A STRUCTURAL LANGUAGE

by

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(ABSTRACT)

Each and every material has certain inherent characteristics. When successfully evaluated for these characteristics a material's true spirit becomes clear. Only when a material is completely understood can it be used properly. It is through the sensitive use of materials that architecture becomes rich.

When considering materials, several issues come to bear. What "work" do they do? How do the materials interact most harmoniously? How do the materials touch? Do they need an intermediate material? How do they begin? End? To what level are their details taken? A whole world of consideration becomes apparent. The answers to these questions become an operational language through which design can occur. This language when applied to the built environment then becomes a structural language.

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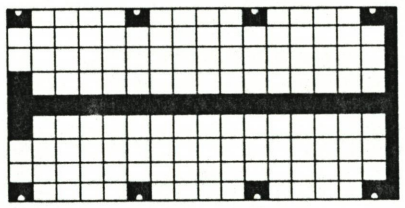
GLASS BLOCK VAULT
1-4



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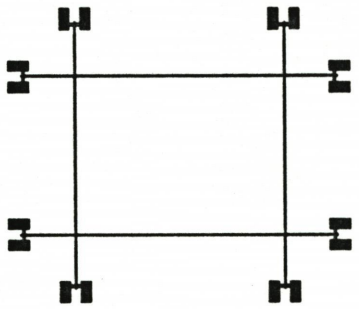

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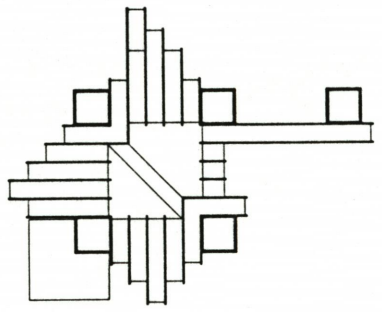

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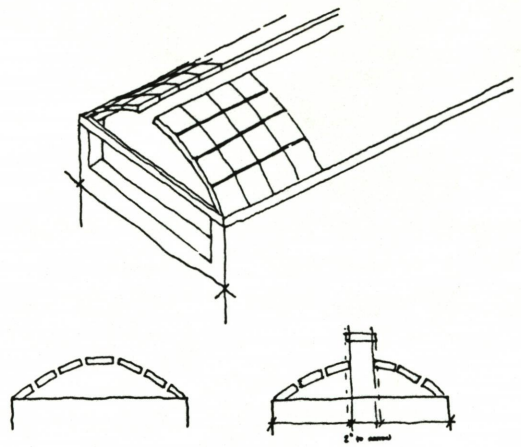
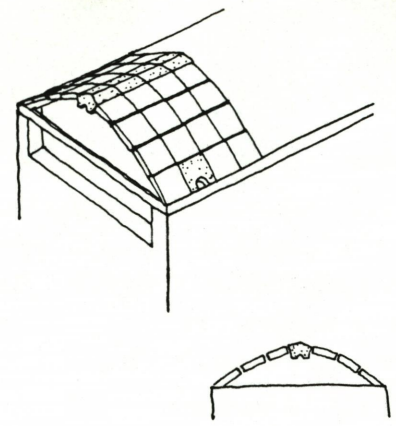
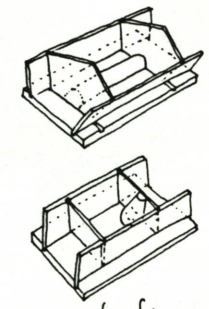
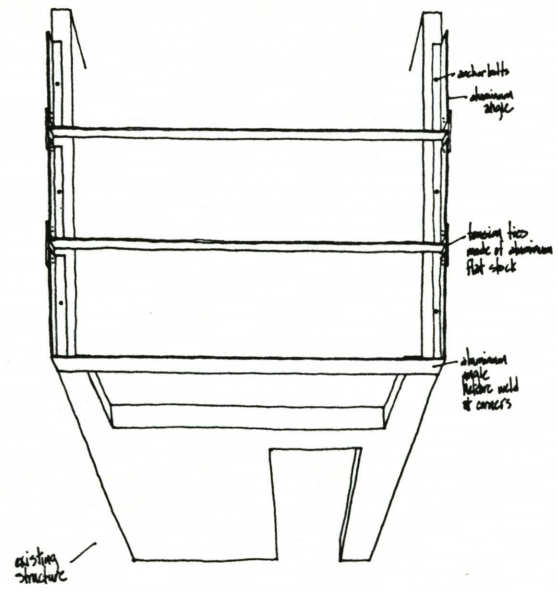
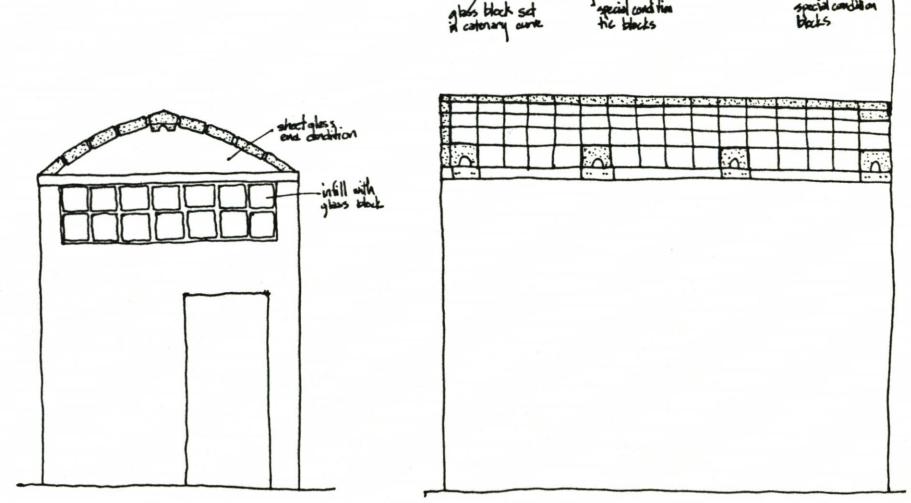




