

University of Biskra
Architecture Department

Theory of Project2 course

Introduction to Architectural space

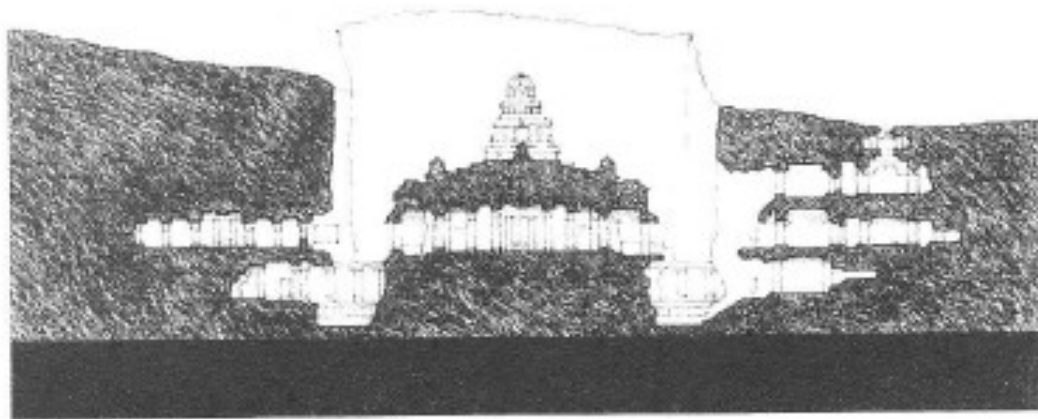
1st year of Architecture diploma

Teacher : Youcef Mokrane

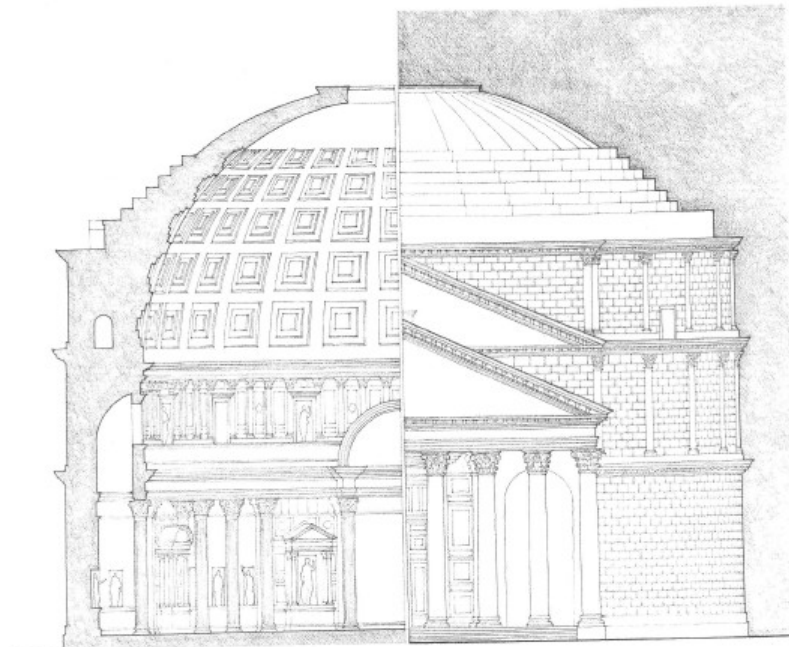
2023-2024

1. Form and Space

- ↯ Space is always present in our lives
- ↯ Through the volumes of the space you can move around, see the shapes, hear the sounds, feel the breeze and enjoy the scents of the gardens.
- ↯ Its shape its scale its size its lighting quality



↖ All these qualities depend on our perception of the spatial limits defined by the elements of the shape.

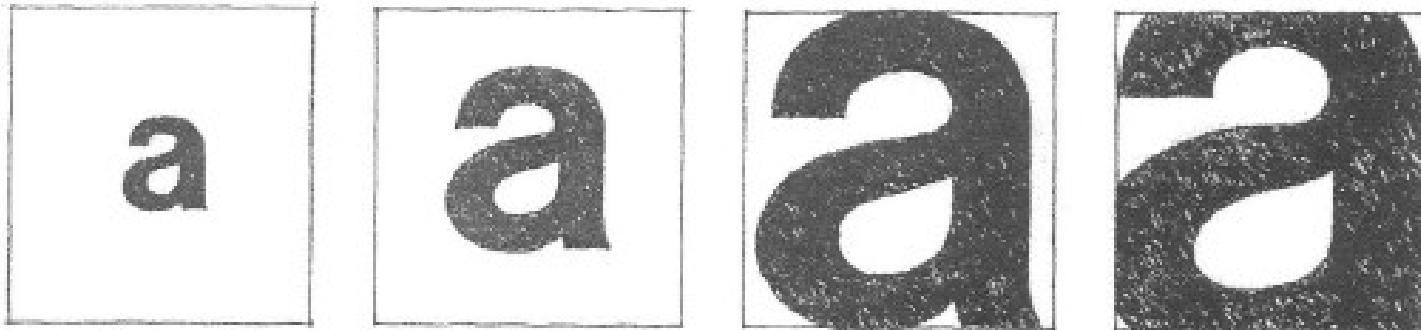


The Pantheon, Rome, A.D. 120–124

When space begins to be captured, encompassed, formed and organised by the elements of mass, then Architecture begins.



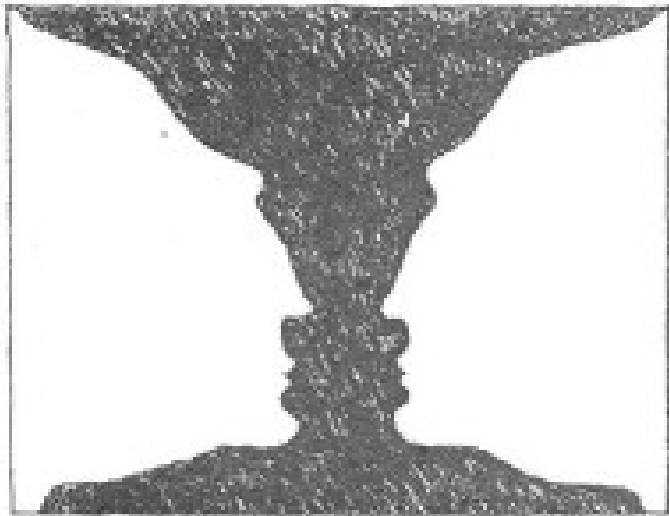
↯ Our visual field normally consists of heterogeneous elements which differ in form, colour and orientation.



