

Bioscopic and Kinematic Books Studies on the Visualisation of Motion and Time in the Architectural Book ca. 1900–1935

Matthias Noell

I. “Cinematic, moment-like composition”

In the year 1923, El Lissitzky created the book anew. In *Topography of Typography*, the Russian artist propagated the “continuous page sequence” and opened up the concept of the “bioscopic book” to discussion.¹ The use of the term “bioscopic” – the Skladanowsky Brothers named the film projector they used for the first time in Berlin in 1895 a “Bioscope” – is an indication of the new interaction between the medial communication of information, optics and movement that the graphic design of the book was intended to implement.

Even though the linear construction of the book, and the subsequent narrative structure that connects time while the book is being read or a series of illustrations looked at, makes it fundamentally better suited to explore the subject of movement than a single image, coherent series of pictures are comparatively rare in the history of the illustrated book. This discursive and narrative approach appears *en passant*, without being invested with any particular significance, in one of the most artistically demanding architecture books of the early 19th century by John Sell Cotman and Dawson Turner.² It was not until the discovery and dissemination of chronophotography by Étienne-Jules Marey and Eadweard Muybridge, as well as through cinematography itself, that art also became interested in the serial depiction of moving objects without however initially including something as fundamentally motionless as architecture.³ Triggered by the automobile among other things, as well as by the possibilities provided by changes in printing techniques that made it an unproblematic matter to include photographs, the full extent of the resulting possibilities was also recognised and used for book design.

The following will investigate the subject of movement – or, more concretely: the visual depiction of movement processes in the architectural space – in book design in the first half of the 20th century. Two genres of the illustrated book played a major role here as their topics basically dealt with the movement of the person in space and time: the travel book, as well as the architectural book. While travel and the motorised movement of the individual played a significant role in the development of a new perception of the world in which we live and finally became the subject of a great number of books, novel graphic concepts were sought for communicating the newly-acquired individual speed in architectural books. In addition, the typographer Jan Tschichold ascertained in 1927 that “the speed and terseness of the film” had “influenced literature in the direction of a cinematic, moment-like composition”.⁴

1. El Lissitzky, ‘Topographie der Typographie’, in: *Merz*, 4, 1923, reprinted in: *El Lissitzky. Maler, Architekt, Typograf, Fotograf. Erinnerungen, Briefe, Schriften*, presented by Sophie Lissitzky-Küppers, Dresden: Verlag der Kunst 1967, 3rd ed. 1980, 360.

2. On *Architectural Antiquities of Normandy* by John Sell Cotman and Dawson Turner, cf. Matthias Noell, “‘Standards of taste’ – Augustus Charles Pugin and the specimens of the Architectural Antiquities of Normandy”, in: Bernd Carqué, Daniela Mondini and Matthias Noell (eds.), *Visualisierung und Imagination. Mittelalterliche Artefakte in bildlichen Darstellungen der Neuzeit und Moderne*, 2 vols., Göttingen: Wallstein 2006 (= Göttinger Gespräche zur Geschichtswissenschaft 25), vol. 2, 417-464, and elsewhere.

3. Cf. Matthias Noell, ‘Bewegung in Zeit und Raum. Zum erweiterten Architekturbegriff im frühen 20. Jahrhundert’, in: Frank Hofmann, Stavros Lazaris and Jens Emil Sennewald (eds.), *Raum-Dynamik. Beiträge zu einer*

Diskussion des Raums, Bielefeld: transcript 2004, 301-314, and others.

4. Jan Tschichold, ‘Zeitgemässe Buchgestaltung’, in: *Die Form. Zeitschrift für gestaltende Arbeit*, 2, 1927, no. 4, 116-123, here 116. On book design, cf. Michael Nungesser, ‘Skizze zur publizistischen Situation der modernen Architektur’, in: *Europäische Moderne. Buch und Graphik aus Berliner Kunstverlagen 1890 - 1933*, Berlin, exh. cat. [Kunstabibliothek Berlin], Berlin: Reimer 1989, 163-189. Elisabetta Bresciani (ed.), *Modern. Architekturbücher aus der Sammlung Marzona*, Vienna: Schögl 2003. Matthias Noell, “Nicht mehr Lesen! Sehen!” – Le livre d’architecture de langue allemande dans les années vingt’, in: Jean-Michel Leniaud and Béatrice Bouvier (eds.), *Le livre d’architecture. XVe-XXe siècle. Edition, représentation et bibliothèques*, Paris: Ecole des Chartes 2002 (= Etudes et rencontres de l’Ecole des Chartes 11), 143-156. Idem, *Das Haus und sein Buch. Moderne Buchgestaltung im Dienst der Architekturvermittlung*, Basel: Standpunkte 2009.

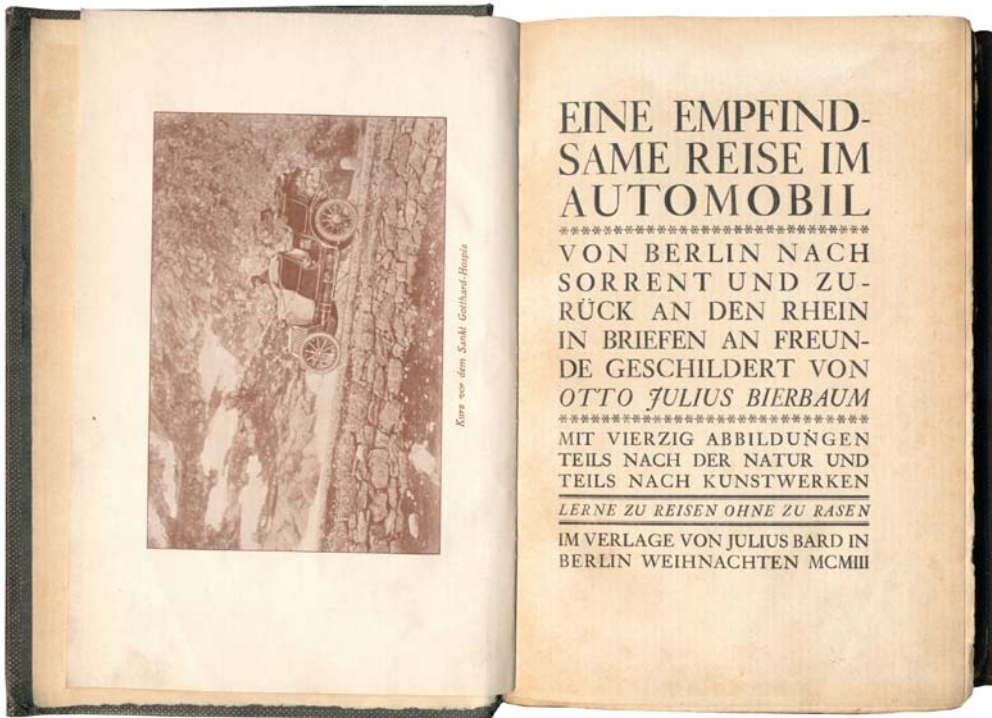


Figure 1
Travelling as sentimental journey.
'Near Sankt Gotthard Hospiz', Frontispiece of
Otto Julius Bierbaum, *Eine empfindsame Reise
im Automobil von Berlin nach Sorrent und zurück
an den Rhein in Briefen an Freunde geschildert*,
Berlin: Julius Bard 1903.