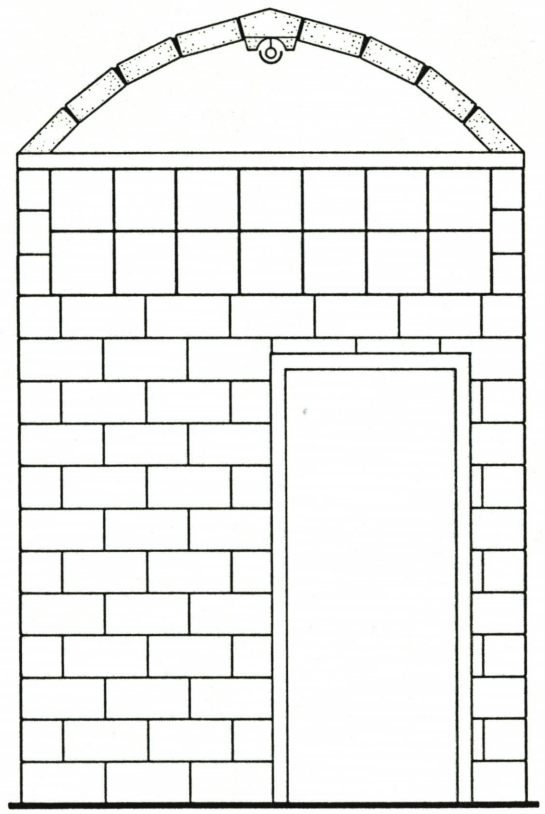


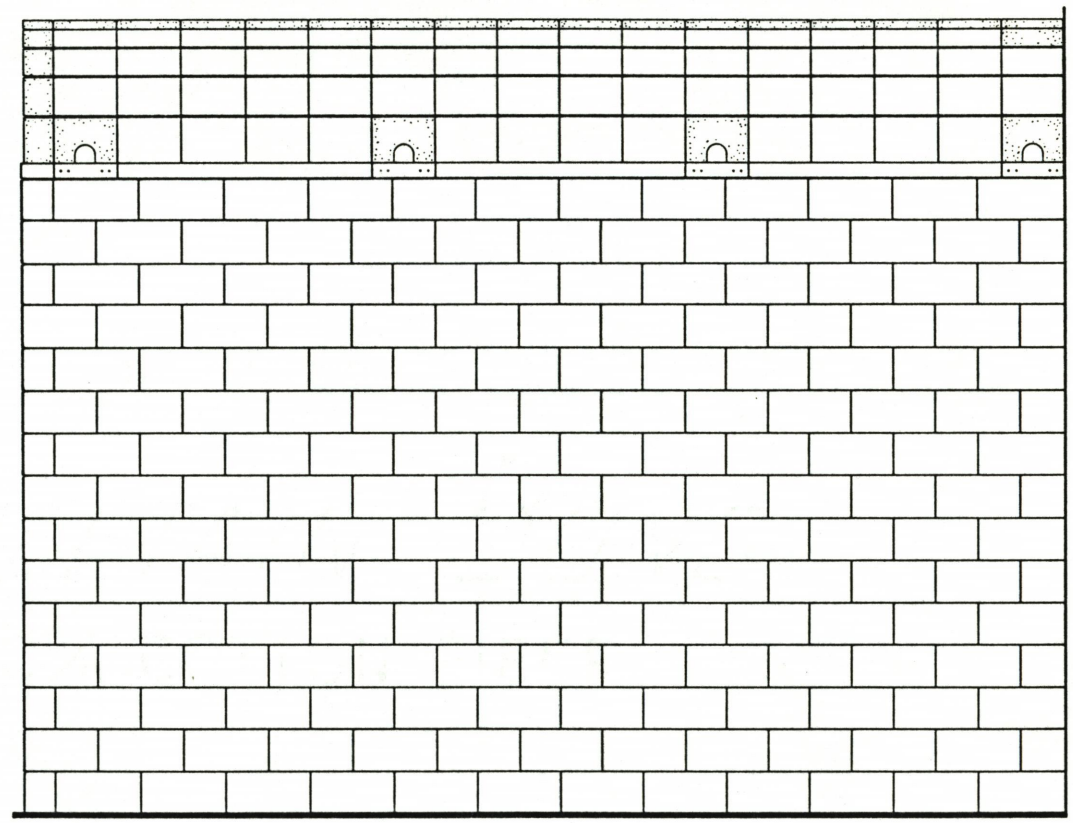




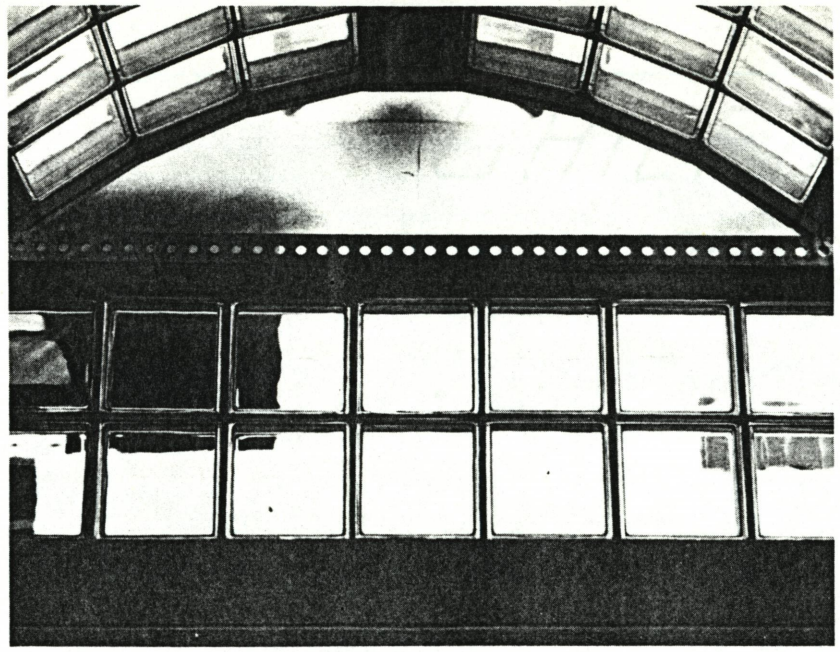
SKETCHES FOR A GLASS BLOCK VAULT

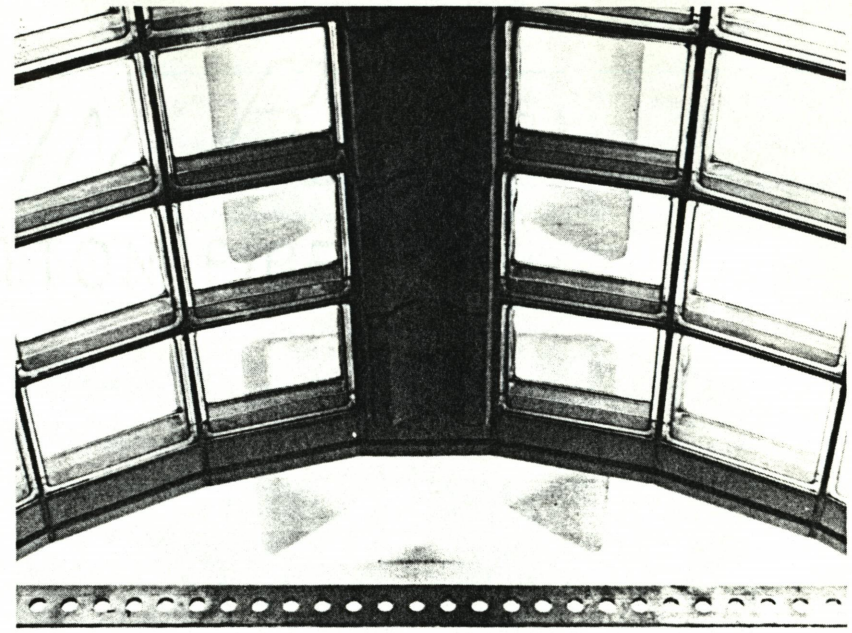
GLASS BLOCK
MORTAR
ALUMINUM ANGLE
STEEL BOLTS
PLATE GLASS
WHITE FEDERAL CEMENT
SILICA SAND

