

ARCHITECTURAL DESIGN 3RD STAGE

Concept

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3rd Year Design Staff

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WHAT IS A CONCEPT

- Concepts are **ideas**..... That integrate various **elements** in to **whole**.
- These elements are something that formed in the mind which can be **notions, thoughts, mind representation, observations and solutions** in architecture.
- Concept suggests a specific **way** that **programmatic requirements context, and beliefs** can be brought together.
- Thus concepts are an important part of architectural design.
- Driving force of any project, **an identity** for the work.

HOW WE CAN GET IDEAS (CONCEPTS)

Concept formulation is not an **automatic activity**, it takes a **concentrated effort** to develop a concept that appropriately **integrates things** not previously **brought together**.

Bringing things together is a **creative act.....** designers, architects, critics, artists, musicians and writers have identified as being about **10 % inspiration or genius and 90% hard work**.

HOW WE CAN GET IDEAS (CONCEPTS)

3 PROBLEMS BLOCK SKILL DEVELOPMENT

I. Communication

The most difficult communication problem is not in explaining our concepts to others, but in explaining our ideas to our selves.

Graphic communication: In architecture, everything must get drawn if it is to be build, and drawings comprise half of the contract documents for building.

The process of sketching should begin early so that the proposal and its concept can continually be criticized and improved.

HOW WE CAN GET IDEAS (CONCEPTS)

3 PROBLEMS BLOCK SKILL DEVELOPMENT

2. Inexperience

Concepts are difficult to invent if they are an unfamiliar aspect of architecture.
Since many buildings are built without the benefit of a concept.

3. Generating Hierarchies

This is especially a problem for the beginning student who, because of lack of experience, has difficulty deciding if an idea is a brilliant concept or an awful one.

The architect must be able to make discerning judgments.

WHERE DO CONCEPTS COME FROM??

Site (Site Analysis)

Movement

Functional Requirements

Space / Emotions

Place / Culture / Society

Speed / Technology

**Technology / Material/
Method**

Memory / Place

**Personal Architectural
Influence**

Precedent Research

DIMENSIONS OF CONCEPT

1. Interior Experience

2. Exterior Expression

Normal Layman

Professional Specialist



ELEMENTS OF CONCEPT GENERATION AND EXPRESSION

Function

Lighting

Form

Ventilation

Materials

Meaning

Structure

Philosophy

SHOULD I HAVE A CONCEPT????

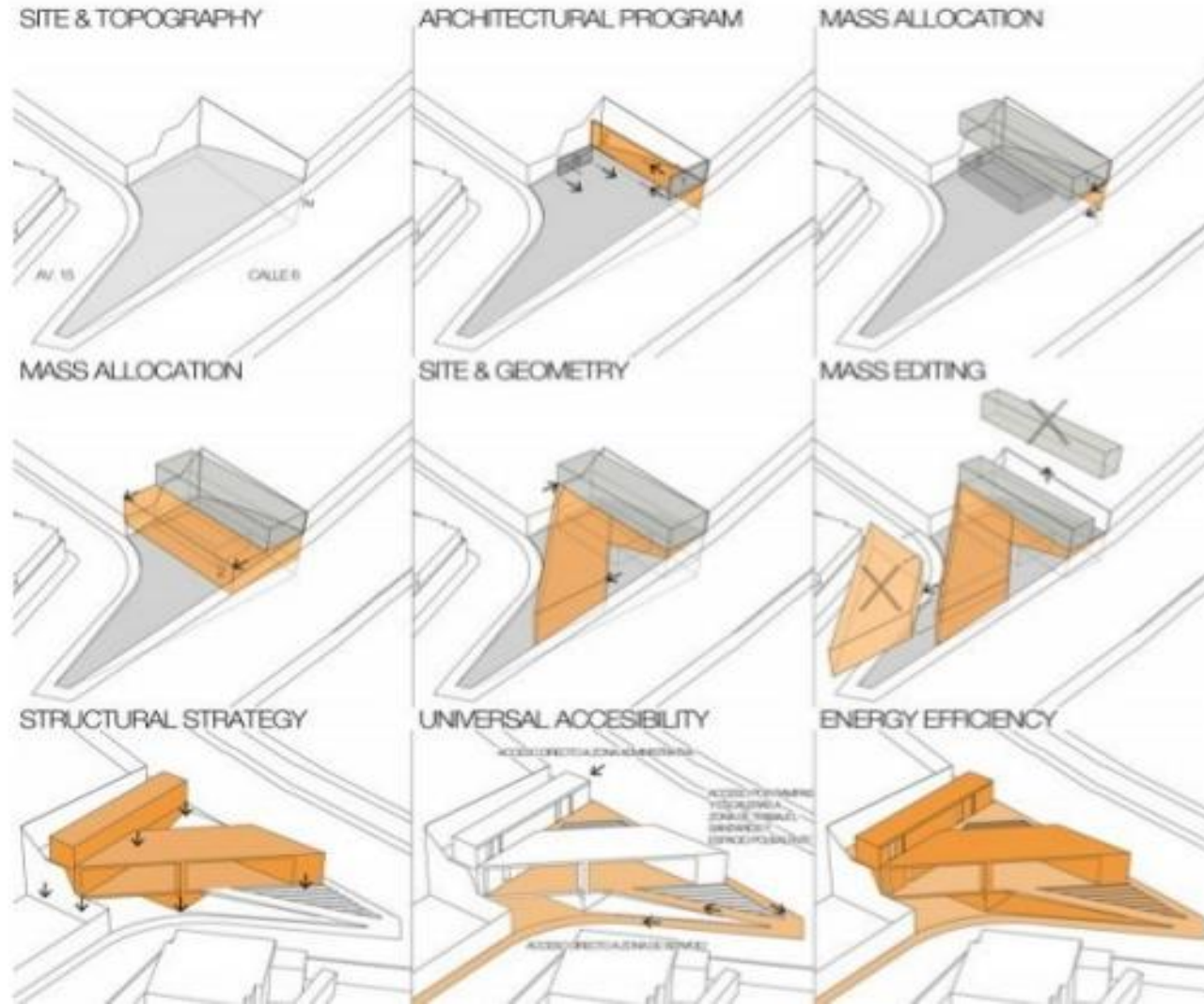
1. The concept gives meaning to your work, the more innovative and coherent your concept the more interesting your work is !!!