the Rhine"; Felix Moeschlin on the other hand started his journey in New York and crossed the United States of America. While Bierbaum was able to boast that "trips of this kind are still rare", Moeschlin saw the spectacular and novel aspect of his journey in the fact that he had chosen the USA as his destination, that the New World had taken the place of Italy in the heyday of Americanism. The two tourists were not interested in breaking any speed records but devoting themselves to the "art of travel".⁶ Bierbaum's travel philosophy of "learn how to travel without racing"⁷ was in complete contrast to the general sport and speed cult of the "cinematic age" that Gaston Rageot had proclaimed in *L'Homme standard* in 1928 when he determined that the need to travel had introduced the change of location as a constant factor of life.⁸ Bierbaum was much more concerned with a changed perception of the landscape that, in contrast to all other forms of travel, the "freedom of movement" of travel by car made possible.⁹

In the eyes of the writer Bierbaum, who had obviously modelled his travel report on Laurence Sterne's novel *Yorick's Sentimental Journey through France and Italy*, his "Adler" automobile was "an entire building on wheels"; for Moeschlin, it was "both a house and a home", "a ship" in a manner of speaking, where everything that was needed to live an independent life was stowed away.¹⁰ Faced with the metaphor of the automobile as a house or a ship, Le Corbusier's reverse image does not seem so far away: "A house like a car, designed and constructed like an omnibus or ship's cabin."¹¹

Those in favour of the new means of transport were unanimous in feeling that the automobile would reinstate the individual freedom that travellers had lost to a certain extent with the introduction of the railway.¹² "We ourselves will be able to decide on how slow or fast

II. Movement in the automobile

In 1903 and 1930 two books founded on a common basic concept were published in Berlin, and Zurich and Leipzig respectively: *Eine empfindsame Reise im Automobil* by Otto Julius Bierbaum and *Amerika vom Auto aus* by Felix Moeschlin.⁵ Both books provide a travel report of a three-month tourist trip by car; two motorised, modern *grand tours*. Otto Julius Bierbaum began his "sentimental journey" in Berlin, drove to Sorrento and then "back to

5. Otto Julius Bierbaum, *Eine empfindsame Reise im Automobil von Berlin nach Sorrent und zurück an den Rhein in Briefen an Freunde geschildert*, Berlin: Julius Bard 1903. Felix Moeschlin, *Amerika vom Auto aus. 20000 km USA*. Erlenbach-Zurich and Leipzig: Eugen Rentsch 1930. I have to thank Sibylle Hoimann and her velocipede tour from Hegibachstraße to the Brockenhäuser in Zurich and back in 2008 for the discovery of *Amerika vom Auto aus*.

6. Bierbaum (reference 5), VIII.

7. Bierbaum (reference 5), 9.

8. Gaston Rageot: *L'Homme standard*, Paris: Plon 1928, 52 and 113. Cf. also

Paul Virilio, *Ästhetik des Verschwindens* [1980], Berlin: Merve 1986.

9. Bierbaum (reference 5), 8.

10. Moeschlin (reference 5), 178.

11. Le Corbusier: 'Maisons en série', in: idem, *Vers une Architecture*, 3rd ed. Paris: Crès et Cie 1928, 200: 'Une maison comme une auto, conçue et agencée comme une omnibus ou une cabine de navire.'

12. Cf. Marcel Proust, 'Zum Gedenken an die gemordeten Kirchen', in: idem, *Nachgeahmtes und Vermischtes, Werke I*, vol. 2, edited by Lucius Keller, Frankfurt a. M.: Suhrkamp 1989, 93.



Figure 2
Road photography: velocity.
Felix Moeschlin,

Amerika vom Auto aus. 20000 km USA, Erlenbach-Zürich and Leipzig: Eugen Rentsch 1930, photograph by Dr. Kurt Richter, 139.

we travel, where we stay and spend some time and where we simply pass through.”¹³ The car, with its inherent speed and manoeuvrability, could also make new patterns of perception possible and even cause them: “In a railway carriage, one actually only travels past a landscape; in a motor car, one really moves through its midst.”¹⁴ The consequences of any form of perception that had been changed in such a manner could not fail to influence architectural design. At an early stage, Hendrik Petrus Berlage argued in favour of a simplification of architectural form, for architecture without any time-consuming details in its creation or observation.¹⁵ In 1910, Peter Behrens, the recipient of one of Bierbaum’s reports on the individual stages of his trip, summed it up succinctly: “When we race through the streets of our cities in a high-speed vehicle, we can no longer make out the details of the buildings.”¹⁶ The German Werkbund adopted this idea; its 1914 yearbook was devoted to transport and discussed the practice of technical movement in the urban development.¹⁷ The strategies developed here shaped the architectural concepts of the 1920s and, with them, the illustrated architecture book.

In addition to Bierbaum’s unusual – for the time – choice of means of transport, there was another novel aspect to his journey. He not only had his wife and chauffeur Louis Riegel on board, but also a camera to provide documentary images of the trip. It seems that not only he but also his wife operated the apparatus – at first with a kind of amateurish enthusiasm but later with increasing competence (fig. 1).¹⁸ This makes his sentimental journey not simply (probably) the first German-language report of travel by car but also an early example of a book illustrated with photographs taken by the author. Numerous “automobile diaries” – including those by Wolf Strache and Paul Wolff in the 1930s – followed in the footsteps of the genre of book fathered by Bierbaum; however, with a nationalist slant.¹⁹

13. Bierbaum (reference 5), 8.

14. Bierbaum (reference 5), 76.

15. Hendrik Petrus Berlage, ‘Bouwkunst en impressionisme’ [1894], German translation in Hendrik Petrus Berlage, *Über Architektur und Stil. Aufsätze und Vorträge 1894-1928*, edited by Bernhard Kohlenbach, Basel: Birkhäuser 1991, 18-38, here 28.

