



# ARC 131-THEORY OF ARCHITECTURE I- LECTURE I

## COURSE OUTLINE AND INTRODUCTION TO THE RELATION BETWEEN ARCHITECTURE AND HUMAN LIFE/NEEDS

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# Content

## Course Introduction

- About the course.
- Course Learning Outcomes
- Staff.
- Time Schedule.
- Assessment Methods
- List of References

## Architecture

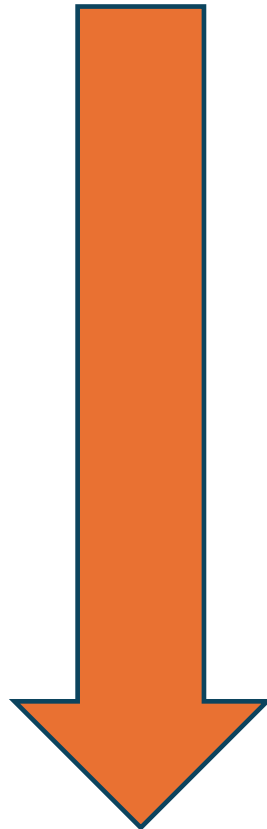
- What is Architecture
- Elements of Design

## The relation between architecture and human life/needs

- The relation between architecture and human life/needs
- Maslow's Hierarchy of Needs

# COURSE INTRODUCTION

This is the first  
course of **Theory  
of Architecture**  
courses series



**Theory of Architecture 1**

**Theory of Architecture 2**

**Theory of Architecture 3**

# ARC 131 THEORY OF ARCHITECTURE I

## About the Course

The course aims at introducing students to:

- ❑ **The relationship between architecture and human life/needs.**
- ❑ **Design objectives**
- ❑ **Anthropometric standards**
- ❑ **Services and circulation spaces, spatial relationships and zoning.**
- ❑ **Theories/principles of building types** such as: residential buildings, nurseries, cafeterias/restaurants, schools

# ARC 131 THEORY OF ARCHITECTURE I

## Course Learning Outcomes

- ❑ **CLO1:** Use research techniques and methods to understand theories/principles of designing public buildings.
- ❑ **CLO2:** Identify elements of architecture and the relation between architecture and human life/needs.
- ❑ **CLO3:** Illustrate design objectives (firmness, commodity, and delight), and anthropometric standards.
- ❑ **CLO4:** Employ the different Fundamentals of architecture.
- ❑ **CLO5:** Recognize services and circulation spaces, spatial relationships, and zoning.
- ❑ **CLO6:** Formulate several innovative conceptual approaches, functional relationships, and visual and environmental criteria of the studied building types.

# ARC 131 THEORY OF ARCHITECTURE I STAFF



## Lecturers

- **DR. NOHA HEFNAWY**

## Teaching Assistants

- **Eng. Sara Ahmed**
- **Eng. Mariam Ayman**

# Course Schedule

Week No.	Date	Topic	Assessment
1	30-9-2024	Course Outline and Introduction to The relation between architecture and human life/needs	Report 1
2	7-10-2024	Design objectives, and Anthropometric standards	Report 2
3	14-10-2024	Fundamentals of Architecture: Form	Quiz 1
4	21-10-2024	Fundamentals of Architecture: Space	Report 3
5	28-10-2024	Fundamentals of Architecture: Order	Model 1/ Quiz 2
6	4-11-2024	Services and circulation spaces	Model 2/ Report 4
7	11-11-2024	Spatial relationships, zoning, and Design concept	Model 3/ Quiz 3
8	18-11-2024	Mid-Term Exam	Exam
9	25-11-2024	Residential Buildings	Res. 1/ Report 5
10	2-12-2024	Educational Buildings	Res. 2/ Quiz 4
11	9-12-2024	Cafeterias/Restaurants	Res. 3/ Quiz 5
12	16-12-2024	Research Presentation	Res. Presentation
13	23-12-2024	Research Presentation	Res. Presentation
14	30-12-2024		
15	6-1-2024		