2. Concepts open the door for more related ideas, they make you think and research. A richer concept means a richer building !!!

3. Concepts are what distinguish architects, of course any architect might be able to design (functionally) with experience, but your creativity is what makes you special !!!

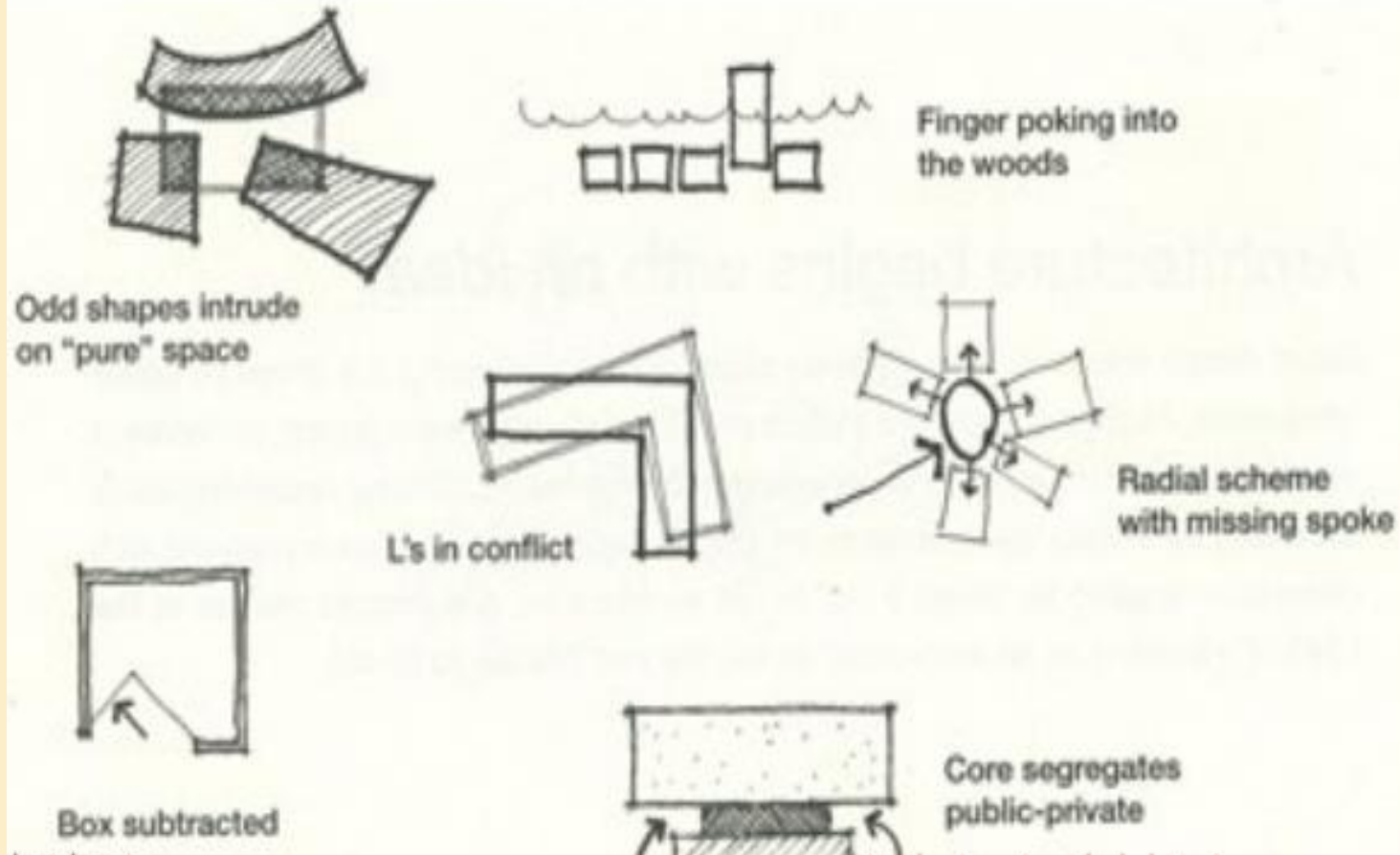
HELP !!! HOW CAN I EXPRESS MY CONCEPT

I. Diagrams: drawings of geometric shapes to show different relationships within any given space.



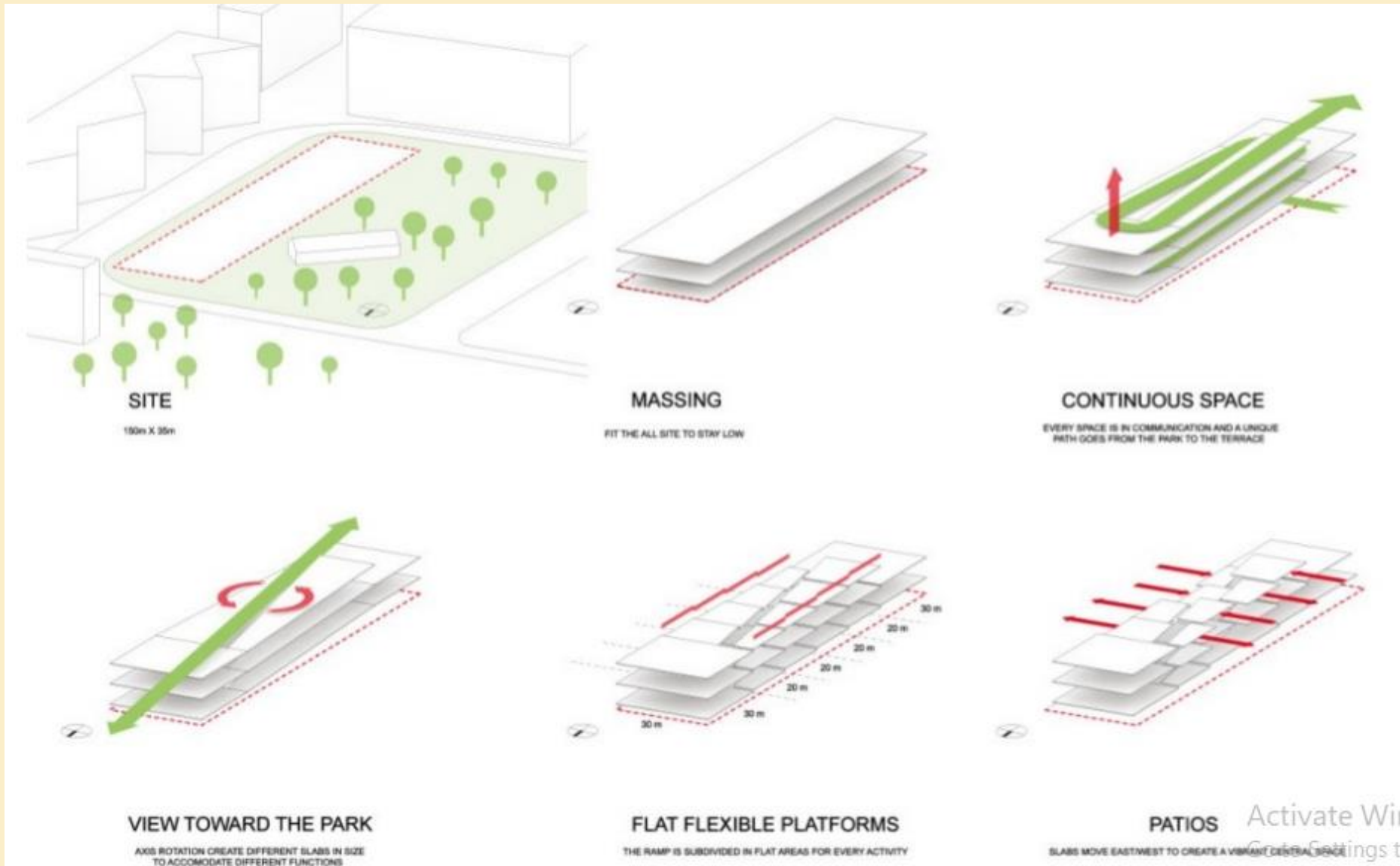
HELP !!! HOW CAN I EXPRESS MY CONCEPT

2. Parti: a type of diagram that serves as a general idea to figure out a building's program or layout. They are usually in the form of quick sketches or even 3D models.