16. Peter Behrens, ‘Kunst und Technik’, in: *Elektrotechnische Zeitschrift*, vol. 22, 2 June 1910, 552-555, here 554.

17. *Jahrbuch des Deutschen Werkbundes*, Jena: E. Diederichs, 1914.

18. Bierbaum (reference 5), 95.

19. Wolf Strache, *Kleine Liebe zu Columbus. Ein Autotagebuch mit vielen Bildern*, Berlin: Bong n.d. [1936]. Paul Wolff, *Groß-Bild oder Klein-Bild? Ergebnisse einer Fotofahrt durch Franken an die Donau*, Frankfurt a. M.: H. Bechold 1938. Cf. also Andrea Wetterauer, *Lust an der Distanz. Die Kunst der Autoreise in der ‘Frankfurter Zeitung’*, Tübingen: Tübinger Verein für Volkskunde 2007.

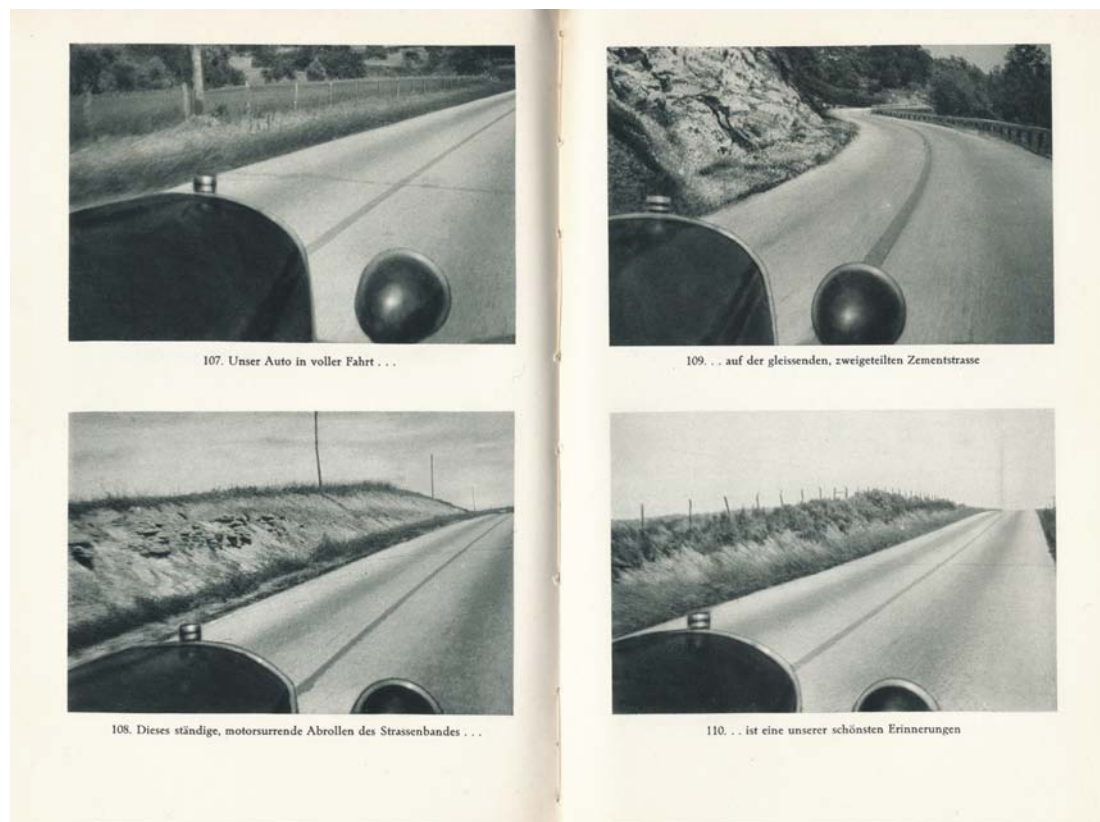


Figure 3
Road photography: rhythm
Felix Moeschlin,
Amerika vom Auto aus. 20000 km USA,
Erlenbach-Zurich and Leipzig:
Eugen Rentsch 1930,
photographs by Dr. Kurt Richter, 107–110.

Felix Moeschlin also modelled his work on Bierbaum and even took his own photographer, Dr Kurt Richter, with him on his journey. If one makes a comparison of the pictures in the two books, one notices a clear change in the photographic view. While Bierbaum’s photos always document the automobile from the outside and in this way take the position of the observer and not the driver or traveller, Moeschlin not only programmatically called his book *Amerika vom Auto aus* but had Kurt Richter even stage some pictures from this perspective. Seen from the front passenger seat, the view is focussed directly on the road over the bonnet (fig. 2). The blurred asphalt makes the speed of the moving car visible. A considerable number of Richter’s photographs give proof of his intimate knowledge of contemporary photography, so-called “New Vision”. In particular, it seems likely that the two America travellers were aware of Erich Mendelsohn’s travel book *Amerika. Bilderbuch eines Architekten*, which was issued by Mosse Publishers in Berlin in 1926 and, immediately after it had been published, received great international recognition on account of its numerous, extraordinary photographs.²⁰

III. Image sequences

The book also creates a suggestion of the motion of being driven forwards on the road through a cinematic sequence of four images of the road spread over a double page connected with the fitting caption: “Our auto going at full speed...on the glaring, two-lane cement road. The permanent hum of the motor as the ribbon of the road rolls past...is one of our most treasured memories.”²¹ “In Moeschlin’s words: “Our hearts and the motor beat without rest” (fig. 3).²²

Several books that made the “cinematographic strip of images” the basis for their design and depiction of movements were published in 1925. The book *Wunder des Schneeschuhs*

20. Erich Mendelsohn, *Amerika. Bilderbuch eines Architekten*, Berlin: Mosse 1926.

21. Moeschlin [reference 5], captions ill. 107-110.

22. Moeschlin [reference 5], 129.

was intended as a skiing manual and was still oriented on chronological movement studies to a large degree but integrated the images in vertical, perforated film strips. The pictures came from the series of films *Wunder des Schneeschuhs* that the director Arnold Fanck had been making with the ski pioneer and actor Hannes Schneider since 1920.²³