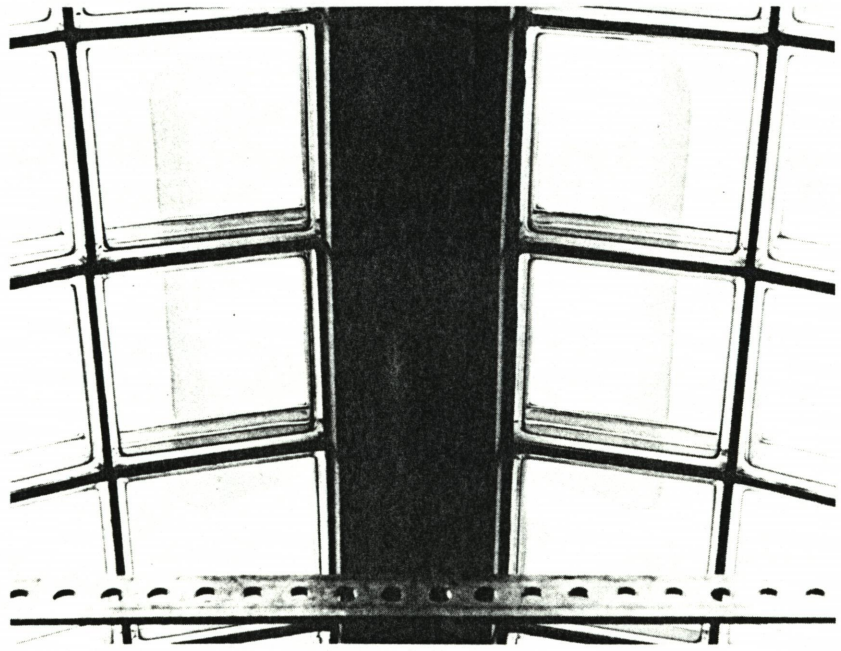


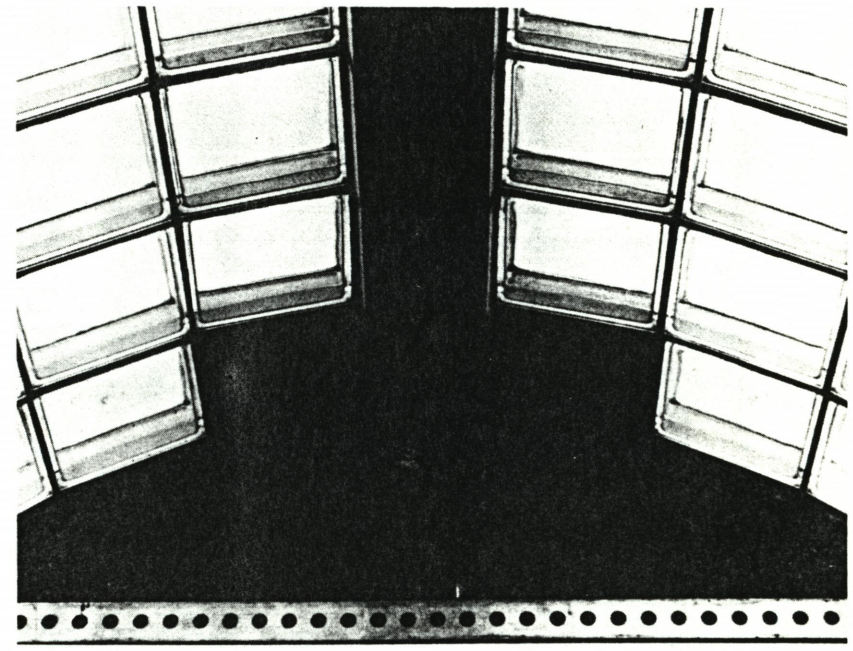


MEASURED DRAWING OF
EXISTING STRUCTURE
WITH ADDITION OF
GLASS BLOCK VAULT
AND GLASS BLOCK
INFILL





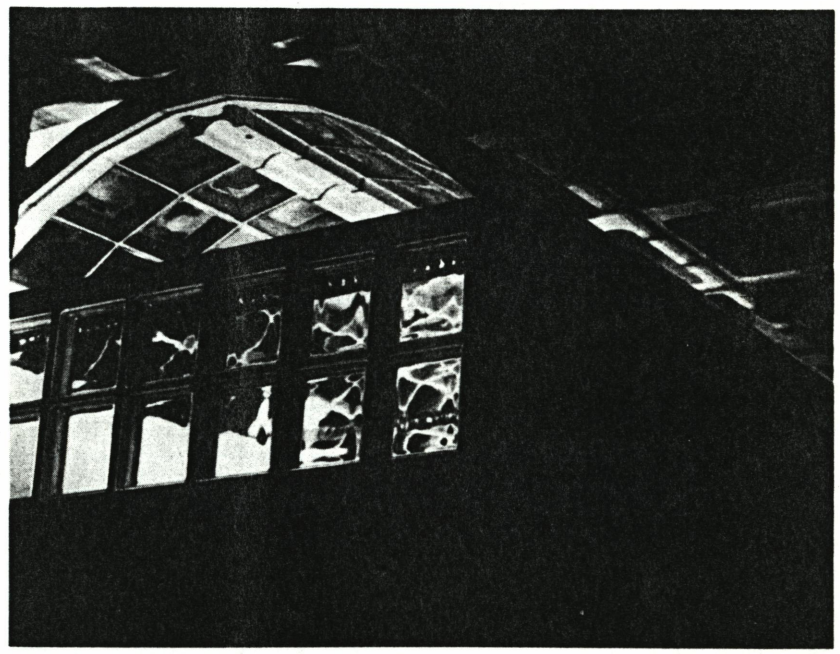


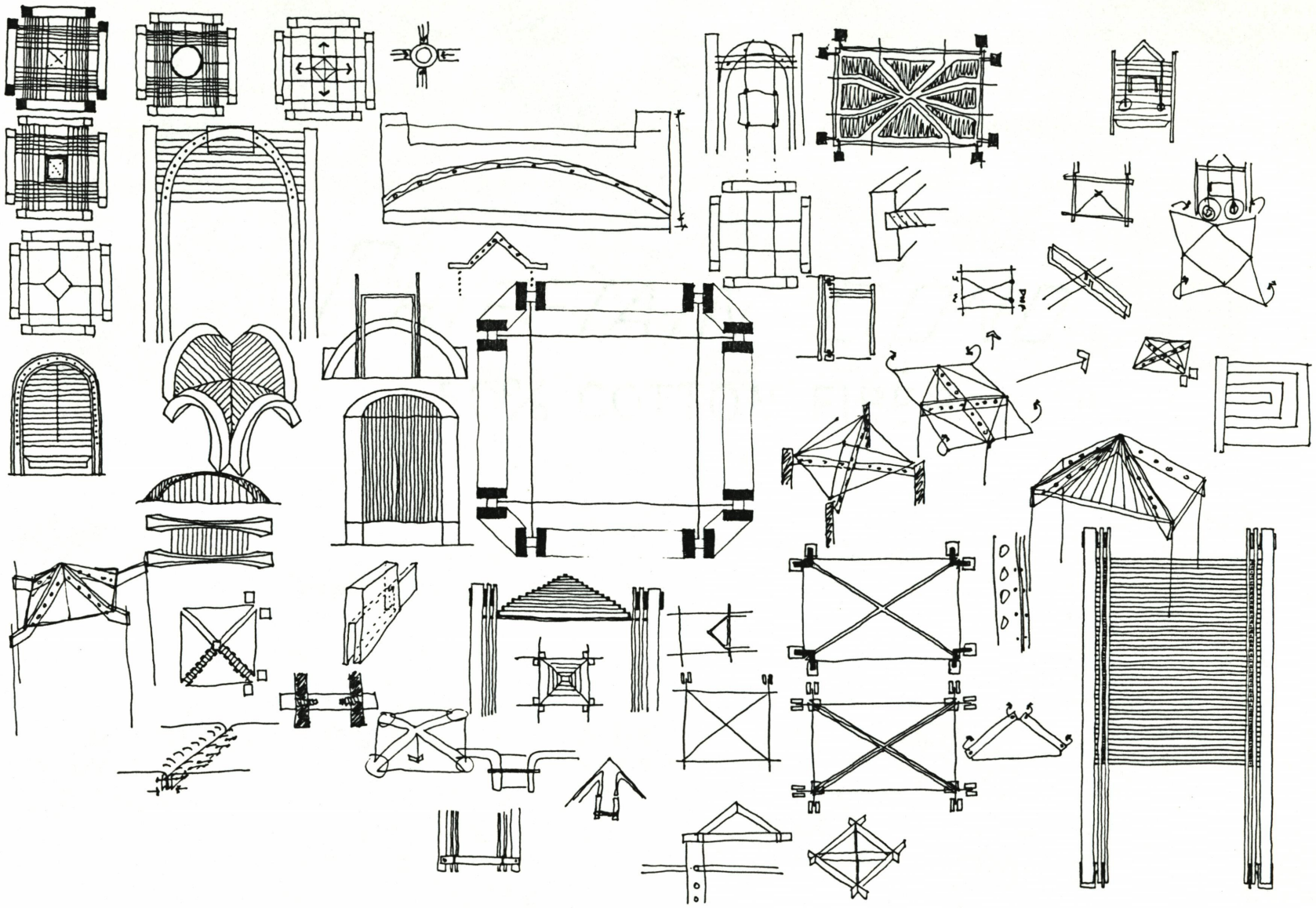


PHOTOS OF FINISHED VAULT SHOWING END CONDITION, KEYSTONE, TENSION TIES, AND SPECIAL CONDITION BLOCKS

GLASS BLOCK VAULT

A SPANNING STRUCTURE
COMPRISED OF GLASS
BLOCKS SET IN A
CATENARY CURVE
ALUMINUM FLAT STOCK
ACT AS TENSION TIES
SPECIAL CONDITION
BLOCKS CAST OF WHITE
FEDERAL CEMENT AND
VERY FINE SILICA SAND
ALUMINUM ANGLE BOLTED
TO EXISTING STRUCTURE
RECEIVES GLASS BLOCKS
CAST KEYSTONES SET IN
CATENARY CURVE ACT
AS A STRUCTURAL
SUPPORT AND REFLECTOR
FOR A FLUORESCENT
LIGHT AND FIXTURE
GLASS BLOCK INFILL AND
SHEET GLASS COMPLETE
END CONDITION

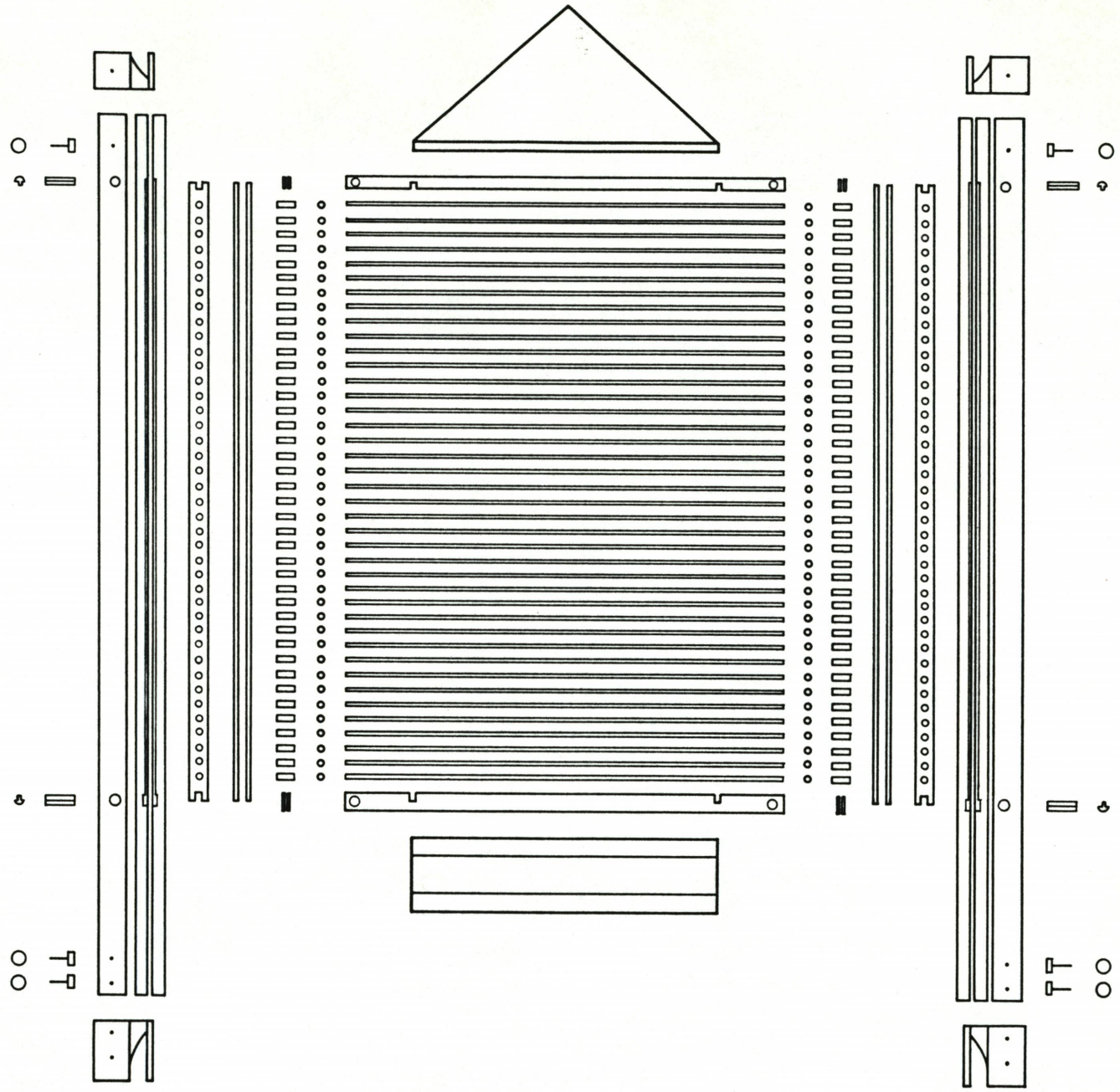




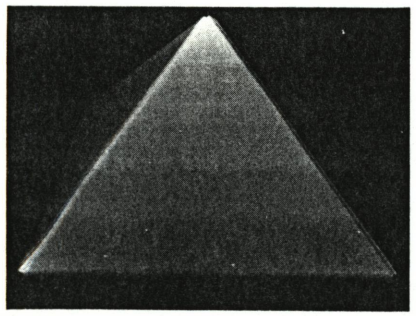
SKETCHES FOR A PARROT CAGE

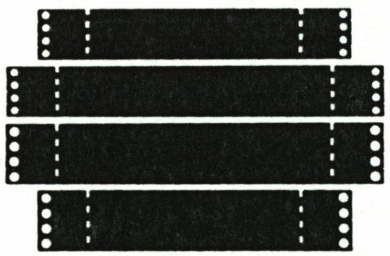
STAINLESS STEEL
NYLON TUBING
NYLON ROD
FIBERGLASS
BIRCH PLYWOOD
ALUMINUM ROD
ALUMINUM FLAT STOCK
THREADED ROD
PLEXIGLASS
CAST ALUMINUM

