

# hfg ulm: The department of building

Qualities, problems, context



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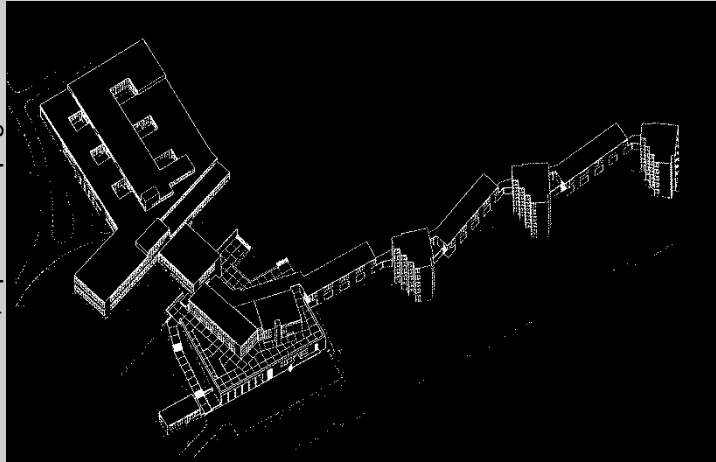
Lecture at the conference „la buena forma y el nuevo mundo: interferencias hfg ulm – latinoamerica“ Buenos Aires, 12-2011

# Outline

- The hfg Ulm
- Ground course
- Departments, students, diplomas
- Department of building
- Examples of study projects
- Example of a diploma thesis
- The department in retrospect
- Conclusion



## HFG Ulm 1953-1968





Lecture hall



Mensa



Crafts work



Classroom

# Specials of the hfg

- Founded in memory of Hans + Sophie Scholl, killed 1944 by the Nazis
- Basic goal: democratic-political education
- Cosmo-political atmosphere
- Built for 150 students
- The only school where Jewish students felt safe
- Living together like in a cloister
- 43% foreign students
- In confrontation to the right-wing politics in Germany of the 1950ies
- Mixed public-private financing
- Existing only 15 years 1953-1968

# Program

- 1 year ground course / 1 año curso básico
- 2 years department study / 2 años en el departamento
  - Five departments / Cinco departamentos
    - Produktgestaltung / Design / Diseño
    - Bauen / Building / EDIFICAR
    - Visuelle Kommunikation / Visual communication / comunicación visual
    - Information / Information / Información
    - Foto, Film / Photography - Film / Foto, Película
- 1 year: Diploma thesis / Tesis
  - Theoretical thesis / Tesis teórica
  - Practical thesis / Tesis práctica
- Permanent teacher: the purist building

# Ground course

## Methodological importance

- The ground course was like an “initiation rite” into the hfg philosophy
- Structural thinking was founded there
- Basic methods have been trained
- Philosophy: minimalism and purism
- Therefore I explain first some of the fundamentals of the ground course



# Teaching: Groundcourse 1969

Source: Grundlehre 1959/60 Testatheft Curdes

## **Visual methodology:**

**presentation medium, drawing,  
writing, language**

## **Constructive methods of presentation**

## **Methodological exercises:**

**geometrical representation,  
freehand drawing**

## **Crafts work:**

**wood, metal, plastic, plaster, photo**

## **Cultural integration**

- Introduction to Physiology,
- Cultural History of the 20th c.
- Linguistics

## **Sociology of the industrial Society**

## **Psychology, Behavioral Theory**

## **Perception Theory**

## **Technical Physics**

## **Physics of colors**

## **Methodology**

## **Methodological exercises**

## **Graphical representation**

## **Visuelle Methodik:**

**Darstellungsmittel, Schrift,  
Zeichnen, Sprache**

## **Konstruktive Darstellungsmethoden**

## **Methodische Übungen:**

**geometrische Darstellung,  
Freihandzeichnen**

## **Werkarbeit:**

**Holz, Metall, Kunststoff, Gips, Foto**

## **Kulturelle Integration**

- Einführung in die Physiologie
- Kulturgeschichte des 20. Jhdts.
- Sprache

## **Soziologie der industriellen Gesellschaft**

## **Psychologie, Verhaltenstheorie**

## **Wahrnehmungstheorie**

## **Technische Physik**

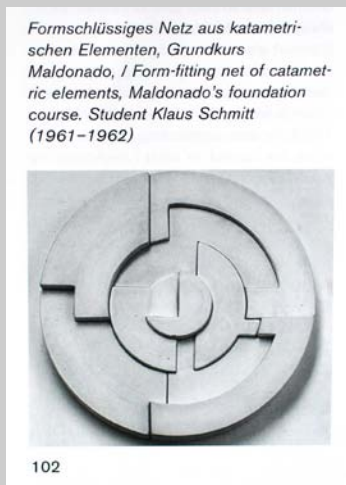
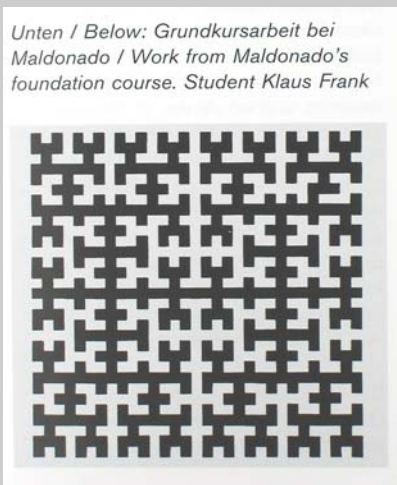
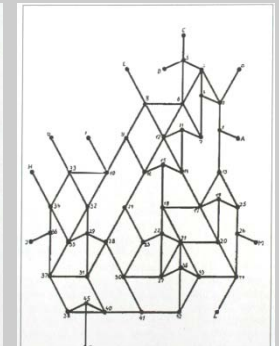
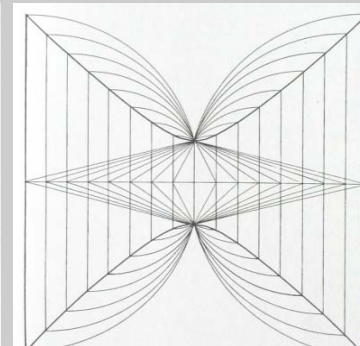
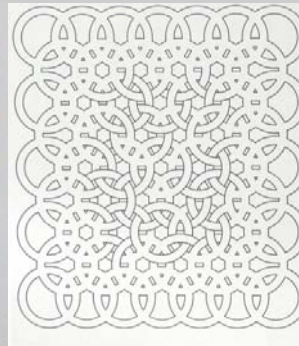
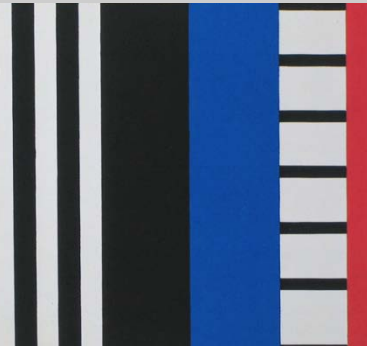
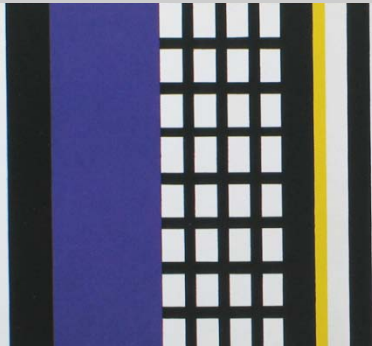
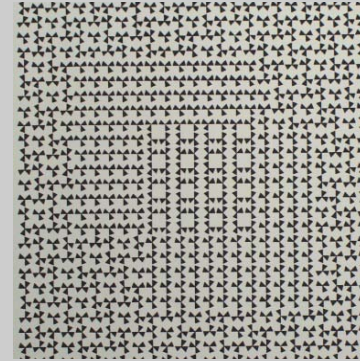
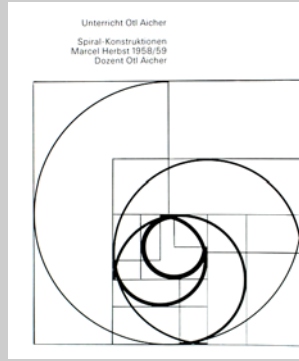
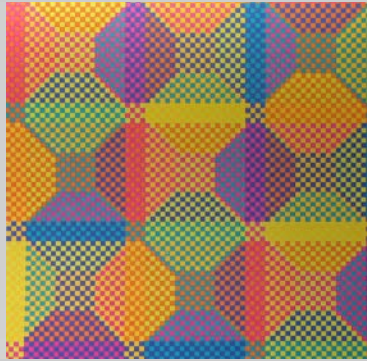
## **Farbenphysik**

## **Methodologie**

## **Methodische Übungen**

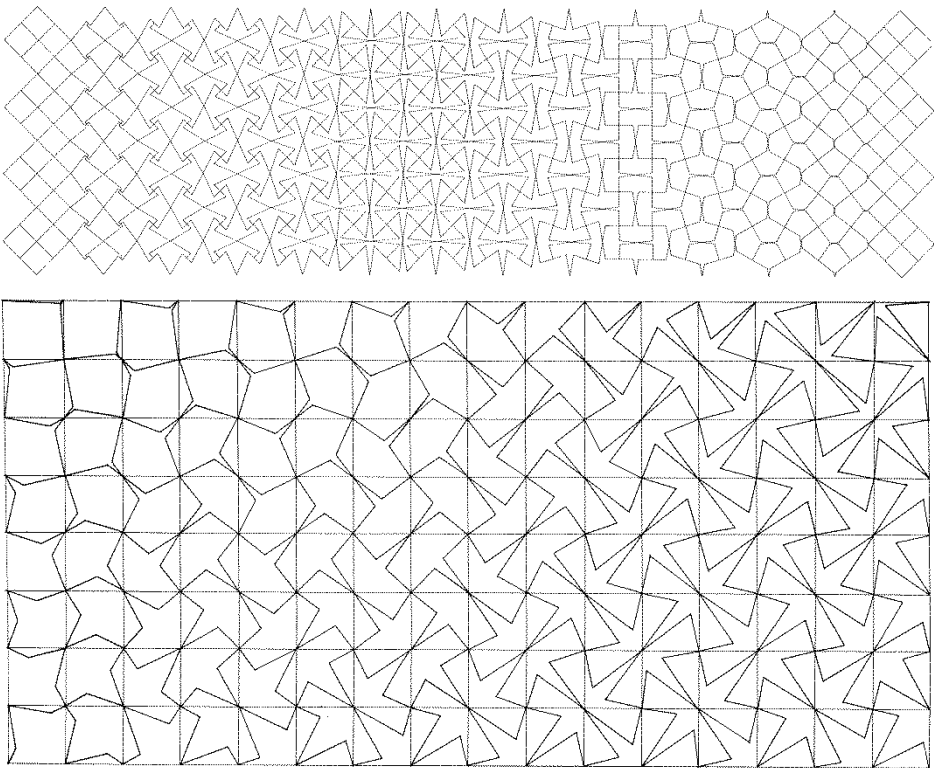
## **Graphische Darstellung**



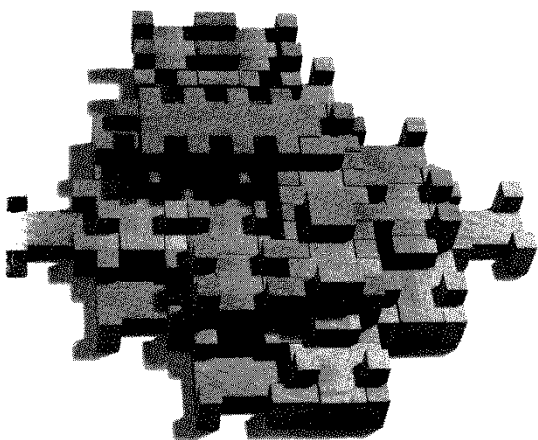


## Visual + geometrical training

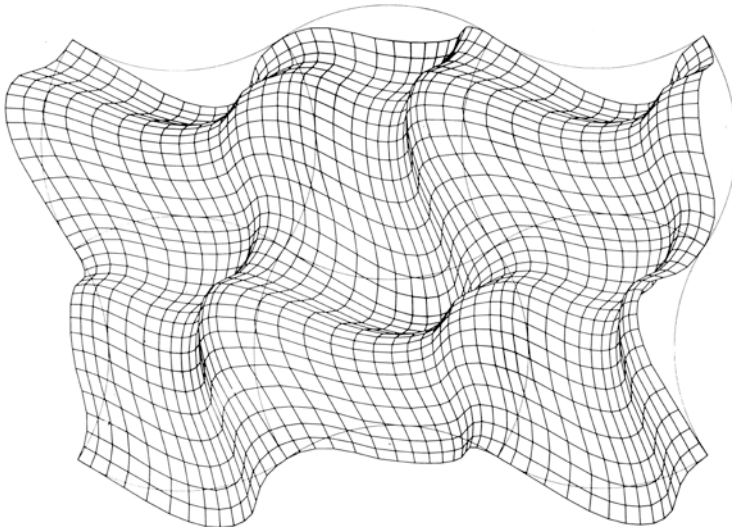
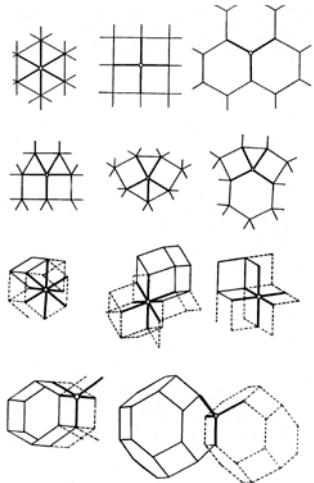
Source: Lindinger (8), 1987  
Curdes (3)2001



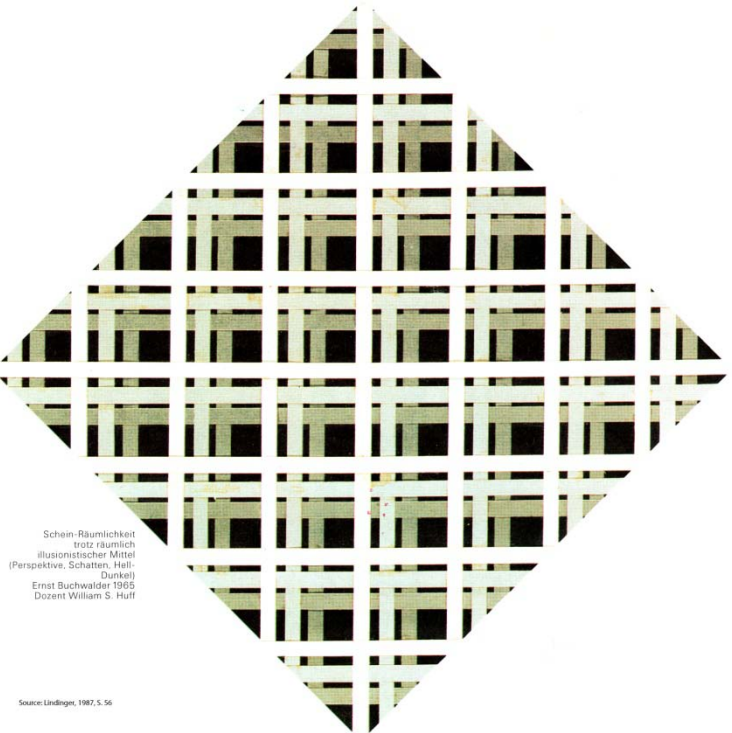
# Visual + structural training



Gitter aus kathametrischen Elementen / Jan Thyllen 1961/62,  
Doz. Mañdonado / Quelle: Lindinger 1987. S.59



Netz-Transformation, Kurt Christen, 1965-66  
Ass. Günter Schmitz, Source: Lindinger 1978, P. 59



