

**Proportion: Describes the relationships between elements of a design.**

**Geometry: Is the single most common determinant of characteristic in building.**

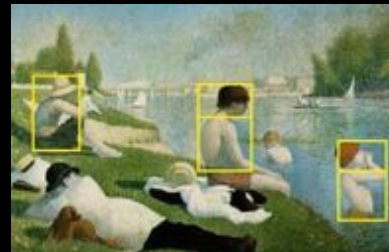
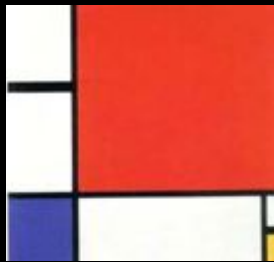
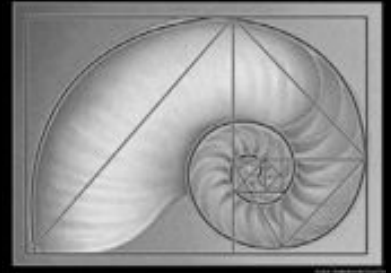
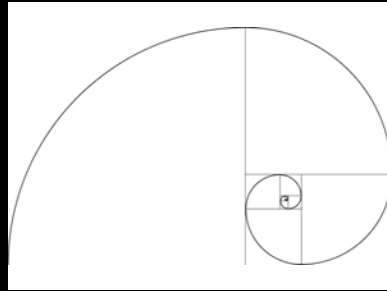
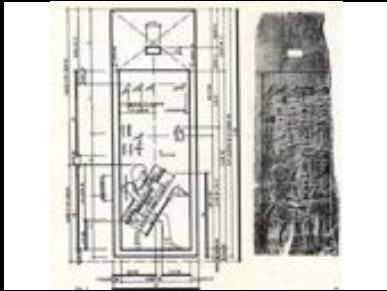
**Plato in the Timaeus: “The cube a derivative of the square is the vital ingredient of Pythagorean mathematics, it is considered geometrically, numerically and symbolically, equating with the earth, the heaviest and most inert of the four elements.”**

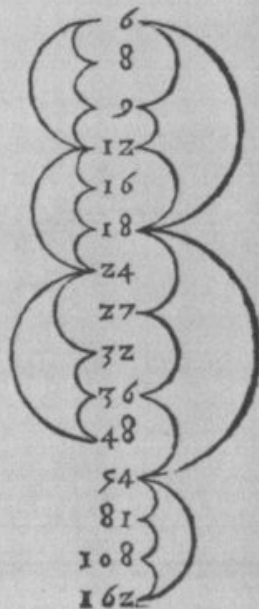
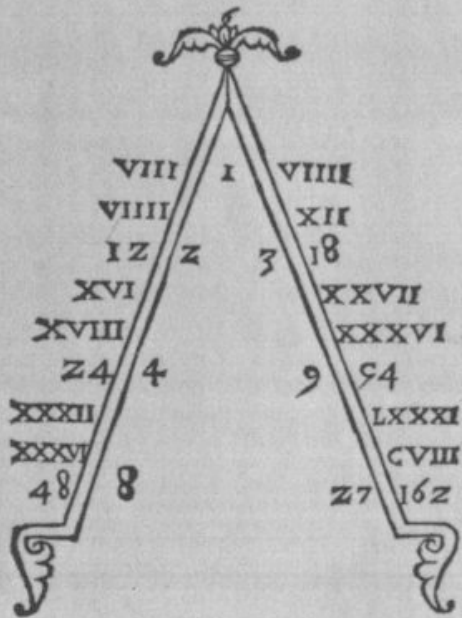
**Vitruvius: “Proportion is a correspondence among measures of the members of an entire work, and of the whole to a certain part selected as standard.”**

**Vitruvius: “Without symmetry and proportion there can be no principals in the design of any temple; that is, if there is no precise relationship between its members, as in the case of those of a well shaped man.”**

**Alberti: “The part ought to be so composed that their overall harmony contributes to the honor and grace of the whole work, and that effort is not expended in adorning one part at the expense of all the rest, but that the harmony is such that the building appears a single, integral, and well-composed body rather than a collection of extraneous and unrelated parts.”**

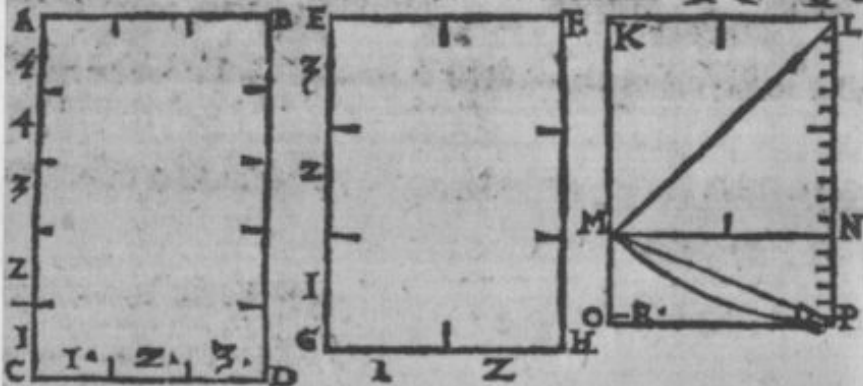
**Le Corbusier: “An inevitable element of Architecture. The necessity for order, The regulating line is a guarantee against wilfulness. It brings satisfaction to the understanding”**



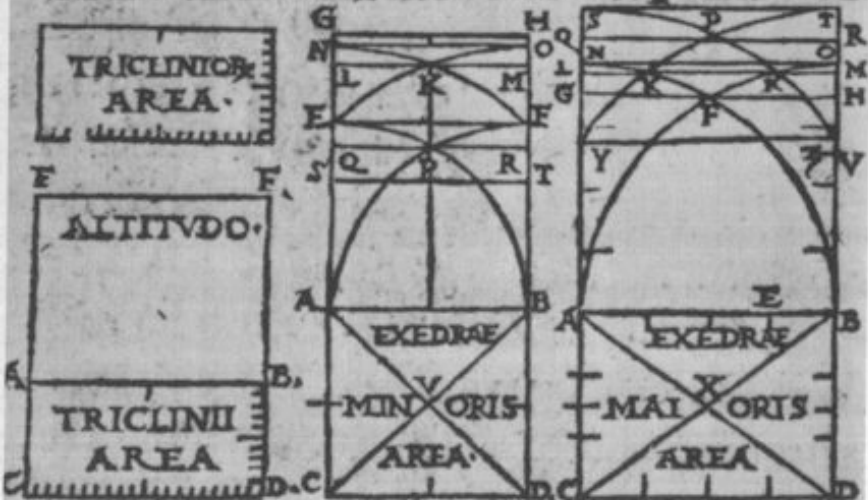




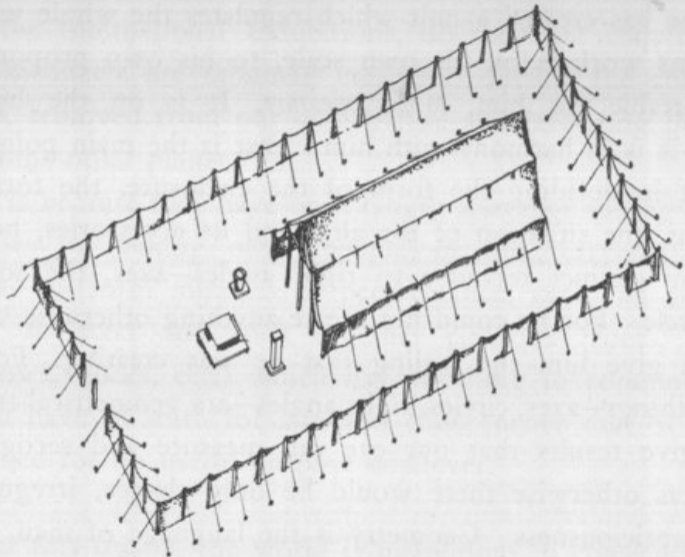
TRIANGULUM: EX TRIBUS COFORMATIS GENERIBUS  
 FAUCTIV: IMPLUVIOR: PERISTYLIOR: QVOQ; 8



