

Programmed for Hope

Chris Dähne
Helge Svenshon
Martin Mäntele
Eds.

Architectural Experimentation at the HfG Ulm Building Department



fig. 2

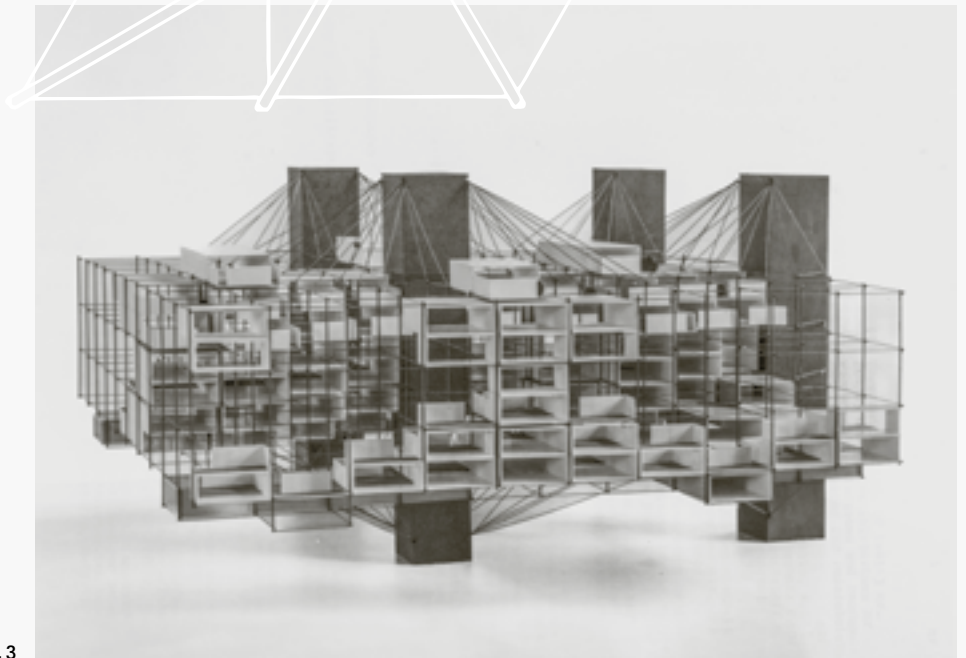


fig. 3

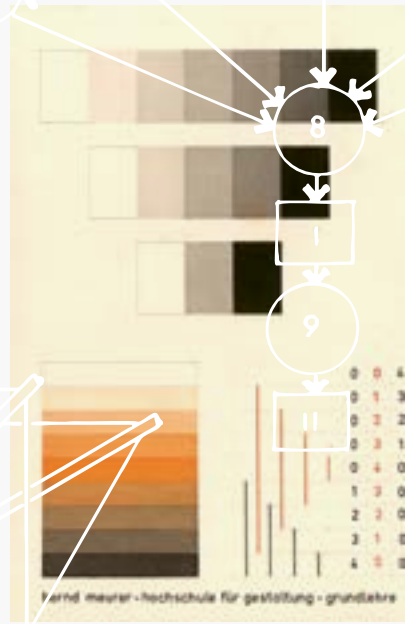
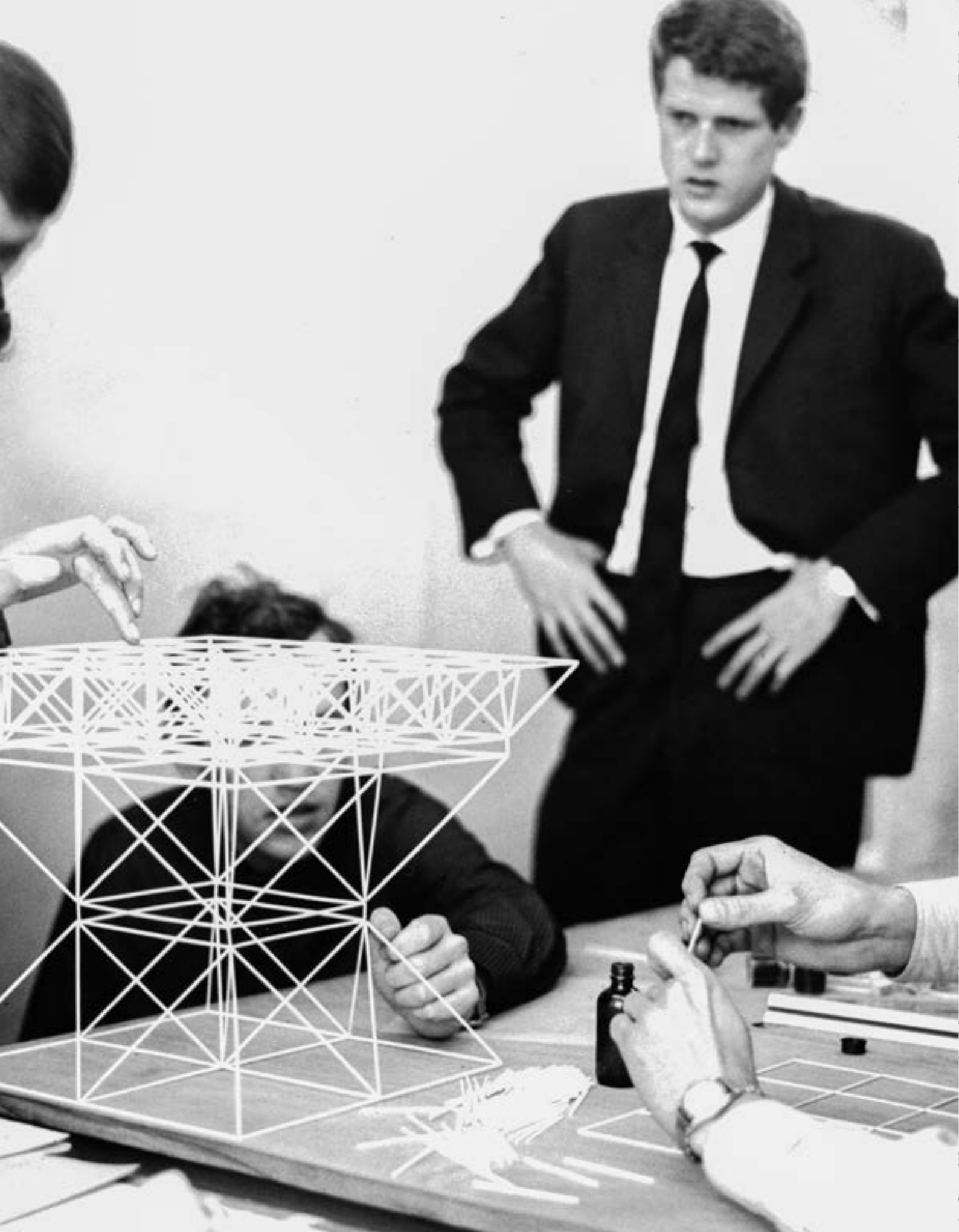
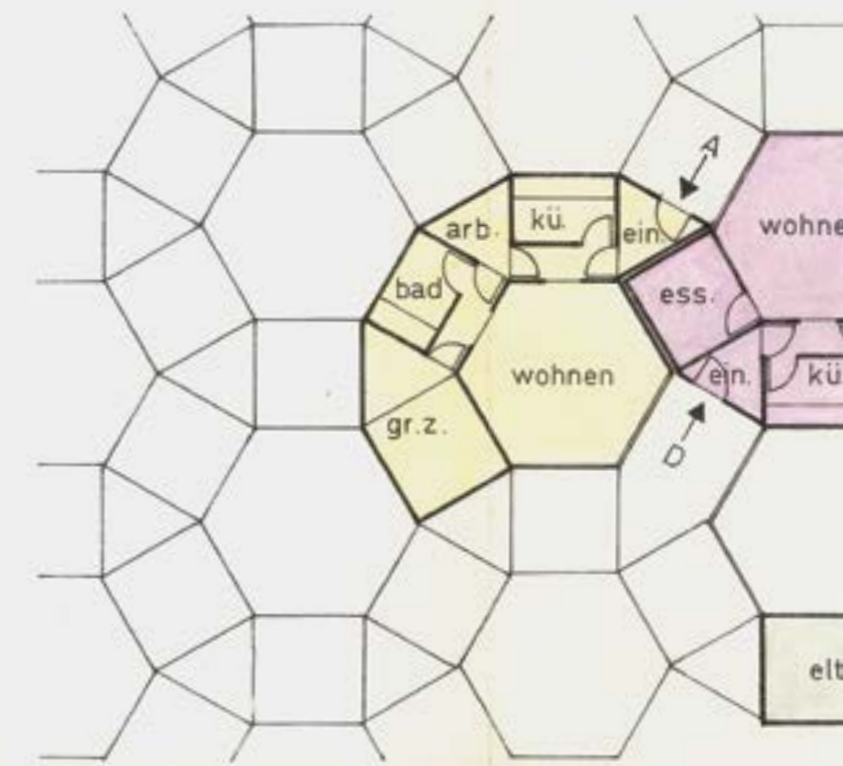
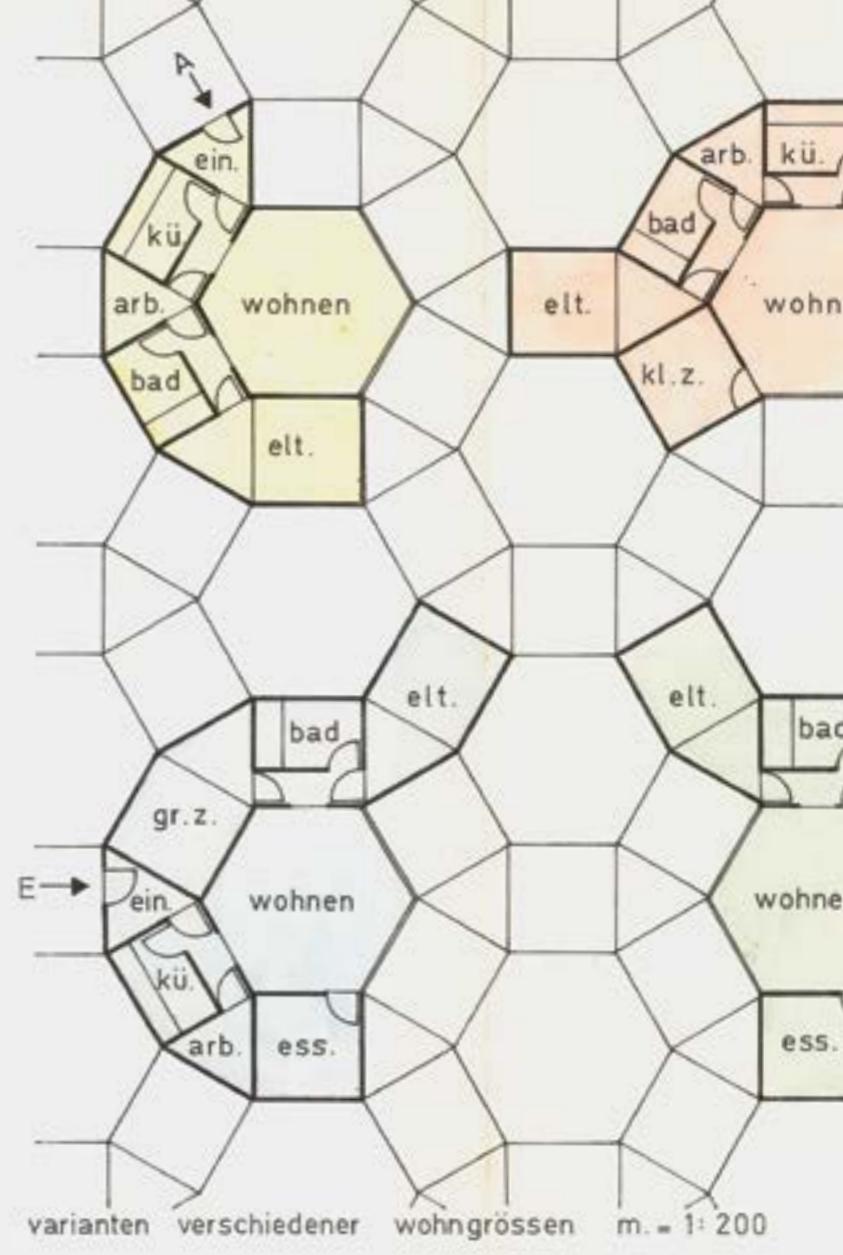


