ART & ARCHITECTURE PRICIPLES
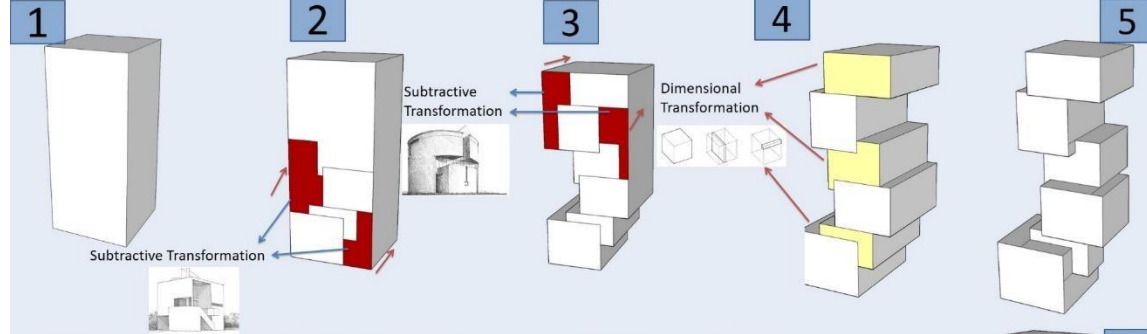
PREPARED BY : REBIN MOHAMMED AHMAD

KEU CARD NUMBER :8530

Form & Principles Analysis

1

2

3

4

5

Subtractive
Transformation

Dimensional
Transformation

Subtractive Transformation

Subtractive
Transformation

6

Architect: ateliereenarchitecten , Eindhoven, the
Netherlands Location: Reusel

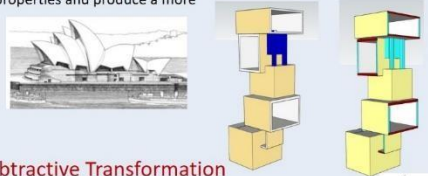Area: 100 m2 Photographs

Year: 2008-2009

V-axial organization around strong center
vertical axis
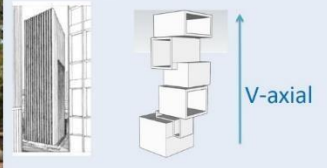
V-axial

7

repetition of form The act or process of repeating formal elements or
motifs
in a design.

Additive
Transformation

8

contrast of direction and between mass and void Opposition or
juxtaposition of dissimilar elements in a work of art to intensify each element's
properties and produce a more

9

Subtractive Transformation

A form can be transformed by subtracting a portion of
its volume. Depending on the extent of the subtractive
process, the form can retain its initial identity or be
transformed into a form of another family

Additive Transformation

A form can be transformed by the addition of elements
to its volume. The nature of the additive process and the
number and relative sizes of the elements being attached
determine whether the identity of the initial form is Additive
altered or retained.
TRANSFORMATION OF FORM

3
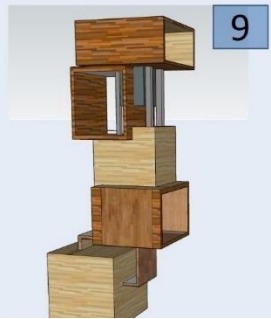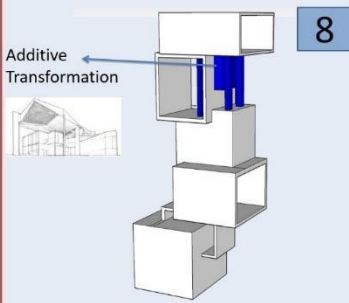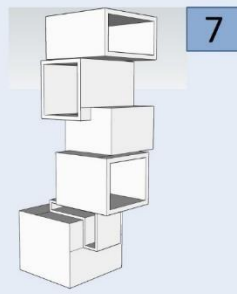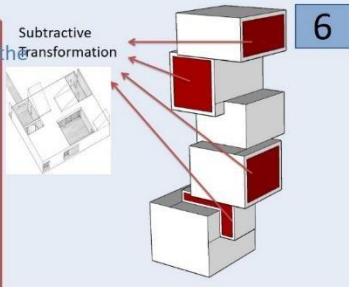
Directonality