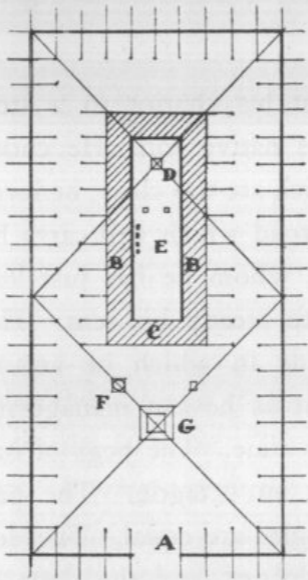
VARIAS EXEDRAS PINACOTHECAR: Q; ALTIUDINES

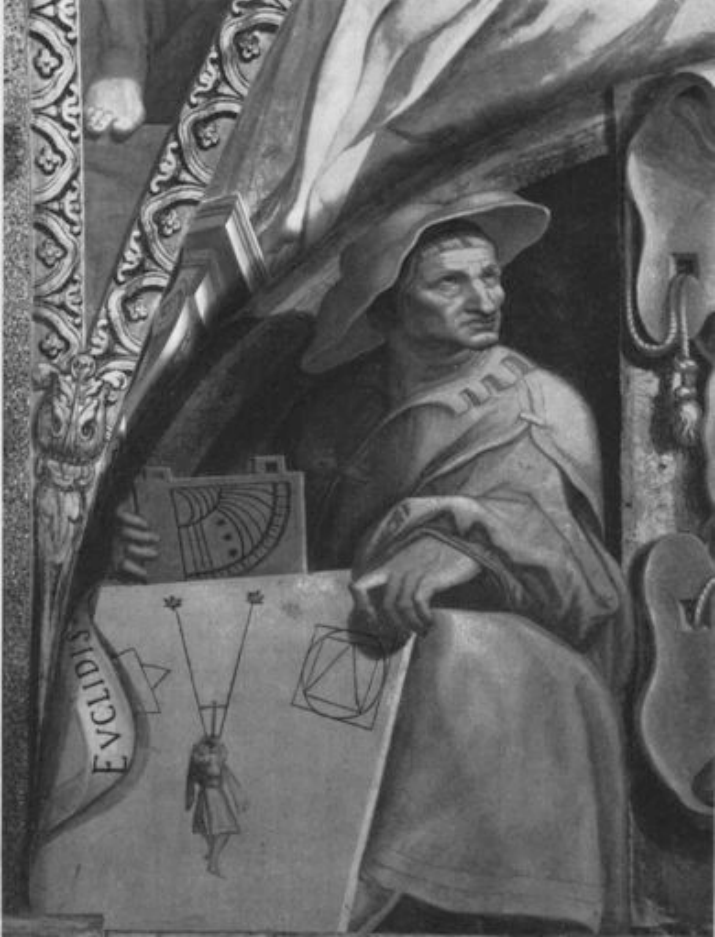






A PRIMITIVE TEMPLE





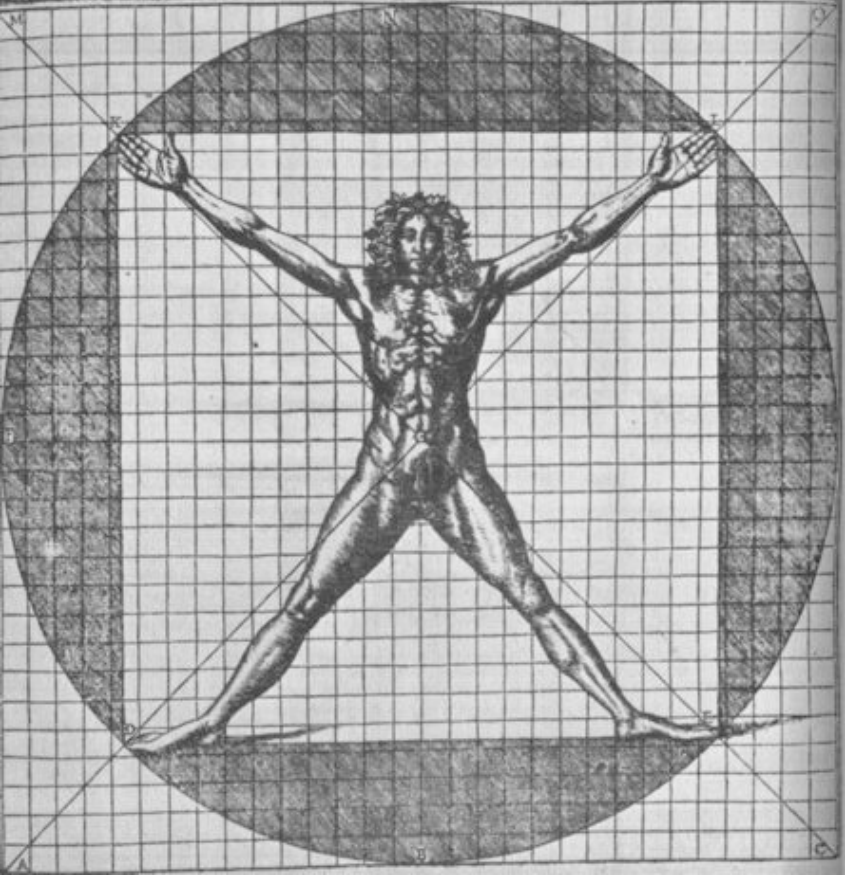
EVCTIDIS





D. ALFONSO REX

A PARI QUADRATA SUPERFICIE HUMANI CORPORIS PER DISTINCTA EO NATURALI CENTRO  
UMBILICI CIRCULUM EXCIPERE: ET IN EO QUADRATUM MINOREM INSCRIBERE. FIG. A.





....

Foco

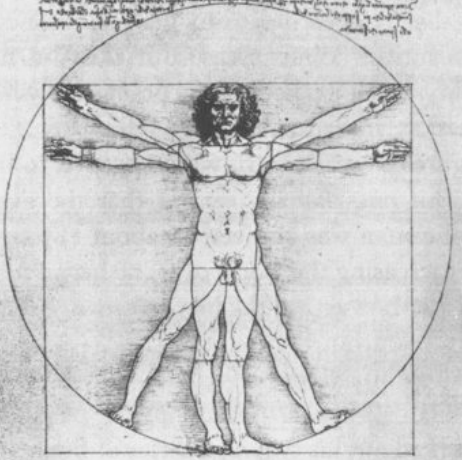
Arma

Arma

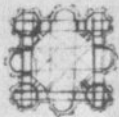
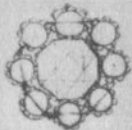
LII

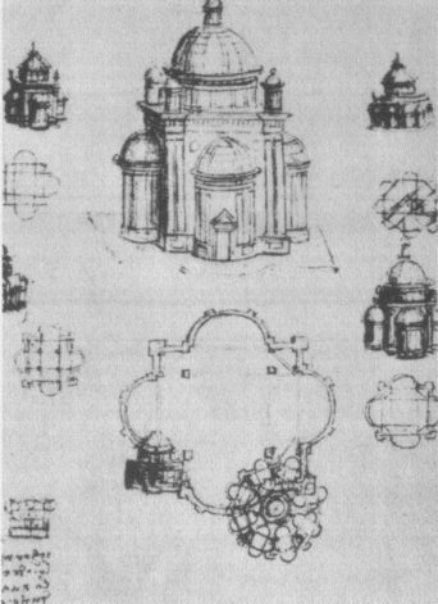


Handwritten text at the top of the page, likely bleed-through from the reverse side of the manuscript.