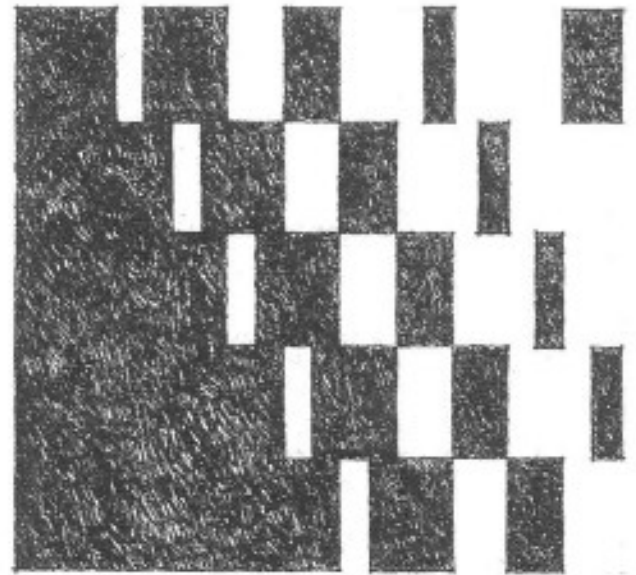
- To understand the structure of our visual field, we tend to organise its elements into 2 opposing groups:
 - 1- Positive elements perceived as figures
 - 2- Negative elements representing the background for these figures



Our perception and understanding of the composition depends on our interpretation of the visual interaction between the positive and negative elements.

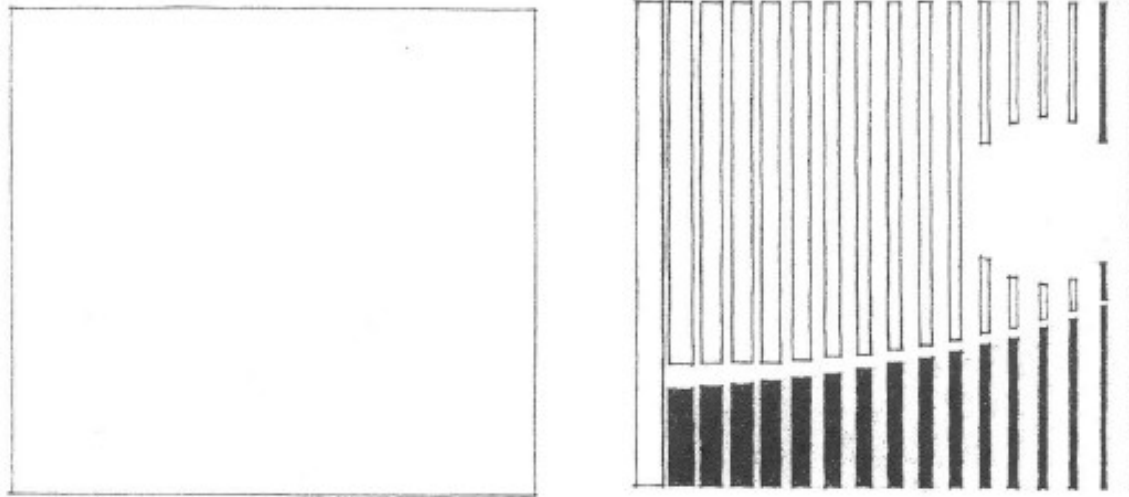


Vase or 2-sided?



White on black or black on white?

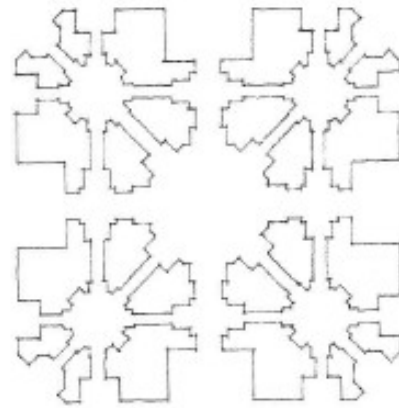
In all cases, the positive elements that attract our attention cannot exist without a background. The positive and negative elements thus form not an opposition but a complementarity, just as form, shape and space form **architectural reality**.



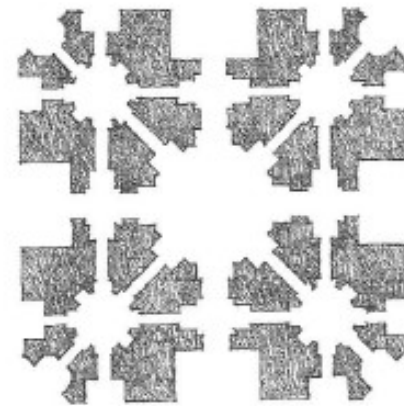
In Architecture the relationship between mass shape and space can be defined on several different scales and models.

At each level, attention must be paid not only to the shape of the building but also to its effect on the space around it.

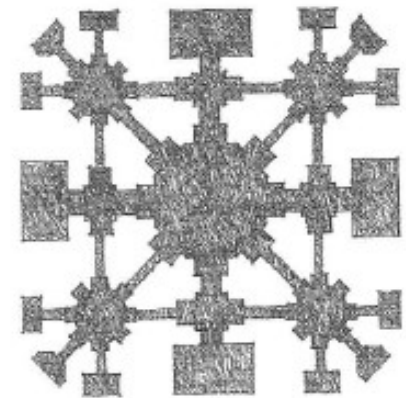
Taj Mahal, Agra, India, 1630–53.
Shah Jahan built this white marble
mausoleum for his favorite wife,
Muntaz Mahal.