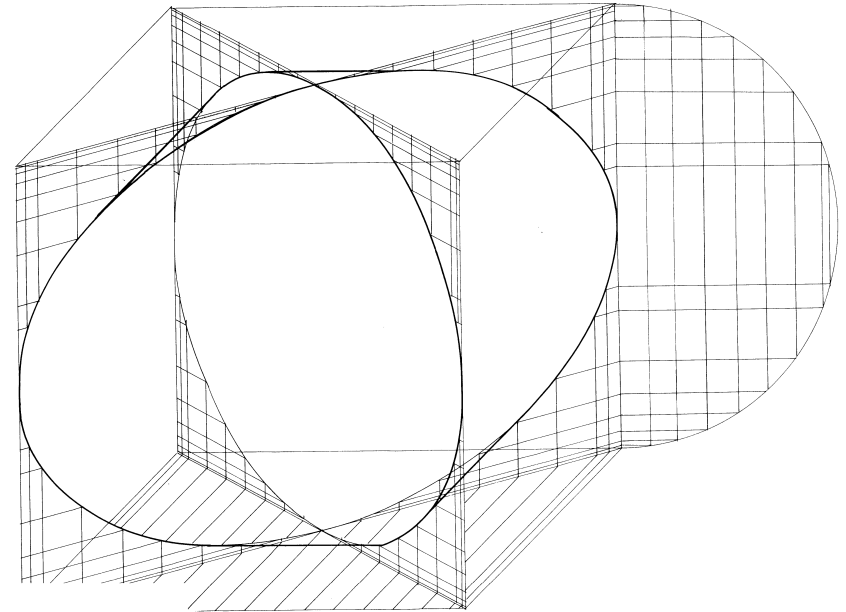
Schein-Räumlichkeit  
trotz räumlich  
illusionistischer Mittel  
(Perspektive, Schatten, Hell-  
Dunkel)  
Ernst Buchwalder 1965  
Dozent William S. Huff

Source: Lindinger, 1987, S. 56

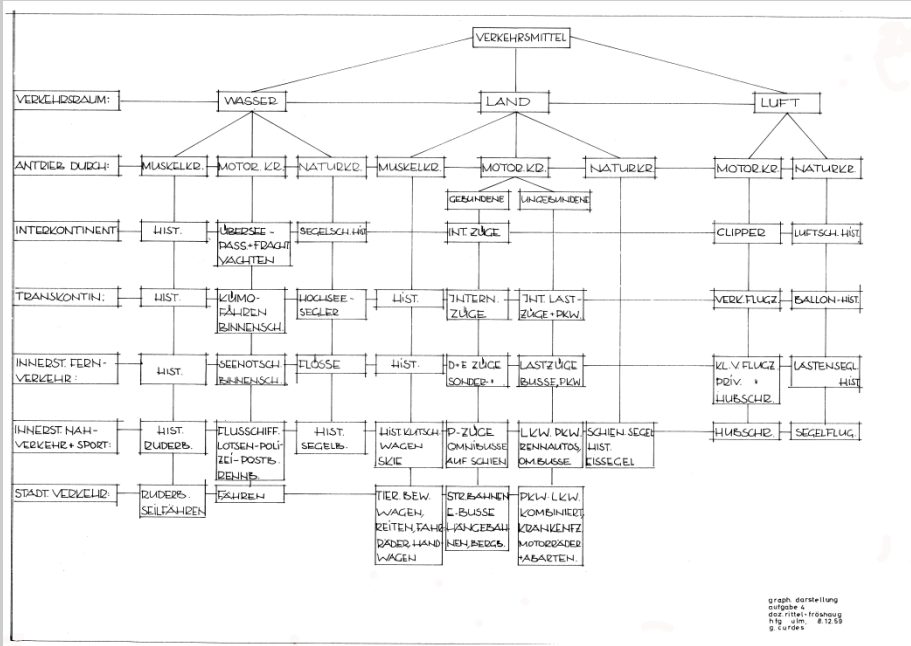


# Training in classification, systematology, geometry

Space of traffic:	Water	Land	Air
Mode of drive:	Muscle force Engine Natural force	Muscle force Engine Natural force bound unbound	Muscle force Engine Natural force
Intercontinental:			
Transcontinental:			
National long distances:			
National short distances:			
Urban transport:			

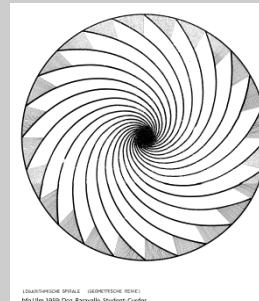
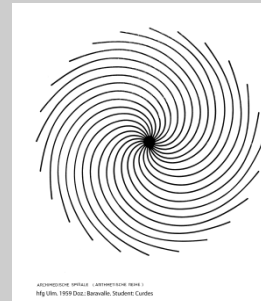


Negativ tube-node 1960. Teacher: Zeischegg. Student: Curdes



## Systematology of all modes of transport 1959

Teacher: Rittel/Fröshaug. Student: Curdes



Archimedean  
Spiral  
Logarithmic  
spiral 1960  
Teacher: Baravalle  
Student: Curdes

# Theoretical / systematic exercises 1959/60

## Examples

- Design of an arithmetically graded gray scale according to a random and a systematic method
- Design of a voting machine
- Design of a set of weights with as few elements as possible of the same form character
- **Graphical comparison of two intersections**

- Entwurf einer arithmetisch gestuften Grauskala nach einer zufälligen und einer systematischen Methode
- Entwurf einer Abstimmungsmaschine
- Entwurf eines Gewichtssatzes mit möglichst wenig Elementen gleichen Formcharakters
- Graphischer Leistungsvergleich zweier Kreuzungsformen

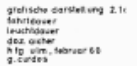
Source: Training exercises G.Curdes

graphische darstellung:  
schreibweise:  
nig. wim. februar 88  
den. april  
curden

grafische Darstellung 2.1.7  
Darstellung der Führungs-  
übernehmungen  
in Abh. vom Geschw. 60  
km/h  
und 80 km/h  
wurde.

grafische Darstellung 2.1.7  
Darstellung der Führungs-  
übernehmungen  
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und 80 km/h  
wurde.



# Teaching themes of Horst Rittel (Mathematician)

## Ground-course 1959/60 - Selection

### Methodology

Combinatorics  
Logistics  
Quantities  
Topology  
Groups and Symmetry  
Curves, surfaces, gradients  
Empirical and reductive  
techniques  
Documentation technology

### Cybernetics

### Operations research

Generation of forms  
Differential Geometry  
Minimal surfaces  
Processes:  
Time, variable, growth  
Continuous / discontinuous processes  
Time series theory  
- Orders  
- Process of arranging  
- Order conditions  
Organization

### Systems

- Choice of Systems
- Constrictions of Systems
- Deterministic Systems
- Extreme conditions
- Subsystems
- Large-and small systems
- System: driver - environment  
– machine
- Graphical representation of  
the system

Source: Lecture Transcript G. Curdes 1959/60

## **Operations Research**

- Corporate objectives
- Decision problems for companies
- Target structures of the participants
- Forms of decision problems
- Simulation
- Decision-making

## **Philosophy of Science**

1. Data recovery
  2. Data collection
  3. Data processing
  4. Data Storage
- Regulation, navigation, control
  - Quality of Regulations

## **Human Engineering**

### **A. System Design**

1. System purpose
2. Operating conditions
3. CV of the system
4. Design constraints
5. Tolerated extreme situations

### **B. External environment of the system**

### **C. Internal environment of the system**

### **D. Requirements**

### **E. Specification of the systems outputs**

### **F. Components of the decision problem**

### **G. Control variables**

## **Communication Processes**

- Situations
- Situations as graphs
- Description of work processes
- Deformation of information
- Trend to simplify
- Noise in the language

### **Feasibility of form:**

- Regulations
- Structures
- Symbolic value of forms

## **Logic**

Branches of the logic

Syllogistic

Junctures, calculus of junctures

Logic of quantifiers

Modal logic

Symbolic logic

- Methods of proof
- Boolean algebra

Source: Lecture Transcript G. Curdes



# Two important Methods at Ulm:

## 1.) G. Polya: How to Solve it. 1957

An important theory of heuristic thinking in Ulm

Source: Polya 1957: Schule des Denkens (School of Thinking)

WIE SUCHT MAN DIE LÖSUNG? <small>Quelle: Polya: Schule des Denkens, Bern 1949</small>	<b>ERSTENS</b> Du mußt die Aufgabe verstehen	<b>1. VERSTEHEN DER AUFGABE</b> • Was ist unbekannt? Was ist gegeben? Wie lautet die Bedingung? • Ist es möglich, die Bedingung zu befriedigen? Ist die Bedingung ausreichend, um die Unbekannte zu bestimmen? Oder ist sie überschüssig? Oder überbestimmt? Oder widersprüchlich? • Zeichne eine Figur! Führe eine passende Bezeichnung ein! • Trenne die verschiedenen Teile der Bedingung! Kannst Du sie beschreiben? <b>2. AUSKUNFT EINES PLANES</b> • Hast Du die Aufgabe schon früher gesehen? Oder hast Du dieselbe Aufgabe in einer wenig verschiedenen Form gesehen? • Kannst Du eine verwandte Aufgabe? Kannst Du einen Lehrsatz, der förderlich sein könnte? • Betrachte die Unbekannte! Und versuche, Dich auf eine Dir bekannte Aufgabe zu beziehen, die dieselbe oder eine ähnliche Unbekannte hat. • Hier ist eine Aufgabe, die der Deinen verwandt und schon gelöst ist. Kannst Du sie gebrauchen? Kannst Du ihr Resultat verwenden? Würdest Du irgendein Hilfselement einführen, damit Du sie verwenden kannst? • Kannst Du die Aufgabe anders ausdrücken? Kannst Du sie auf noch verschiedene Weise ausdrücken? Geh auf die Definition zurück! • Wenn Du die vorliegende Aufgabe nicht lösen kannst, so versuche, zuerst eine verwandte Aufgabe zu lösen. Kannst Du Dir eine zugänglichere verwandte Aufgabe denken? Eine allgemeinere Aufgabe? • Eine spezielle Aufgabe? Eine analoge Aufgabe? Kannst Du einen Teil der Aufgabe lösen? Behalte nur einen Teil der Bedingung bei und lasse den anderen fort; wie weit ist die Unbekannte dann bestimmt, wie kann ich sie verändern? Kannst Du etwas Förderliches aus den Daten ableiten? Kannst Du Dir andere Daten denken, die geeignet sind, die Unbekannte zu bestimmen? Kannst Du die Unbekannte ändern oder die Daten oder, wenn nötig, beide, so daß die neue Unbekannte und die neuen Daten einander näher sind? • Hast Du alle Daten benutzt? Hast Du die ganze Bedingung benutzt? Hast Du alle wesentlichen Begriffe in Rechnung gezogen, die in der Aufgabe enthalten sind? <b>3. AUSFÜHREN DES PLANES</b> • Wenn Du Deinen Plan der Lösung durchführst, so kontrolliere jeden Schritt. Kannst Du deutlich sehen, daß der Schritt richtig ist? Kannst Du beweisen, daß er richtig ist? <b>4. RÜCKSCHAU</b> • Kannst Du das Resultat kontrollieren? Kannst Du den Beweis kontrollieren? • Kannst Du das Resultat auf verschiedene Weise ableiten? Kannst Du es auf den ersten Blick sehen? • Kannst Du das Resultat oder die Methode für irgendeine andere Aufgabe gebrauchen?
	<b>ZWEITENS</b> Suche den Zusammenhang zwischen den Daten und der Unbekannten	
	Du mußt vielleicht Hilfsaufgaben betrachten, wenn ein unmittelbarer Zusammenhang nicht gefunden werden kann	
	Du mußt schließlich einen Plan der Lösung erhalten	
	<b>DRITTENS</b> Führe Deinen Plan aus	
	<b>VIERTENS</b> Prüfe die erhaltene Lösung	

## How to solve it?

### Four principles

1. First, you have to understand the problem
2. After understanding, then make a plan
3. Carry out the plan
4. Look back on your work. How could it be better?

## ¿Qué es esto?

### Cuatro principios

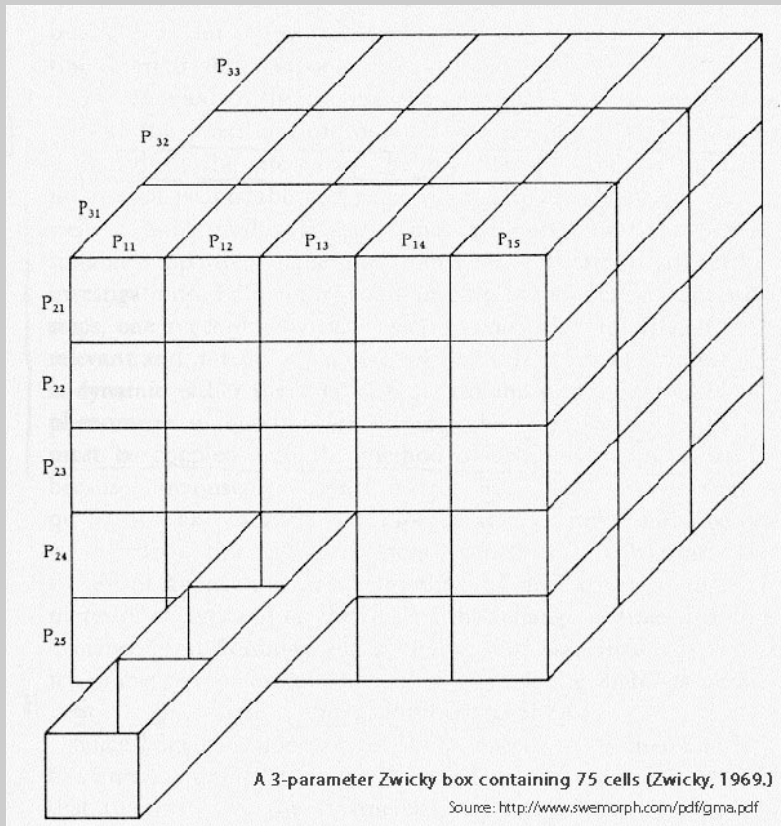
1. Entender el problema
2. Crear un plan
3. Llevar a cabo el plan.
4. Revisar e interpretar el resultado. Como no podía ser mejor?

# 2. MORPHOLOGICAL METHOD

## Creativity-Technique : Zwicky Box

Fritz Zwicky: **Morphologische Forschung**: Wesen und Wandel materieller und geistiger struktureller Zusammenhänge 1959

- Generalization of a given problem
- Identification and localization of the parameters of the problem
- Morphological scheme of all possible solutions
- Evaluation of the solutions
- Selection of the optimal solution (Zwicky 1971, p. 90).



Initial Energy Form	Transmission Form	Final (Storage) Form
(K) Kinetic	(K) Kinetic	(K) Kinetic
(E) Electrical	(E) Electrical	(E) Electrical
(C) Chemical	(C) Chemical	(C) Chemical
(T) Thermal	(T) Thermal	(T) Thermal
(N) Nuclear	(N) Nuclear	(N) Nuclear

Energy Conversion Matrix (one configuration of 125 shown)

Source: <http://www.swemorph.com/pdf/gma>

# Design philosophy of Horst Rittel

“Design is a process to generate variety”.

- 1. “Produce variety and**
- 2. then delete variety**
- 3. and produce reality”.**

- “To solve a problem „there must be at least one idea as a candidate for the solution”.
- If you have more candidates for the solution look for reasons to exclude all beside one to reduce the variety“.