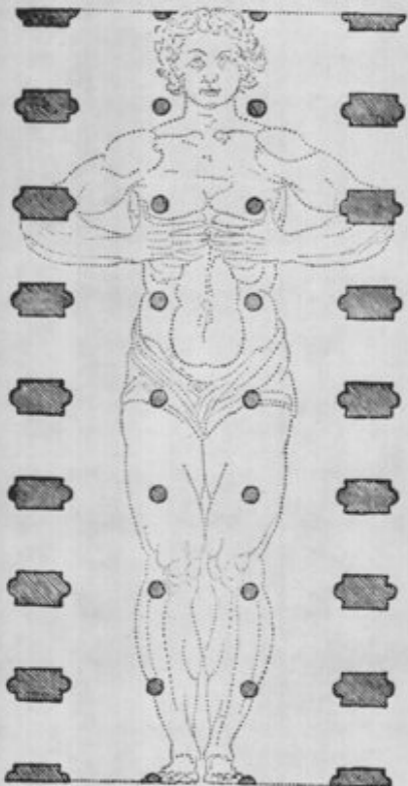


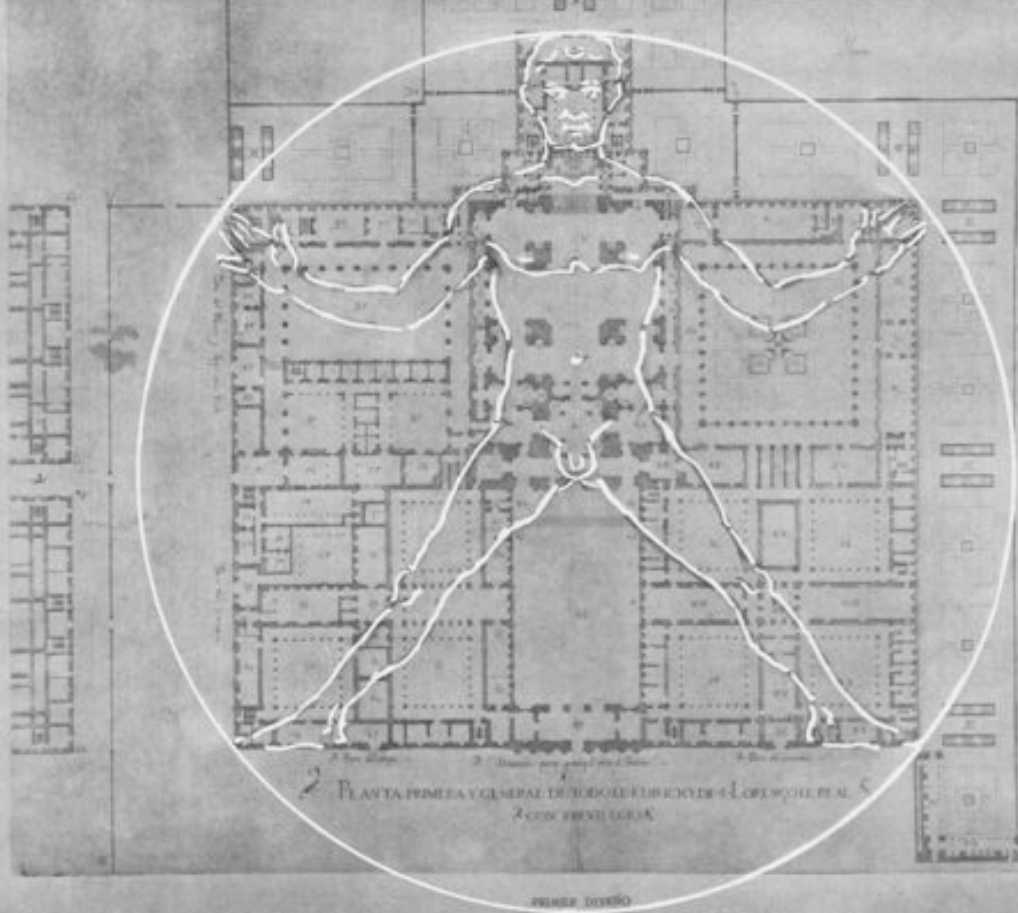
Handwritten text at the bottom of the page, likely bleed-through from the reverse side of the manuscript.



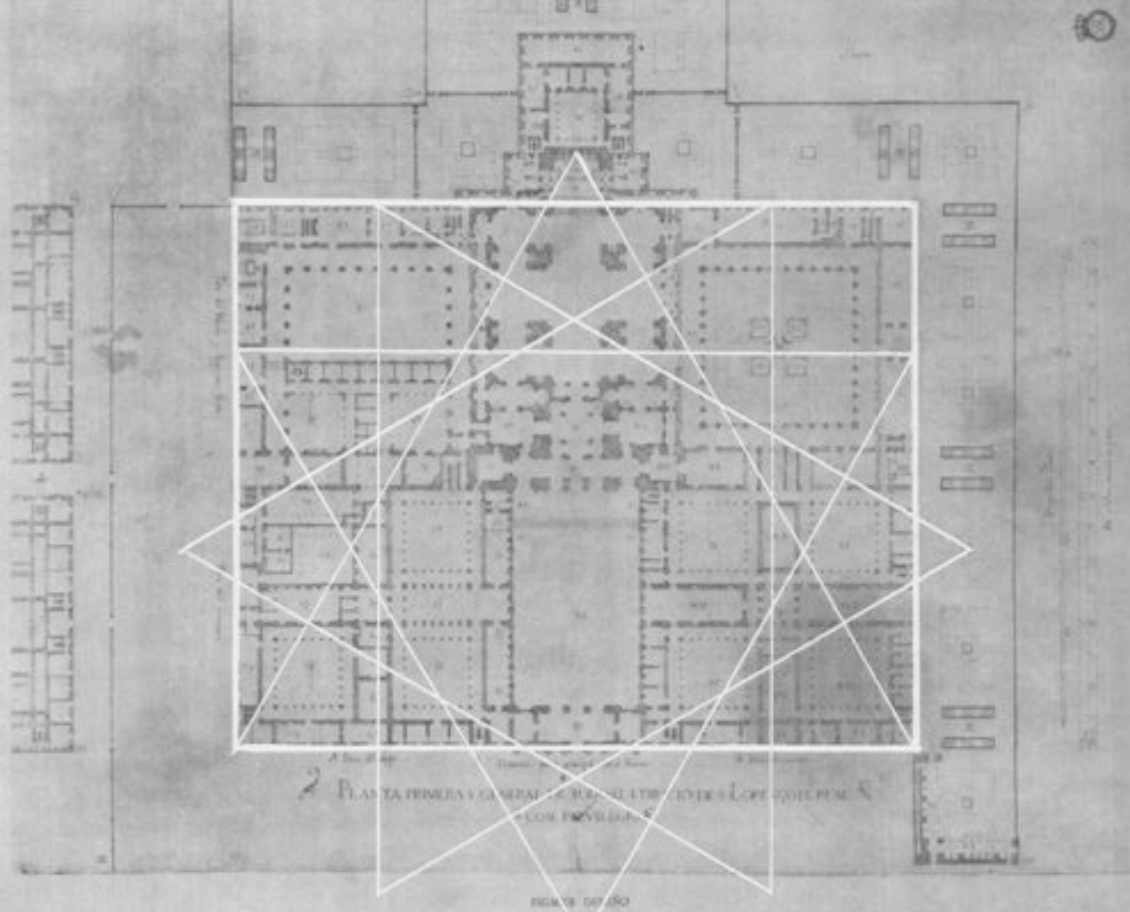


SINGVLARVM  
PORTICVVM, ET HV-  
MANAE STATVRAE SIMILIS  
DISTRIBVTIO.