# ARC 131 THEORY OF ARCHITECTURE I

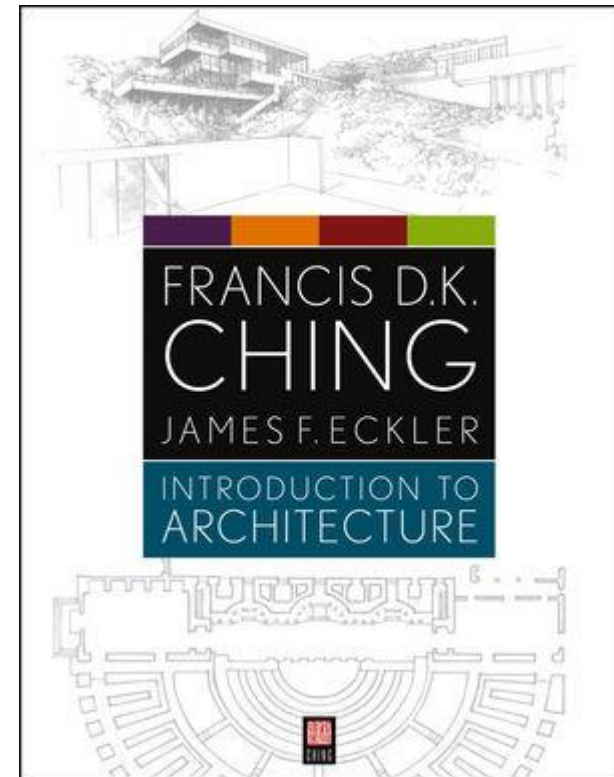
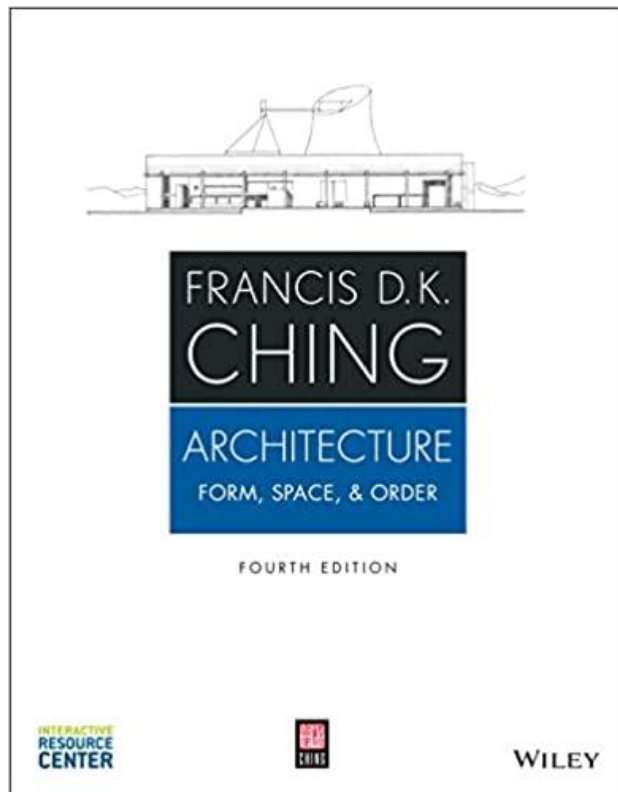
## Assessment Methods

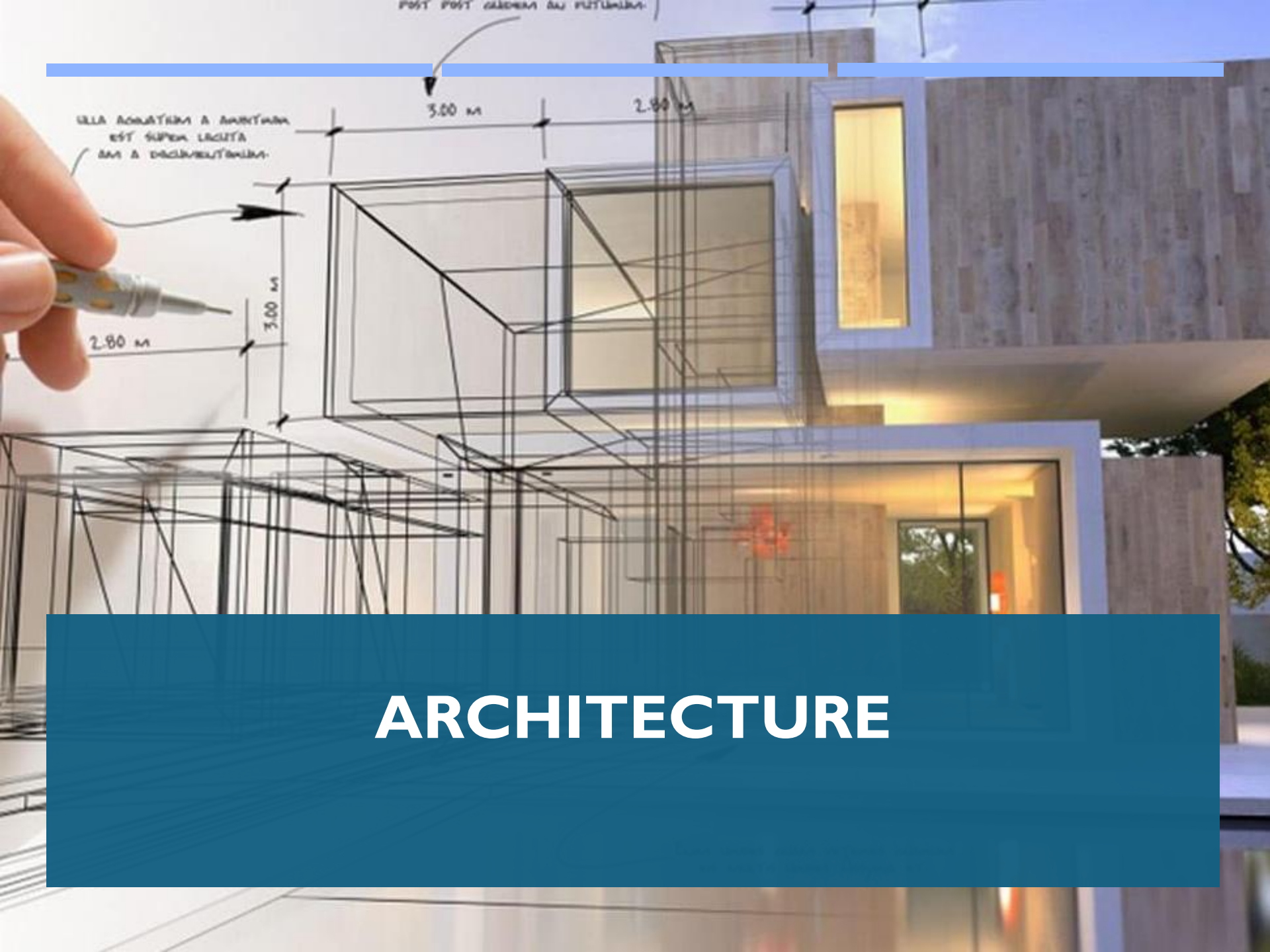
Assessment Method	Week	Weighting of Asses.
Mid-term Exam	Week # 8	30%
Quizzes	Week # 3, 5, 7, 10 & 11	5%
Reports	Week # 1, 2, 4, 6, 9	5%
Research	Week # 9, 10 & 11	10 %
Presentations	Week # 12, & 13	5%
Modeling	Week # 5, 6, & 7	5%
Final Exam	Scheduled by the faculty council	40%
<b>Total</b>		100%



