread, small one-man shops proliferated. Owing to the tubes' fragility they did not ship well, so even small towns began to have a need for neon shops. Still, Claude's monopoly held up well throughout the decade. In 1927, out of a total of 750 neon signs in New York City, 611 had been made by Claude Neon Lights, Inc. Nor were these signs for local businesses only. In a *New York Times* ad of October 18, 1927, the company published a list of its nationwide customers, which included Remington typewriters, Loft

candies, American Radiator Company, Eveready batteries, Packard, Willys-Knight, Scientific American, Standard Oil, Burroughs adding machines, and Lucky Strike cigarettes. Even in the year of the stock market crash of 1929, Claude Neon Lights, Inc., reported annual sales of nine million dollars out of a total market of eleven million dollars, a forty-percent increase over the previous year.

It was not the subsequent Great Depression that ultimately brought down Claude's empire but the expiration of its patents. Even before the key patent for the long-life electrode expired in 1932, bootleg neon sign-makers had proliferated. All it really took to get started in the business was one competent ex-employee of Claude Neon. Raiding and spying on competitors became commonplace. The attendant secrecy and paranoia of the period continue to characterize the electric-sign industry to this day, even under threat of common extinction.

The 1930s were years of great creativity for neon, a period when many design and animation techniques were developed. Mass-produced neon signs were still years off, and nearly every sign display was a "first" that extended the range of the medium's graphic possibilities. Men like O.J. Gude and, in particular, Douglas Leigh took neon advertising further than Georges Claude and his associates had ever envisioned. Leigh, who conceived and created the archetypal Times Square spectacular, experimented with displays that incorporated smells, fog, and sounds as part of their total effect. Always sensitive to the relationship between signs and adjacent architecture, he developed plans in which elements of the building's shape would be a silhouette of the product or logo to be neonized. Much of the visual excitement of Times Square in the thirties was a result of Leigh's genius as a kinetic and luminal artist.

The Chicago Century of Progress Exposition (1933–34) proved to be of special importance in the history of neon (as were subsequent fairs in Paris in 1937 and New York in 1939). Fifty-five-foot cascades of green and blue light followed the horseshoe-shaped contours of the Electrical Building, and fountains threw up soaring jets of water, drawing color from submerged luminous tubes. One Chicago shop alone produced some 40,000 feet of tubing for the electric display at the Exposition, which was designed by Joseph Urban, a Viennese-born architect and scenic designer. Unfortunately, economic conditions in the thirties did not permit a large-scale transfer of these lighting effects to general use. However, on the exteriors of movie palaces neon did come into its glory, providing a colorfully glowing invitation to fantasyland, extending the delights within to the streets outside. One's joy in going to the movies became inseparably associated with neon.

Up to the beginning of World War II the demand for neon seemed likely to keep growing forever. But neon display artists like Leigh and Gude were too few to prevent the proliferation of poorly designed signs. Neon's more affluent patrons, the large corporations, gradually withdrew their support as the medium seemed to contribute less to their public images. Smaller



This neon "step-in" created a sensation at the 1938 annual banquet of the Advertising Club in Baltimore.

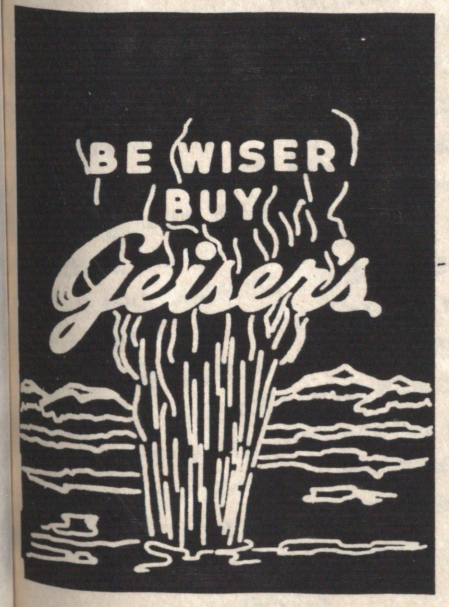
An advertising page from Signs of the Times.




CINEPHONE
L'INDÉPENDANCE
BELGE
Shirley
dans sa plus belle création 1938!
HOTEL
A VENDRE
CINEPHONE
PARLANT FRANÇAIS







An early American fusion of incandescents and neon.

companies and stores could afford only the simplest of designs, and neon shops began to emphasize efficiency of production over good design. Gradually "one-of-a-kind" ingenuity disappeared as increased standardization took hold.

As economy became increasingly important to an industry that had seen better days, maintenance began to suffer, even though it was these maintenance contracts that had provided a steady source of revenue. The result was that many street signs barely functioned, their units dead or sputtering. Eventually, and not always without reason, localities began passing ordinances restricting the use of neon. In 1939, ninety-five percent of all electric-sign companies still had their own in-house designer. Very few companies today—perhaps less than several dozen—have a design department, and those that do often have no one who is familiar enough with neon to design with it.

Following World War II, plastic and fluorescent lamp manufacturers began promoting Plexiglas shadow boxes with fluorescent lighting behind lettering and graphics. Available in a wide range of colors, they proved popular as the "New Look" in signage; neon was disparaged as old-fashioned. Selling directly to the consumer, and for the most part bypassing the electric-sign industry entirely, these manufacturers dealt an all-but-fatal blow to neon in the 1950s. Stores with illuminated Plexiglas fronts proliferated, and neon, if used at all, was reduced to tracing the insides of vacuum-formed letters. Neon was being relegated to the role of a hidden light source. Seventy-five percent of neon production is still for this use.

During the last twelve years there has been a steadily growing use of neon by sculptors and graphic designers, who have led the way in new experimentation. Some electric-sign companies are now slowly becoming aware of this new interest, and a greater percentage of their work is again neon. An improvement in design quality is one of the important reasons for this rebirth.

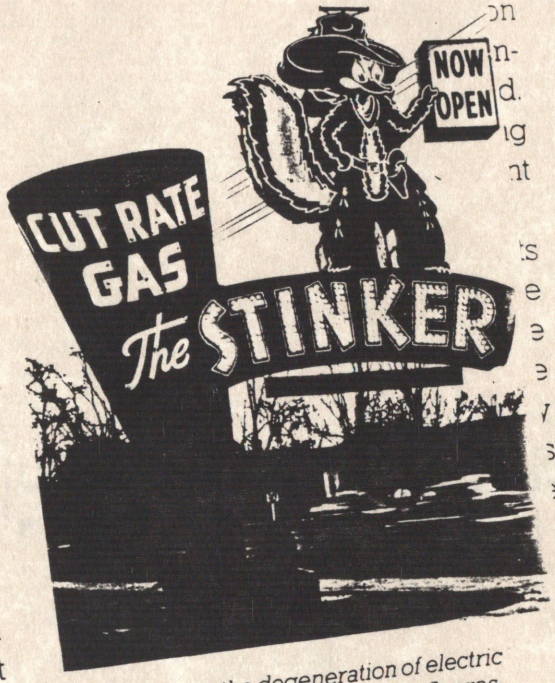
Even though clear tubing is still easily available, tinted glass becomes harder and harder to find. Where once there were thirty colors to choose from in fashioning neon, today there are scarcely fifteen. Ruby red, midnight blue, noviol gold, uranium green, and airplane green have entirely disappeared from American production. Where once twenty companies were making transformers, today there are only two. But the most significant shrinkage in resources has been in terms of skilled workers. The average glass bender today is over fifty years of age, and few young people are taking up the craft. In New York City, where once there were four hundred people bending glass in both large and one-man shops, there are now about a dozen. Even in Las Vegas there are only two companies left that make tubing, and less than five percent of their total sales are in neon. Repairing existing displays is their principal activity.

Because neon is a handcraft, its continuation and development are entirely dependent on trained craftsmen. The electric-sign industry and the

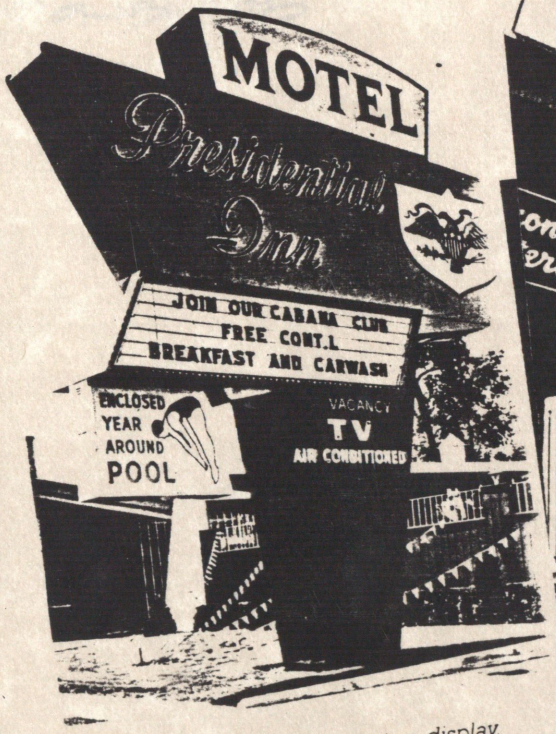
but ignored this reality, and there have been hardly any programs. When such programs were established, it was of a sudden increase in business on the part of one company us effort to prevent the craft from dying out. The only or- ructured training program uncovered in the research for this provided by the Egani Institute (Egani stood for "Eddie's Glass itute") located on 125th Street between Fifth and Madison ew York City. Founded by Edward Seise in 1930, Egani was in ration until 1971, when Mr. Seise retired. He claimed to have -five percent of all the glass benders in the country, as well as a tion of those in Europe, Asia, and Africa. After World War II, a udents enrolled at the Egani Institute under the G.I. Bill. ss taught by Egani was one established by the Claude factories Neon to Edward Seise meant lettering, and his students were bends" required to make the alphabet as would be used in a Experimentation and personal expression of any kind were not t Egani, and Seise had no patience with students who did Design was neither taught nor encouraged. The glass bender ed to follow the pattern drawn on an asbestos layout without The philosophy of teaching at the school was simple and direct: nt signage, and signage meant glass letters. Neon was a part of the r's trade, and the craft belonged to the electric-sign industry. Neon it as a craft without a creative identity of its own. Despite contem- ovie-marquee designs, even architectural embellishment or or- tion were considered by Seise to be outside the craft's primary Egani perpetuated the traditions of the craft as they had been ned by the constraints of the trade. Because of the uniqueness of his and the large number of glass benders he trained, his influence on t was naturally great. Unfortunately, lack of innovation and of interest gn also can be traced to the influence of this school. Ironically, Edward s last class consisted of one neon sculptor from Boston, Joe Augusta, mmuted every week to learn the craft.

d yet, despite all these problems, artists, architects, and interior de- s are beginning to discover the exciting possibilities of neon. Their er is small, but their influence may prove considerable. City planners one day recognize the value of neon as an element of urban vitality. y may come to realize that the current bleak voids of center cities are in part, to the absence of this element. Today, neon helps Tokyo express dynamism of a metropolis as it once did in New York. It is used there cause of the meaning (and not the present reality) of Times Square. In ran, neon is so beautifully integrated with the architecture that walking ough the city becomes a kinetic pleasure.

At this writing the medium is about to be born again, with sign-making ly one of its manifestations.



The 1950s saw the degeneration of electric advertising design. Plastic and fluorescents were proliferating and the sign salesmen were pushing the "New Look."