Orgnaization around astrong central axis

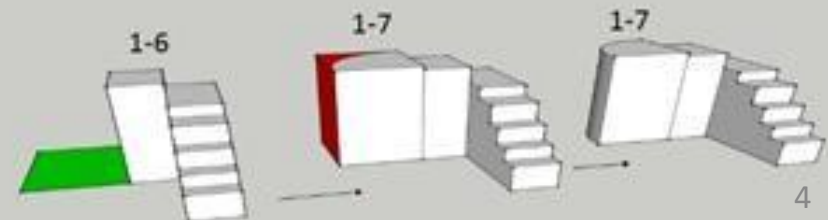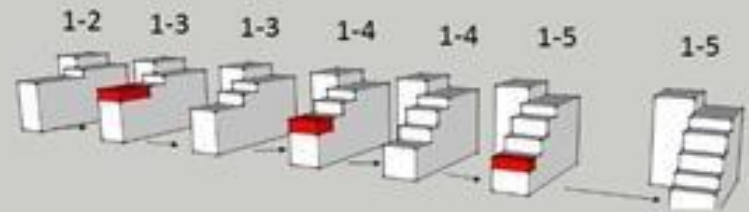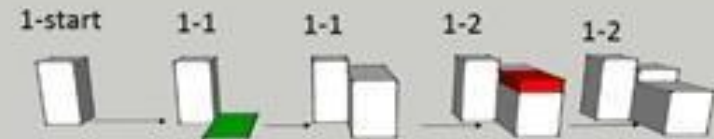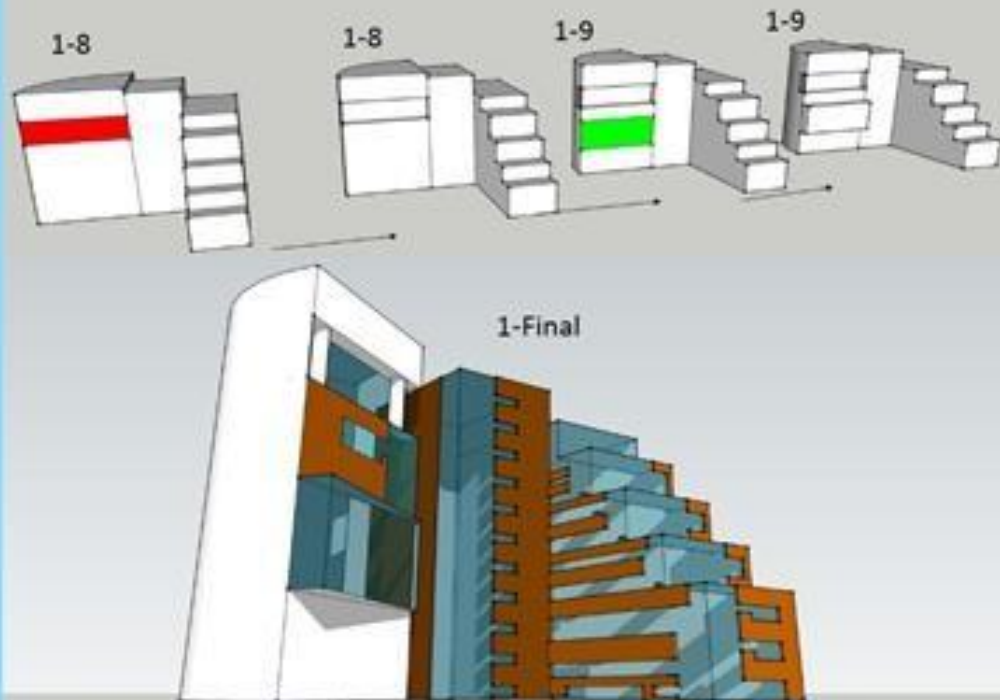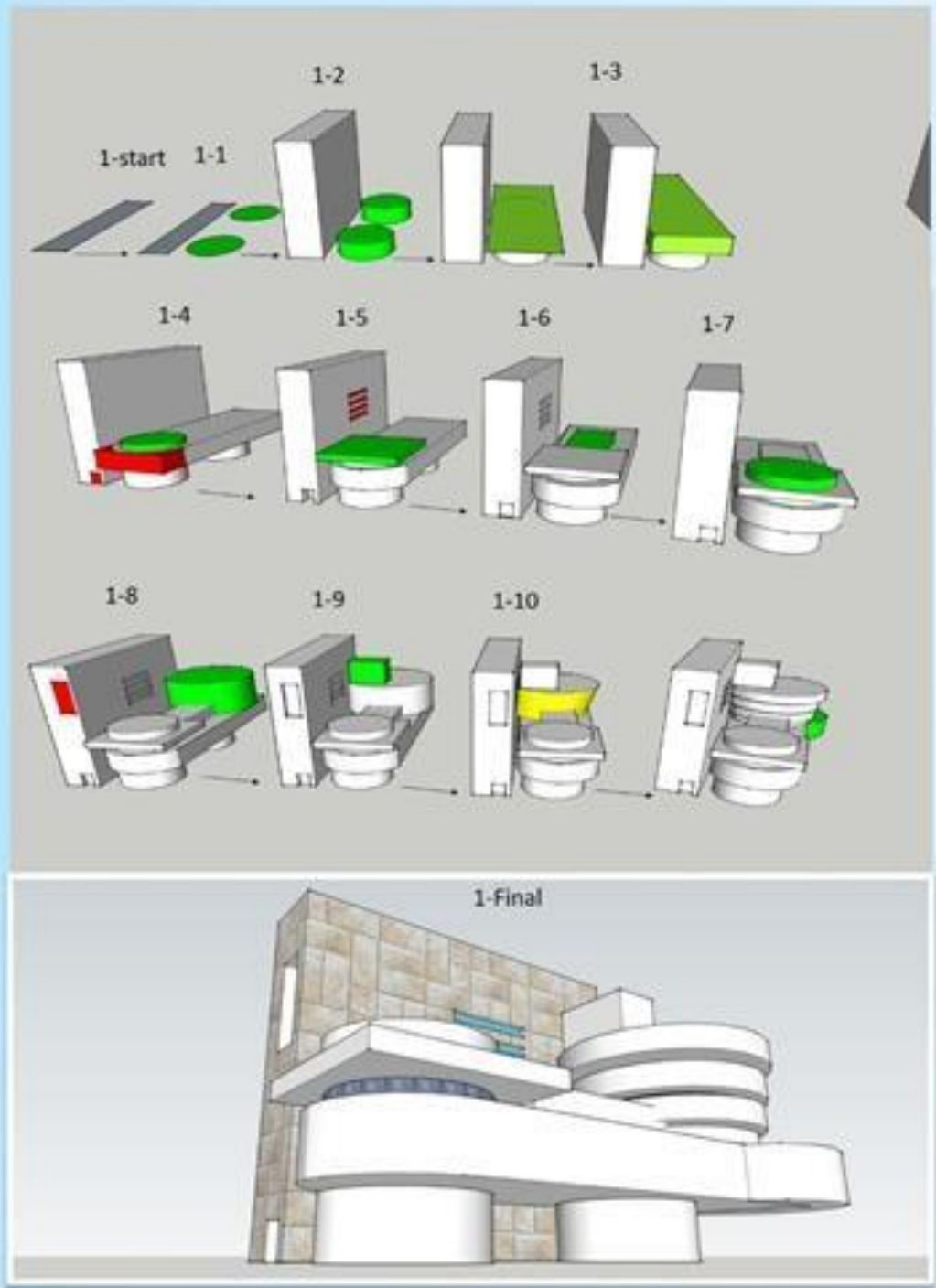# Gradation