# ARC 131 THEORY OF ARCHITECTURE I

## References





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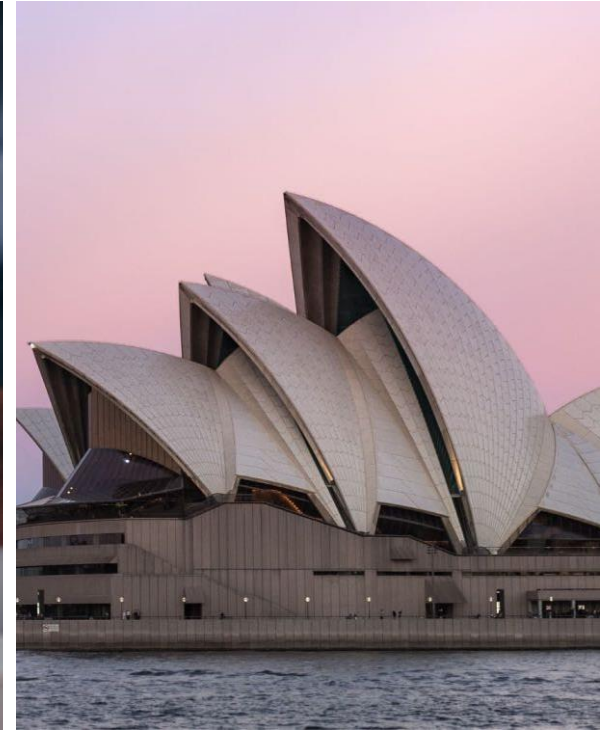
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# ARCHITECTURE



# WHAT IS ARCHITECTURE





# WHAT IS ARCHITECTURE



# ARCHITECTURE

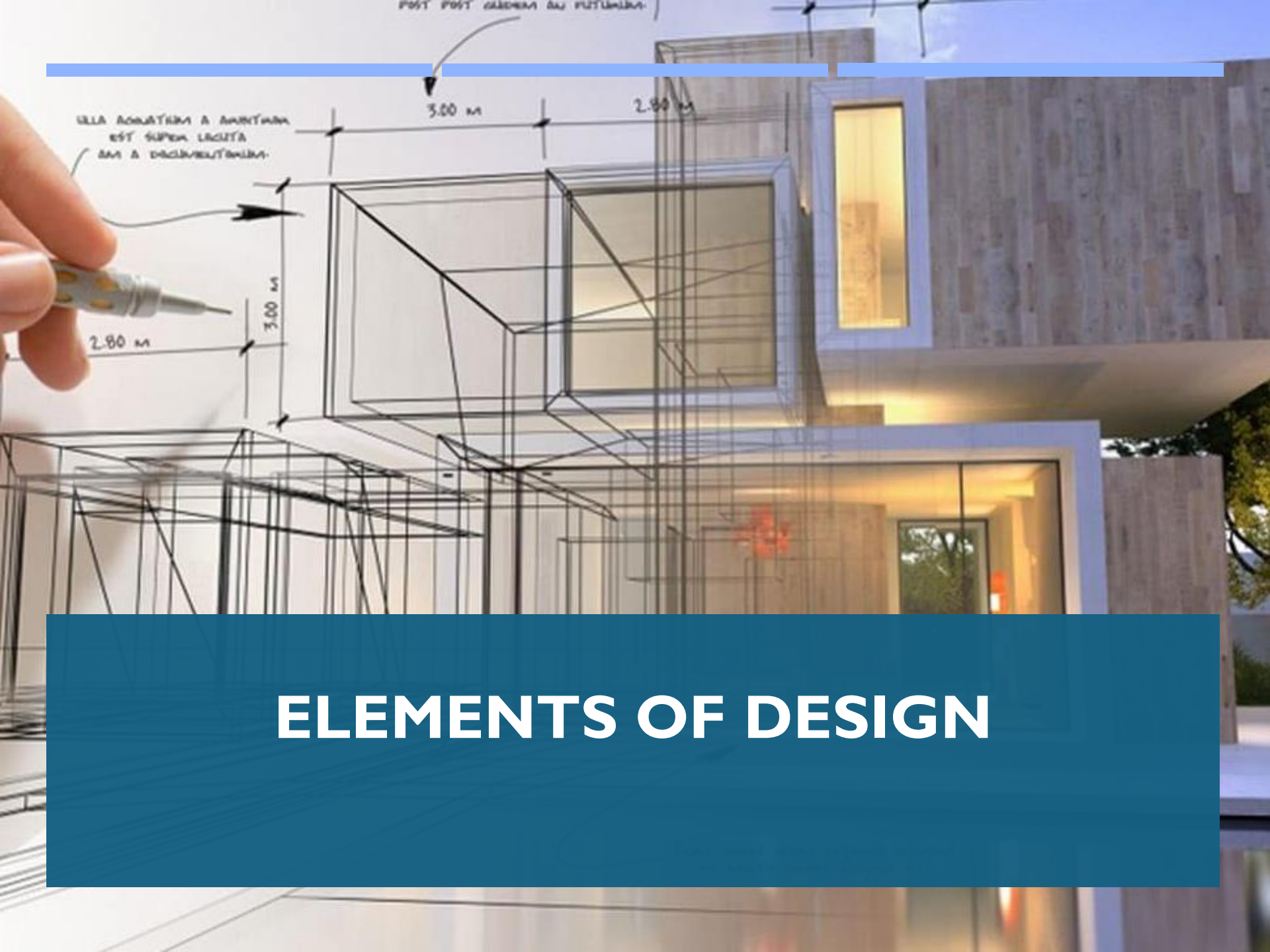


# DEFINITION OF ARCHITECTURE

**Architecture should be considered both an **Art** and a **Science**.**

- It is an artistic discipline that seeks to **invent** through design. It is also a technical profession that relies on **specific Building construction techniques**.





