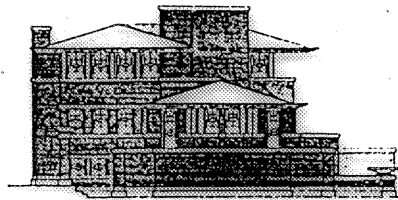
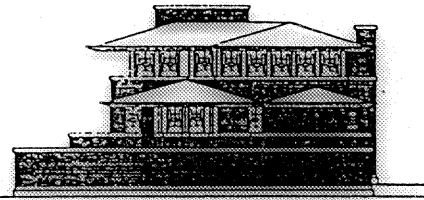


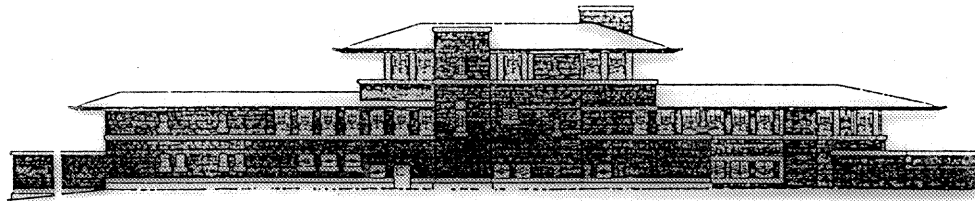
Robie House Derivation



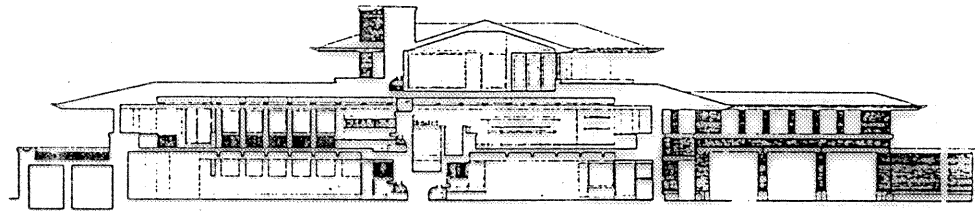
WEST ELEVATION



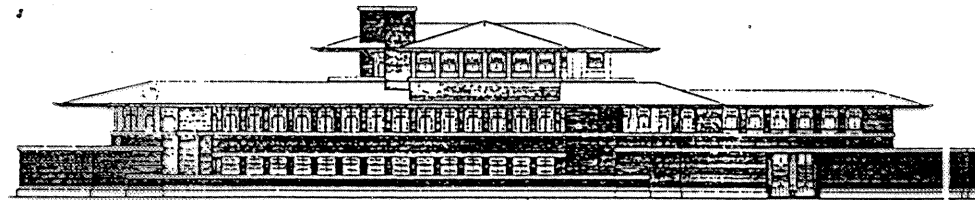
EAST ELEVATION



NORTH ELEVATION

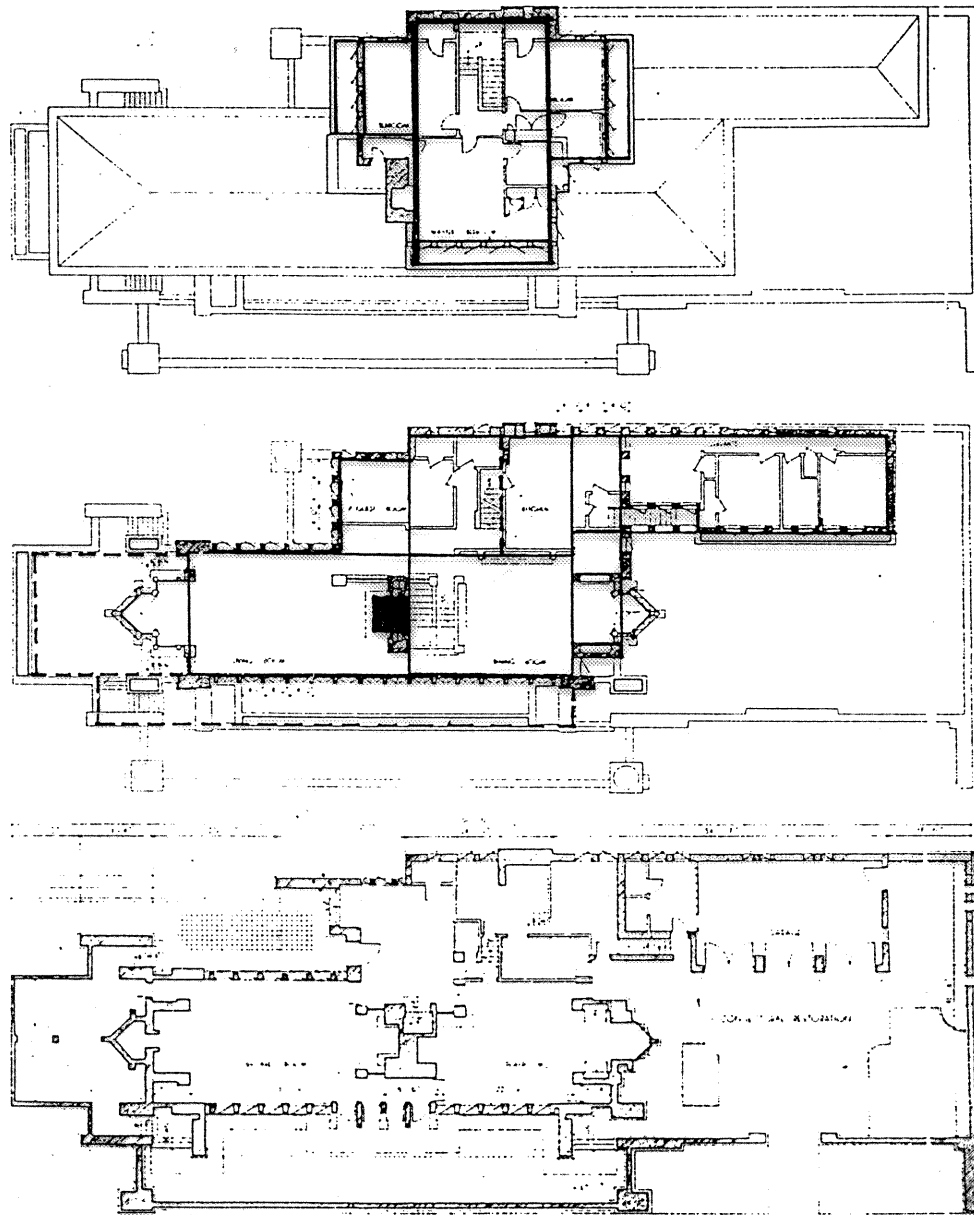


LONGITUDINAL SECTION



SOUTH ELEVATION

Shape Grammar: Frank Lloyd Wright's Robie House



Shape Grammar: Frank Lloyd Wright's Robie House

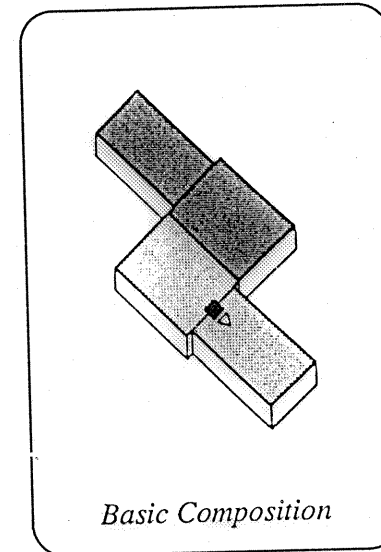
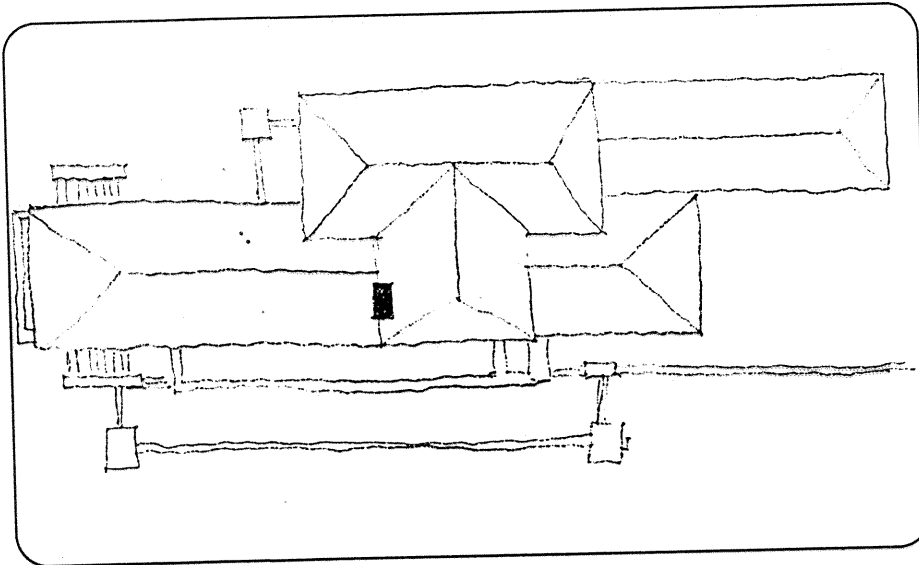
Example: First Derivation

Problem:

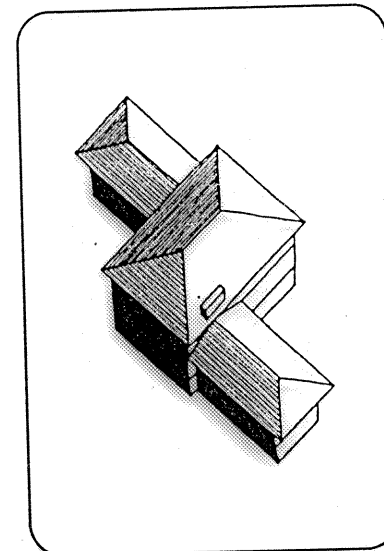
Based on Koning and Eizenberg's shape rules, the final external view of Robie House is different from the original design.

I think the problem is on the "establishing roof eave lines" (rule 75 - rule 82).

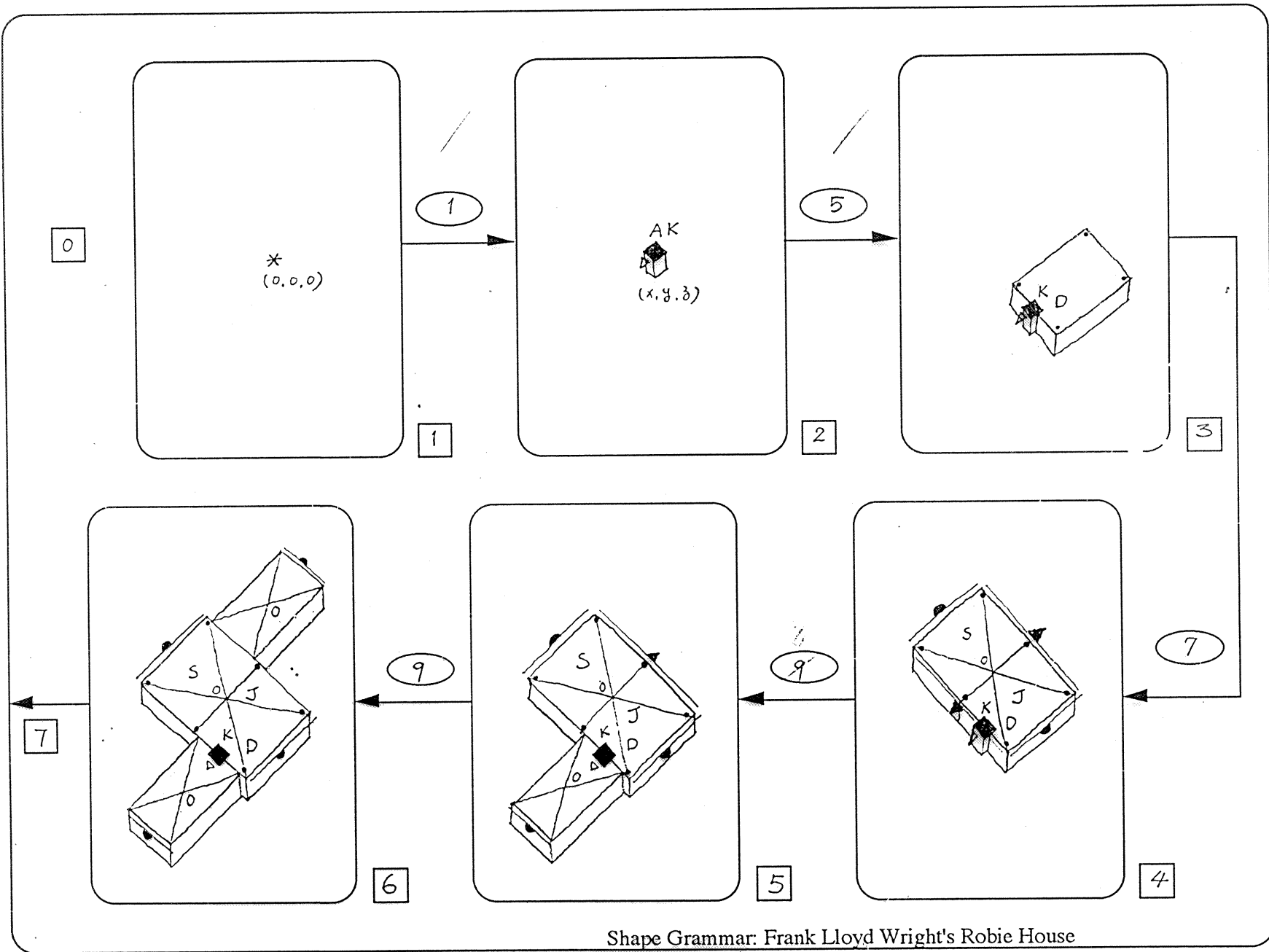
*Right two diagrams are copied from Koning & Eizenberg's paper.
(1981: p308 & 318: *59 Robie House)*