The prlnclple of hlerarchy implles that most hf not all archltectural composition real differences exist among thelr forms and spaces.

Repetition

The simplest of repetitton is a linear pattern of redundant elements

- 🔴 Cut
- 🟡 push
- 🟢 Add

1-8   1-8   1-9   1-9

1-Final

1-start   1-1   1-1   1-2   1-2

1-2   1-3   1-3   1-4   1-4   1-5   1-5

1-6   1-7   1-7

Hierarchy by size
A form or space may dominate an architectural composition by being significan in size form all the other elements in the composition

Gradation
The prlnclple of hlerarchy implies that most hf not all archltectural composition real differences exist among thelr forms and spaces.

Repetition
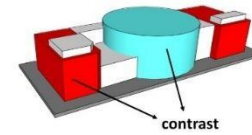The simplest of repetitton is a linear pattern of redundant elements

Principles analysis

1- Contrast
A contrast in form, geometry, or orientation can visually reinforce the identity and independence of the sunken field from its larger spatial context.

contrast

2- Hierarchy by Shape
A form or space can be made visually dominant and thus important by clearly differentiating its shape from that of the other elements in the composition.
A discernible contrast in shape is critical, whether the differentiation is based on a change in geometry or regularity.
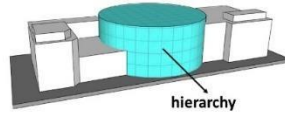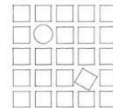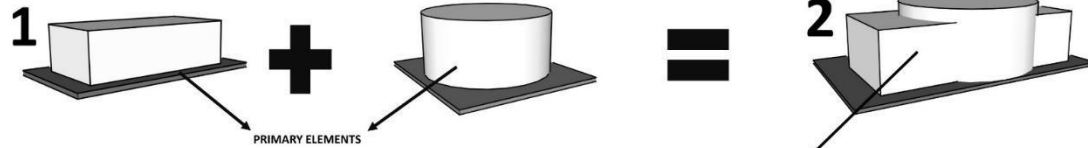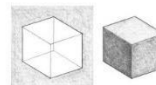
hierarchy

Example for hierarchy

3- Repetition :
The act or process of repeating formal elements or motifs in a design .

repetition

Form analysis

1 + = 2
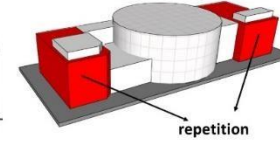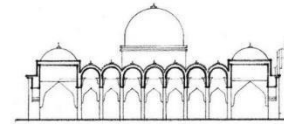
PRIMARY ELEMENTS

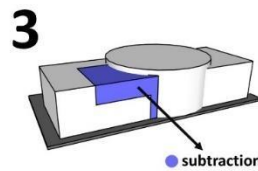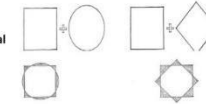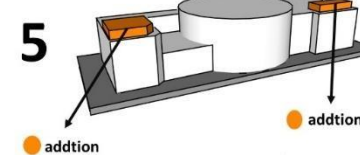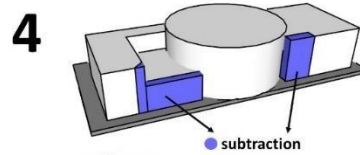## PRIMARY ELEMENTS :
the three-dimensional element in the vocabulary of architectural design, a volume can be either a solid—space displaced by mass—or a void—space contained or enclosed by planes.

Merge :
The two forms can subvert their individual identities and merge to create a new composite form.

3

subtraction

Subtractive Transformation
A form can be transformed by subtracting a portion of its volume. Depending on the extent of the subtractive process, the form can retain its initial identity or be transformed into a form of another family.

Example for subtractive

4

subtraction

addtion

5

addtion

addtion

Additive Transformation
A form can be transformed by the addition of elements to its volume. The nature of the additive process and the number and relative sizes of the elements being attached determine whether the identity of the initial form is altered or retained.
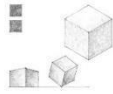
Example for additive

6

addtion

7

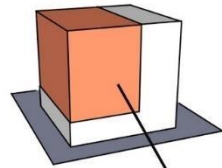Final image

Form analysis

1

First image
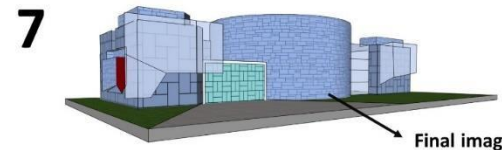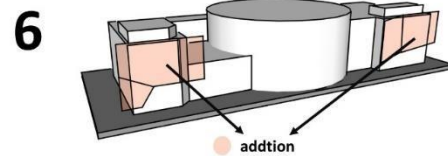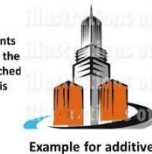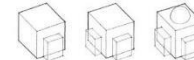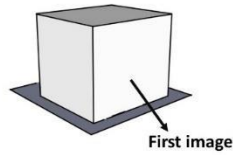
primary shape :
The primary shapes can be extended or rotated to generated volumetric forms or solids which are distinct , regular , and easily recognizable .
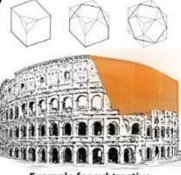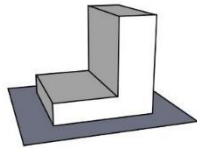
2

Subtraction

Subtractive Transformation:
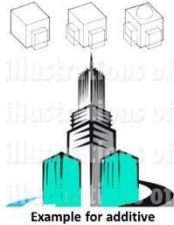A form can be transformed by subtracting a portion of its volume.