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# ELEMENTS OF DESIGN

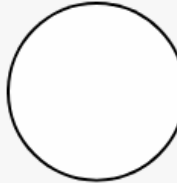
# Design Elements



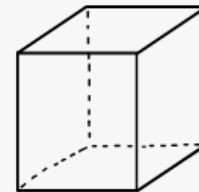
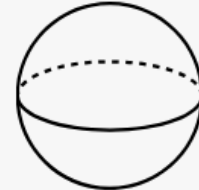
Point



Line



Plane/ Shape



Form



**Point** indicates a position in space. •

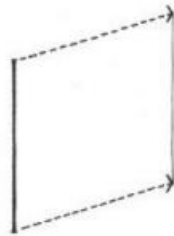
**Line** A point extended becomes a line with properties of:

- length
- direction
- position



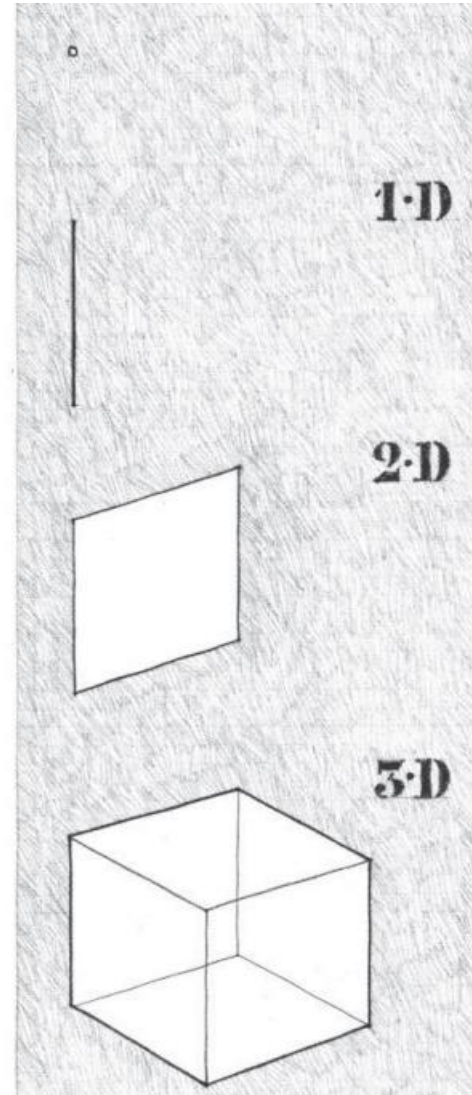
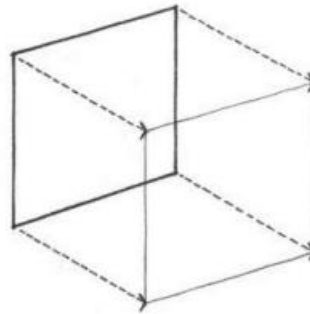
**Plane** A line extended becomes a plane with properties of:

- length and width
- shape
- surface
- orientation
- position



**Volume** A plane extended becomes a volume with properties of:

- length, width, and depth
- form and space
- surface
- orientation
- position



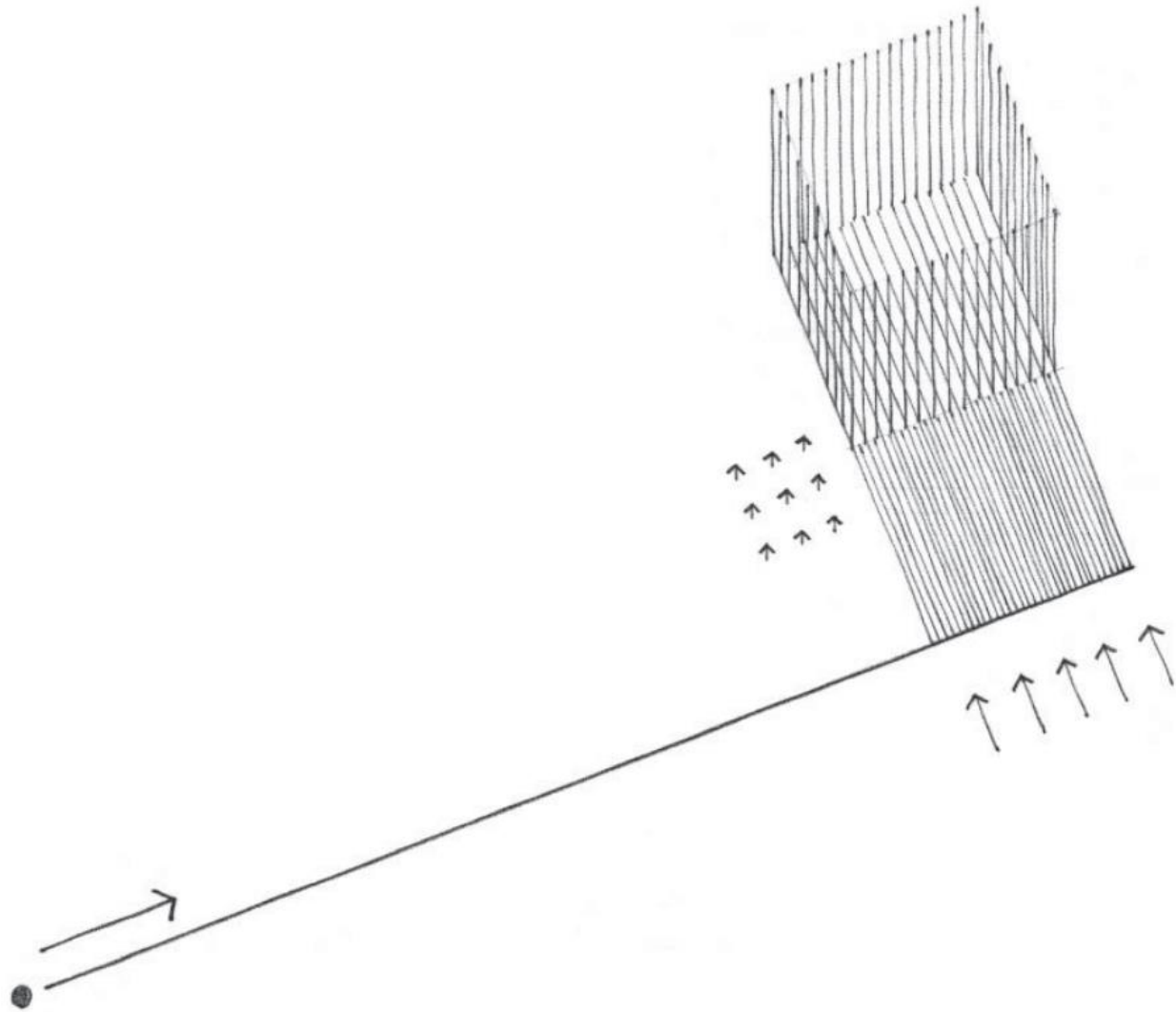
Point

Line

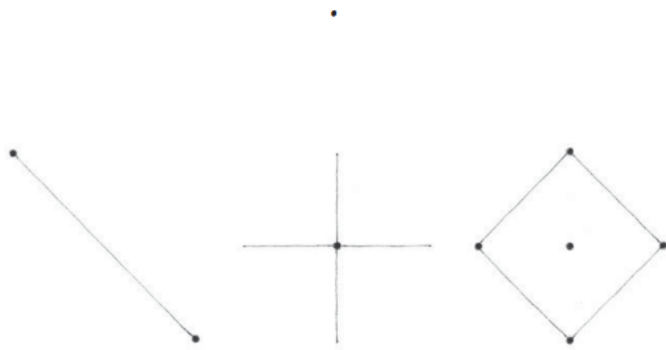
Plane

Volume

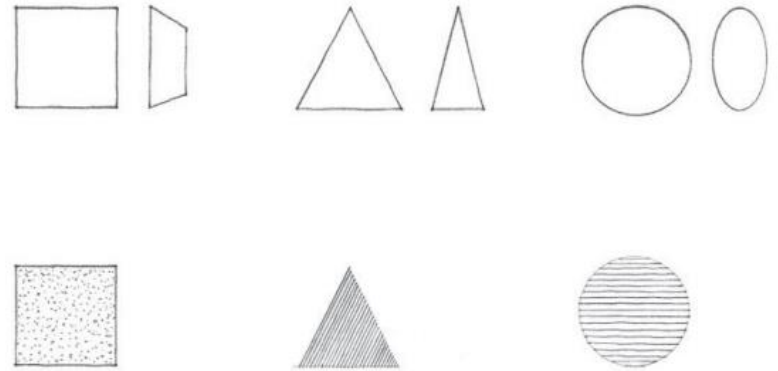
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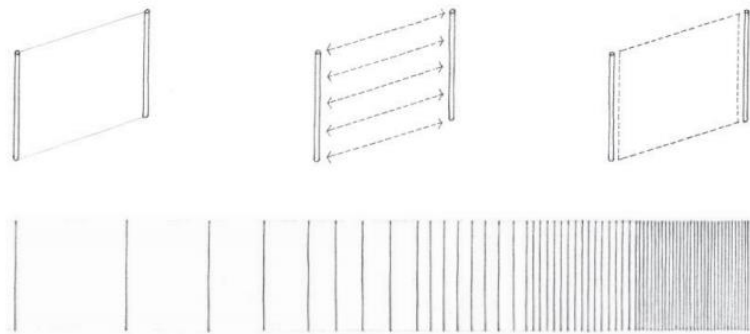
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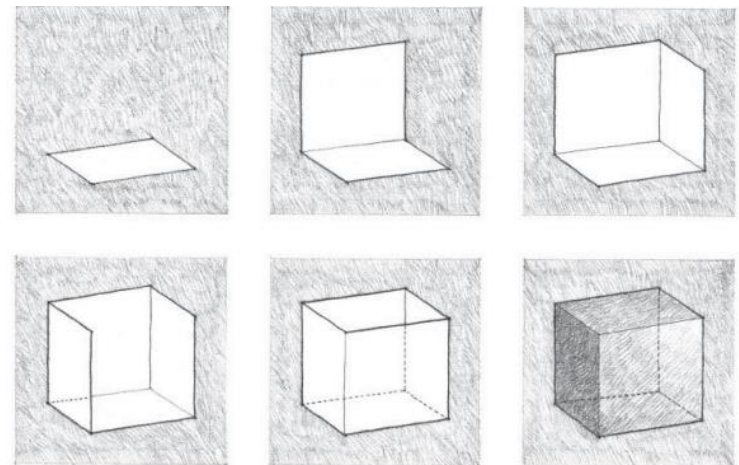
**POINT**