# Outcome of the Ground course

- Endurance
- Skills for 2+3 dimensional thinking
- Ability for precise working
- Trained in systematic thinking
- Trained in basic methods of creative thinking
- Trained in systematic structuring of complex tasks
- Basics in selected science fields
- Trained in search for non - conventional solutions
- Failure: underestimation of the role of intuition

# HFG Ulm: Departments / Students / Diplomas

## 1953-1968

Abteilung / Department	Anzahl der Studenten	davon Diplom / Diplomas	in %
Information / Information	25	7	28
Film / Film	27	6	22
Visuelle Kommunik. / Vis. Communication	158	44	28
Bauen / Building, Industrial Building	170	73	43
Produktgestaltung / Product design	249	101	40,5
hfg Gesamt / Total	637*	231	36

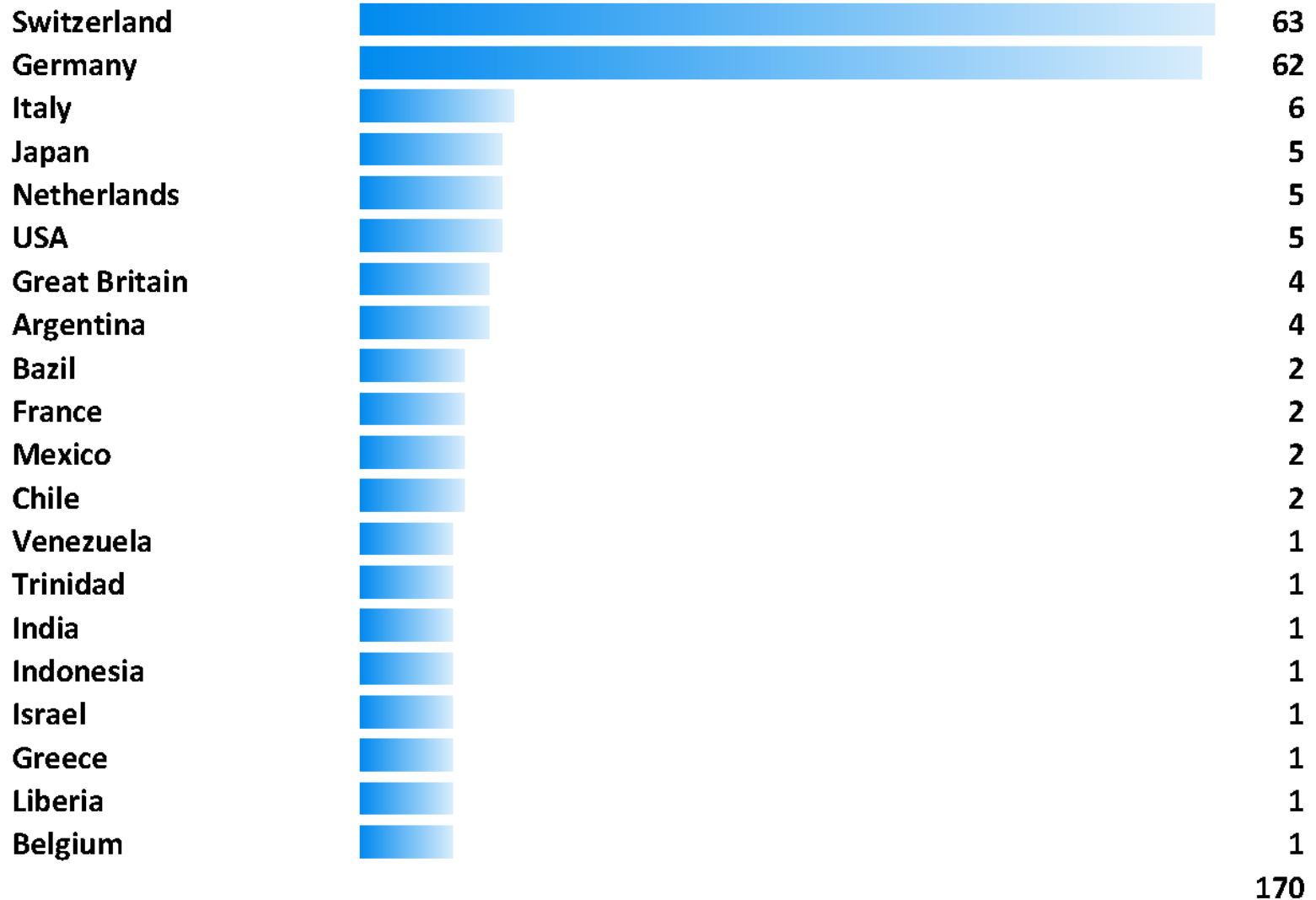
Source: Curdes, Die Abteilung Bauen an der hfg Ulm. 2001

# The Department of building / industrial building

- 1953-1956 exercises like in a normal architectural school
- Since 1958: Industrial building. In that time this was an unique approach worldwide
- Dominance of constructive thinking
- The methods used in this department often followed the methods trained in the ground course:
- Systematical analysis, intensive studies of the context, systematical generation of solutions

# Students of the department of building

## Countries of origin



Source: Curdes, 2001, S. 24



# Heads of Department + Teachers

Year	Name / Designation	Head of Department	Teacher
1953-54	Architecture	Max Bill	-
1954-55	Architectur/ Townbuilding	Max Bill	Konrad Wachsmann
1955-56	Architecture/Townbuilding	Max Bill	Konrad Wachsmann
1956-57	Architecture/Townbuilding	Max Bill	Konrad Wachsmann
1957-58	Building	?	Fritz Pfeil
1958-59	Building	Herbert Ohl	Herbert Ohl
1959-60	Building	?	?
1960/61	Industrial Building	Herbert Ohl	Herbert Ohl
1961/62	Industrial Building	Herbert Ohl	Herbert Ohl
1962/63	Industrial Building	Herbert Ohl	Herbert Ohl
1963/64	Industrial Building	Herbert Ohl	Herbert Ohl
1964/65	Industrial Building	Herbert Ohl	Herbert Ohl
1965/66	Industrial Building	Herbert Ohl	Abraham Moles, Wladyslaw Czajka, Günter Schmitz, Klaus Limberg
1966/67	Industrial Building	Herbert Ohl	Abraham Moles, Herbert Ohl, Claude Schnaidt, Werner Wirsing
1968	Industrial Building	Claude Schnaidt	Abraham Moles, Herbert Ohl, Claude Schnaidt, Werner Wirsing

# Many guest teachers!

de Acosta	Jokusch	Niewerth	Schmitz Günter
Asano,	Joss	Niederaastroth	(Schnaidt)
Asherik	Kandel	Norberg-Schulz	Schütte
Auer	Knoll	Ohl	Speidel
Autenrieth	Kopp	Otto (Frei)	Spieker
Bill	Krietsch	Palme	Stolper
Ciribini	Künzel	Patterson	Stritzinger
Czajka	Küsgen	Pavel	Sulzer
Dietz	Lakatos	Pelan	ThornleyTonne
Doernach	Leonhard	Pfaff	Wachsmann
Dressel	Lusser	Pfeil	Wallis
Erdmenger	Makowski	Pizetti	Wasowski
Fratelli	Martin	Price	Weller
Fuller	Matthes	Rapp	Wirsing
Ginelli	Meurer	Rauch	Wormbs
Gotterbarm	Minke	Rohrberg	Wurm (Heinrich)
Haan	Mitchell	Schmidt Hermann	
Henne	Neusel-Helvacioghu	Schmidt Jürgen	
Johnsch	(Ayla)	Schmidt Walter	

Source: Curdes 2001

# Examples of projects 1957-1971

## Examples of study projects 1957-1968

Research and development for an universal construction system with sandwich panels – Doz. Ohl (1957/58),

Development of non-limited and limited sandwich elements, Doz. Ohl (1958/59),

Integral construction, Doz. Ohl (1959/60)

Construction of curtain wall panels, connections and modular coordination, Doz. Ohl (1961/62).

Analysis of connections systems in prefabricated reinforced concrete building systems in West Europe, East Germany, Poland and the USSR, (1960/60) Doz.?

## Examples of diploma-thesis

Pavilion, Ulm 1957

Airport 1962

Building Construction 1962

Family Flat 1963

Shopping Center 1963

Office Building 1964

Urban Planning 1964

Public Transport 1966

Car Parking 1968

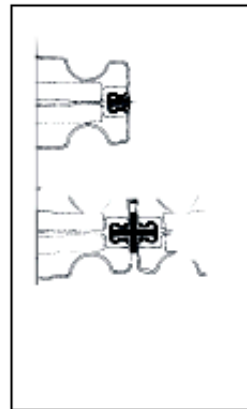
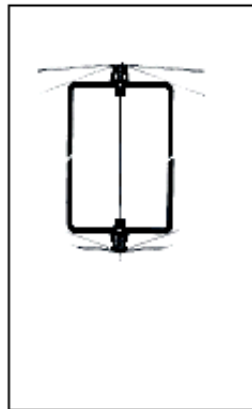
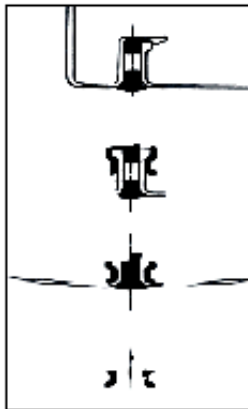
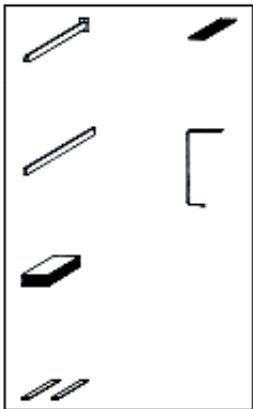
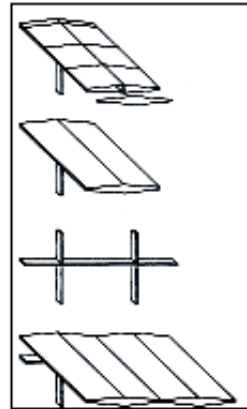
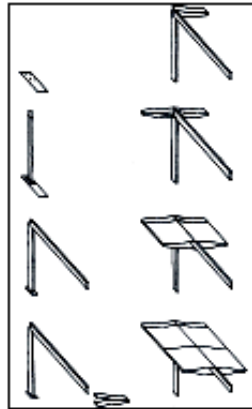
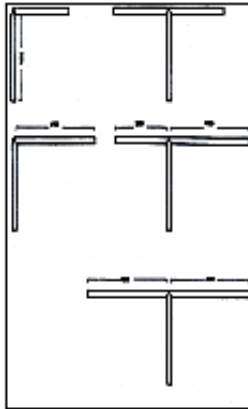
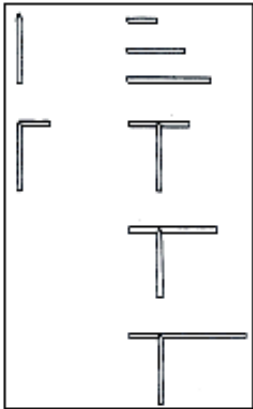
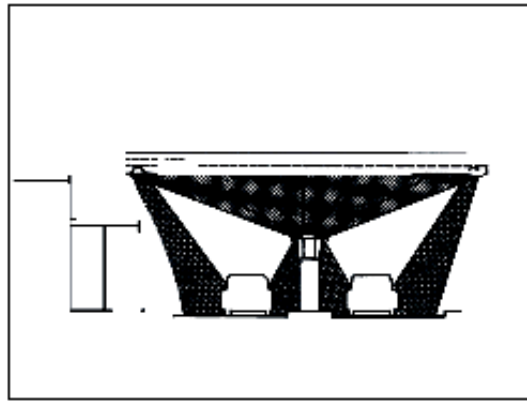
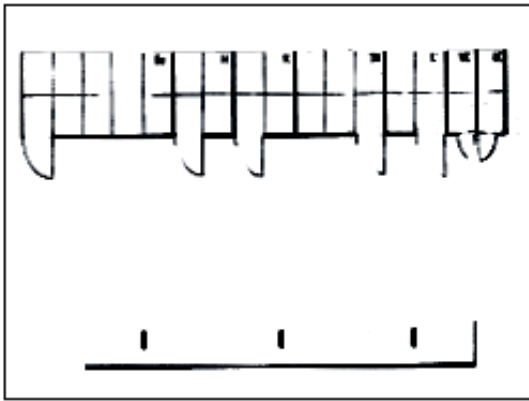
Building System with Synthetic Material 1968

Buildings for Development Countries 1969

Architectural Theory 1971

Planning Theory 1971

Urban Planning 1971

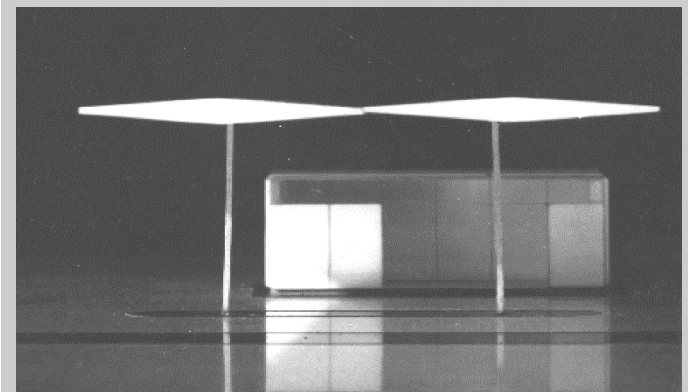
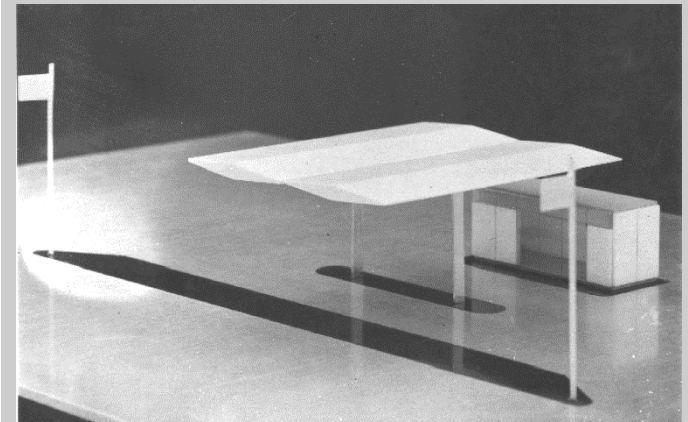