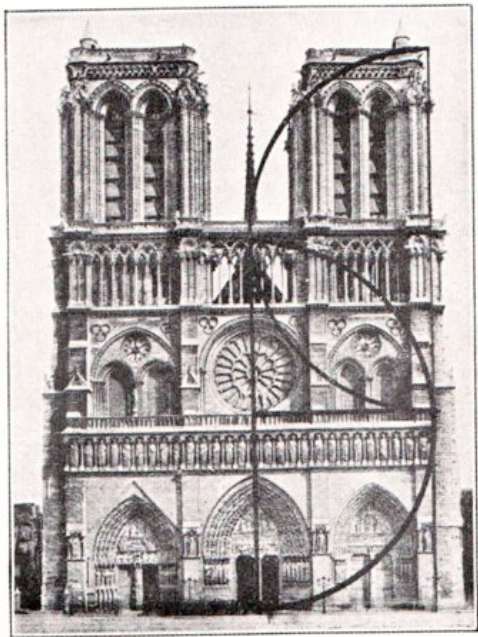




PLANTA PRIMERA Y GENERAL DE TERCOLO EN UNO DE LOS REYES REALES  
AÑO 1784

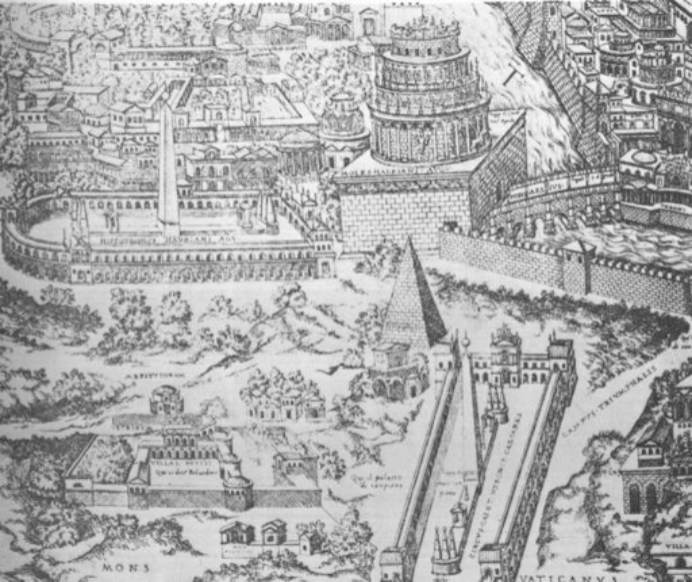


Pianta dell'intero Palazzo di San Marco in Venezia con i suoi giardini



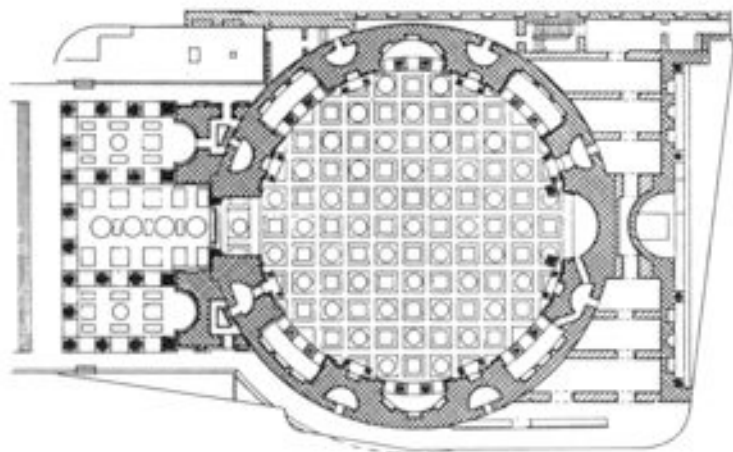
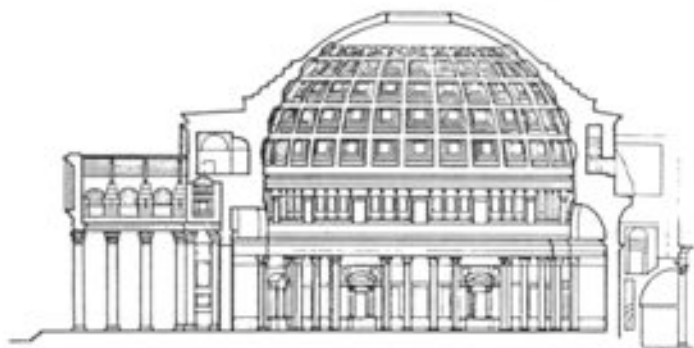
NOTRE DAME, PARIS

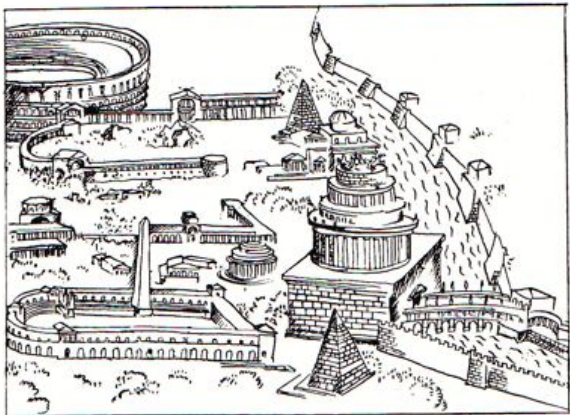


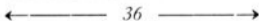
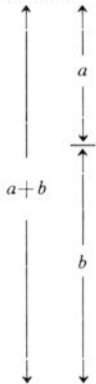


MUSEI

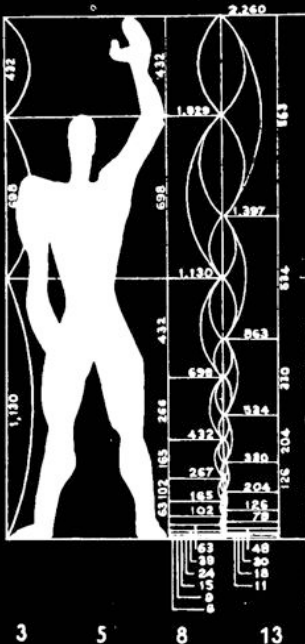
VATICANA







$$a:b = b:(a+b)$$



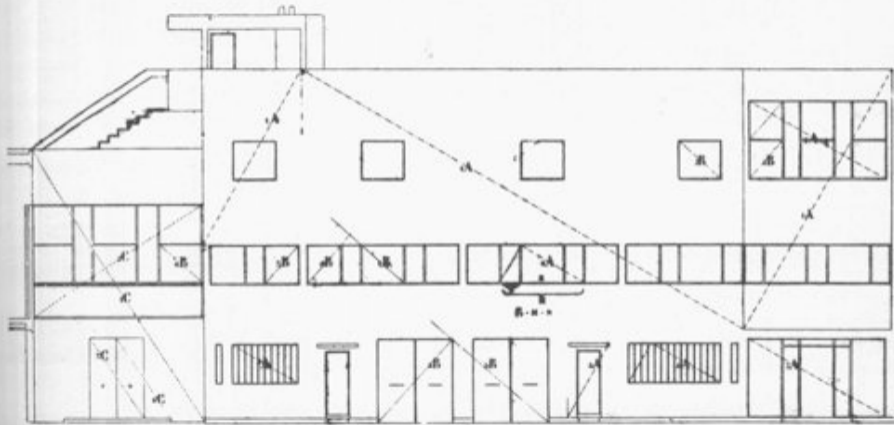
2,260

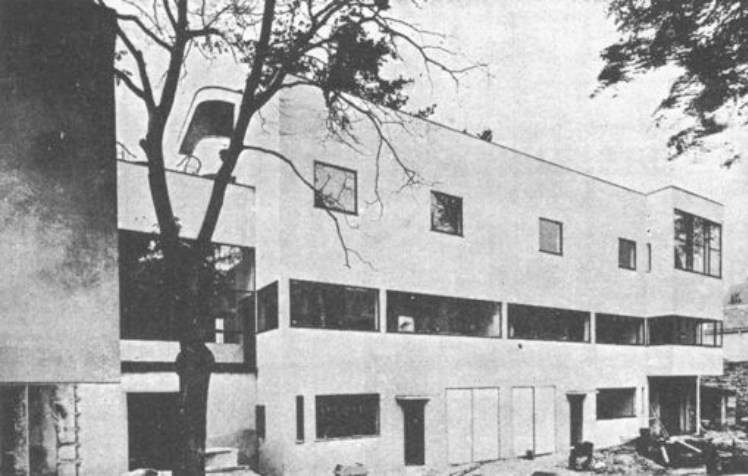
3

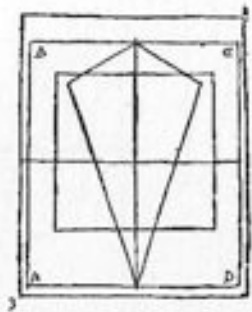
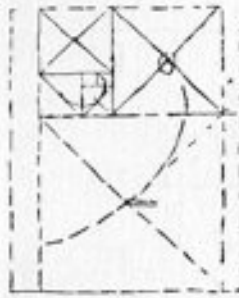
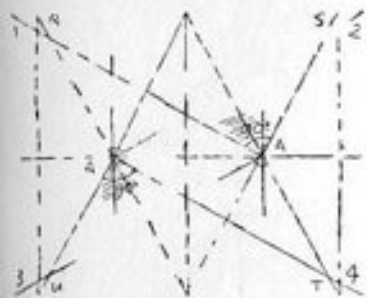
5