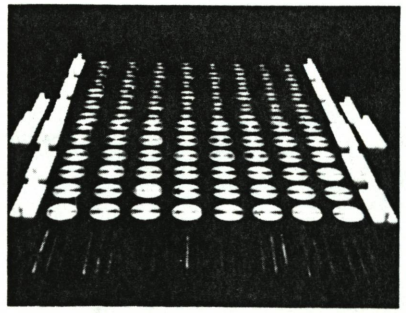
EXPLODED DRAWING OF
PARROT CAGE

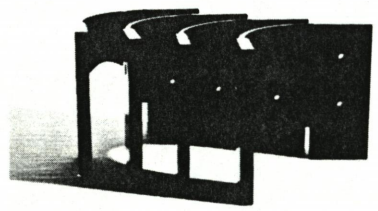


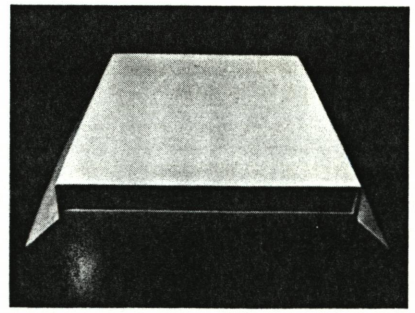
PHOTOS OF CAGE PARTS

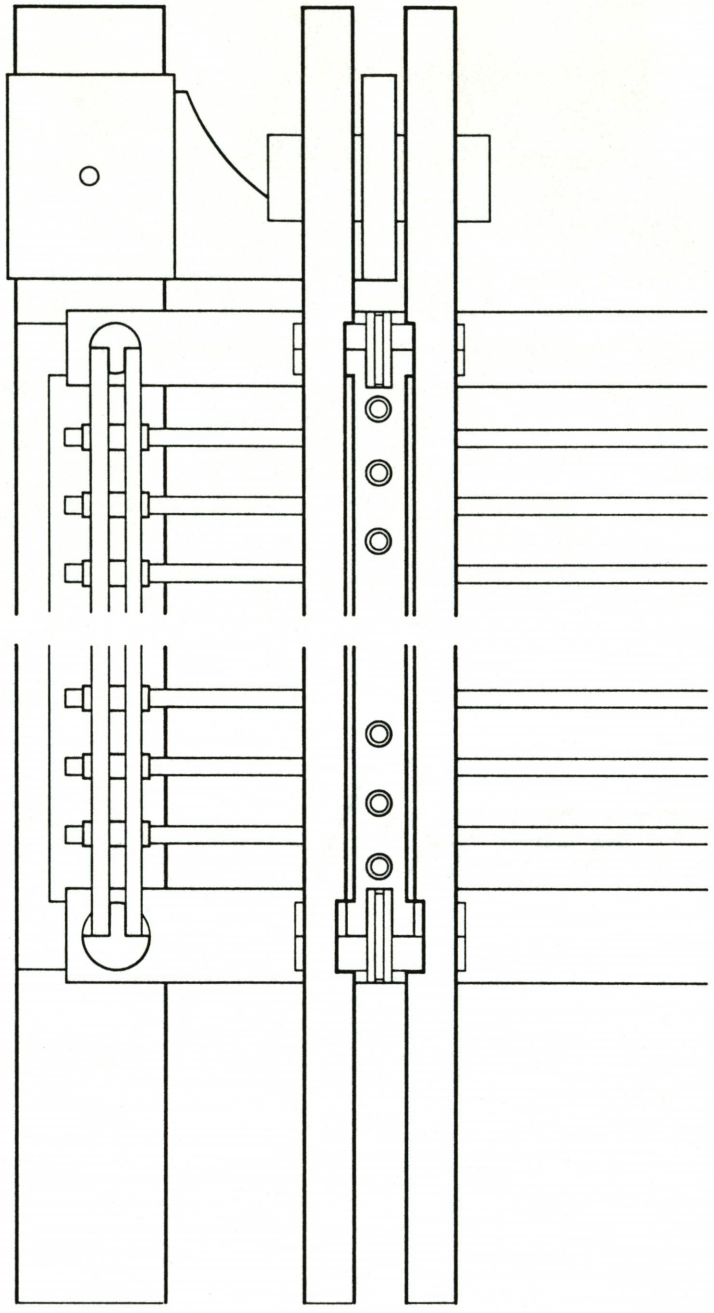


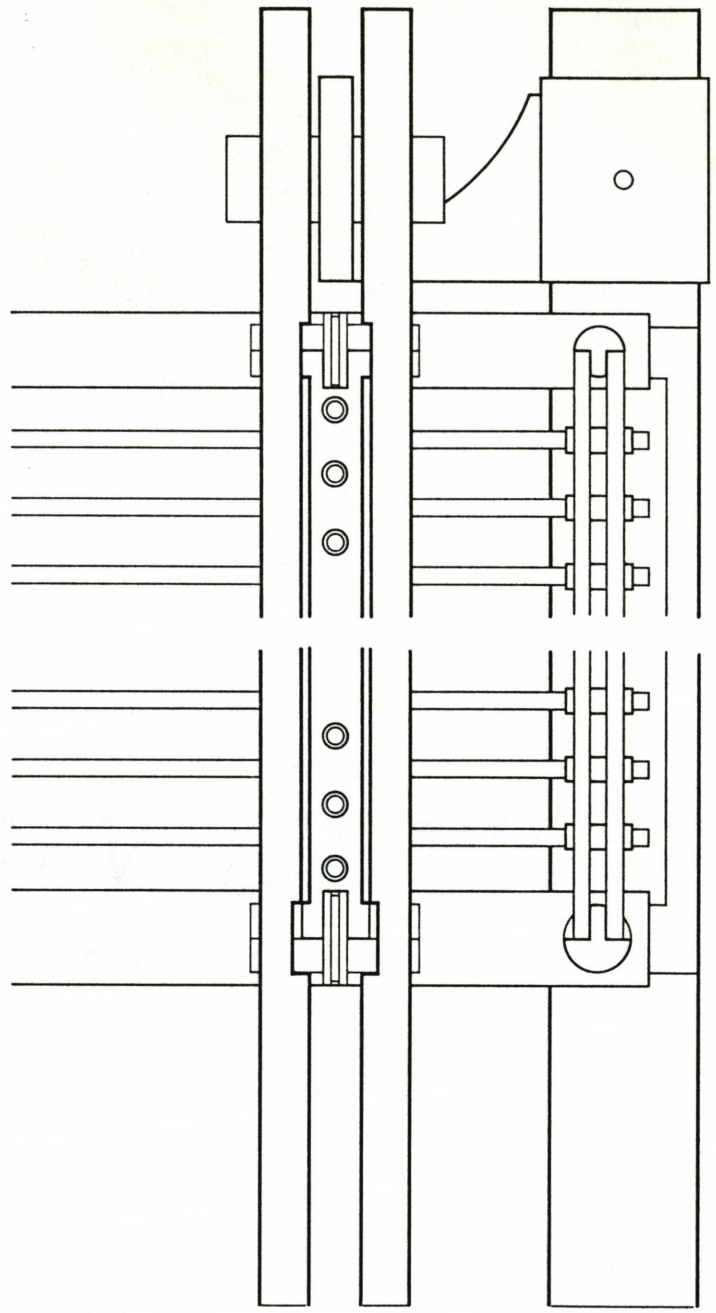




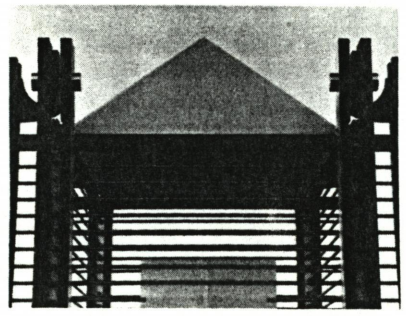


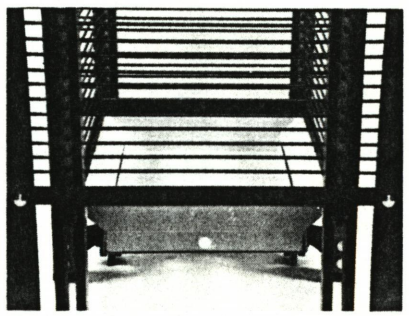






DETAILED SECTION
THROUGH PARROT CAGE
COLUMNS





A PARROT CAGE

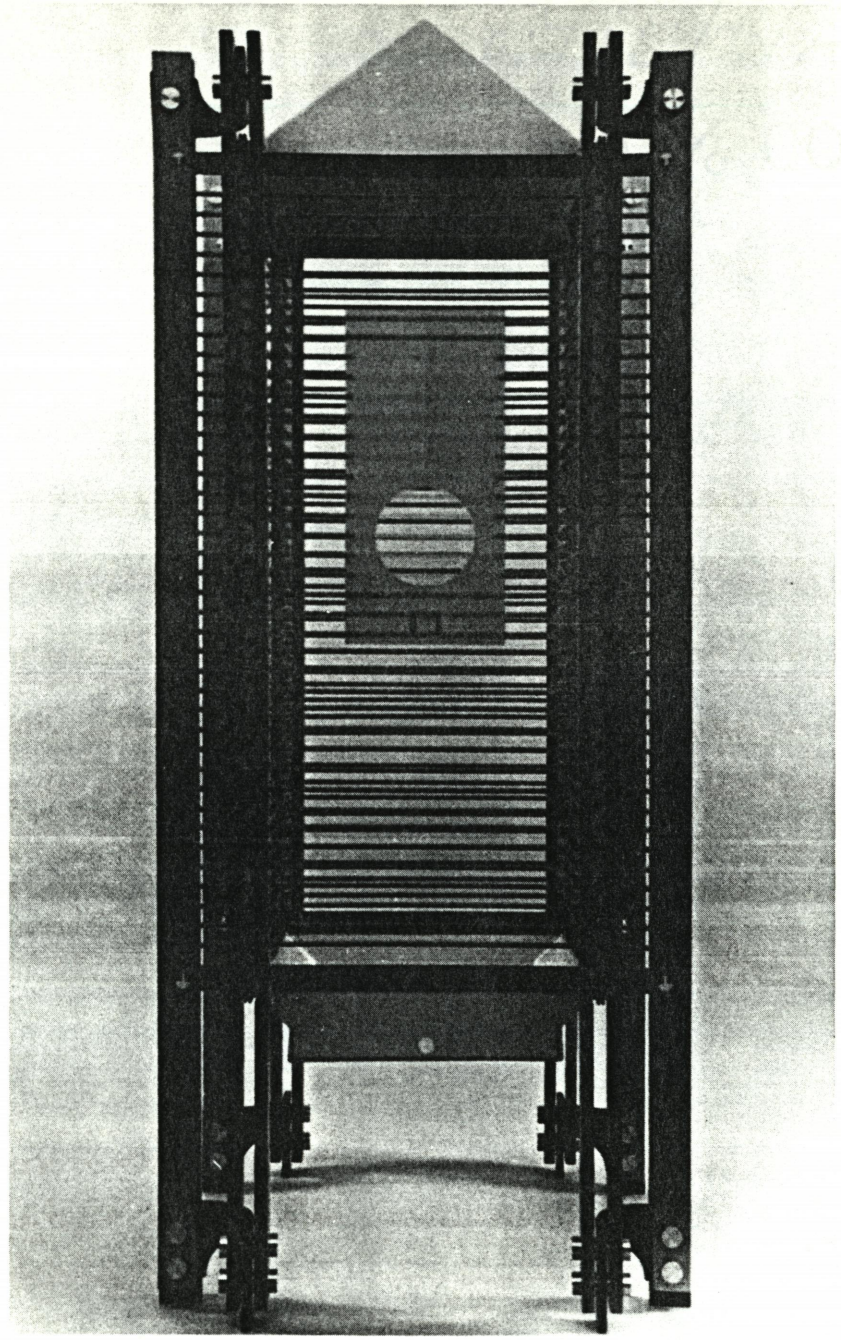
A FREE STANDING STRUCTURE TO HOUSE A PARROT