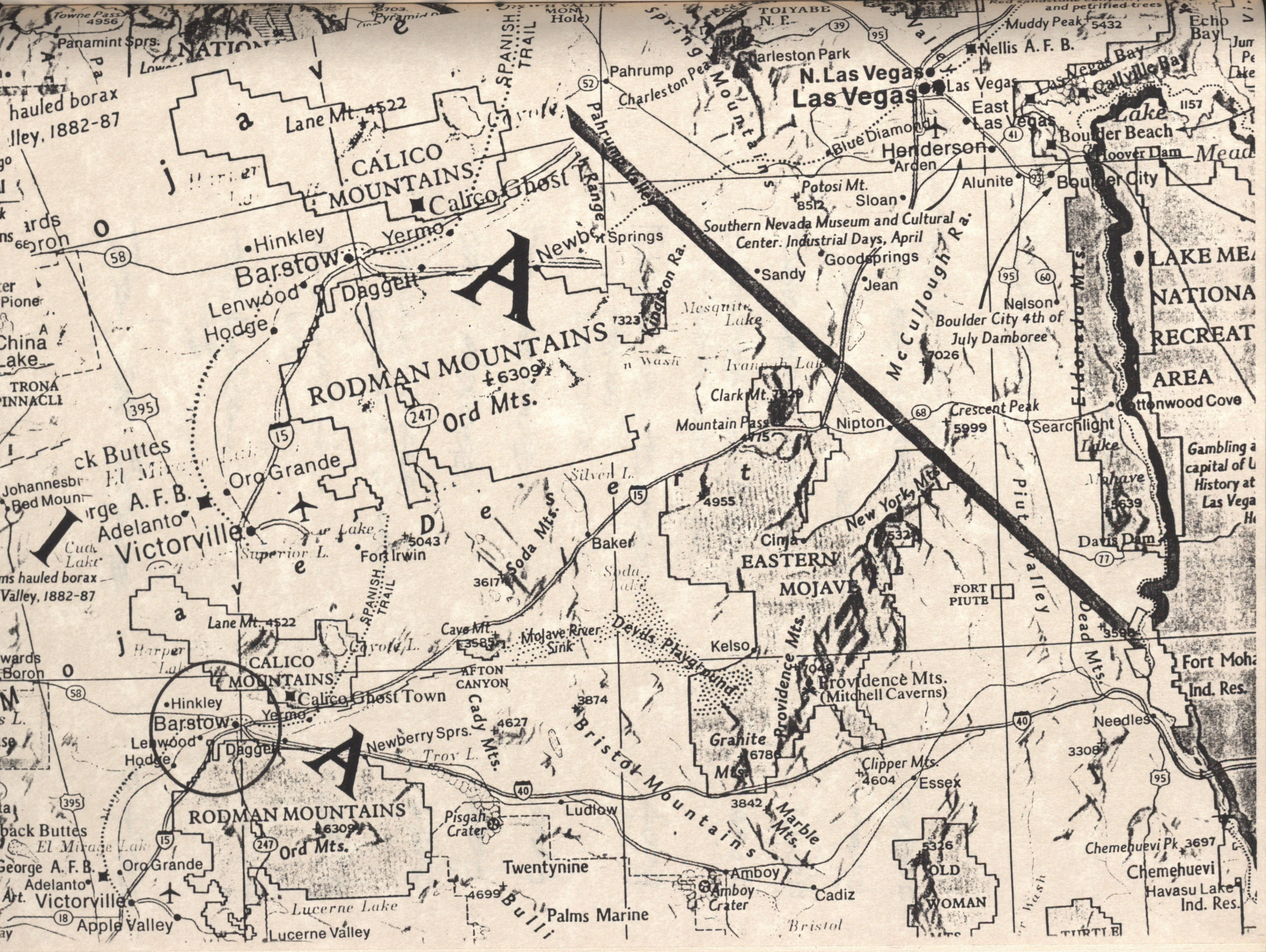


A 1960s "New Look" advertising display. Composition had become haphazard. Neon became only one element in an ambiguous collage. Local environmentalists began condemning such signage. Unfortunately, they referred to these as part of a "neon jungle" and the medium itself got blamed for lack of good design. Neon as a craft and trade suffered greatly because of an increasing lack of design quality.

A post-World-War-II sign in Ogden, Utah, created by the Young Electric Sign Company of Salt Lake City. This period produced the best of the individual flamboyant designs—only on much smaller

PROGRAM IDENTIFICATION

- PROGRAM AREAS
- SPATIAL RELATIONSHIPS


Panamint Sprs.
Towne Pass 4956
Pyramid
SPANISH TRAIL
MOH Hole)
TOIYABE N. F.
Spring Mts.
Charleston Park
Pahrump
Charleston Pk
Muddy Peak 5432
Nellis A. F. B.
Echo Bay
Las Vegas Bay
Callville Bay
N. Las Vegas
Las Vegas
East Las Vegas
Lake
Boulder Beach
Hoover Dam
Mead
Blue Diamond
Henderson
Arden
Alunite
Boulder City
Potosi Mt. 8512
Sloan
Southern Nevada Museum and Cultural Center. Industrial Days, April
Goodsprings
Sandy
Jean
Nelson
Boulder City 4th of July Damboree
McCullough Ra.
Eldorado Mts.
LAKE ME
NATIONA
RECREAT
AREA
Cottonwood Cove
Searchlight
Gambling a
capital of L
History at
Las Vega
Lane Mt. 4522
CALICO MOUNTAINS
Calico Ghost Town
Hinkley
Yermo
Barstow
Lenwood
Hodge
Dagget
Newberry Springs
Pahrump Valley
Kingston Range
Kingston Ra.
Mesquite Lake
RODMAN MOUNTAINS
6309
Ord Mts.
7323
Ivanpah Lake
Clark Mt.
Mountain Pass
4715
Nipton
Crescent Peak
5999
Clipper Mts.
5326
OLD WOMAN
Chemehuevi Pk. 3697
Chemehuevi
Havasu Lake Ind. Res.
Fort Moha
Ind. Res.
Needles
3308
Davis Dam
Piute Valley
Dead Mts.
Piute Mts.
New York Mts.
5532
Cima
EASTERN MOJAVE
FORT PIUTE
Providence Mts.
(Mitchell Caverns)
7048
Kelso
Devils Playground
Mojave River Sink
Cave Mt.
3585
Soda Mts.
3617
Baker
Silver L.
Fort Irwin
5043
Superior L.
Oro Grande
Adelanto
Victorville
George A. F. B.
Lucerne Valley
Apple Valley
Lucerne Lake
Twentynine
Palms
Pisgah Crater
Ludlow
Amboy
Amboy Crater
Cadiz
Bristol
Bristol Mountains
Granite Mts.
6781
Marble Mts.
3842
Cady Mts.
4627
3874
AFTON CANYON
Troy L.
Harper Lake
Coyote L.
Cuddeback Lake
El Mirage Lake
Johannesburg
Red Mountain
Boron
Kramer Junction
Randsburg
Trona
Pinnacles
China Lake
Pioneer
hauled borax
lley, 1882-87
ms hauled borax
Valley, 1882-87
Spanish Trail
Old Spanish Trail
Mormon Rocks
Valley of Fire
and petrified trees

PROGRAM AREA

TRUCKSTOP

CONVENIENT STORE

SALES AREA	2800 ☐'
CLERKS/CASHIER	400 ☐'
MANAGERS OFFICE	300 ☐'
EMPLOYEE LOUNGE RESTROOM 150	550 ☐'
PUBLIC RESTROOMS MENS WOMENS	400 ☐'
DRY STORAGE	1000 ☐'
COLD STORAGE	400 ☐'
LOADING AREA DOCK & UNLOADING	600 ☐'
CIRCULATION 10%	645 ☐'
MECHANICAL 5%	345 ☐'
TOTAL SQ. FOOTAGE	7440 ☐'

PROGRAM AREA

TRUCKERS MOTEL

LOBBY ENTRY . . .	250 #
LOUNGE	1000 #
TV AREA POOL TABLE	
GUEST ROOMS . . .	11700 #
39 @ 300 #	
CONCESSIONS . . .	200 #
CIRCULATION . . .	1325 #
10%	
MECHANICAL . . .	700 #
5%	
TOTAL GSF FOOTAGE	15250 #
PARKING	39 stalls
1 PER ROOM	

PROGRAM AREA

SERVICE STATION

AUTOMOBILE REFUELING
10 STATIONS . . . 5500#

TRUCK REFUELING
10 STATIONS . . . 12500#

PETROLEUM STORAGE . . . N/A

SEE CONVENIENCE STORE
CASHIER
RESTROOMS
MERCHANDISE

PROGRAM AREA

CAFE

DINING AREA 150 SEATS	2000 ♯
CASHIERS	20 ♯
FOOD SERVICE AREA	400 ♯
FOOD PREPARATION	900 ♯
FOOD STORAGE DRY 350 COLD 250	600 ♯
DISHWASHING AREA	150 ♯
OFFICE	200 ♯
RESTROOMS WOMENS MEN	250 ♯
PUBLIC LOCKERS MENS WOMENS	400 ♯

PUBLIC SHOWERS . . . 500#

MENS

WOMENS

CIRCULATION . . . 500#

10%

MECHANICAL . . . 200#

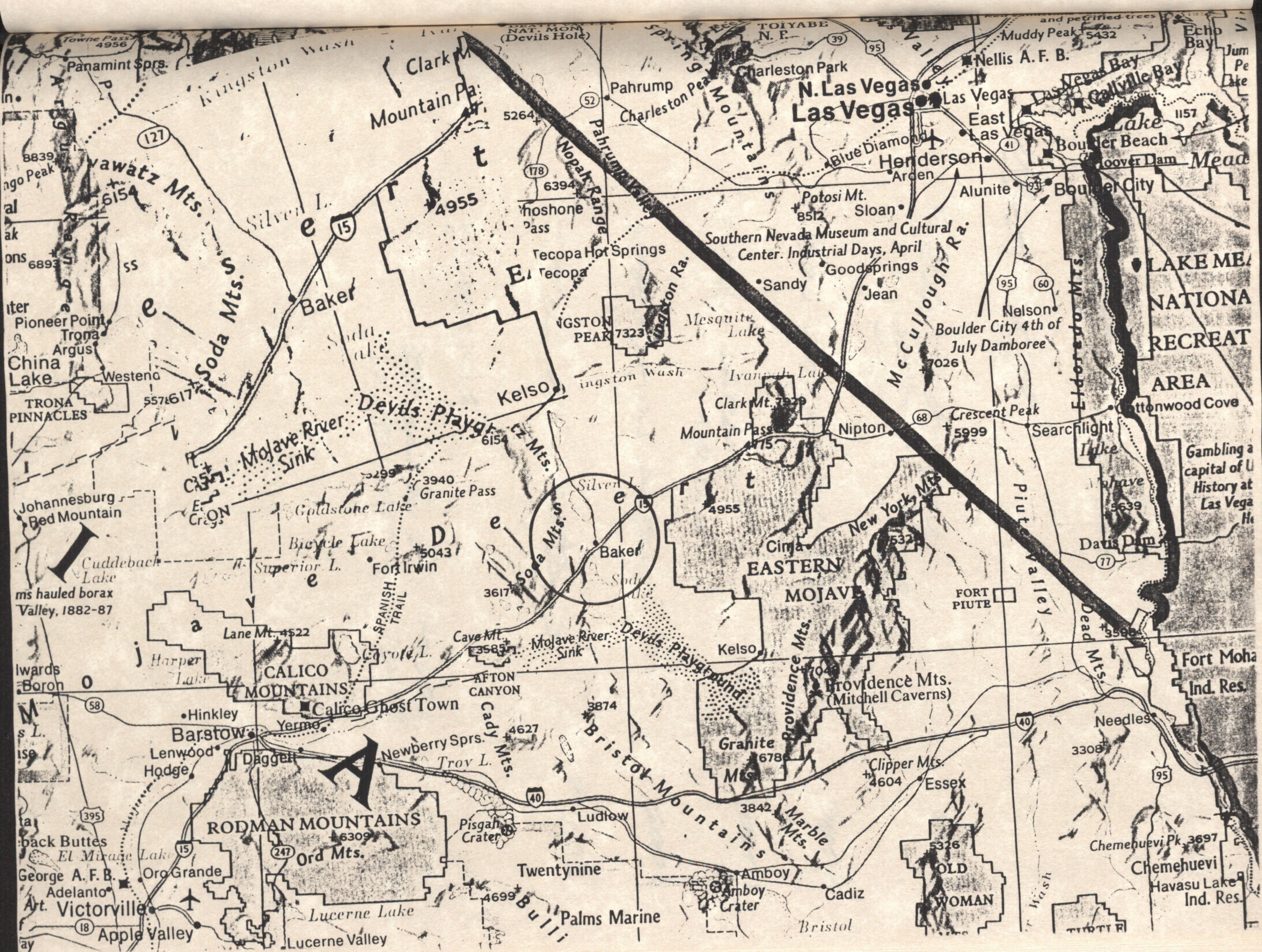
5%

PARKING . . . 30 stalls

PROGRAM AREAS

LAUNDROMAT

LAUNDRY SERVICE AREA . .	1800 ☐
PUBLIC LOUNGE	480 ☐
PUBLIC RESTROOMS . . .	250 ☐
MENS	
WOMENS	
MECHANICAL/STORAGE AREA .	700 ☐
CIRCULATION	250 ☐
10%	
TOTAL SQ. FOOTAGE	2480 ☐


