

# *DESIGN METHOD*



Dr. Ir . A. Rudyanto Soesilo

# *Conceptual sketches*



a. Rudyanto soesilo

# *Conceptual sketches*



- 3 dimension
- Free hand
- Specs laden
- Spatial

# *Conceptual sketches on Design approaches*

- External approach ( Macro)
- Internal approach (Micro)

# *Synonyms of Concepts in architecture*

- Architectural ideas
- T.h.e.m.e.
- Superorganizing ideas
- P.a.r.t.i. / Scheme
- E.s.q.u.i.s.s.e. / Sketch

# *Types of Concepts in architecture*



- Analogies,
- Metaphors,
- Essences,
- Direct response, (Programmatic problem solving),
- I.d.e.a.l.s.

# DEFINISI PARTI

*Menurut dictionary.com*

**The basic scheme or concept of architectural**

*Menurut wikipedia.org :*

A **Parti** or **Parti pris**/ from the French *Prendre parti* meaning " to make a decision ", often referred to as

**The big idea, is the chief organizing thought or decision behind an Architect's Design presented in the form of a basic diagram and / or a simple statement.**

# PART I

*“If you can draw a building with a few sweeps of the pen and everyone recognises not only the structure but also associates it with a place on earth, you have gone a long way towards creating something iconic”*

Tom Wright 2000





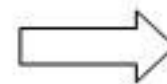
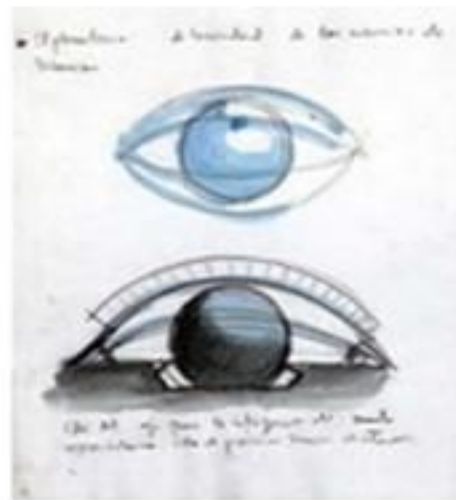
# THE CITY OF ARTS AND SCIENCES

OLEH SANTIAGO CALATRAVA



*The City of Arts and Sciences* adalah bangunan yang berfungsi sebagai pusat pendidikan sekaligus hiburan yang didesain oleh Santiago Calatrava

Gambar The City of Arts and Sciences,  
sumber : [www.travelinginspain.com/valencia/arts\\_science.htm](http://www.travelinginspain.com/valencia/arts_science.htm)

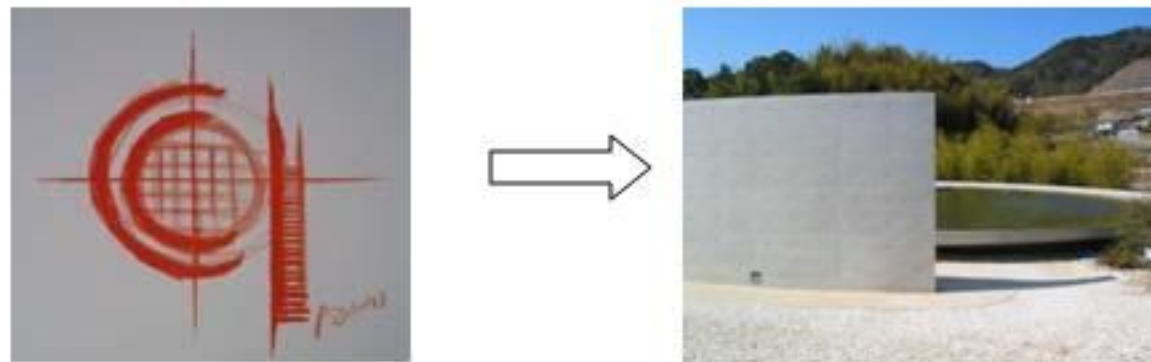


Gambar pembentukan massa dari parti  
Sumber : [www.architect-swc.com](http://www.architect-swc.com)

# WATER TEMPLE OLEH TADAO ANDO



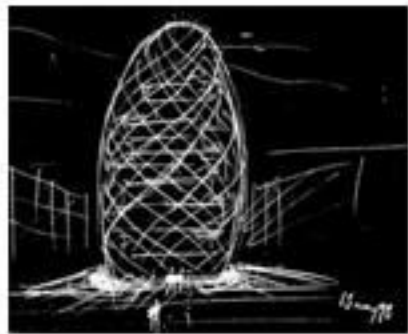
Gambar Water Temple  
Sumber : [www.liaoyusheng.com](http://www.liaoyusheng.com)



Gambar pembentukan massa dari parti  
Sumber : [www.architect-swc.com](http://www.architect-swc.com), dan [www.liaoyusheng.com](http://www.liaoyusheng.com)

*Water Temple* adalah bangunan yang berfungsi sebagai tempat ibadah umat Buddha yang terletak di daerah Hompukuji. Kota ini merupakan salah satu kota kecil yang terletak di pulau Awajishima.

# THE GHERKIN OLEH NORMAN FOSTER



*The Gherkin* merupakan salah satu gedung pencakar langit terkenal di London. Gedung ini didesain oleh Norman Foster yang merupakan salah satu arsitek ternama di Eropa. Gedung ini memiliki tinggi 180 meter, dengan 40 lantai dan menjadikannya gedung ke-2 tertinggi di kota London

Gambar pembentukan massa dari parti  
Sumber : [www.architect-swc.com](http://www.architect-swc.com), dan [www.eikongraphia.com](http://www.eikongraphia.com)



Gambar sindiran terhadap bentuk The Gherkin  
Sumber : [www.eikongraphia.com](http://www.eikongraphia.com)

Oleh : A. Rudyanto Soesilo

# Concepts in architecture

# Concepts in architecture

- Ideas that integrate various elements into a whole
- Ideas, Notions, Thoughts, Observations.
- A specific way that programmatic requirements, context and beliefs can be brought together
- Types : Analogies, Metaphors, Essences, Direct response (Programmatic problem solving), Ideals

# Concepts in architecture

- Do not have to be invented by the architect
- Can be Core Issues
- Ideas,
- Notions,
- Thoughts,
- Observations.

# Synonyms of Concepts in architecture

- Architectural ideas
- T.h.e.m.e.
- Superorganizing ideas
- P.a.r.t.i. / Scheme
- E.s.q.u.i.s.s.e. / Sketch
- Literal translations

# Types of Concepts in architecture

- Analogies,
- Metaphors,
- Essences,
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# Architectural ideas

- Concept that have been reduced to a formal architectonic concern : Daylight, space, structure and form, siting in the landscape or townscape
- Used as the basis for the design decisions that follow

# T.h.e.m.e

- Specific pattern or idea that recurs throughout the design of a project.
- Can be narrow or general in intention
- Like : a specific geometric theme that appears throughout the project

# Superorganizing ideas

- Some rules that the parts of a project should respect, like :
  - A geometric configurations or
  - Hierarchies
  - Overall organizing pattern
  - Variations can be allowed as long as they reinforce the overall pattern

# Literal translations

- Strong idea that is architectural rather than sculptural or painterly
- Can be drowned immediately as abstraction or a diagram of the architectural idea
- Becomes simplified plan for the project
- Expressible in the kind of sketch one might do on a napkin

## /Sketch

- Conceptual and graphic products of a particular method of instruction developed in the Beaux Arts School of France XIX century.
- Students develop high conceptual skills
- Preliminary sketch of the building configuration in the first few hours of work on a project and to hold to that *Parti* through out the project

# DEFINISI PARTI

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# PART I

*“If you can draw a building with a few sweeps of the pen and everyone recognises not only the structure but also associates it with a place on earth, you have gone a long way towards creating something iconic”*

Tom Wright 2000



## *Metoda Preseden*

- Meneladani karya2 arsitektur yg Prima (Good architecture) dari arsitek2 genius (Good architect).
  - Cara :
- Mencari pola2 pemecahan arsitektonis dari karya2 unggulan arsitektur
- metoda oleh : Roger Clark & Michael Pause



# *Analisis arsitektonis Preseden*

- **S t r u k t u r**
- **Pencahayaan alami**
- **M a s s a**
- **Perbandingan denah ke tampak/pot**
- **Sirkulasi ke ruang2**
- **Perbandingan unit keseluruhan**
- **Perbandingan pengulangan ke unik**
- **Simetri & balance**

# *FORMATIVE IDEAS*

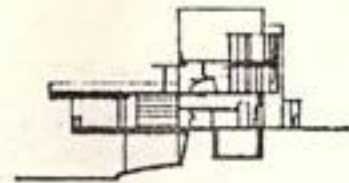
- Kesamaan-kesamaan dalam pendekatan perancangan dikelompokkan dalam tema2 dominan atau gagasan formative
- GAGASAN FORMATIF:
  - Suatu konsep yang digunakan seorang arsitek untuk merancang bentuk/form dalam rancangannya.
    - Membantu mengorganisir pengambilan keputusan
    - Menetapkan order/tatanan
    - Meningkatkan kesadaran pengambilan BENTUK

# *GAGASAN FORMATIF*

- Denah dibanding pot/tampak
- Unit dibanding keseluruhan
- Perulangan dibanding unik
- Additive - Subtractive
- Simetri & Balance
- Geometri
- Pola-pola konfigurasi
- Progresi
- Reduksi

FRANK LLOYD WRIGHT

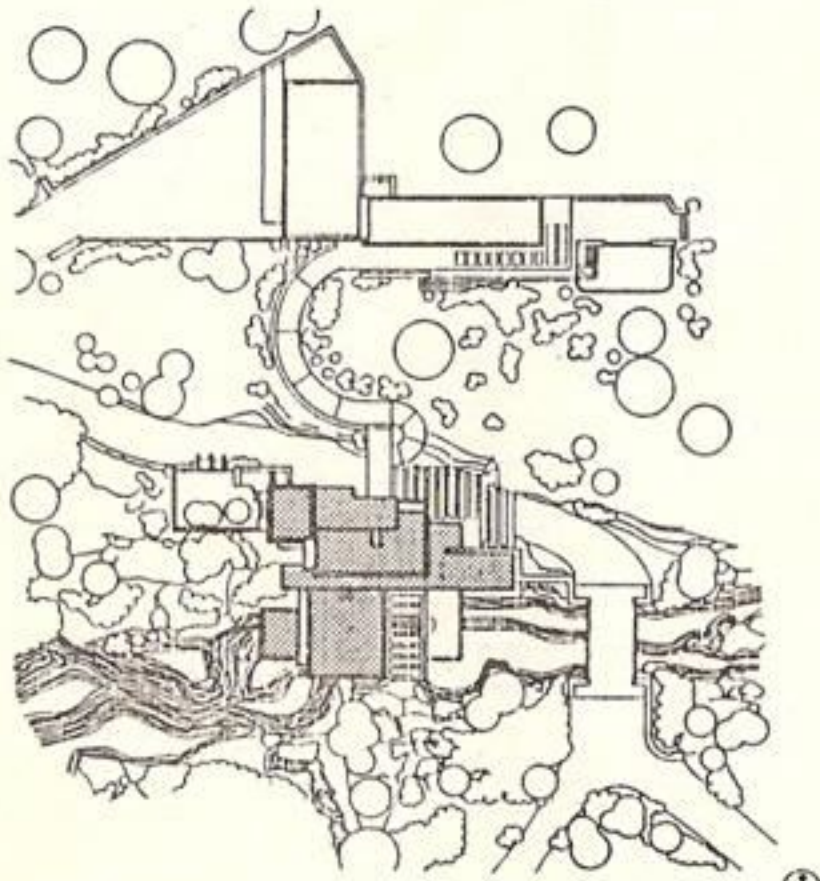
FALLINGWATER (EDGAR J. KAUFMANN HOUSE)  
OHIO PYLE, PENNSYLVANIA  
1935



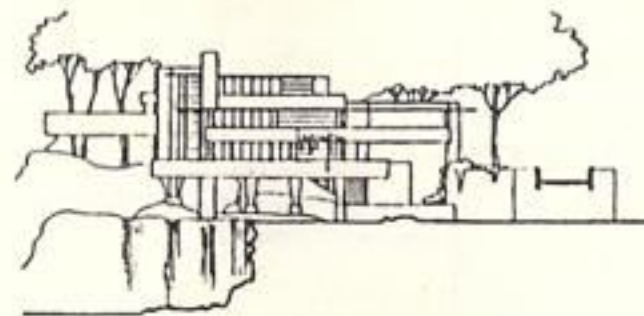
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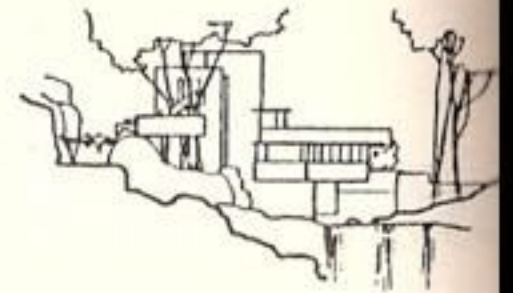
POTONGAN B



