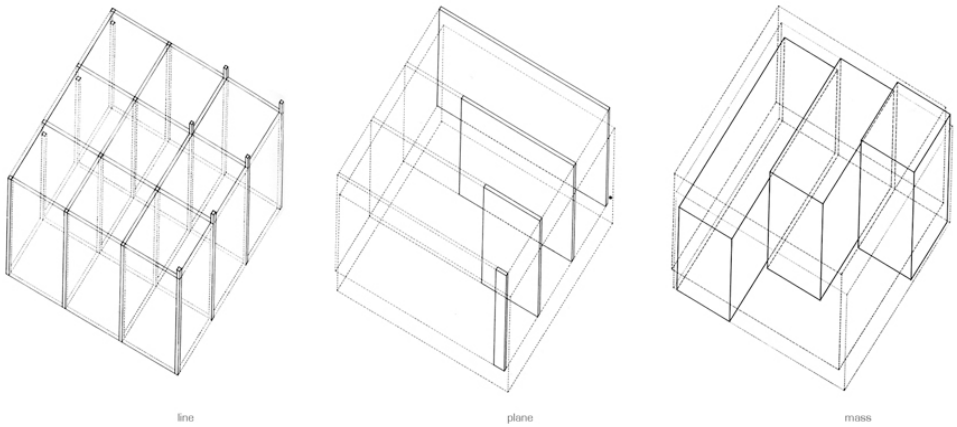
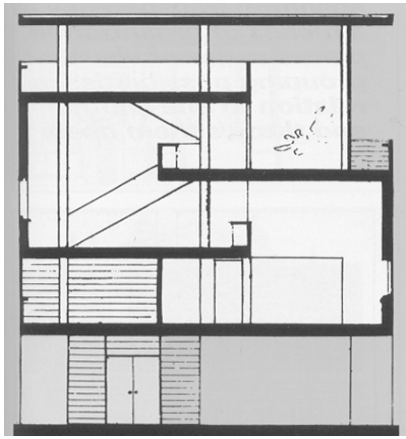
If one sees two or more figures overlapping one another, and each of them claims for itself the common overlapped part, then one is confronted with a contradiction of spatial dimensions. To resolve this contradiction one must assume the presence of a new optical quality. The figures are endowed with transparency: that is, they are able to interpenetrate without an optical destruction of each other. Transparency however implies more than an optical characteristic, it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations. Space not only recedes but fluctuates in a continuous activity. The position of the transparent figures has equivocal meaning as one sees each figure now as the closer, now as the farther one.

Gyorgy Kepes, Language of Vision

spacemaker | writing the rules of the game

Having successfully begun to be **identify** *[see]* and document conditions of space by making two and three-dimensional drawings, you are now asked to **make space** within the framework of a pre-dimensioned **envelope** – a cube. Space is to be understood as a **defined condition** that has **clear edges** and is at all times **legible**. Space may be defined by planes, lines, and points. Space may be conceived of as an **additive** or a **subtractive** condition, i.e. *to employ the acts of addition or subtraction to construct space*. For the initial exercise of spatial definition and composition you are to clearly define three specific spaces within the described envelope condition. This will begin by passing **three planes** through the cube – one plane in each of the X, Y, and Z directions. The planes may or may not be the full dimension of the cube. Not more than one of the planes may pass through the center of the cube. One or more of the planes may shift or alter their planar alignment as they 'pass' through the cube. This will produce conditions of hierarchy fundamental to the compositional intent. Themes of major and minor will emerge - primary, secondary, and tertiary spatial locations will emerge. The spaces could be thought of as large, medium, and small, and may have some sense of proportional relationship between them. Ultimately the development of a set of clearly identifiable and related spaces will produce the opportunity for conditions of spatial overlap and intersection, something we may refer to as, **phenomenal transparency**. This is a concept defined by Rowe and Slutzky in their seminal article, "*Transparency: Literal and Phenomenal*" - and described in the quote above by Kepes.





phase I: precision + craft

make solid 6" x 6" cube constructions. One cube should be made of chipboard and one made of foamcore. Consider the dimensional thickness of material in order to achieve precise results. Edges, corners, and joints should be carefully considered and crafted.

phase II: compositions of three planes

construct versions of "three plane cube" compositions adhering to the following the rules:

a. pass **three planes** through the cube – one each in the X, Y, and Z direction. this will produce conditions of planar intersection.
b. planes may or may not be the full dimension of the cube. planes may represent the full 3" x 3" [or 6" x6"] dimension or a portion thereof.
c. not more than one of the planes may pass through the center of the cube. none of the planes are ***required*** to pass through the center of the cube.
d. one or more of the planes may shift, shear, or alter their planar alignment as they 'pass' through the cube.

phase III: space-making type exploration

construct variations of the three types of spatial definition using each of the following definition techniques to explore complimentary spatial types:

frame construction|	space defined by only line + edge using linear elements – use basswood sticks
plane construction|	space defined by only plane + surface using only planar elements – use a planar material
subtractive construction|	space defined by only by *subtraction* | carved space – use a solid or mass material such as foam [or invert the process and 'construct' the hollow space by constructing the mass that is necessary to surround the void such that it reads as it the void were carved. create spatial voids by *removing* solid from mass - *literally vs. conceptually*

phase IV: development + synthesis

composite| final	ultimately you will synthesize the lessons from each type into a single composite design. this will be the agenda for the final version. The **composite cube** studies will use frame and planar spatial definition techniques to produce a synthesized construct that may vacillate in its reading as a frame or a planar construction. These pieces tend to be best made of foamcore as this material has a thickness that allows for the compatibility or co planarity between frame and plane.

Though three specific spaces are required - the process of making these spaces will produce additional reverberant or interstitial spatial conditions. In other words, the 'left over' areas of space within the envelope matter as much as the intended significant spaces. These additional spaces will eventually provide opportunities for developing **spatial layers** and **spatial zones** – in effect, a layered proposition about spatial relationships that explore how major and minor spatial ideas can operate independently and ultimately inter-dependently. These conditions are possible after and only after clear legible spaces have first been produced. One may think of the secondary and tertiary spaces produced as analogous to vibration, echo, reverberation, etc. as understood in the complex layered structure of musical composition. It is important to maintain a clear reading of the exterior or **perimeter envelope.** The corners of the cube must be defined and present.

the given spatial envelope for the project is a 6" x 6" x 6" cube

models should be produced in series – some at 1:1 scale and some at ½ of actual scale or: 3" x 3" x 3" cubes in series

constructing sets of 3" cubes is an integral part of the iterative design process

issues

space|	conceptualizing, visualizing, and defining legible conditions of space
abstraction|	the role of thinking and seeing in the abstract
process|	value of drawing and modeling – in series
solid-void|	relationships between figural solids vs. figural voids
craft|	concepts of measure, fabrication, and precision.
order|	clarity through control of the geometric idea | **datum**
proportion|	proportion

materials

material choices at the discretion of each studio instructor: *basswood, chipboard, foam-core, wood, foam, styrene*

assigned| tuesday September 6, 2011

each part is decisive and marks the highest point in precision and execution: proportion is clearly written therein
le corbusier

figures are endowed with a transparency: that is they are able to interpenetrate without an optical destruction of each other
kepes