Example for subtractive
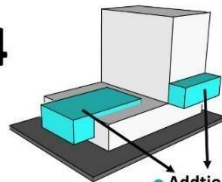
3

4

Addtion

Additive Transformation:
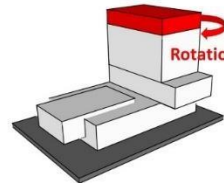A form can be transformed by the addition of elements to its volume.
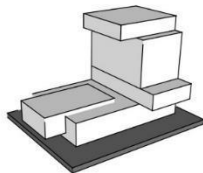
Example for additive

5

Rotation 90°

Rotation :
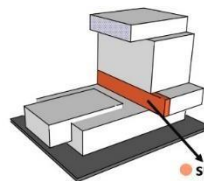Rotational surfaces are generated by rotating a plane curve about an axis.
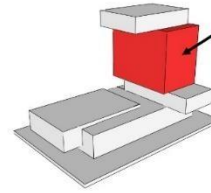
6

Example for rotated

7
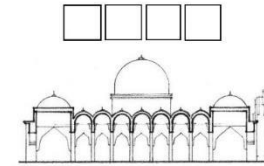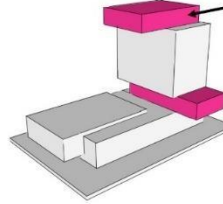
subtraction

Principles analysis

1- Hierarchy by Size
A form or space may dominate an architectural composition by being significantly different in size from all the other elements in the composition
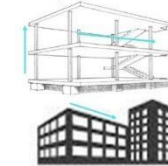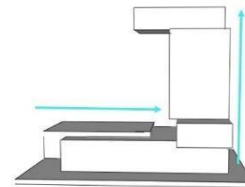
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The act or process of repeating formal elements or motifs in a design .
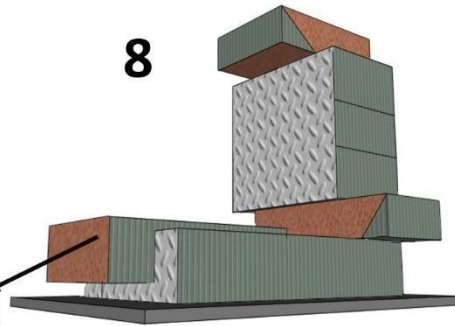
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A contrast in form, geometry, or orientation can visually reinforce the identity and independence of the sunken field from its larger spatial context.
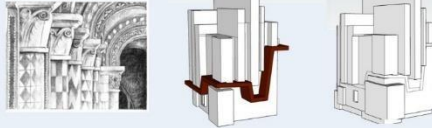
8

Final imag

BETHUNE
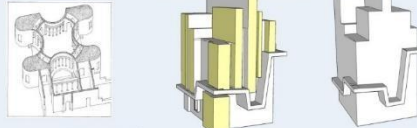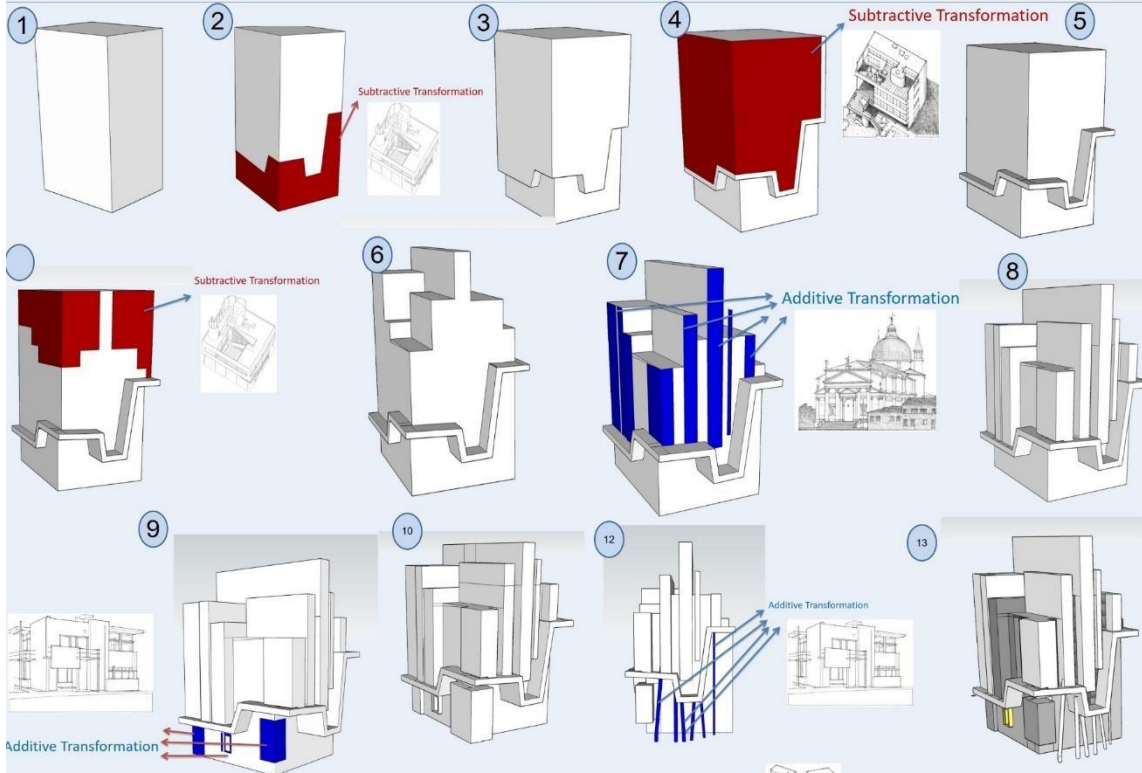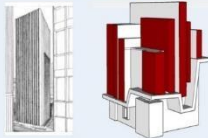## FREDERIC BOREL ARCHITECTE
DATE 2007 .LOCATION IN FRANCH