Towne Pass 4956
Panamint Sprs.
Kingston Wash
NAT. MON (Devils Hole)
Spring Mts.
TOIYABE N. F.
Charleston Park
Pahrump
Charleston Pk.
Muddy Peak 5432
and petrified trees
Nellis A. F. B.
Echo Bay
Nevas Bay
Callville Bay
N. Las Vegas
Las Vegas
East Las Vegas
Lake
Boulder Beach
Hoover Dam
Mead
Blue Diamond
Henderson
Arden
Alunite
Boulder City
Potosi Mt. 8512
Sloan
Southern Nevada Museum and Cultural Center. Industrial Days, April
Goodsprings
Sandy
Jean
Nelson
Boulder City 4th of July Damboree
McCullough Ra.
Eldorado Mts.
LAKE MEA
NATIONA
RECREAT
AREA
Cottonwood Cove
Crescent Peak 5999
Searchlight
Nipton
Mountain Pass
Clark Mt. 7929
Ivanpah Lake
Mesquite Lake
Kingston Wash
Kingston Ra.
KINGSTON PEAK 7323
Nopah Range
Pahrump Valley
Clark Mountain Ra.
Silver L.
Baker
Soda Lake
Soda Mts.
Devils Playground
Mojave River Sink
Kelso
Cima
New York Mts.
Piute Valley
Dead Mts.
Davis Dam
Gambling a
capital of U
History at
Las Vega
He
Fort Moha
Ind. Res.
Needles
Chemehuevi Pk 3697
Chemehuevi
Havasu Lake
Ind. Res.
EASTERN MOJAVE
FORT PIUTE
Providence Mts.
Providence Mts. (Mitchell Caverns)
Granite Mts.
Clipper Mts.
Essex
Marble Mts.
OLD WOMAN
Bristol Mountains
Bristol
Cadiz
Amboy
Amboy Crater
Twentynine
Palms Marine
Ludlow
Pisgah Crater
Cady Mts.
Newberry Sprs.
Troy L.
Daggett
Barstow
Hinkley
Yermo
Lenwood
Hodge
Calico Ghost Town
CALICO MOUNTAINS
AFTON CANYON
Lane Mt. 4522
Harper Lake
Coyote L.
Cave Mt. 3585
Mojave River Sink
Devils Playground
Kelso
Fort Irwin
SPANISH TRAIL
Goldstone Lake
Bicycle Lake
Superior L.
Cuddeback Lake
Granite Pass 3940
Johannesburg
Red Mountain
ms hauled borax
Valley, 1882-87
Iwards
Boron
RODMAN MOUNTAINS
Ord Mts.
Pisgah Crater
El Mirage Lake
back Buttes
George A. F. B.
Adelanto
Victorville
Oro Grande
Apple Valley
Lucerne Valley
Lucerne Lake
Bullion Mts.
Soda Mts.
Avawatz Mts.
Pioneer Point
Trona
Argus
China Lake
Westend
TRONA PINNACLES
Searles L.
Owens L.
Coso Peak 8839
Panamint Ra.
Wildrose Peak 8453
Telescope Peak 11049
Death Valley Jct.
Shoshone
Tecopa Hot Springs
Tecopa
Pass
Valley
Wash

PROGRAM AREA

REST STOP

PUBLIC RESTROOMS . . . 600 ☐'

WOMENS 300
MENS 300

HEAT STORAGE/MECH. . . 900 ☐'

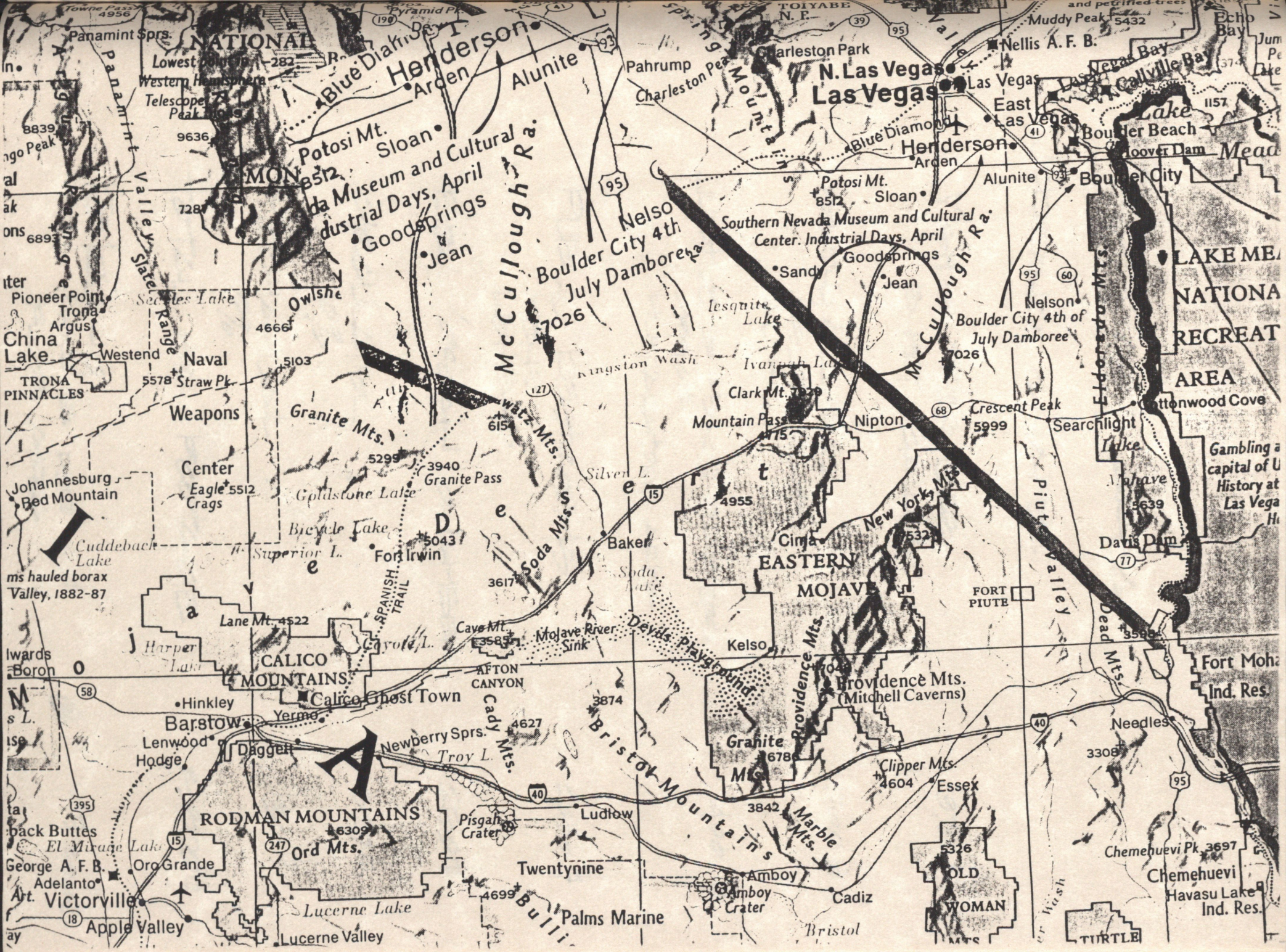
PICNIC AREAS . . . 1000 ☐'
4 @ 250

INFORMATION AREA . . . 200 ☐'

TOTAL SQ. FOOTAGE 960 ☐'

PARKING

25 cars @ 4500 ☐'
10 TRUCKS @ 7000 ☐'


Panamint Sprs.
Lowest Point
Western Hemisphere
Telescope Peak
Panamint Valley
Slate Range
Owlshe
Searles Lake
Pioneer Point
Trona
Argus
China Lake
Westend
Naval
Straw Pk.
TRONA PINNACLES
Weapons
Granite Mts.
Johannesburg
Red Mountain
Cuddeback Lake
ms hauled borax
Valley, 1882-87
Center
Eagle Crags
Goldstone Lake
Bicycle Lake
Superior L.
Fort Irwin
Granite Pass
Lane Mt. 4522
Harper Lake
Coyote L.
SPANISH TRAIL
Cave Mt.
Mojave River Sink
Devils Playground
Kelso
Iwards
Boron
CALICO MOUNTAINS
AFTON CANYON
Calico Ghost Town
Hinkley
Barstow
Yermo
Lenwood
Hodge
Daggett
Newberry Sprs.
Troy L.
Cady Mts.
Bristol Mountains
RODMAN MOUNTAINS
Pisgah Crater
Ludlow
Ord Mts.
Oro Grande
George A.F.B.
Adelanto
Victorville
Apple Valley
Lucerne Valley
Lucerne Lake
Twentynine
Palms Marine
Bulli
Amboy
Amboy Crater
Cadiz
Bristol
Providence Mts.
(Mitchell Caverns)
Granite Mts.
Clipper Mts.
Essex
Marble Mts.
OLD WOMAN MTS.
TURTLE
Needles
Fort Mohave Ind. Res.
Chemehuevi Pk. 3697
Chemehuevi
Havasu Lake
Ind. Res.
Davis Dam
Searchlight
Nipton
Mountain Pass
Clark Mt.
Crescent Peak
Cottonwood Cove
Boulder Beach
Boulder City
Lake Mead
LAKE MEAD NATIONAL RECREATION AREA
Gambling capital of U
History at Las Vega
Henderson
Arden
Alunite
Sloan
Potosi Mt.
Blue Diamond
Pahrump
Charleston Peak
Spring Mts.
N. Las Vegas
Las Vegas
East Las Vegas
Nellis A.F.B.
Muddy Peak
Echo Bay
Vegas Bay
Callville Bay
Overton Arm
Virgin Mts.
Valley of Fire
Muddy Mts.
New York Mts.
Piute Valley
Dead Mts.
Mohave
Lake
Jean
Goodsprings
Sandy
Nelson
Boulder City 4th of July Damboree
Southern Nevada Museum and Cultural Center. Industrial Days, April
McCullough Ra.
Kingston Wash
Ivanpah La.
Silver L.
Soda Mts.
Soda Lake
Baker
Cima
EASTERN MOJAVE
FORT PIUTE
Providence Mts.
Kingston Mts.
Iesquite Lake
Boulder City 4th July Damboree
Ra.
7026
8512
9636
7287
6893
4666
5103
5578
5299
5512
5043
3940
6153
4955
5532
5639
5999
4775
3617
3583
3874
4627
6786
6309
4699
5326
3308
1157
3842
4604
3697
Pyramid Pk.
Towne Pass
4956
TOIYABE N.F.
Charleston Park
Las Vegas
Arden
Alunite
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Potosi Mt.
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Lake Mead
Hoover Dam
Callville Bay
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Mohave Lake
5639
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Piute Valley
Dead Mts.
Kingston Mts.
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Kingston Wash
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Soda Lake
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Oro Grande
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Lucerne Lake
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back Buttes
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Barstow
Yermo
Lenwood
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Daggett
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Cave Mt.
Mojave River Sink
Devils Playground
Kelso
Iwards
Boron
Johannesburg
Red Mountain
Cuddeback Lake
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Goldstone Lake
Bicycle Lake
Superior L.
Fort Irwin
Granite Pass
Weapons
Granite Mts.
TRONA PINNACLES
China Lake
Westend
Naval
Straw Pk.
Pioneer Point
Trona
Argus
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Owlshe
Panamint Valley
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Iesquite Lake
Kingston Wash
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Panamint Sprs.
Lowest Point
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Telescope Peak
Pyramid Pk.
Towne Pass
4956