fig. 1



der gestaltung
von standart - grundflächen
:hnaidt
alberer

1:100	bezeichnung	varianten						
		A	B	C	D	E	F	G
	eingang	1	1	1	1	1	1	1
	arbeits- raum	1	1	1	1	1	1	1
	küche	1	1	1	1	1	1	1
	bad,wc	1	1	1	1	1	1	2
	esszimm.				1	1	1	1
	kinderz. à 1bett		1		1		1	
	elternz.	1	1	1	1	1	1	1
	kinderz. à 2bett				1		1	3
	wohnraum	1	1	1	1	1	1	1
	ges. elem.	6	7	7	8	8	9	11



Content

18	Imprint	112	Prefabricated Welfare
22	Acknowledgements		Herbert Ohl's Urban Development System for Saarlouis-Beaumarais
24	Preface		Joaquín Medina Warmburg
31	Chronology	127	Institut de l'Environnement – A Radical Reinterpretation of the Ulm Model
	Architecture and Town Planning – Building – Industrialised Building 1953–68		Rafael Amato, Teresa Häußler
51	Glossary		Architecture Studies at the HfG
	Key Terms in Teaching		
	Essays		
	Perspectives on the Building Department	140	The Enrolment Process HfG Ulm Questionnaires
56	Max Bill – Aspects of Bauhaus Reception in the Early Years of the HfG Ulm	143	Reconstruction of the Curriculum
	Martin Mäntele	144	First-Year From the Foundation Course to Design Projects
66	The Next Experiment	220	Second- and Third-Year Design Projects
	Konrad Wachsmann's Armco Curtain Wall Project alongside Teaching at the HfG Ulm, 1955–57		
	Soetje Beermann	272	Fourth-Year Diploma Theses
75	Rethinking Design		The People
	The Internationalisation and Scientification of Architecture Teaching at the HfG Ulm	306	Lecturers
	Chris Dähne	318	Workshop Lecturers
		321	Students
88	Giuseppe Ciribini at the Crossroads	337	Visual Index
	Post-war Italy, the HfG Ulm, and the Architecture-Building Industrialisation Nexus	368	Picture Credits
	Francesco Maranelli, Pierfrancesco Califano		
99	“Integral – Universal – Industrial”		
	Herbert Ohl's Concepts for Industrialised Building at the HfG Ulm		
	Helge Svenshon		



Assistant Herbert Ohl joins the HfG, where he plays a crucial role (1956–68) in shaping its industrialised building principles. After its closure, he works in Milan for La Rinascente and Fiat, later advancing to prominent roles in design education and technical management in Germany and the USA

Lecturers and supervisors

Alexander Mitscherlich (1956–57)
Hans Günther Sperlich (1956–61)
Herbert Ohl (1956–68)

Heads of workshops

Wolfgang Siol (1956–64)

Influential students

Diego Peverelli (1956–60)
Hermann Edel (1956–60)
Bertus Mulder (1956–58)
Urs Beutler (1956–60)
Frank Geiser (1956–60)
Bernd Meurer (1956–61)

Beginning of the department's reorientation – system construction, industrially produced building components, industrialised building until the HfG Ulm closes.

Institute for Industrialised Building 1957

The shift initiated by Wachsmann is supported by Tomás Maldonado, who, since 1956, serves as chair of the Rectorate. He facilitates the establishment of the Institute for Industrialised Building and provides substantial space to develop an industrial curtain wall project brought over from the United States.

The Bill Crisis



Hans-Günther Sperlich, the Darmstadt-based architecture and art historian, begins his several years teaching at the HfG Ulm

Rectorship

Tomás Maldonado

Otl Aicher
Hans Gugelot
Friedrich Vordemberge-Gildewart

Space exploration

On October 4, 1957, the Soviet Union launched Sputnik 1, the first artificial satellite. This historic achievement marked the start of the space age, sparked scientific interest in space, and intensified the space race between the USSR and the United States.

Head of Department: Max Bill
Department of Architecture and Town Planning

Head of Department: Max Bill
Department of Architecture and Town Planning



Prototype of integral building construction (1957–61), lecturer Herbert Ohl, students Maurice Goldring, Claude Schnaidt, Claus R. Franck, Dominique Gillard, Edgar Decurtins, Gilbert Hirt, Rudolf Winkler, Günther Schmitz, Ruppert Urban, funding Aluminium Rolling Mills Singen, Goldschmidt GmbH Essen, Metzeler AG Munich, Rhenus AG Andernach, Wellit GmbH Düsseldorf, see page 277, fig. 266



Going beyond Bauhaus principles under Maldonado and younger lecturers, with a focus on design tailored to the needs of the industrial age and the promotion of a culture of technology



The architect Frei Otto speaks about *Die kulturelle Aufgabe des Leichtbaus (The Cultural Role of Lightweight Construction)*

Partial adaptation of the Foundation Course to departmental curricula.

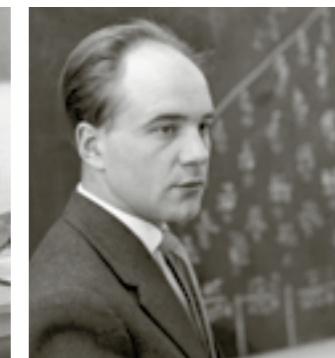
Christian Norberg-Schulz teaches construction methods.

Herbert Ohl – Foundation Course instructor, expert in design and methodology, initiator of research on the Industrialised Building project.

Anthony Frøshaug introduced innovative design and analysis methods through the use of circulation diagrams.



Strengthening the social sciences with the appointment of the sociologists Hanno Kesting (left) and Lucius Burckhardt (right)



Appointment of mathematician Horst Rittel, who implements a radical scientific approach to design and planning processes



British typographer Anthony Frøshaug arrives in Ulm



Max Bill departs from the HfG following disagreements with younger faculty members over the school's future direction

Lecturers and supervisors

Bruce Martin (1957–59)
 Hanno Kesting (1957–60)
 Anthony Frøshaug (1957–60)
 Matthew Wallis (1957–59)
 Horst Rittel (1957–63)
 Joseph Ryckwert (1957–58)
 Giulio Pizzetti (1957–60)
 Christian Norberg-Schulz (1957–58)

Influential students

Günther Schmitz (1957–61)
 Rupert Urban (1957–61)
 Roland Lindner (1957–62)

Head of Department: Herbert Ohl
 Department of Building

Department of Building 1958

Following the departure of Bill and Wachsmann, Herbert Ohl takes over as head of the department. With system-building projects such as the Integral Building Construction, he continues down the path set by Wachsmann. In this context, the name is changed from Architecture and Town Planning to Building Department, reflecting its new focus on construction processes.

Reform of the curriculum

Rectorship

Tomás Maldonado

Otl Aicher
 Hanno Kesting



Founding and publication of the first *Ulm Journal of the HfG*. The editor was Dr. Hanno Kesting, October 1958. Fourteen issues of the *Ulm* journal were published between October 1958 and April 1968



Richard Buckminster Fuller speaks about *Industrialisiertes Bauen (Industrialised Building)*

Nuclear energy

The Atomium, unveiled at the 1958 Brussels World Expo, symbolises the atomic age and scientific progress. Standing 102 meters tall, its nine spheres represent an iron crystal magnified 165 billion times, celebrating nuclear science's transformative impact on the world.