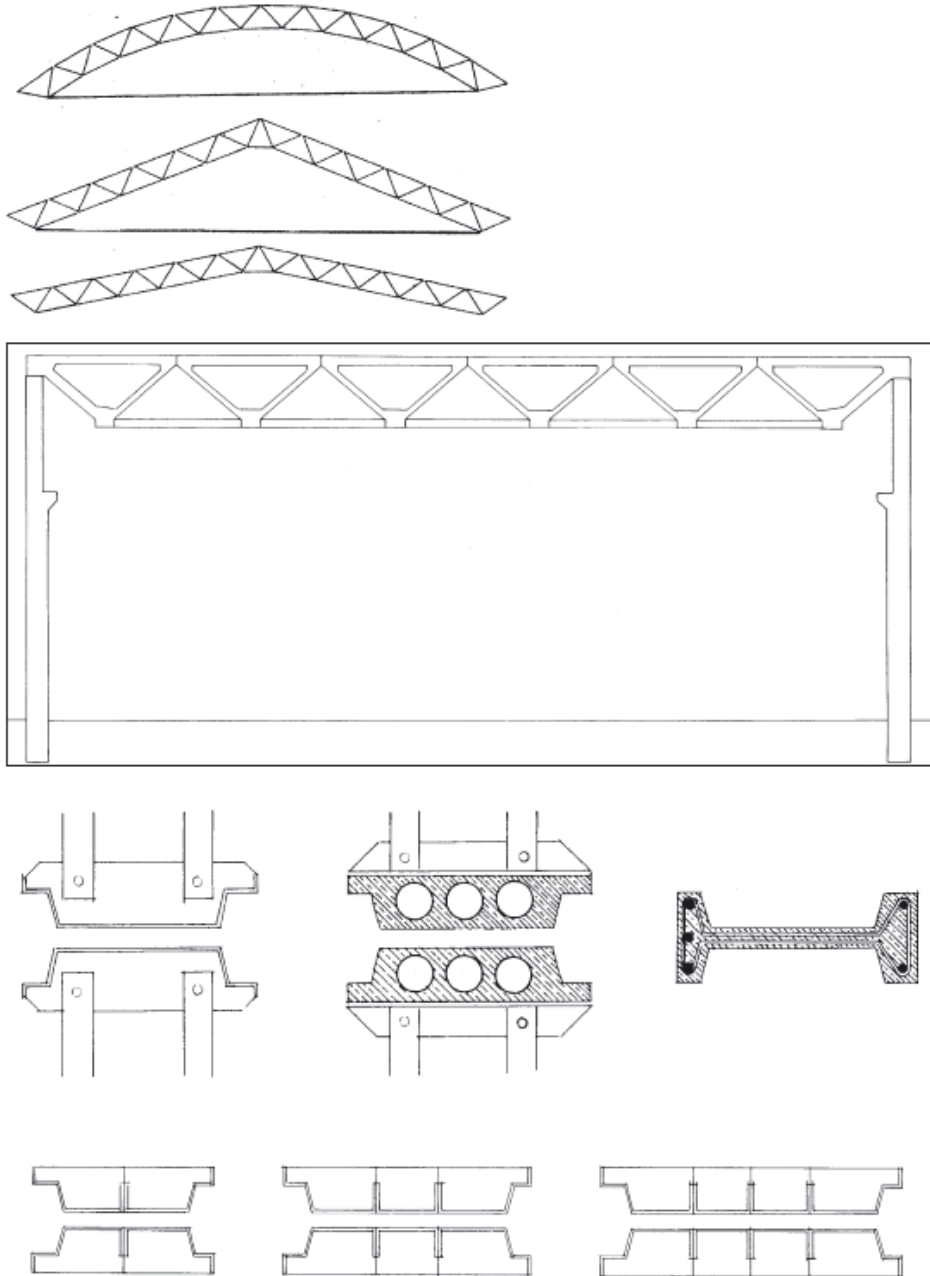
## Prefabricated petrol station 2d.price - International Avia competition 1960

Idea: Translucent shining roof

**Students: Allgayer, Curdes, Dahlmann,  
Grünwald, Muchenberger**

Participation in the competition during the  
first year at the department of building





## Prefabricated concrete building-system for halls

27

1961

Teacher: Doernach

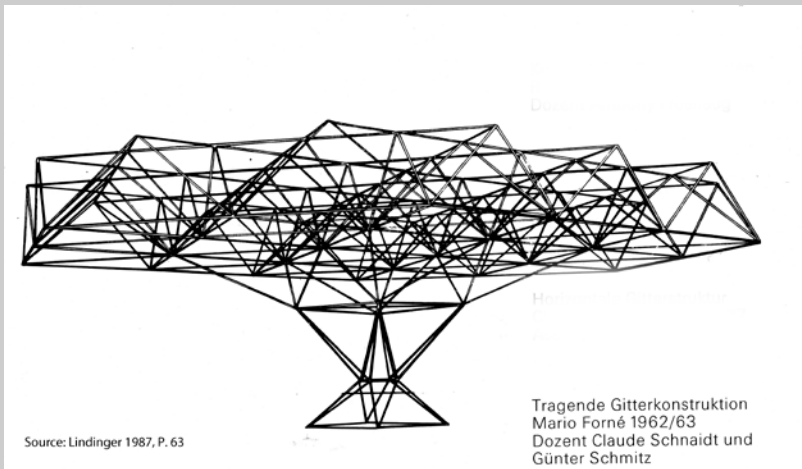
Students: Allgayer, Curdes, Grünwald

## Grid-construction structure

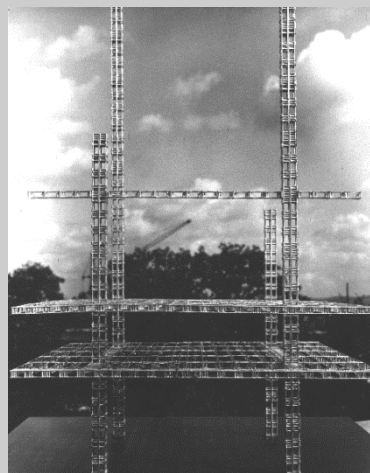
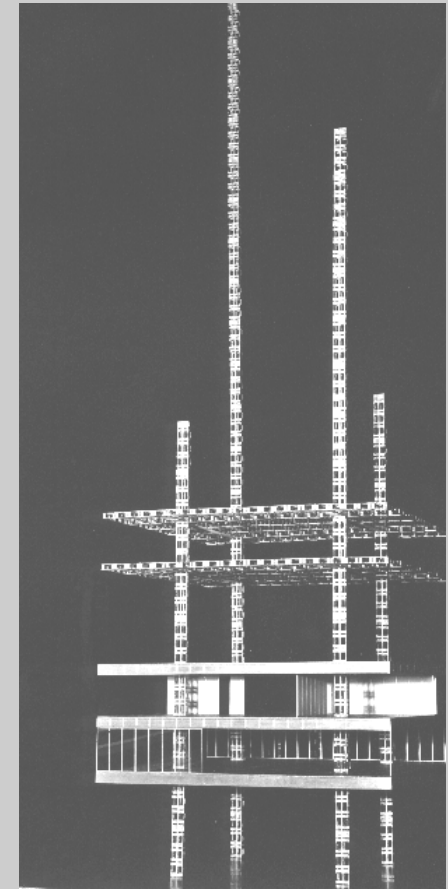
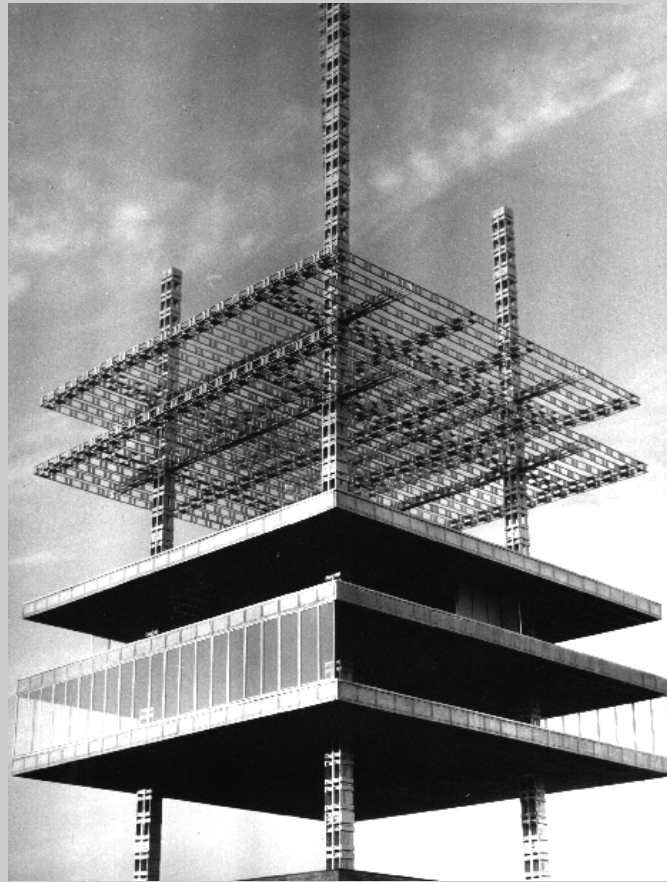
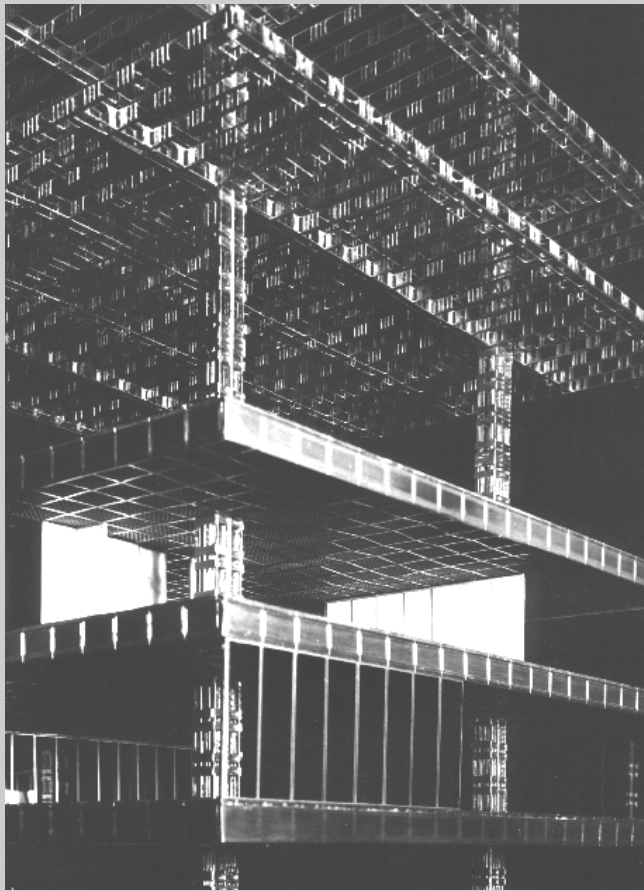
1966/67

Teacher: Schnaidt, Schmitz

Student: Mario Forne'







## Aluminum building system of prefabricated elements

**International Summer Academy Salzburg, 1961**

Teacher: Prof. Konrad Wachsmann

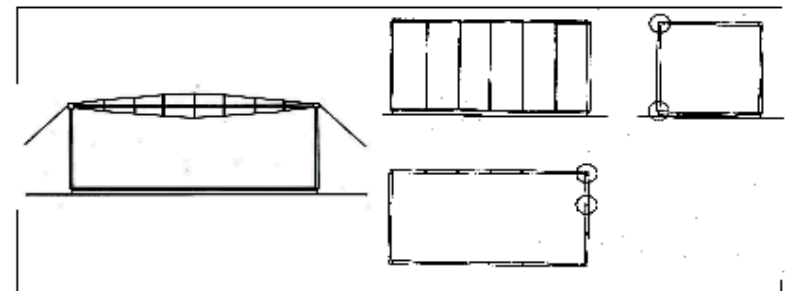
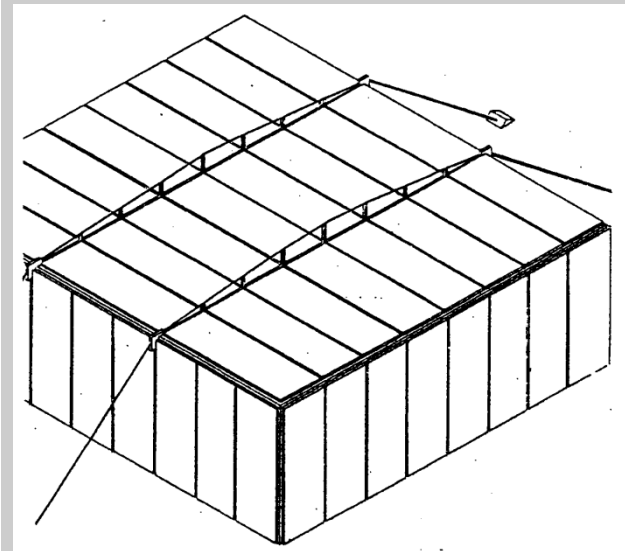
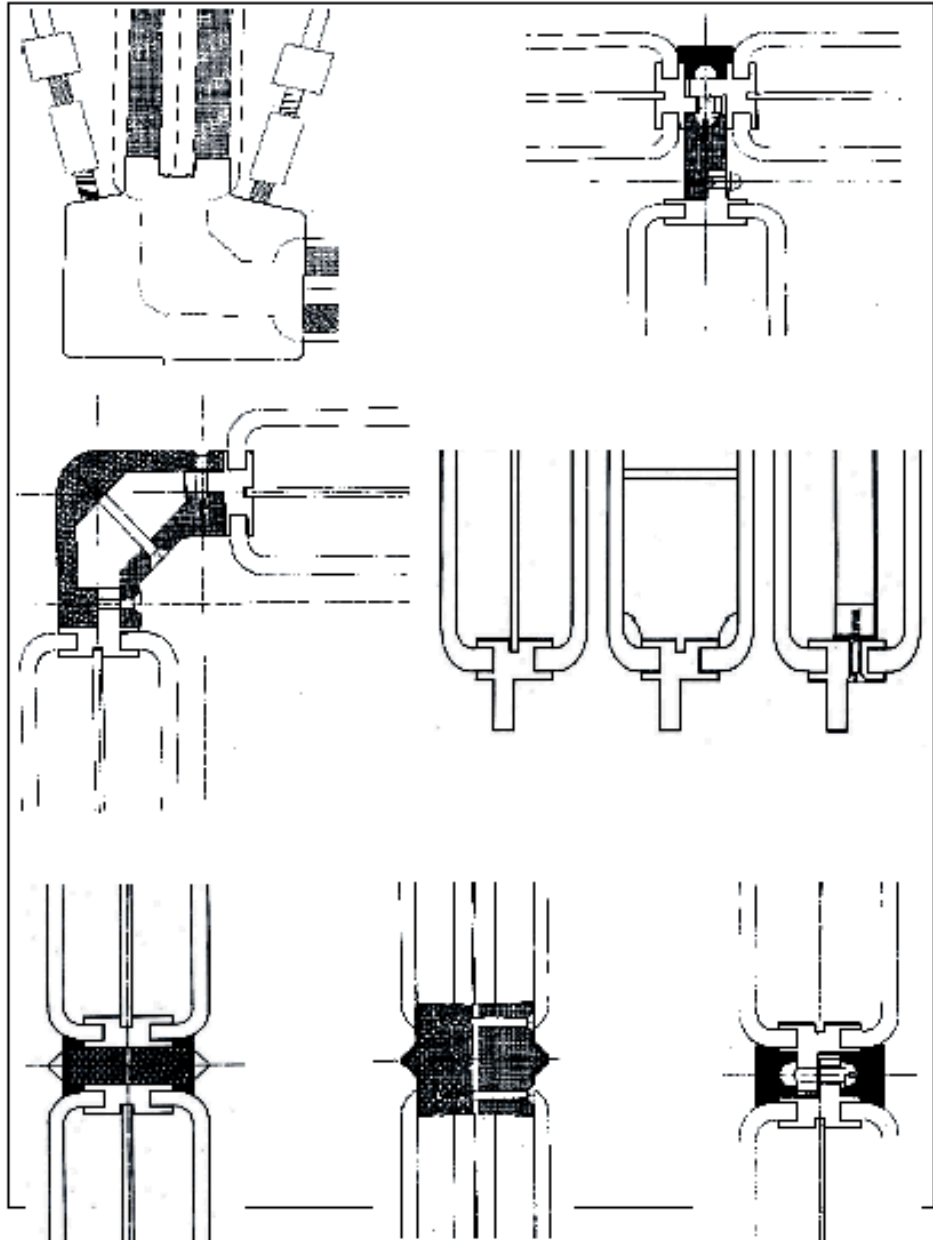
Students: Karlheinz Allgayer (D), Hans Bleiker, (CH), Gerhard Curdes (D), Bernhard Leitner (AUT), Alfred Kohlbacher (AUT) and students from Univ. Karlsruhe

