

**Tishk International University**  
**Engineering Faculty**  
**Interior Design Department**



# LECTURE 1: PRIMARY ELEMENTS

1<sup>ST</sup> STAGE

SPRING SEMESTER

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# Lecture content

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## **Lecture 1: Primary Elements**

Lecture 2: Form

Lecture 3: Transformation of Form

Lecture 4: Form & space

Lecture 5: Organization & Circulation

Lecture 6: Organization & Circulation

Lecture 7: Proportion & Scale Principles

# Grading

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Attendance

Quiz (2-4)

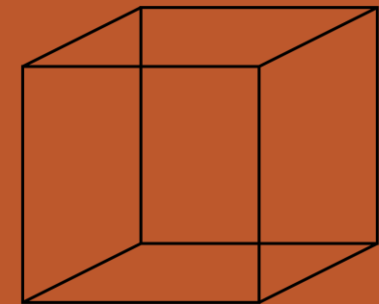
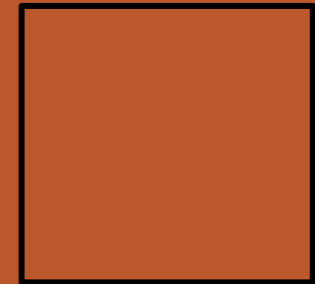
Report