8

13

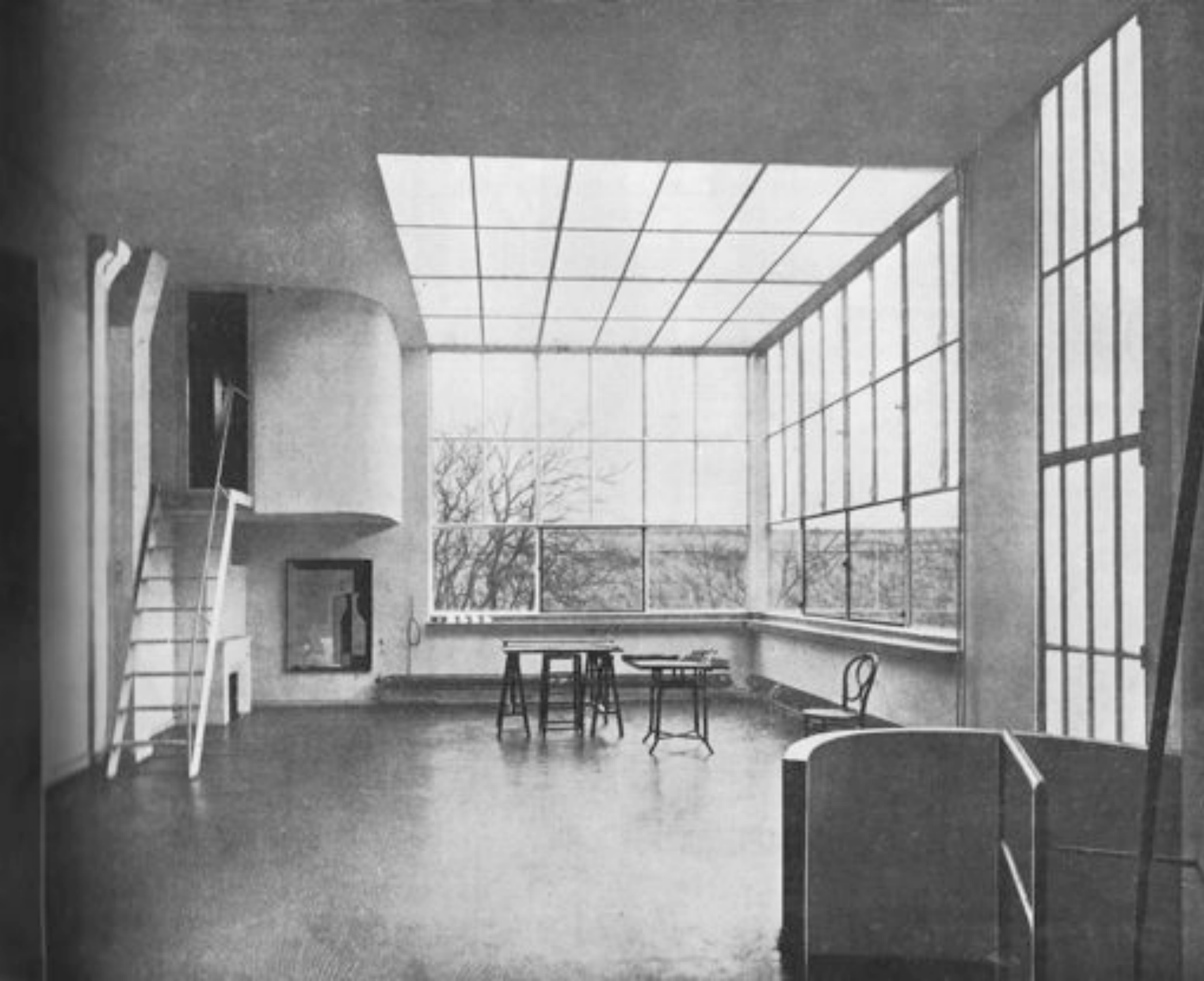












Meanwhile, the ASCORAL, too, was hard at work, and in particular Mlle Elisa Maillard.<sup>1</sup> An improved version of (A), completed on the 26th of December 1943, suggested

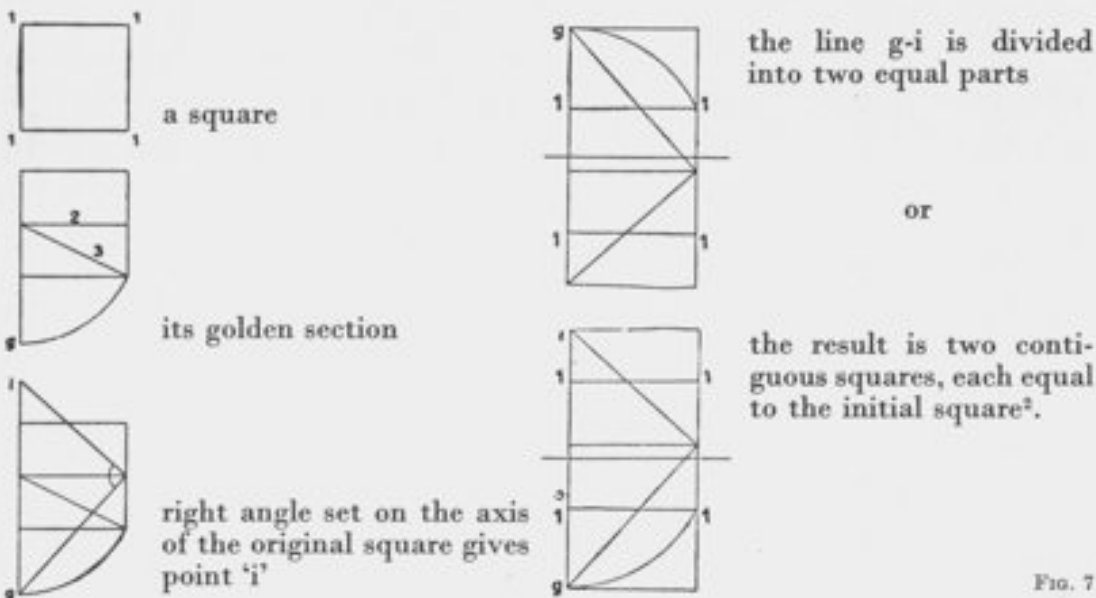


FIG. 7

Along the line g-i there appear certain significant measures, the relationships between which are infinitely rich in possibilities, but which did not yet seem to us to represent a system.

(1) Attached to the Musée de Cluny and author of an excellent book on regulating lines, *Du nombre d'or*, published by André Tournon et Cie.

(2) It will be seen at the end of this work that the absolute equality of the three squares evolved by this process is subject to certain reservations.

This drawing can be reversed, in which case the result will be as follows:

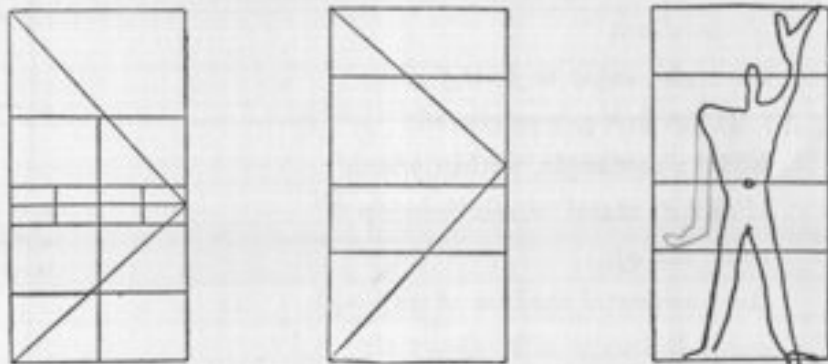
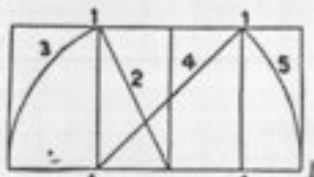
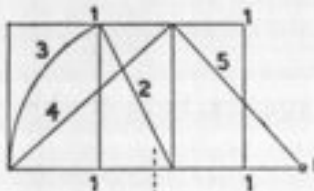


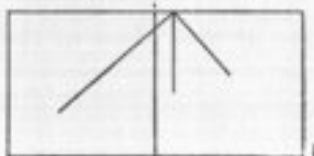
FIG. 9



We are then in the presence of two diagrams, almost equal in appearance but evolved by different processes: the Hanning diagram using the two diagonals of the initial square;