# Glass-panel-building system

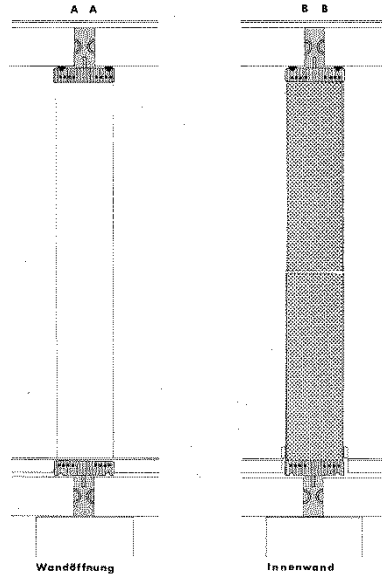
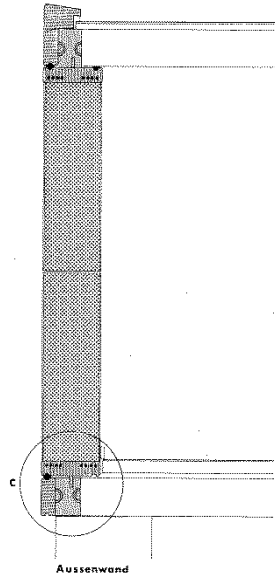
1962

Teacher: Voss

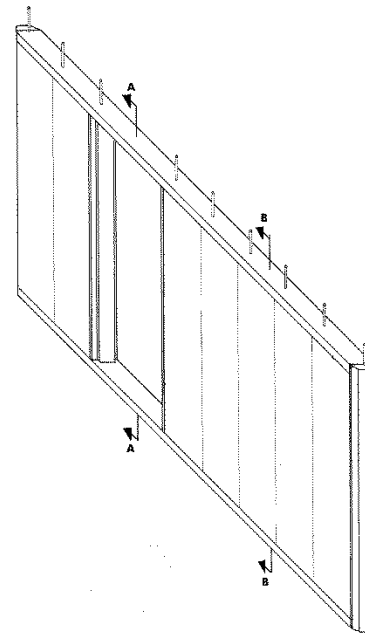
Students: Allgayer, Curdes, Grünwald







## EINBAUFERTIGES WANDELEMENT



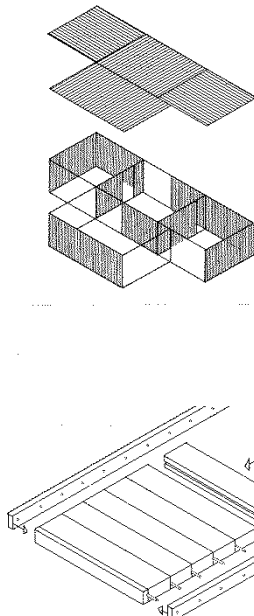
# Ytong Competition 1961/62

## Independent work

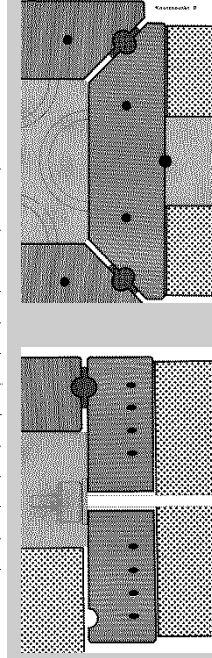
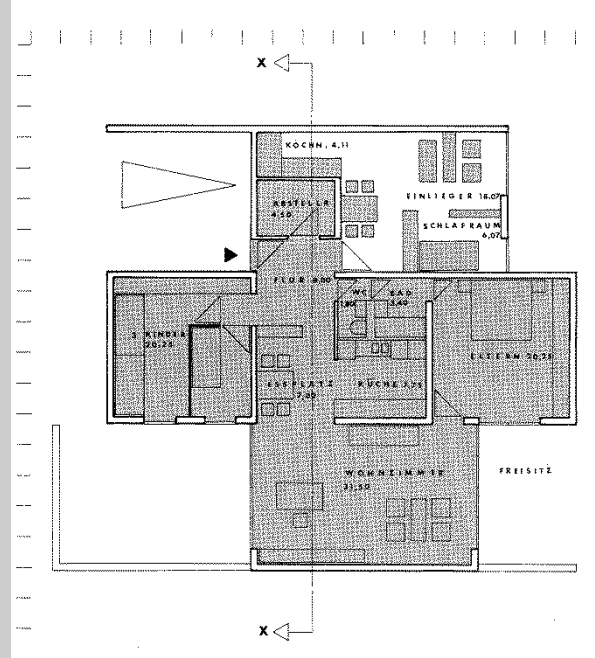
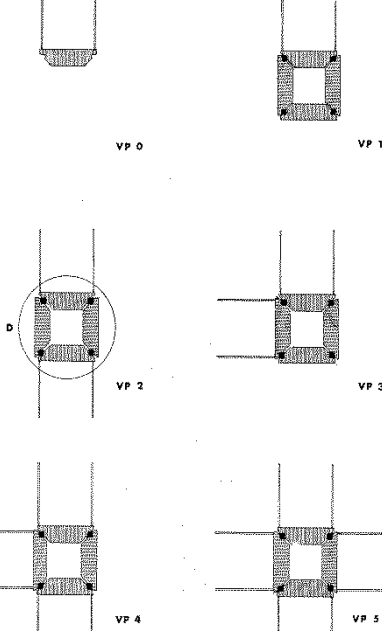
Karlheinz Allgayer  
Gerhard Curdes

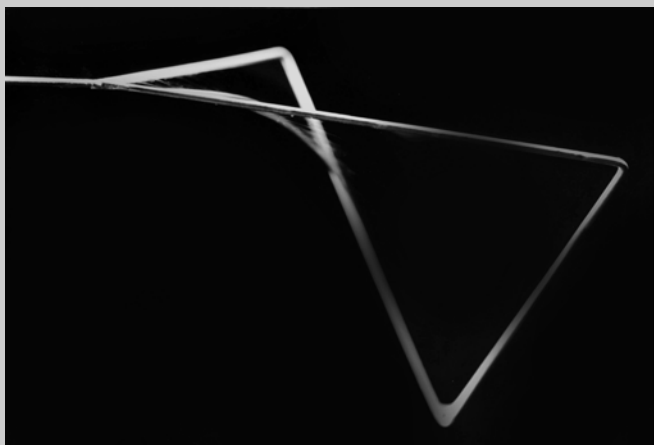
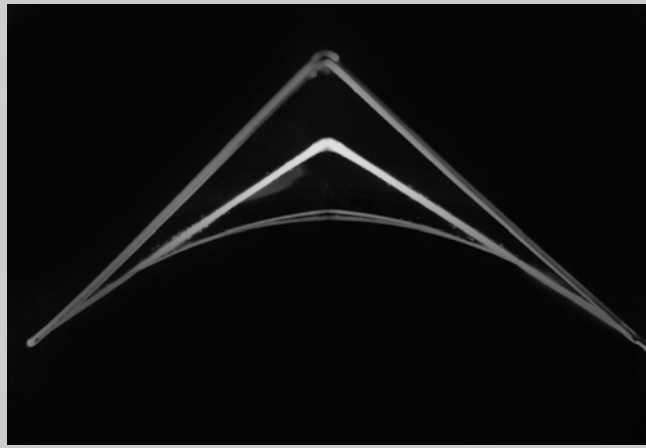
## Additive construction system for light-weight concrete

## STRUKTUR



VERBINDUNGS GEOMETRIE



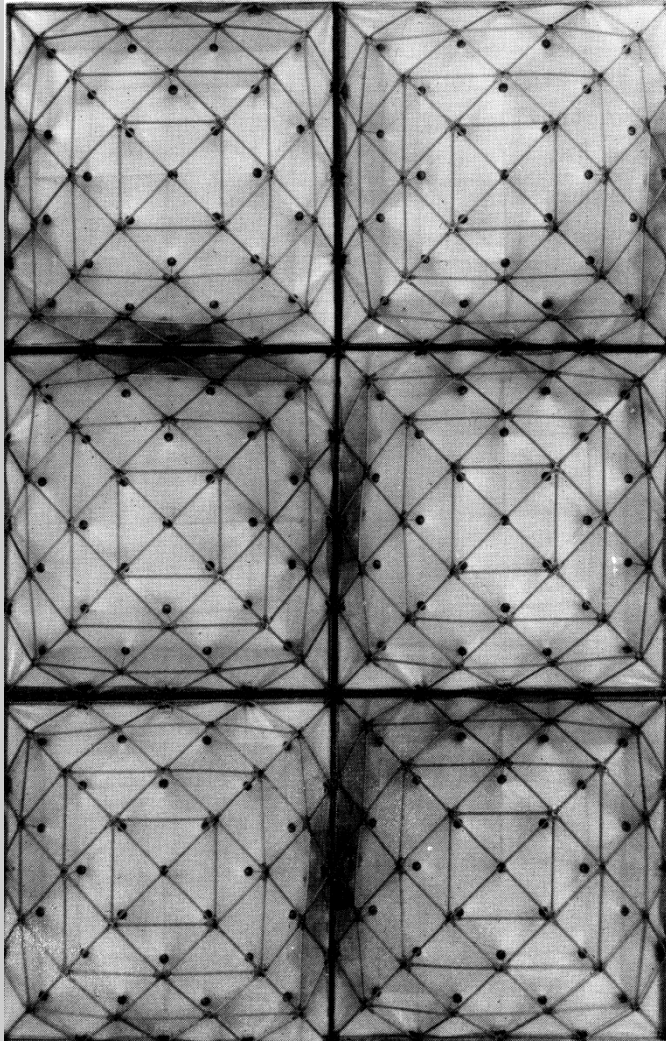
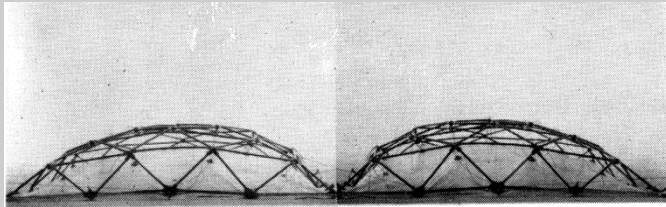


# Minimal surfaces / Hyperbolic Paraboloids 1962-63?

Studies for  
membranes as  
building  
surfaces

Teacher: Doernach  
Students: Curdes  
et.al.





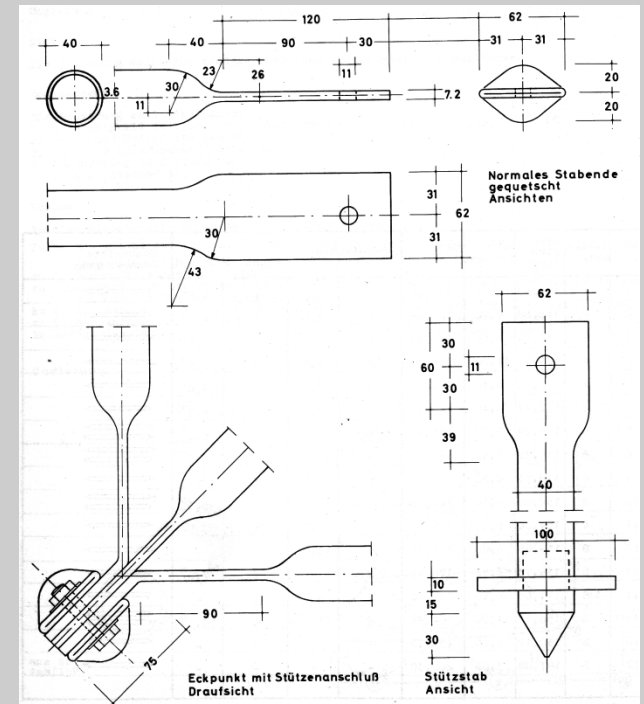
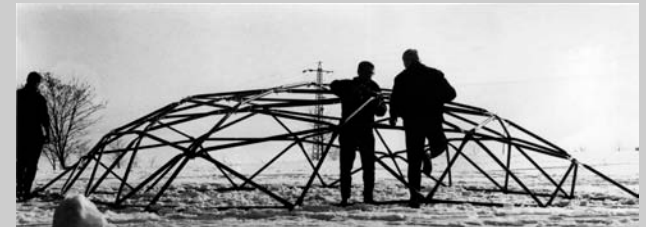
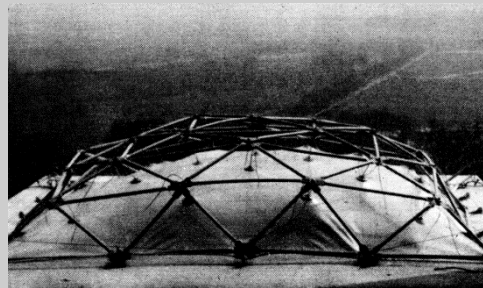
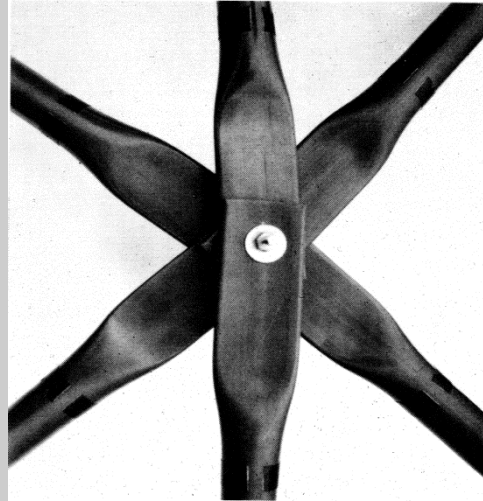
# Dom construction with plastic-pipes 1962/63

Teacher: Doernach

Students: Dobrinski, Schu,

Thanner, Petersen

Source: Output 17/18 1963



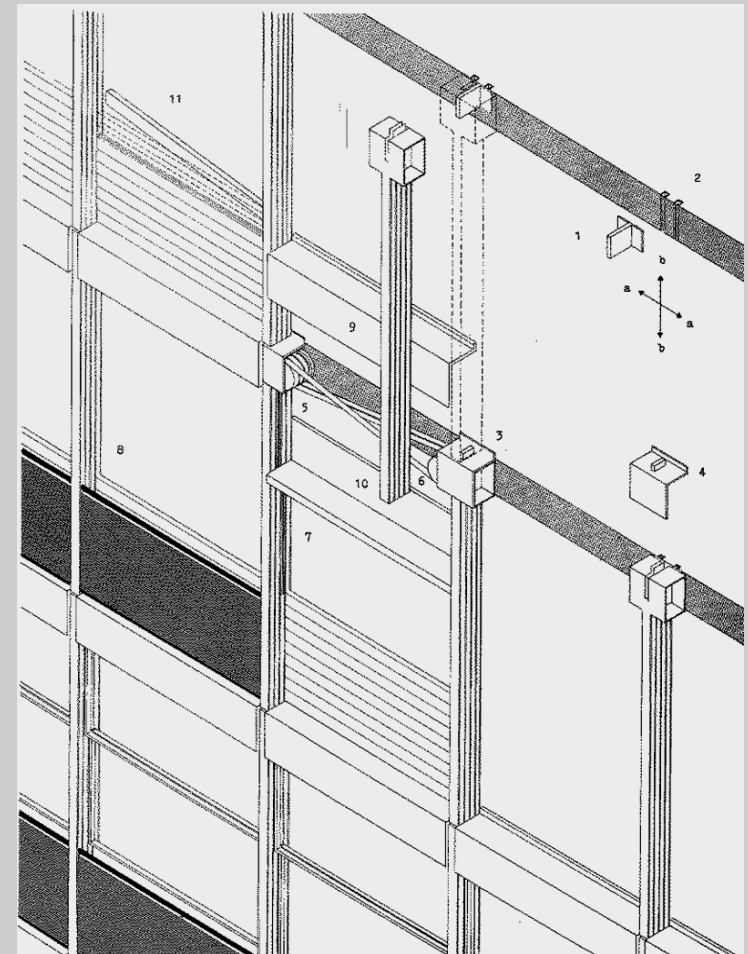
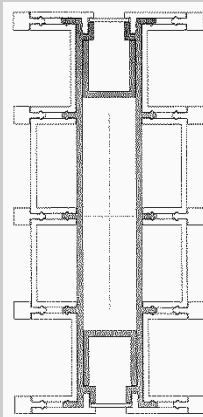