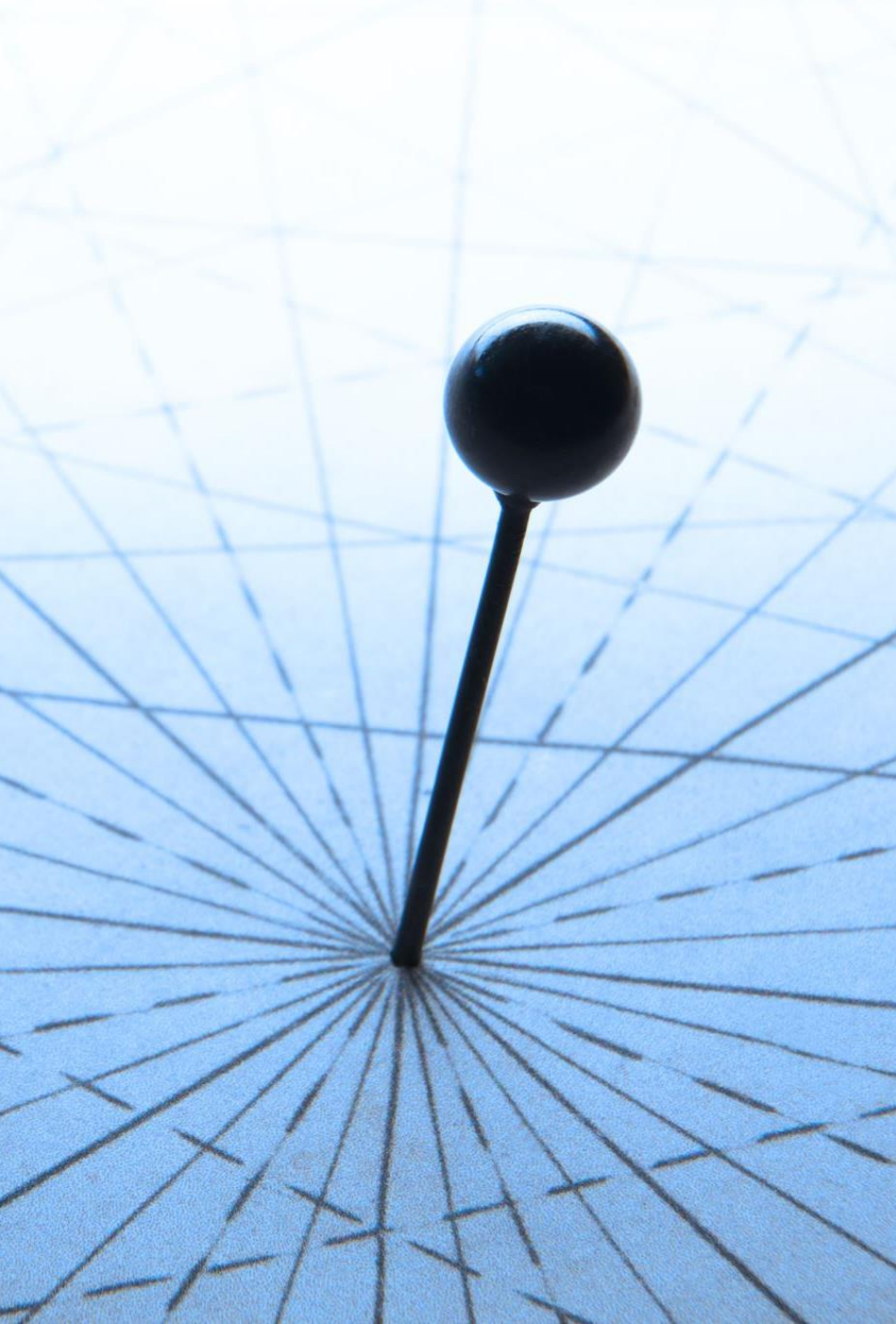
Mid-term Exam

Final-Exam

# Primary Elements

“All pictorial form begins with the point that sets itself in motion... The point moves . . . and the line comes into being—the first dimension. If the line shifts to form a plane, we obtain a two-dimensional element. In the movement from plane to spaces, the clash of planes gives rise to body (three-dimensional) . . . A summary of the kinetic energies which move the point into a line, the line into a plane, and the plane into a spatial dimension.” Paul Klee 1961





# 1. Point

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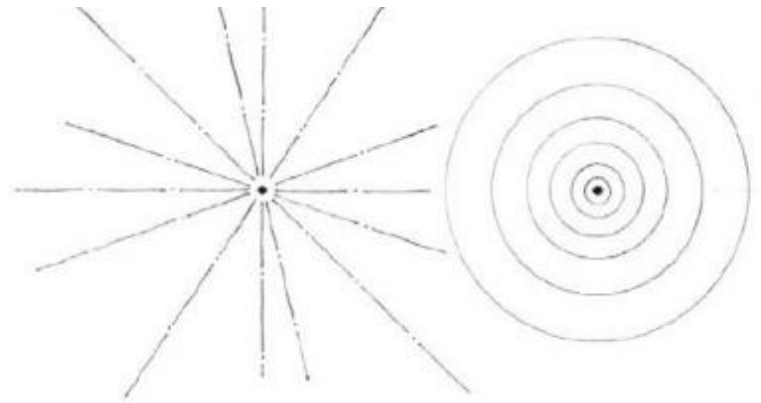
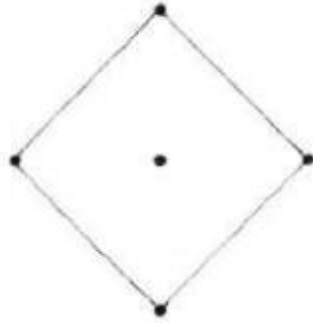
A point marks a position in space. Conceptually, it has no length, width, or depth, and is therefore static, centralized, and directionless.

As the prime element in the vocabulary of form, a point can serve to

- A. Mark the two ends of a line.
- B. Mark the intersection of two lines.
- C. Mark the meeting of lines at the corner of a plane or volume.
- D. Mark the center of a field.

# Point

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# 1.1 Characteristics of point

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A. A point has no dimension.

B. Point marks a position in space.

C. To visibly mark a position in space or on the ground plane, a point must be projected vertically into a linear form, as a column, obelisk, or tower.

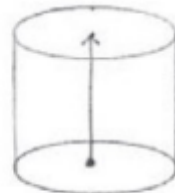
D. Any such columnar element is seen in plan as a point and therefore retains the visual characteristics of a point.

Other point-generated forms that share these same visual attributes are the:

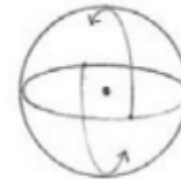
• circle



• cylinder



• sphere

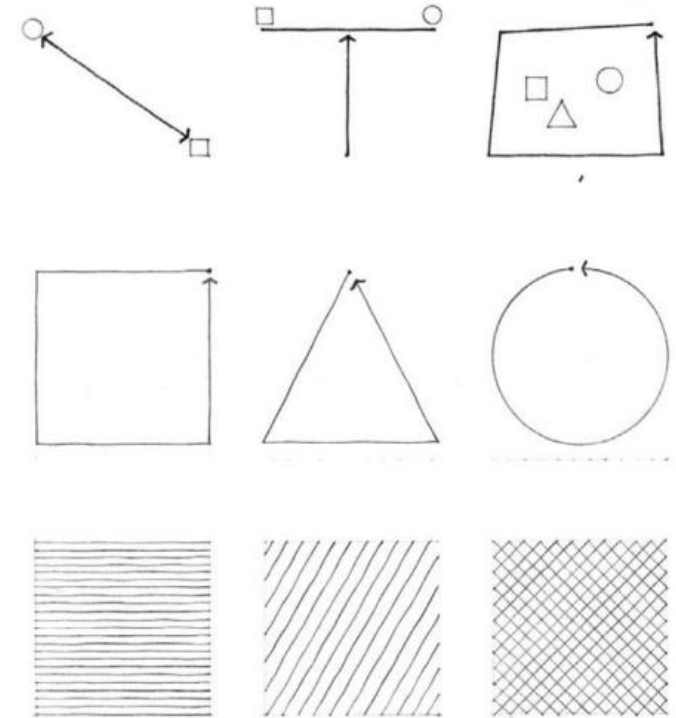


## 2. Line

A point extended becomes a line. Conceptually, a line has length, but no width or depth. Whereas a point is by nature static, a line, in describing the path of a point in motion, is capable of visually expressing direction, movement, and growth.