HELP !!! HOW CAN I EXPRESS MY CONCEPT

3. Morphology: the study of the forms of things, in particular.

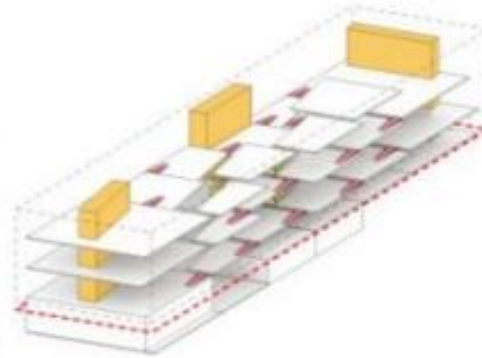


HELP !!! HOW CAN I EXPRESS MY CONCEPT



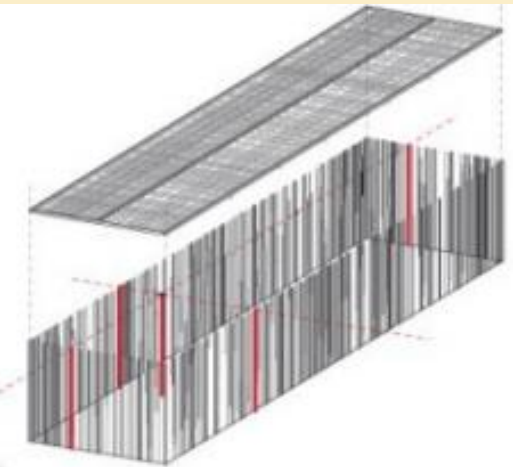
LANDSCAPE

COLUMNS INSIDE CREATE A CONTINUATION OF THE PARK AND THE GRASS IS LIFTED UP CREATING A HILL SUPPORTING THE BUILDING



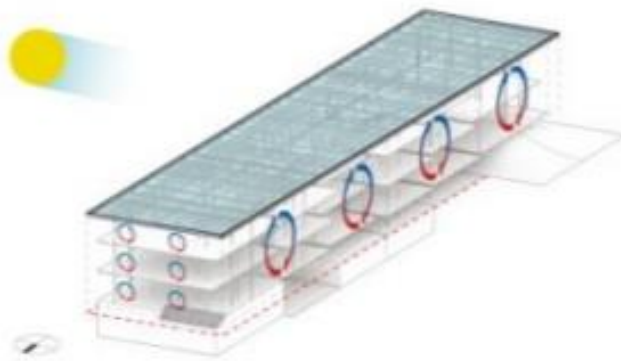
INTERIOR SPACE

PLATFORMS ARE CONNECTED BY RAMPS, A CENTRAL STAIR AND 3 CORES

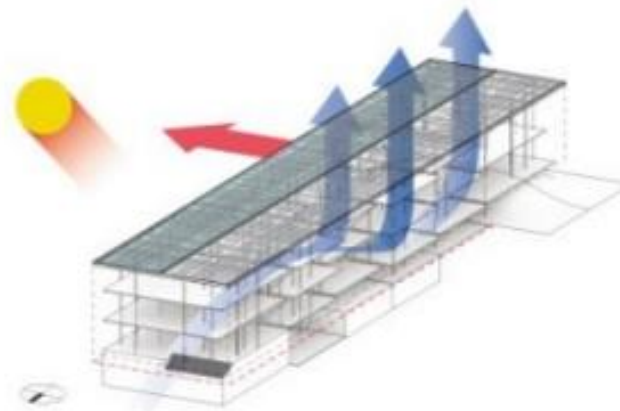


STRUCTURE

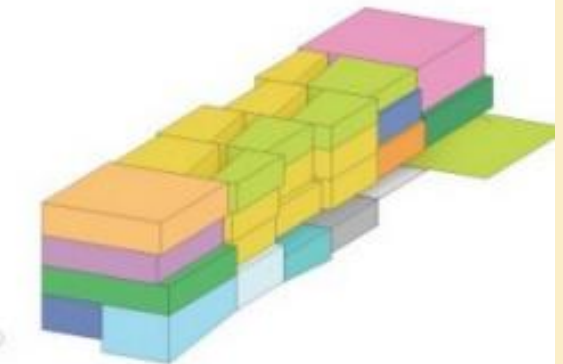
AN APPARENT RANDOM DISPOSITION THAT CREATE A 'HOOD EFFECT' IS RATIONALLY COORDINATED BY ALIGNED COLUMNS



SUMMER



WINTER



PROGRAM

TYPES OF CONCEPTS

1. Analogies

Looking at other things

2. Metaphors

Looking at abstractions

3. Essences

Looking beyond the programmatic needs

**4. Direct Response
and Problem Solving**

Looking at the stated requirements

5. Ideals

Looking at universal values

TYPES OF CONCEPTS

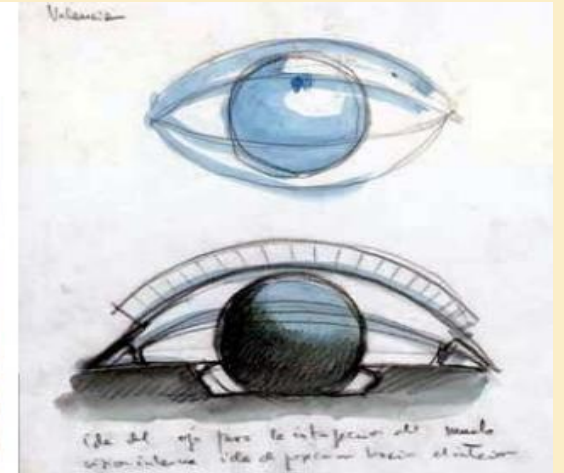
I. Analogies

Identify possible, literal relationships between things.

Direct analogies can be used in which one building provides an appropriate image for another project.

City of Arts and Science, L'Hemisfèric in Valencia, Spain

Caltrava's concept was to build the city of knowledge, he took the human eye to represent it, and to be known after that as the "eye of knowledge"



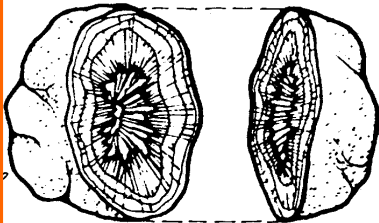
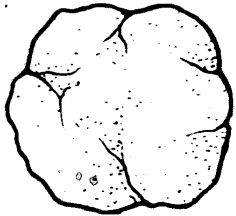
- Santiago Calatrava Eye concept