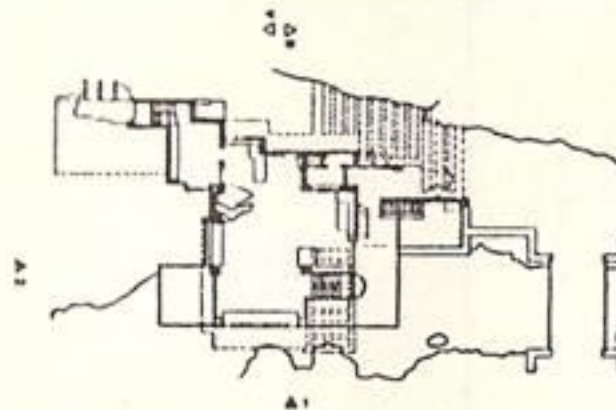
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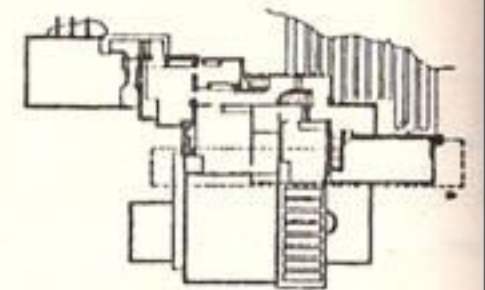
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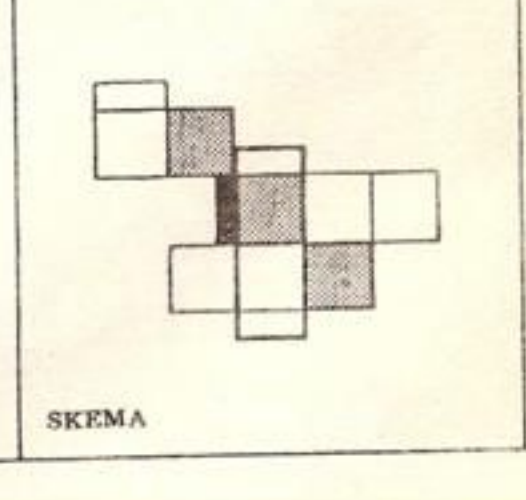
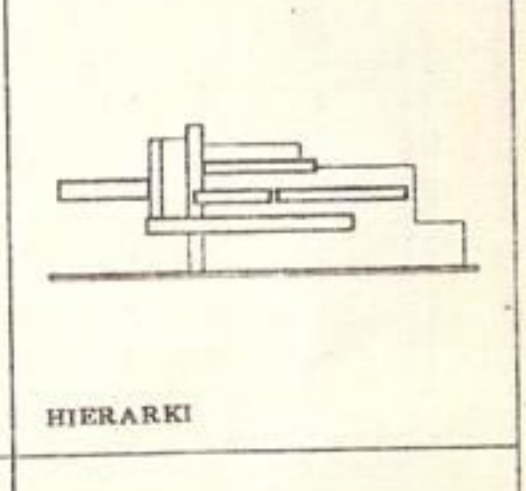
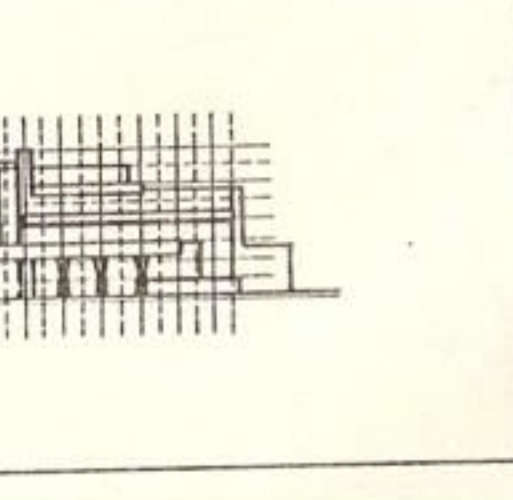
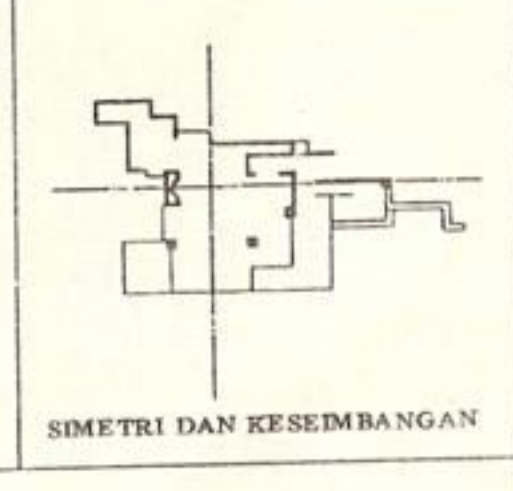
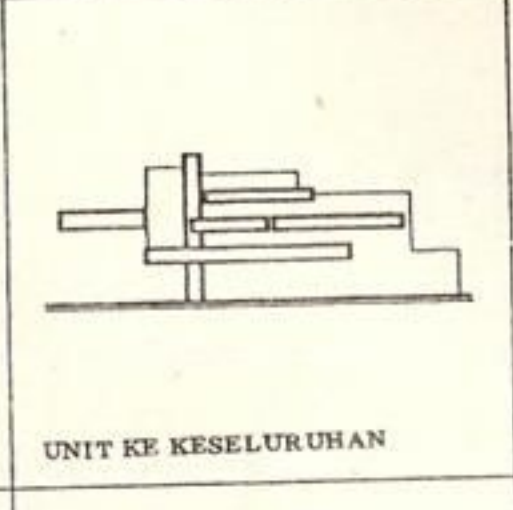
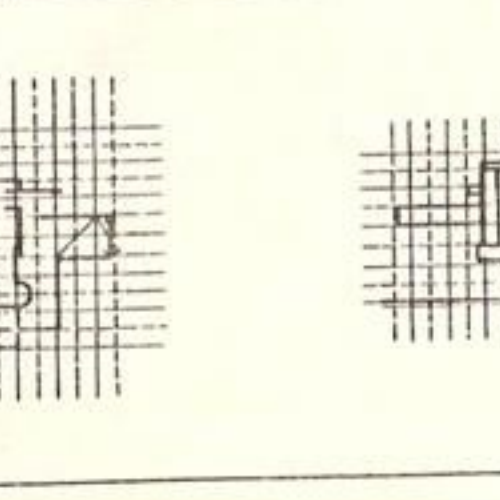
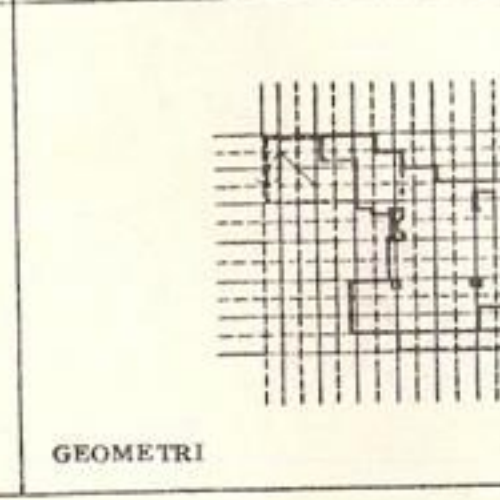
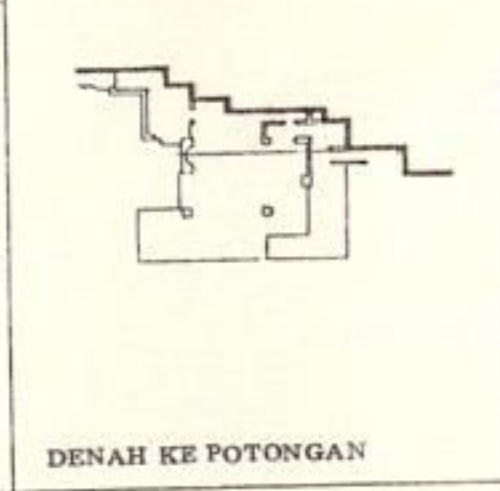
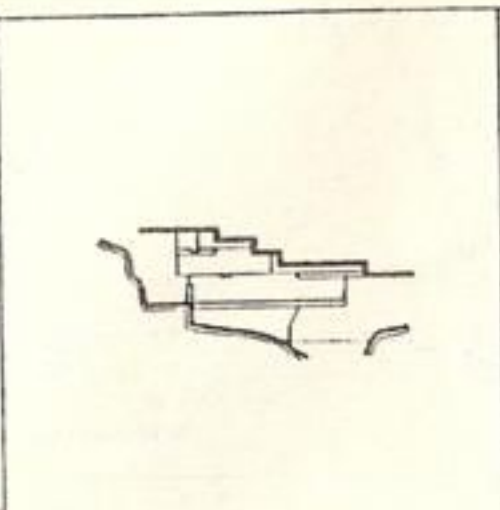
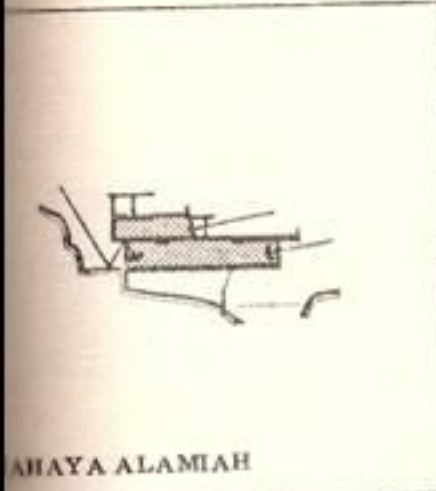
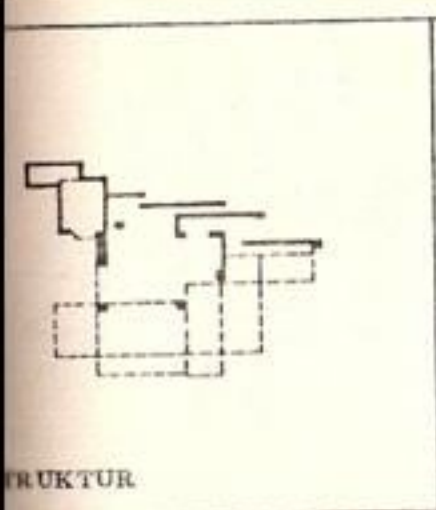
TAMPAK 2