Head of Department: Herbert Ohl
 Building Department

Lecturers and supervisors

Christian Staub (1958–63)
 Lucius Burckhardt (1958–59)
 Frei Otto (1958–60)
 Guiseppe Ciribini (1958–60)
 Richard Buckminster Fuller (1958–59)

Influential students

Winfried Wurm (1958–62)
 Hubert Matecki (1958–62)
 Willi Ramstein (1958–62)
 Leonhard Fünfschilling (1958–63)
 Marcel Herbst (1958–64)
 Karl Berthold (1958–63)

Head of Department: Herbert Ohl
 Building Department



With architects Bruce Martin (pictured), Giuseppe Ciribini and Matthew Wallis, the experience of industrialised construction increased international and interdisciplinary exchange

1959

Invitation to São Paulo for the Congress *The New City – A Synthesis of Arts*

New aesthetics

Miles Davis' "Kind of Blue" revolutionised jazz with the birth of modal jazz. Shifting from bebop's complexity to soulful simplicity, its innovative approach inspired countless artists and cemented its status as a timeless masterpiece and cornerstone of modern music.

Reform of the curriculum by Maldonado, introducing scientific disciplines such as methodology, philosophy of science, topology, semiotics, etc.

Diploma thesis and successful competition entry achievement, Max Graf "Oberstufenschulhaus Pestalozzidorf", Trogen, Switzerland, 1958–60, lecturer Max Bill see page 273, fig. 256–257

25 April, Charles Eames again visited the HfG. He presented three of his film experiments, which had received various awards.



The Canteen Exhibition showcased the new model of design education in Ulm

Rectorship

Tomás Maldonado

Herbert Ohl
 Horst Rittel

On 14 March, the philosopher Martin Heidegger and the architectural theorist and critic Reyner Banham visit the HfG.

Frei Otto lectures on *Sinn und Aufgabe des Leichtbaus. Bericht über die Entwicklung von Bauten mit vorgespannten Membranen (The Meaning and Purpose of Lightweight Construction. Report on the Development of Buildings with Tensioned Membranes)* and *Die allgemeine Aufgabenstellung des Bauens in unserer heutigen Zeit. Die Probleme des anpassungsfähigen Bauens (The General Challenges of Building in Our Time. The Problems of Adaptive Building)*.

Colour

Students were required to study the systematic order of colours in the chromatic spectrum. Using the dimensions of sound, light, and saturation, colour distribution was presented with respect to systems such as the Ostwald Primer, the Munsell colour system, and Paul Klee's theories. The aim was to precisely analyse and order colours.

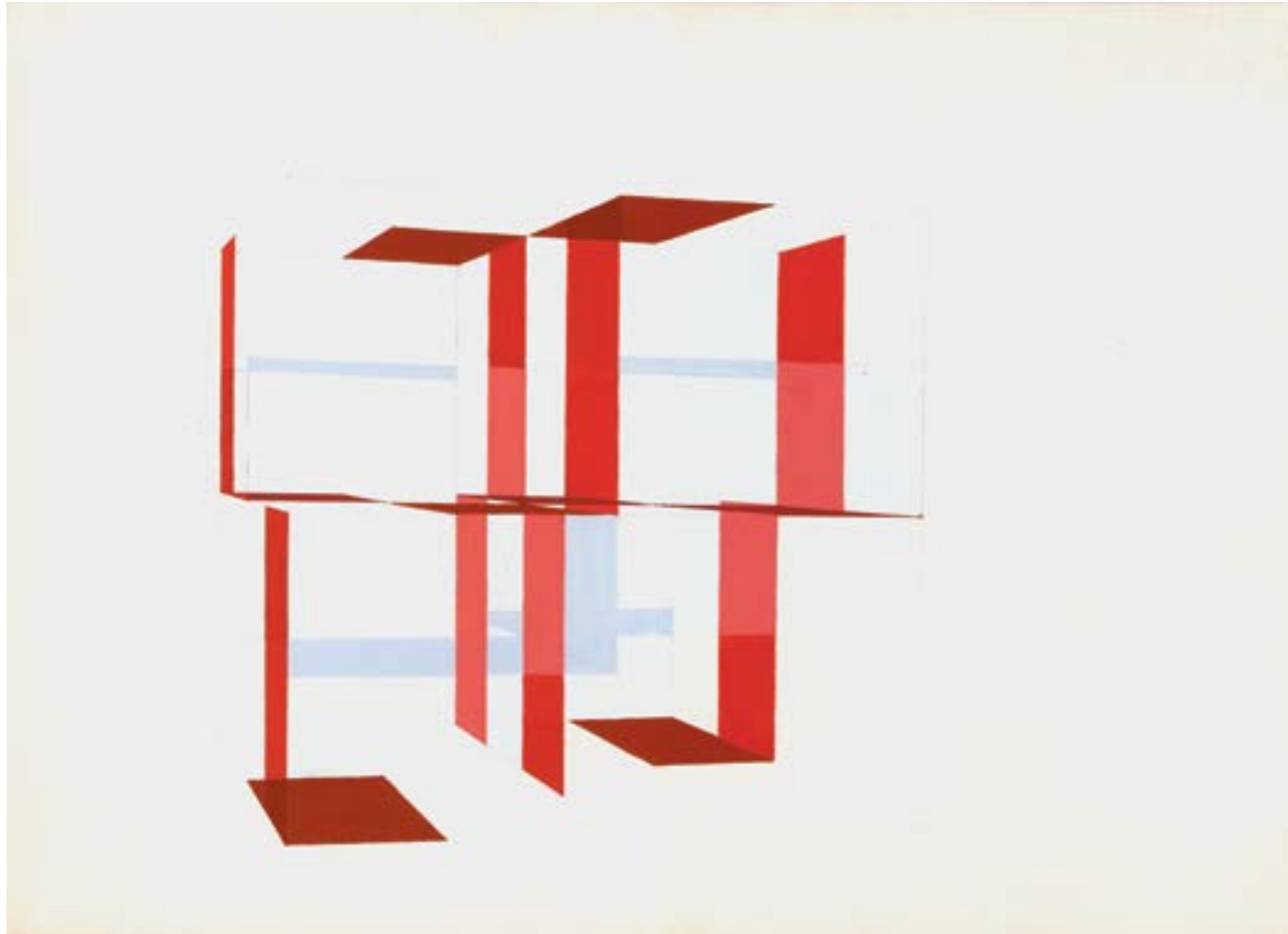


fig. 1 Spatial geometric studies (colour surfaces),
lecturer Max Bill, student Max Graf, 1955–56 (31.8.55)

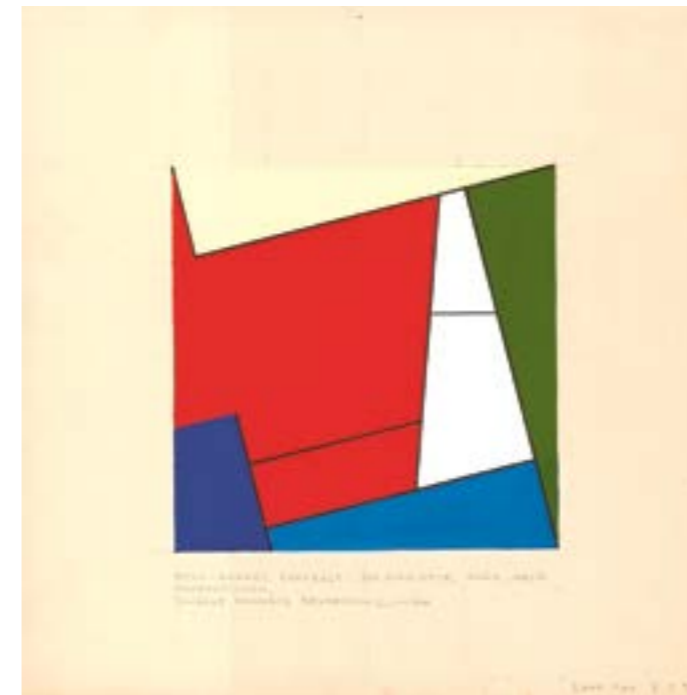


fig. 2 Light-dark contrast: red, blue yellow, green, white, proportions,
diagonal, black boundary lines, lecturer Johannes Itten, student Max Graf,
1955–56 (7.5.55), 25.5 × 25.5 cm

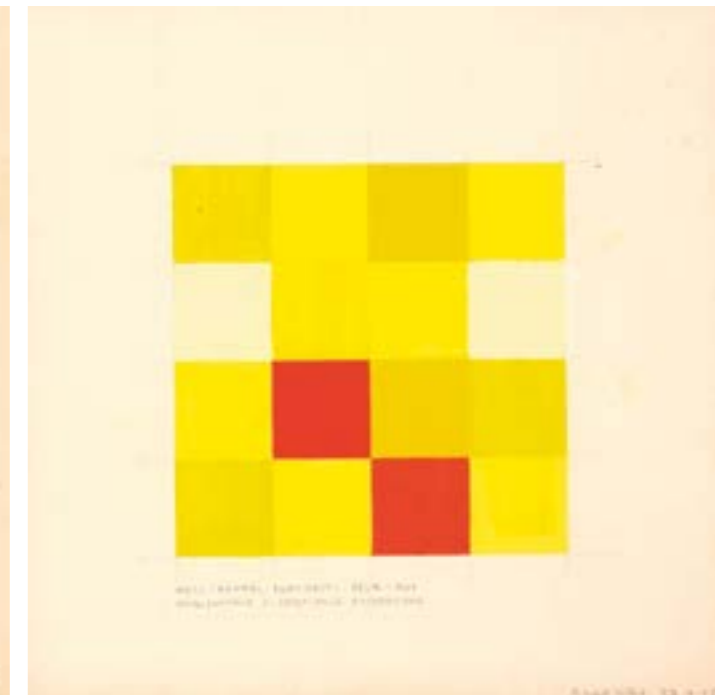


fig. 3 Light-dark contrast: yellow-red, horizontal and vertical expansion,
lecturer Johannes Itten, student Max Graf, 1955–56 (27.4.55), 25.4 × 25.5 cm