**PLANE/ SHAPE**



**LINES**



**VOLUME/ 3D**

**ELEMENTS OF DESIGN**

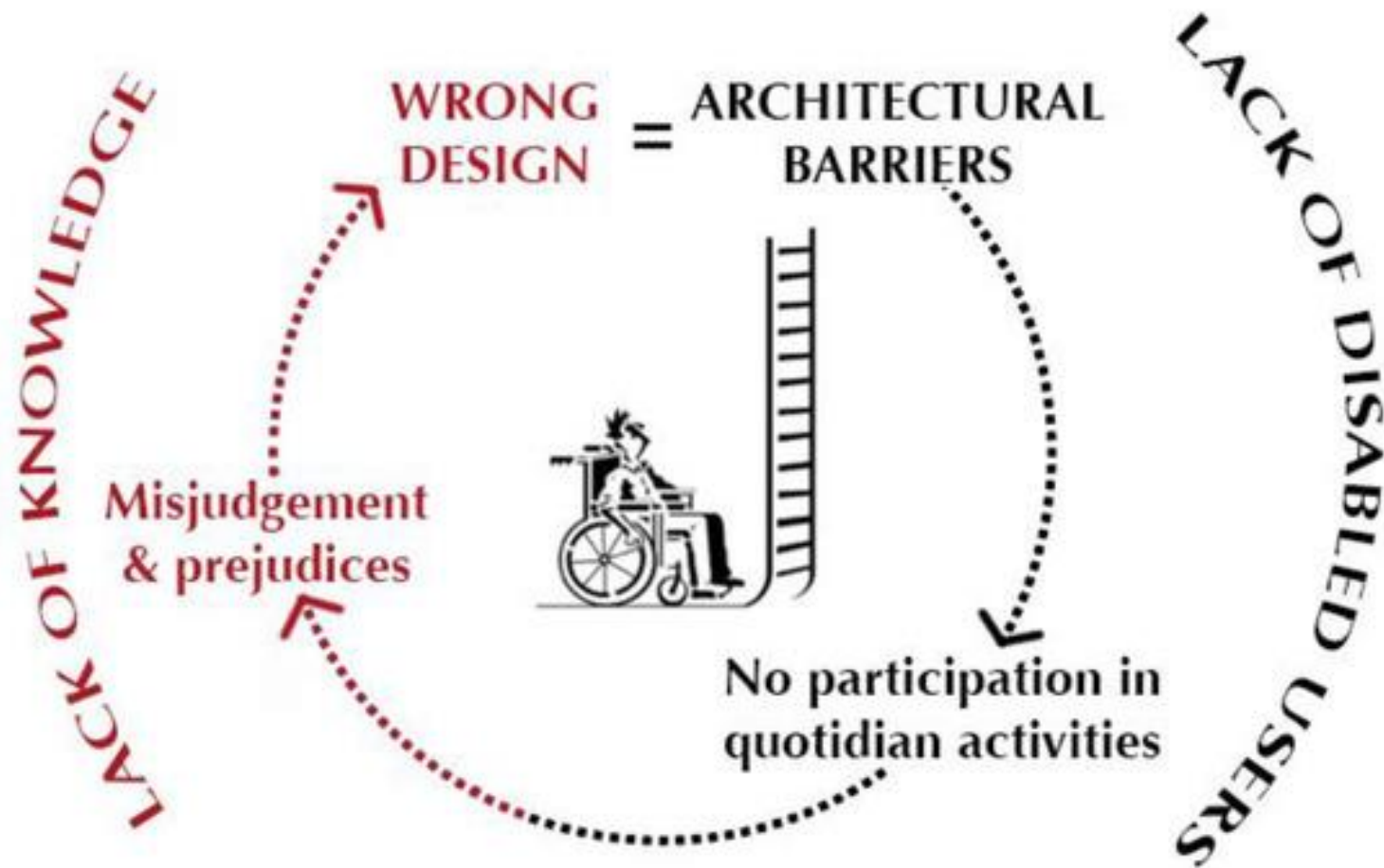


**THE RELATION BETWEEN ARCHITECTURE  
AND HUMAN LIFE/NEEDS**



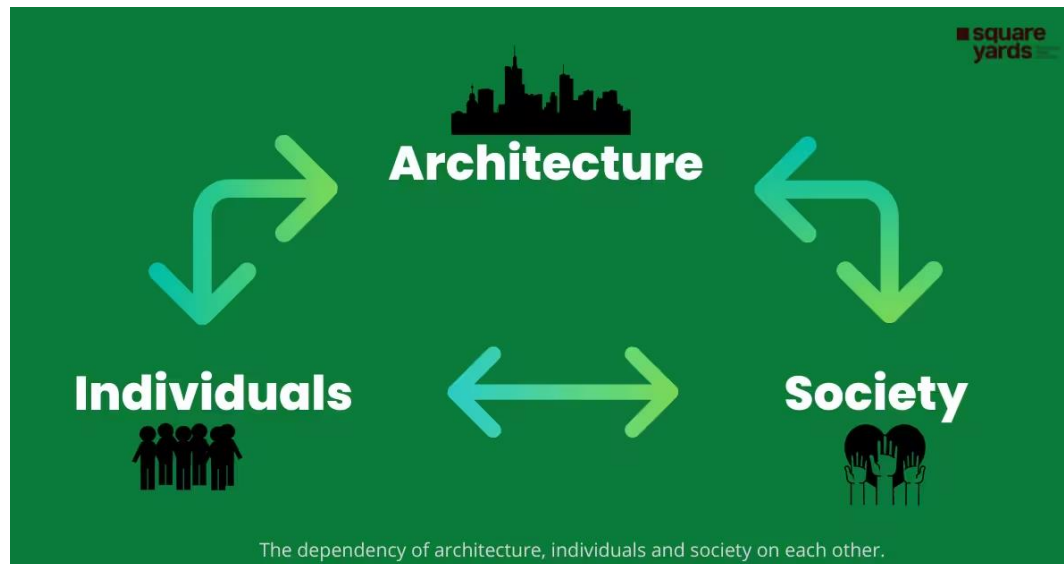
**THINK AND SHARE**

# WHAT IS YOUR OPINION



# THE RELATION BETWEEN ARCHITECTURE AND HUMAN LIFE/NEEDS

- Architecture started with a need for a purpose for human beings to survive. The buildings, roads, bridges, and cities are for its people only. As much as humans need architecture, architecture also needs humans.