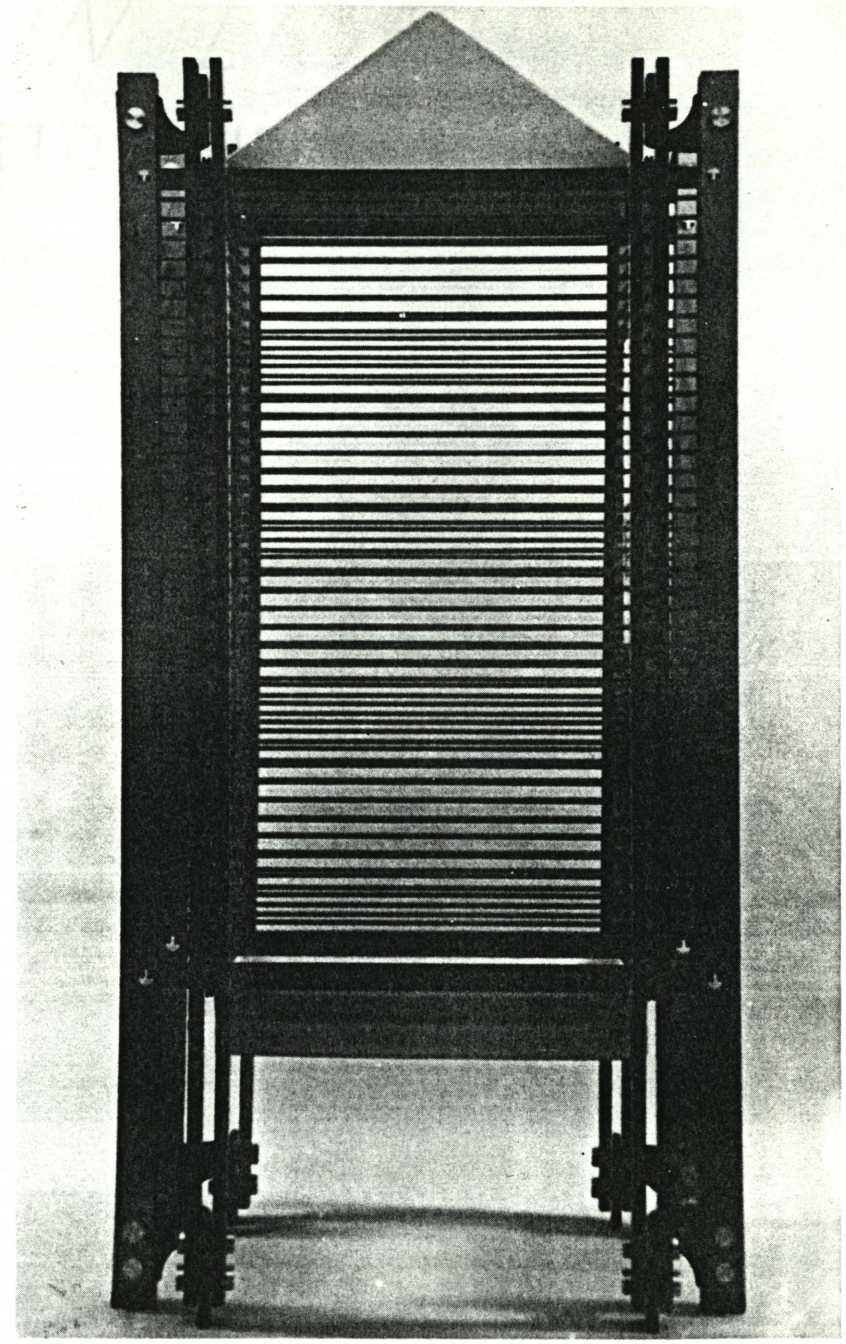
WOODEN COMPOSITE COLUMNS SUPPORT THE STRUCTURE

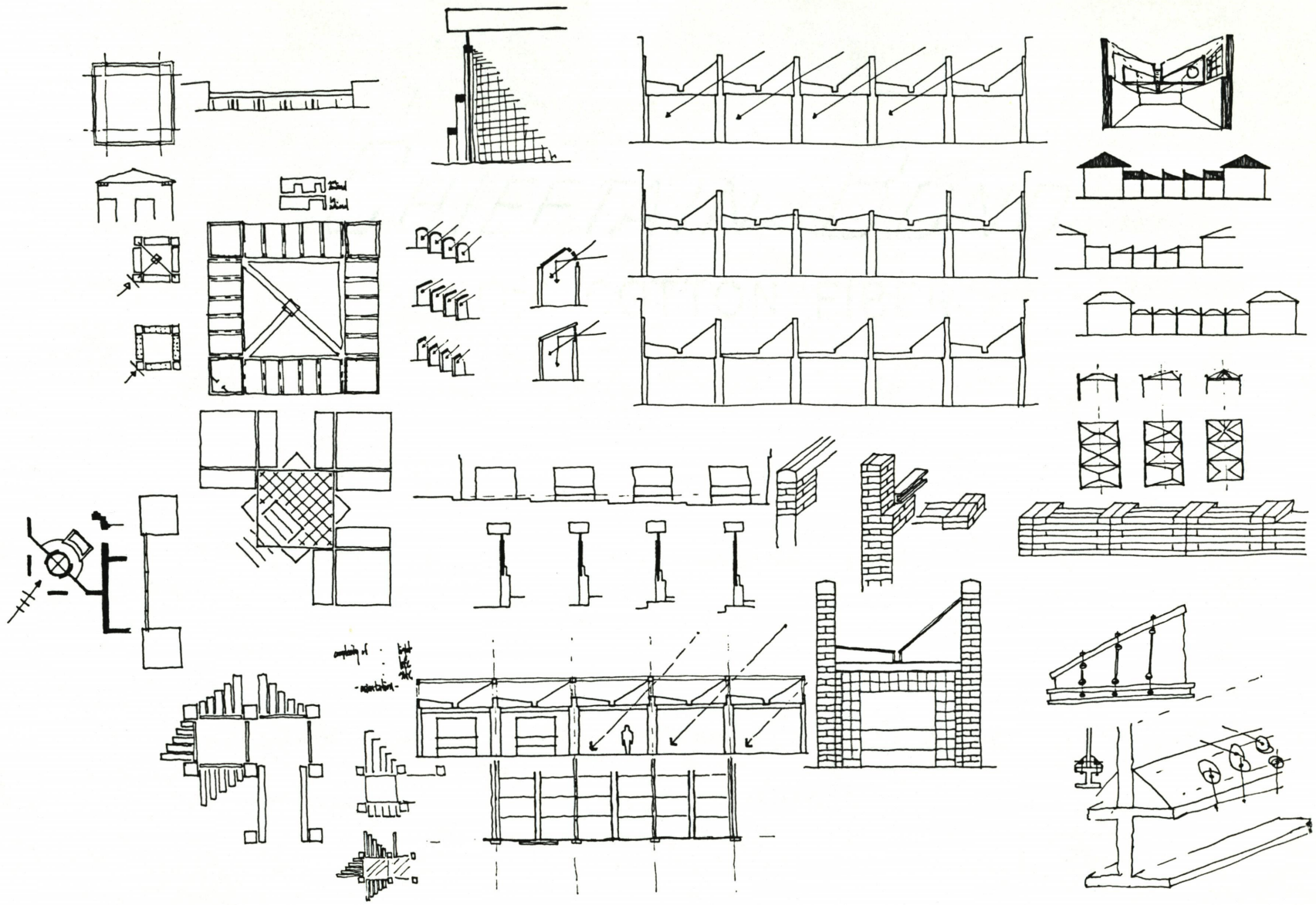
STAINLESS STEEL BARS SPAN AND DEFINE INTERIOR SPACE WHILE PROVIDING A CLIMBING SURFACE FOR THE BIRD

HANDFORMED FIBERGLASS TOP AND BOTTOM FURTHER DEFINE INTERIOR SPACE AND GIVE RIGIDITY TO THE STRUCTURE

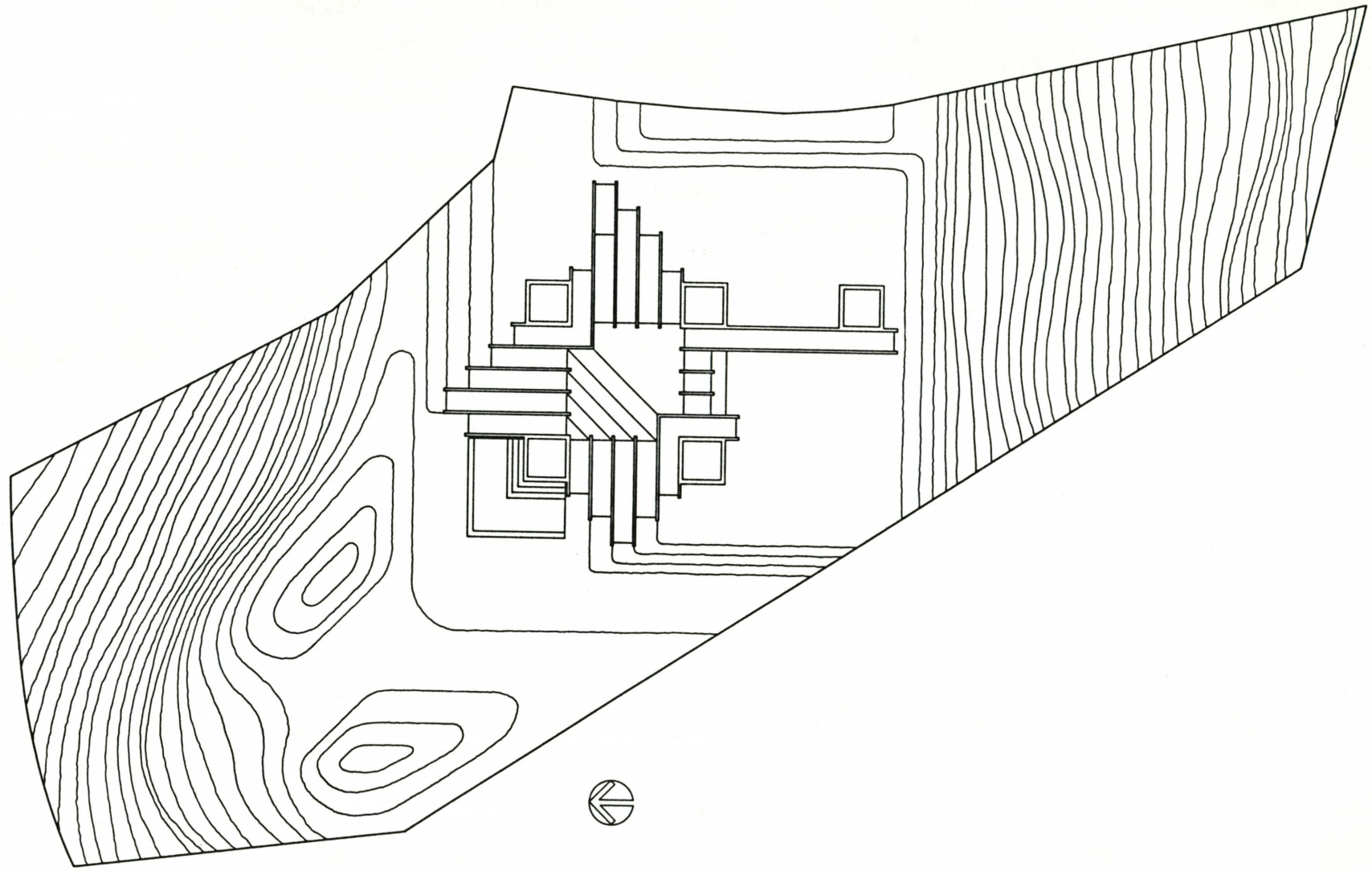
VARIOUS CONNECTORS AND SPECIAL CONDITION PARTS OF MACHINED NYLON, ALUMINUM, PLEXIGLASS, AND CAST ALUMINUM COMPLETE THE CAGE