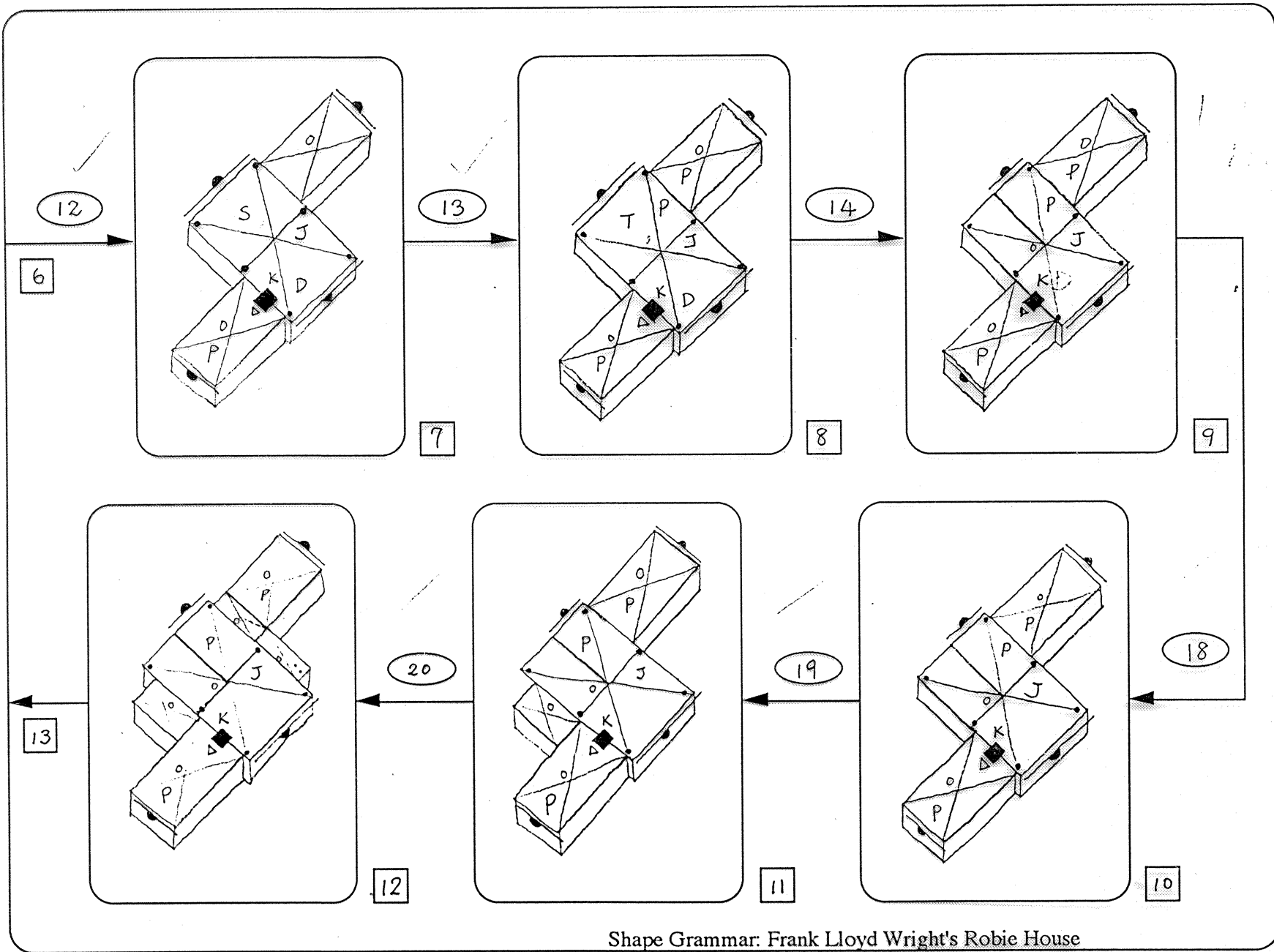
Basic Composition



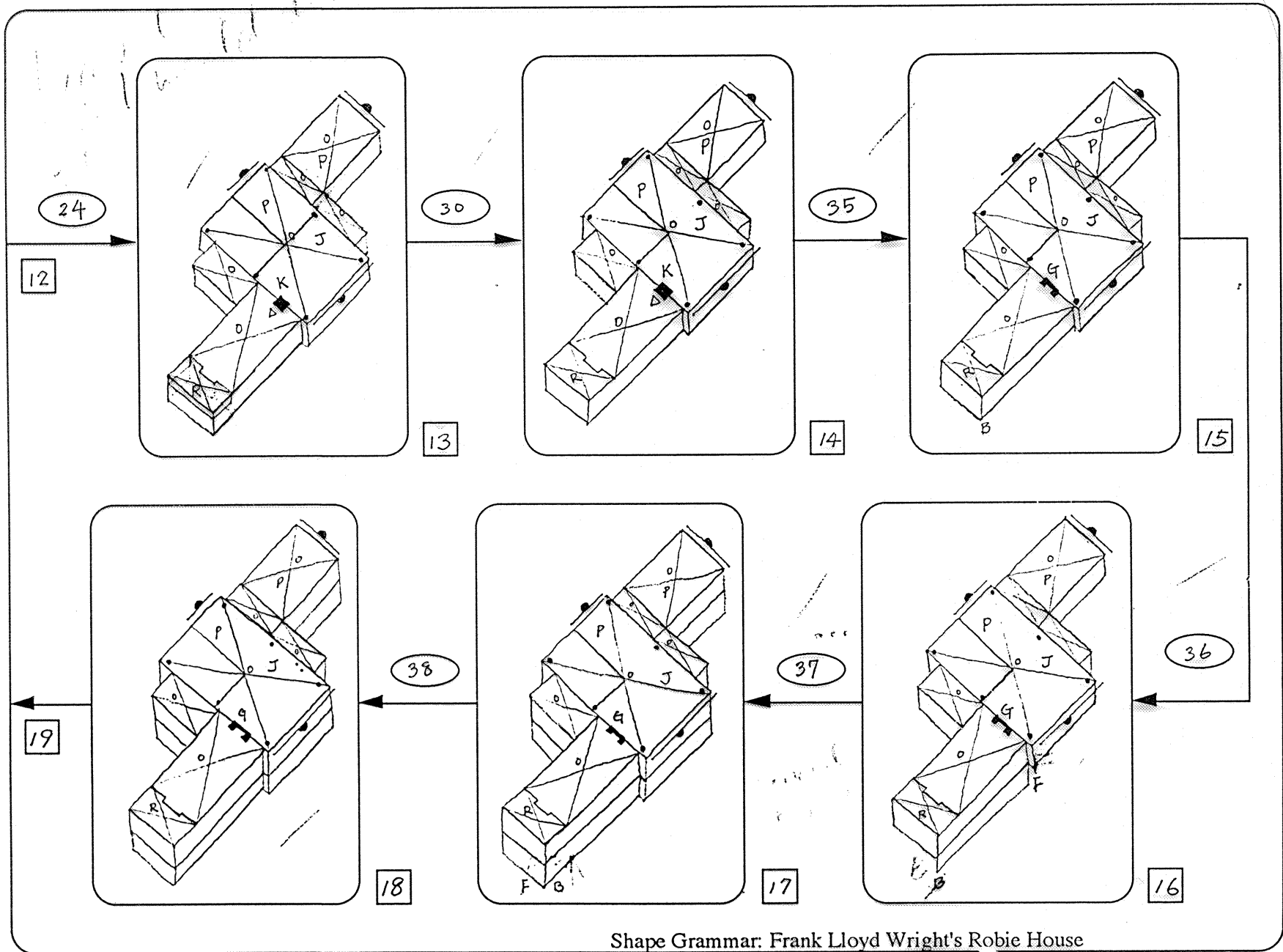
Shape Grammar: Frank Lloyd Wright's Robie House



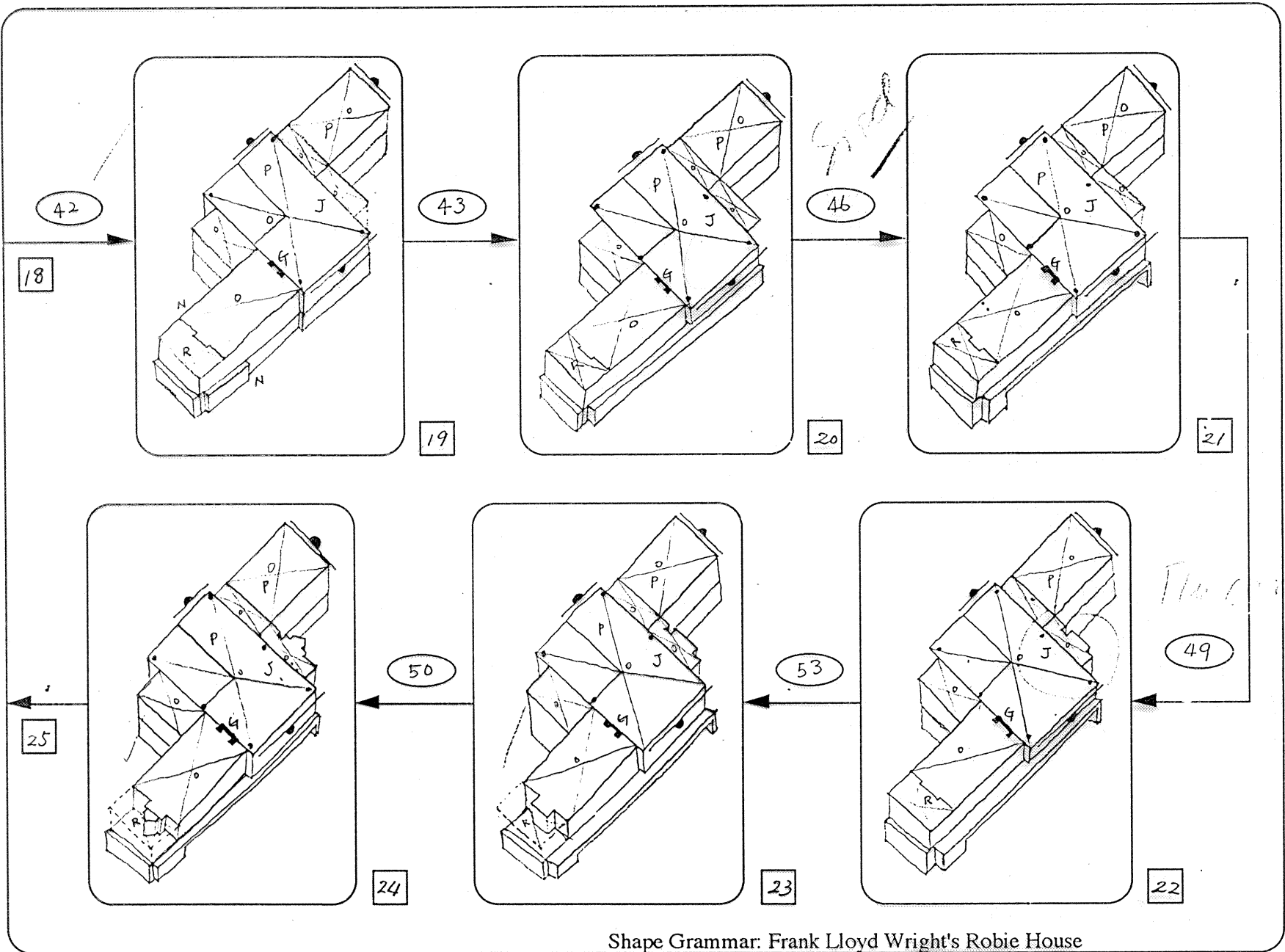
Shape Grammar: Frank Lloyd Wright's Robie House