A. Line defining the boundary
between solid mass and
spatial void



B. The form of solid mass rendered
as a figure



C. The form of the spatial void
rendered as figure

On an urban scale, we need to choose wisely the role of the building that can either:

1- Continuing the existing fabric

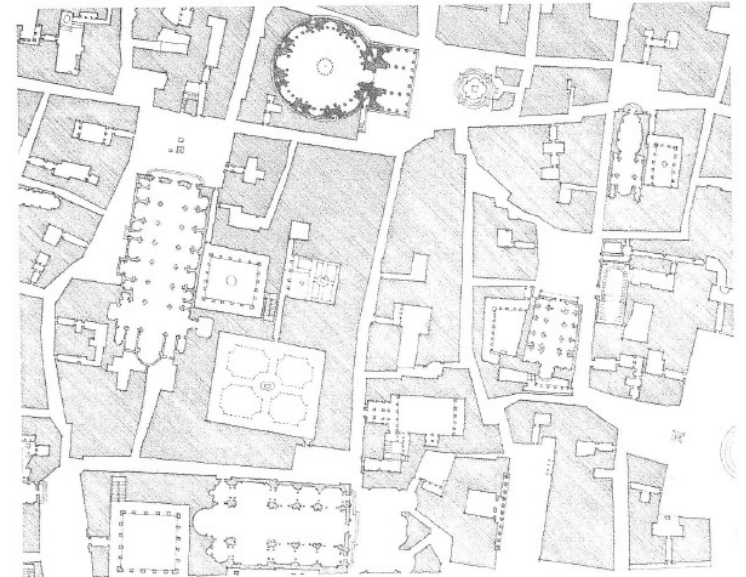
2- Blending in with the surrounding buildings

3-Defining a positive urban space

4-Positioning yourself freely as a signifying object in space



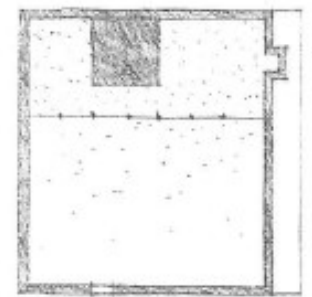
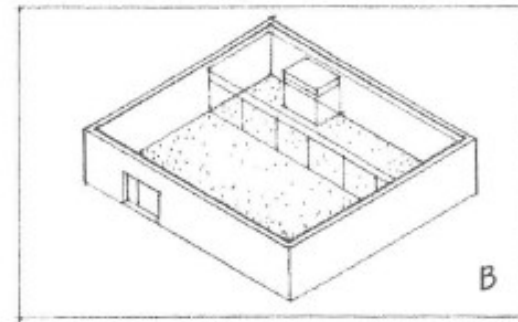
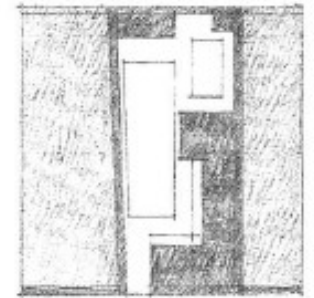
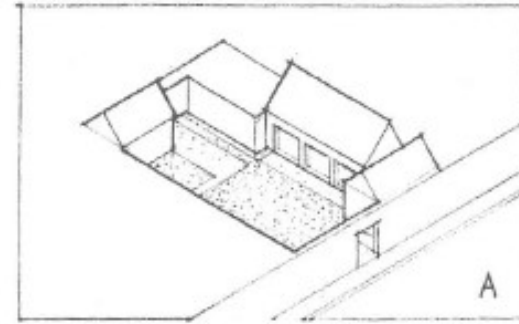
Fragment of a Map of Rome,
drawn by Giambattista Nolli in 1748



At the scale of the building there are several strategies for linking the shape of the building to the surrounding space

A) Create a wall along your site and start defining a positive outdoor space

B) Combining your indoor space with the private outdoor space of an enclosed site

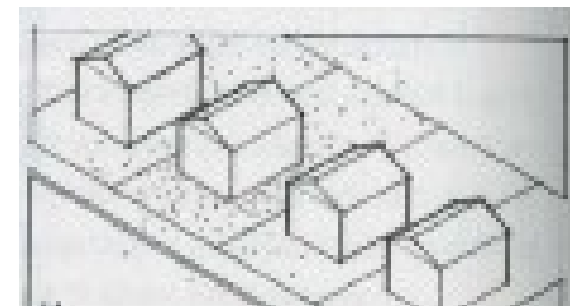
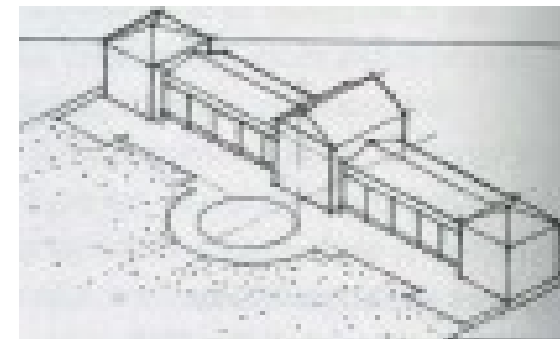
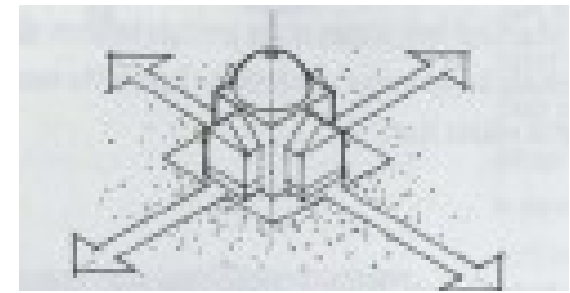
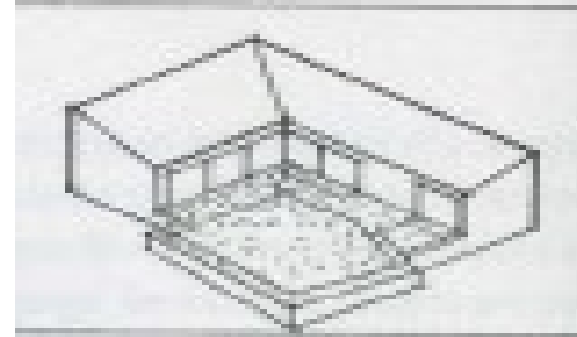