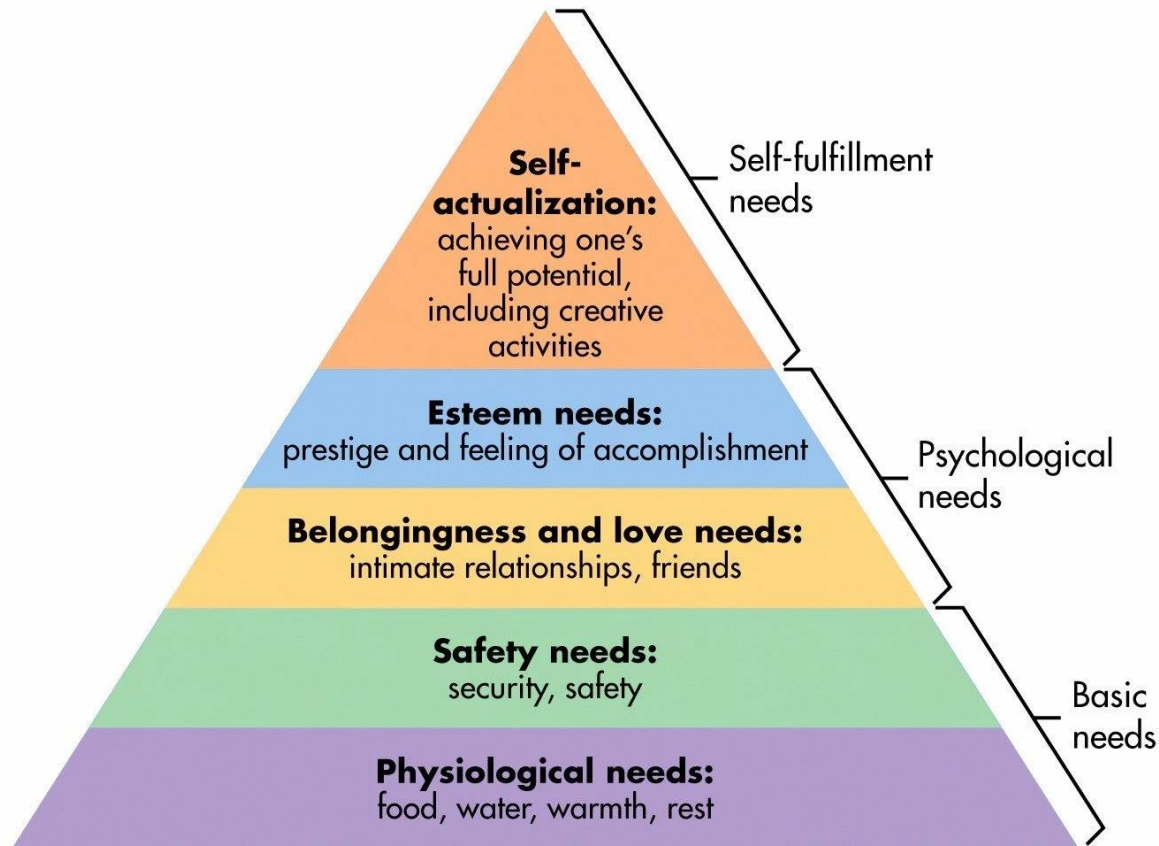
# MASLOW'S HIERARCHY OF NEEDS

## هرم ماسلو





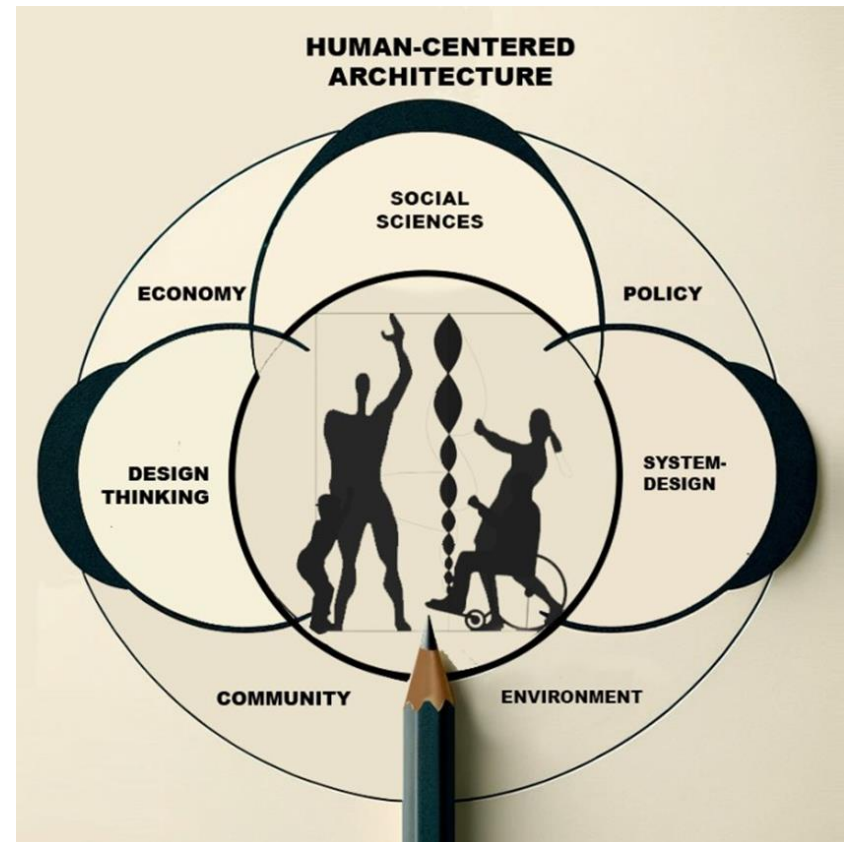
# MASLOW'S HIERARCHY OF NEEDS