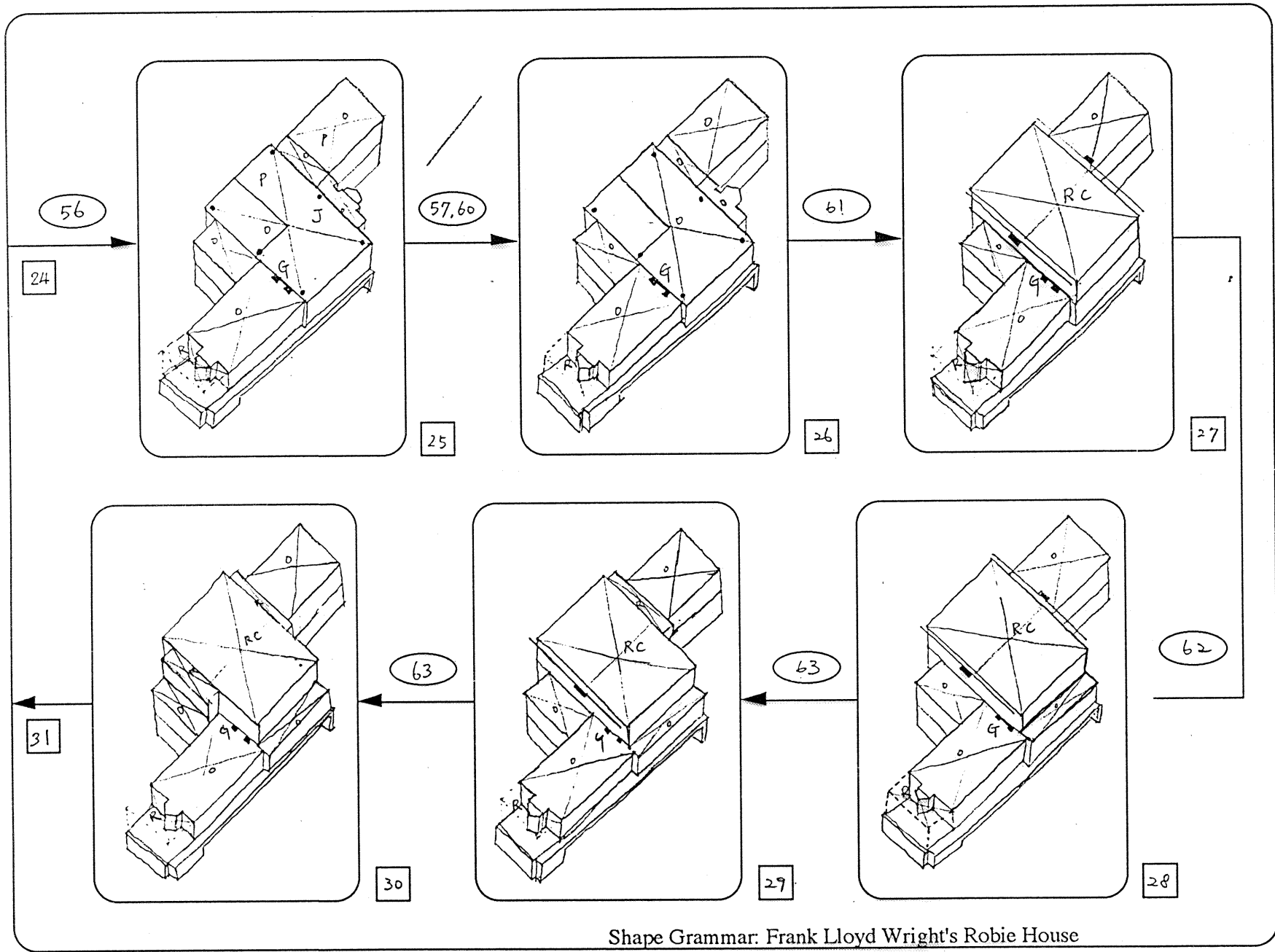
Shape Grammar: Frank Lloyd Wright's Robie House



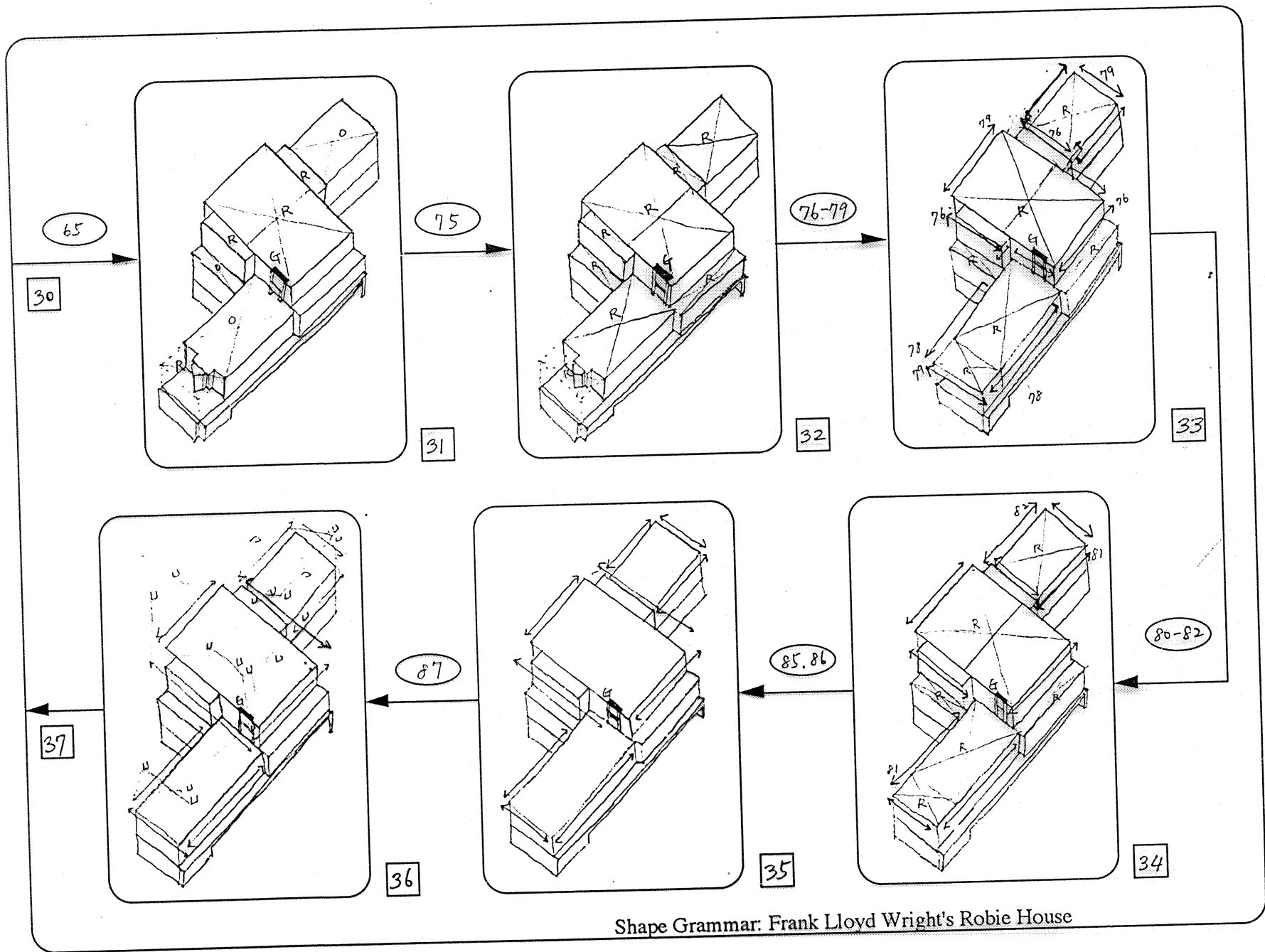
Shape Grammar: Frank Lloyd Wright's Robie House

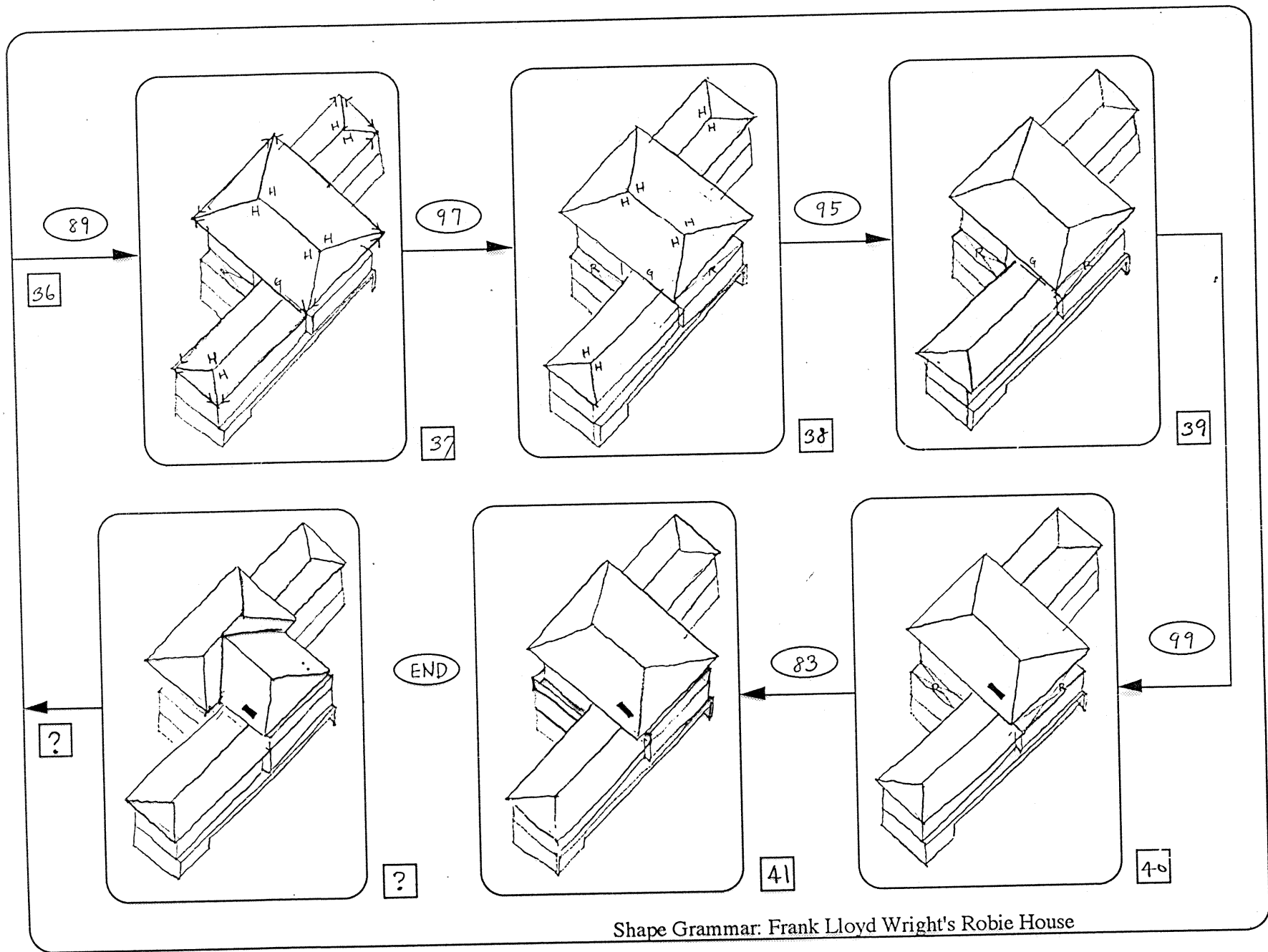


Shape Grammar: Frank Lloyd Wright's Robie House



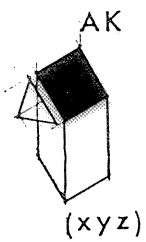
Shape Grammar: Frank Lloyd Wright's Robie House