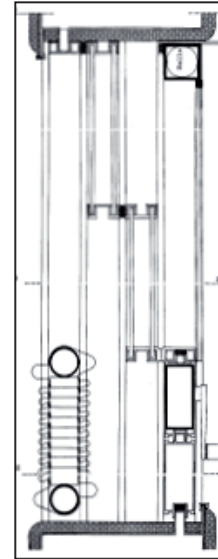
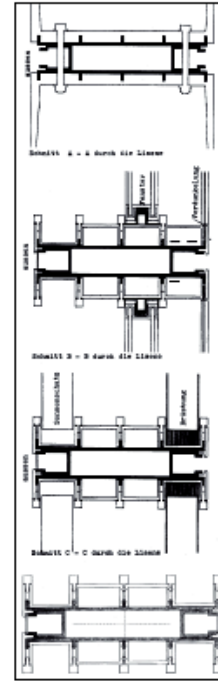
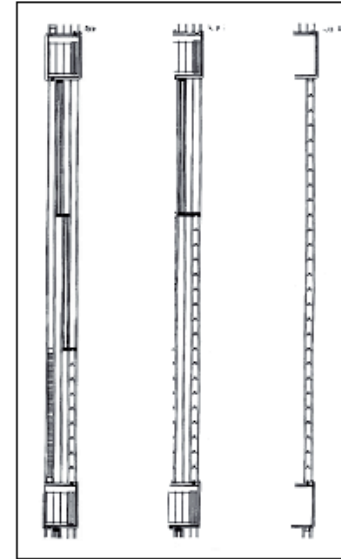
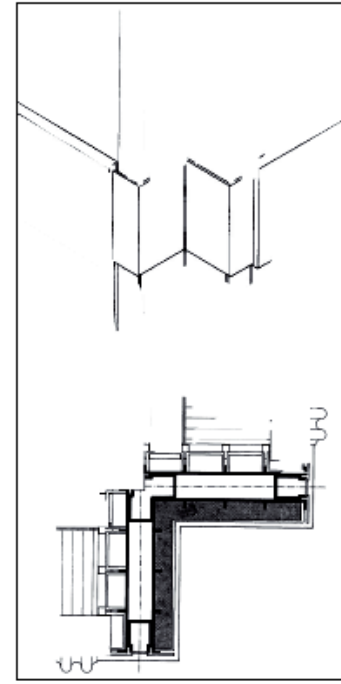
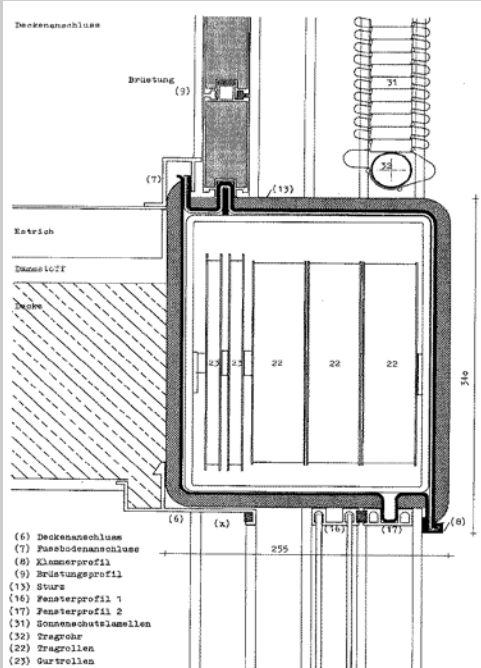
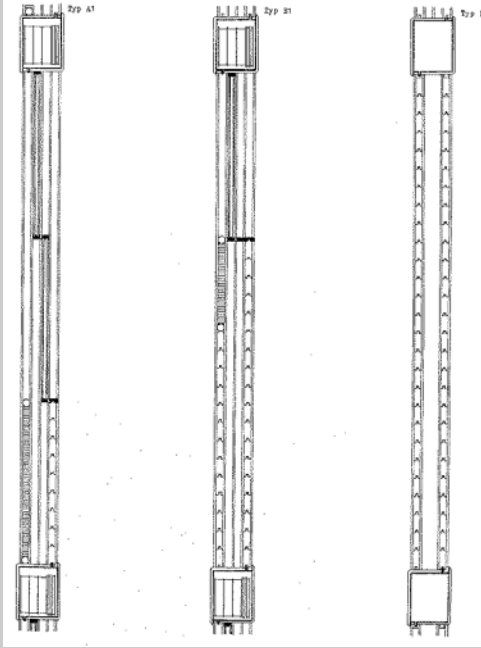
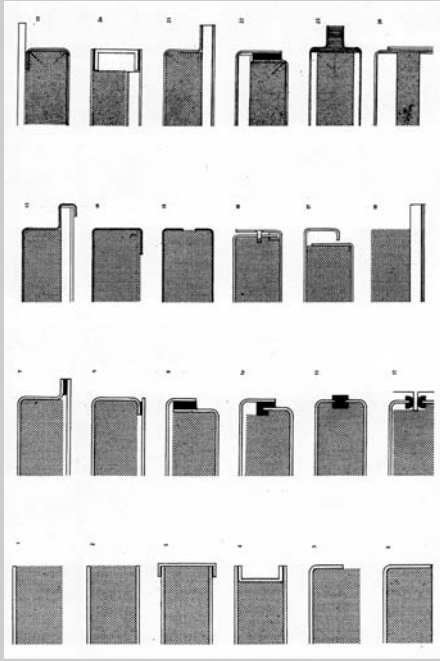
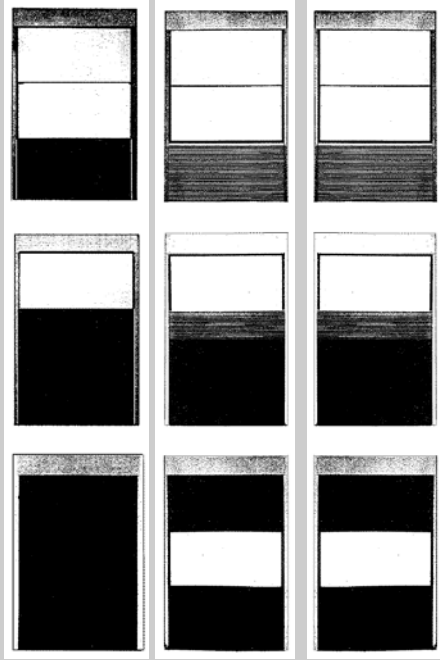
# Diploma-Thesis 1963: Curtain-wall-system for office buildings (Glass-fiber-plastic)