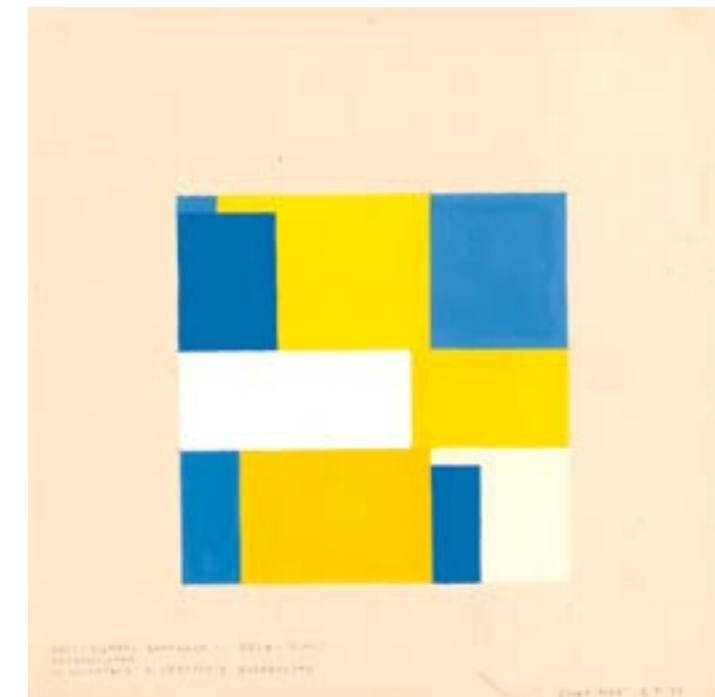


fig. 4 Light-dark contrast: yellow-blue, proportions, horizontal and
vertical expansion, lecturer Johannes Itten, student Max Graf, 1955–56
(5.5.55), 25.4 × 25.5 cm

Presentation of elementary
and mixed grids

Three elementary grids were developed into up to six mixed forms. Their qualities, such as the distances between points, lines, and surfaces were graphically and numerically analysed. On that basis, students designed stable grid structures, including grid panels, as well as load-bearing structures such as towers and mobile bridges. Drawings and models illustrated the capacity and flexibility of elements made of metal, wood, and plastic.

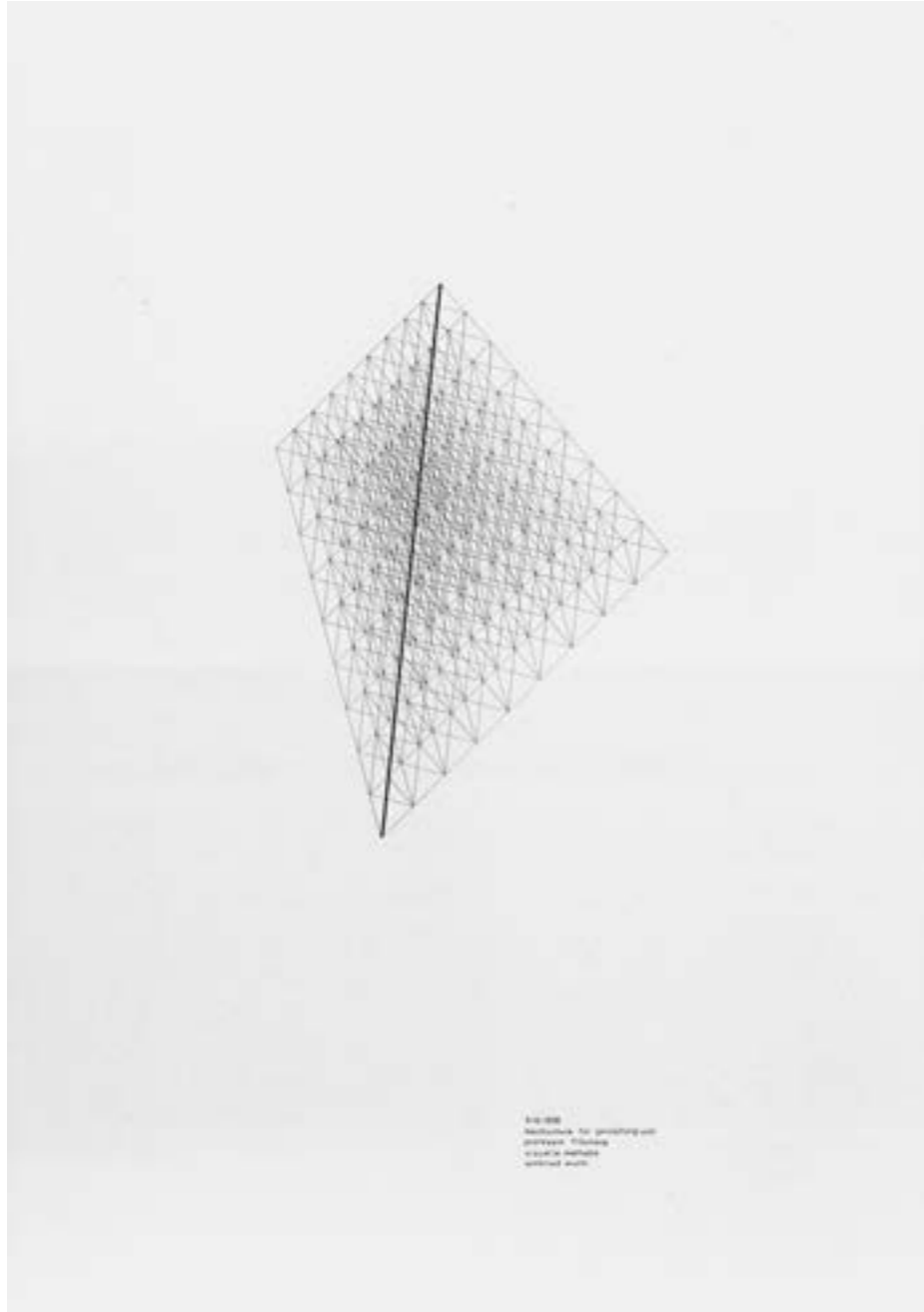


fig. 26

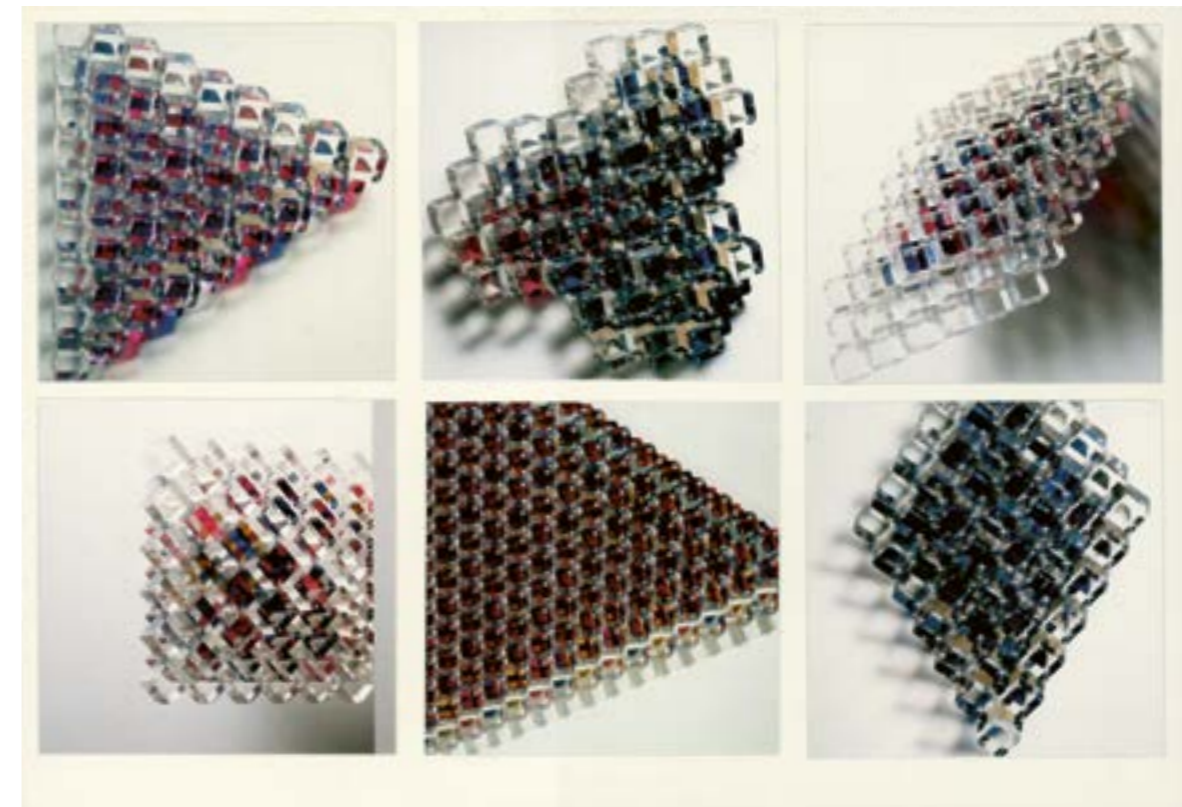


fig. 27



fig. 26-28 Visual methodology, lecturer Anthony Frøshaug,
student Winfried Wurm, 1958-59 (9.10.58),
drawing 59.5 x 42 cm, photos 29.7 x 21 cm (sheet),
model 6 x 6 x 6 cm

Connecting 2 grid systems

Two grid levels were connected using branches, whereby individual points of one grid were connected to group nodes of another. The aim was to guarantee a homogeneous, kink-free force line. The connecting elements had to be stable and withstand all burdens between the grid levels. The model's structural elements could be produced using any materials, material forms, and production methods.