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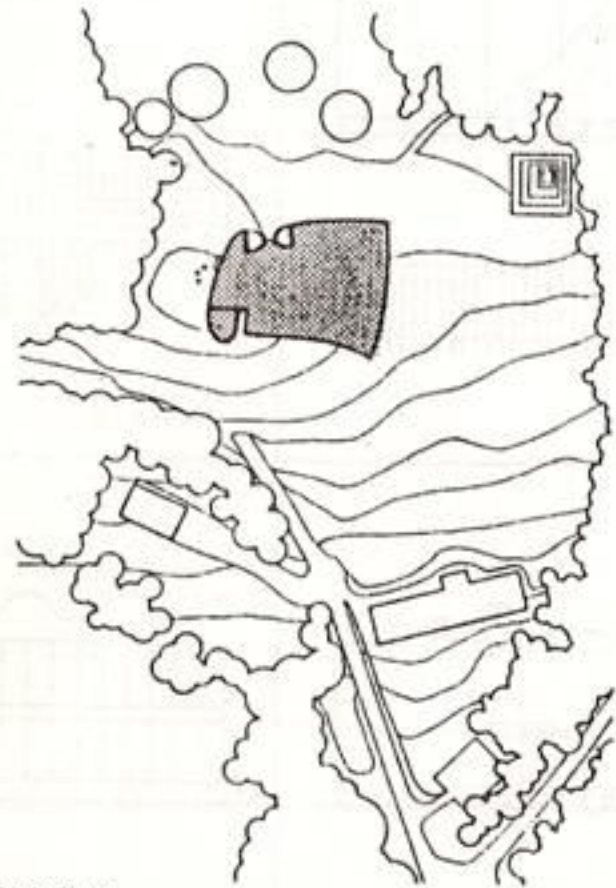


DENAH LANTAI ATAS



LE CORBUSIER

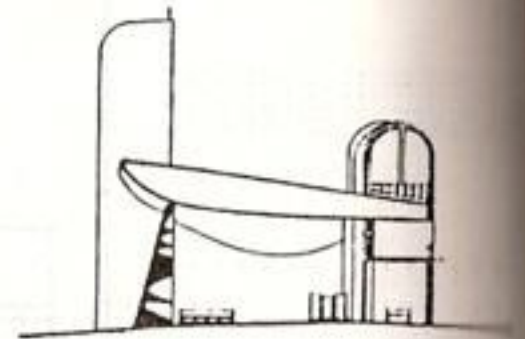
NOTRE DAME DU HAUT CHAPEL  
RONCHAMP, FRANCE  
1950-1955



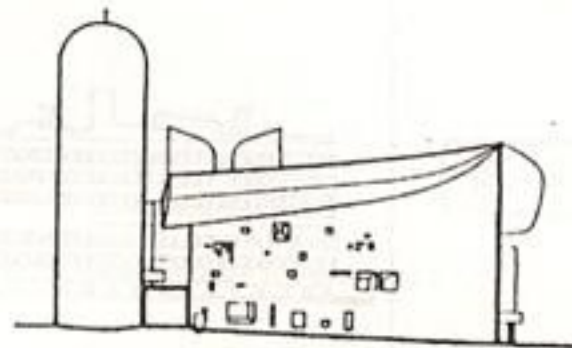
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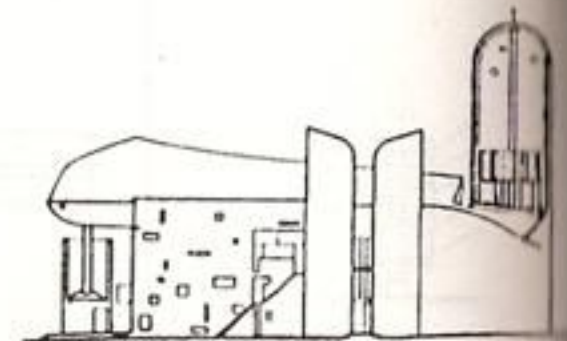
POTONGAN A



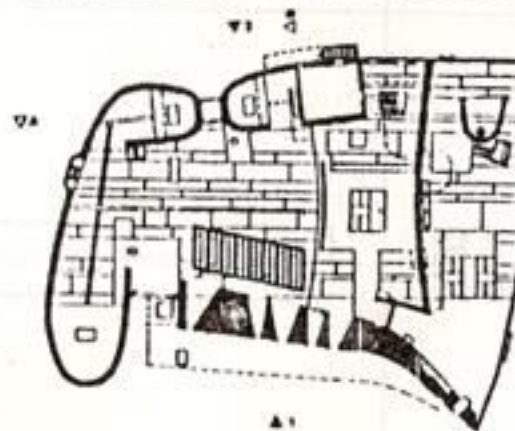
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TAMPAK 1



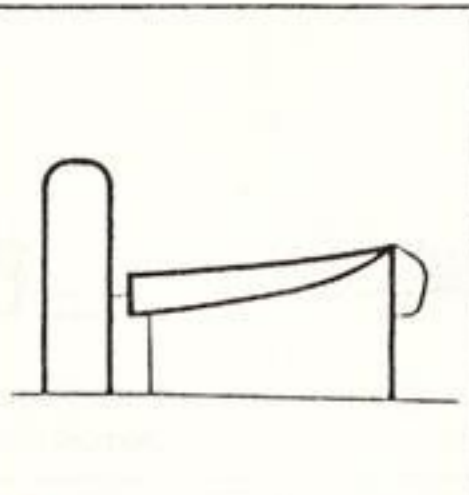
TAMPAK 2



DENAH LANTAI



BEUR



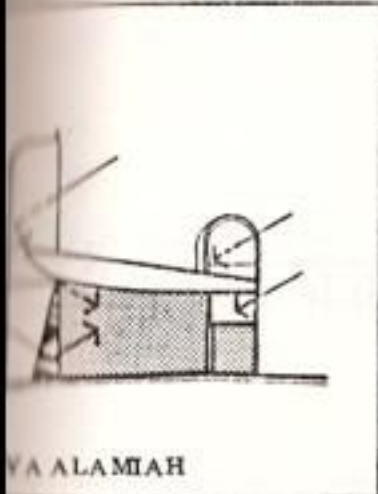
SIRKULASI KE RUANG-PAKAI



UNIT KE KESELURUHAN



PENAMBAHAN DAN PENGURANGAN



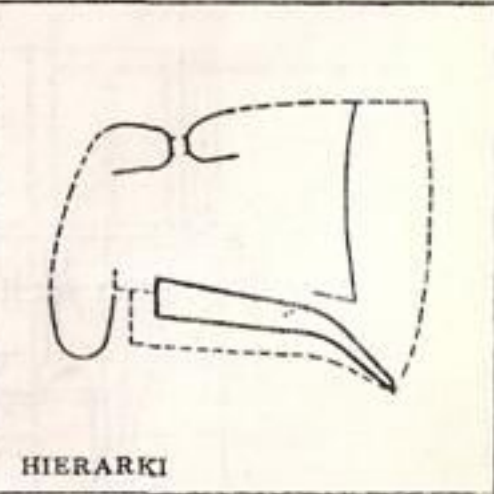
VA ALAMIAH



DENAH KE POTONGAN



SIMETRI DAN KESEIMBANGAN



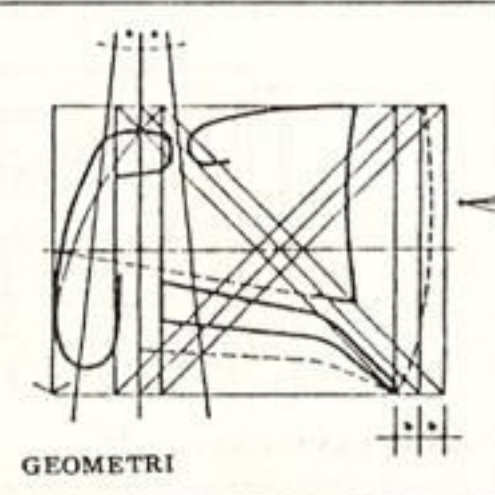
HIERARKI



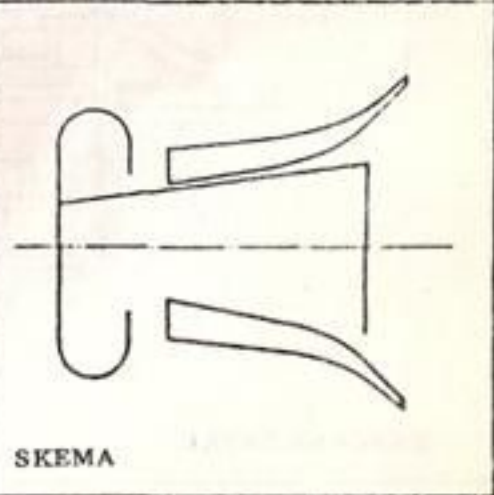
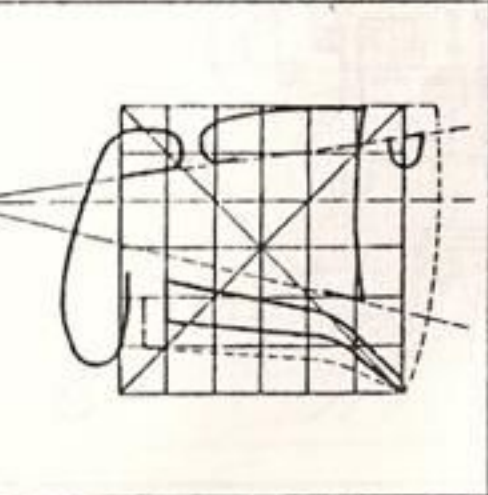
NTUKAN MASSA