C) Defining part of your site as an outdoor space

D) Positioning itself as a distinct form in space and dominating the site

E) Extend along the site and define a boundary

F) Erecting itself as a positive form in a negative space



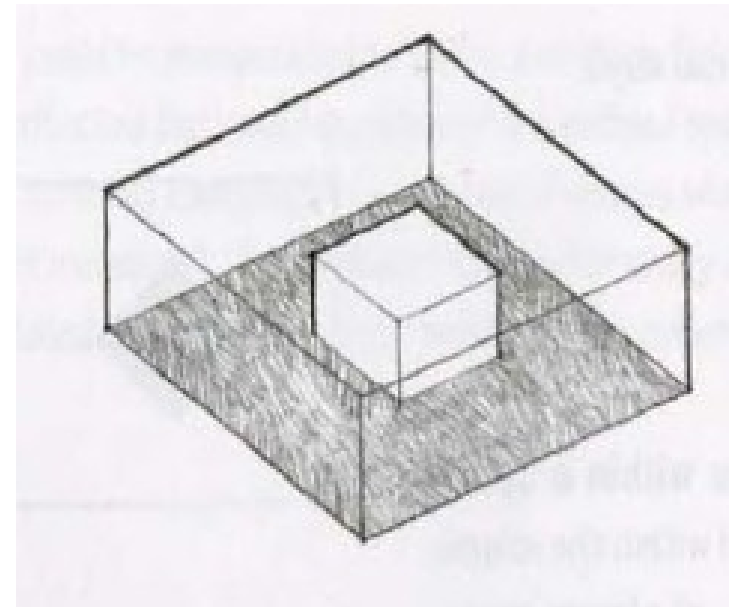
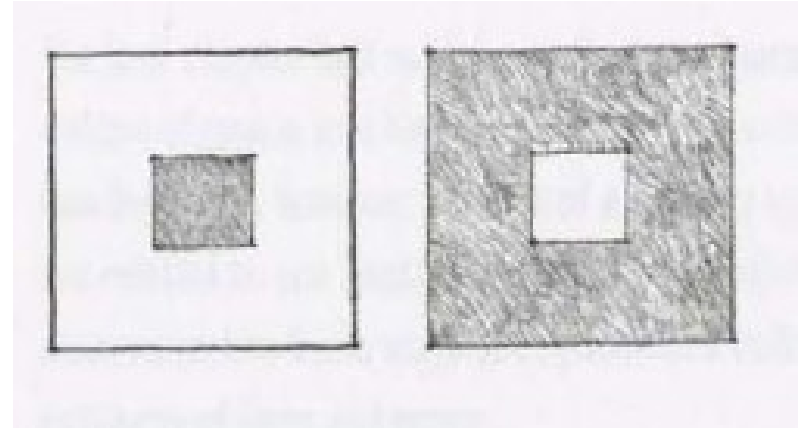
2. Spatial organization

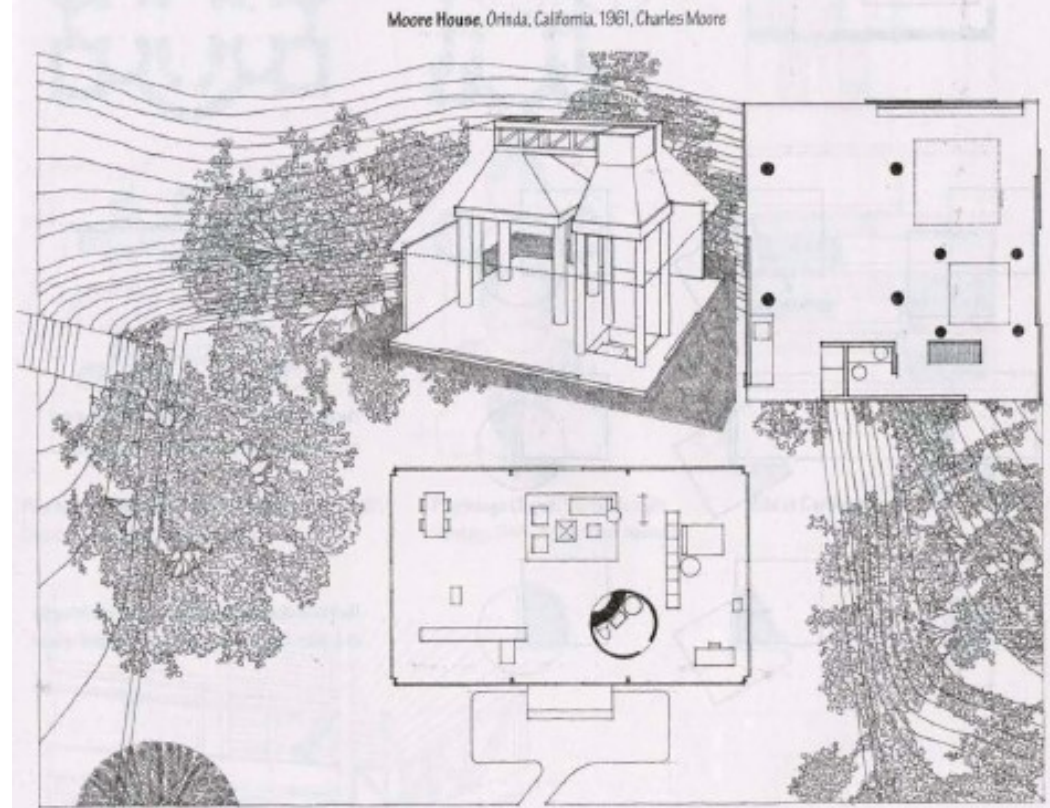
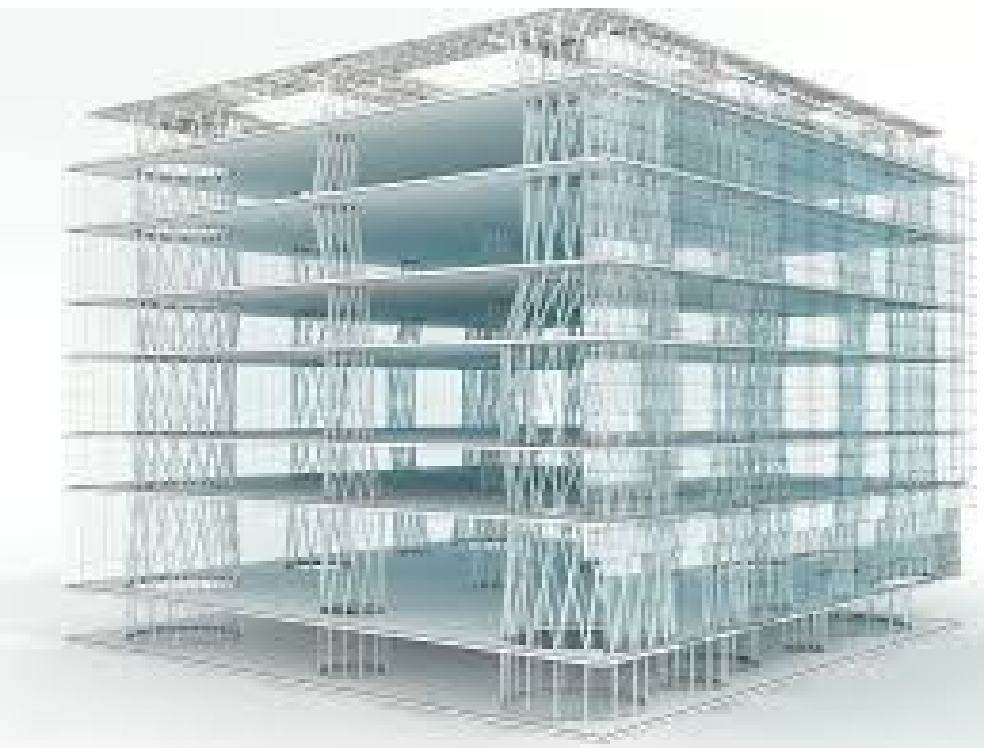
Space within space