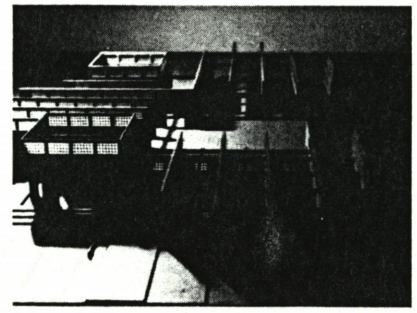


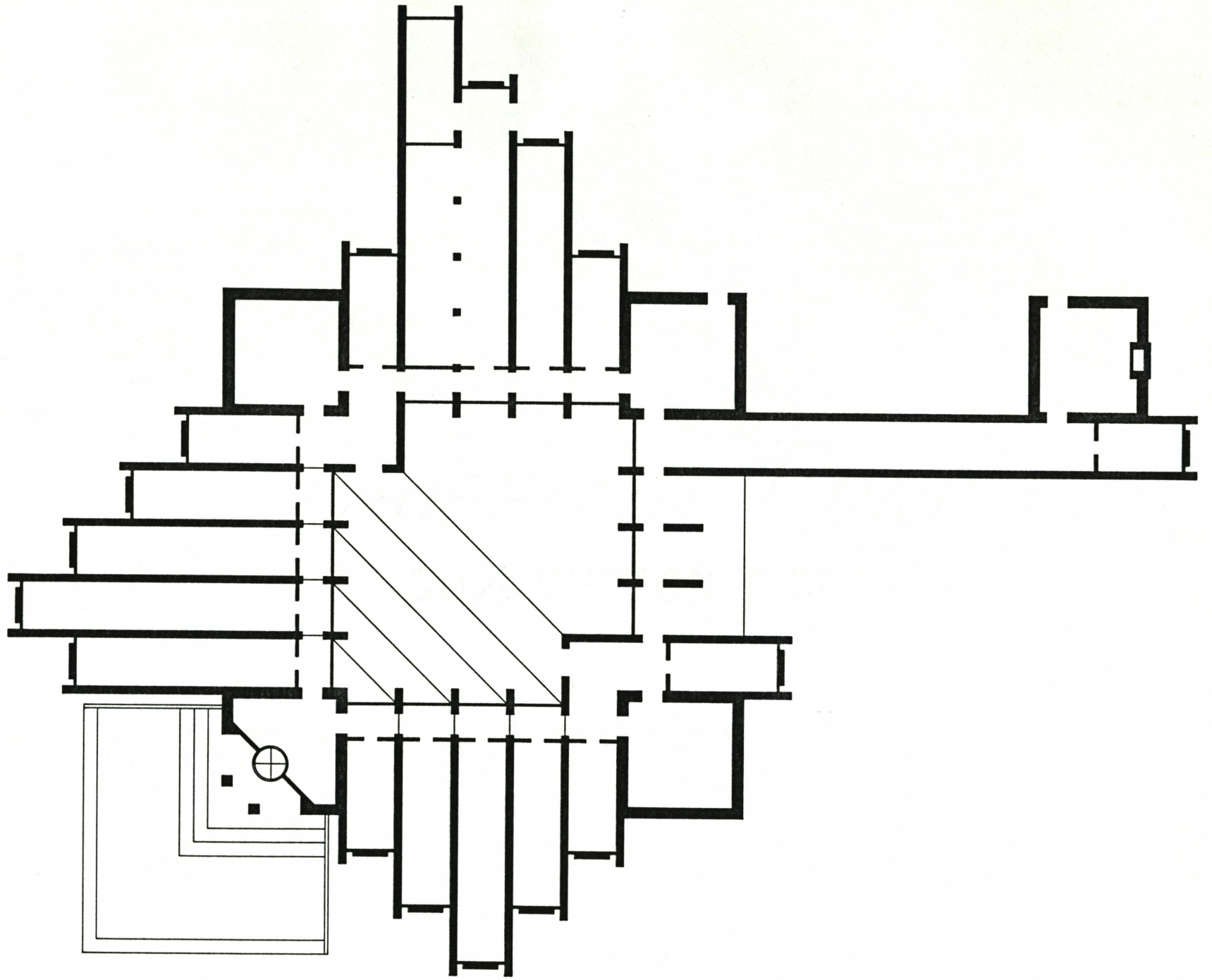


SKETCHES FOR A BUILDING

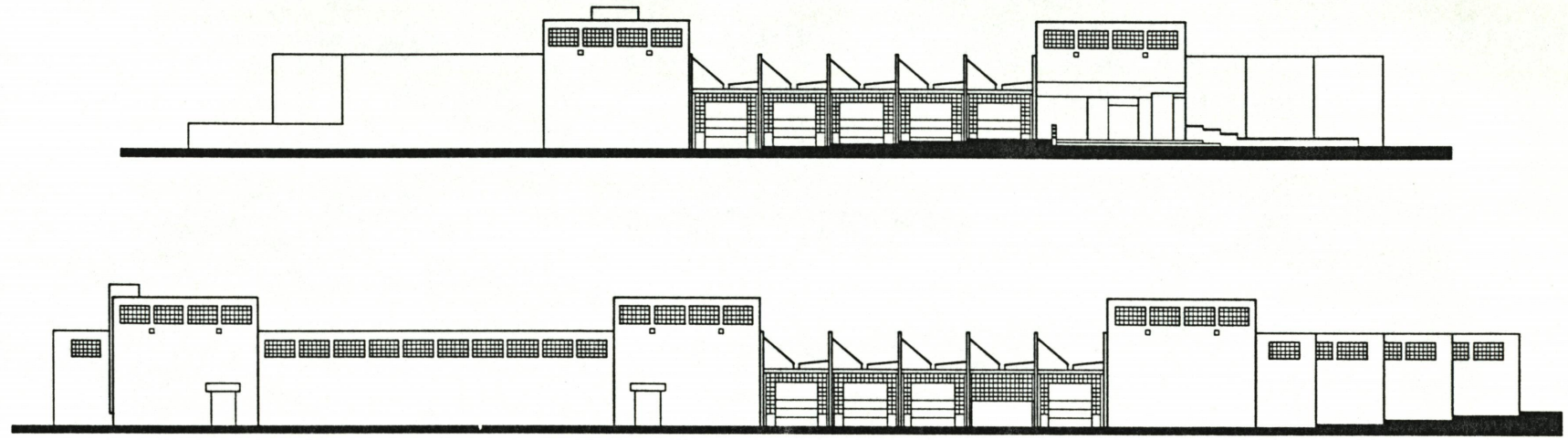


SITE PLAN



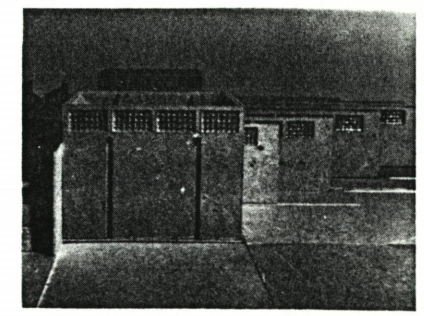


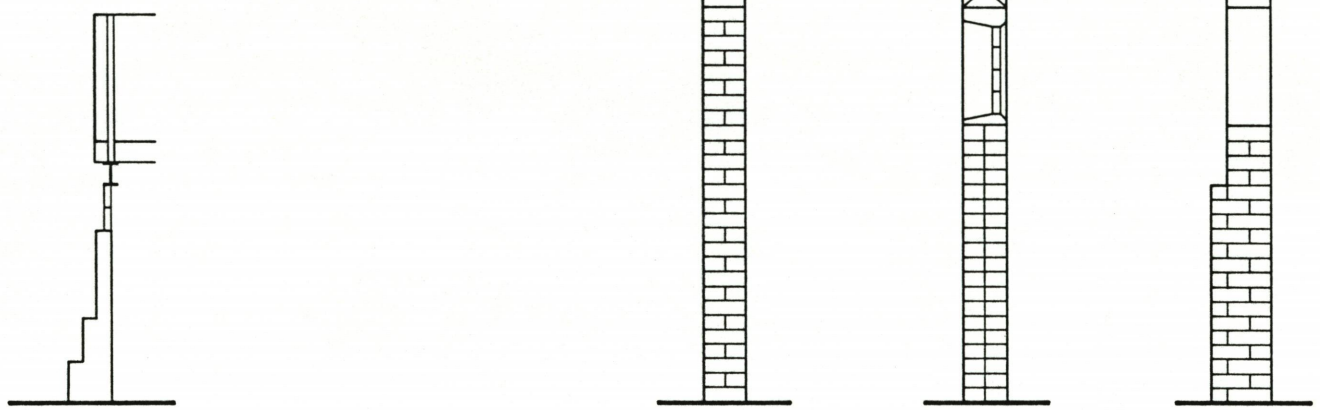
BUILDING PLAN

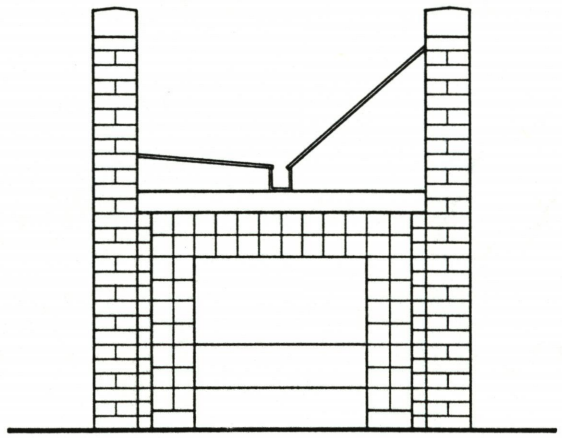


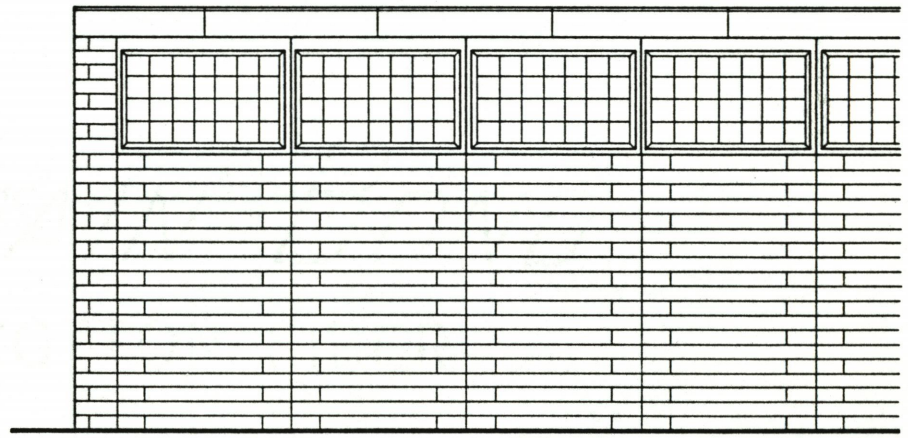
ELEVATIONS

NORTH
EAST
SOUTH
WEST

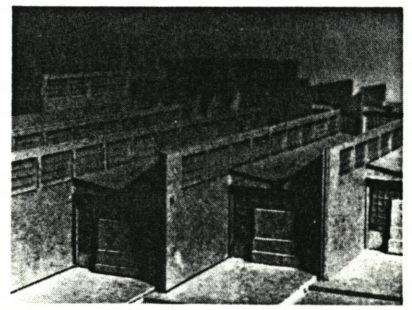


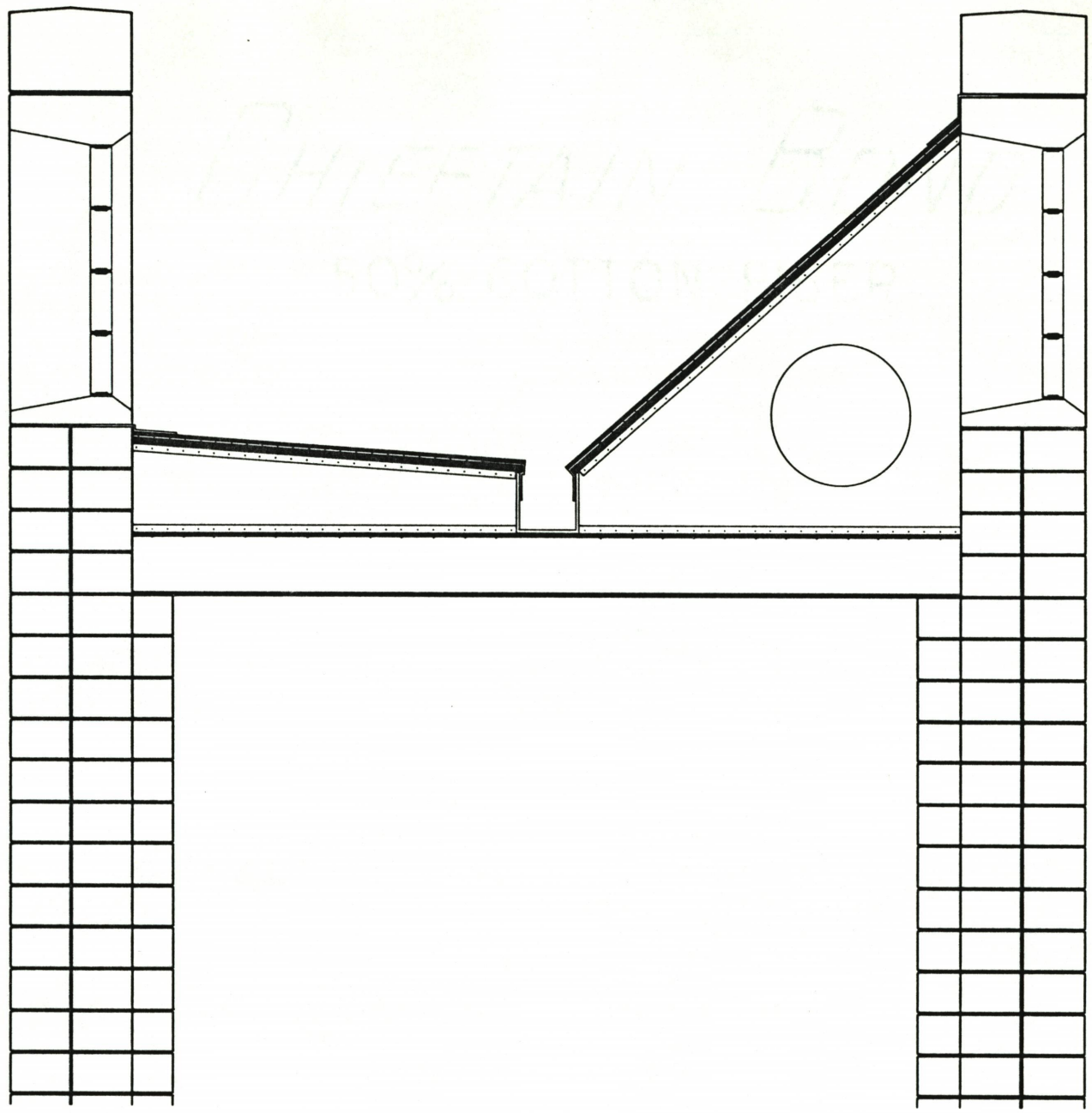




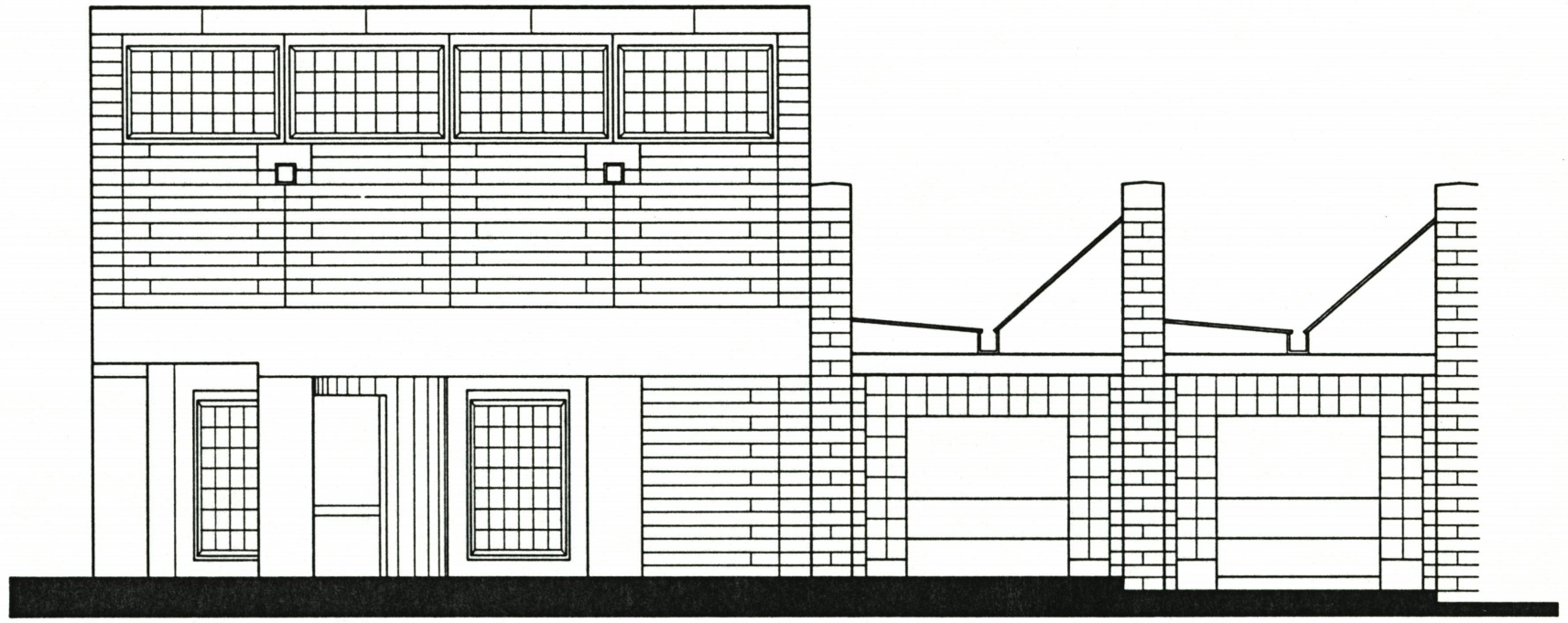


MEASURED DRAWING OF BAY ELEVATIONS WITH SECTIONS