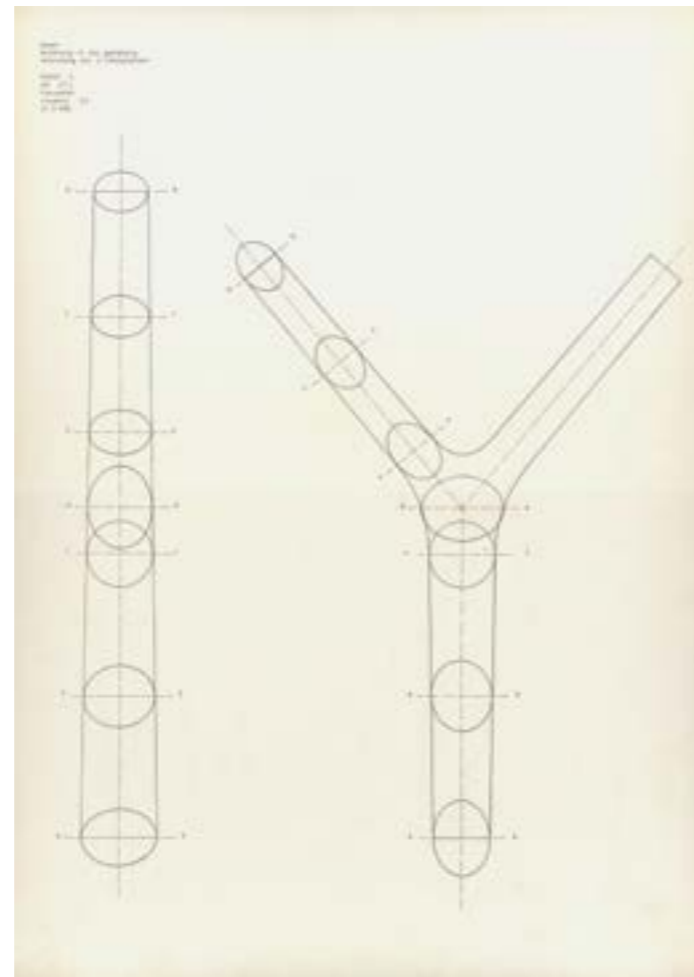


fig. 66

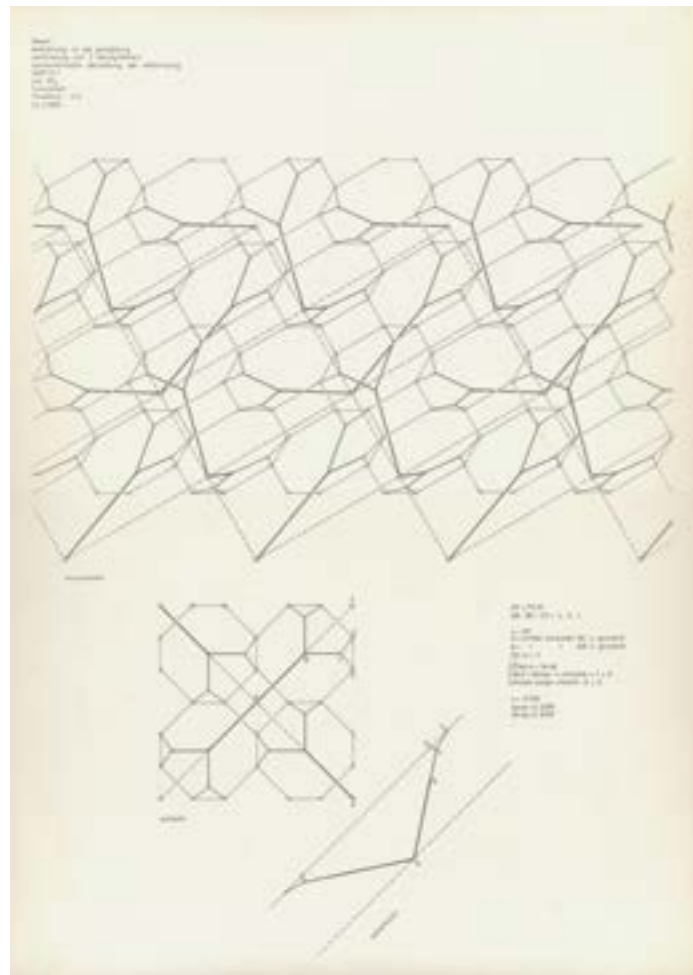


fig. 65 Connection of 2 grid systems, sheet 1, lecturer Herbert Ohl, student Isao Fukuwatari, 1962-63 (22.3.63), 62.3 x 44 cm



fig. 66-67 Connection of 2 grid systems, sheet 2, lecturer Herbert Ohl, student Isao Fukuwatari, 1962-63 (22.3.63), drawing 62.2 x 44 cm, photo 20 x 25.5 cm



fig. 68 Design of a lattice structure as a bridge, lecturer N.N., student N.N., 1963-64 (?), 70 x 18 x 20 cm



fig. 69 Design of a lattice structure as a bridge, lecturer N.N., student N.N., 1963-64, 74 x 34 x 21 cm



fig. 118 Large module for curved surface continuum,
lecturer Herbert Ohl, student Heinrich Bachmann,
68.5 × 53.5 × 7.7 (max. 9.5) cm



fig. 119 Modular, industrial, and ergonomic values
of curved surface structures, lecturer Herbert Ohl,
student Kurt Christen, 10 × 19 × 19 cm



fig. 120 Self-supporting modular elements, lecturer N.N.,
student N.N., 1967–68, 60 × 60 × max. 12 cm



fig. 175



fig. 176



fig. 177 Residential buildings with adaptable use, lecturer Peter Sulzer, students Rolf Berner, Mario Forné, Georg Furler, Hans Peter Goeggel, Paul Liner, Christian Ulrich Merten, Isa Maria Moreira da Cunha, 1964–65, photography 8 × 8 cm, photomontage 14,8 × 21 cm, model 45 × 90 × 45,5 cm

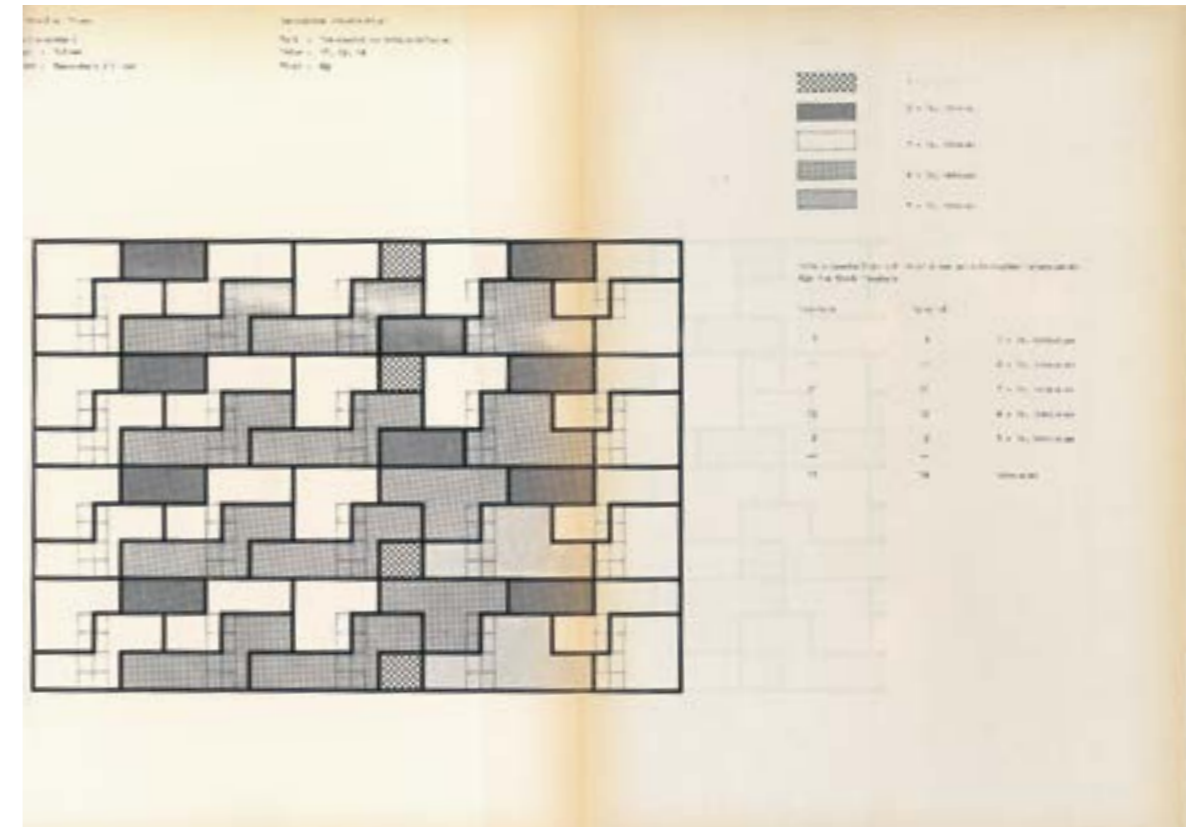
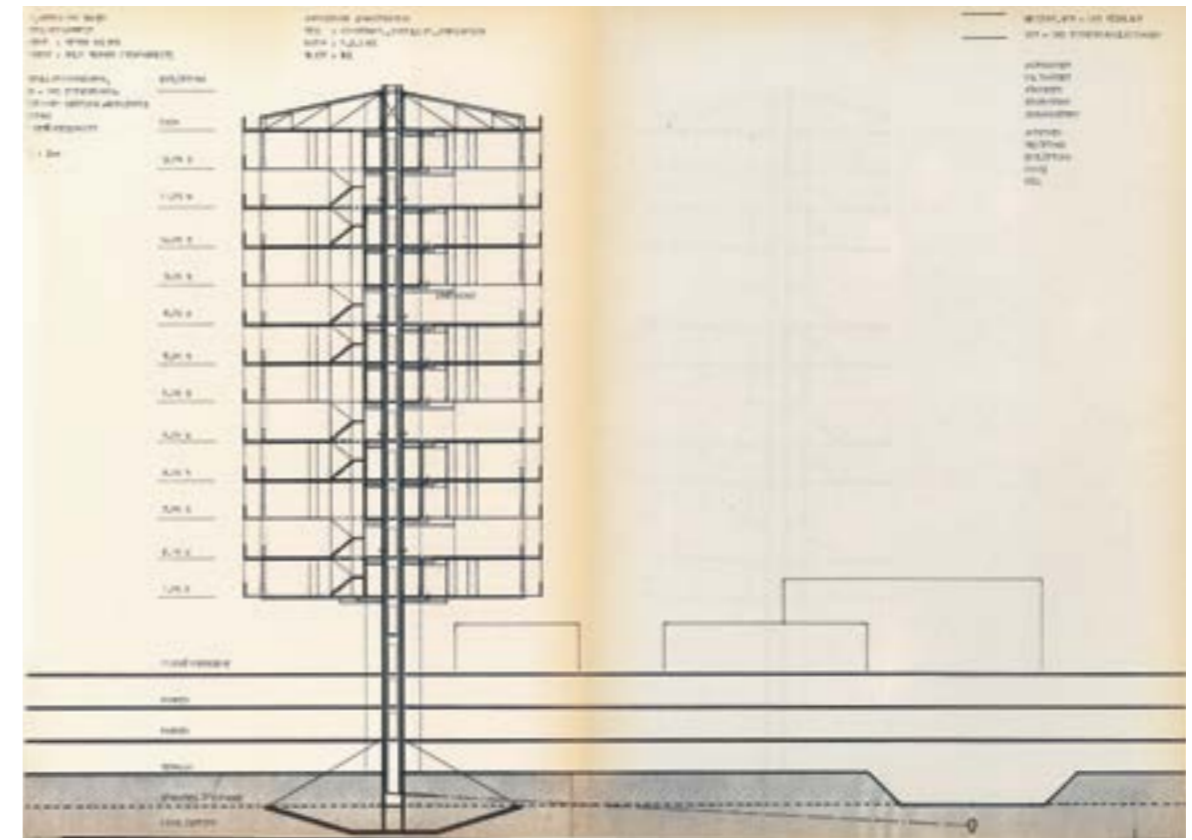