A line is a critical element in the formation of any visual construction, It can serve to:

- Join, link, support, surround, or intersect other visual elements.
- Describe the edges of and give shape to planes.
- Articulate the surfaces of planes





# 2.1 Characteristics of Line

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A. Although a line theoretically has only one dimension, it must have some degree of thickness to become visible.

B. Even the simple repetition of similar elements, if continuous enough, can be regarded as a line. This type of line has significant textural qualities.

C. The orientation of a line affects its role in visual construction:

While a vertical line can express a state of equilibrium with the force of gravity, symbolize the human condition, or mark a position in space.

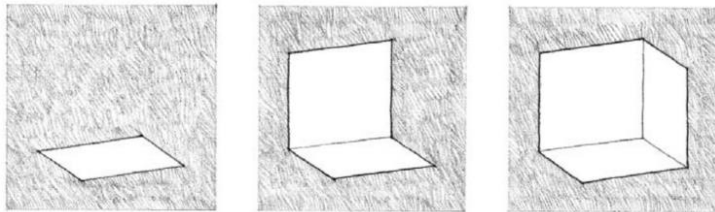
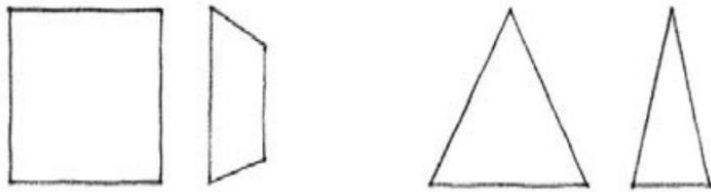
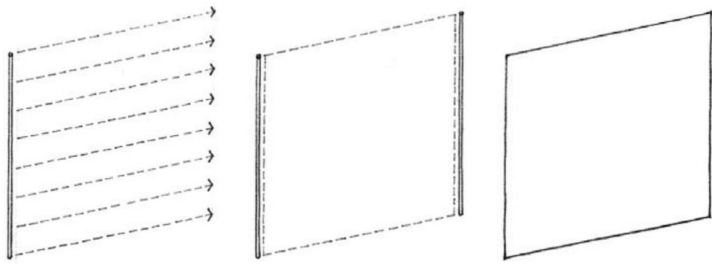
Horizontal line can represent stability, the ground plane, the horizon, or a body at rest.

An oblique line is a deviation from the vertical or horizontal. It may be seen as a vertical line falling or a horizontal line rising. In either case, whether it is falling toward a point on the ground plane or rising to a place in the sky, it is dynamic and visually active in its unbalanced state.

## 2.1 Characteristics of Line

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| <b>Vertical Line</b> | <b>Horizontal Line</b> | <b>Oblique/Diagonal Line</b> |
|----------------------|------------------------|------------------------------|
| Y-axis               | X-axis                 | XY- axis                     |
| Balanced             | Balanced               | Unbalanced                   |
| Strength & power     | Stability & support    | Active & dynamic             |



## 3. Plane

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A line extended in a direction becomes a plane. A plane has length and width, but no depth.

Shape is the primary identifying characteristic of a plane.

It is determined by the contour of the line forming the edges of a plane.

The supplementary properties of a plane—its surface color, pattern, and texture—affect its visual weight and stability.

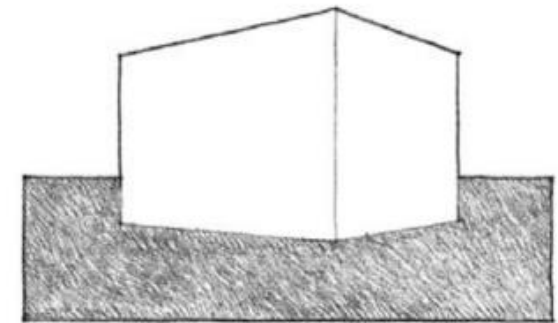
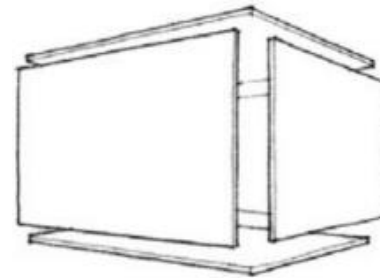
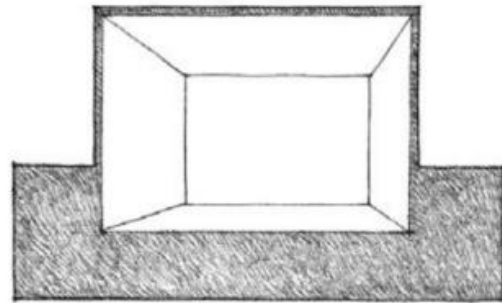
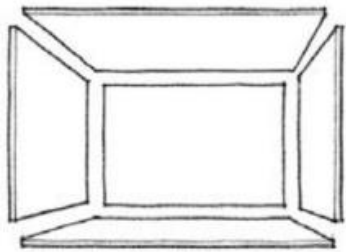
In the composition of a visual construction, a plane serves to define the boundaries of a volume.