PERULANGAN KE UNIK



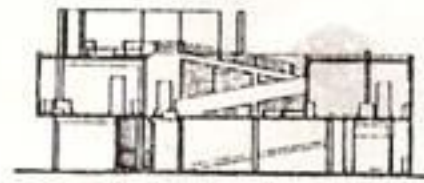
GEOMETRI



SKEMA

LE CORBUSIER

VILLA SAVOYE  
POISSY, FRANCE  
1928-1931



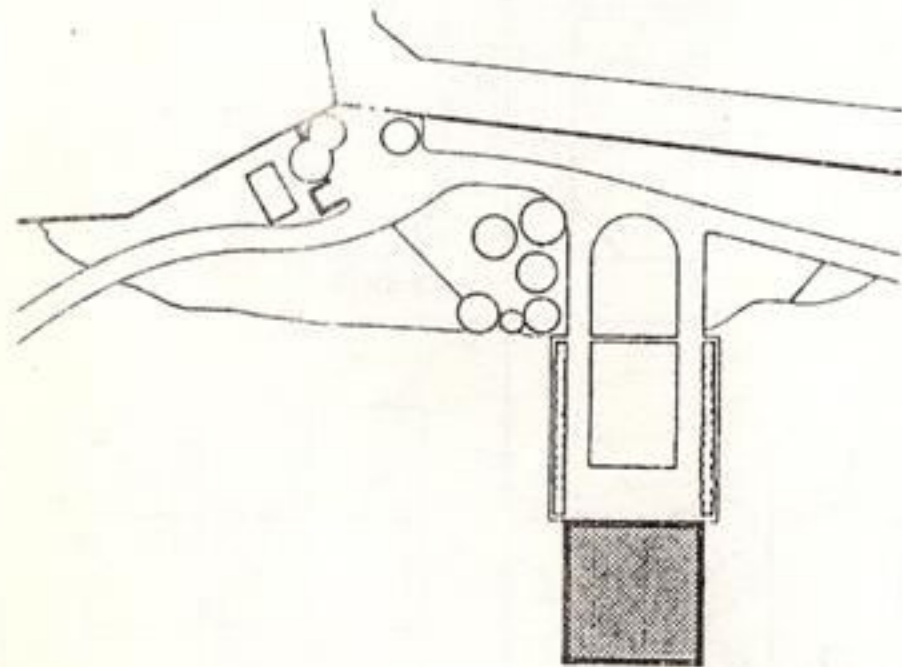
POTONGAN A



POTONGAN B



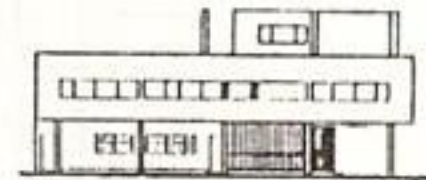
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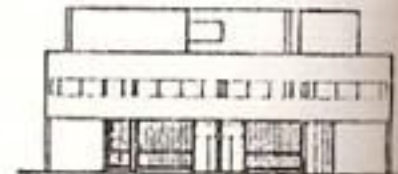
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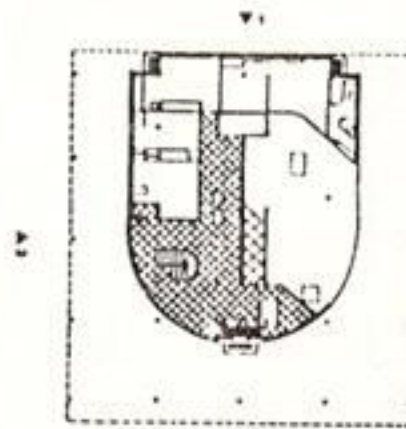
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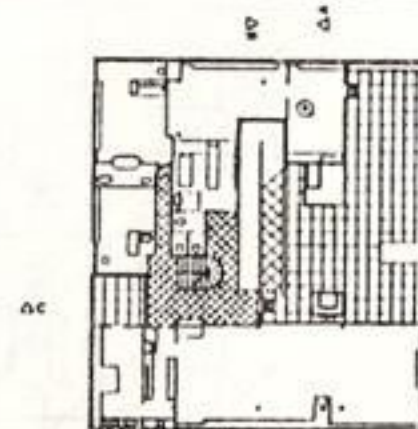
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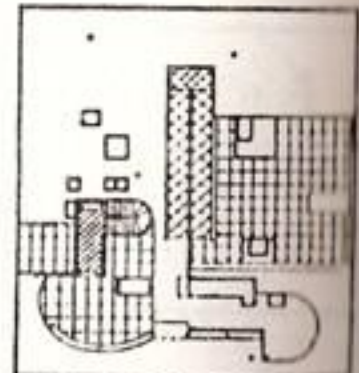
TAMPAK 3



DENAH LANTAI BAWAH



DENAH LANTAI TENGAH

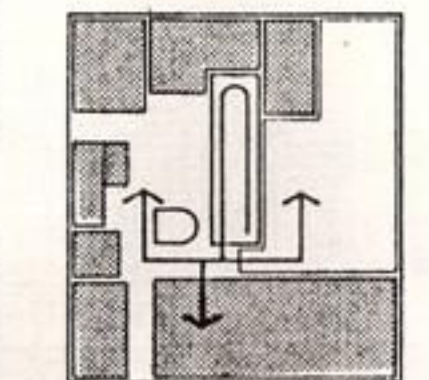
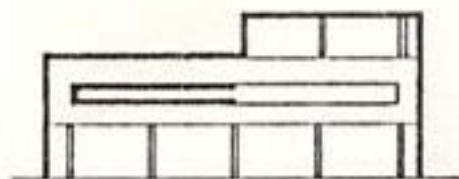


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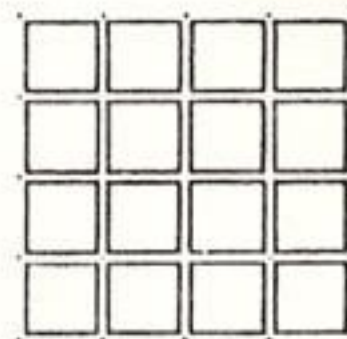




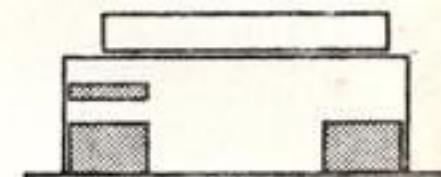
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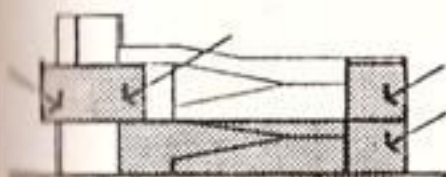
SIRKULASI KE RUANG-PAKAI



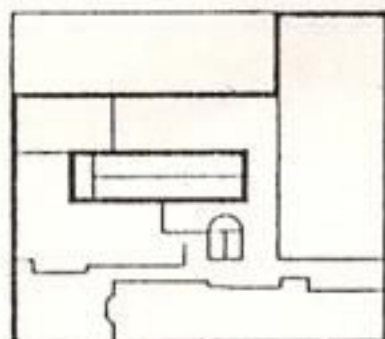
UNIT KE KESELURUHAN



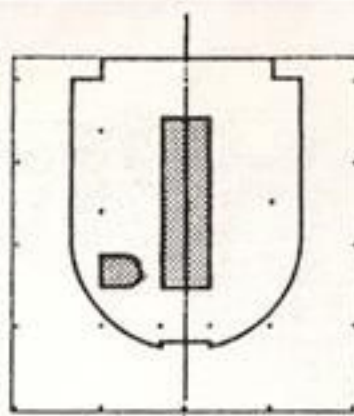
PENAMBAHAN DAN PENGURANGAN



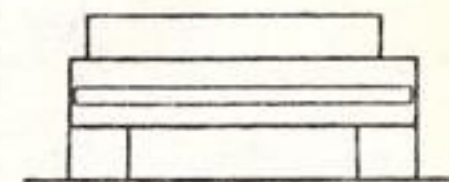
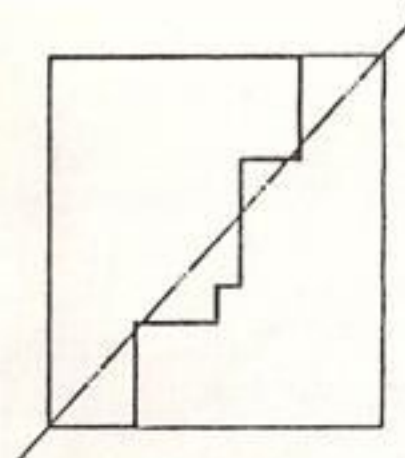
CAHAYA ALAMIAH



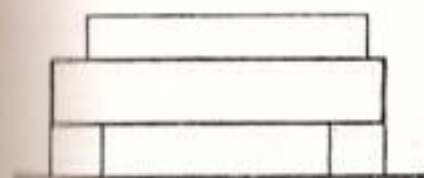
DENAH KE POTONGAN



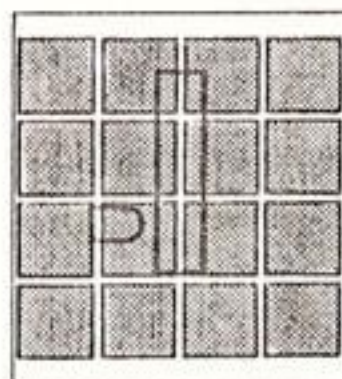
SIMETRI DAN KESEIMBANGAN



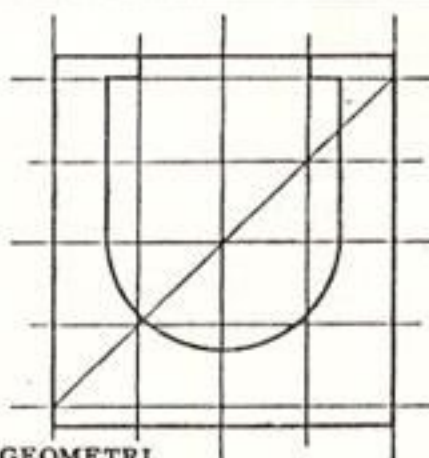
HIERARKI



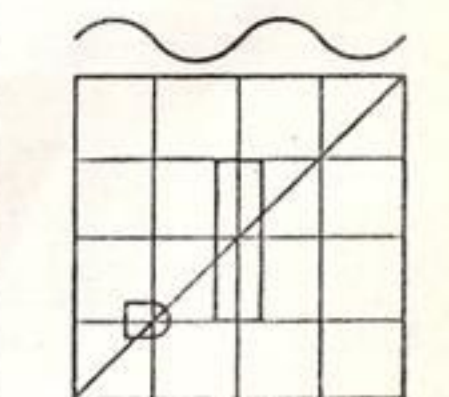
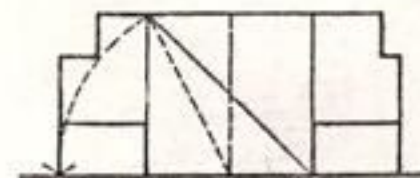
PEMBENTUKAN MASSA



PERUJANGAN KE UNIK



GEOMETRI



SKEMA

# Style in Architecture

A. Rudyanto Soesilo

# Design vocabulary

- ▶ **Style, Theory & History**
- ▶ **Art & Aesthetic**
- ▶ **Form & Structure**
- ▶ **Climate, Lighting, acoustic**
- ▶ **Urban Approach**
- ▶ **Behavioral Sciences :**
  - Psychology, Anthropology, Sociology
- ▶ **Ideology, Philosophy & Religion,**

# Creative process

- ▶ Insight >>> Design Vocabulary
- ▶ Preparation >>> Program
- ▶ Incubation
- ▶ Illumination/AHA >>> Concepts
- ▶ Verification
- ▶ Production >>> Design

# Format in Architecture

Bruce Allsop

- ▶ **Format : Size, space, stucture**
- ▶ **Definisi:**
  - **Dlm Literatur: Novel, Biografi**
  - **Dlm Puisi : Soneta, Epik, Lirik**
  - **Dlm Musik: Sonata, Opera**
- ▶ **Architecture : >>constraints**
- ▶ **Format of Function: building types**
- ▶ **Format of Design system: Prefab, modular**
- ▶ **Format of Style: Culture, value system**
- ▶ **Format of Pattern: Symmetry, context**