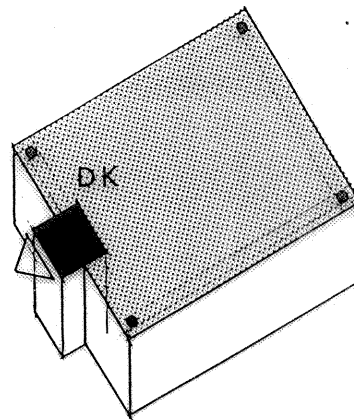


Shape Grammar: Frank Lloyd Wright's Robie House

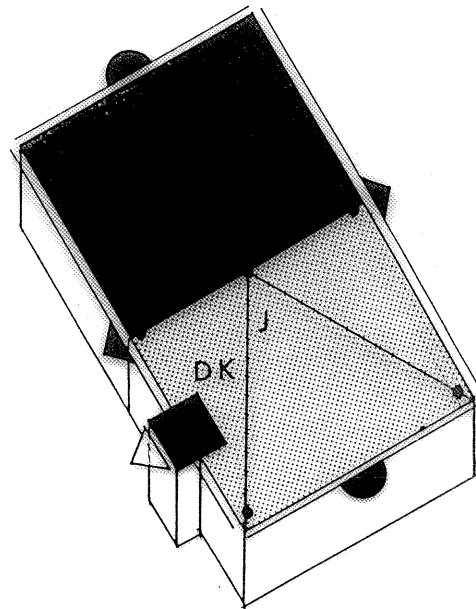
Example: Second Derivation



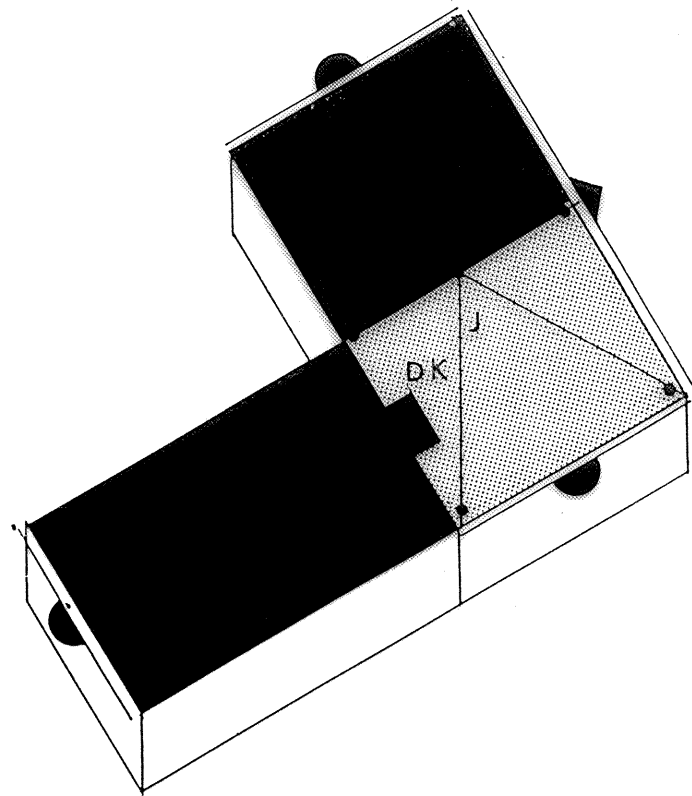
Sheet 1
Schemata 1 locating the fireplace
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



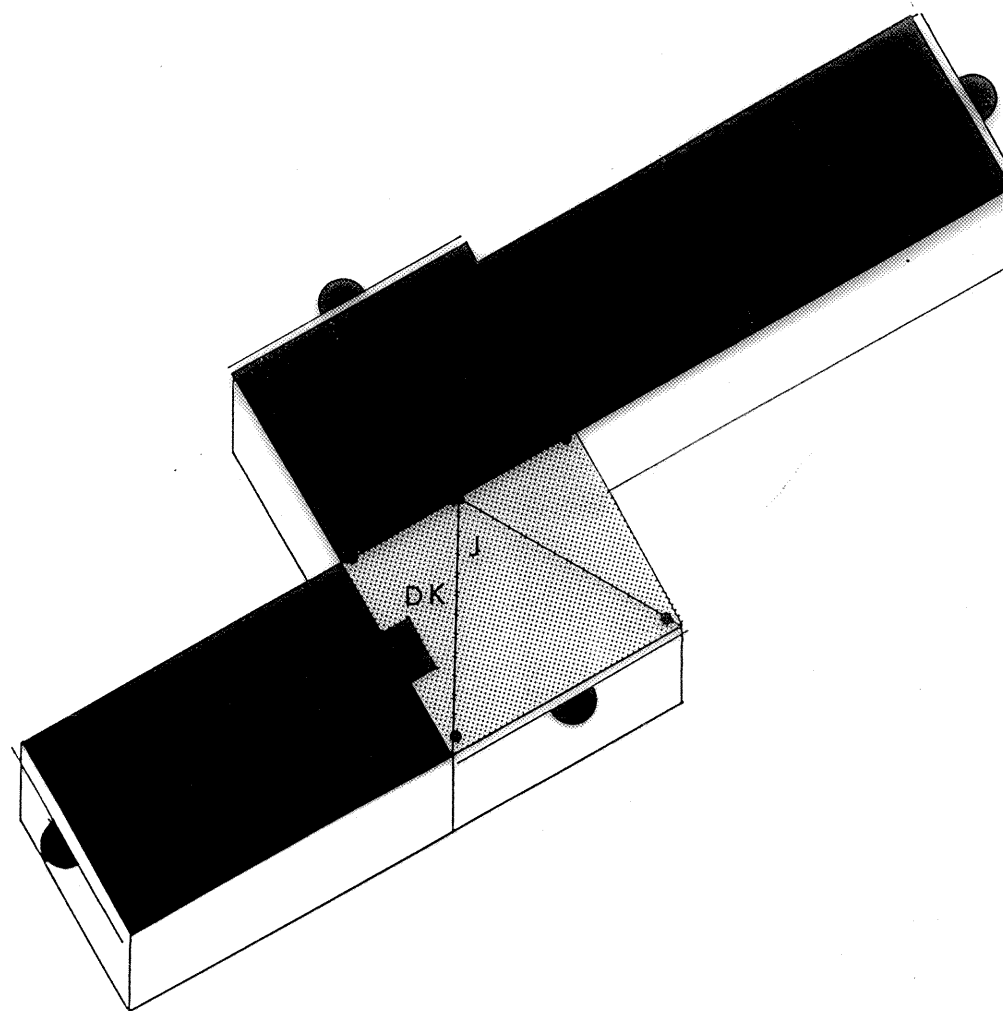
Sheet 2
Schemata 5 adding a living zone
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



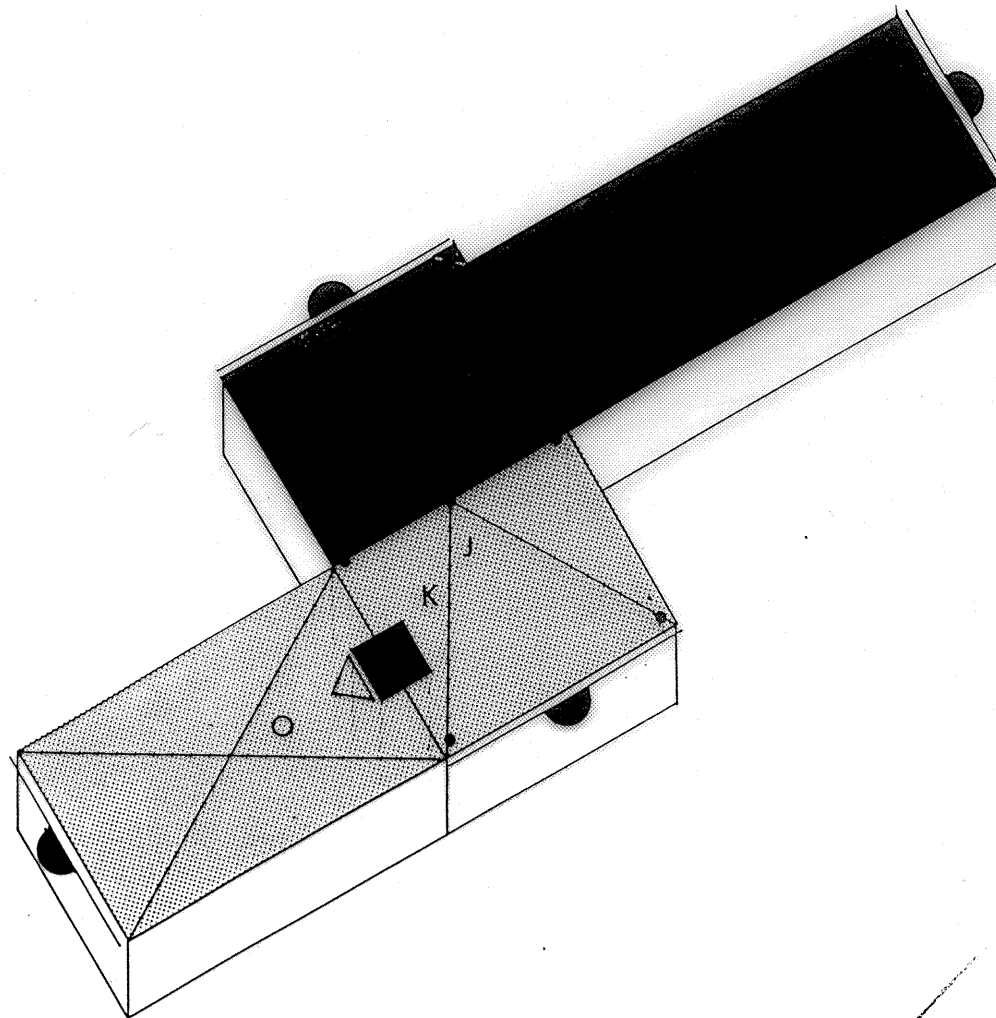
Sheet 3
Schemata 7 completing the core unit
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



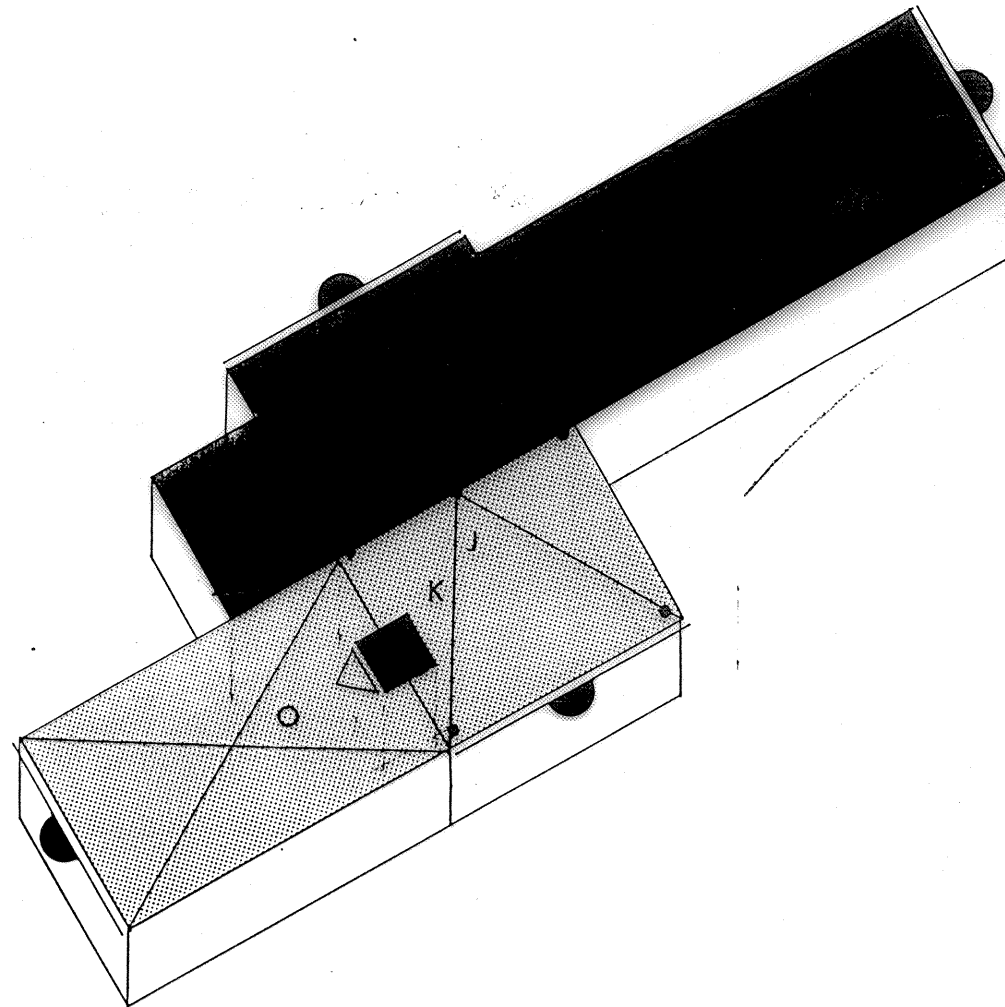
Sheet 4
Schemata 8 the obligatory extensions
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