TYPES OF CONCEPTS

2. Metaphors

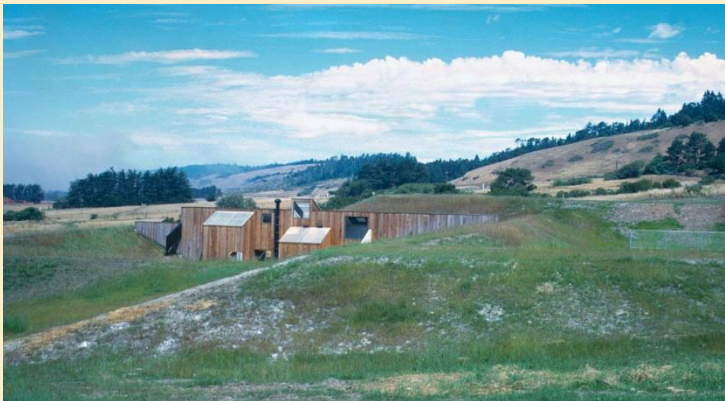
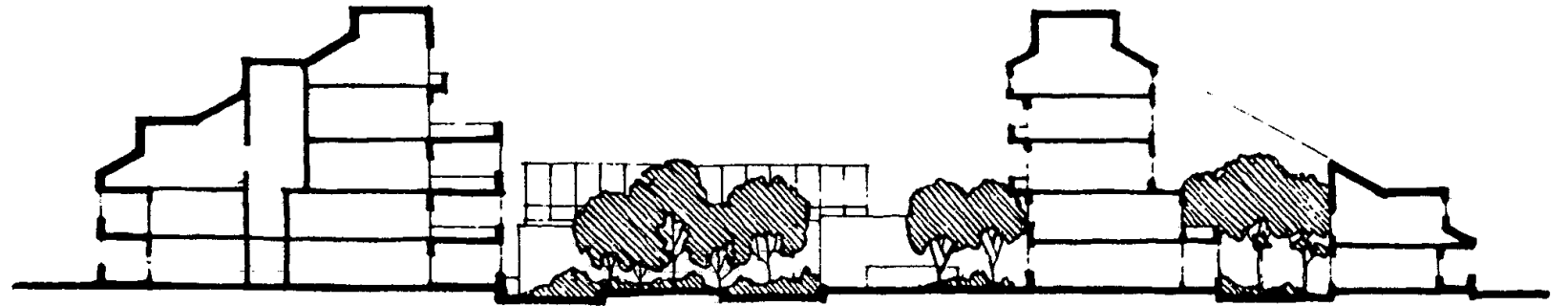
The relationships are abstract rather than literal.

Similes are metaphors that use the words “like” or “as” to express a relationship.



Geode-architecture analogy.

Geode-architecture analogy: St. Simon's Island, Georgia, project by Charles Moore and Associates.