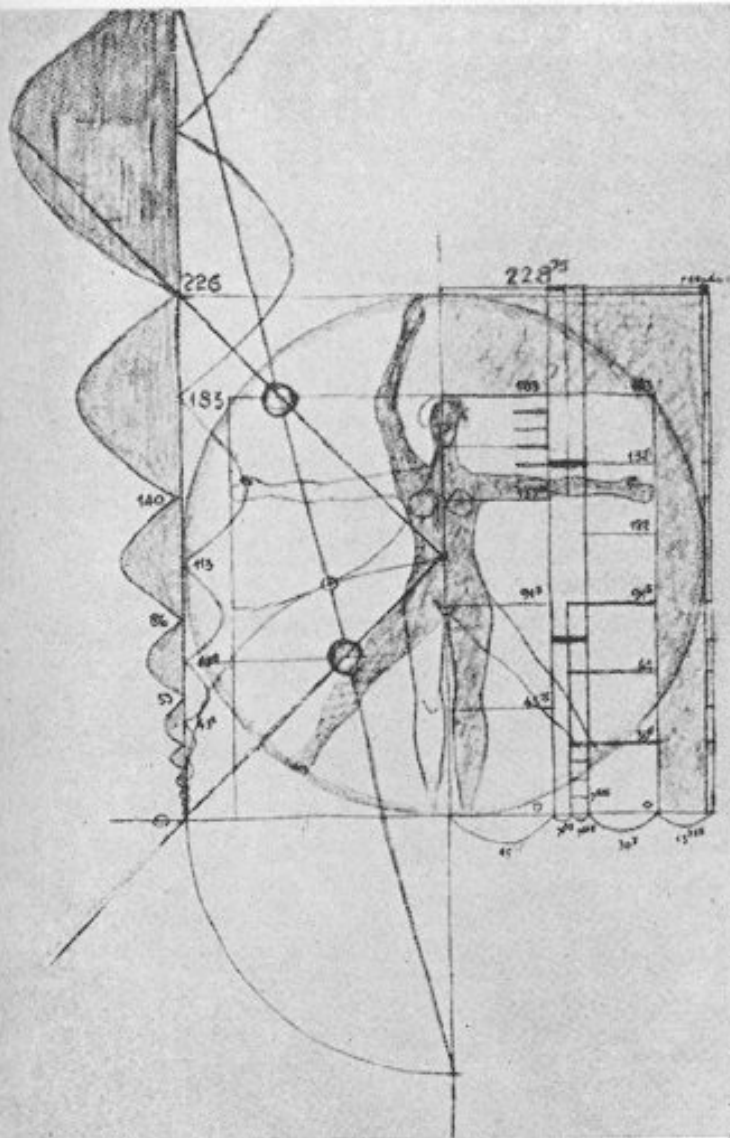


the Maillard diagram using the relationship  $\Phi$  (arising from the first diagonal and leading to the establishment of the right angle, which gives point 'i').



Point 'i' establishes the presence of two contiguous squares equal to the initial square.

FIG. 10



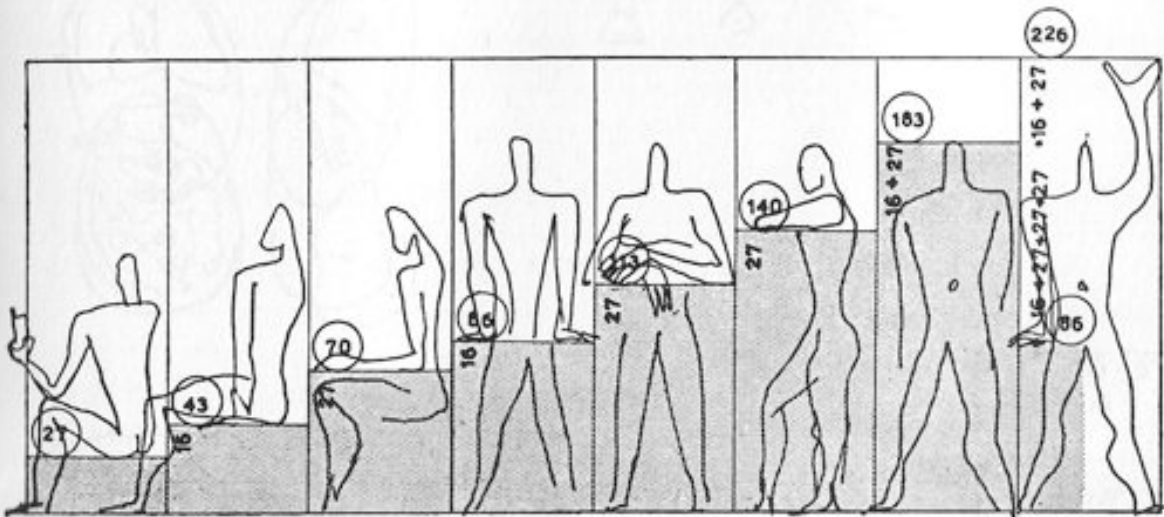


FIG. 26

# A DEMONSTRATION: VALUES AND EXERCISES

## VALUES

The limitless numerical values:

### VALUES EXPRESSED IN METRES

### VALUES EXPRESSED IN FEET AND INCHES

RED SERIES: RO		BLUE SERIES: BL		RED SERIES: RO	BLUE SERIES: BL
cm.	m.	cm.	m.	inches	inches
95,280·7	959·80				
58,886·7	588·86	117,773·5	1,177·73		
36,394·0	363·94	72,788·0	727·88		
22,492·7	224·92	44,985·5	449·85		
13,901·3	139·01	27,802·5	278·02		
8,591·4	85·91	17,182·9	171·83		
5,309·8	53·10	10,619·6	106·19		
3,281·6	32·81	6,563·3	65·63		
2,028·2	20·28	4,056·3	40·56		
1,253·5	12·53	2,506·9	25·07		
774·7	7·74	1,549·4	15·49	304·962" (305")	609·931" (610")
478·8	4·79	957·6	9·57	188·479" (188½")	376·966" (377")
295·9	2·96	591·8	5·92	116·491" (116½")	232·984" (233")
182·9	1·83	365·8	3·66	72·000" (72")	143·994" (144")
113·0	1·13	226·0	2·26	44·497" (44½")	88·993" (89")
69·8	0·70	139·7	1·40	27·499" (27½")	55·000" (55")
43·2	0·43	86·3	0·86	16·996" (17")	33·992" (34")
26·7	0·26	53·4	0·53	10·503" (10½")	21·007" (21")
16·5	0·16	33·0	0·33	6·495" (6½")	12·985" (13")
10·2	0·10	20·4	0·20	4·011" (4")	8·023" (8")
6·3	0·06	12·6	0·12		
3·9	0·04	7·8	0·08		
2·4	0·02	4·8	0·04		
1·5	0·01	3·0	0·03		
0·9		1·8	0·01		
0·6		1·1			
etc.		etc.			

THE INCH ..... 2·539 cm.  
 THE FOOT ..... 30·48 cm.