PROGRAM AREA

WEDDING CHAPEL

VISITOR SERVICES . . . 372 ☐
- ENTRY / GALLERY

SEATING & ALTER . . . . 1500 ☐
- ABLE / PEWS
- ALTER

JUSTICE OF PEACE & QUARTERS . . 400 ☐
- OFFICE
- PREPARATORY AREA

PUBLIC RESTROOMS . . 250 ☐
- MENS
- WOMENS

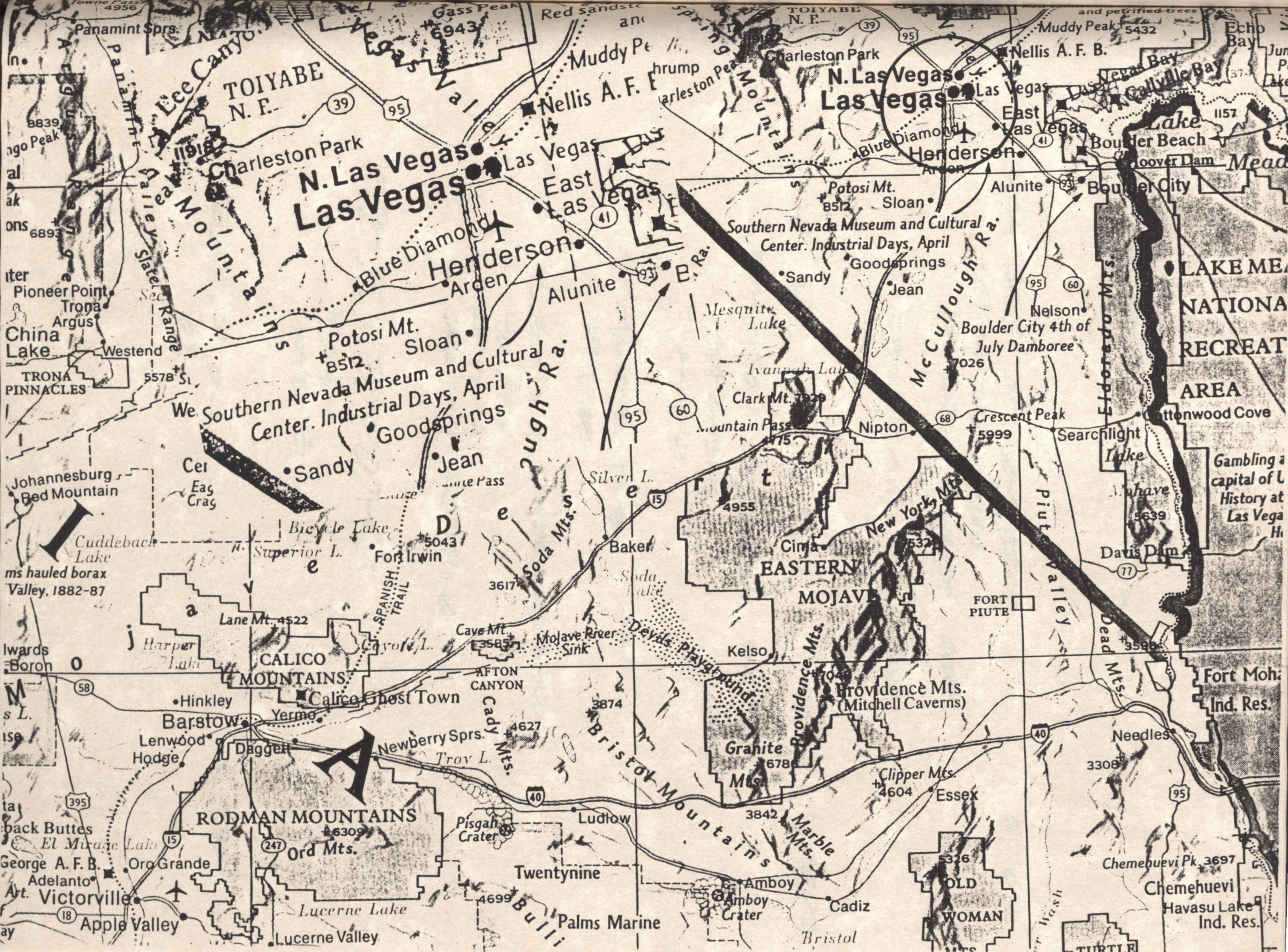
BELL / ORGAN CHAMBER . 250 ☐

CIRCULATION . . . . 327 ☐
- 10%

MECHANICAL . . . . 130 ☐
- 5%

TOTAL SQ. FOOTAGE 2800 ☐

PARKING
- 1 SPACE PER 45 ☐ @ 95 stalls
- FLOR AREA


Panamint Sprs.
Lee Canyon
TOIYABE N. F.
Gass Peak 6943
Red Sandstone
Muddy Peak
Spring Mountains
Charleston Park
Nellis A. F. B.
N. Las Vegas
Las Vegas
East Las Vegas
Blue Diamond
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New York Mts.
EASTERN MOJAVE
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Piute Valley
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Davis Dam
Mojave
Lane Mt. 4522
Harper Lake
Coyote L.
Cave Mt. 3583
Mojave River Sink
Devils Playground
Kelso
CALICO MOUNTAINS
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Providence Mts.
Providence Mts. (Mitchell Caverns)
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George A. F. B.
Oro Grande
El Mirage Lake
Buttes
Boron
Edwards
Iter
Ons
Ak
Al
Ango Peak
Muddy Pe
Arrump
Charleston Pea
Red Sandstone and petrified trees
Echo Bay
Overton Beach
Callville Bay
Las Vegas Bay
Lake Mead
Mead
Alunite
Sandy
Jean
Nipton
Searchlight
Davis Dam
Needles
Essex
Ludlow
Amboy
Cadiz
Twentynine
Palms Marine
Lucerne Valley
Apple Valley
Victorville
Barstow
Hinkley
Calico Ghost Town
Yermo
Daggett
Newberry Sprs.
Kelso
Providence Mts.
Providence Mts. (Mitchell Caverns)
Fort Mohave Ind. Res.
Chemehuevi
Havasu Lake Ind. Res.
Ms hauled borax Valley, 1882-87