In *Malerei, Fotografie, Film*, published in the same year, László Moholy-Nagy reproduced two strips from Franck's book and brought together a series of possibilities for integrating movements in optical compositions for the first time.²⁴ These also included photographs that captured the movement of luminous squares from abstract films and time exposures of street scenes illuminated at night showing moving automobiles and trams. Within the framework

of architecture, attention must also be drawn to the two double-page images of a flock of cranes in flight and a squadron of airplanes over the Atlantic. The two photographs not only show the process of movement of the individual object in flight, but also the concurrence of similar movements at various stages; "mass limbs" or "fractions of a figure" was the formulation Siegfried Kracauer used in *Das Ornament der Masse*.²⁵ This variation of the same and standardised, which Gropius called "variability", was also focused on by Alfred Arndt in his coloured axonometry of the master houses revolving in space in 1926.²⁶

In Colin Ross' *Fahrten- und Abenteuerbuch*, published in 1925, Jan Tschichold arranged a series of three sequential photographs taken by the war reporter and travel-book author on a double page (fig. 4). They show a battle scene from the First World War with the cap-

tions: "Battery moves into position", "Battery firing" and "Storm" and give an impression of the progress of an attack. Tschichold underlined the speed of the cinematic sequence by giving the three photos a single illustration number.²⁷ Ross himself had come into contact with the subject of movement sequences when he translated Frank Bunker Gilbreth's book *Bewegungsstudien. Vorschläge zur Steigerung der Leistungsfähigkeit des Arbeiters*, which was illus-

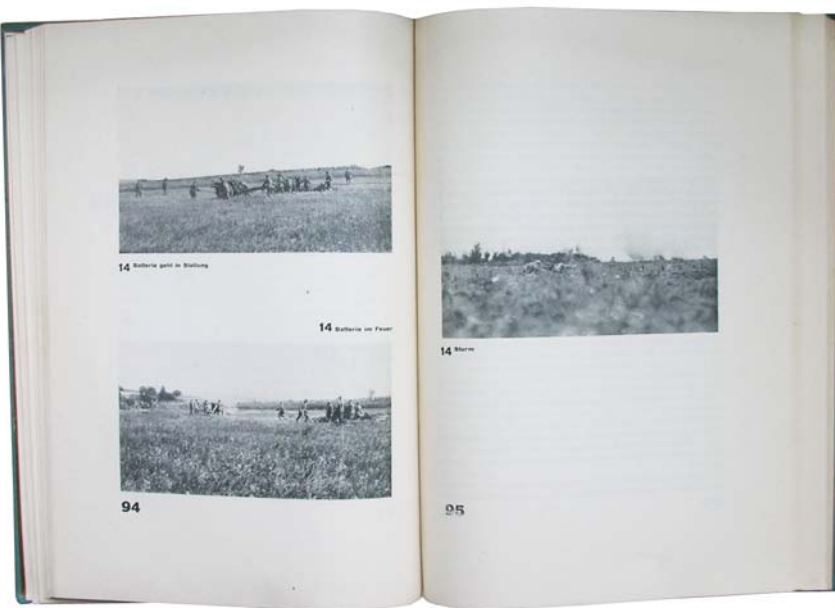


Figure 4
War photography: velocity and violence. "Battery moves into position", "Battery firing", "Storm", reproduced from: idem, *Fahrten- und Abenteuerbuch*, Leipzig: Büchergilde Gutenberg 1925, photographs by Colin Ross, designed by Jan Tschichold, pages 94–95.

23. Arnold Fanck and Hannes Schneider, *Wunder des Schneeschuhs. Ein System des richtigen Skilaufens und seine Anwendung im alpinen Geländelauf*. Mit 242 Einzelbildern und 1100 kinematographischen Reihenbildern, Hamburg: Enoch 1925. Leni Riefenstahl played a main role in the third part, *Der weiße Rausch*, in 1931. For information on Enoch and Fanck, cf. the article by Roland Jaeger et al.: "Kurt Enoch (1895-1982) und der Gebrüder Enoch Verlag (1913-38)", in: *Aus dem Antiquariat*, 2000, no. 5, A288-A300, 290-291. Sequences from Paul Wolff's films were also used in Joseph Dahinden's publication *Die Ski-Schule* without being as tightly integrated into the design. Josef [Joseph] Dahinden, *Die Ski-Schule*, Zürich: Fretz 1924. For information on Dahinden, cf. Marcel Just, "Modernes Piktogramm. Das Strichmännchen der Skischule Arosa von 1933", in: Marcel Just, Christof Kübler, Matthias Noell and Renzo Semadeni (eds.), *Arosa. Die Moderne in den Bergen*, Zurich: gta 2007, 236-239.

24. László Moholy-Nagy, *Malerei, Photographie, Film*, Munich: Albert Langen

1925 [= Bauhausbücher 8]. Second adapted edition under the title of: *Malerei, Fotografie, Film*, Munich: Albert Langen 1927, 50/51, 63, 84/85, 118. Cf. Ute Brüning (ed.), *Das A und O des Bauhauses. Bauhauswerbung, Schriftbilder, Drucksachen, Ausstellungsdesign*, exh. cat. [Bauhaus-Archiv, Berlin], Leipzig: Bauhaus-Archiv, Edition Leipzig 1995.

25. Siegfried Kracauer, "Das Ornament der Masse" [1928], in: idem, *Der verbotene Blick. Beobachtungen, Analysen, Kritiken*, Leipzig: Reclam 1992, 171-185, here 173.

26. Illustration caption in: *Staatliches Bauhaus Weimar 1919-1923* [published by Staatliches Bauhaus in Weimar and Karl Nierendorf], exh. cat. [Staatliches Bauhaus Weimar], Weimar and Munich: Bauhausverlag 1923, 167, ill. 109. Cf. also: Walter Gropius, "der große baukasten", in: *Das Neue Frankfurt* 1/1926-27, 25-30.