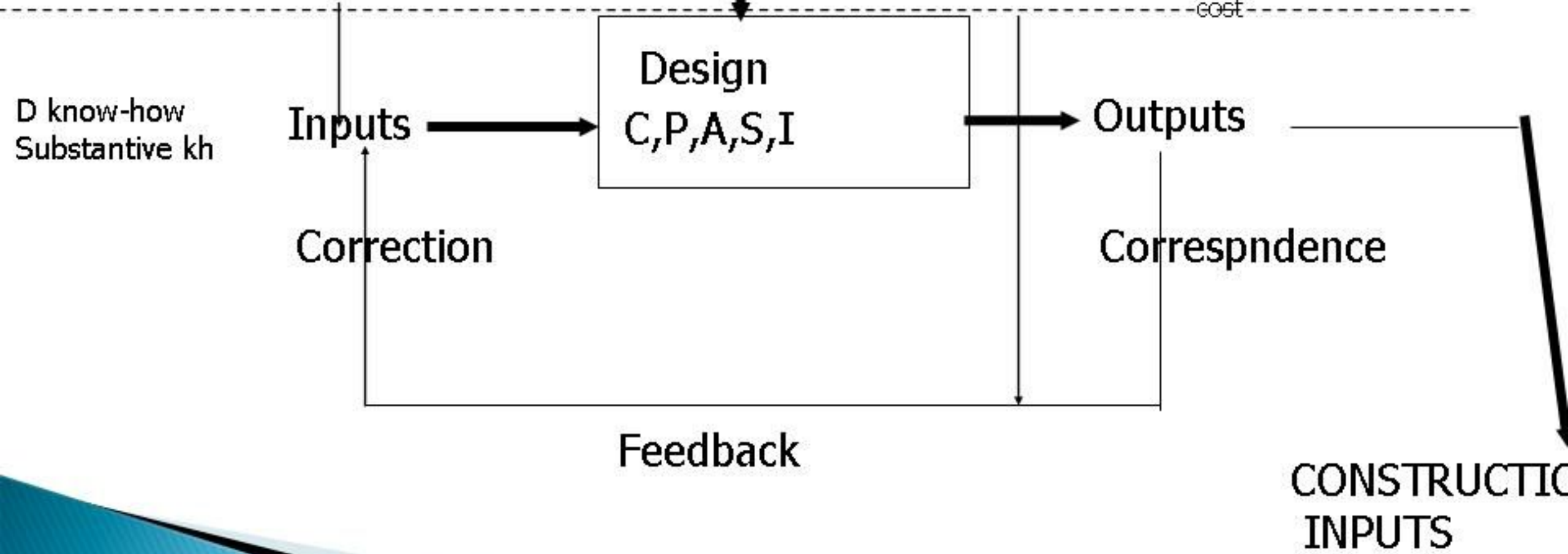
# The Design sub-System

**Criteria :** Human performance  
 Symbolic performance  
 Technical & Environment  
 Economic Performance

**Objectives :** Human  
 Environmental  
 Facility

**Restrictions**

**Constraints:** Human characteristics  
 Physical environment  
 Technology & institutions  
 cost



D know-how  
 Substantive kh

CONSTRUCTION  
 INPUTS

# Design decision making

- ▶ Style
- ▶ Structural system
- ▶ Construction technology
- ▶ Material

# Design Process

## **5 main steps : (Benjamin Handler)**

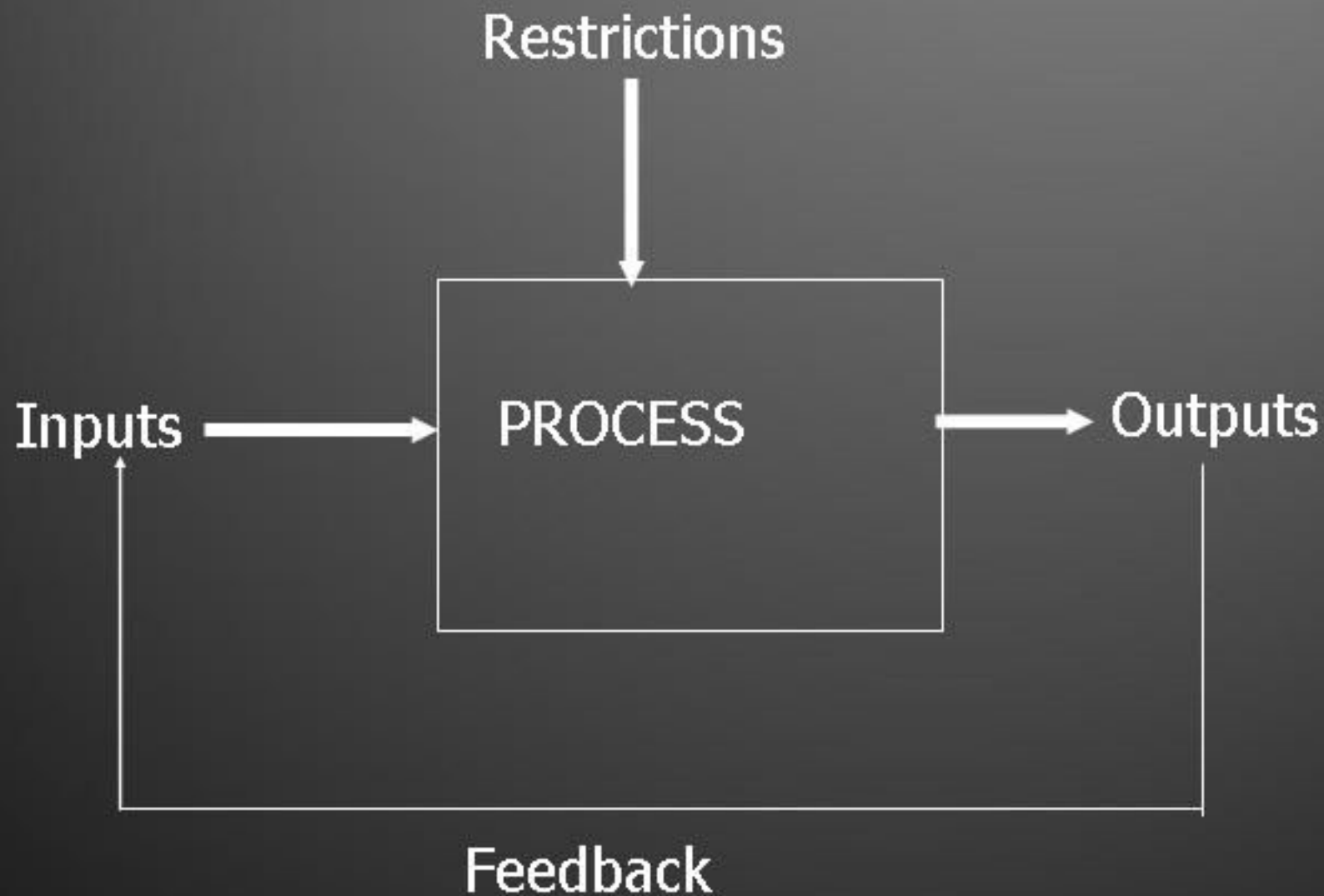
- ▶ Conceptualization
- ▶ Programming
- ▶ Analizing
- ▶ Selection
- ▶ Integration



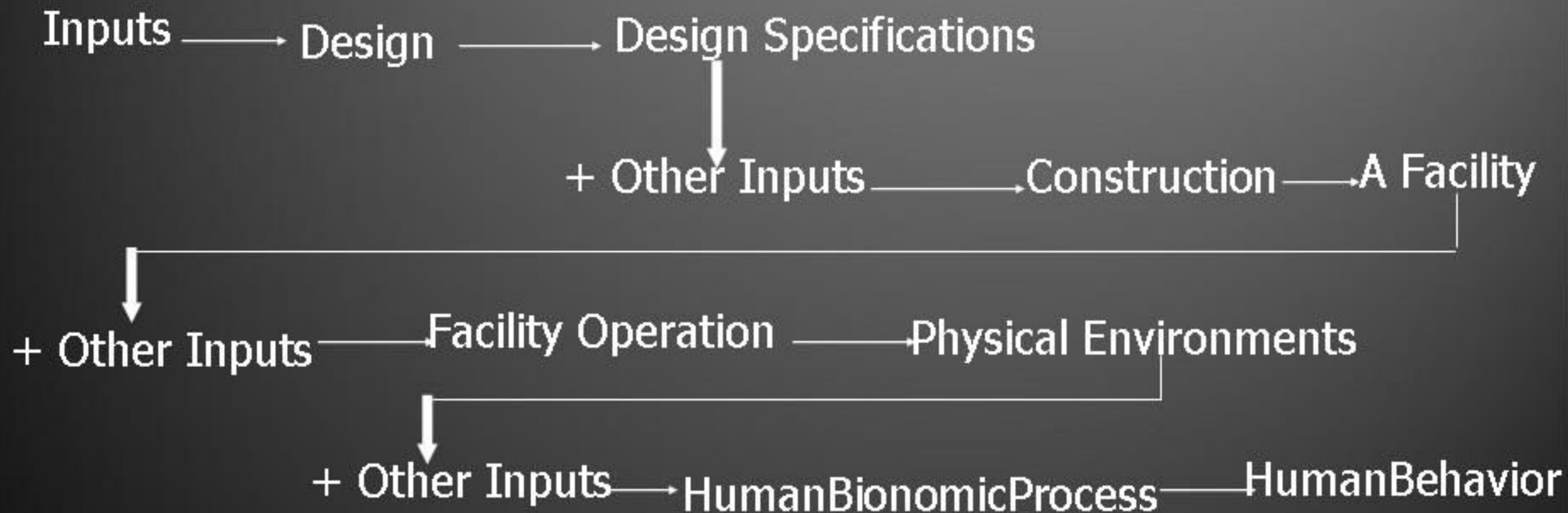
# The architectural System

- ▶ Design process
- ▶ Construction process
- ▶ Facility Operation
- ▶ Human Bionomic Process

# The architectural System



# Relation between the Architectural System

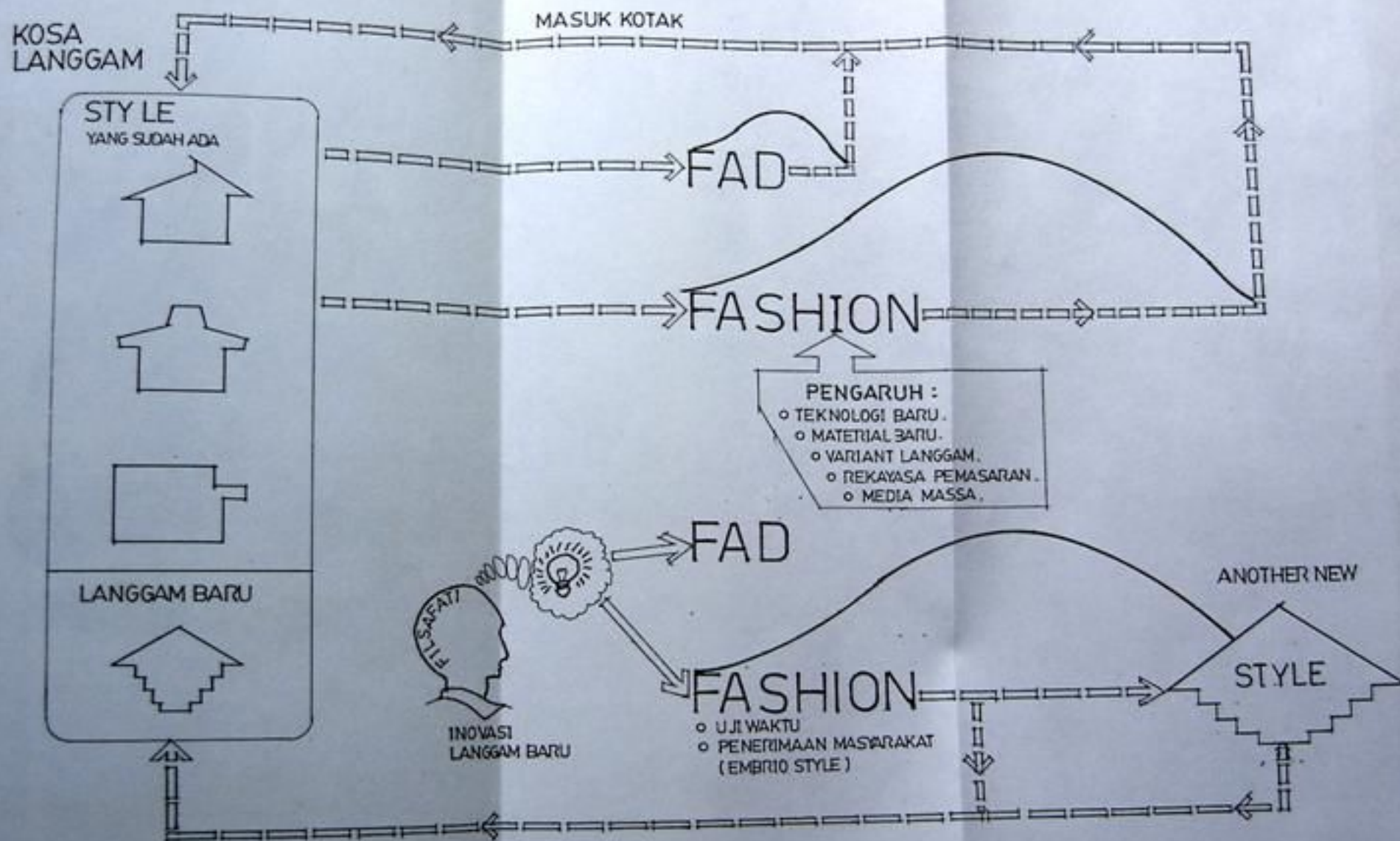


# Elements of Style

- ▶ Façade
- ▶ Roof
- ▶ Doors & Windows
- ▶ Cornices
- ▶ Columns
- ▶ Lay-out
- ▶ Architectural Clues

# Daur Langgam

hasil penelitian.