PROGRAM AREAS

CHAMBER OF COMMERCE . . 2750#
VISITOR SERVICES
ENTRANCE/LOBBY 2000
RECEPTION 750

MUSEUM . . . . . 13900#
EXHIBITION GALLERIES 8000
PERMANENT
CHANGING

ADMINISTRATIVE 900
OFFICES

COLLECTIONS STORAGE 5000
HOLDING
SHIPPING
CRATING/UNCRATING

PUBLIC RESTROOMS . . . 500#
MENS
WOMENS

CIRCULATION . . . . 1700#
10%

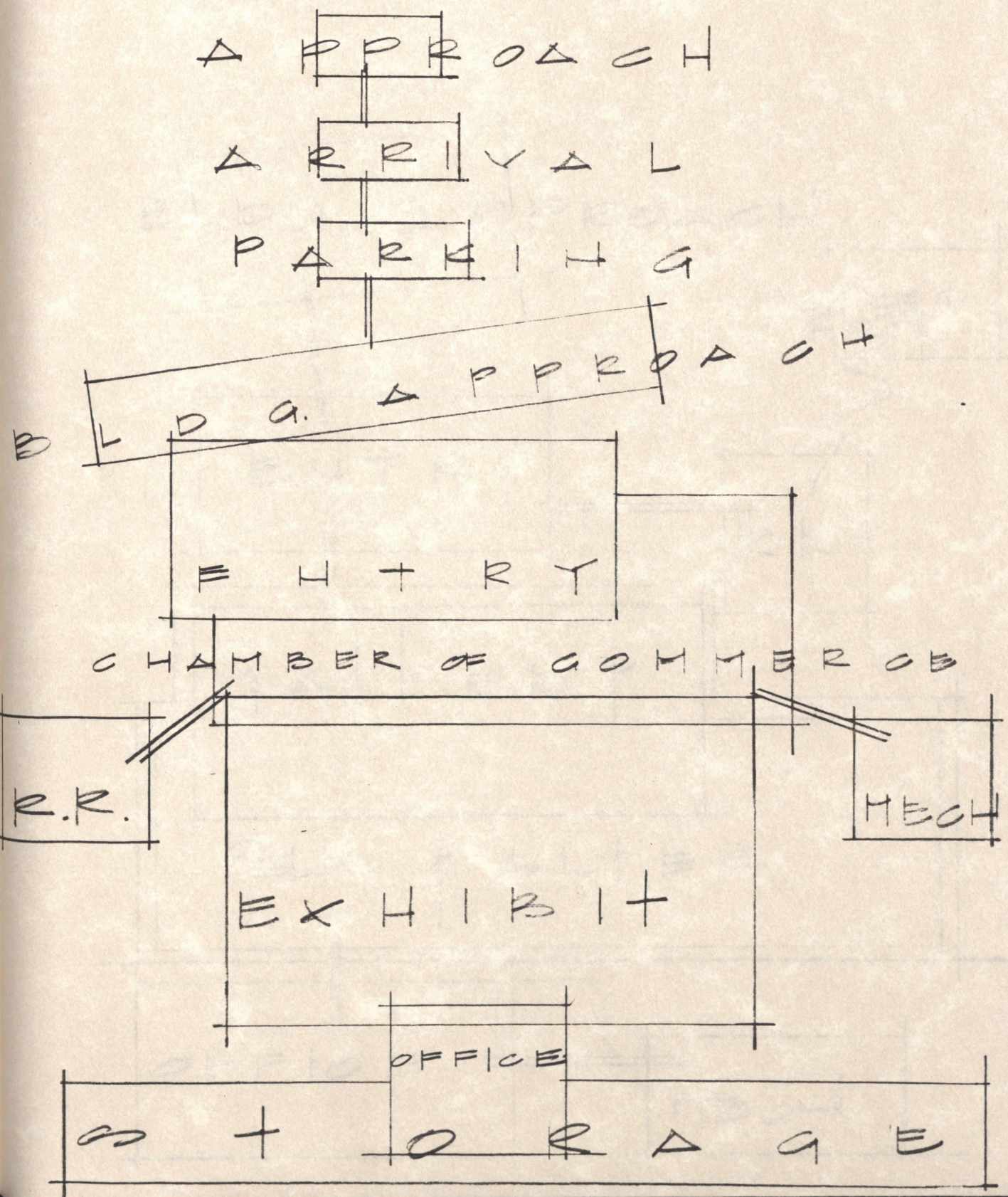
MECHANICAL . . . 3 00#
5%

TOTAL SQ. FOOTAGE . . 19650#

PARKING
1 SPACE PER 250# . . @ 78
OF FLOOR AREA