repetition of form The act or process of repeating formal elements or motifs in a design.

Datum A line, plane, or volume that, by its continuity and regularity, serves to gather, measure, and organize a pattern of forms and spaces.

V-axial organization around strong center vertical axis

①

② Subtractive Transformation

③

④ Subtractive Transformation

⑤

Subtractive Transformation

⑥

⑦ Additive Transformation

⑧

⑨ Additive Transformation
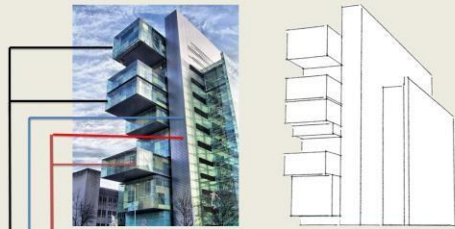
10

12 Additive Transformation

13

Subtractive Transformation
A form can be transformed by subtracting a portion of its volume. Depending on the extent of the subtractive process, the form can retain its initial identity or be transformed into a form of another family
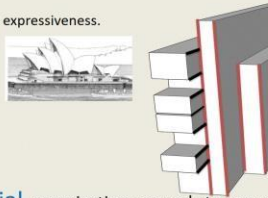
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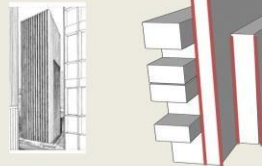TRANSFORMATION OF FORM

contrast of direction and mterial betwen glass and sold Opposition or juxtaposition of dissimilar elements in a work of art to intensify each element's properties and produce a more
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V-axial organization around strong center vertical axis

repetition of form The act or process of repeating formal elements o[...]
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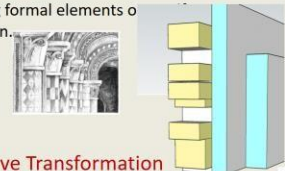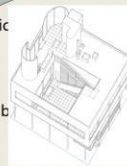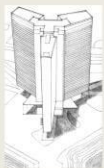altered or retained.
TRANSFORMATION OF FORM

● Subtractive Transformation

● Additive Transformation

● Additive Transformation

● Subtractive Transformation

● Additive Transformation

1

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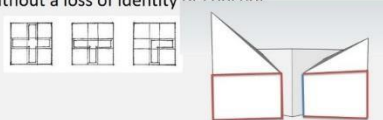8

Yoseif Hashim   2017/1/23

Titanic BELFAST

Transformation of form

Transformation of form The principle that an architectural concept, structure, or organization
can be altered through a series of discrete manipulations and permutations in response to a specific context or set of conditions without a loss of identity or concept.

contrast of direction Opposition or juxtaposition of dissimilar elements in a work of
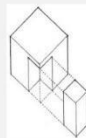art to intensify each element's properties and produce a more dynamic