M.O.D.E.L.  
DAUR MODE & TERJADINYA LANGGAM

# Episode

- ▶ Ancient
- ▶ Early Christian
- ▶ Medieval
- ▶ Renaissance
- ▶ Baroque
- ▶ Revolutionary
- ▶ 20<sup>th</sup> Century

Architecture is elementary

## Architectural Styles

Neolithic  
Ancient Egyptian  
Ancient Greek  
Ancient Roman • timeline  
Medieval  
Gothic  
Hindu Architecture  
Islamic  
Romanesque  
Traditional Japanese  
Renaissance  
Baroque  
Victorian  
Romantic  
Art Nouveau • timeline  
Richardsonian  
Arts and Crafts  
Neo-Classical  
Art Deco  
Early Modern  
Prairie Style  
Bay Area Regional  
Modern - long list  
Expressionist Modern • timel  
Deconstructivist Modern  
Corporate Modern  
Post Modern  
High Tech  
Expressionist  
Vernacular  
African Vernacular  
Neo-Vernacular

E  
P  
I  
S  
O  
D  
E

# Precedent in Architecture



# Metoda Preseden

- ▶ Meneladani karya2 arsitektur yg Prima (Good architecture) dari arsitek2 genius (Good architect).
  - Cara :
- ▶ Mencari pola2 pemecahan arsitektonis dari karya2 unggulan arsitektur
- ▶ metoda oleh : Roger Clark & Michael Pause

# Analisis arsitektonis Preseden

- ▶ S t r u k t u r
- ▶ Pencahayaan alami
- ▶ M a s s a
- ▶ Perbandingan denah ke tampak/pot
- ▶ Sirkulasi ke ruang2
- ▶ Perbandingan unit keseluruhan
- ▶ Perbandingan pengulangan ke unik
- ▶ Simetri & balance
- ▶ G e o m e t r i
- ▶ Additif – Substraktif
- ▶ Hierchy

# FORMATIVE IDEAS

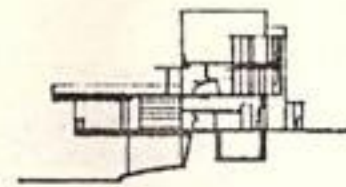
- ▶ Kesamaan–kesamaan dalam pendekatan perancangan dikelompokkan dalam thema2 dominan atau gagasan formative
- ▶ **GAGASAN FORMATIF:**
  - Suatu konsep yang digunakan seorang arsitek untuk merancang bentuk/form dalam rancangannya.
    - Membantu mengorganisir pengambilan keputusan
    - Menetapkan order/tatanan
    - Meningkatkan kesadaran pengambilan BENTUK

# GAGASAN FORMATIF

- ▶ Denah dibanding pot/tampak
- ▶ Unit dibanding keseluruhan
- ▶ Perulangan dibanding unik
- ▶ Additive – Subtractive
- ▶ Simetri & Balance
- ▶ Geometri
- ▶ Pola-pola konfigurasi
- ▶ Progresi
- ▶ Reduksi

FRANK LLOYD WRIGHT

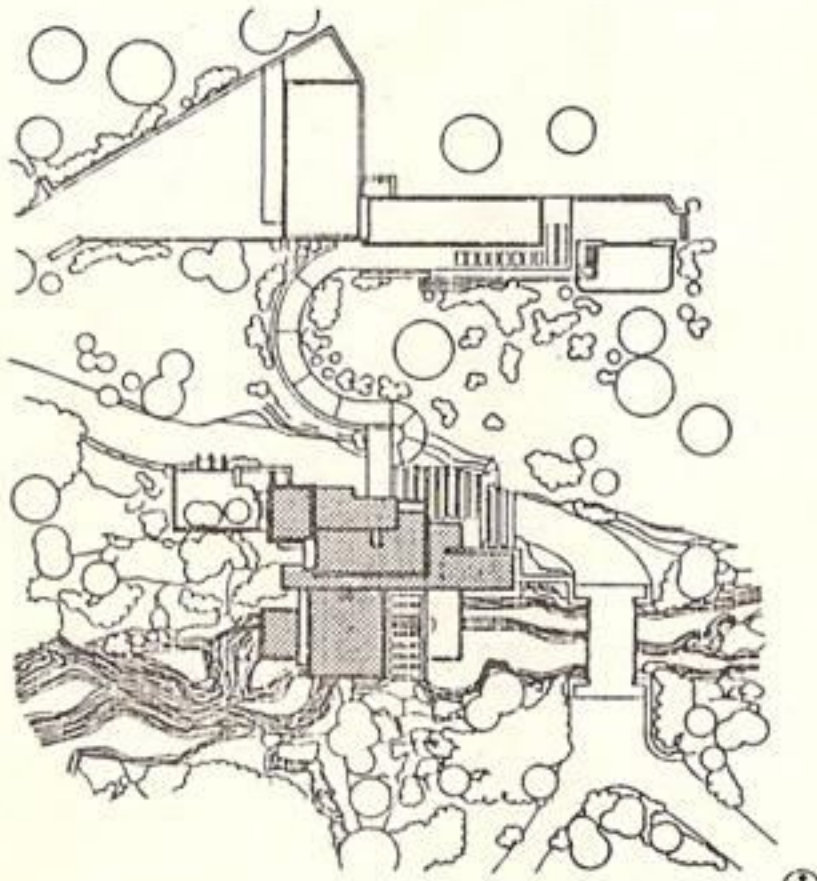
FALLINGWATER (EDGAR J. KAUFMANN HOUSE)  
OHIO PYLE, PENNSYLVANIA  
1935



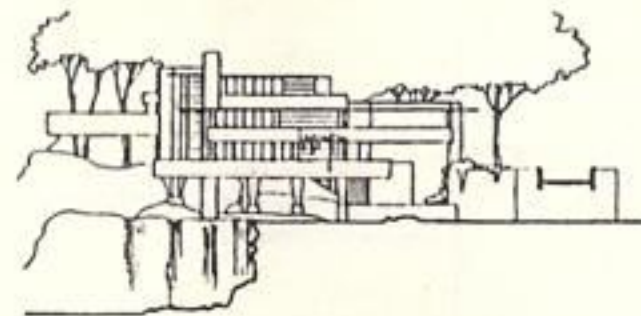
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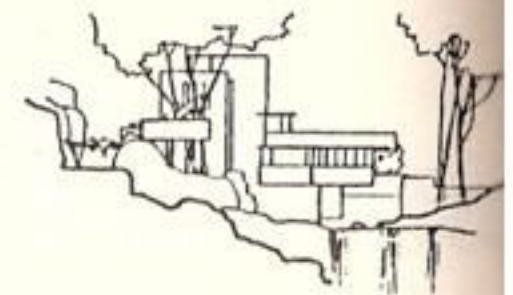
POTONGAN B



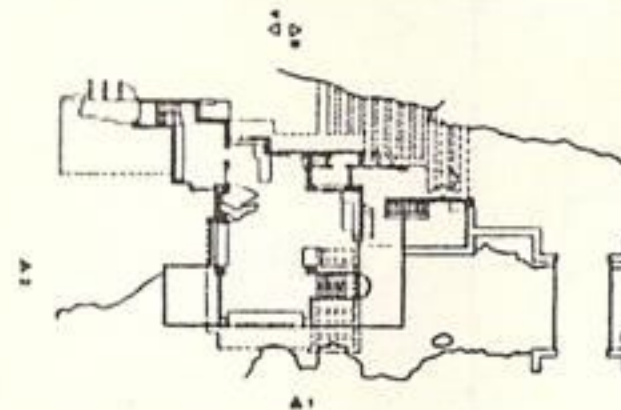
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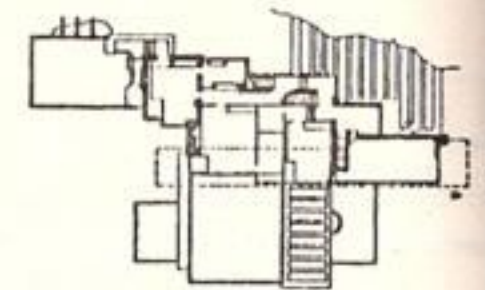
TAMPAK 1



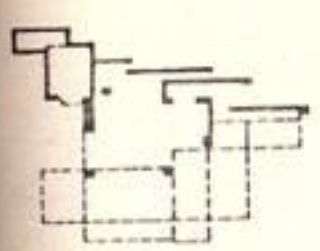
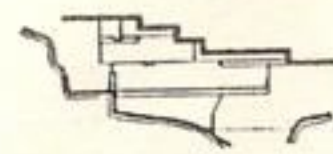
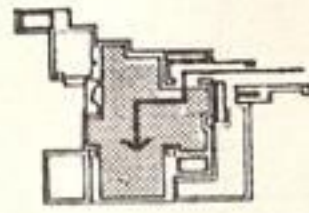
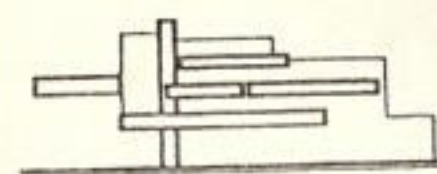
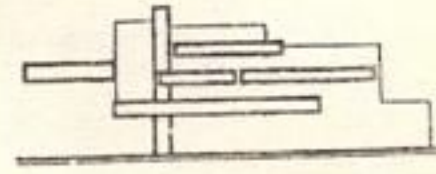
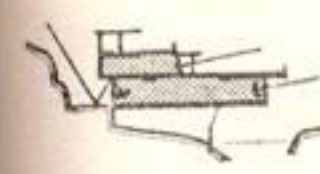
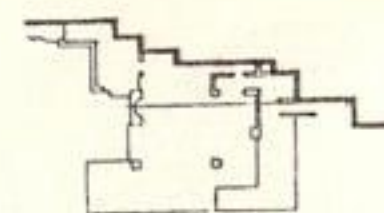
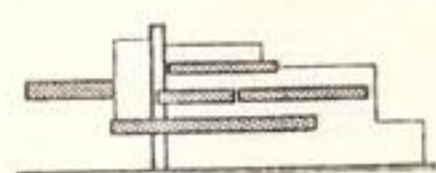
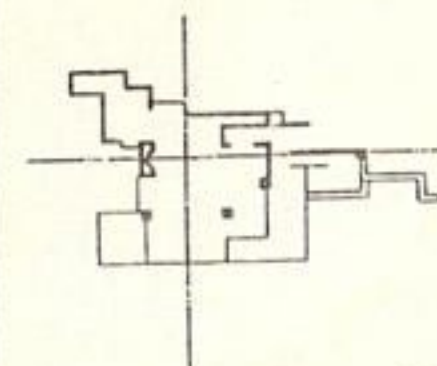
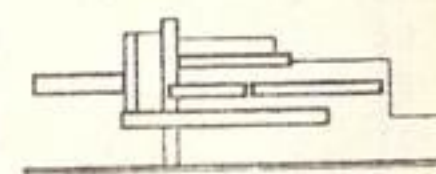
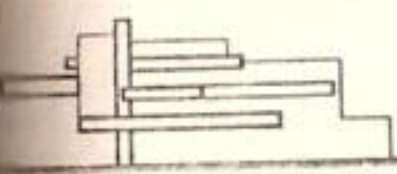
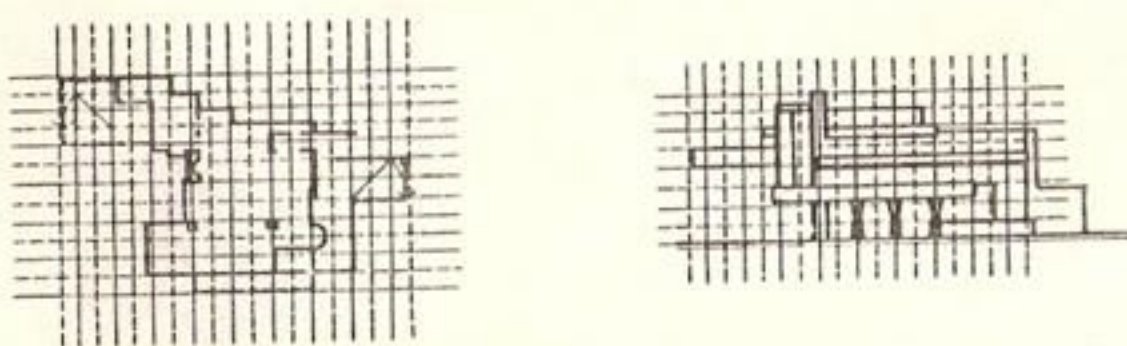
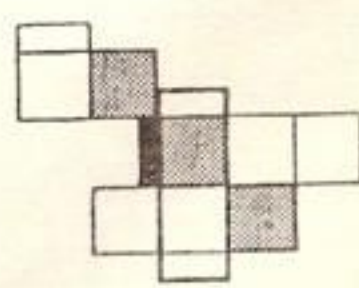
TAMPAK 2