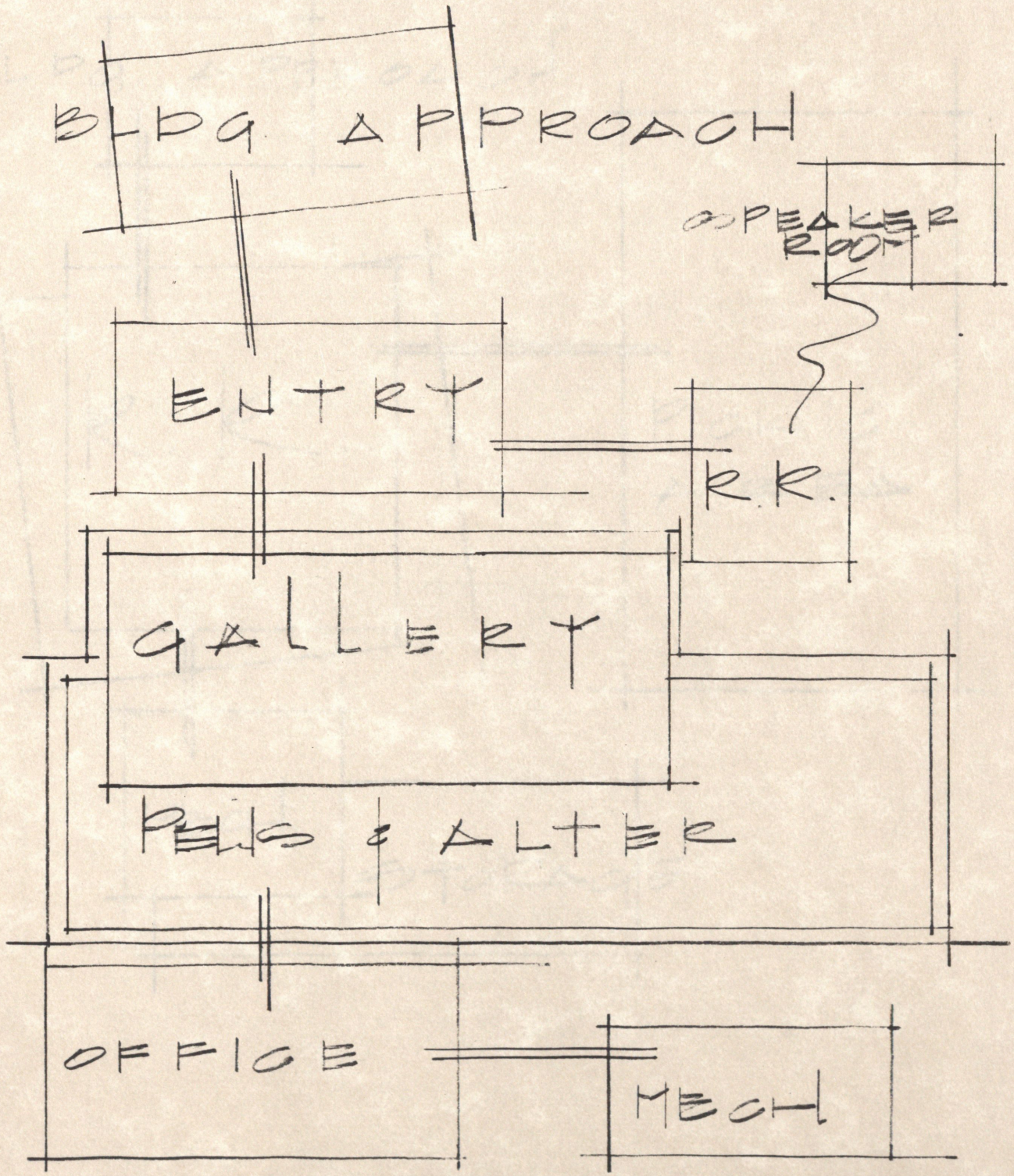
SPATIAL RELATIONS

CHAMBER OF COMMERCE
MUSEUM



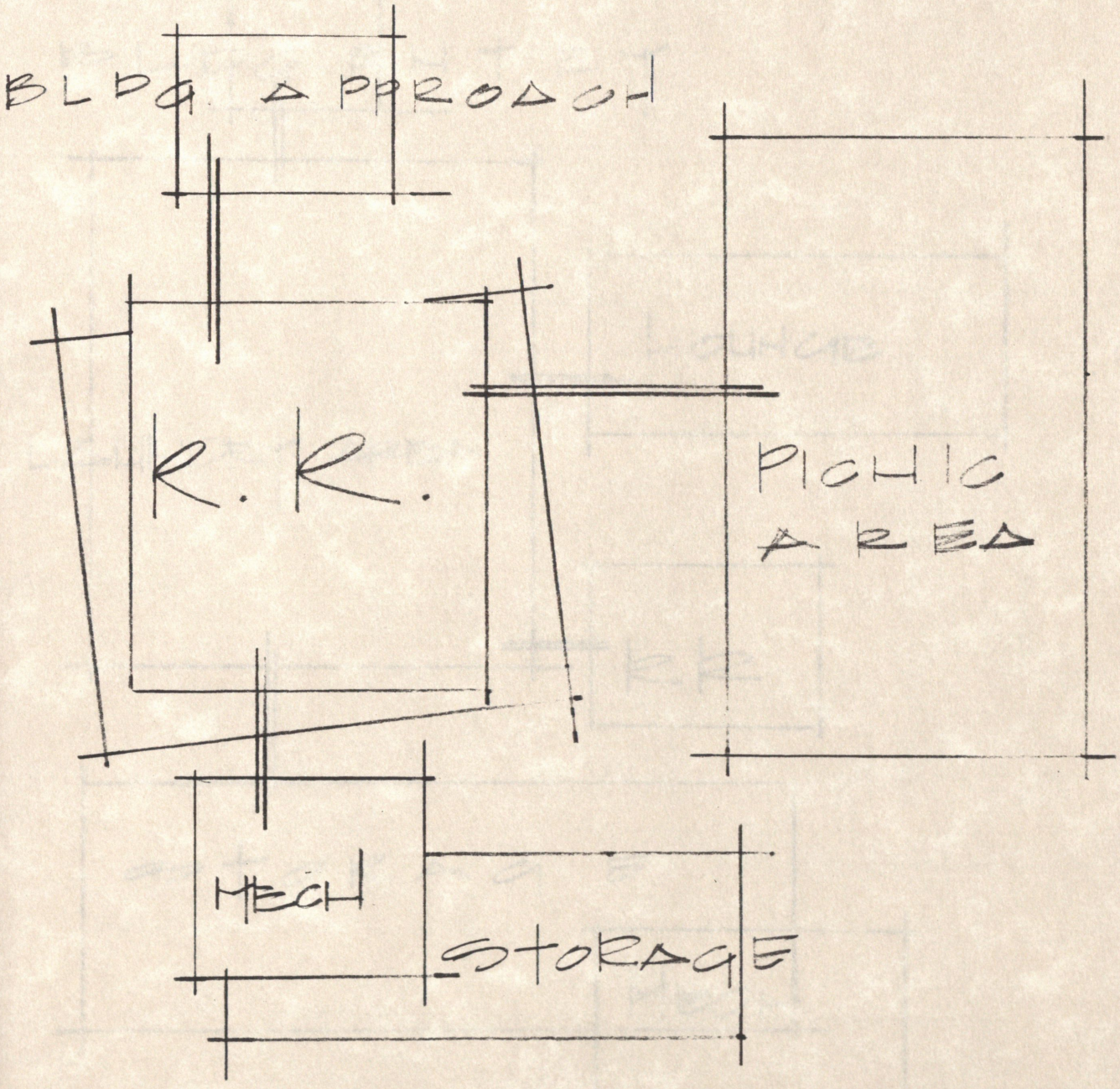
SPATIAL RELATIONS

WEDDING CHAPEL



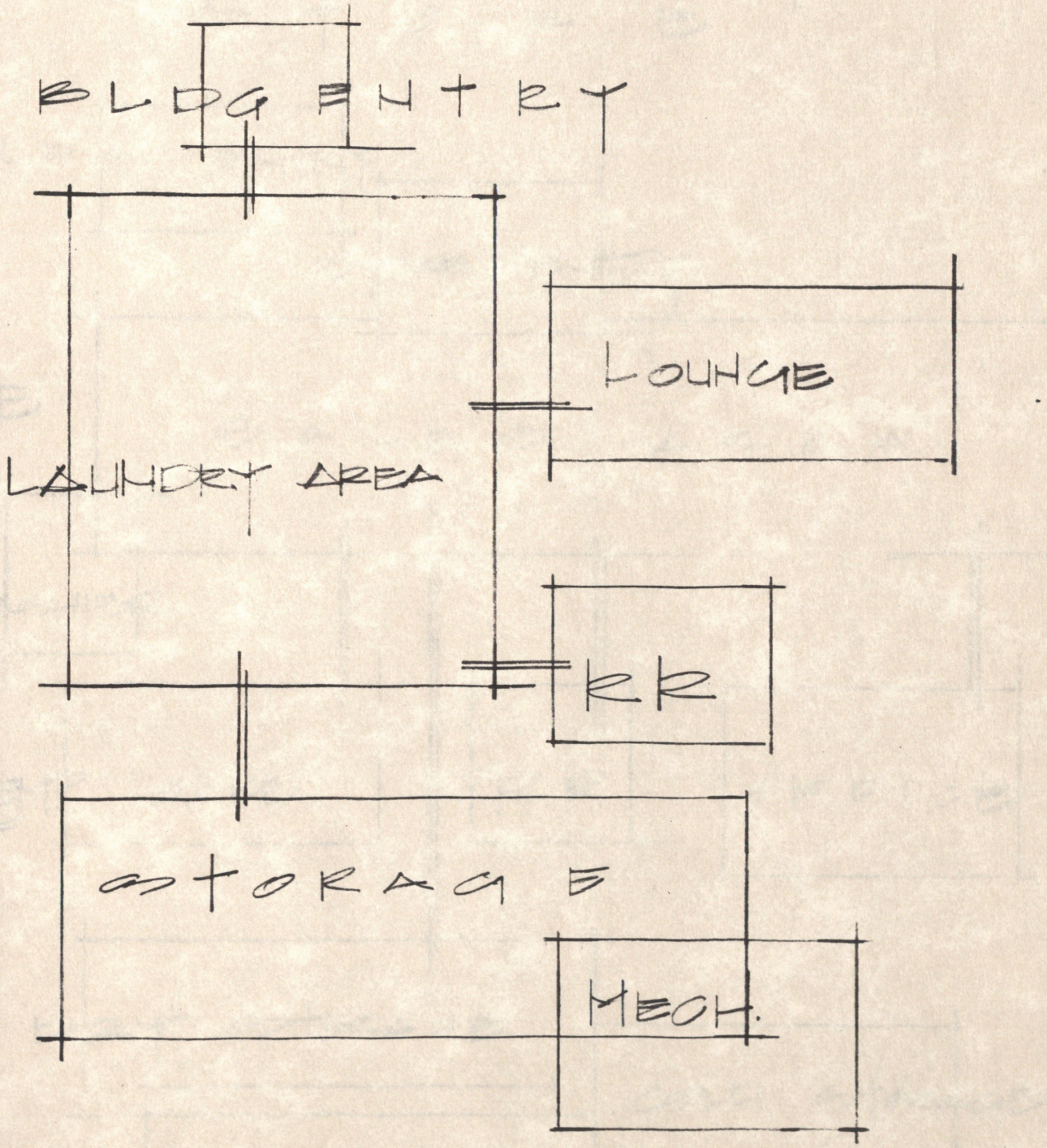
SPATIAL RELATIONS

REST STOP



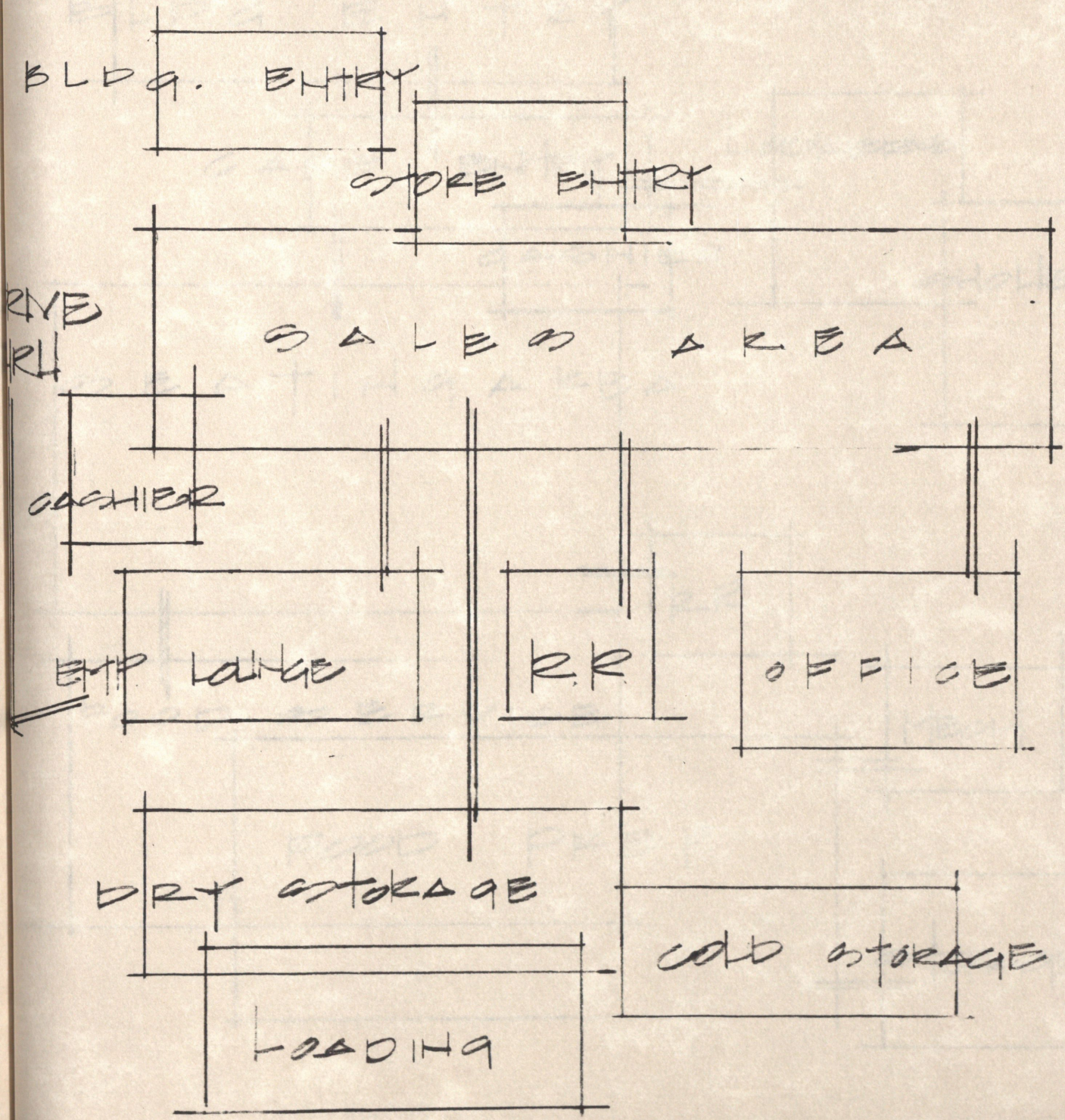
SPATIAL RELATIONSHIP

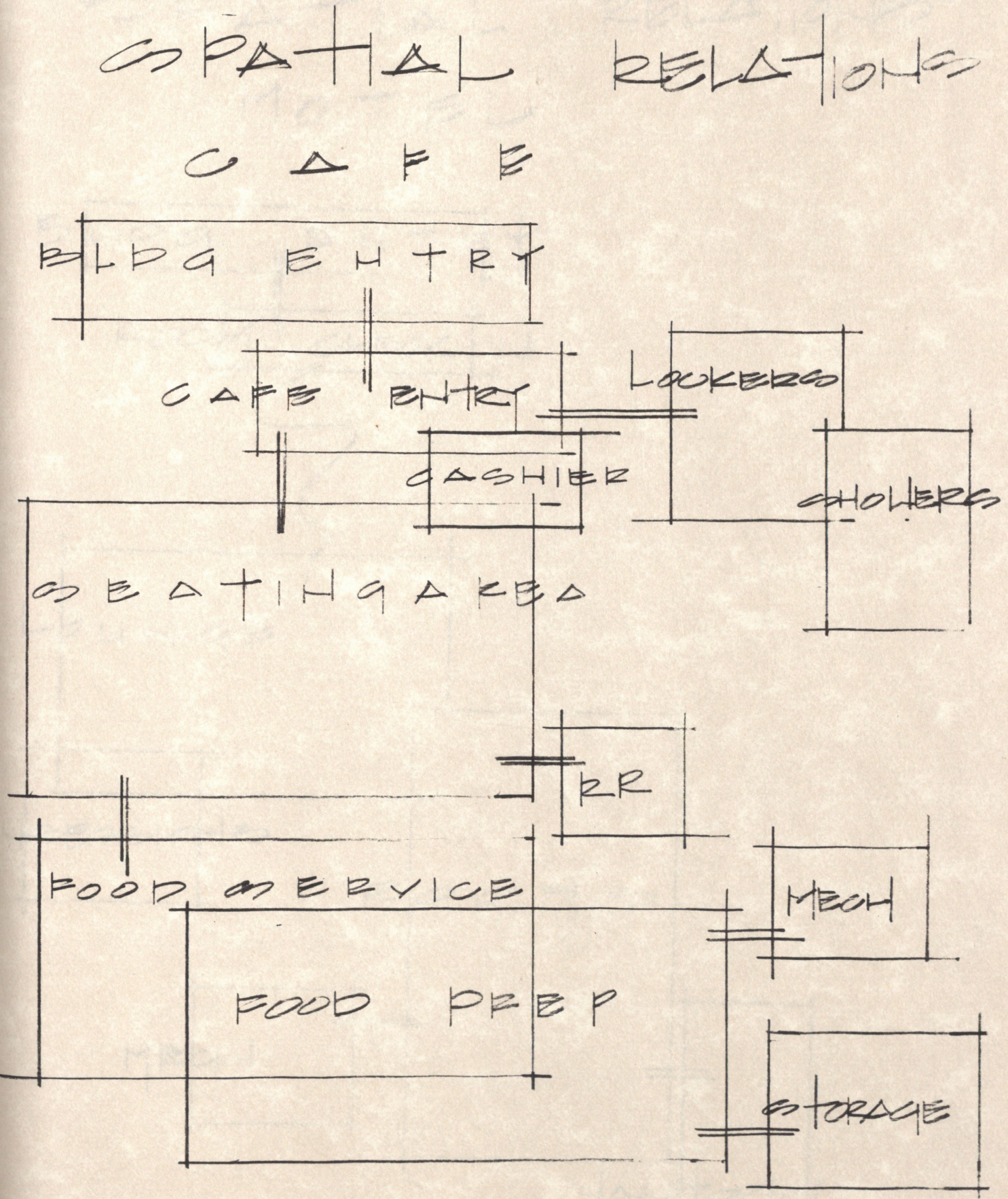
LAUNDROMAT



SPATIAL RELATIONS

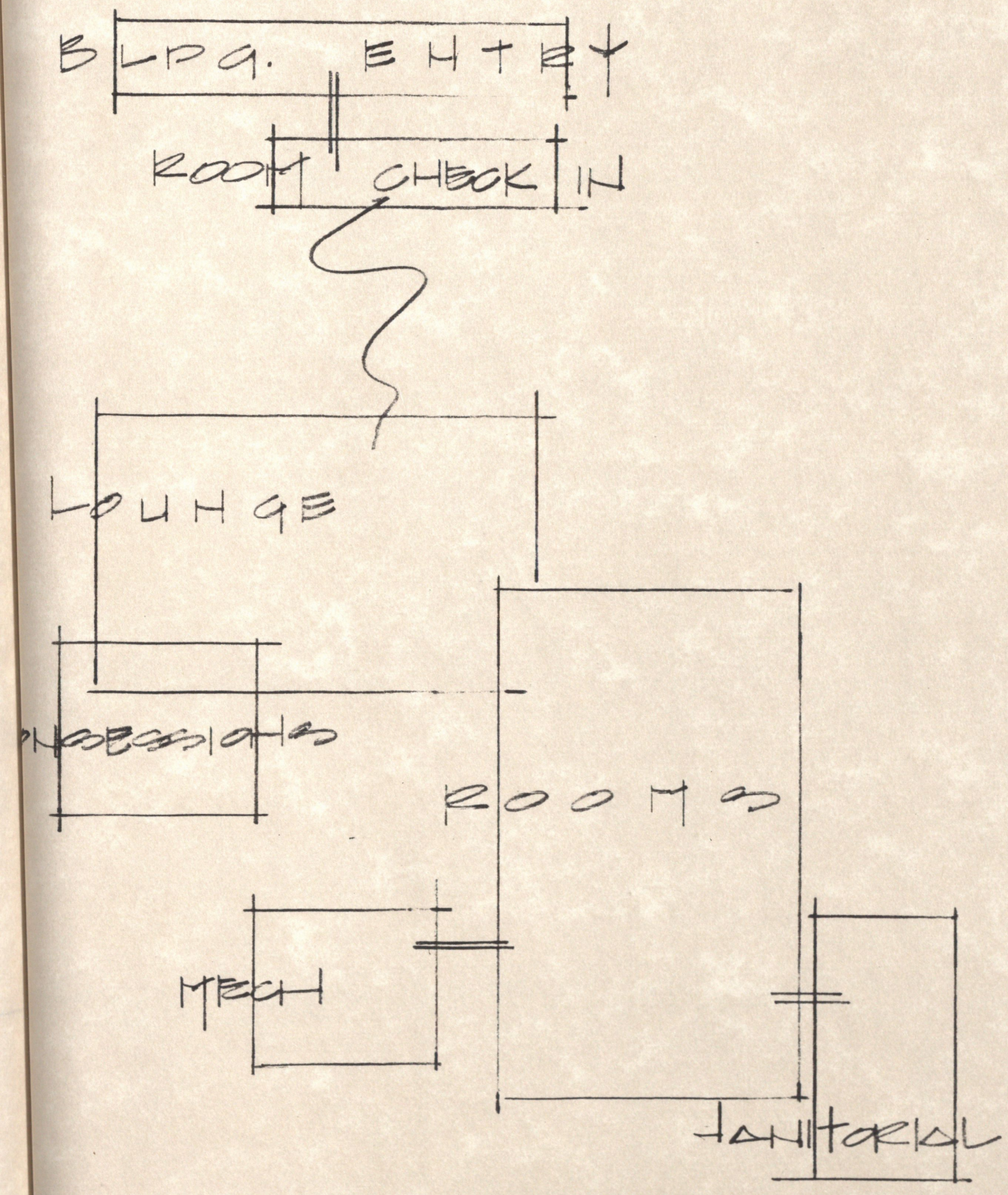
CONVENIENT STORE




SPATIAL RELATIONS
CAFE
BLDG ENTRY
CAFE ENTRY
LOCKERS
CASHIER
CHOLERS