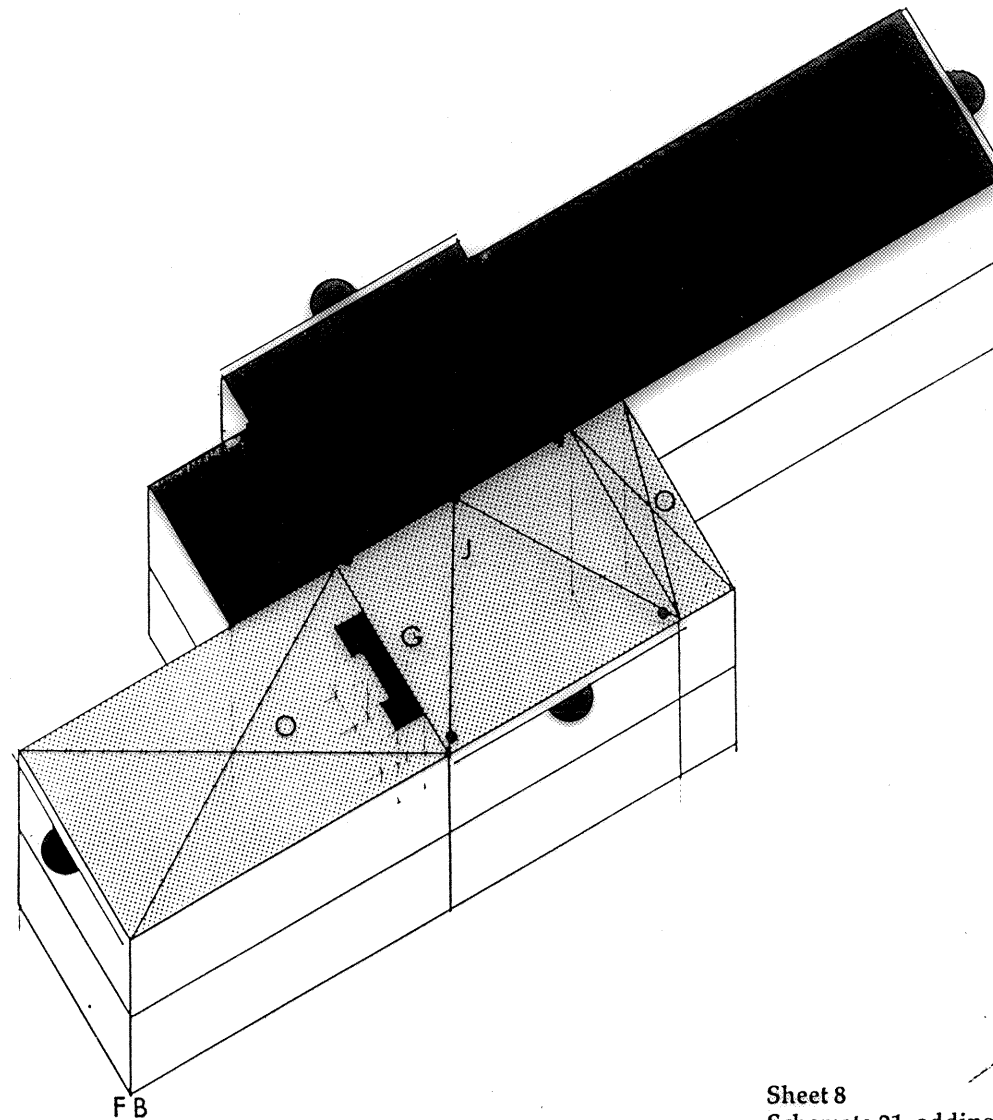
Sheet 5
Schemata 9 the obligatory extensions
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



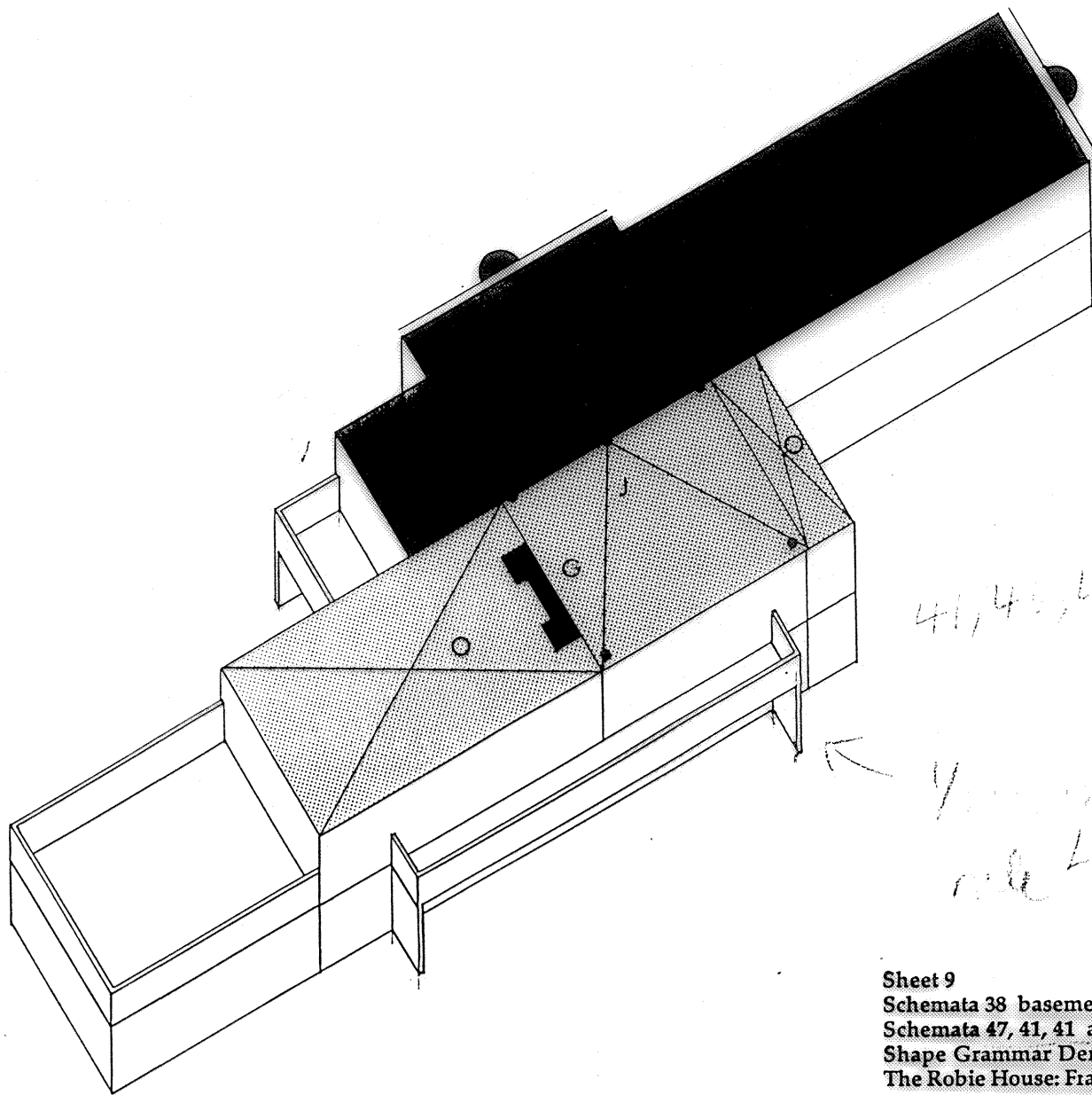
Sheet 6
Schemata 18, 13 assigning function zones
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



Sheet 7
Schemata 19 adding to concave corners
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



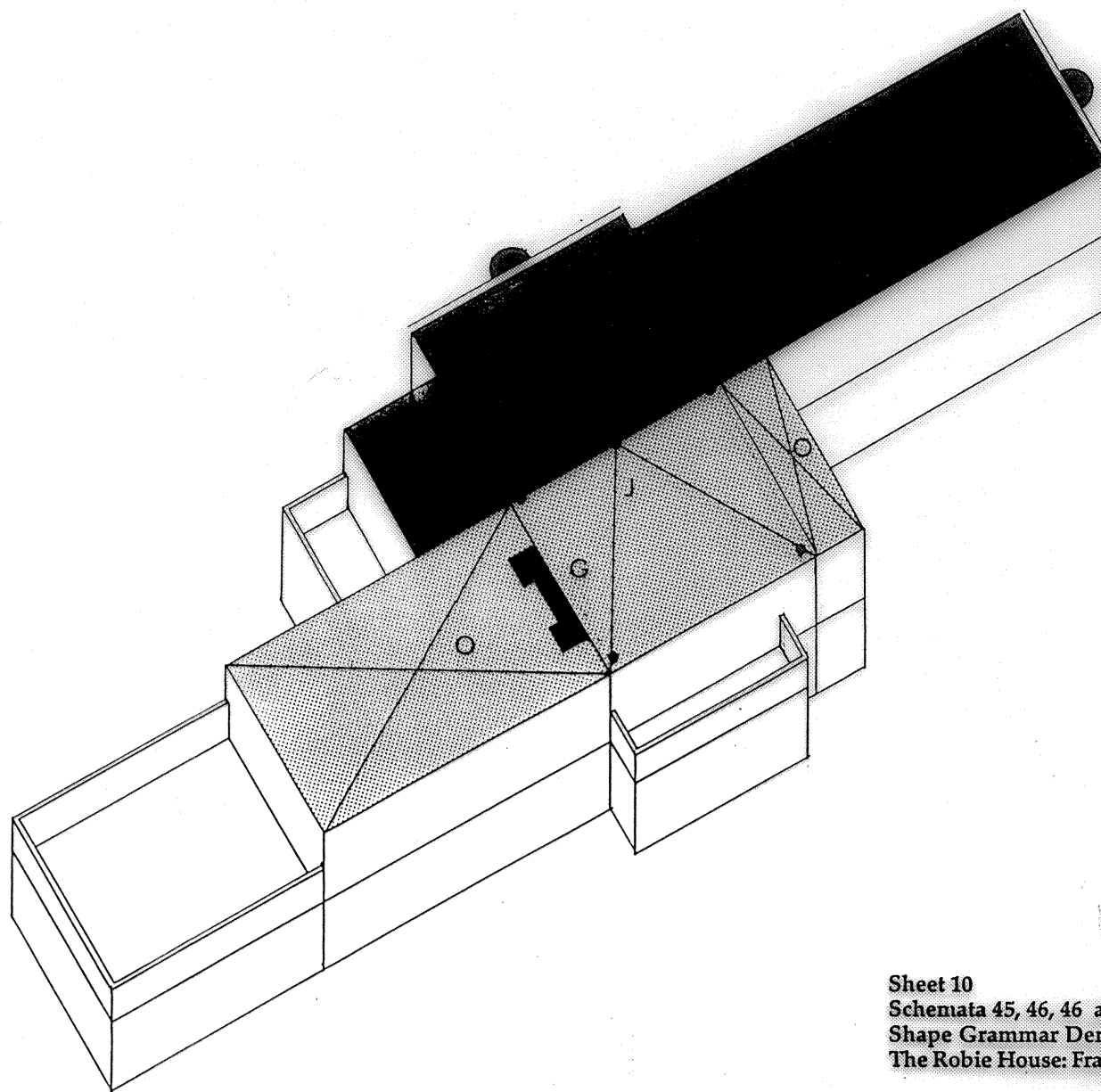
Sheet 8
 Schemata 21 adding to concave corners
 Schemata 35, 36, 37... basement formation
 Shape Grammar Derivation
 The Robie House: Frank Lloyd Wright