fig. 178–179 Residential buildings with adaptable use, installation diagram / section, scale 1:200, documentation of residential planning, lecturer Peter Sulzer, students Rolf Berner, Mario Forné, Georg Furler, Hans Peter Goeggel, Paul Liner, Christian Ulrich Merten, Isa Maria Moreira da Cunha, 1964–65, 29,7 × 42 cm (each)

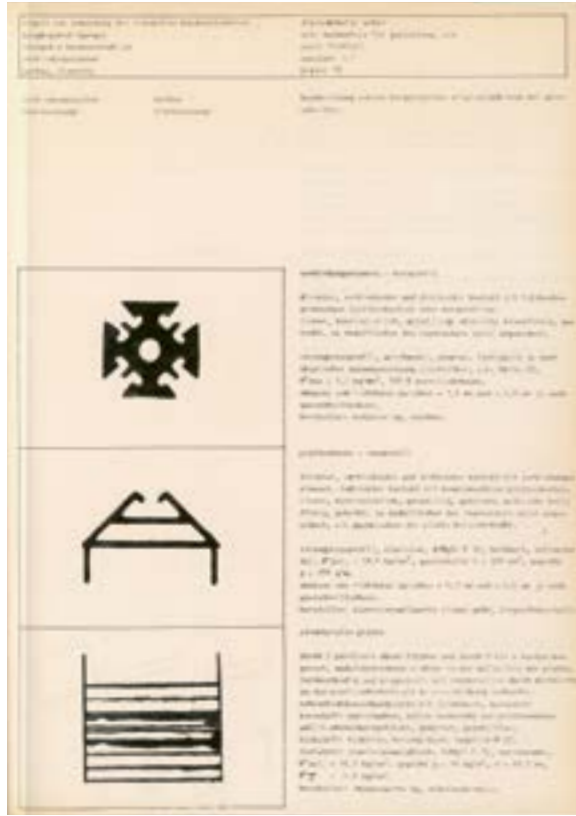


fig. 273



The staff of the Institute for Industrialised Building, Bernd Meurer, Günther Schmitz, and Rupert Urban, working on the model, 1960

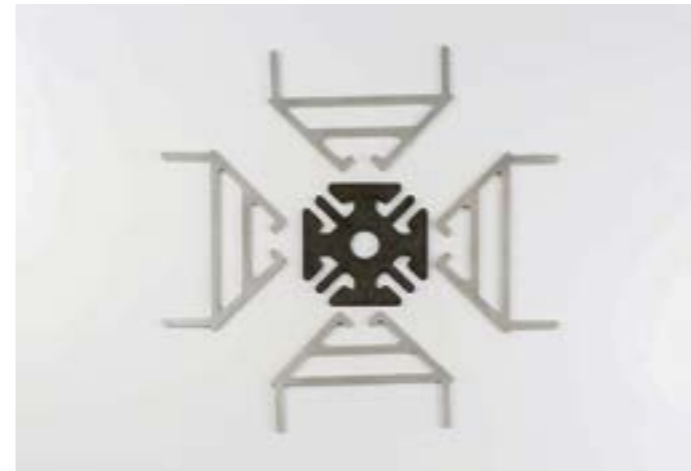


fig. 276 Rules for the application of integral building construction, profile, lecturer Herbert Ohl, student Rupert Urban, 1962, diploma thesis, aluminium element $18 \times 24.5 \times 0.6$ cm, neoprene element $16 \times 16.5 \times 0.8$ cm



fig. 277 Rules for the application of integral building construction, profile, lecturer Herbert Ohl, student Rupert Urban, 1962, diploma thesis, 5×5 cm \times length

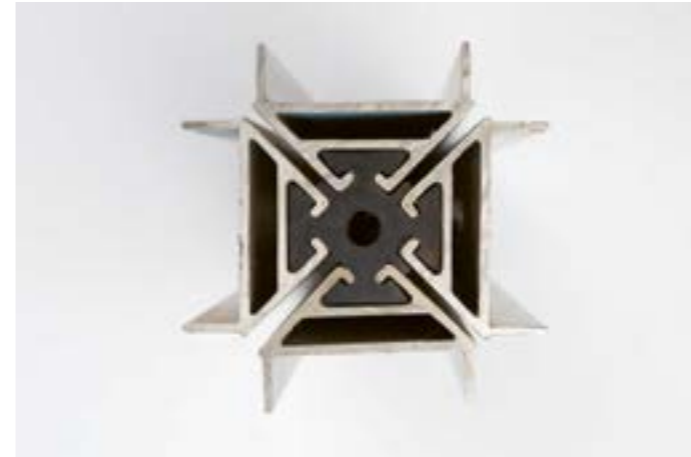


fig. 278-279 Rules for the application of integral building construction, profile, lecturer Herbert Ohl, student Rupert Urban, 1962, diploma thesis, $8.2 \times 8.2 \times 20$ cm



fig. 279



fig. 273-275 Rules for the application of integral building construction, structural connection system, assembly, elements scale 1:1, assembly, cross-section scale 5:1, room corner, isometry scale 1:1, lecturer Herbert Ohl, student Rupert Urban, 1961, diploma thesis, 29.2×20.8 cm (each)

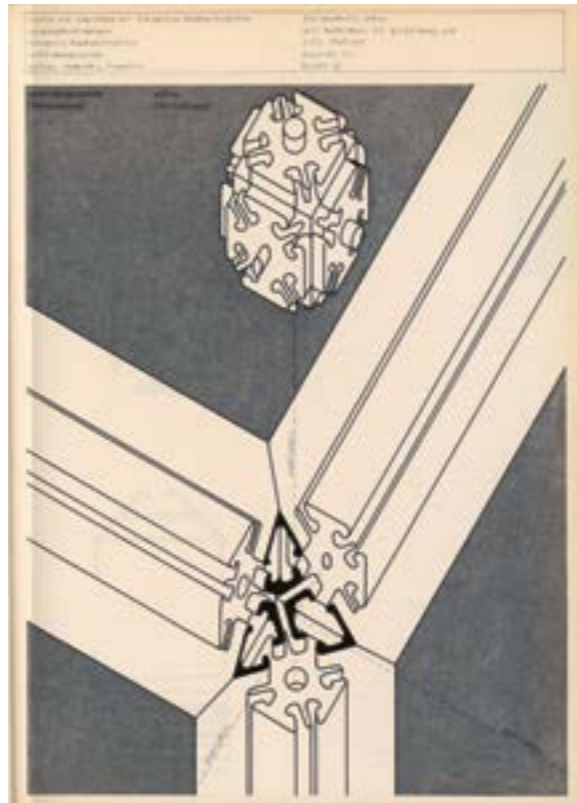


fig. 280-281 Rules for the application of integral building construction, profile, lecturer Herbert Ohl, student Rupert Urban, 1962, diploma thesis, $5 \times 5 \times 5$ cm



fig. 281

Some of the most renowned architects, designers, scientists, and theorists of their day taught at the HfG Ulm. In the field of architecture in particular, the lecturers combined technical expertise with design innovation and academic reflection. Students benefited from an exceptional breadth of knowledge, ranging from construction technology and design methodology to urban and societal issues. This interdisciplinary network transformed the HfG into a laboratory for experimental architectural concepts and created a pioneering learning environment.