TYPES OF CONCEPTS

3. Essences

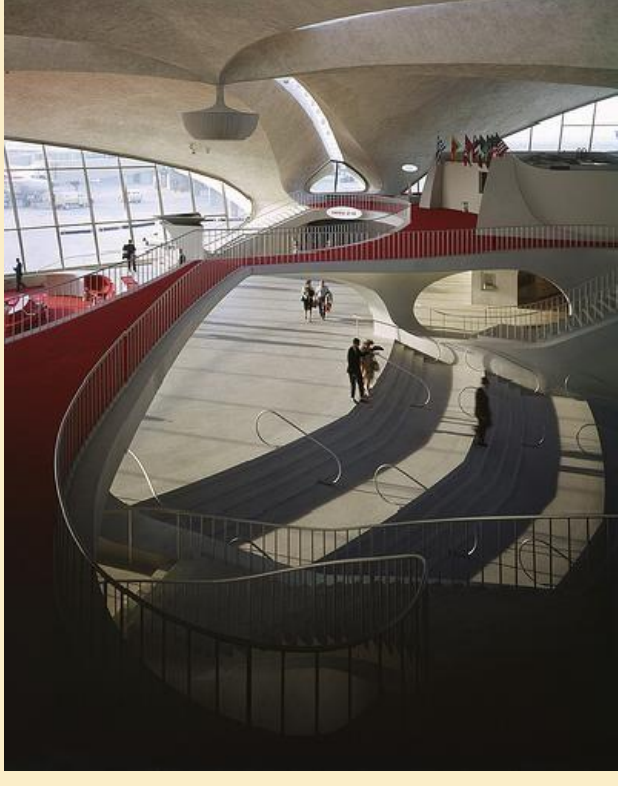
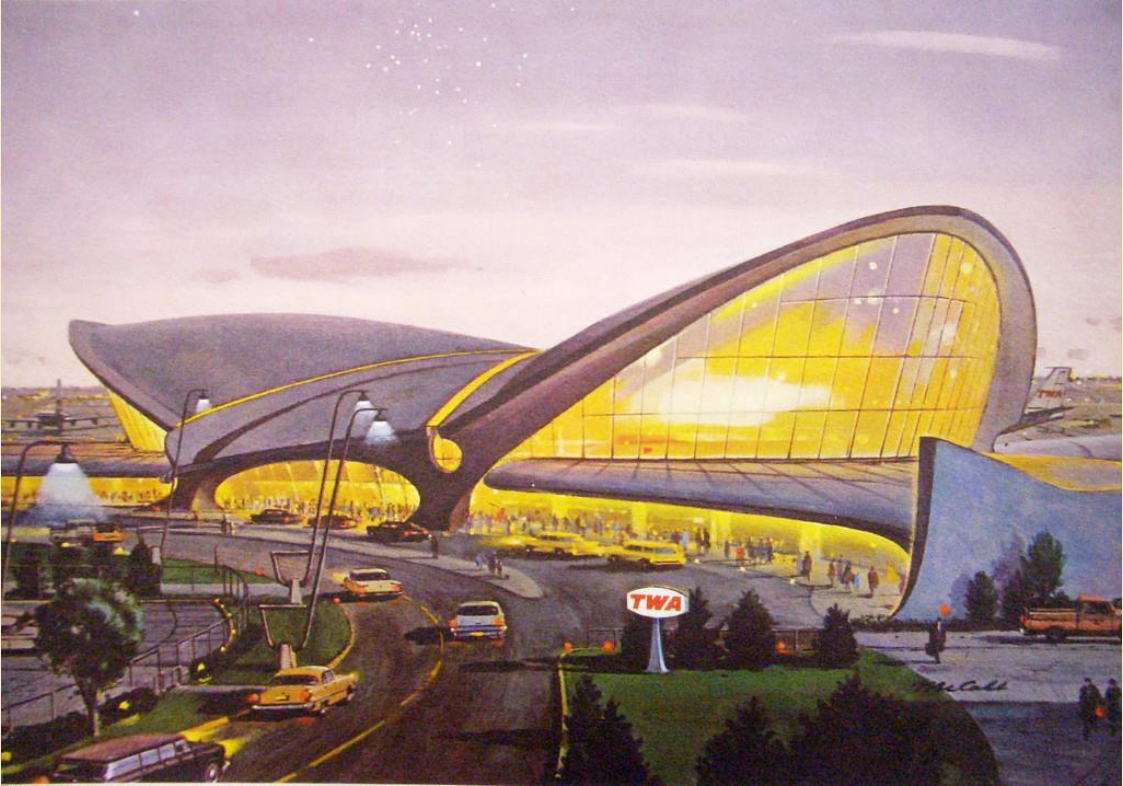
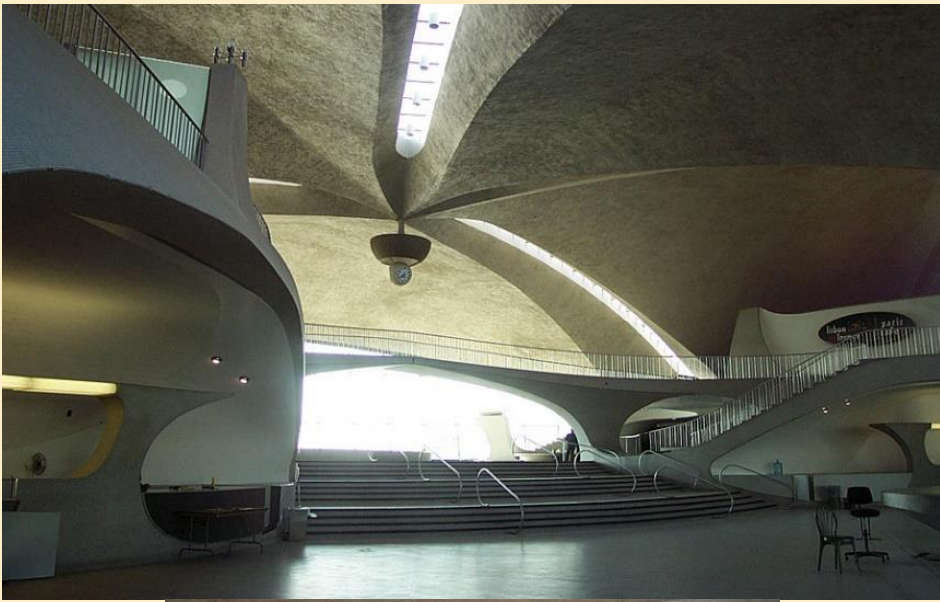
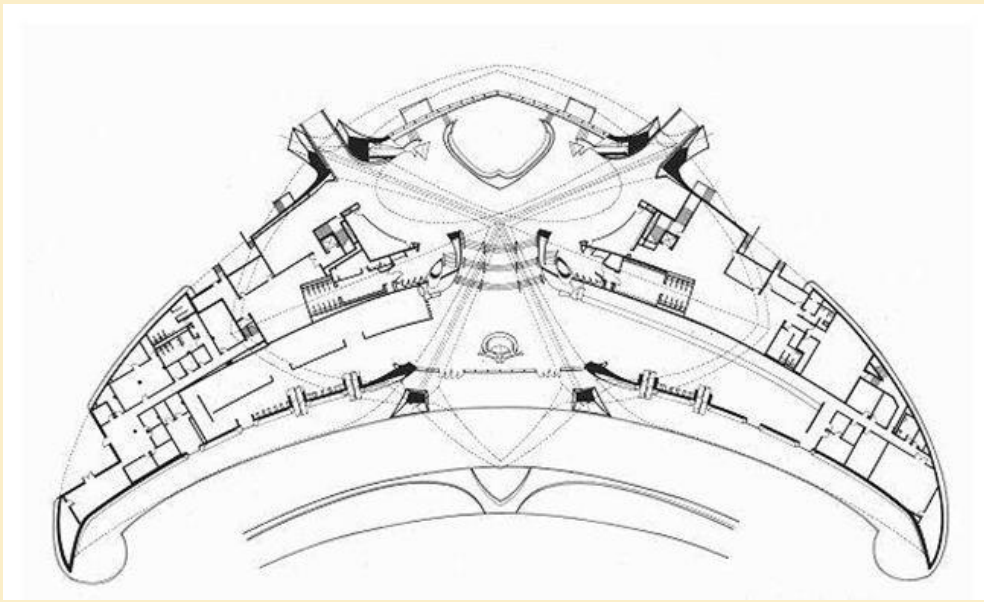
The assumption is that the most important things are the most essential. This search can be an analysis of the program or it can be a graphic analysis in which the project is diagramed in different ways.

Eero Saarinen's TWA at Kennedy international Airport in New York

When Saarinen was commissioned in 1956, the client wanted this building to capture the "spirit of flight".

In order to capture the concept of flight, Saarinen used curves to create spaces that flowed into one another. The exterior's concrete roof imitates a bird in flight with two massive "wings."