V-axial organization around strong center vertical axis
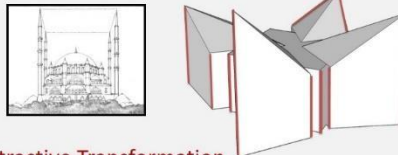
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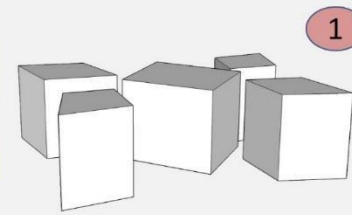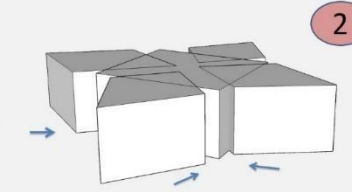
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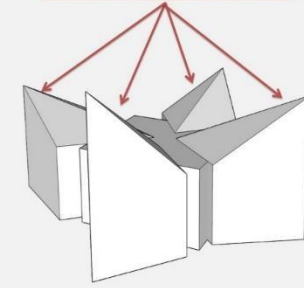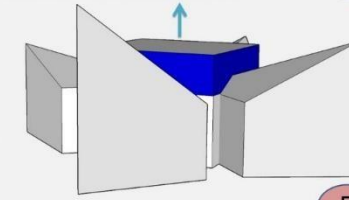altered or retained.
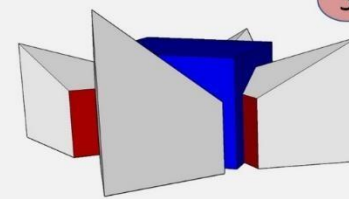TRANSFORMATION OF FORM

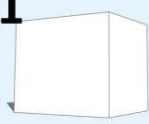Transformation of form

Additive Transformation
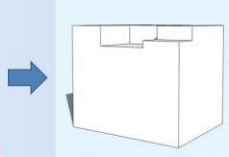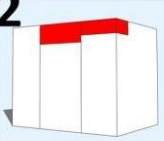
FORM ANALYSIS:

1 **Cube** : A prismatic solid bounded by six equal square sides , the angle between any two adjacent faces Being a right angle
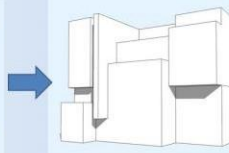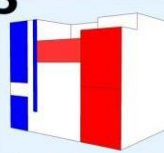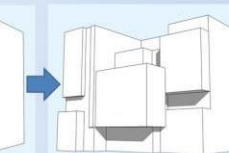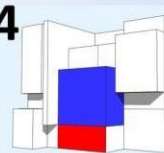
2
Subtractive Transformation

3
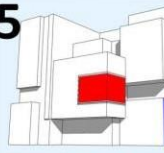Subtractive Transformation
Additive Transformation

4
Subtractive Transformation
Additive Transformation

5
Subtractive Transformation
Additive Transformation

6
Subtractive Transformation
Additive Transformation

7

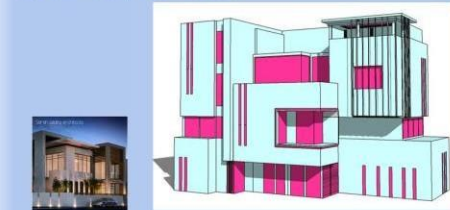**Subtractive Transformation :** A form can be transformed by subtracting a portion of its volume.

Additive Transformation : A form can be transformed by the addition of elements to its volume.

PRINCIPLES ANALYSIS:

Contrast between void and solid :
Opposition or juxtaposition Of dissimilar elements in a work of art to Intensify each element's properties and Produce more dynamic expressiveness.

Repetition of shape (Rectangle):
*The act or process of repeating formal Elements or motifs in a design.*

1-Hierachy The articulation of the importance or significance of a form or space by its size, shape, or placement relative to the other forms and spaces of the organization.

2-Contrast Opposition or juxtaposition of dissimilar elements in a work of art to intensify each element's properties and produce a more dynamic expressiveness.