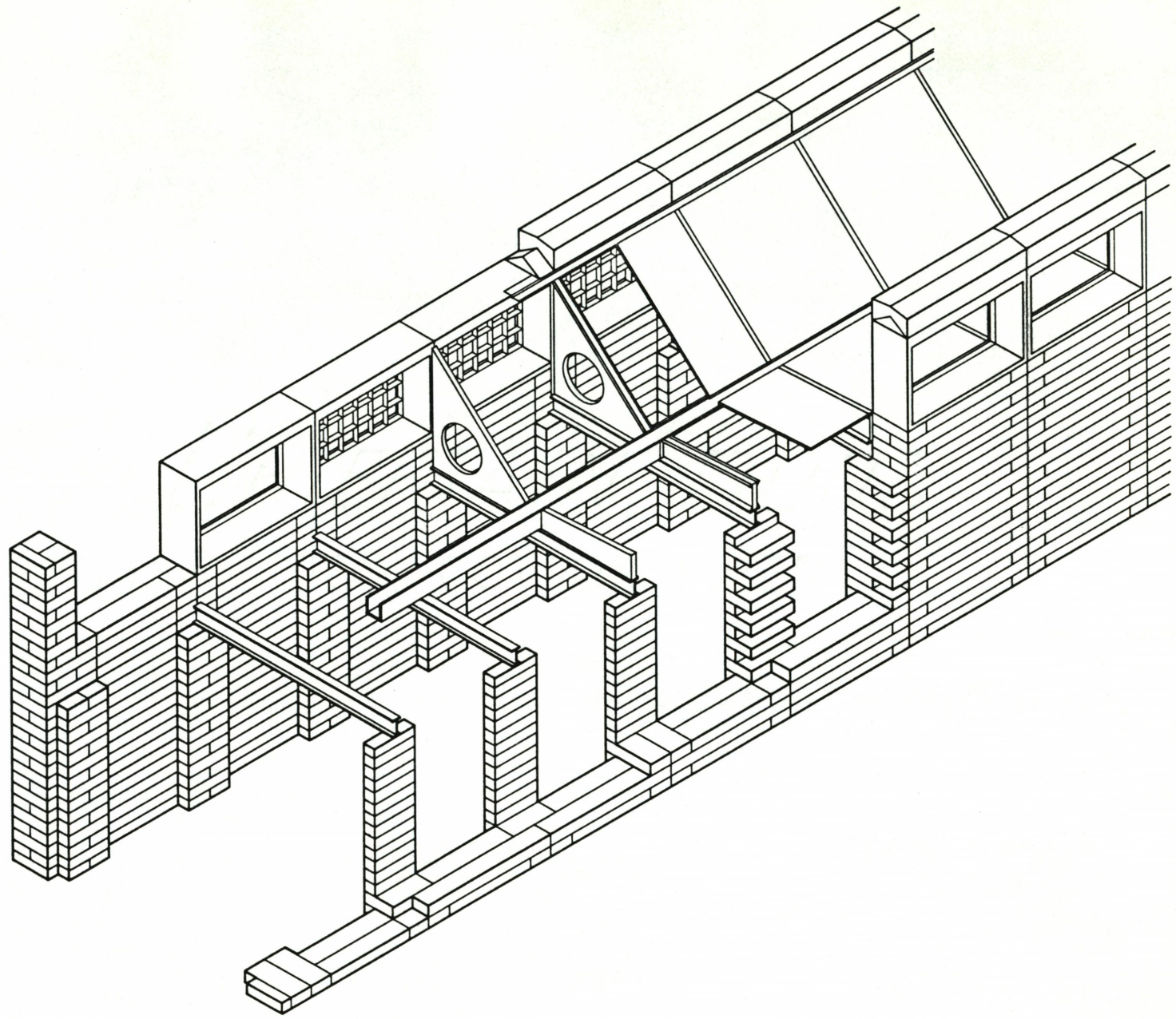


DETAILED SECTION
THROUGH TYPICAL BAY

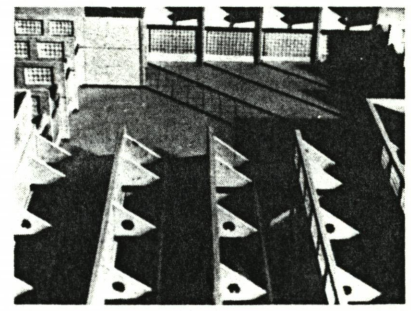


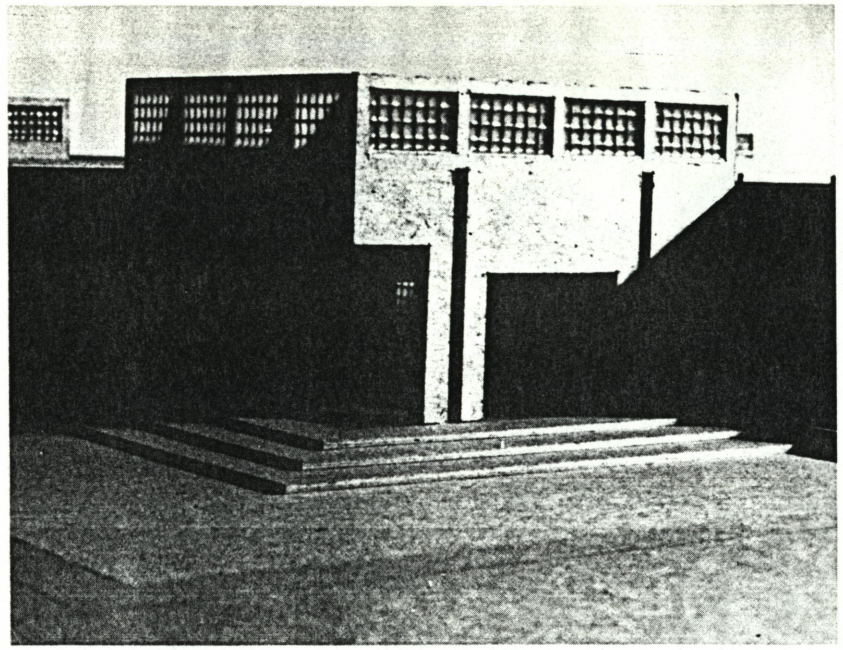
WEST ELEVATION OF
ENTRY

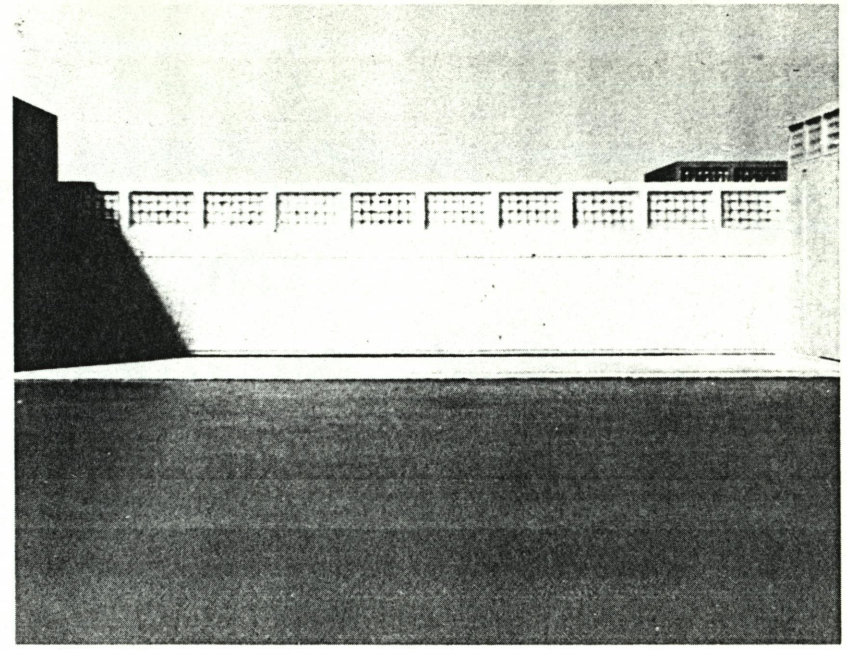
CONCRETE BLOCK
GLASS BLOCK
MORTAR
CONCRETE
STEEL PANEL
STEEL BEAM
HIGH DENSITY CONCRETE

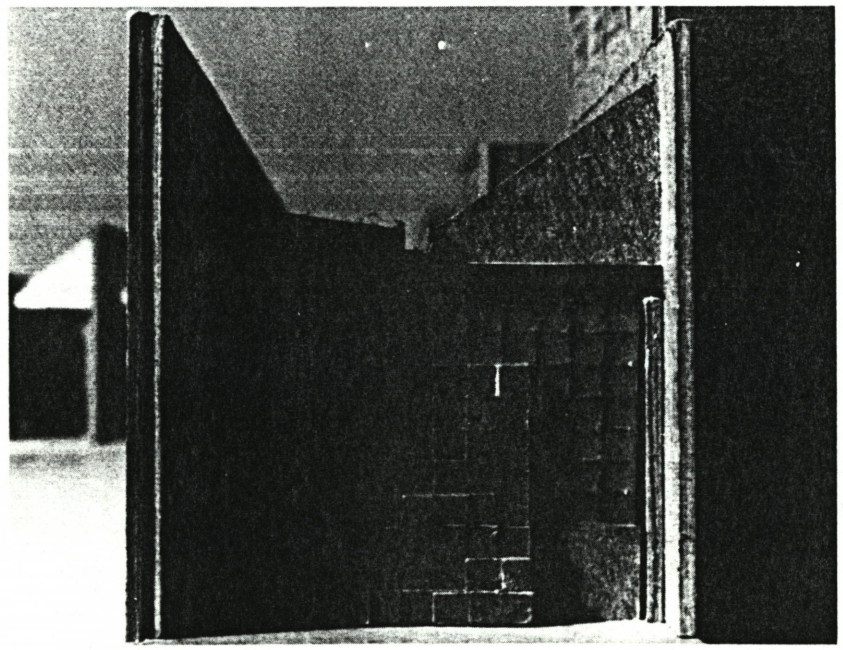


CUTAWAY VIEW OF
TYPICAL BAY





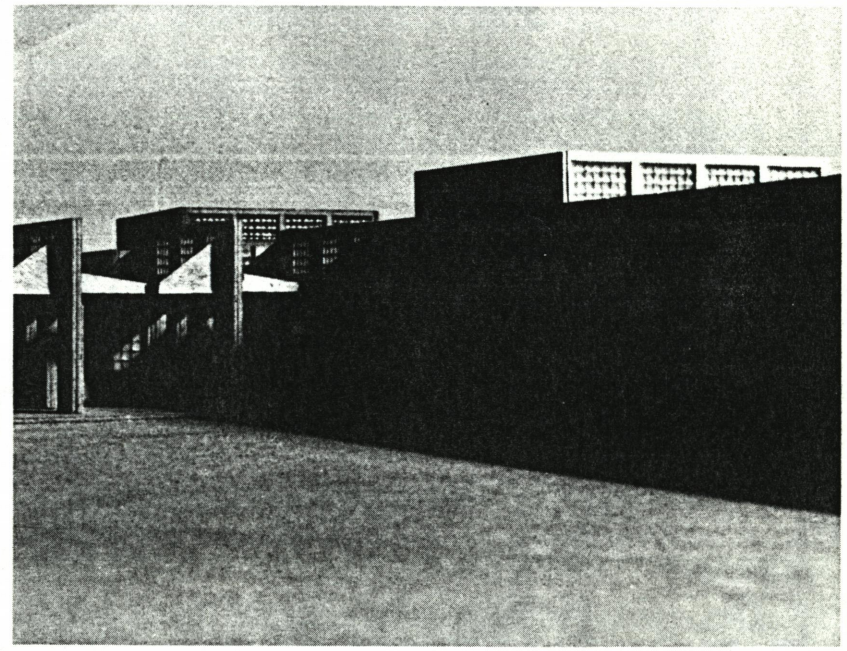




MODEL PHOTOS OF
BUILDING

A BUILDING

A STRUCTURE TO HOUSE
ANIMALS FOR THE
"SOCIETY FOR THE
PREVENTION OF CRUELTY
TO ANIMALS"
THE STRUCTURE IS
COMPRISED OF WALLS
MADE OF CONCRETE
MASONRY UNITS AND
SPECIAL CONDITION
BLOCKS CAST OF SAME
MATERIAL
LIGHT IS TRANSMITTED BY
GLASS BLOCK SET IN
PRECAST FRAMES MADE
OF HIGH DENSITY
CONCRETE
WALLS ARE CAPPED WITH
PRECAST CONCRETE
BLOCK OF HIGH DENSITY
CONCRETE
SPANS ARE MADE WITH
STEEL BEAMS OR CAST
IN PLACE CONCRETE
ROOF IS COMPOSED OF
STRUCTURAL STEEL
PANELS, SET IN PLACE
THEN COVERED WITH A
WEATHER IMPERVIOUS
MEMBRANE



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