SEATING AREA
RR
FOOD SERVICE
MECH
FOOD PREP
STORAGE

SPATIAL RELATIONS

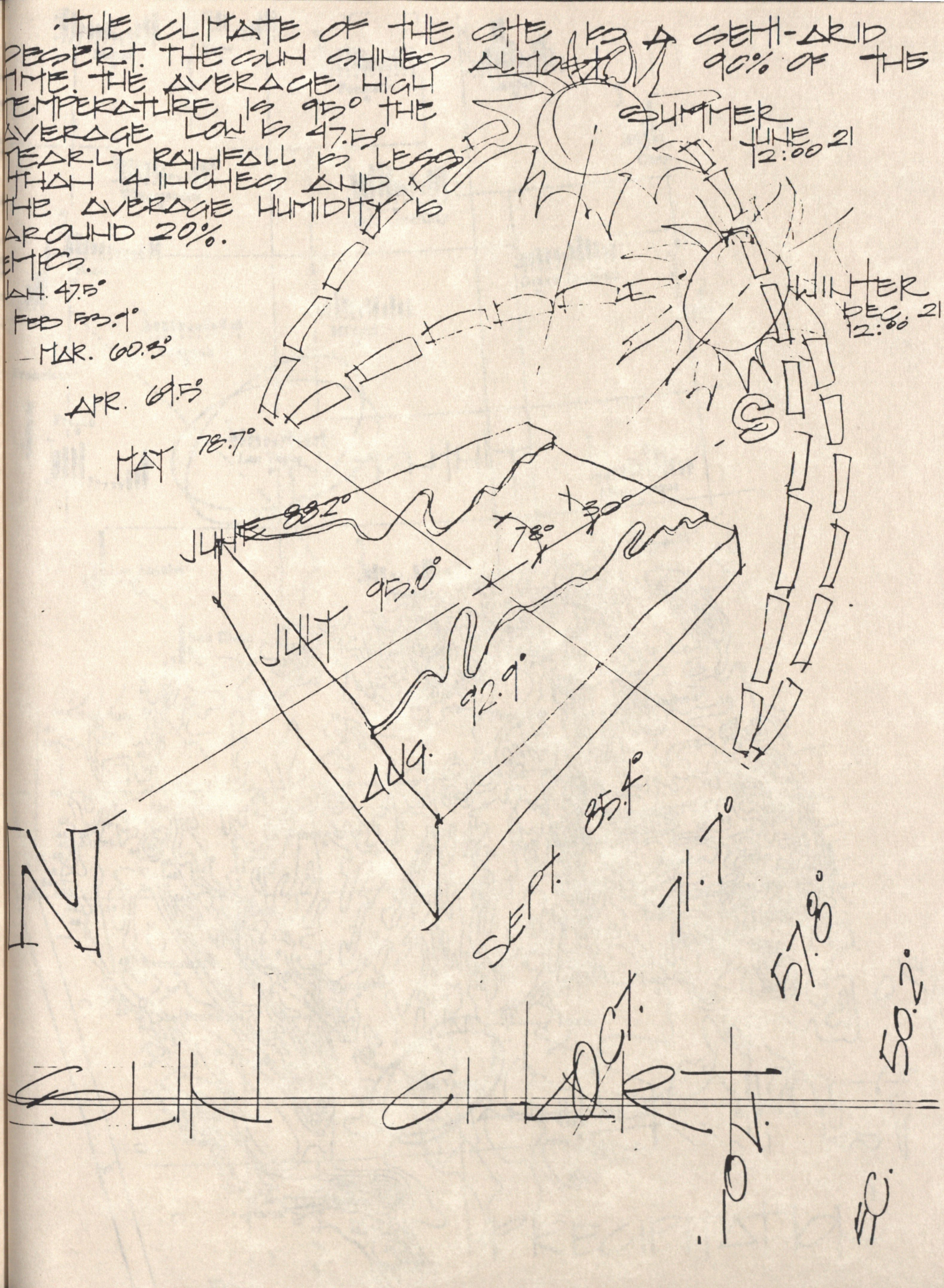
MOTEL

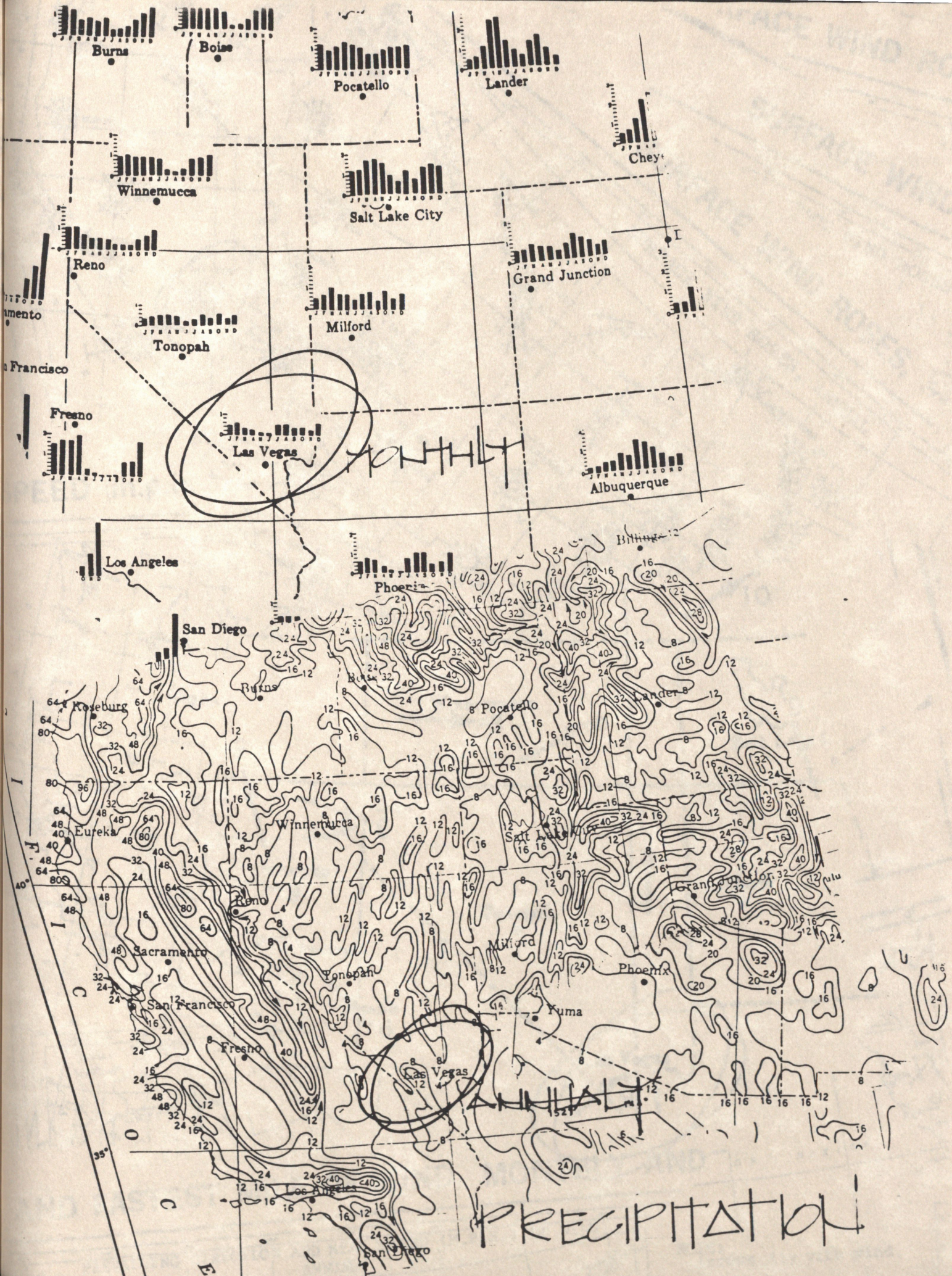


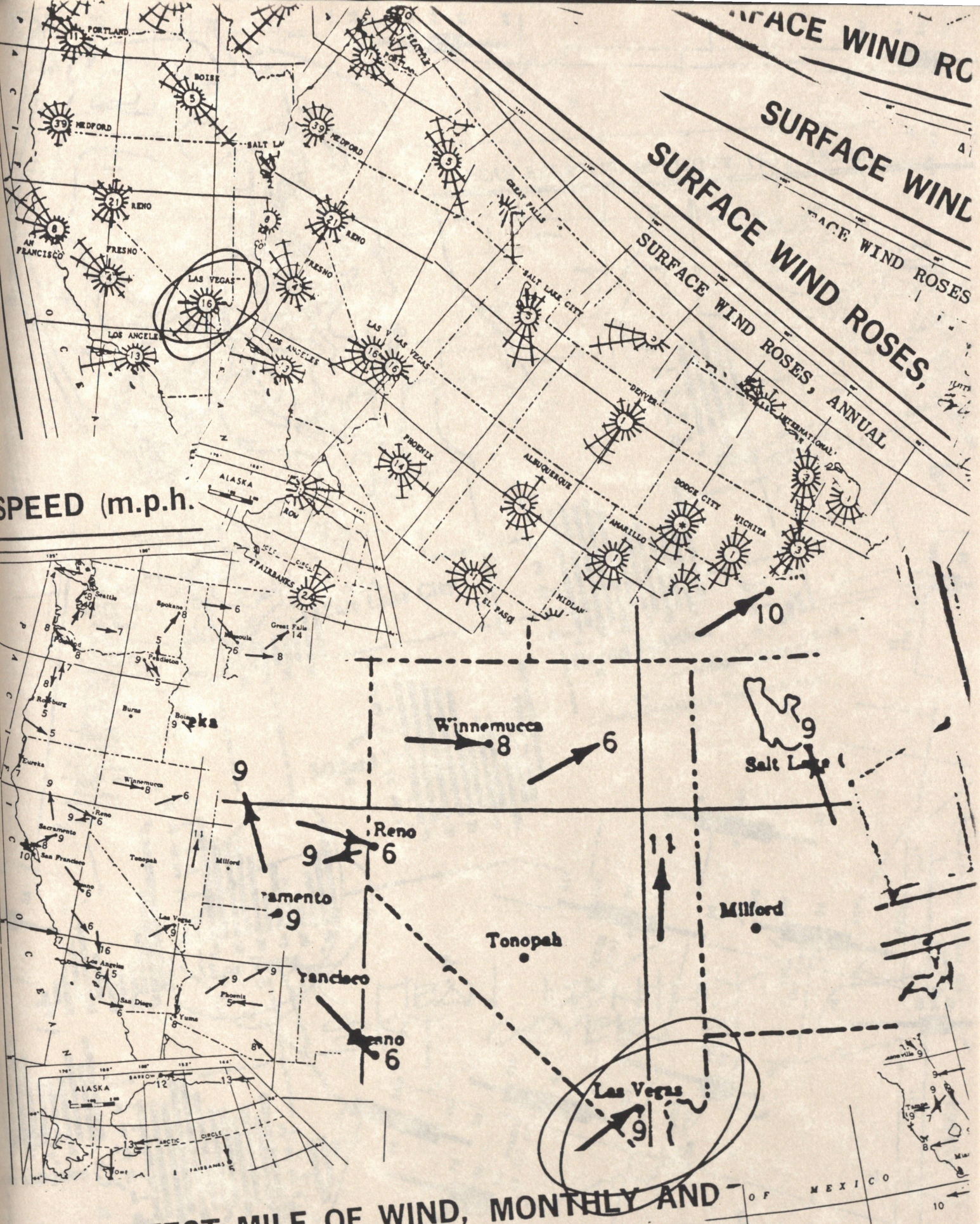
SITE ANALYSIS

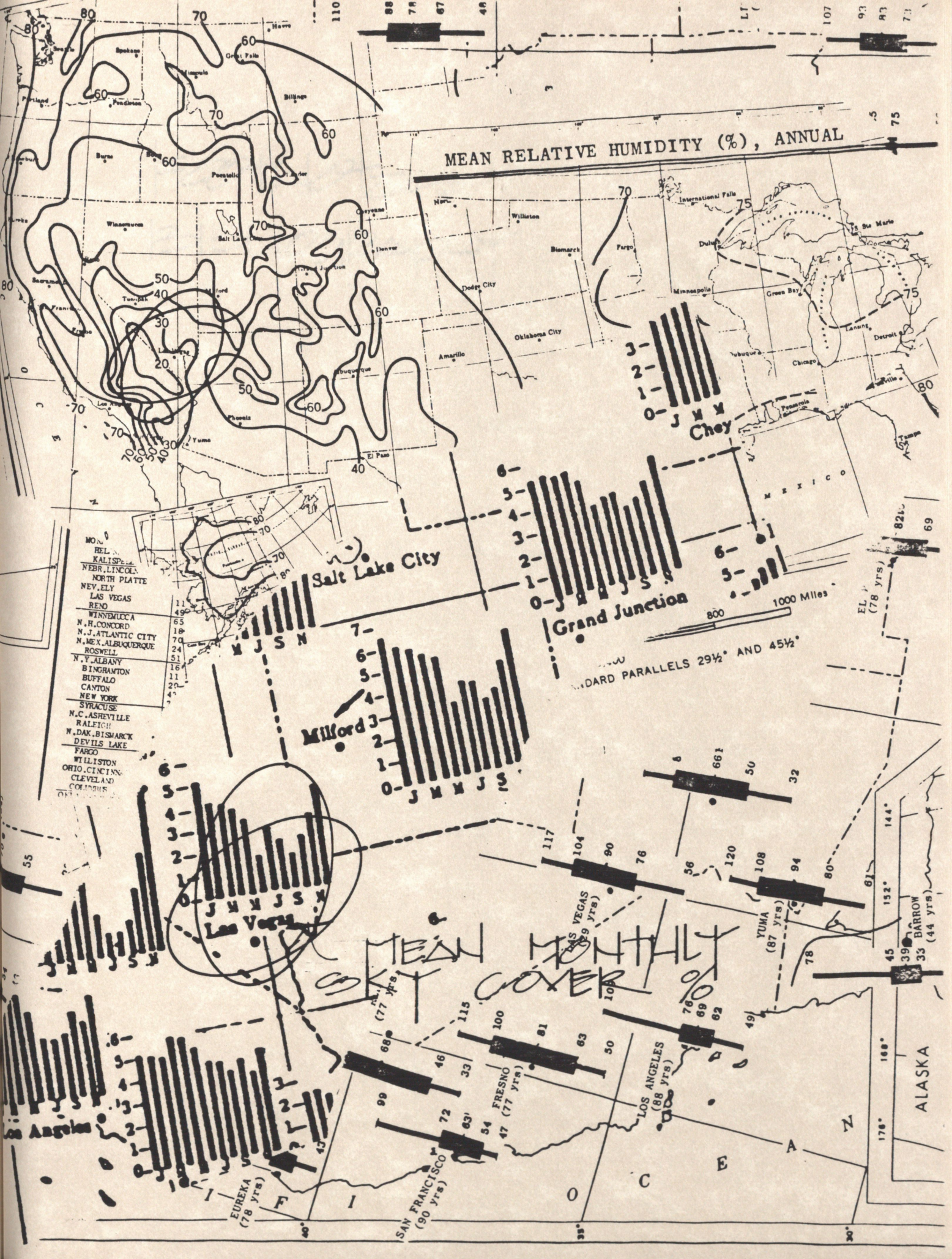
THE CLIMATE OF THE CITY IS A SEMI-ARID DESERT. THE SUN SHINES ALMOST 90% OF THE TIME. THE AVERAGE HIGH TEMPERATURE IS 95° THE AVERAGE LOW IS 47.5° THE YEARLY RAINFALL IS LESS THAN 4 INCHES AND THE AVERAGE HUMIDITY IS AROUND 20%.