TYPES OF CONCEPTS

4. Direct Response and Problem Solving

Not all concept capture the essence of a project, nor do they all symbolize the function of all the activities in a building.

While many architects take pride in their ability to solve a client's problems.

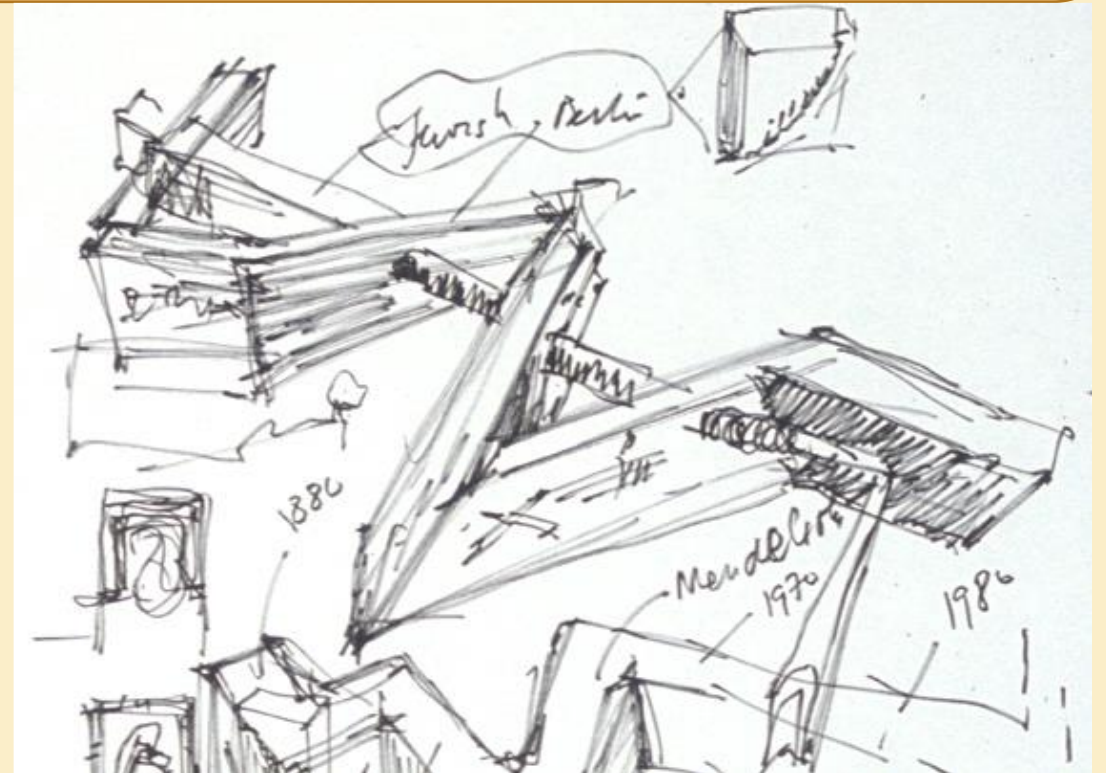
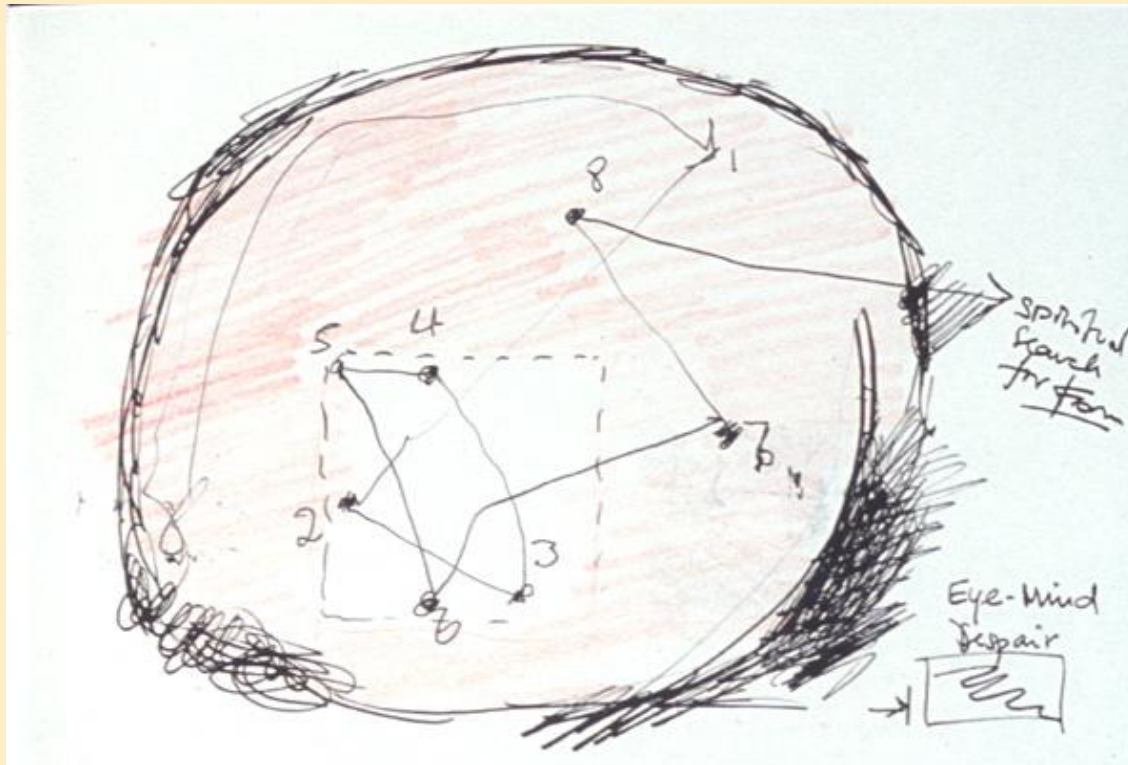
Daniel Libeskind in The Design Process of the Jewish Museum of Berlin

The initial conceptualization centered on a representation of the Star of David (highlighting Jewish identity and history in the search of the problem space, i.e., problem structuring) and a zigzag line as a potential building form (constraining search of the solution space, i.e., problem solution).