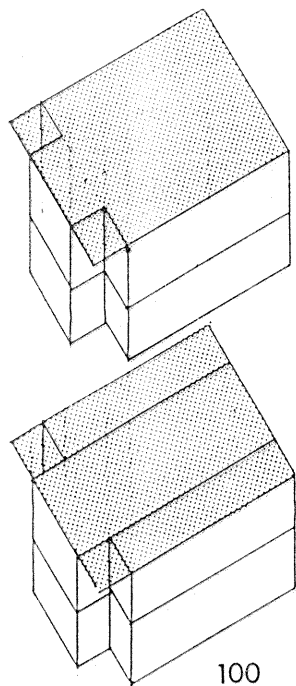
Sheet 9
 Schemata 38 basement formation
 Schemata 47, 41, 41 adding terraces
 Shape Grammar Derivation
 The Robie House: Frank Lloyd Wright

41, 44, 45

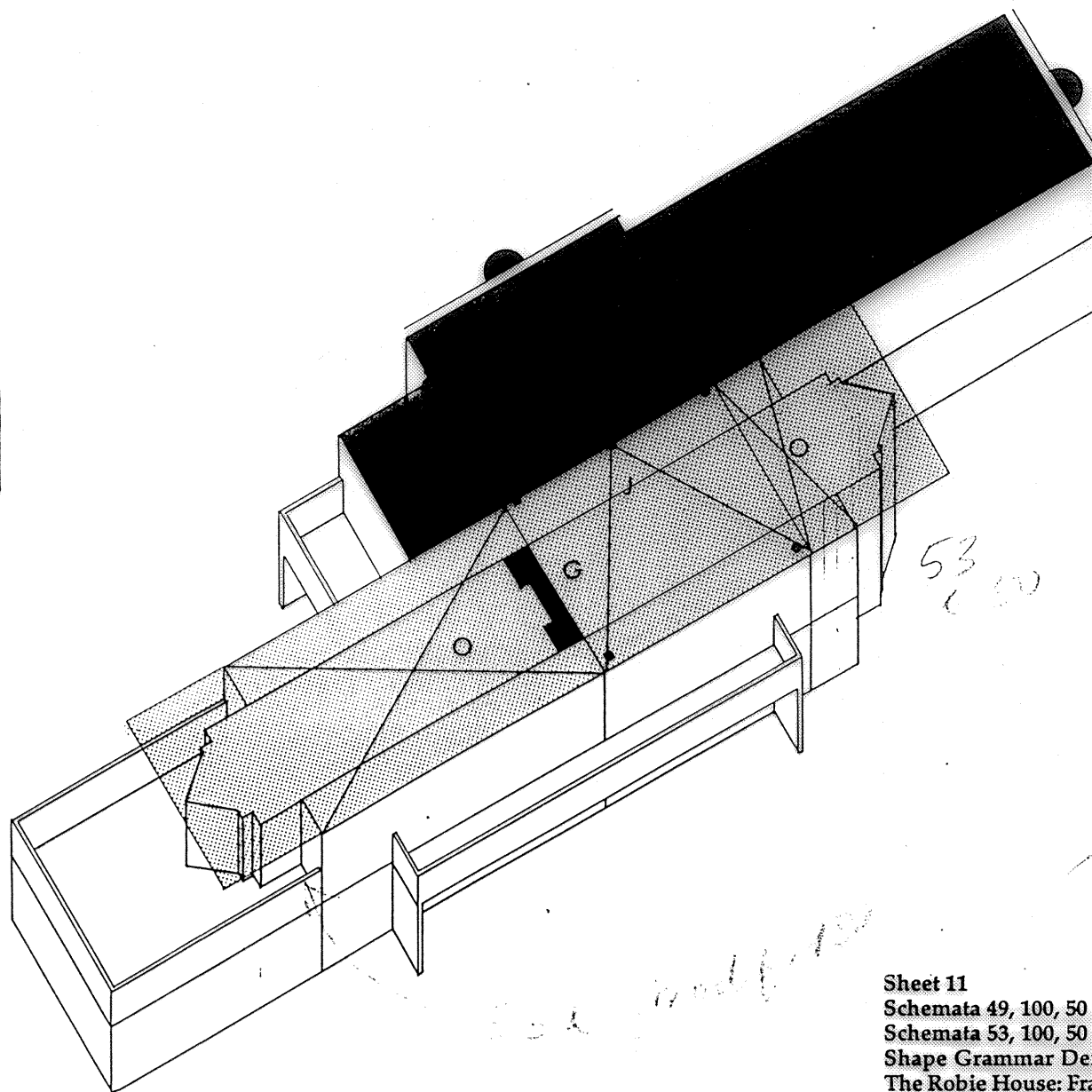
← 41, 44, 45
 note 45



Sheet 10
Schemata 45, 46, 46 adding terraces
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



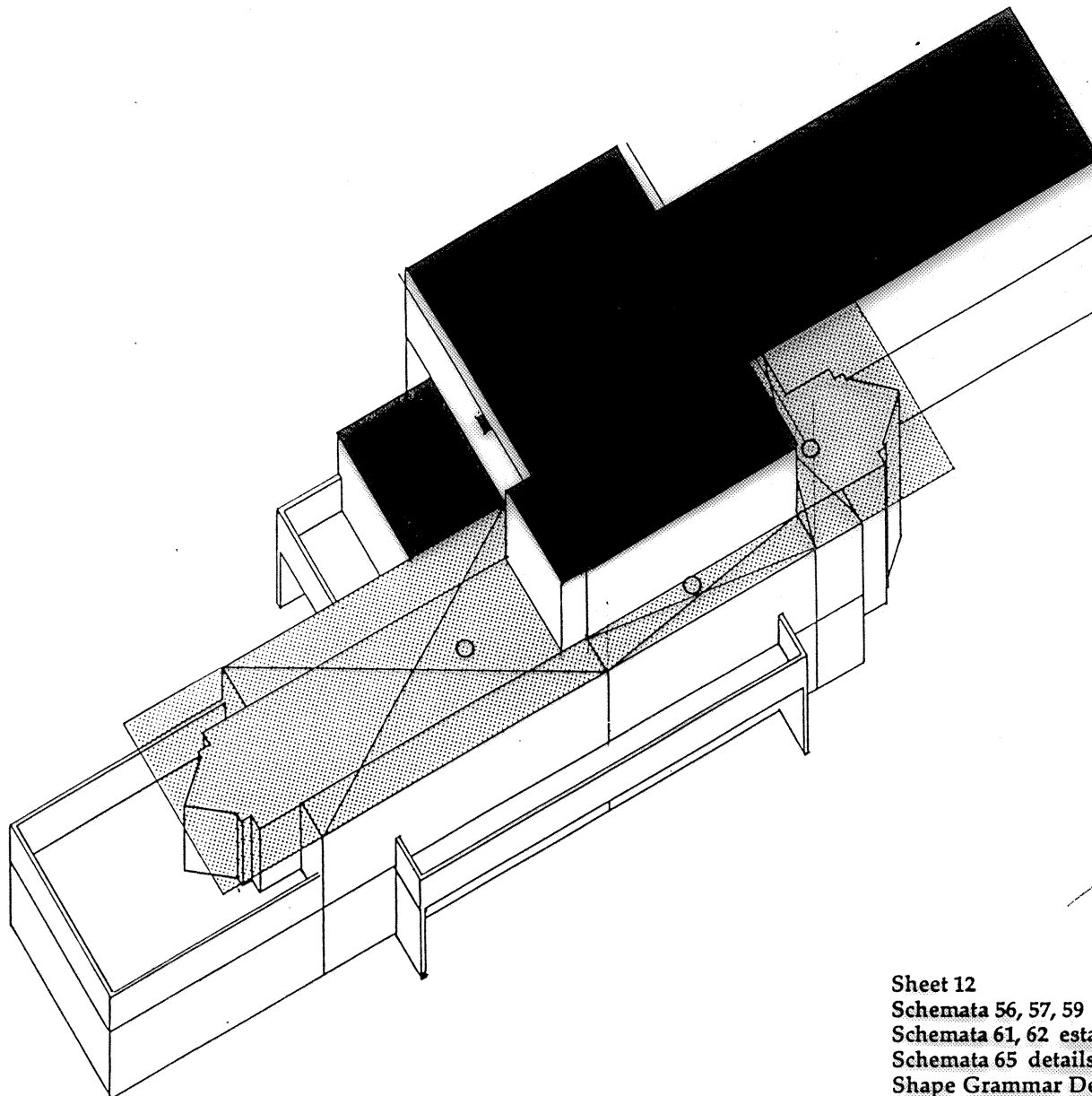
100



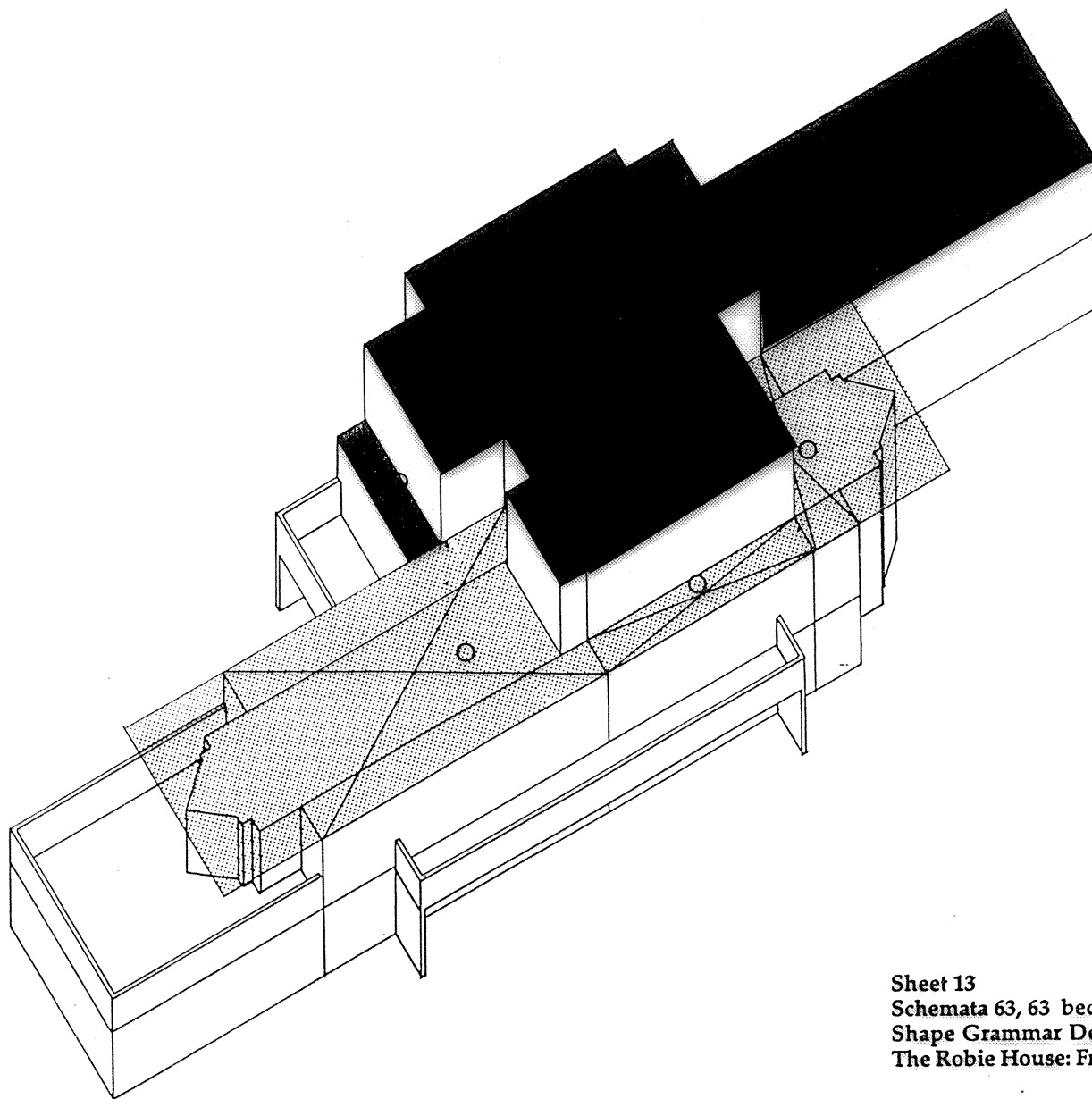
53
(50)