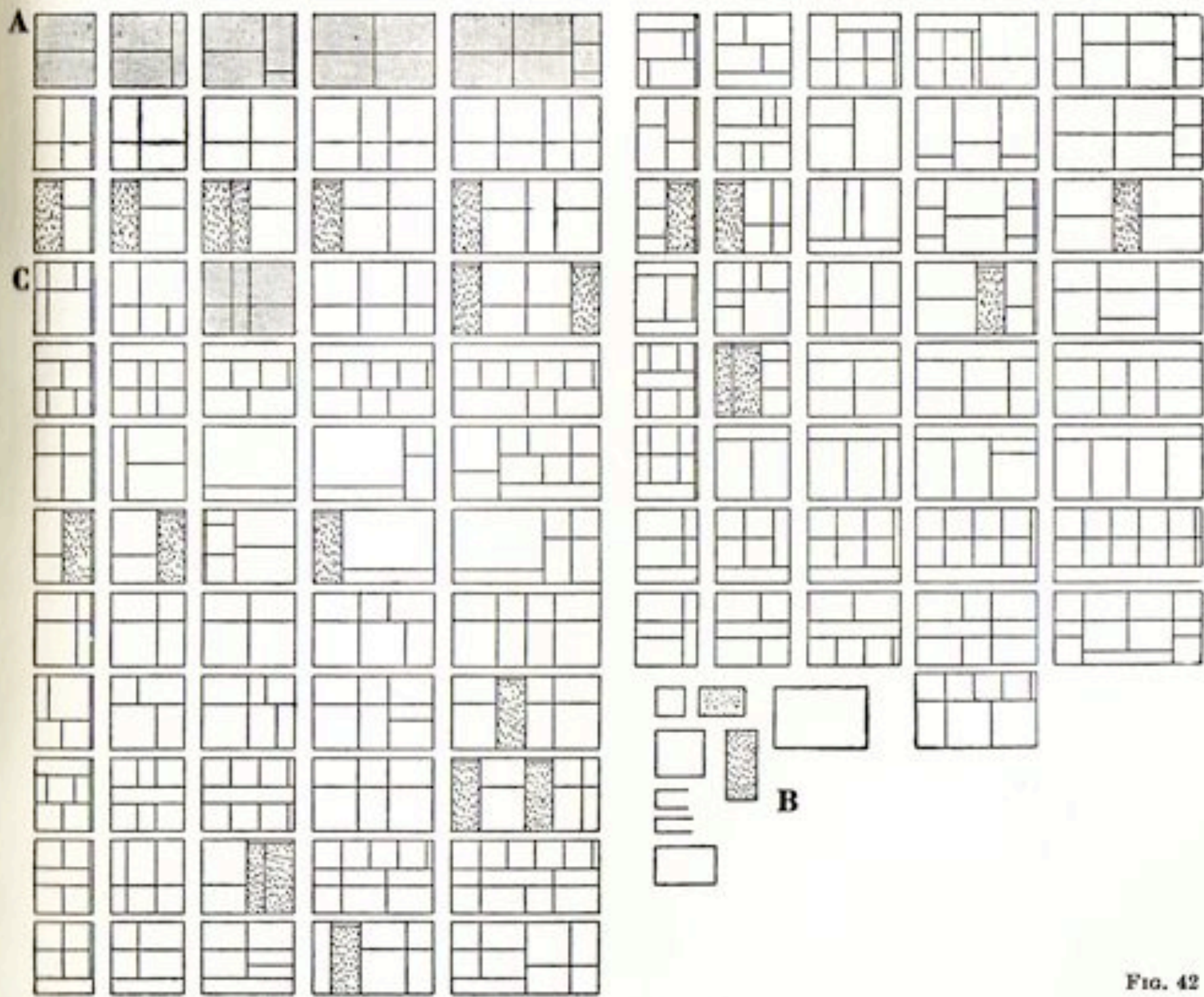
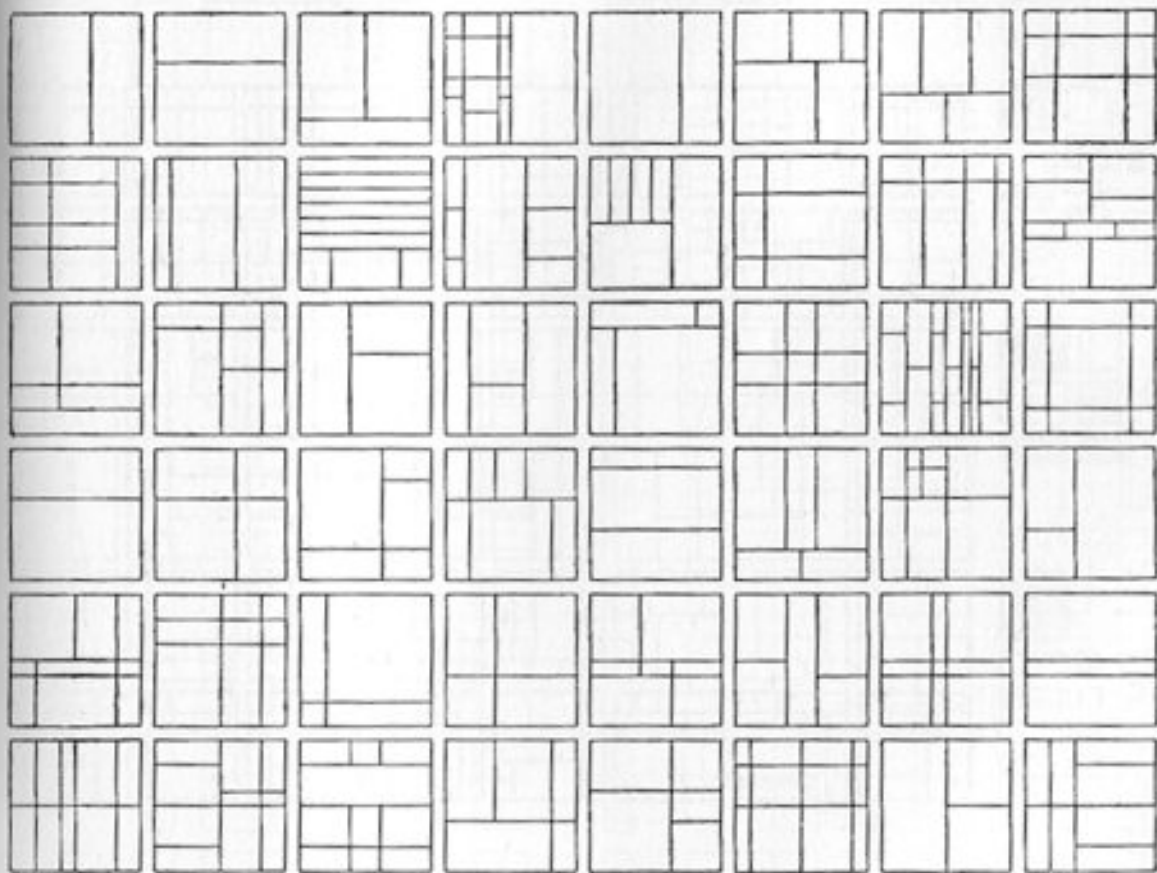


FIG. 42





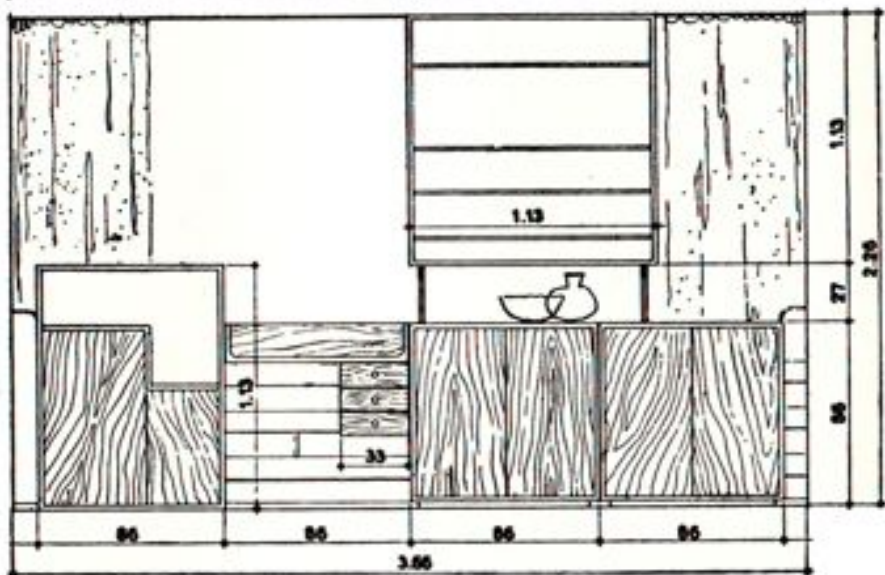
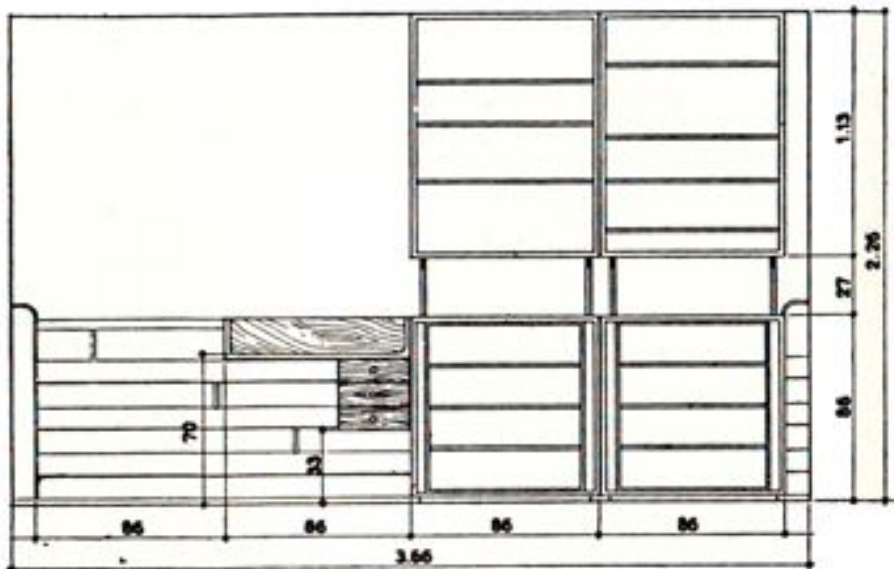
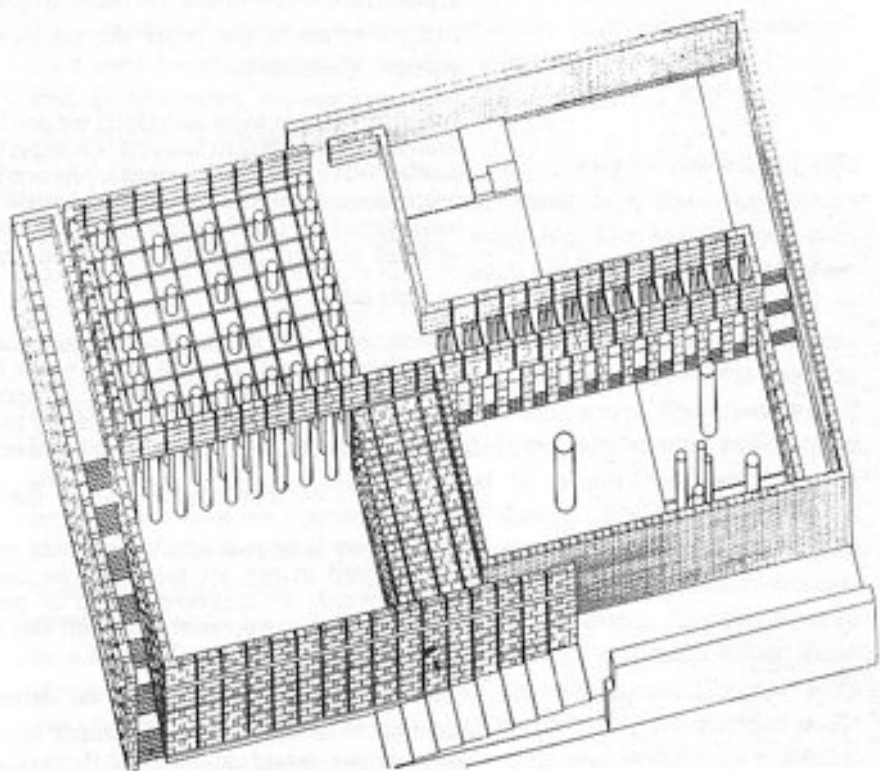