Promotion: Chemische Werke Hüls

Teacher: Doernach

Students: Curdes, Allgayer



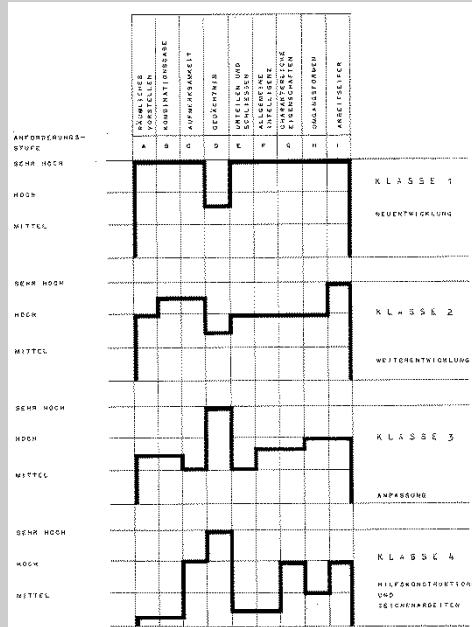


## Diploma-thesis p.2

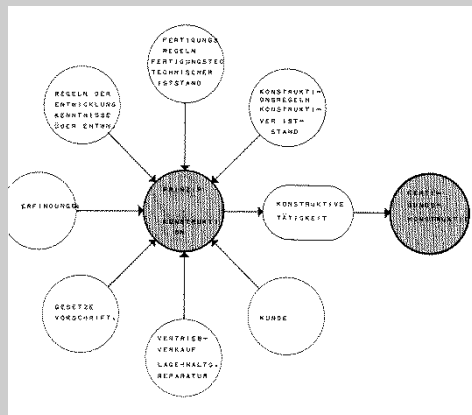
# Examples of methods

Source: Curdes 1963

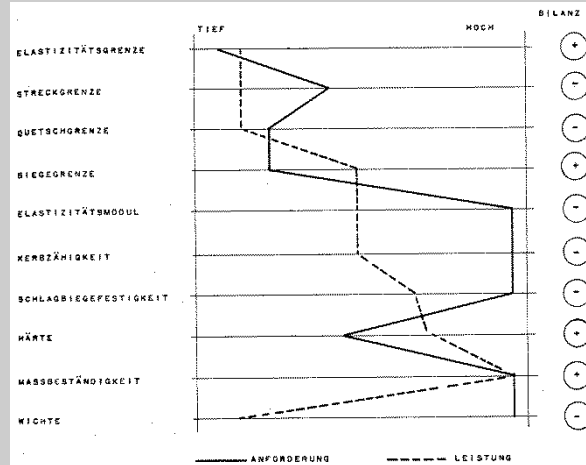
35



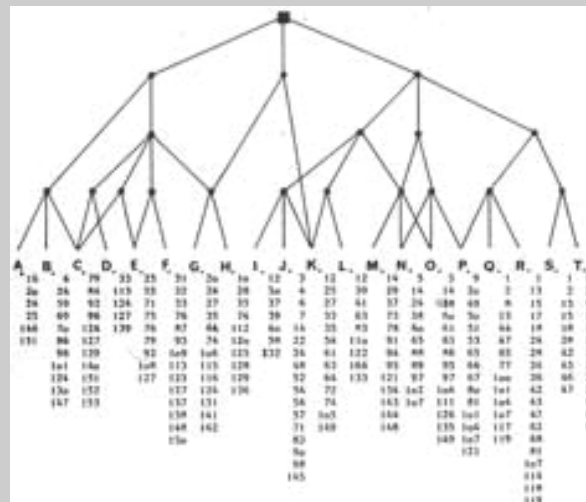
Classes of design-tasks



Design influences

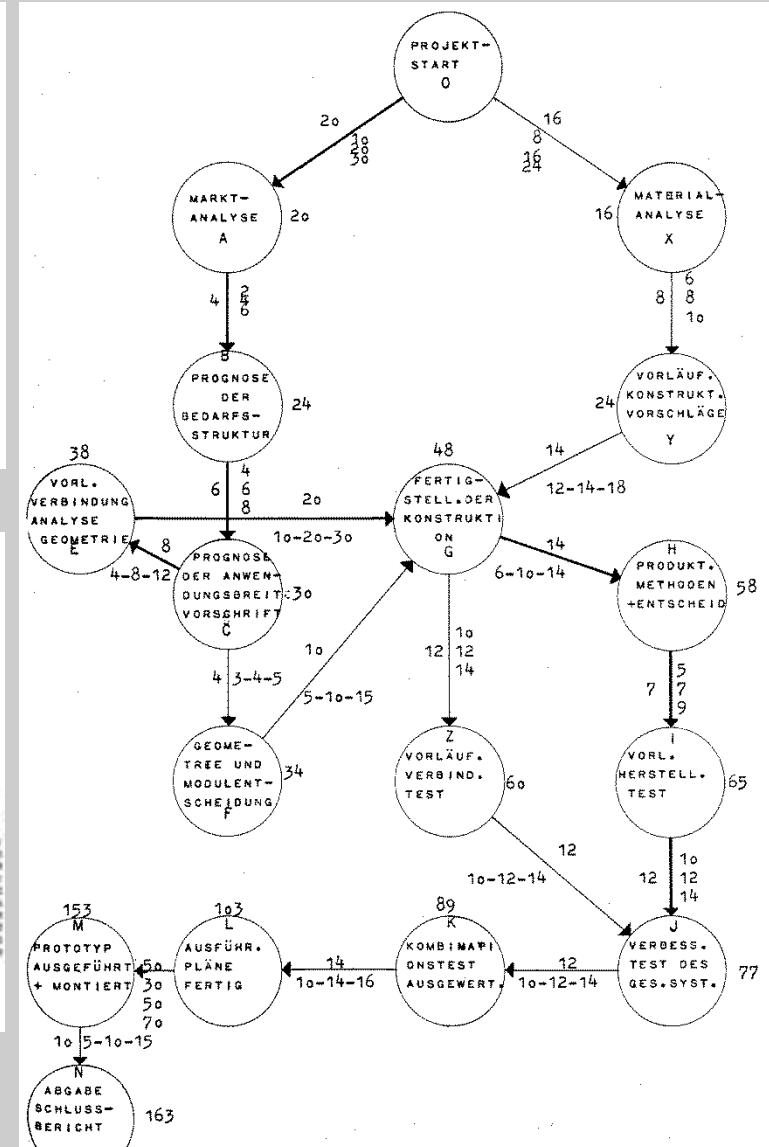


Properties of materials



Source: Miriam Daru - <http://www.frauen-hfg-uhl.de/>

Structure as graph

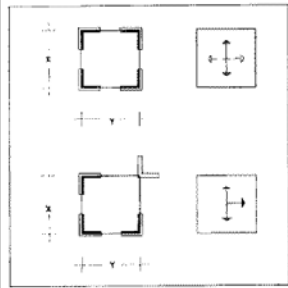


Project-planing, critical path-method

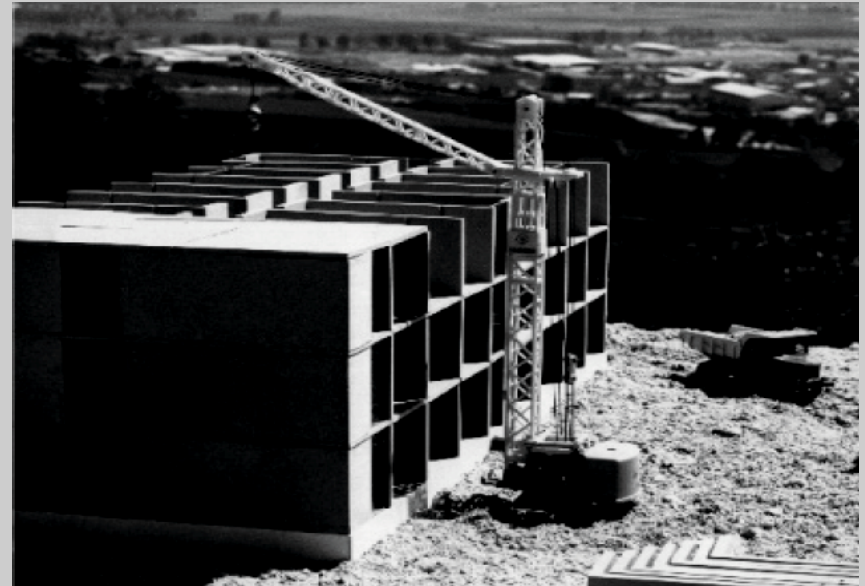
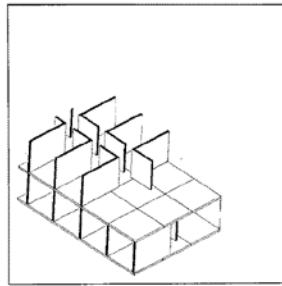
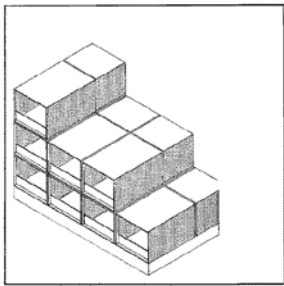
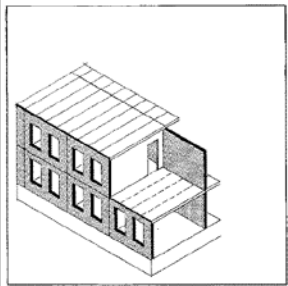
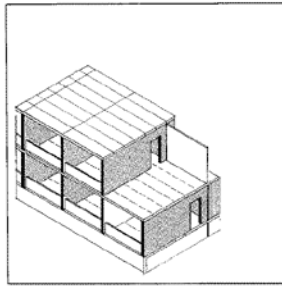
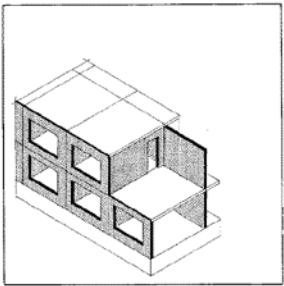
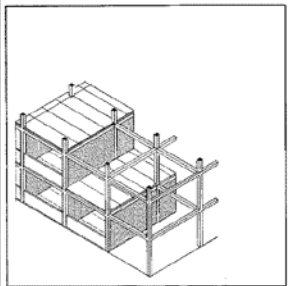
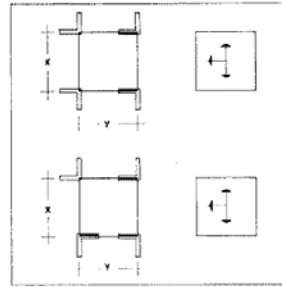
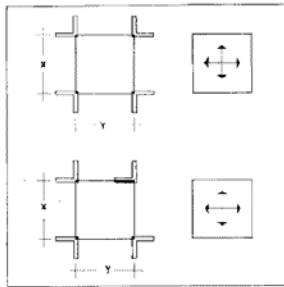
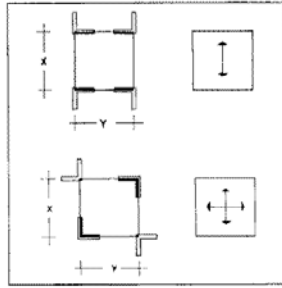
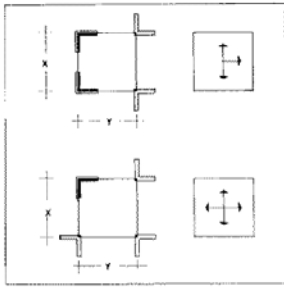


# Diploma-thesis: Angle housing construction 1965

Teacher: Ohl  
Student: Muchenberger

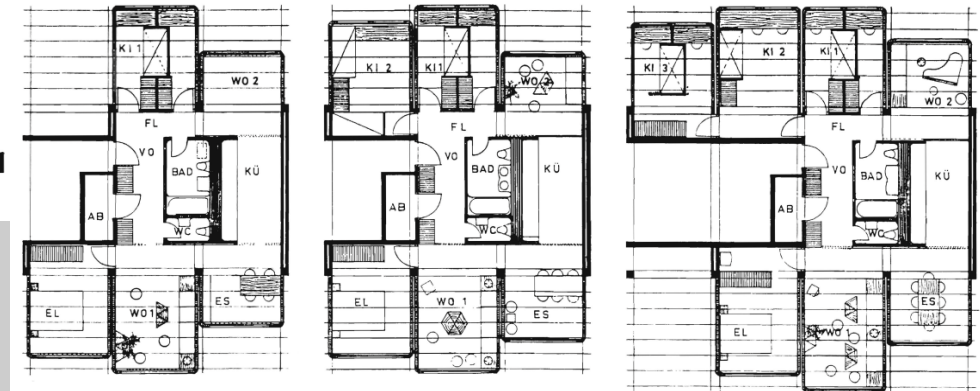
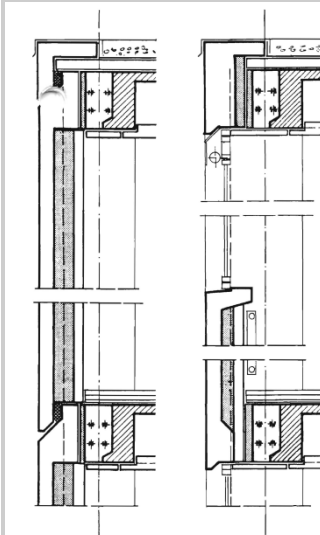
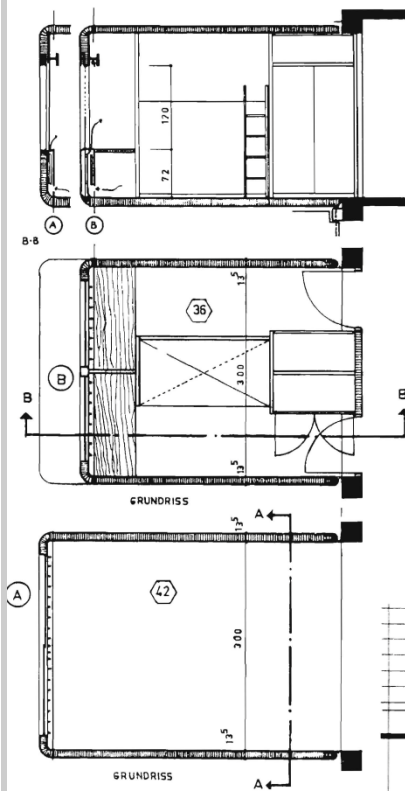


Auflager der Deckenplatten  
auf Winkelplatten.  
Support of the floor panels on L-shaped  
wall panels.

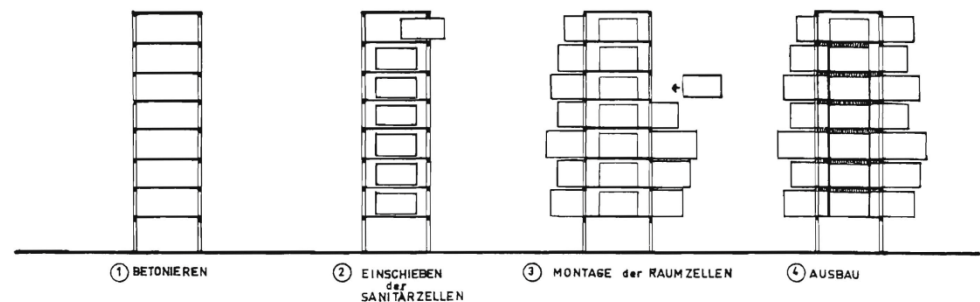




bez	form	gattung	länge	breite	stärke
w1		tragwand	4.80	2.59	0.15
w2			3.90	2.59	0.15
w3			2.40	2.59	0.15
w4			3.75	2.59	
w5			3.45	2.59	
w6			5.10	2.59	0.15
w7		leichtbeton	3.60	2.59	0.10
w8			2.50	2.59	0.10
w9			1.67	2.59	0.10
w10			1.82	2.59	0.10
w11			1.15	2.59	0.15
w12		leichtbeton	3.75	2.59	0.10
w13			0.85	2.59	0.10
u1		unterzug	0.49	2.40	0.15
d1		decken	4.80	3.60	0.16
d2			2.40	3.60	0.16
d3			2.40	3.60	0.16
d4			2.40	3.60	0.16
z1		terrasse	1.20	3.45	0.16
z2			1.80	1.20	
f1		fassadenelemente	3.78	2.75	0.08
f2			3.45	2.75	0.08
f3			0.78	2.57	0.08



KONSTRUKTIONSPRINZIP



# Apartments with 2 living-rooms 1967

Teacher: Schnaidt  
Students: Hess,  
Asano, Marcacci

Source: Ulm 19/20, 1967

# Architectural utopias

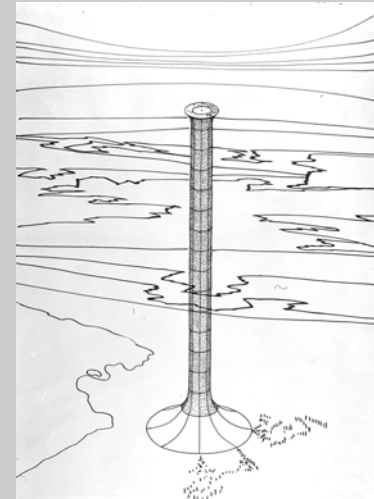
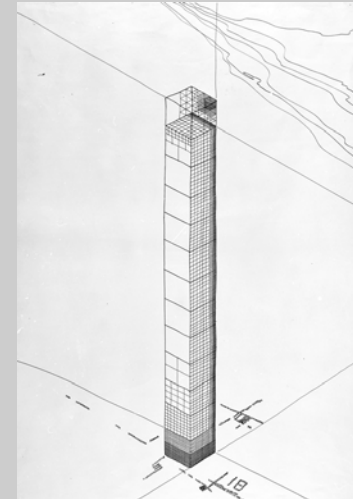
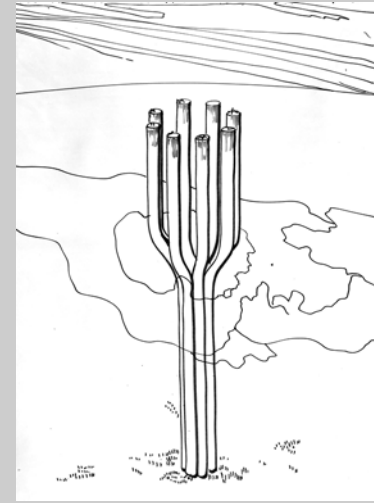
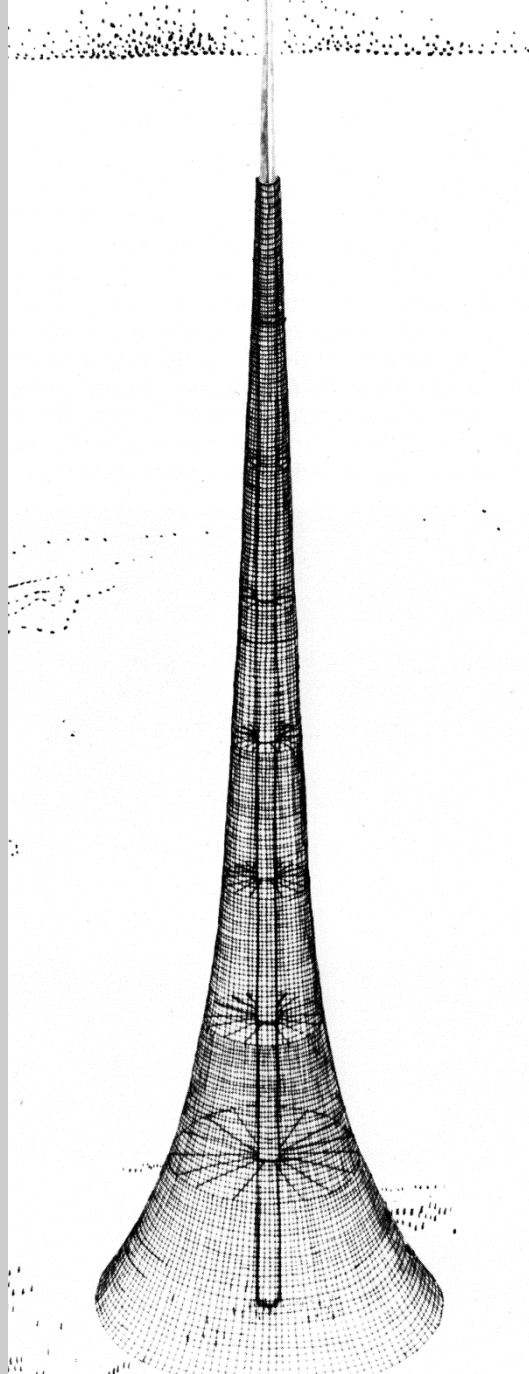
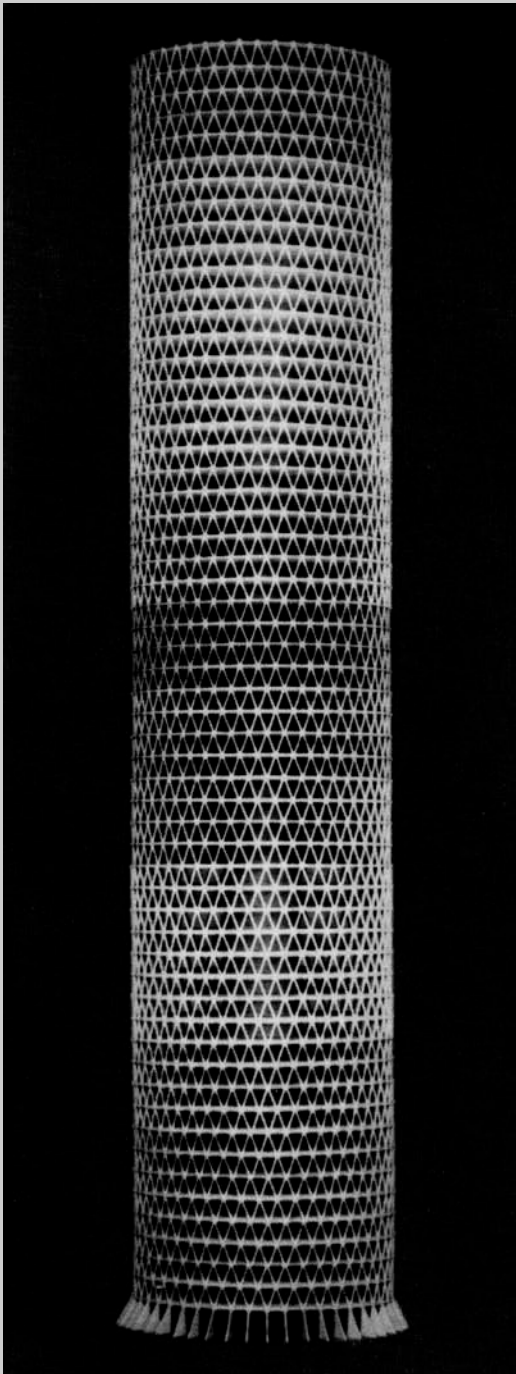
Teacher: Frei-Otto