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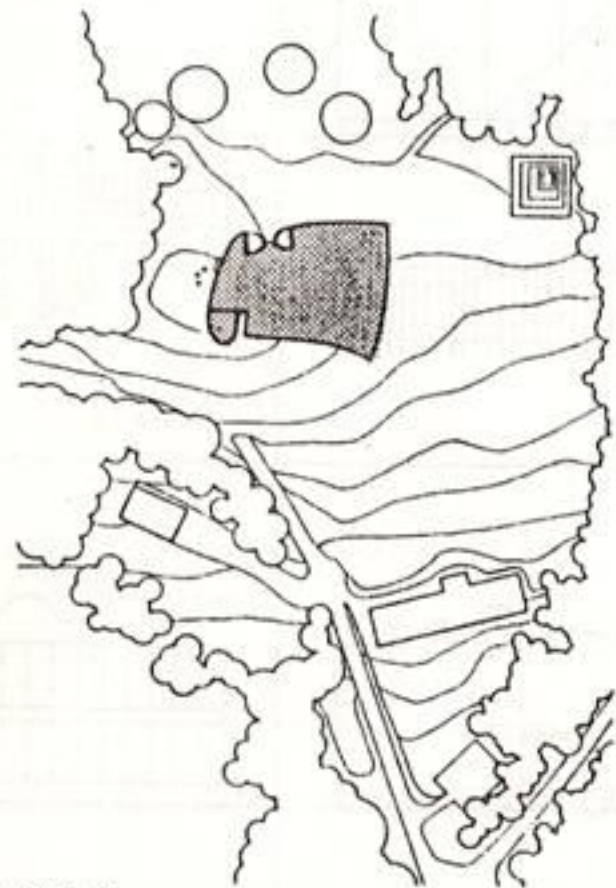


DENAH LANTAI ATAS

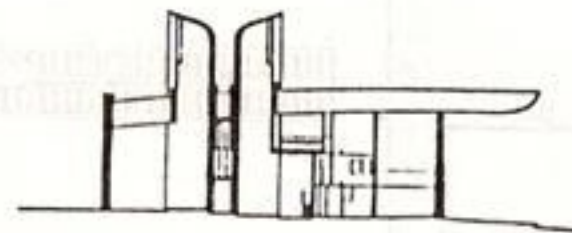
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 <p>BAHAYA ALAMIAH</p>	 <p>DENAH KE POTONGAN</p>	 <p>PERULANGAN KE UNIK</p>	 <p>SIMETRI DAN KESEIMBANGAN</p>	 <p>HIERARKI</p>
 <p>MEMBENTUKAN MASSA</p>	 <p>GEOMETRI</p>		 <p>SKEMA</p>	

LE CORBUSIER

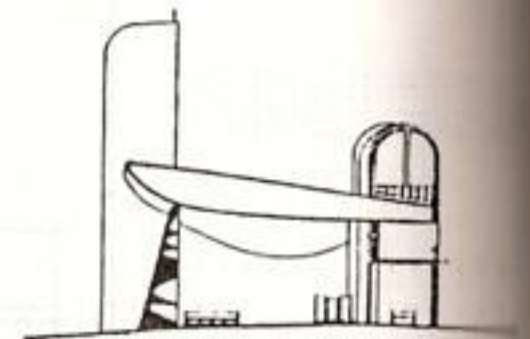
NOTRE DAME DU HAUT CHAPEL  
RONCHAMP, FRANCE  
1950-1955



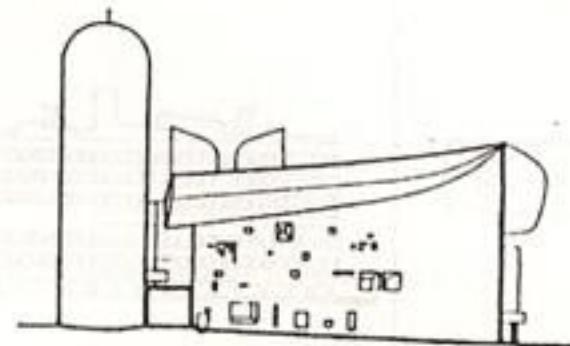
RENCANA TAPAK



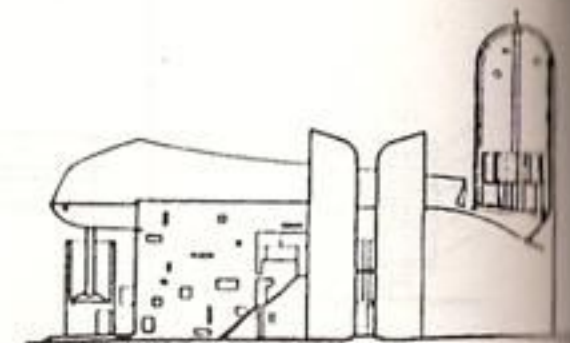
POTONGAN A



POTONGAN B




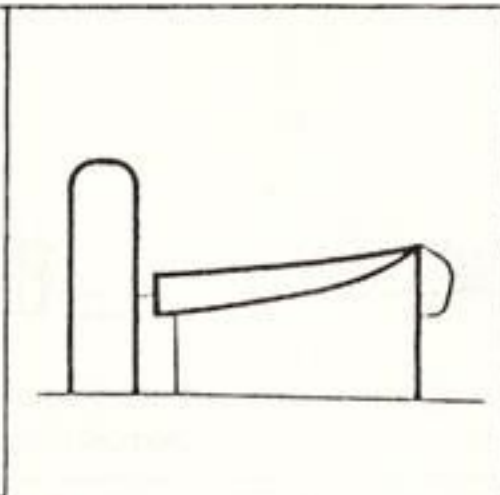



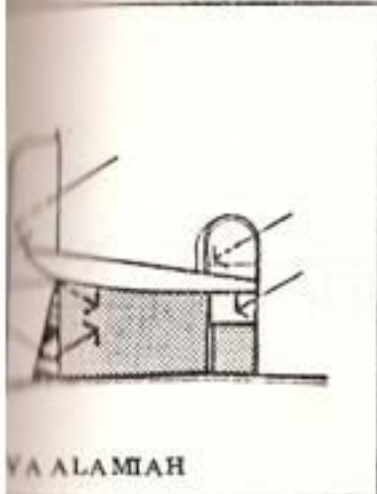
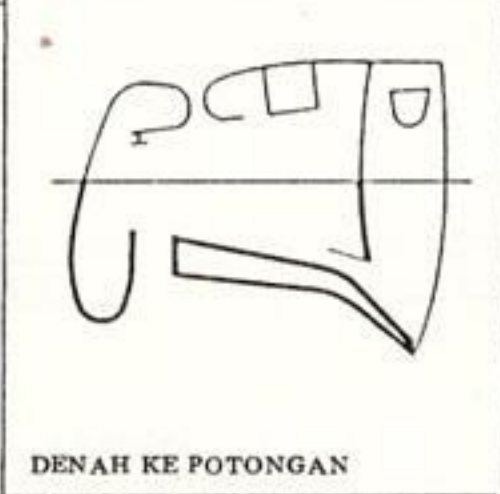

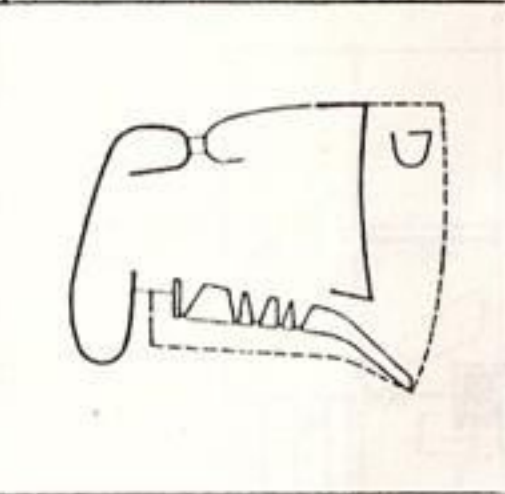
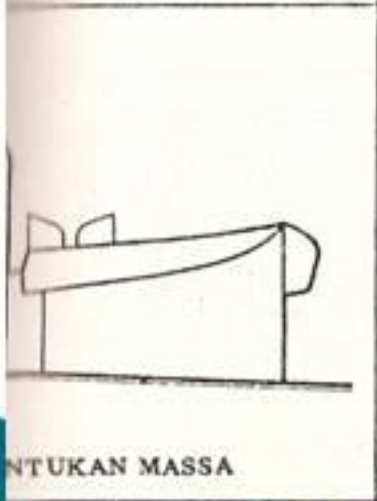

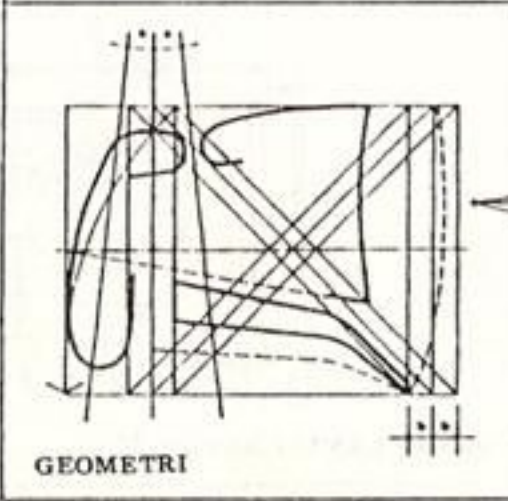
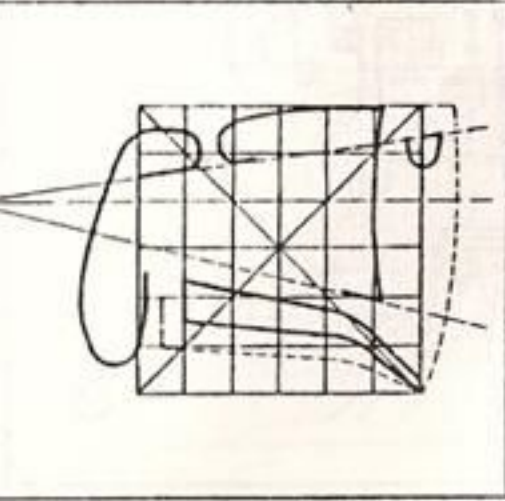
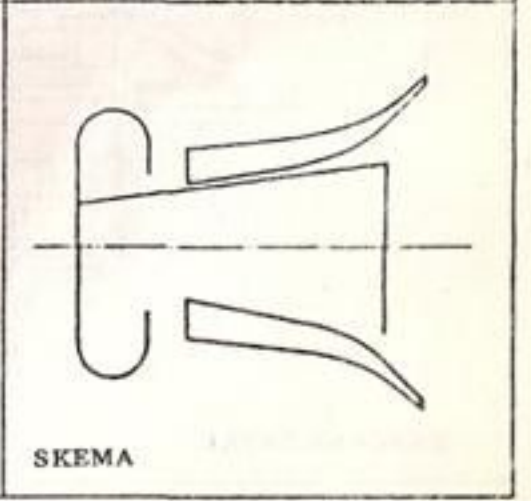
TAMPAK 1