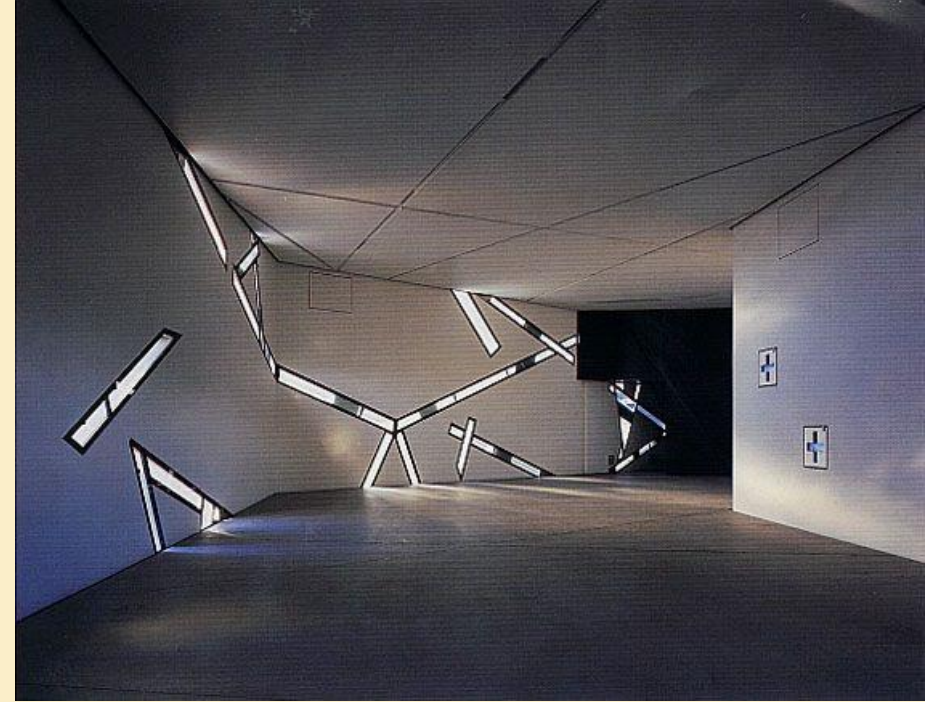
During the design process, the efforts of Libeskind and his assistants were directed towards improving the zigzag design while Libeskind simultaneously tried to reach a conceptually sound base for the specific design.

TYPES OF CONCEPTS

In this process, constructing a series of diagrams helped Libeskind correlate the search in the solution space with the search in the problem space and end with a satisfying conceptual basis for the solution that entwined the structure of the building with Jewish identity and history in Berlin and in Germany, as it zigzagged through space and time.



TYPES OF CONCEPTS



TYPES OF CONCEPTS

5. Ideal

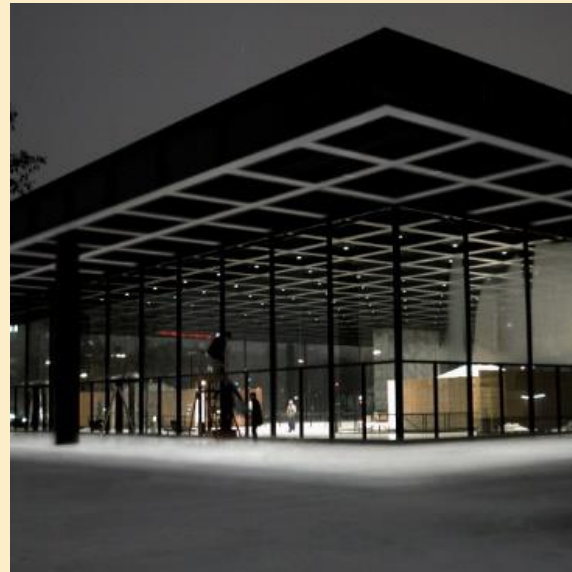
In contrast to the previous categories of concepts, which suggest that the architect look inside the problem or at a similar problem to discover appropriate concepts.....

But ideal concepts are those that architects bring to the problem.

Mies van der Rohe (Crown Hall)

- The universal space is the ultimate expression of flexible space and can be modelled or adapted to fit almost any use.
- The New National Gallery is a masterly expression of this spatial concept and is the last of a series of buildings that begun with Crown Hall that are essentially column- less single story hall spaces.
- The universal space not restricted to a specific function represents an idealized abstraction of free and pure architectural space.

TYPES OF CONCEPTS



REFERENCES

1. Dogan, Fehmi and Nersessian, Nancy J., “Design Problem Solving with Conceptual Diagrams”, research.
2. Misra, Asst. Prof. Sumantra, “Concepts in Architecture” ,Department of Architecture, School of Engineering, Adama Science and Technology University.
3. Stach, Edgar, “Mies van der Rohe- Space, Material and Detail” , Thomas Jefferson University, Philadelphia, PA.



**Thank
You**