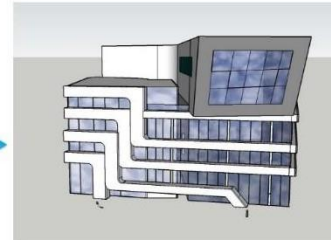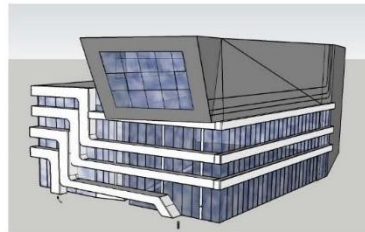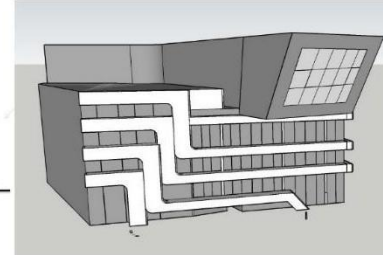**3-Repetition** The act or process of repeating formal elements or motifs in a desig n.
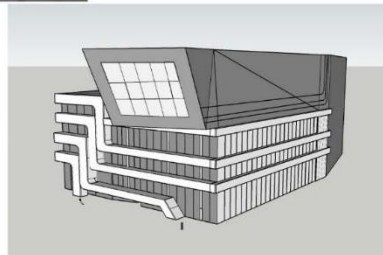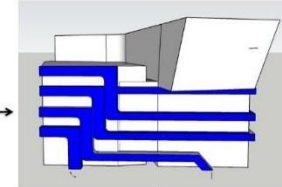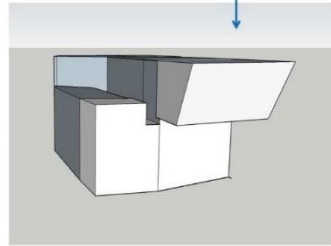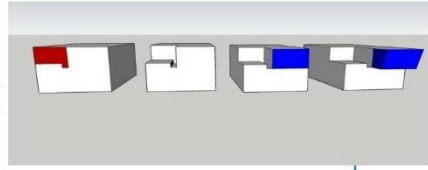
● **Subtractive Transformation**
A form can be transformed by subtracting a portion of its volume. Depending on the extent of the subtractive process, the form can retain its initial identity or be transformed into a form of another family. For example, a cube can retain its identity as a cube even though a portion of it is removed, or be transformed into a series of regular polyhedrons that begin to approximate a sphere
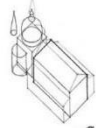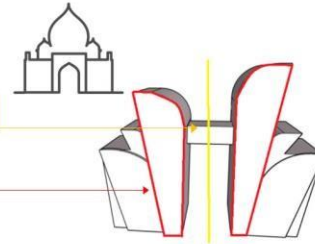
● **Additive Transformation** A form can be transformed by the addition of elements to its volume. The nature of the additive process and the number and relative sizes of the elements being attached determine whether the identity of the initial form is
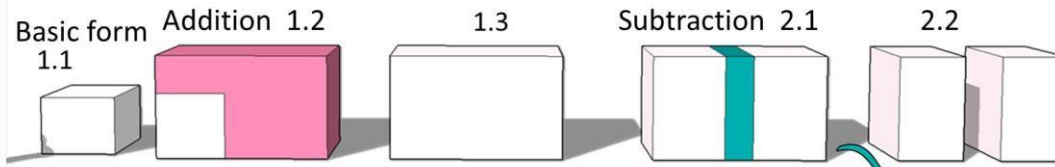
**Symmetry:** the balance distribution and arrangement of equivalent forms and spaces on opposite axis.

Repetetion: the act or process of repeating formalelements or motifs in a design

Basic form 1.1   Addition 1.2   1.3   Subtraction 2.1   2.2

Additive transformation: a form can be transformed by the addition of elements to its volume.

Subtractive transformation: a form can be transformed by subtracting a portion of its volume

2.3 addition   3.1   Dimensional transformation   Final image 3.3   3.2
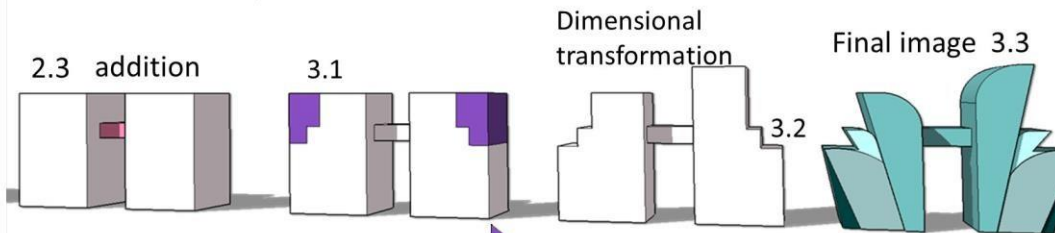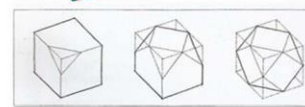
Dimensional transformation : a form can be transformed by alerting one or more of its dimensionsand still retain its identity.

Additive Transformation

Subtractive Transformation

Dimensional Transformation