*A good house is one thing or many things at once
The constituent parts can be put together not only to form the parts of the house but its
spaces, forms and external environment.*

Charles Moore 1974

- A large space can envelop and contain a large space within its volume.
- Visual and spatial continuity can be easily identified
- But the small space depends on the large space container in its relationship with the external environment

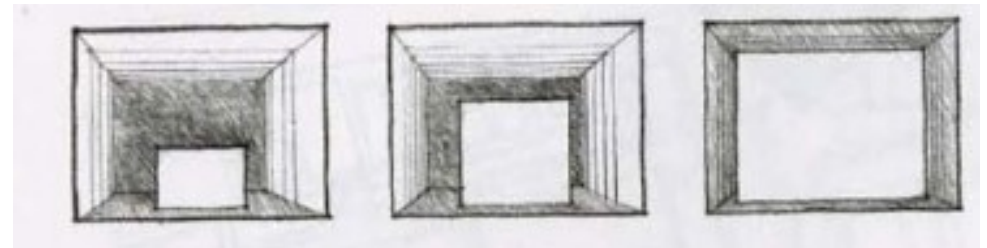
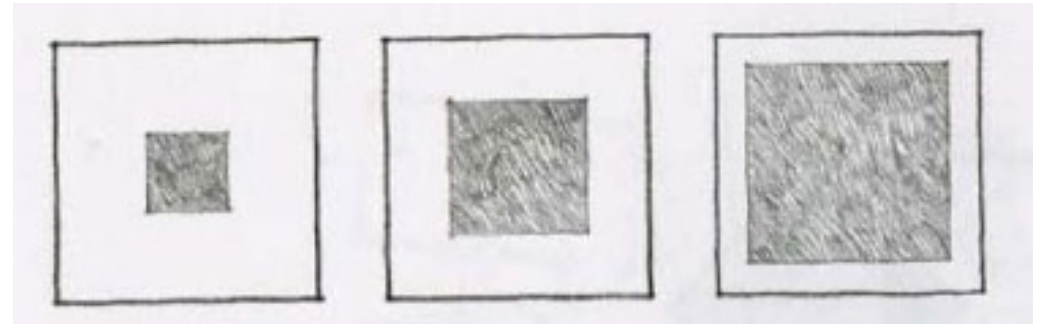




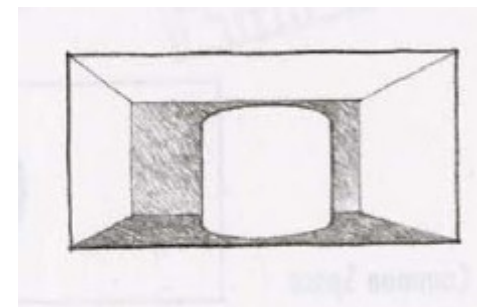
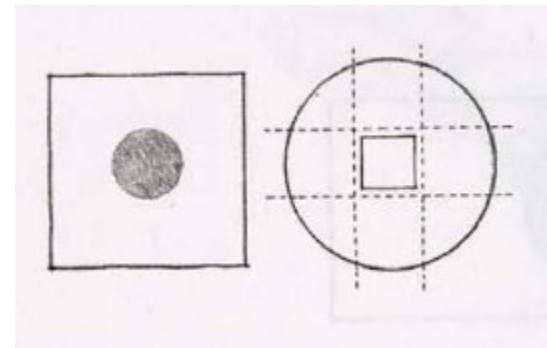
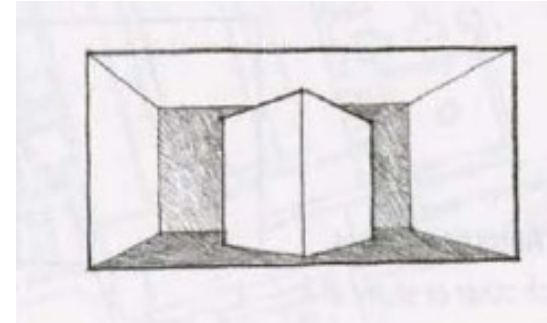
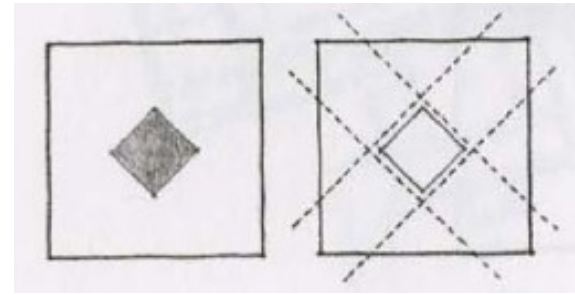
Moore House, Orinda, California, 1961, Charles Moore

Glass House, New Canaan, Connecticut, 1949, Philip Johnson

- But this relationship will tend to disappear if the difference between the two spaces is reduced.
- Visual and spatial continuity can be easily identified
- But the small space depends on the large space container in its relationship with the external environment

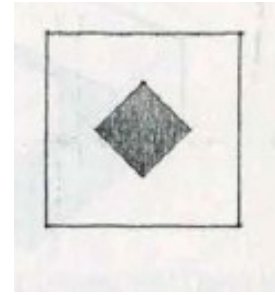


1. To increase its value, the contained space can share the shape of the containing space but change orientation
2. It can also change shape to enhance its visual appeal.
3. Contrasting shapes can indicate a functional difference or the symbolic importance of the space contained.