For this publication, we have selected 76 lecturers and guest speakers who significantly shaped teaching in the Building Department. Between 1953 and 1968, 150 students from Germany and abroad enrolled in the architecture programme at the HfG, all of whom are presented here in brief profiles. About half of them completed their studies with a diploma thesis and subsequently worked in the fields of architecture and urban planning. Twenty-seven graduates later held professorial or teaching positions at universities.

Adorno, Theodor W.



1903–1969
Philosopher, Sociologist and Composer
Germany

In contact with Inge Aicher-Scholl, Theodor W. Adorno arranged for the sociologists Ludwig von Friedburg and Helge Pross as well as the economist Wilhelm Bierfelder, to hold seminars at the HfG during the 1955–56 academic year. Adorno is indisputably a key figure of the Frankfurt School, alongside Max Horkheimer. He emigrated during the Third Reich to the United States in 1938 and worked at the Institute for Social Research. Upon returning to Germany, he became director of the re-established institute and professor of philosophy.

Archer, L. Bruce



1922–2005
Mechanical Engineer and Professor of Design Research, England
Teaching in Ulm: departmental work in Product Design, seminar on Design Analysis and Critique, 1960–61

After his guest year at the HfG, Archer spearheaded a study at the Royal College of Art in London on the function and design of hospital equipment, including a standardised hospital bed. He was later appointed to a specially created chair in Design Research at the Royal College.

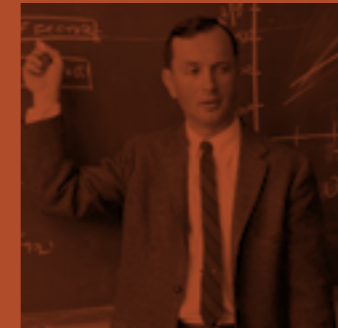
Albers, Josef



1889–1976
Painter and Art Educator, Germany / USA
Teaching in Ulm: Foundation Course, 1953–55

After training as an elementary school teacher, Josef Albers studied and taught at the Bauhaus. In 1933, he emigrated to the United States, where he taught at Black Mountain College and later at Yale University. At the HfG, he taught the fundamentals of design to the first two cohorts in a multi-week basic course.

Bahrnick, Harry P.



born 1924
Psychologist, USA
Teaching in Ulm: Ergonomics (Human Engineering), 1959–60

Harry P. Bahrnick immigrated to the USA with his parents in 1940. He studied and taught at Ohio Wesleyan University into old age. He spent a year at the HfG with his family as part of a Fulbright scholarship.

Alsleben, Kurd



1928–2019
Artist and Lecturer, Germany
Teaching in Ulm: Structural Theory, Methodology, and Mathematical Techniques, 1964–68

Alsleben and Schnelle developed *Bürolandschaften* / office landscapes starting in 1956, which later evolved into modern open-plan offices. His interest in cybernetics connected him with Abraham Moles and Helmar Frank, who also taught at the HfG. He was a university lecturer and independent artist who wholeheartedly championed digital art.

Banham, Reyner



1922–1988
Architecture Critic, England
Teaching in Ulm: 1958–59 and 1964–65

Banham studied with figures such as Sigfried Giedion and Nikolaus Pevsner. As a professor, he taught in London, New York, and Santa Cruz. At the HfG, lectured on *The Dwelling Machine. Myth or Swindle?* and on topics such as the democratization of taste and the influence of mechanical devices on modern architecture.

Baravalle von Brackenburg, Hermann



1898–1973
Lecturer, Mathematician, Physicist, and Astronomer, Austria / USA
Teaching in Ulm: Constructive Geometry, 1954–60, 1967–68

Baravalle was a pioneer of Waldorf education. From 1935–1937, he directed the Mathematical-Astronomical Section at the Goetheanum in Dornach. Afterward, he primarily lived and worked in the USA but often returned to Europe. His visits to the Ulm Waldorf School provided an opportunity to also teach at the HfG.

Bense, Max



1910–1990
Philosopher, Germany
Teaching in Ulm: established and led the Department of Information and the interdisciplinary “Cultural Integration” programme from 1954–1958. He also taught Literary History and Criticism from 1964–1966.

From 1949, Bense was Professor of the Philosophy of Technology, Theory of Science, and Mathematical Logic at the Technische Universität Stuttgart, where he taught until 1976. Influenced by cybernetics and computer art, he sought to develop an information-theoretical foundation for aesthetics.

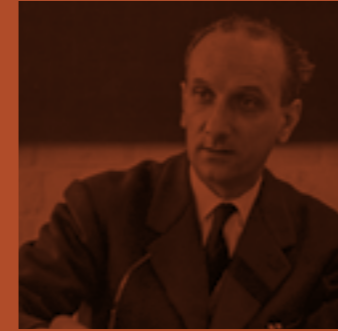
Bill, Max



1908–1994
Artist, Graphic Designer, Sculptor, and Architect, Switzerland
Founding Rector and first head of the Department of Architecture from 1950–1957; architect of the HfG buildings

After training as a silversmith, Max Bill studied at the Bauhaus in Dessau from 1927–28. Between 1932 and 1937, he was part of the Abstraction-Création art movement in Paris, during which he established his concept of „concrete art,” for which he became a leading figure. Thanks to his efforts, the HfG established its Department of Architecture and Town Planning.

Ciribini, Giuseppe



1913–1990
Engineer and Architect, Italy
Teaching in Ulm: Industrialised Construction, Building Design, and Rationalisation, 1958–60

From 1955, Giuseppe Ciribini was the director of the Housing Research Centre in Milan. He taught at both the Politecnico di Milano and Politecnico di Torino. Ciribini's research focused on the standardisation of construction, modular coordination, and broader issues of the built environment.

Czajka, Władysław



born 1898
Engineer and Architect, Poland
Teaching in Ulm: Economics of Construction, 1963–67

After completing his studies and spending several years as a construction manager, Czajka began his academic career in 1949 at Poland's Institute for Housing Research, where he served as deputy director.

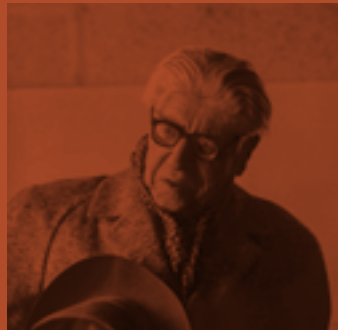
Dietz, Albert



1907–1998
Civil Engineer, USA
Seminars in Ulm: Industrialised housing construction, application of electronic computing devices for complex planning, use of structural plastics, composite building materials, 1961–62

Albert Dietz was a professor at the Massachusetts Institute of Technology (MIT) in the Departments of Architecture and Civil and Environmental Engineering. His work on plastic-impregnated pressed wood was the driving force behind the establishment of the Plastics Laboratory at MIT.

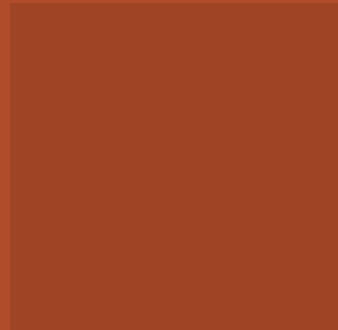
Bloch, Ernst



1885–1977
Philosopher, Germany
Teaching in Ulm: Wednesday seminar, 1962–63 (did not take place)

Ernst Bloch lived in Berlin, southern Germany, Switzerland, and Prague before going into exile in the United States in 1939. He wrote his seminal work, *The Principle of Hope*, there. In 1948, he relocated to the German Democratic Republic and moved to the Federal Republic of Germany in 1961.

Bogusz, Jerzy



Architect, Poland
Teaching in Ulm: departmental work in Construction, 1964–65 (did not take place)

After the war, Jerzy Bogusz studied at the Technical University of Kraków. He was noted for his participation as a jury member for the Polish Pavilion at the Agricultural Exhibition in Moscow in August 1951. His connection to the HfG was through Claude Schnaidt, who spent some time in Poland in the early 1960s.

Burckhardt, Lucius



1925–2003
Sociologist and Economist, Switzerland
Teaching in Ulm: History of the disciplines across departments, including Architecture, 1958–59

Lucius Burckhardt came to Ulm from Münster, where he had worked as a research assistant at the university. Until 1972, he served as editor-in-chief of the journal *Werk*. Later, he became Professor of Socioeconomics of Urban Systems at the University of Kassel. From 1992 to 1994, he was the founding dean of the Faculty of Design at Bauhaus-Universität in Weimar.

Doernach, Rudolf



1929–2016
Architect, Germany
Teaching in Ulm: Seminar on industrialised building, departmental work in Building, 1960–63

After completing his studies, Rudolf Doernach worked as a freelance architect, collaborating with Richard Buckminster Fuller and Frei Otto on various projects. At the HfG, he continued their work on structural dome frameworks and lightweight construction. In the 1970s, Doernach began researching construction with plants as structural elements or bioclimatic skins. In 1983, he published a *Handbook for Better Times*, focusing on building with natural materials and traditional craft techniques.

Eames, Charles and Ray



Eames, Charles, 1907–1978
Architect and Designer, USA
Eames, Ray, 1912–1988
Artist and Designer, USA
Visits to Ulm: 1955 and 1958

During the Second World War, Ray and Charles Eames developed splints and stretchers made from bent wood and later expanded into furniture using the same material and plastics. Their work spanned architecture, exhibition design, photography, and multimedia presentations. Their Case Study Houses are well-known as early examples of industrialised construction.