TAMPAK 2



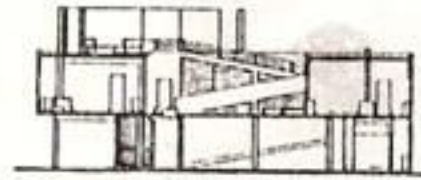
DENAH LANTAI

		 <p>SIRKULASI KE RUANG-PAKAI</p>	 <p>UNIT KE KESELURUHAN</p>	 <p>PENAMBAHAN DAN PENGURANGAN</p>
	 <p>DENAH KE POTONGAN</p>	 <p>SIMETRI DAN KESEIMBANGAN</p>	 <p>HIERARKI</p>	
	 <p>PERULANGAN KE UNIK</p>	 <p>GEOMETRI</p>		 <p>SKEMA</p>



LE CORBUSIER

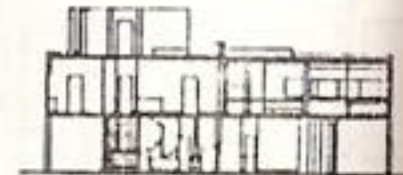
VILLA SAVOYE  
POISSY, FRANCE  
1928-1931



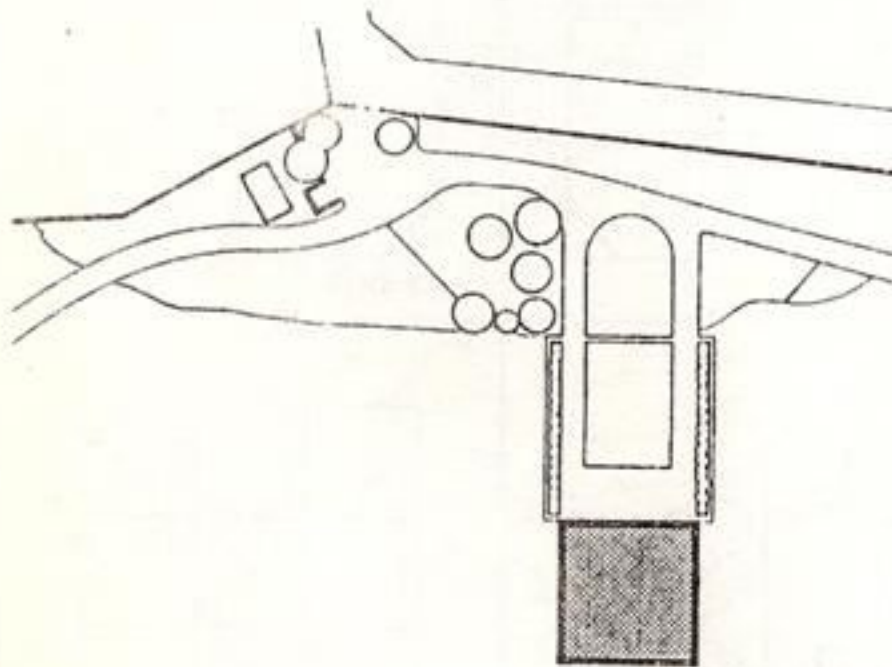
POTONGAN A



POTONGAN B



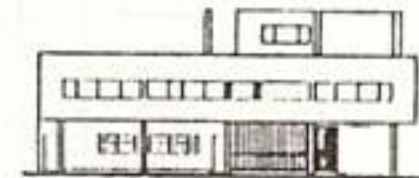
POTONGAN C



RENCANA TAPAK



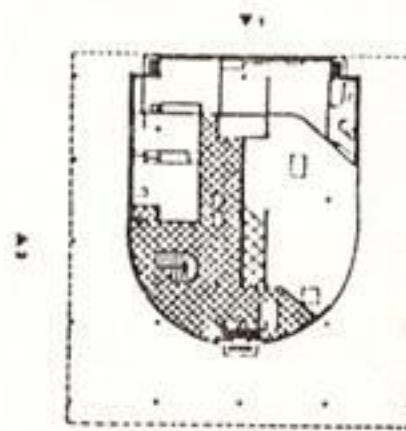
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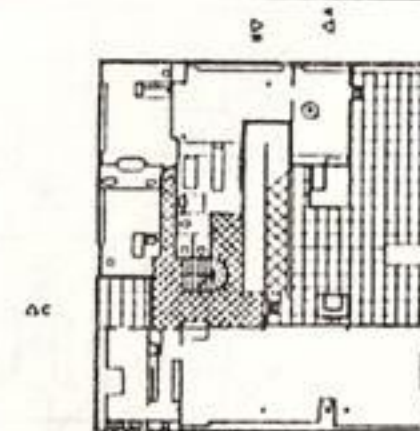
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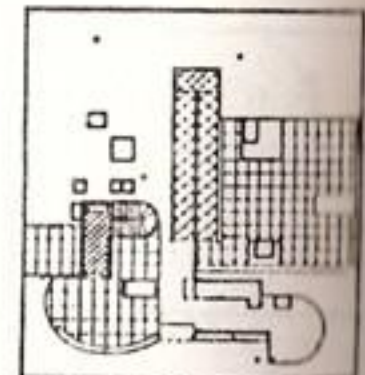
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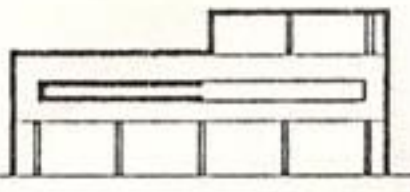
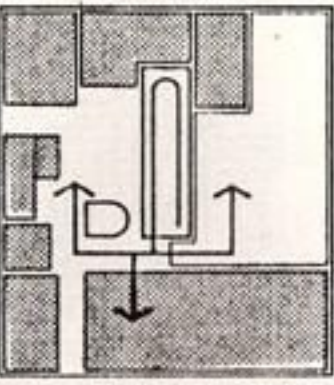
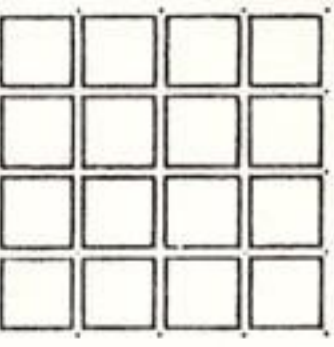
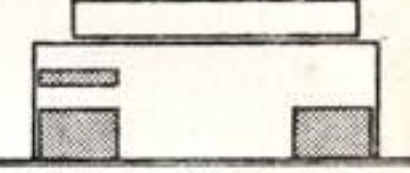
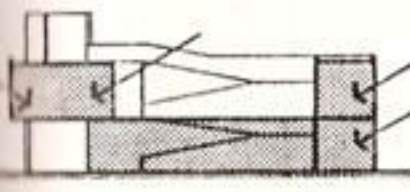
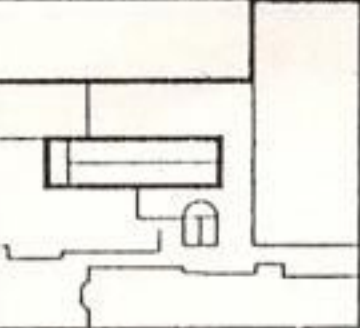
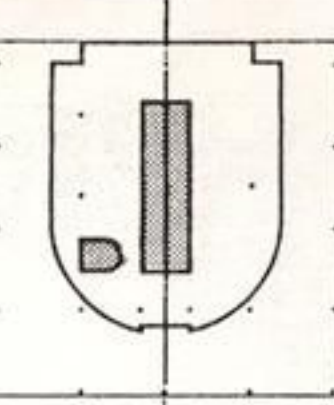
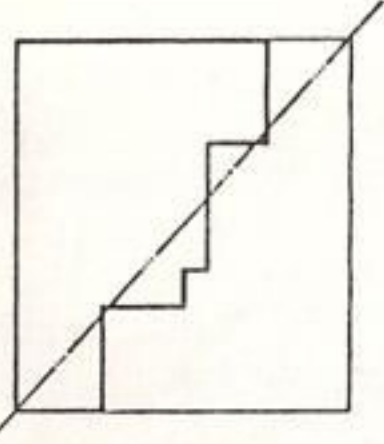
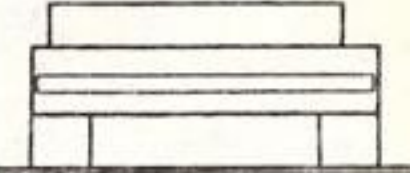
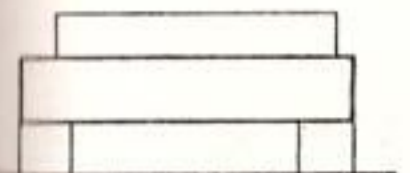
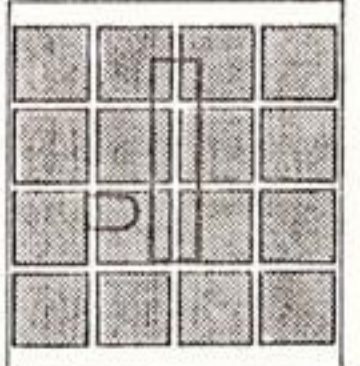
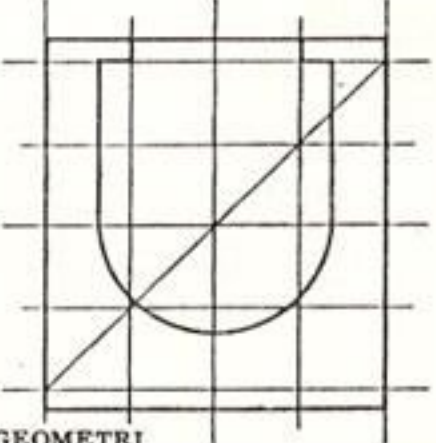

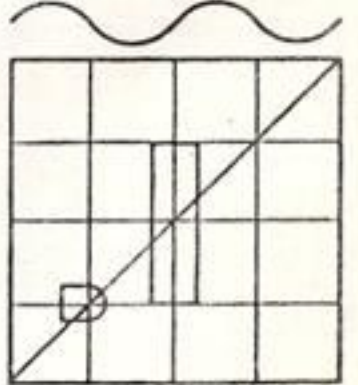
DENAH LANTAI BAWAH



DENAH LANTAI TENGAH



DENAH LANTAI ATAS

 <p><b>STRUKTUR</b></p>		 <p><b>SIRKULASI KE RUANG-PAKAI</b></p>	 <p><b>UNIT KE KESELURUHAN</b></p>	 <p><b>PENAMBAHAN DAN PENGURANGAN</b></p>
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