27. Colin Ross, *Fahrten- und Abenteuerbuch*, Leipzig: Büchergilde Gutenberg 1925, 94-95.

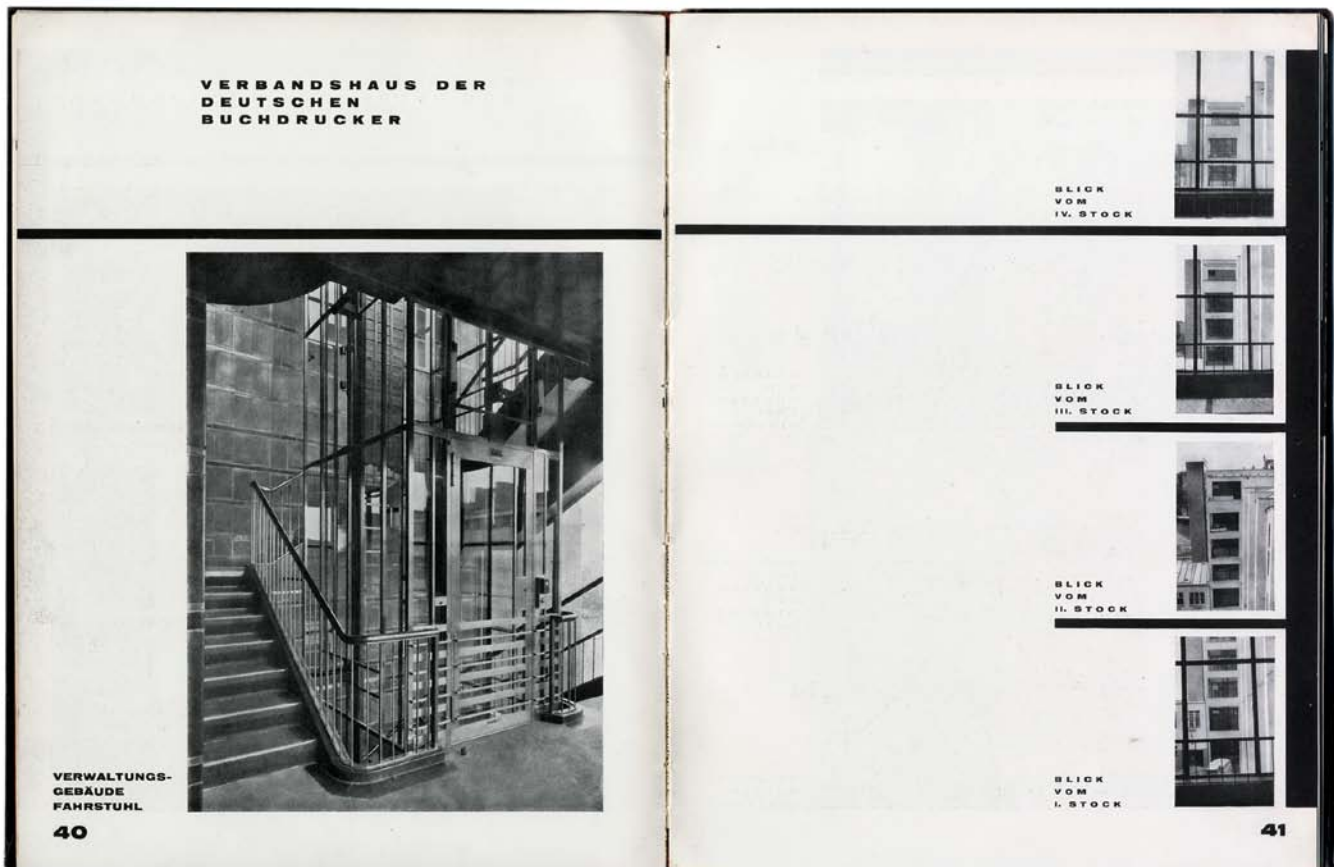


Figure 6
Elevator to the meeting room.
German Book Printers' Union Headquarters,
reproduced in: Max Taut, *Bauten und Pläne. Mit
einer Einleitung von Adolf Behne*, Berlin, Leipzig,
Vienna, Chicago: Friedrich Ernst Hübsch 1927,
photographs by Arthur Köster, designed by
Johannes Molzahn, pages 40-41.

movements of people in real architecture through the means of typography. Photography was “the pacemaker for the tempo of the age and development”.³² The book-printing establishment founded by Max Taut gave Molzahn the possibility of defining his ideas more precisely in the same year.³³ The reader was to be taken by the hand and first of all led visually through the construction process before finally making a “book-kinematic” stroll through the Book Printers’ Union Headquarters that included a trip in a lift up to their meeting room (fig. 6). Molzahn used the beams that were characteristic of the new style of typography to introduce new sequences, to end them, or in general to set the direction or speed of reading; in this respect, they resembled a system of musical notation.³⁴ Molzahn’s conclusion that the modern person was dominated by optical perception corresponded with Gaston Rageot’s: “le public est devenu presque exclusivement visuel”.³⁵ Erich Mendelsohn followed with a book about his own home *Neues Haus - Neue Welt* in 1932. Although the concept of the visual “tour du

32. Molzahn [reference 31], 79. Cf. also W.L. [Wilhelm Lotz], ‘Architekturfotos’, in: *Die Form*, 4, 1929, no. 3, 69-70.

33. Max Taut, *Bauten und Pläne. Mit einer Einleitung von Adolf Behne*, Berlin, Leipzig, Vienna, Chicago: Friedrich Ernst Hübsch 1927.

34. Cf. Molzahn [reference 31], 78.

35. Rageot [reference 8], 69.

Figure 7
 To iron – Not to iron (“combined shot”),
 reproduced in: Walter Gropius, *bauhausbauten*
dessau, Munich: Albert Langen 1930
 (= Bauhaus-Bücher 12),
 photograph by Lucia Moholy,
 designed by László Moholy-Nagy, page 130.



abb. 120 wohnungen der bauhausmeister
 schrank für plättbrett und plättleisen im einzelhaus gropius
 die kombinierte aufnahme zeigt gleichzeitig das heraus- und hereingeklappte plättbrett
 foto lucia moholy / berlin

130

propriétaire” from the entrance to the wine cellar had been in use since the first house monographs were published at the beginning of the 20th century, in no other book was it implemented so calculatedly and uncompromisingly as in this trailblazing architecture book.³⁶

IV. Demonstrative movement

Architecture started to be communicated in films as well as in other media in the 1920s. Films were made that documented and gave an impression of modern architecture such as those of the Frankfurt House Factory and from Dessau. Sections of the 17-minute film *Neues Wohnen* – a coproduction between Walter Gropius, the director Ernst Jahn and the Berlin Humboldt film production company – were subsequently integrated into the twelfth volume of the Bauhaus books *bauhaus bauten dessau* published in 1930. These, as well as the film stills arranged as strips of film complete with perforated edges in other Bauhaus publications, followed the concept of book cinema in their suggestions of movement. In the Gropius house, the maid was shown going about her work at the cupboards, serving hatches and other furnishings to demonstrate the practicality of the movement of