EMPS.
AN. 47.5°
FEB 53.9°
MAR. 60.5°
APR. 69.5°
MAY 78.7°




Burns
Boise
Pocatello
Lander
Winnemucca
Salt Lake City
Reno
Grand Junction
Milford
Tonopah
Fresno
Las Vegas
Albuquerque
Los Angeles
San Diego
Roseburg
Eureka
Sacramento
San Francisco
Phoenix
Yuma
ANNUAL
PRECIPITATION


SURFACE WIND ROSES, ANNUAL
SURFACE WIND ROSES
SURFACE WIND ROSES
SPEED (m.p.h.
AND FASTEST MILE OF WIND, MONTHLY AND
PREVAILLING DIRECTION AND MEAN SPEED (M.P.H.) OF WIND
ANNUAL
NOTE:
Arrows fly with wind.
PORTLAND
BOISE
MEDFORD
SALT LAKE CITY
RENO
FRESNO
SAN FRANCISCO
LAS VEGAS
LOS ANGELES
GREAT FALLS
DENVER
ALBUQUERQUE
PHOENIX
DODGE CITY
WICHITA
AMARILLO
EL PASO
MIDLAND
ALASKA
FAIRBANKS
Winnemucca
Reno
Tonopah
Milford
Las Vegas
Salt Lake
Sacramento
San Francisco
Los Angeles
San Diego
Yuma
Phoenix
Spokane
Great Falls
Pocatello
Burns
Eureka
Seattle
Portland
Boise
Medford
Fresno
Las Vegas
Los Angeles
Denver
Albuquerque
Phoenix
Amarillo
Dodge City
Wichita
El Paso
Midland
Fairbanks
Barrow
Arctic Circle
GULF OF MEXICO


MEAN RELATIVE HUMIDITY (%), ANNUAL
MEAN MONTHLY SKY COVER %
Salt Lake City
Grand Junction
Milford
Las Vegas
Los Angeles
Chey
EUREKA (78 yrs)
SAN FRANCISCO (90 yrs)
FRESNO (77 yrs)
LOS ANGELES (88 yrs)
YUMA (87 yrs)
BARROW (44 yrs)
ALASKA
PACIFIC OCEAN
1000 Miles
800
STANDARD PARALLELS 29½° AND 45½°
NEBR. LINCOLN
NORTH PLATTE
NEV. ELY
LAS VEGAS
RENO
WINNEMUCCA
N.H. CONCORD
N.J. ATLANTIC CITY
N.MEX. ALBUQUERQUE
ROSWELL
N.Y. ALBANY
BINGHAMTON
BUFFALO
CANTON
NEW YORK
SYRACUSE
N.C. ASHEVILLE
RALEIGH
N.DAK. BISMARCK
DEVILS LAKE
FARGO
WILLISTON
OHIO. CINCINN
CLEVELAND

FOOTNOTES

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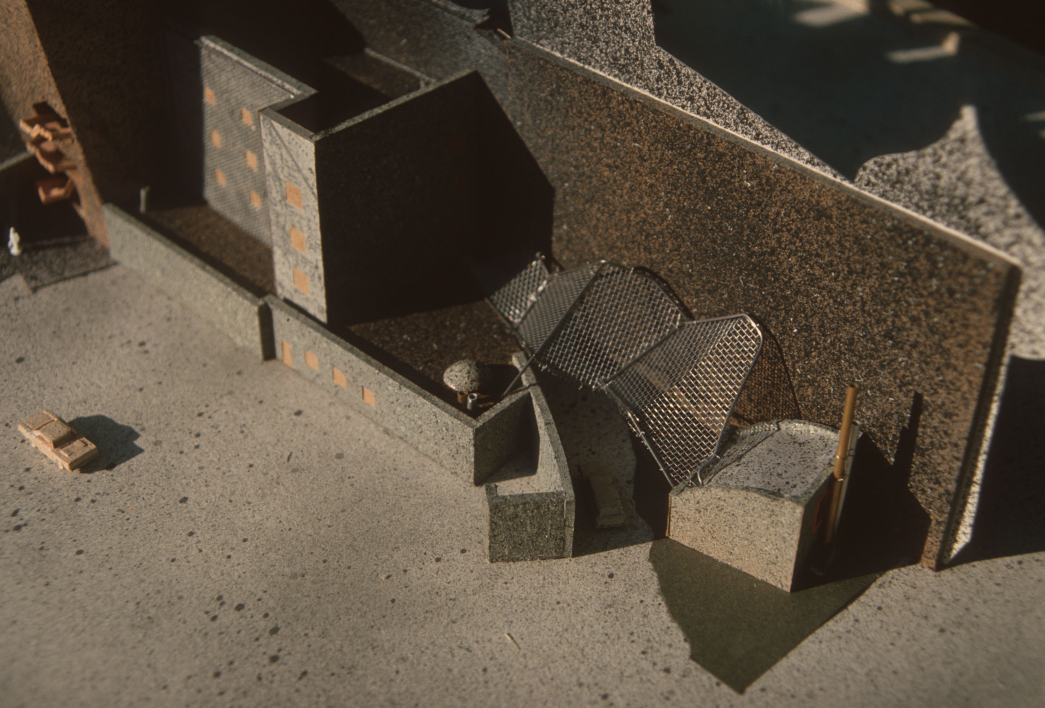
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HOTEL
BLUE
SKIES
BINGO
ENTRANCE
BLINKING


DUNES
BLUE SKIES
BINGO
BLINKING
PUP
DINE & DANCE
NEON AND NOW
ENTRANCE
VEGETA
BEVERLY HILLS







GLASS

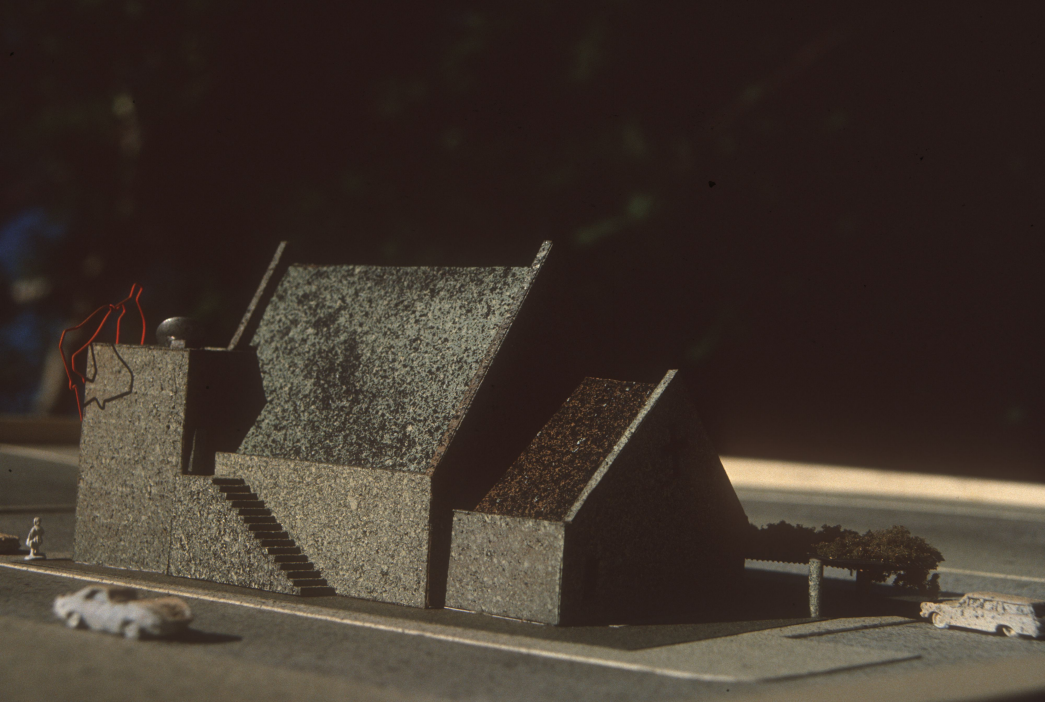

BLUE SKIES
BLINKING
PUF
DINE & DANCE

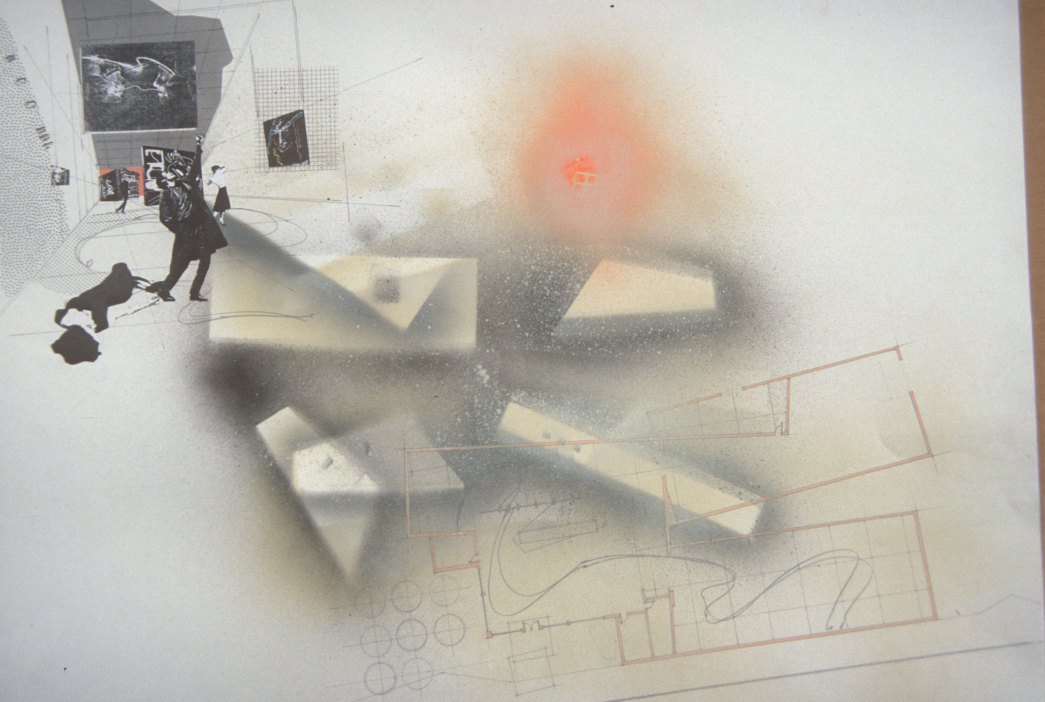





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NEON
GLASS


Stageline
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CHINESE & AMERICAN CUISINE


NEON

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