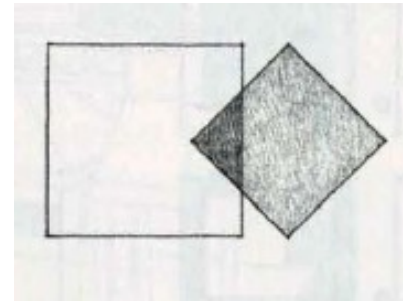


The relationship between two spaces:

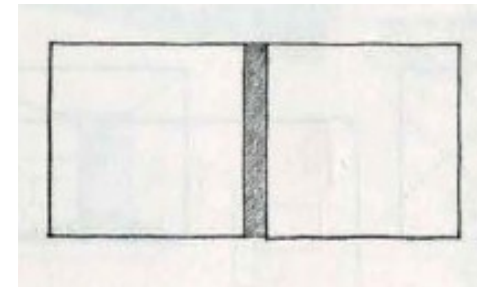
A) Space within space



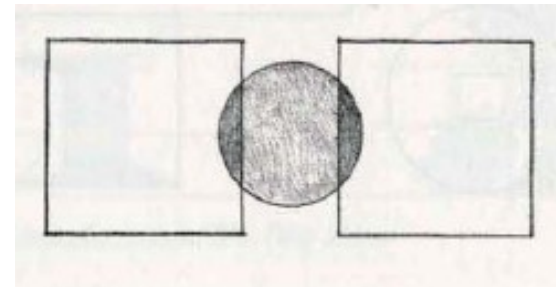
B) Interlocking spaces



C) Adjacent spaces

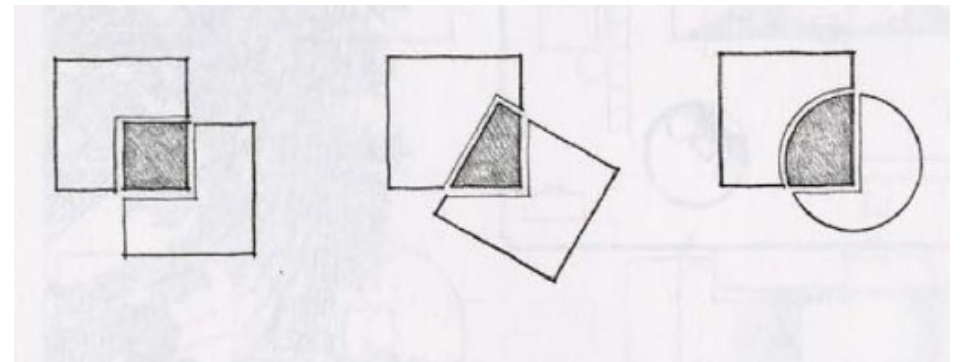
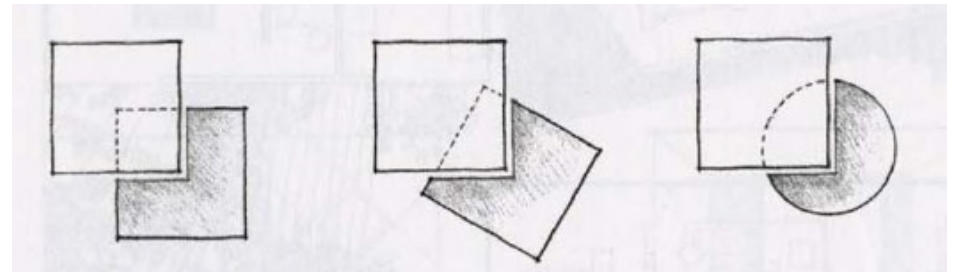
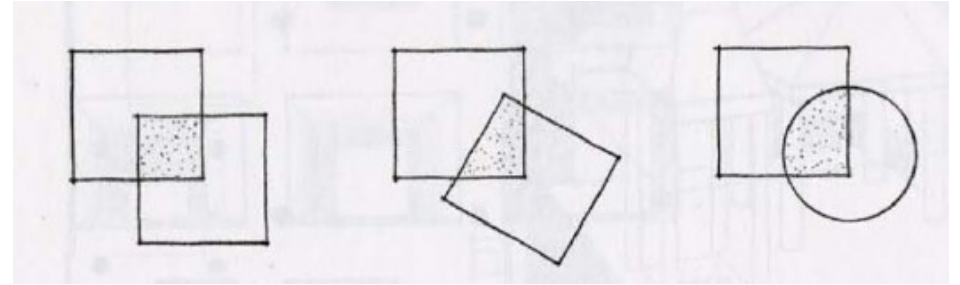