36. Erich Mendelsohn, *Neues Haus Neue Welt*, prefaces by Amédée Ozenfant and Edwin Redslob, Berlin: Mosse 1931. For information on the ‘tour du propriétaire’ and the Wohnhaus books, cf. Matthias Noell, *Das Haus und sein Buch. Moderne Buchgestaltung im Dienst der Architekturvermittlung*, Basel: Standpunkte 2009. The term “tour du propriétaire” was taken from Kuno Graf von Hardenberg: ‘Das Haus von Alexander Koch’, in: Alexander Koch,

Das Haus eines Kunstfreundes. Haus Alexander Koch, Darmstadt: Alexander Koch 1926, 6. For information on Mendelsohn, cf. Simone Förster, *Masse braucht Licht. Arthur Kösters Fotografien der Bauten von Erich Mendelsohn. Ein Beitrag zur Geschichte der Architektur fotografie der 1920er Jahre*, Berlin: dissertation.de, 2006, 200, and elsewhere.

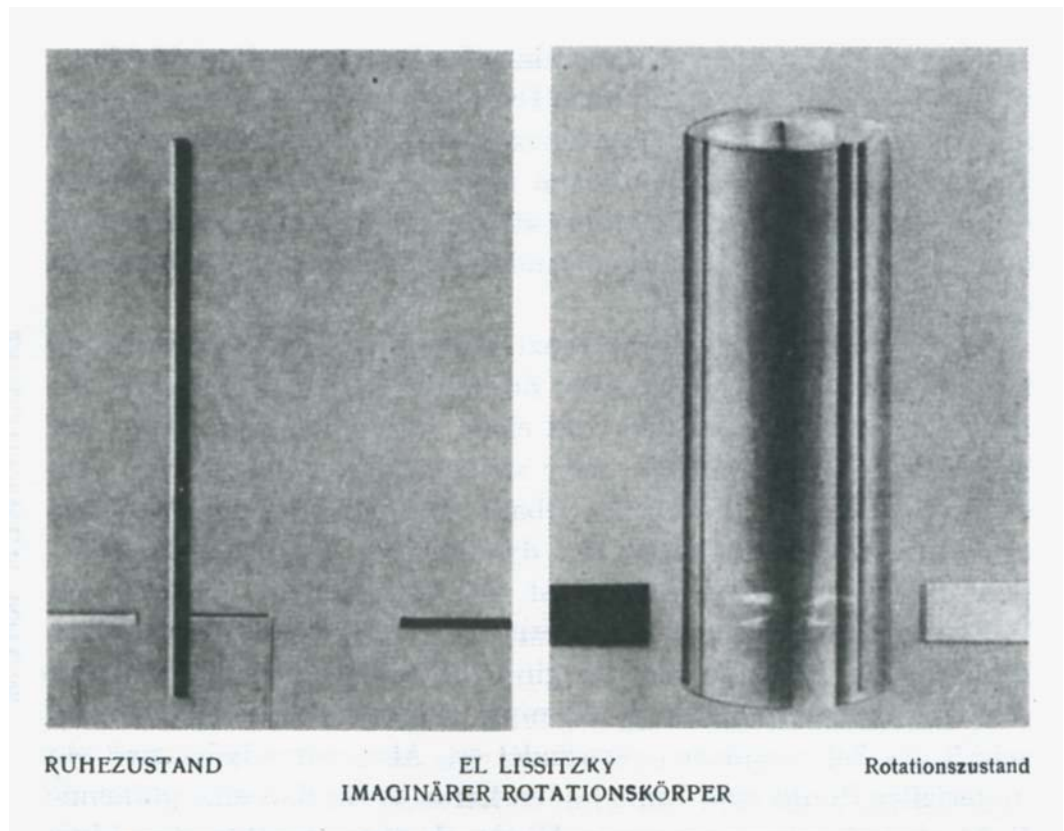


Figure 8
 'Imaginary space'.
 'Imaginary body of rotation, left: state of
 rest, right: state of rotation',
 illustration reproduced in: El Lissitzky,
 'K. und Pangeometrie', in: Carl Einstein
 and Paul Westheim (eds.), *Europa-Almanach*,
 Potsdam: Kiepenheuer 1925, page 110.

the objects. Gropius' wife Ise, on the other hand, could be seen sliding wardrobe doors and opening and closing a folding sofa in two photographs. It is noteworthy that the accompanying text concentrated on the movability of new architecture and its furnishings.

The dual movability of the objects as well as the residents is most clearly shown in the case of a built-in Junkers fan. Turned off and then switched on, the propeller blades slowly starting to move and their acceleration, are perfectly illustrated in a series of images on a double page. This demonstrative movement in the use of the technical equipment in the house inspired the photographer Lucia Moholy, the book designer László Moholy-Nagy and the publisher Walter Gropius to another form of legerdemain. The movements of an ironing board that could be folded down out of a cupboard were merged in a simultaneous exposure (in the book, it is called a "combined shot") to create a single photograph showing it once folded away and once set up, ready to be ironed on (fig. 7).³⁷ Superficially, we are only confronted with a rational, space-saving form of modern interior architecture, but the concept of con-

37. Walter Gropius, *bauhausbauten dessau*, Munich: Albert Langen 1930 (= Bauhausbücher 12), 130.



Figure 9
Armchair movement, advertisement of
the Dutch Metz department store in the
magazine *De 8 en opbouw*, vol. 6, 1935, no. 12.

The concept of showing construction processes in cinematic series of so-called “building pictures”, as described by Max Taut in his publication on the Book Printers’ House, was simple and could be convincingly put into a book. However, this strategy could hardly be used for a large number of publications without becoming monotonous for the reader. The technical achievements of series of pictures exploring specific activities, the creation of a building through the application of reinforced concrete and crane systems, lost their power to attract and became old hat very quickly.

structing space through time and movement, which El Lissitzky described as the construction of an “imaginary space” in 1925 (fig. 8),³⁸ stands behind the cross-fade.