Handwritten notes:
 100, 50
 100, 50
 100, 50

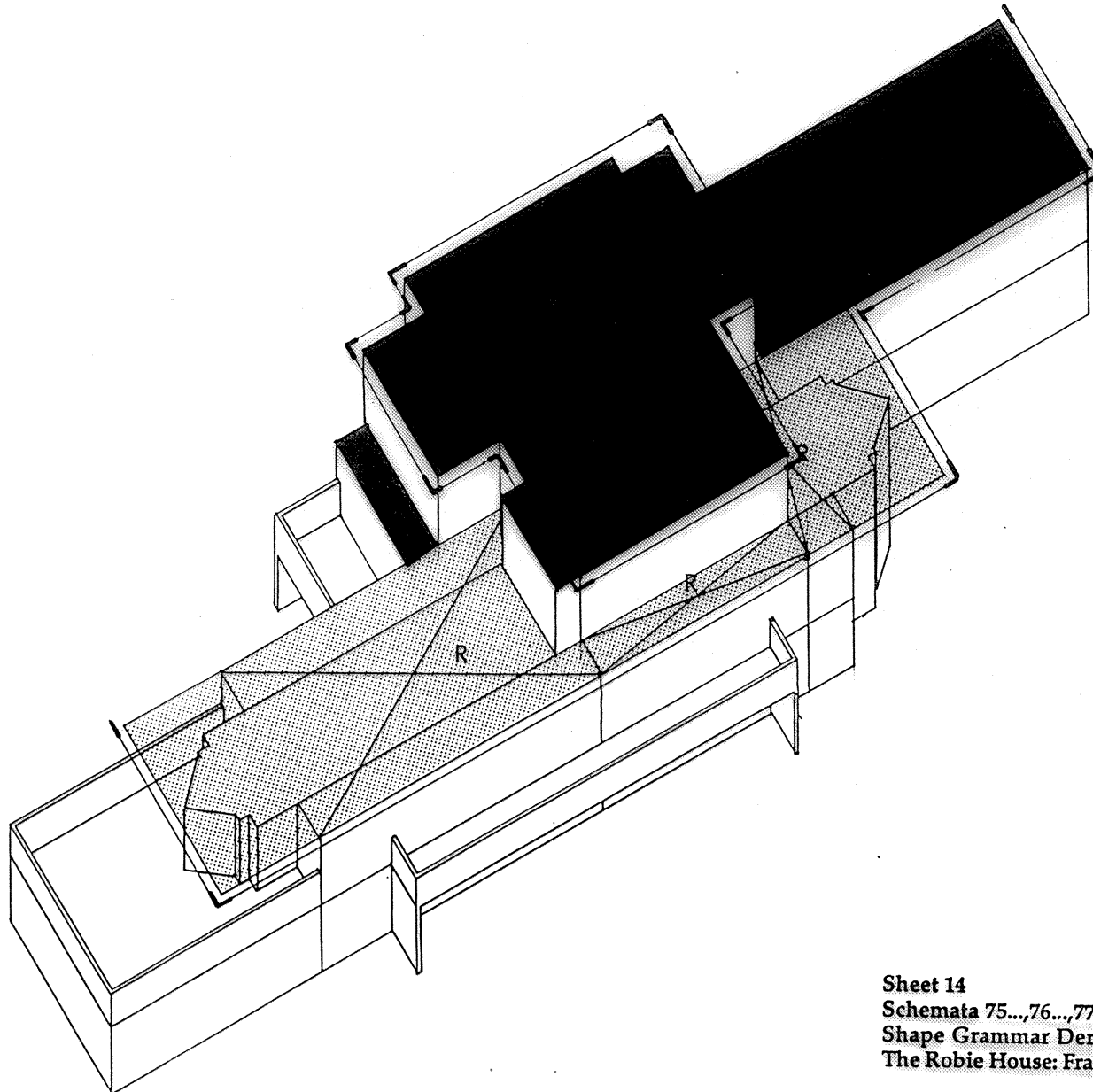
Sheet 11
 Schemata 49, 100, 50 exterior details main floor
 Schemata 53, 100, 50 exterior details main floor
 Shape Grammar Derivation
 The Robie House: Frank Lloyd Wright



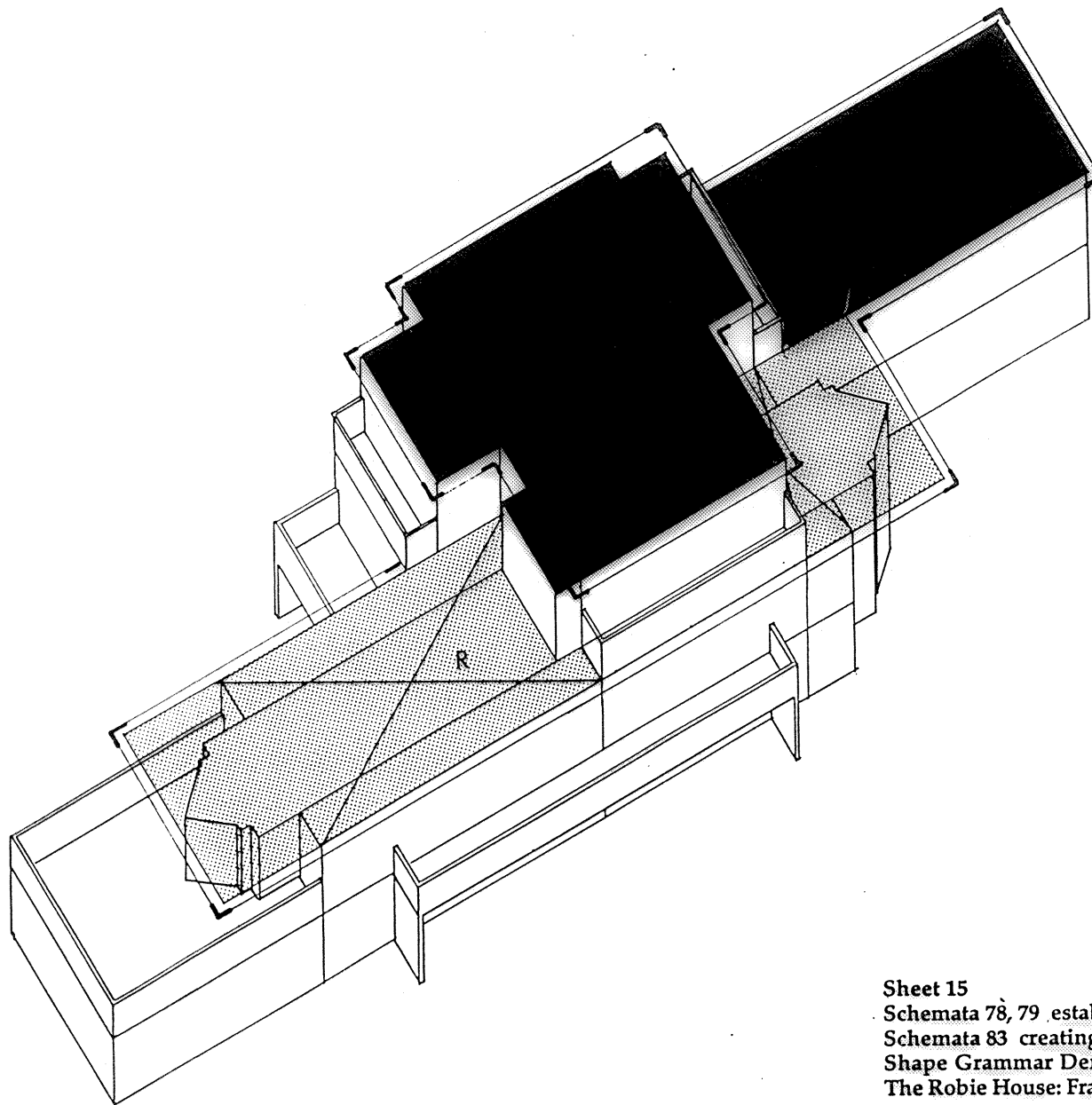
Sheet 12
Schemata 56, 57, 59 erasing main floor non-terminals
Schemata 61, 62 establishing bedroom floor
Schemata 65 details: bedroom floor
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



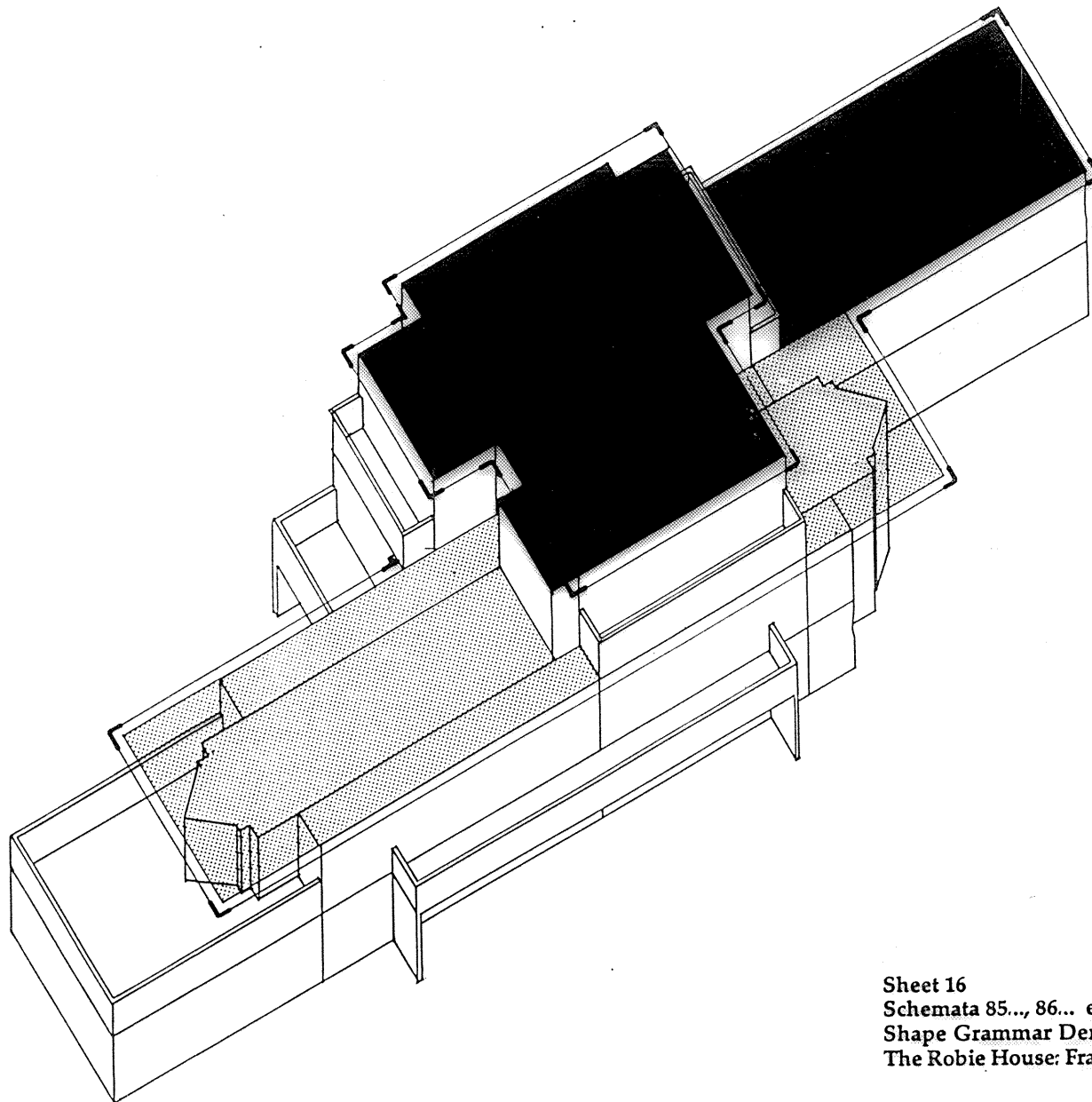
Sheet 13
Schemata 63, 63 bedroom floor extensions
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