# 3.1 Characteristics of plane

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A. Planes in architecture define three-dimensional volumes of mass and space.

B. The properties of each plane—size, shape, color, texture—as well as their spatial relationship to one another ultimately determine the visual attributes of the form they define and the qualities of the space they enclose.



# 3.1 Characteristics of plane

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C. In architectural & Interior design, we manipulate three generic types of planes:

**Overhead Plane:** The overhead plane can be either the roof plane that shelters the interior spaces of a building from the climatic elements, or the ceiling plane that forms the upper enclosing surface of a room.

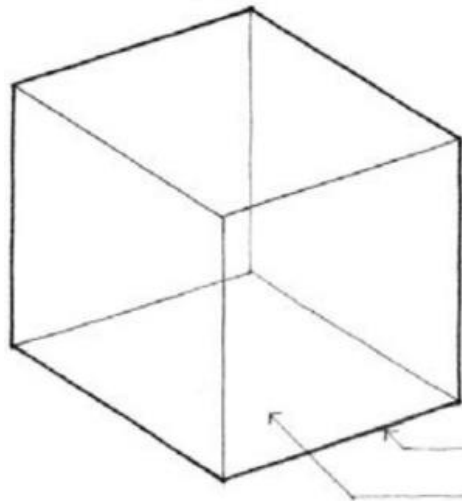
**Wall Plane:** The wall plane, because of its vertical orientation, is vital to the shaping and enclosure of architectural space

**Base Plane:** The base plane can be either

- The ground plane that serves as the physical foundation
- Visual base for building forms,
- The floor plane that forms the lower enclosing surface of a room upon which we walk.

# 4. Volume

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**All volumes can be analyzed and understood to consist of:**

- points where several planes come together
- lines or edges where two planes meet
- planes or surfaces that define the boundaries of a volume

- Plane extended in a direction becomes a volume.
- A volume has three dimensions: length, width, and depth.
- Form is the primary identifying characteristic of a volume.
- It is established by the shapes and interrelationships of the planes that describe the boundaries of the volume.

# 4.1 Volume in Architecture & interior design

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In architecture, a volume can be seen to be either a portion of space contained and defined by wall, floor, and ceiling or roof planes, or a quantity of space displaced by the mass of a building.

## 4.2 Volumetric Elements

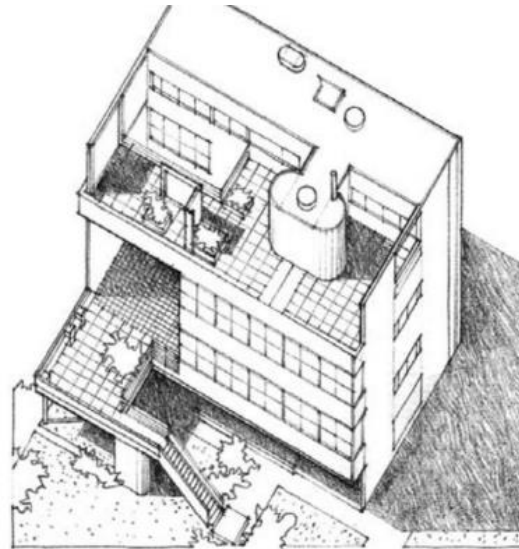
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Building forms that stand as objects in the landscape can be read as occupying volumes in space.

**Doric Temple at Segesta, Sicily, c. 424–416 B.C.**



**Villa Garches, Vaucresson, France,  
1926–27, Le Corbusier**





## 4.2 Volumetric Elements

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Building forms that serve as containers can be read as masses that define volume of space.



**Piazza Maggiore**, Sabbioneta, Italy.  
A series of buildings enclose an urban square.

# Summary

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The Interior designer can meet functional requirements and establish a strong spatial connection with doors. However, in order to establish this connection; he/she must have a good understand of the relationship with size, material, equipment working method and environment.

Understanding the specific functions that only one opening has to perform, the designer can choose the best combination for opening type, size, configuration, material, frame and connection to the surrounding structure and develop appropriate details

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**THANK YOU**