Only a short time later, at the beginning of the 1930s, cinematically arranged sequences of images started appearing in manufacturers’ catalogues to demonstrate the flexibility of modern furnishings. This eventually led to the technique of multiple exposures being used to expand the spatio-temporal effect of the photographic image as can be seen in an advertisement published in 1934 in the Dutch *De 8 en opbouw* magazine showing light, moveable standardised furniture designed by Gerrit Rietveld available from the traditional department store Metz & Co (fig. 9).³⁹

A photograph in Bruno Taut’s book *Ein Wohnhaus* shows a somewhat different example. The maid’s short “way from the stove to the dining table” is also demonstrated in the form of a simultaneous image. But in this case, the double exposure makes it possible to follow the functional layout and show the diagrams of the steps taken in the photographic image in the manner of Christine Frederick (figs. 10, 11).

**V. On the patient quest
– design as evolution**

38. El Lissitzky, ‘K. und die Pangeometrie’, in: Carl Einstein and Paul Westheim (eds.), *Europa-Almanach*, Potsdam: Kiepenheuer 1925, 103-113, here 112.

39. *De 8 en opbouw*, 6, 1935, no. 12, advertisement section.

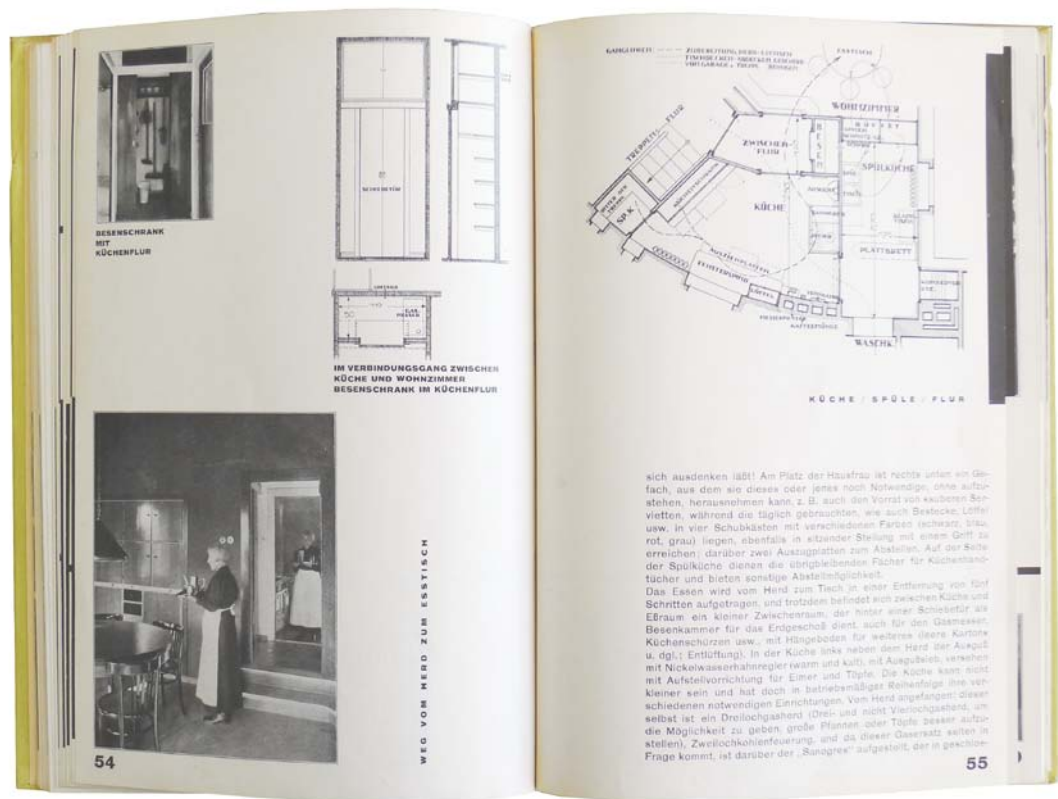


Figure 10
Circulation.
Double page from: Bruno Taut, *Ein Wohnhaus*.
Mit 104 Fotos und 72 Zeichnungen, einer
Farbaufnahme und einer Farbzusammenstellung,
Stuttgart, Franck'sche Verlagshandlung
W. Keller & Co. 1927,
photographs by Arthur Köster,
designed by Johannes Molzahn, pages 54-55.

The structure that Adolf Meyer chose for the third volume of the Bauhaus books was therefore ultimately more capable of development. “Ein Versuchshaus” (A Prototype House) uses numerous photographs, as well as technical information, to describe the construction process of the prototype house of the Weimar Bauhaus in the four chapters: carcass work, completion, installation work, interior furnishing.⁴⁰ The arrangement was intended to document the unity of planning, modern production and the way in which they were communicated. Fritz Helmut Ehmcke, one of the most distinguished typographers at the time, immediately recognised the innovative aspect of this book: “Volume 3 shows the various phases of the work on the prototype house of the Bauhaus near Weimar, built in 1923, and simultaneously fulfils the purpose of an exhibition catalogue by providing individual information on the participating firms and their new construction methods.”⁴¹

Although intended as a modern “mass-produced house”, as the prototypical realisation of variable basic type produced in series, the building was a unique specimen from the technical point of view and its serial production purely utopian.⁴² Therefore, the book was organised with a theoretical superstructure in the form of an article by Gropius on his design concept for modular architecture, illustrated with system drawings, placed before the photographic documentation. As a result, the reader had a clear understanding of the mutual conditionality of the unique case and general “residential building industry”. The house itself is merely an almost-coincidentally realised link in the chain of the Bauhaus director’s lengthier design activity. In this way, the book smoothed over the problem that Georg Muche’s plan asserted itself against Gropius’ own design in the Bauhaus.