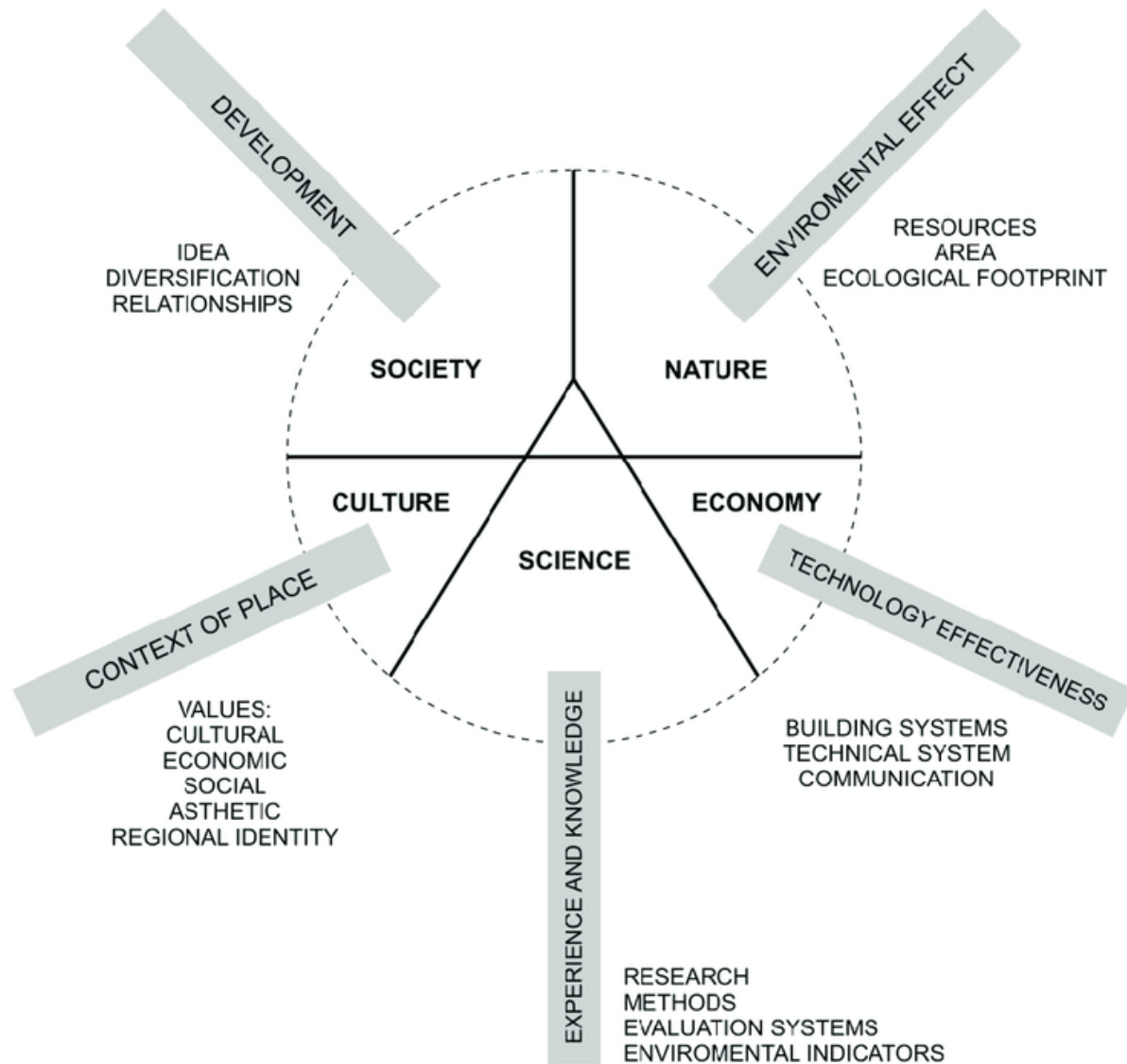




# THE RELATION BETWEEN ARCHITECTURE AND HUMAN LIFE/NEEDS

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Thank You