Emde, Helmut



1926–2013
Mathematician and Philosopher, Germany
Teaching in Ulm: Constructive Geometry, 1962–68

Helmut Emde studied at the Technische Universität Darmstadt and the University of Tübingen. He taught mathematics for architects and geometric information processing in Darmstadt, where he later became a professor. At the HfG, he collaborated closely with Walter Zeischegg.

Note

If not stated otherwise, the models, photographs, and drawings shown here are held by the HfG-Archiv / Museum Ulm. To shorten the entries we only give the inventory numbers.

AZ

Aktenzeichen

Ai AZ

Aicher Estate Aktenzeichen

G

Graphic

GS

Graphic donation

Dia

Slide (Diapositive)

Dp

Deposit

Diplom

Diploma thesis

M

Model

Neg

Negative (photographic archive)

N.N.

Nomen nescio (person unknown)

Ohl-K, b

Ohl-Koffer, booklet



fig. 1 Räumliche geometrische Studien (Farbflächen), lecturer Max Bill, student Max Graf, 1955–56 (31.8.55), 42 × 59.4 cm, technique gouache on cardboard, inv. no. Dp. 12.3



fig. 2 Hell-Dunkel Kontrast: Rot Blau Gelb, Grün, Weiss, Proportionen, schräge, schwarze Begrenzungslinien, lecturer Johannes Itten, student Max Graf, 1955–56 (7.5.55), 25.5 × 25.5 cm, technique gouache on light cardboard, inv. no. Dp. 12.3

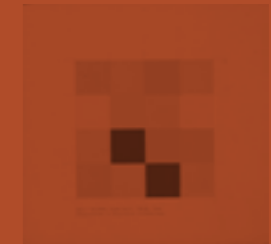


fig. 3 Hell-Dunkel Kontrast: Gelb-Rot, horizontale und vertikale Ausdehnung, lecturer Johannes Itten, student Max Graf, 1955–56 (27.4.55), 25.4 × 25.5 cm, technique gouache on light cardboard, inv. no. Dp. 12.3



fig. 4 Hell-Dunkel Kontrast: Gelb-Blau, Proportionen, horizontale und vertikale Ausdehnung, lecturer Johannes Itten, student Max Graf, 1955–56 (5.5.55), 25.4 × 25.5 cm, technique gouache on light cardboard, inv. no. Dp. 12.3



fig. 5 Farblehre nach Ostwald, lecturer Helene Nonné-Schmidt, student Bernd Meurer, 1956–57, 38 × 26 cm, technique gouache on watercolour paper, not inventoried



fig. 6 Farblehre nach Ostwald, lecturer Helene Nonné-Schmidt, student Bernd Meurer, 1956–57, 25.8 × 37.9 cm, technique gouache on watercolour paper, not inventoried



fig. 7 Arithmetisch gestufte Grauskala, A zufällig, B systematisch, lecturers Horst Rittel, Friedrich Vordemberge-Gildewart, student Gerhard Curdes, 1959–60 (signed on verso by Rittel 6.60), 20.2 × 30.5 cm, technique India ink on graph paper, typewriter script, inv. no. Dp. 40.09



fig. 8 Farbe als Interpretation von Kreisteilungen, lecturer Herbert Ohl, student Isao Fukuwatari, 1962–63 (21.11.62), 58.7 × 42 cm, technique pencil, gouache on cardboard, inv. no. Dp 120.003.1



fig. 9 Farbe als Interpretation von Kreisteilungen, lecturer Herbert Ohl, student Isao Fukuwatari, 1962–63 (21.11.62), 59.2 × 41.8 cm, technique pencil, India ink on Schoellershammer cardboard, inv. no. Dp 120.003.13



fig. 10 Würfelaufnahme, lecturer N.N., student Max Graf, 1955–56, 25 × 18.3 cm (total), 13 × 18.3 cm (photograph), technique photograph (vintage print) on cardboard, inv. no. Dp. 012.002

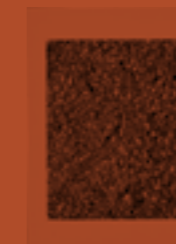


fig. 11–12 Zwei fotografische Übungen, lecturer N.N., student Gerhard Curdes, 1959–60, 31.8 × 22.6 cm (total), 22.9 × 17 cm (photograph), technique photograph (vintage prints) on cardboard, inv. no. Dp. 040.021.10 (shavings), Dp. 040.021.4 (wood grain)

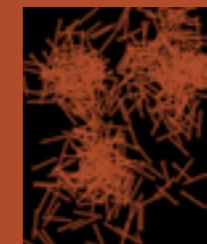


fig. 13 Photogram, lecturer Wolfgang Siol, student Isao Fukuwatari, 1962–63, 22.9 × 17.5 cm, technique photograph (vintage print), inv. no. Dp 120.006.1

This book traces the legacy of the HfG Ulm Building Department, where experimentation and intellectual rigor redefined modern architecture. Relying on critical enquiry and knowledge exchange, the department brought design, science, and creativity to bear in addressing architecture's complex challenges. Today, Ulm's open mindset feels more compelling than ever, reshaping how we inhabit and imagine the future of our data-driven world.

Georg Vrachliotis, Head of the Architecture Department, and Professor for Theory of Architecture and Digital Culture, TU Delft / Author of *The New Technological Condition. Architecture and Design in the Age of Cybernetics*

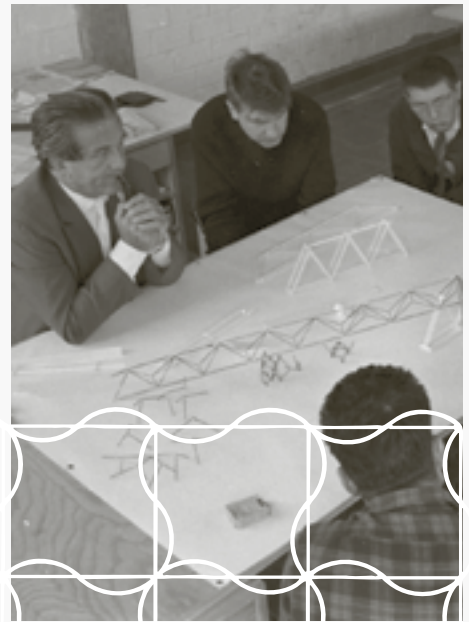


fig. 4

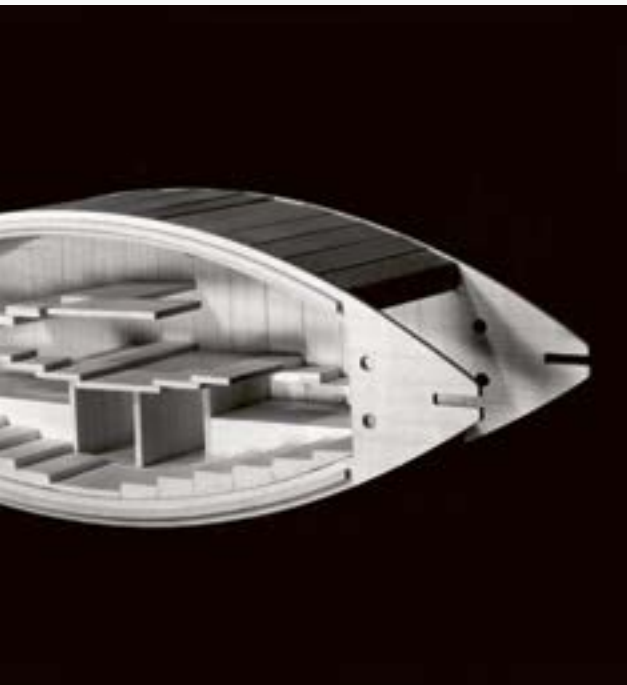
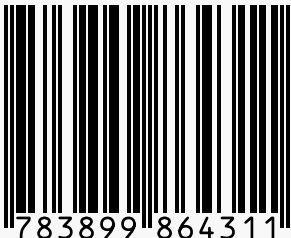


fig. 5



€ 40,- / USD 54,-



9 783899 8643 11

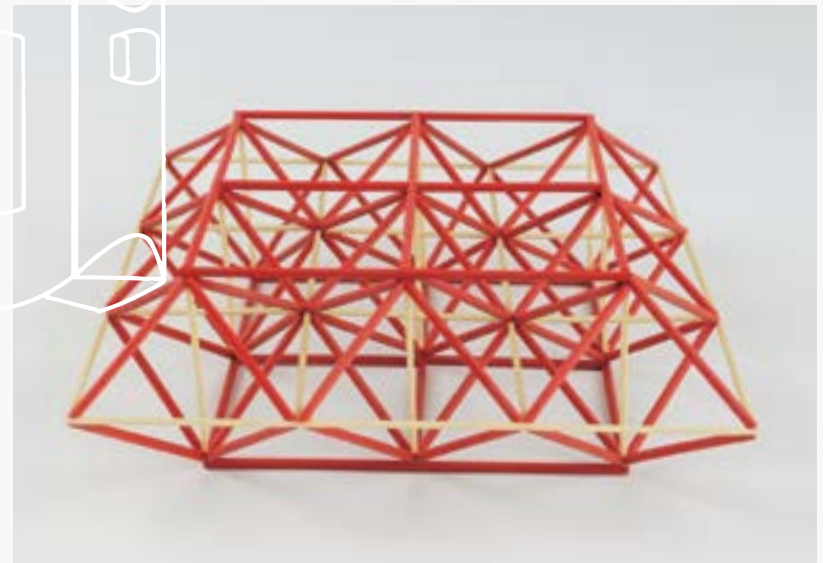


fig. 6