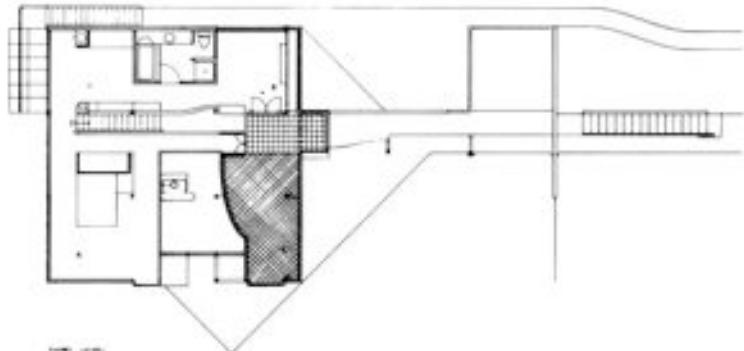
FIG. 61



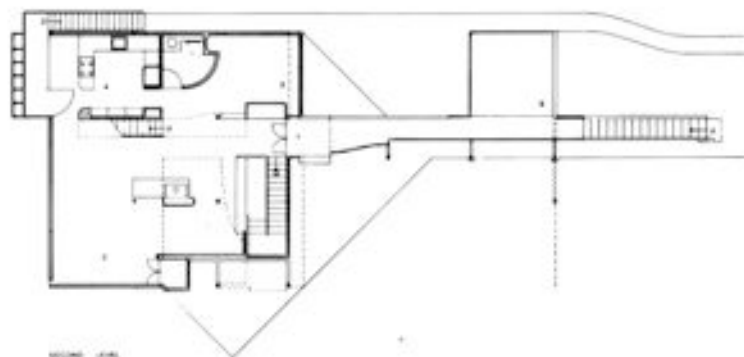




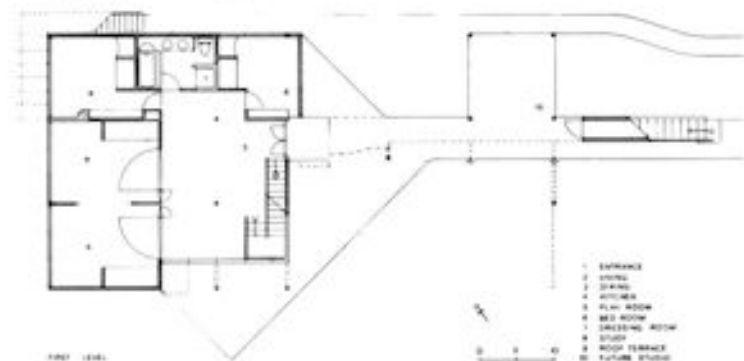




FIRST LEVEL



SECOND LEVEL



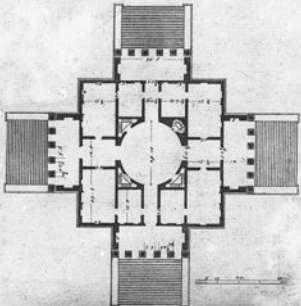
THIRD LEVEL

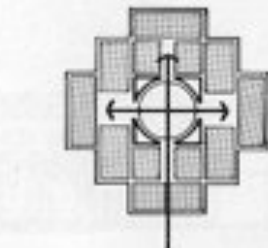
- 1 ENTRANCE
- 2 KITCHEN
- 3 BATH
- 4 ATTIC
- 5 PLAY ROOM
- 6 BED ROOM
- 7 DRESSING ROOM
- 8 STUDY
- 9 ROOF TERRACE
- 10 FUTURE STUDIO



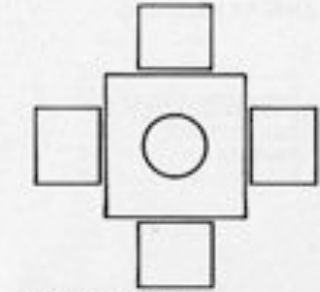
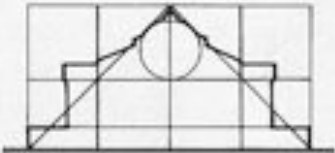




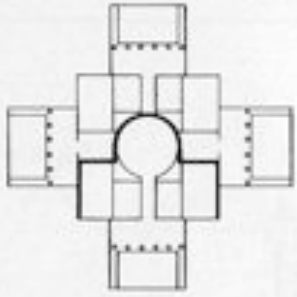




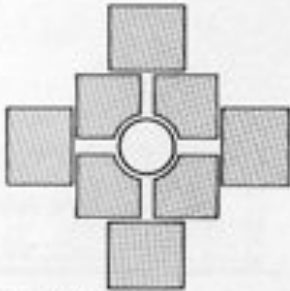
CIRCULATION TO USE



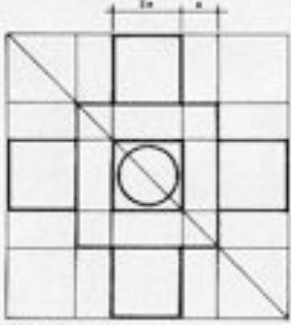
ADDITIVE AND SUBTRACTIVE



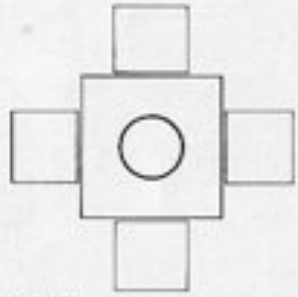
PLAN TO SECTION



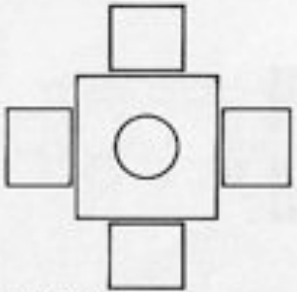
REPETITIVE TO UNIQUE



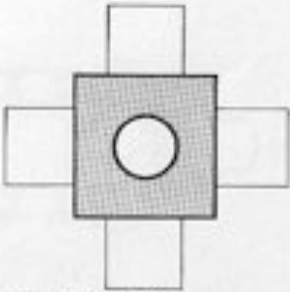
GEOMETRY



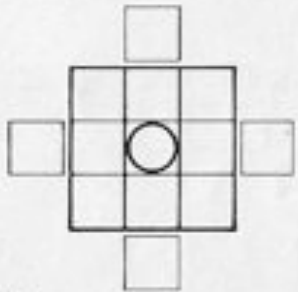
HiERARCHY



PART TO WHOLE



SYMMETRY AND BALANCE



PARTS