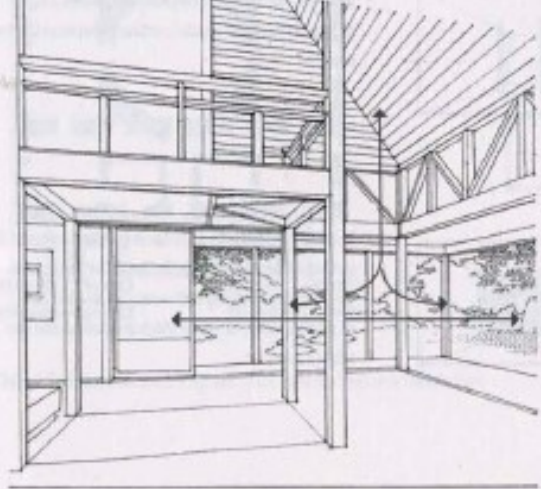
D) Spaces linked by a third space



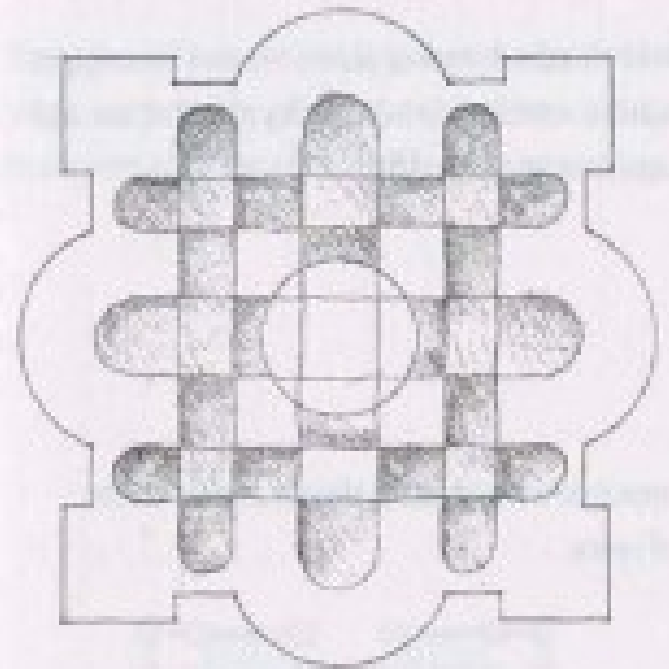
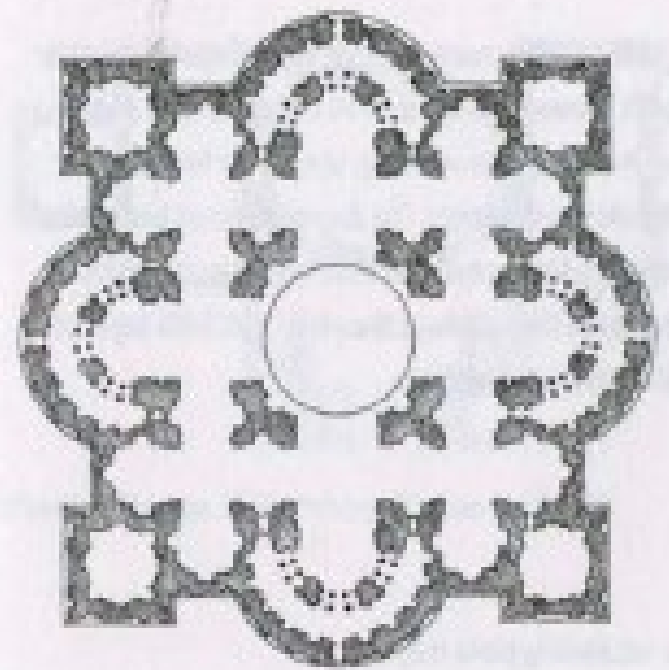
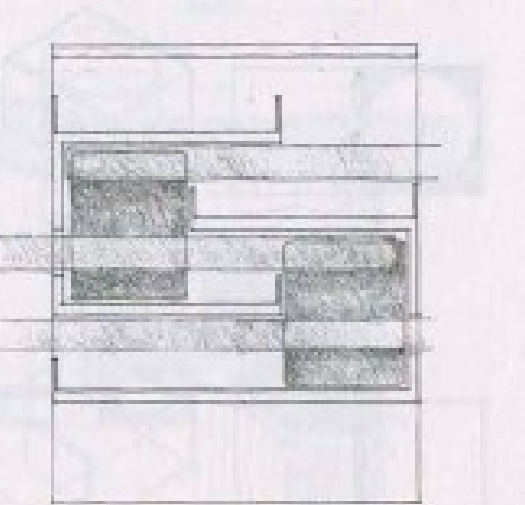
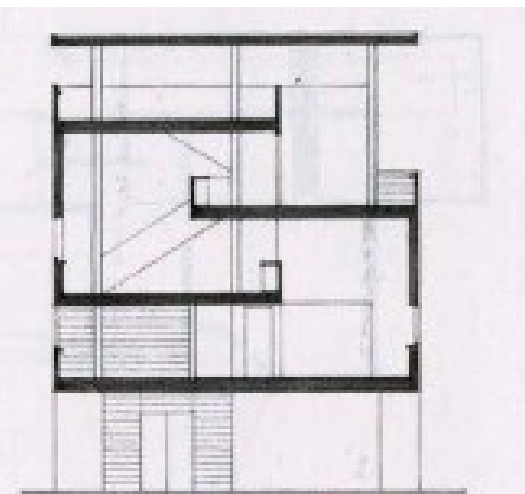
Forms of interlocking spaces

- A) Common space shared equitably
- B) The common area can become part of one of the following spaces
- C) The common area can be developed into an additional space and act as a link between the 2 spaces.
- D) Spaces linked by a third space





The one-story space flows into the larger volume of which it is a part and to the outdoors.

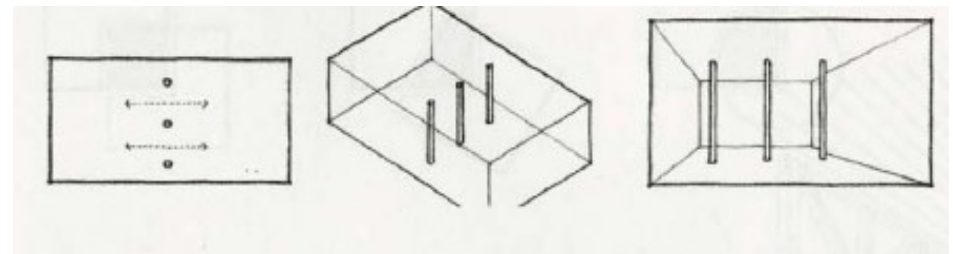
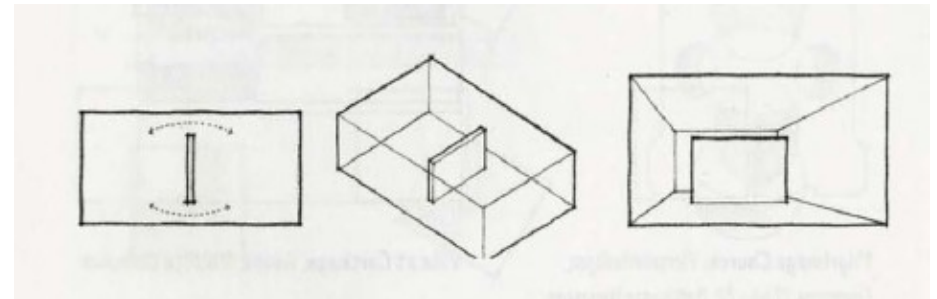
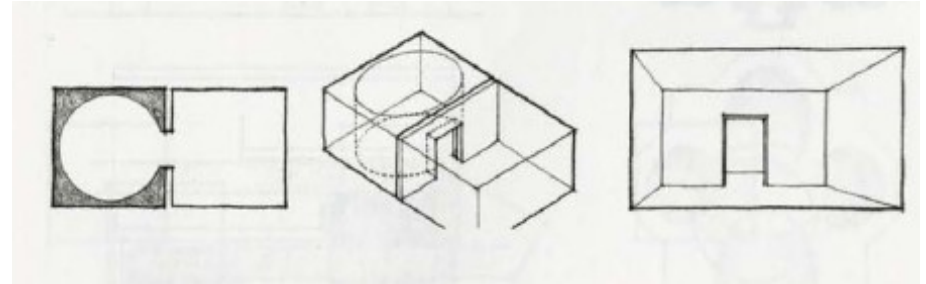


Plan for St. Peter (Second Version), Rome, 1506–1520,
Donato Bramante & Baldassare Peruzzi