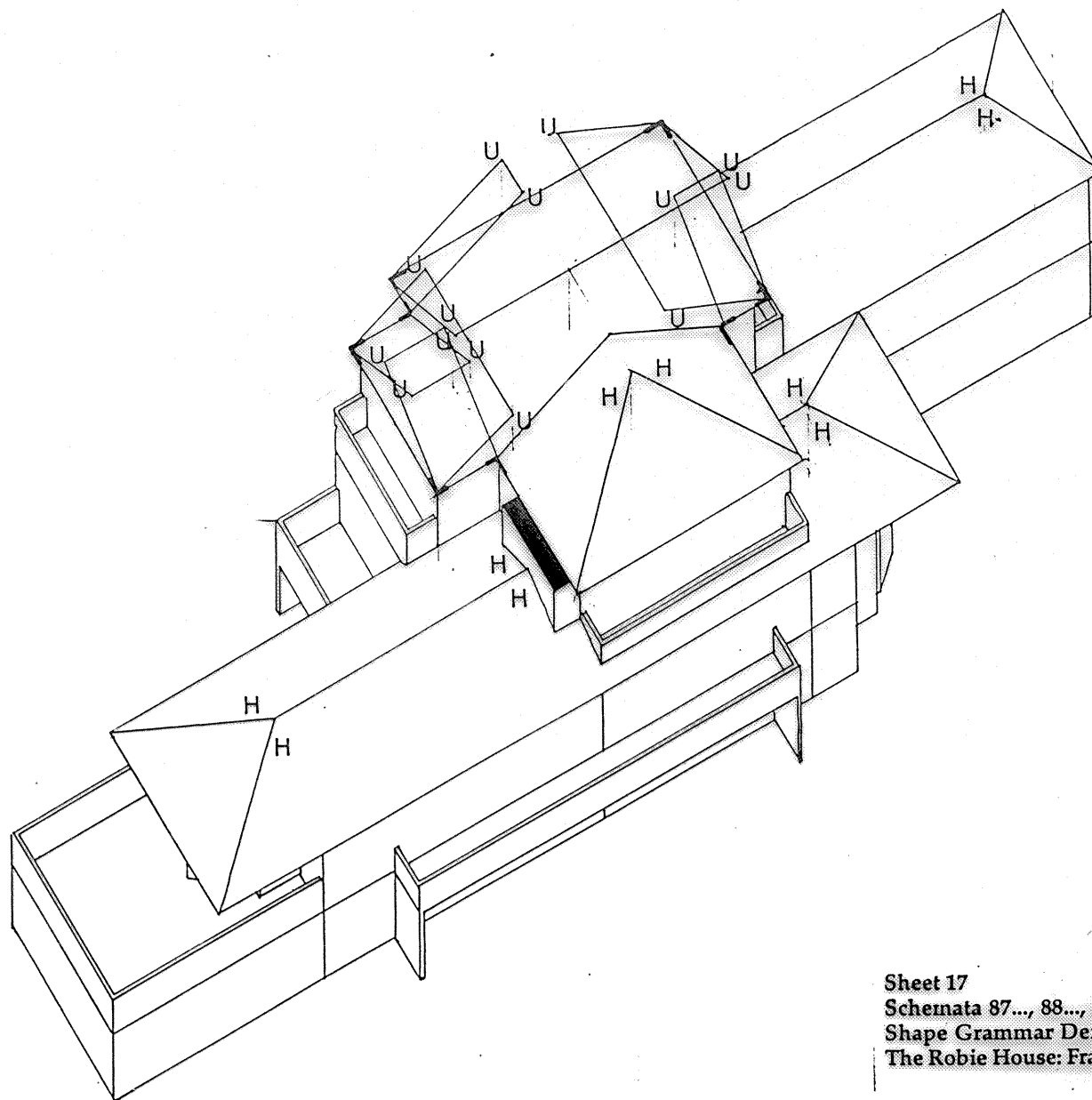
Sheet 14
Schemata 75...,76...,77... establishing roof eaves lines
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



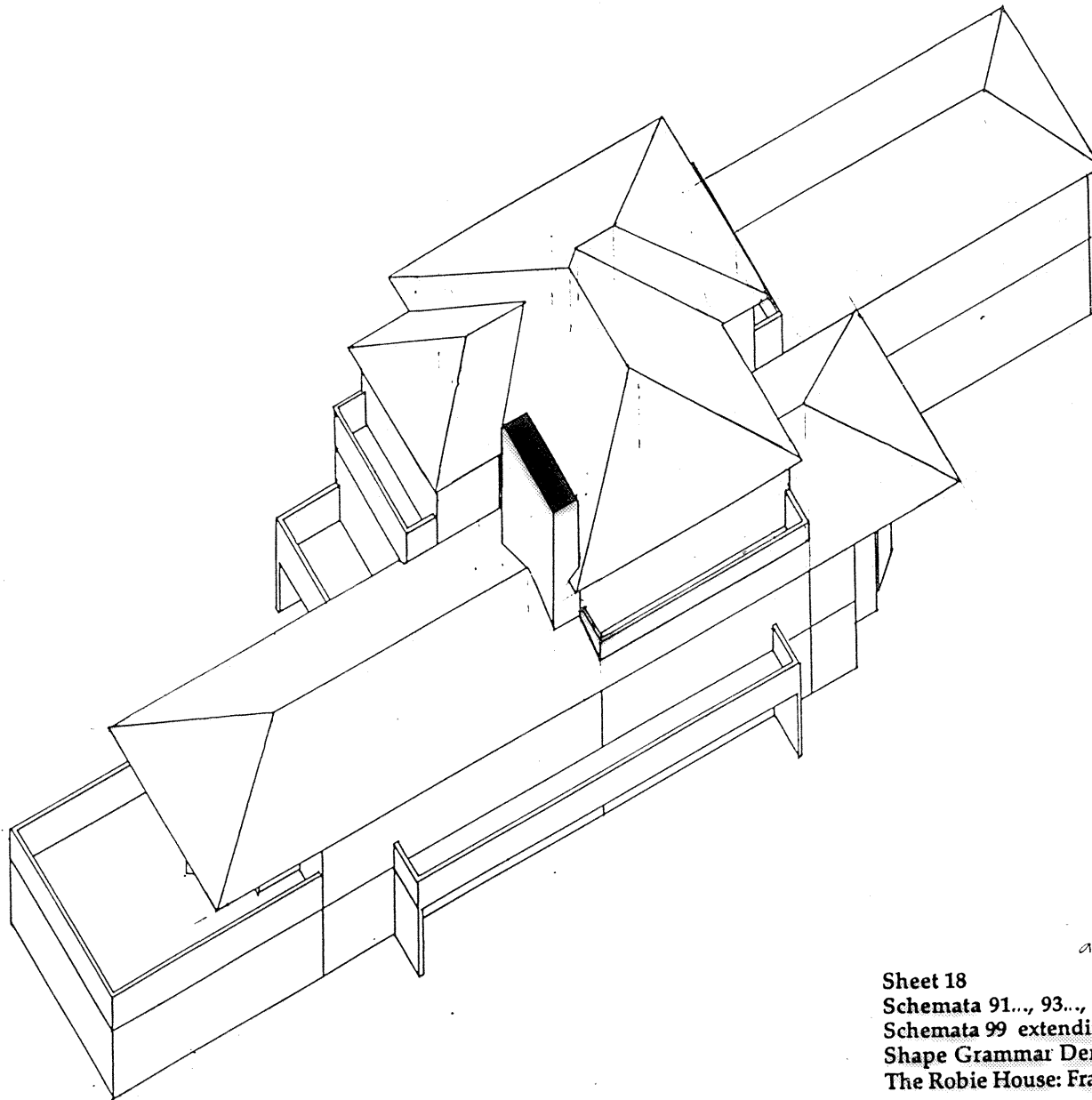
Sheet 15
Schemata 78, 79 establishing eaves roof lines
Schemata 83 creating balconies
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



Sheet 16
Schemata 85..., 86... erasing nonterminal labels
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright

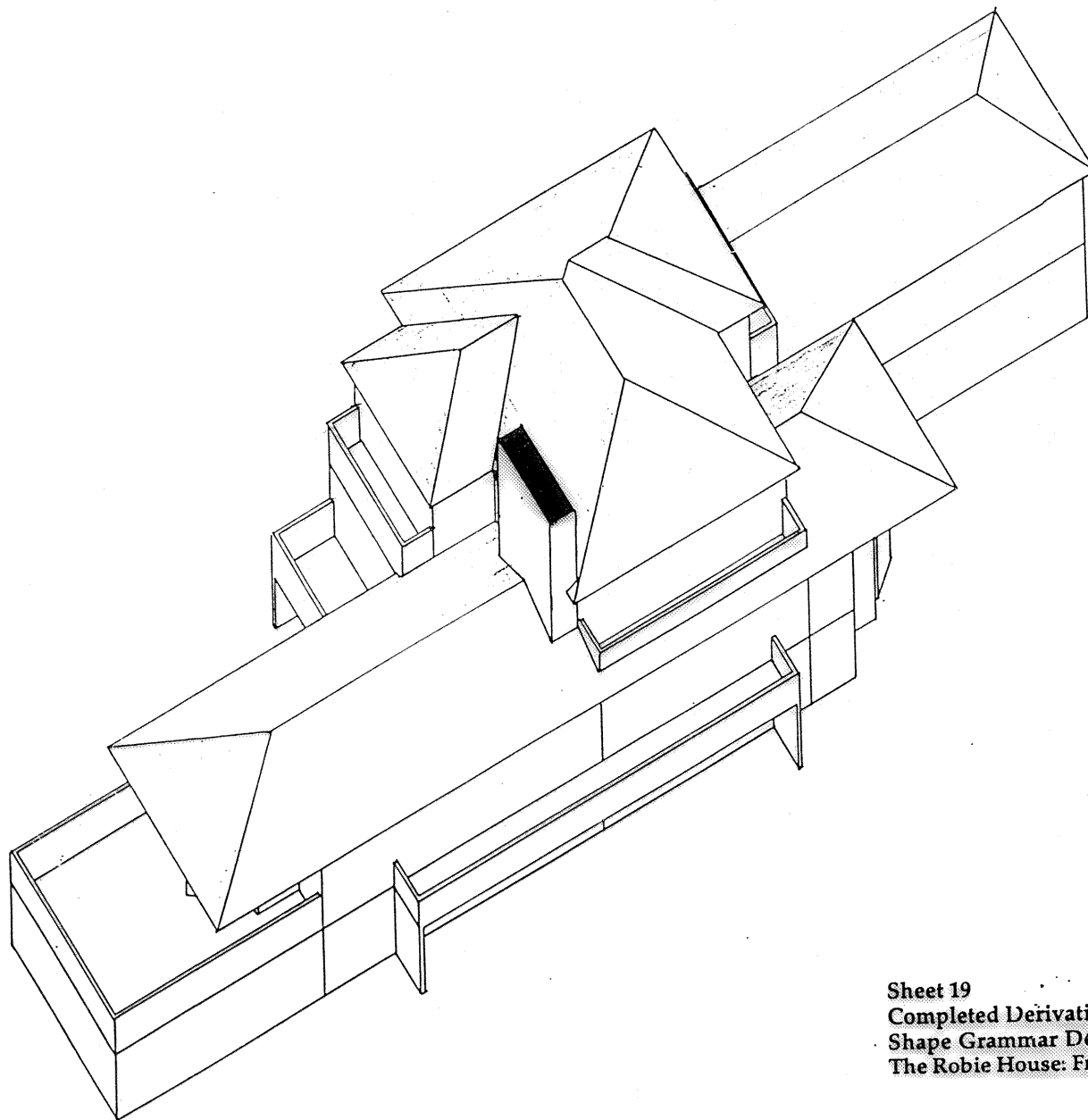


Sheet 17
Schemata 87..., 88..., 89..., 89... roof formation
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



also 87

Sheet 18
Schemata 91..., 93..., 94..., 95..., 96..., 97... roof formation
Schemata 99 extending the chimney through the roof
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright



Sheet 19
Completed Derivation
Shape Grammar Derivation
The Robie House: Frank Lloyd Wright