Students: unknown

1965-66

Source: Left Lindinger 1987, S.211

Below: HFG Archiv

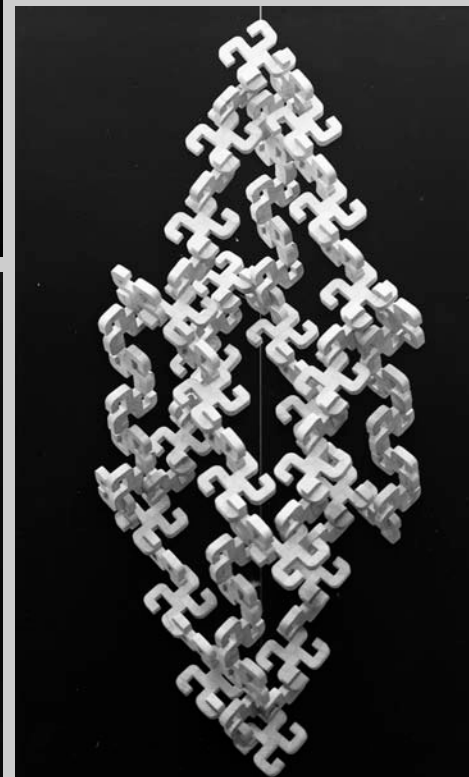
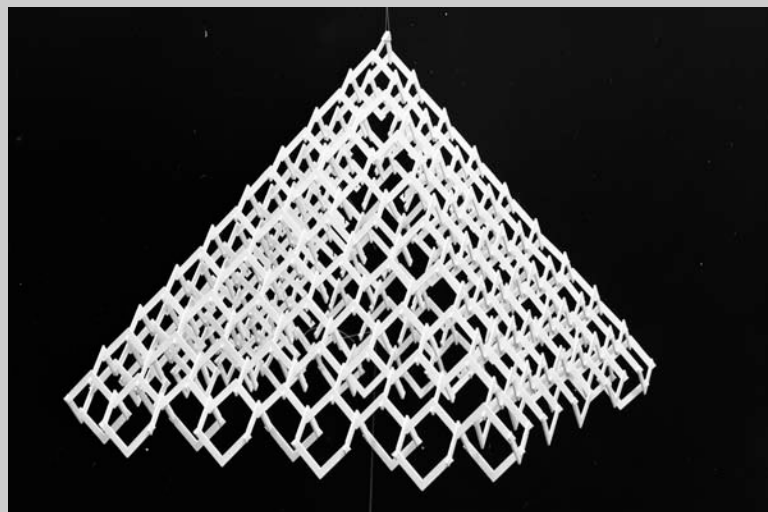
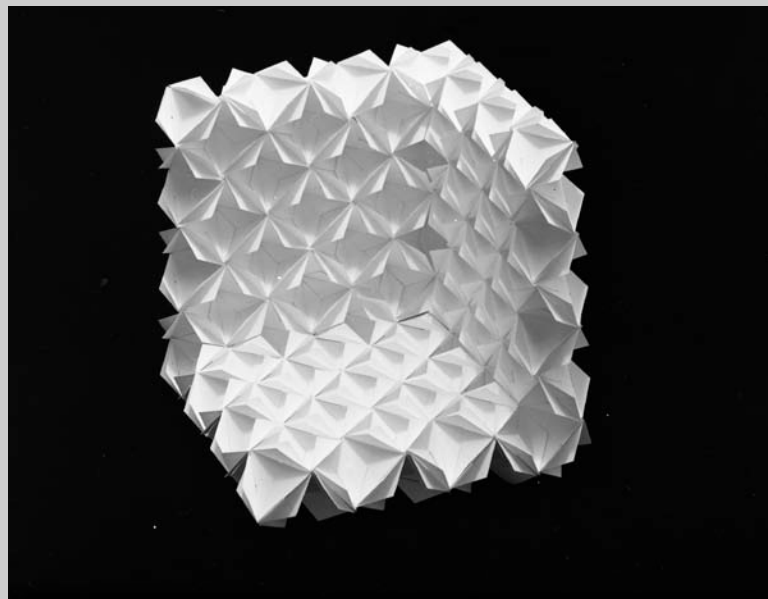


# Room corners with similar elements

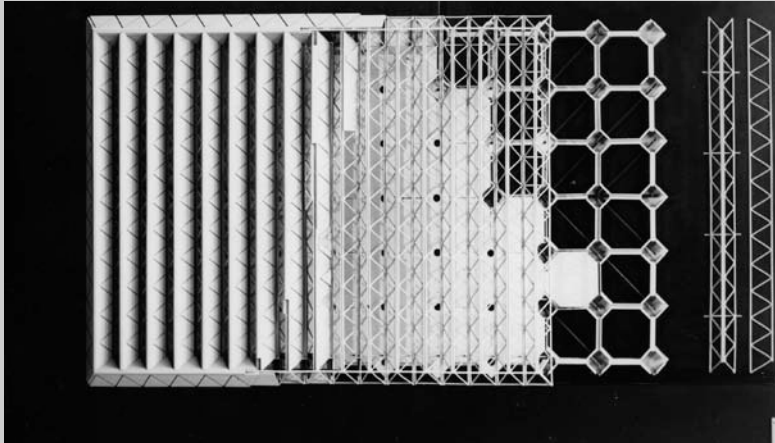
## First Study year 1966/67

**Teacher: Schmitz**  
**Students:**  
**Bachmann, Burri,**  
**Goedhart, Ryffe**

Source: HFG Archiv







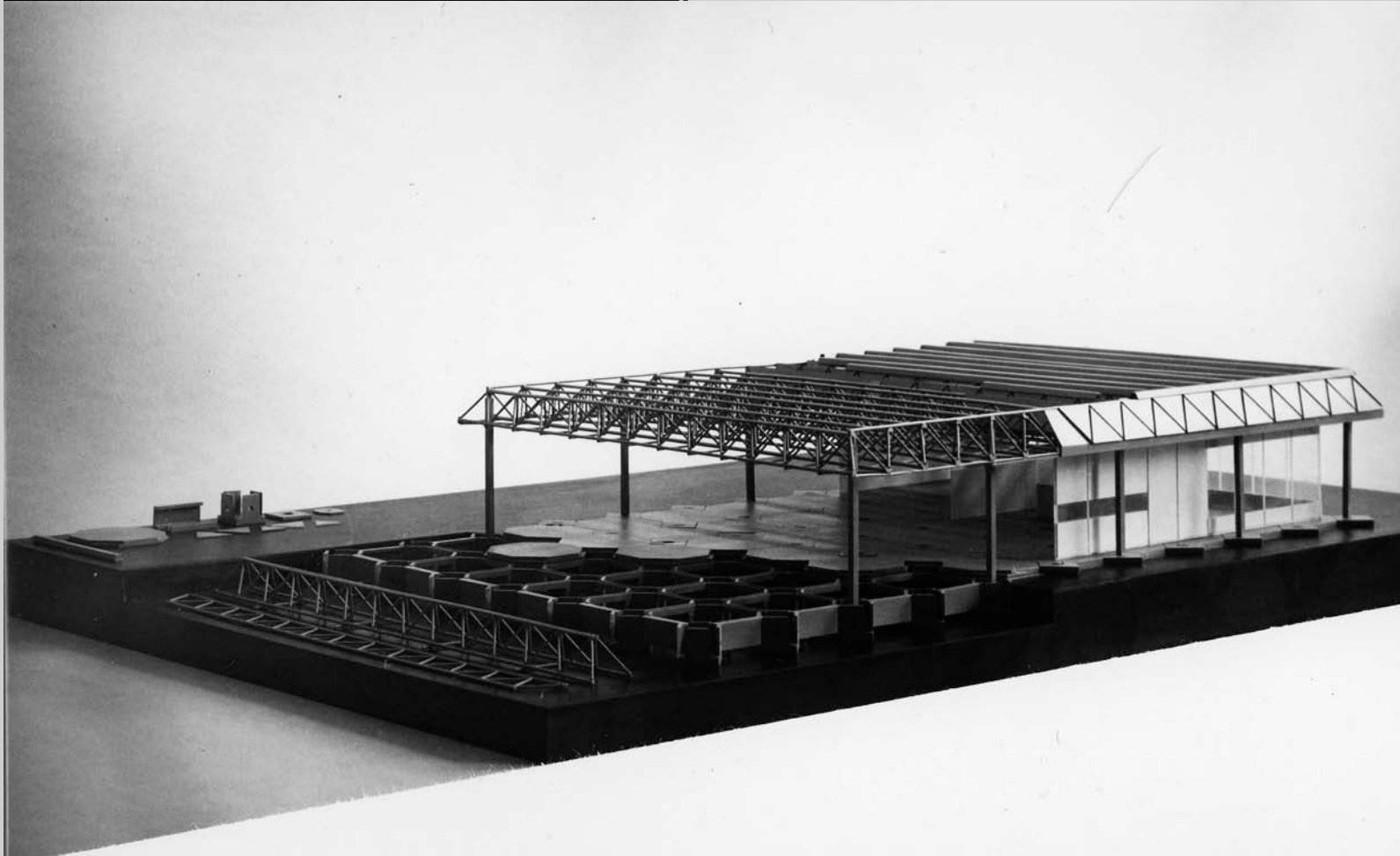
# Adaptable Industrial Building

2. Year 1967/68

Teacher: Wirsing

Student: Goedhart

Source: HFG Archiv



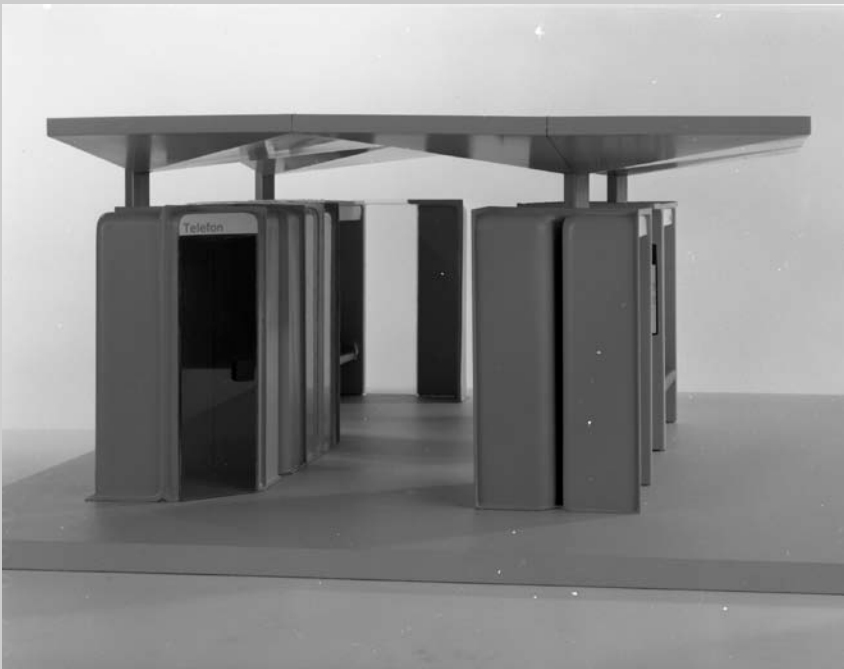
# Bus-stop 1967/68

Teacher: Lindinger/Schnaidt

Students: Gröbli, Ludi, Schärer, Weiss

## 1. Price Rat für Formgebung

Source: HFG Archiv



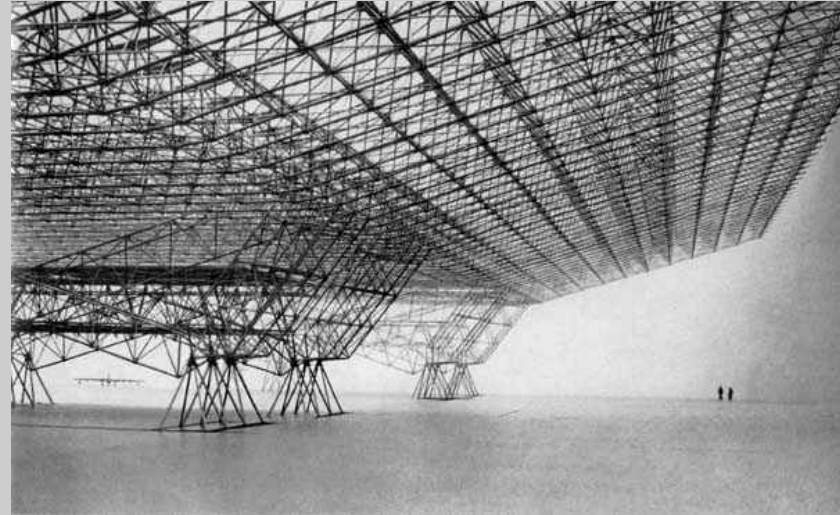
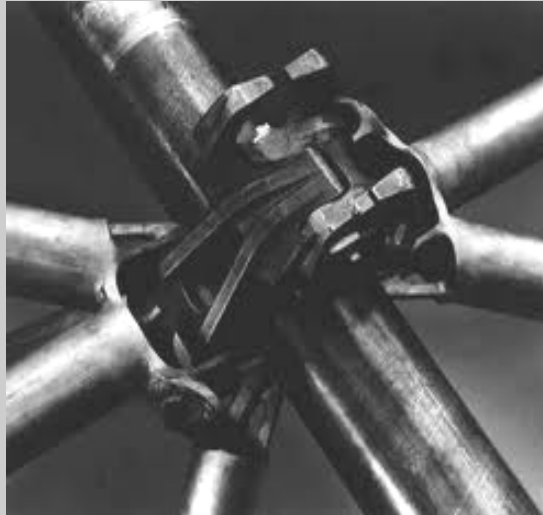
# Categories of diploma-themes

- Office buildings
- Building systems
- Infrastructural buildings
  - Schools, air terminals, stations, hospitals
- Urban planning
  - Touristic planning, village-centers, shopping centers, recreation-facilities etc.
- Housing
- Theory



# The missing of Konrad Wachsmann

With him, the story of the department would have been a different one



Wachsmann was a fascinating teacher and he had a vision about the construction of buildings in the industrial age. The pictures of his basic work *Wendepunkt im Bauen 1959 (turning point in building)* – see above – has fascinated generations of students and architects. He thought in greater dimensions and more fundamental. Wikipedia writes: „*With as few parts he wanted to achieve a wide variety of design possibilities. His life's work could be described as the search for the "universal node".*”

He taught in Ulm from 1954 to 1957 and has left the school in protest against the founding of the “Institute of Industrialized Building”.

# Careers of students

- University professors (many)
- Researchers
- Town planners (in communities and in private offices)
- Architects (many)
- Parliamentarian (one)
- Secretary of a professional association (two)
- Craftsman (back to the roots - few)
- Artist (few)

# The department of building in retrospect

- It was a large department with in total 170 students
- 22% of all students chose this department
- 43 % of all students at the department got the diploma. It was the highest rate of all departments (Curdes, 2001 P. 10-11)
- The program was limited to a small aspect of themes: Construction design
- Goals and programs changed partly with the teachers
- It was a restless department
- We worked like designers in a construction company.
- My personal critic: the missing of a theory. The tasks were pragmatic, too similar and with too little spirit
- Building has to do with space creation. But space was not an issue in Ulm
- That was the reason why many of us turned to theory and urban planning during the study and later

# Critics

Industrialized Building was a direction that was synchronone with the technological development and therefore a legitime topic.

But: How could the school find students who had been trained before in conventional construction? With only low-skilled students this field could not be cultivated, unless you also admitted dilettantism – which partially happened

Probably all these special aspects would have been attractive as an advanced studies-program.

A post-graduate program could have been open only to qualified architects - without the basic training in the ground-course.

Many students of the Building Department later had difficulties with the HfG diploma. It was accepted only like an art school diploma and was not sufficient for the approval by the Chambers of Architects.

For these and other reasons the program oscillated between an (almost normal but insufficient) architectural education and a specialization.

# Summary

I will conclude with the evaluation of my late study-friend Prof. Klaus Pfromm

- *“To me, the building department has been characterized by the paradoxical situation that from the narrowest, moreover even impractical field like industrial building, the broadest range of skills to solve design and planning tasks emerged.*
- *Today we know that some methodological goals have been too high and some methods were still insufficient. At that time, this qualification was a sensation....*
- *While in the Building Department structural solutions for industrial buildings have been searched, the students learned in the system of all the offerings to acquire a comprehensive and very powerful qualification for planning”.*  
Source: Klaus Pfromm in: Curdes – Die Abteilung Bauen an der hfg Ulm, 2001, P. 41
- **And I would add: Because the creative path was blocked, the systematology got such an importance. We learned a “meta-language” of the systematic structuring of problems which we could use in many professional fields.**



# club off ulm – HFG Archive

~ 100 members. Deposit of study work in the HFG Archive



**Opening of the HFG-Archive on  
19.11.2011 in the HFG-Building**

**6.500 Graphics  
350 Models  
30.000 Documents  
11.000 Photos  
6000 Books in the Library**

**Visitors are welcome**





Thank you for your attention