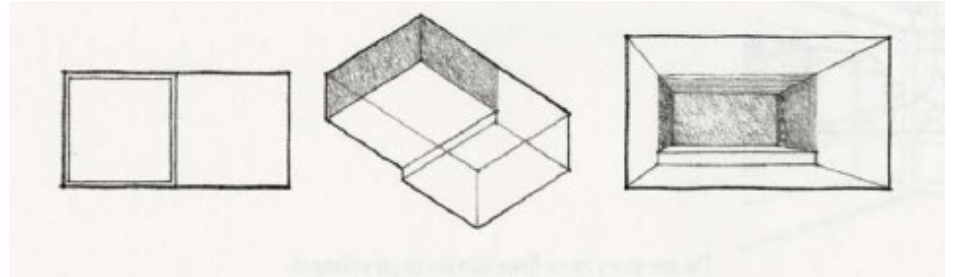
Shapes of adjacent spaces

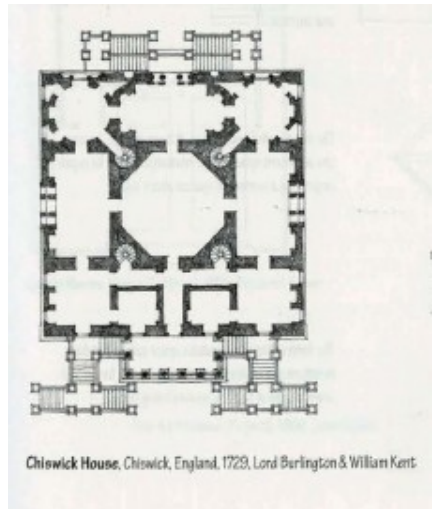
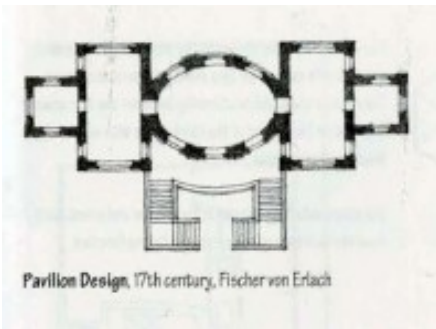
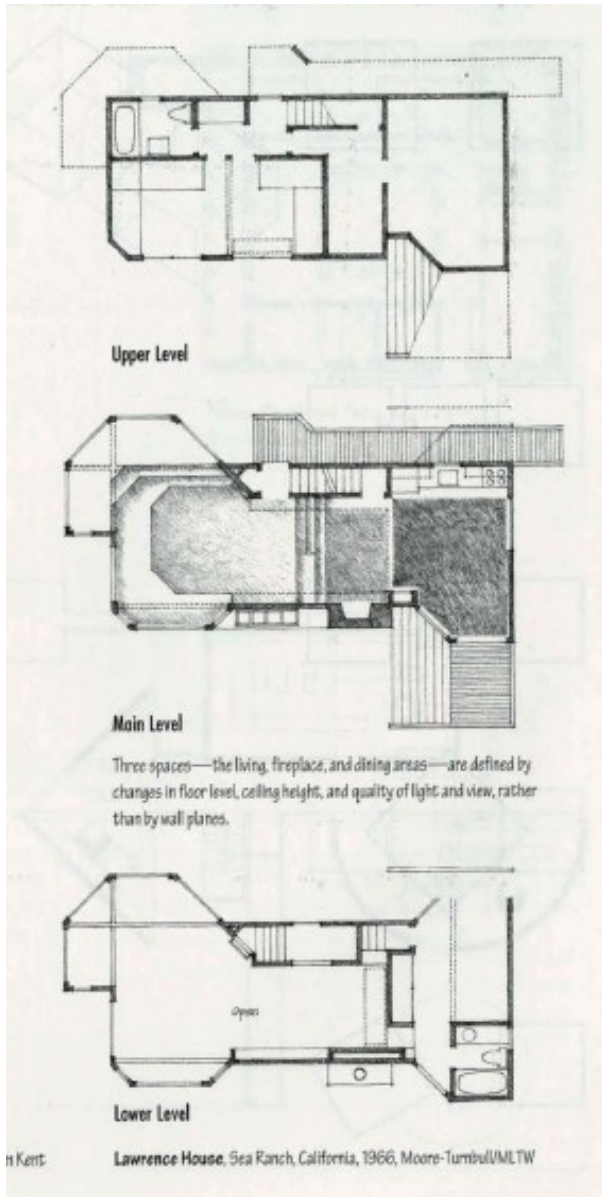
The separating plane can be:

- A) Visual and physical boundary between the two spaces.
Reinforces the individuality of each space
- B) Appears as a plan in a single volume
- C) Defined by a structure that provides visual and spatial continuity



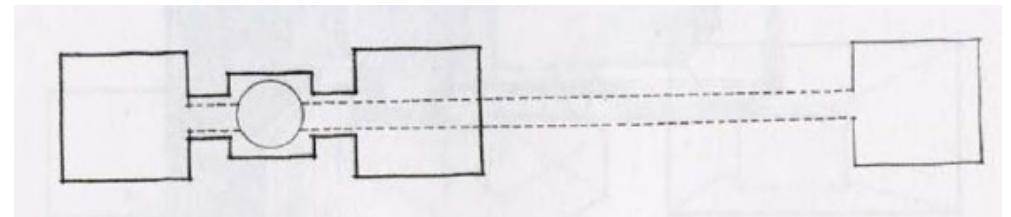
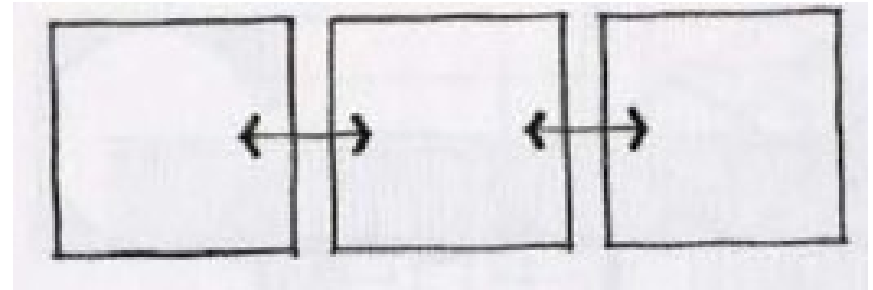
D) May only mean a change of level, material or texture.
Resulting in a single volume with two zones





Shapes of Spaces linked by an intermediate space

- A) The 3 spaces can be equal and similar in shape and form a linear sequence of spaces.
- B) The third space can become linear, linking spaces that have no apparent direct relationship to each other



C) Intermediate space can become more important than the 2 original spaces and can organise them around it

D) The shape of the intermediate space may be of a residual nature and is determined only by the shape and orientation of the two primary spaces.