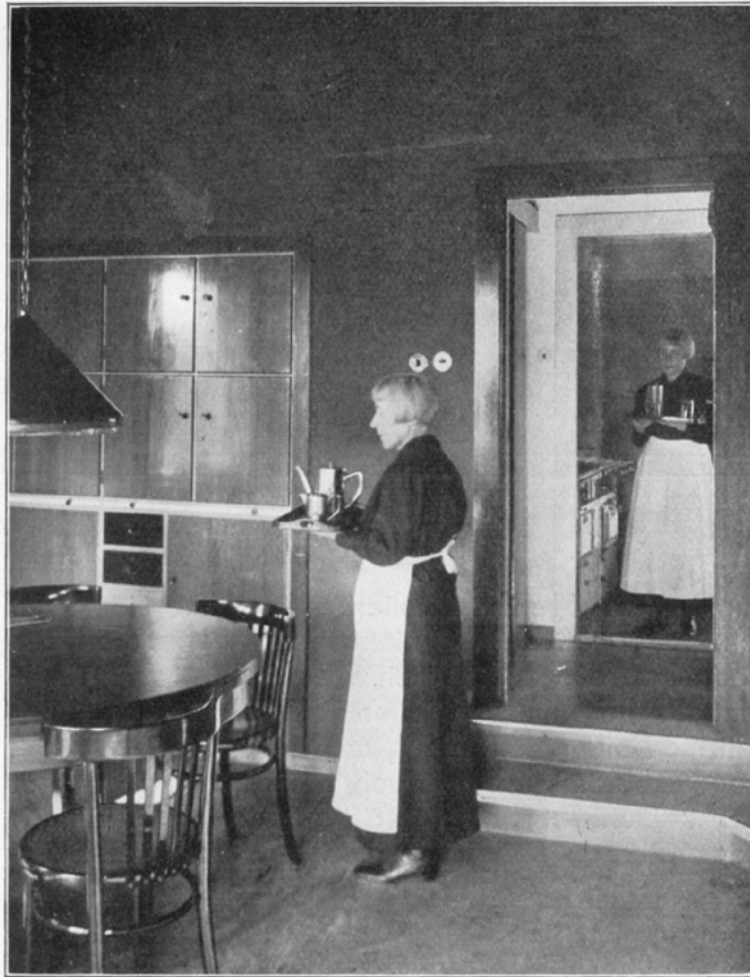
This concept of the interlinking of theoretical considerations and “many years of practical experience at building sites” became even clearer in the publication on Le Corbusier’s

40. Adolf Meyer, *Ein Versuchshaus des Bauhauses in Weimar*, Munich: Albert Langen 1925 (= Bauhausbücher 3).

41. Fritz Helmut Ehmcke, ‘Architekturbücher’, in: idem, *Persönliches und Sachliches. Gesammelte Aufsätze und Arbeiten aus fünfundzwanzig Jahren*.

Zu seinem fünfzigsten Geburtstage herausgegeben, Berlin: Hermann Reckendorf 1928, 148-159, 153.

42. Walter Gropius, ‘Wohnhaus-Industrie’, in: Meyer (reference 40), 5-14, 5.



54

WEG VOM HERD ZUM ESSTISCH

Figure 11
Doubled housemaid.
'Way from the stove to the dining table',
reproduced in: Bruno Taut, *Ein Wohnhaus. Mit
104 Fotos und 72 Zeichnungen, einer Farbaufnahme
und einer Farbzusammenstellung*, Stuttgart:
Franck'sche Verlagshandlung W. Keller & Co.
1927, photograph by Arthur Köster,
designed by Johannes Molzahn, page 54.

houses in Stuttgart.⁴³ In this case as well, a connection between the text ("Five Points towards a New Architecture") and the realised architecture to form an architectural manifesto is at the core of the concept of the book. Le Corbusier and his "book assistants" Alfred Roth and Willi Baumeister were neither concerned with a building-site documentation nor with a photographic tour in their book – the two elements were seemingly scattered at random over the pages in numerous sketches – they were much more interested in "the motoric aspects of our time" as it is described in the book.⁴⁴ This means the proximity of architecture to functionally determined industrial work, as well as the progressive planning activities of modern architects. It is exemplary that, after his articles in *Esprit nouveau*, Le Corbusier no longer visualised architectural evolution through a series of successive pictures but through juxtapositions. In his eyes, temples, automobiles and residential buildings were all products of an applied process of selection – "un produit de selection appliqué à un standart établi".⁴⁵ In place of contrasting comparisons using examples – as a counterexample to a Paul Schultze-Naumburg – Le Corbusier focused on evolution and progress in his books.⁴⁶

43. Alfred Roth, *Zwei Wohnhäuser von Le Corbusier und Pierre Jeanneret. Fünf Punkte zu einer neuen Architektur von Le Corbusier und Pierre Jeanneret*. Preface by Prof. Dr. Hans Hildebrandt, Stuttgart: F. Wedekind 1927, citation page 6.

44. Roth [reference 42], 25.

45. Le Corbusier, *Vers une Architecture*, 3rd edition, Paris: Crès et Cie 1928, 106.

46. Le Corbusier [reference 45], 107.



Figure 12
Nature and techniques on the roof.
'Rain water outlet', 'skylight', reproduced in:
Le Corbusier, *Une petite maison 1923*, Zurich:
Girsberger 1954 (= Les carnets de la recherche
patiente 1), photographs by Claudine Peter,
designed by Le Corbusier, pages 46-47.

The emphasis on years of planning work with its evolutionary orientation continued unchanged in the series of books *Carnets de la recherche patiente*. The first of these work reports, *Une petite maison*, was published in 1954 after a series of lectures and was followed three years later, by *Ronchamp*.⁴⁷ The small house in Vevey represents the origins of the “promenade architecturale” that was further developed in the ramps of the Villa La Roche in Paris and Villa Savoye in Poissy – the latter was allusively visualised as a visit with the architect for the first time in the *Oeuvre complete*. In *Une petite maison*, le Corbusier expressly took up the subject of the tour of the house and garden with the help of pictures and even included the movement in his accompanying text (fig. 12). However, the organisation of *Une petite maison* also reveals an additional level. First of all, the architect’s design concept from the year 1922 is dealt with, followed by the realised house that had since been lived in for decades in photographs from 1953–54, and finally a series of new sketches with a “rhetorical-paranoid” epilogue from 1954.⁴⁸ It is the temporal dimension that makes this small book stand out from similar products. On the tour of the house and garden, it documents and comments on the changes made after its construction by its occupants, Le Corbusier’s parents and their dog, as well as those renovations made by the architect himself.⁴⁹

Claudine Peter made the photographs in Vevey on the instructions of – and following sketches by – Le Corbusier but most of the photographs in *Ronchamp* were taken by Lucien

47. Le Corbusier, *Une petite maison 1923*, Zurich: Girsberger 1954 [= Les carnets de la recherche patiente 1]. Le Corbusier, *Ronchamp*, Stuttgart: Gerd Hatje 1957 [= Les carnets de la recherche patiente 2].

48. Catherine de Smet, *Vers une architecture du livre. Le Corbusier: édition et mise en pages 1912-1965*, Baden: Lars Müller 2007, 132.

49. Pierre Zoelly took up this idea in *Anybody home?* when he revisited seven houses he had built. Pierre Zoelly, *Anybody home? Architectural notes*. Photographs by Christoph Schütz, Basel: Birkhäuser 1995.

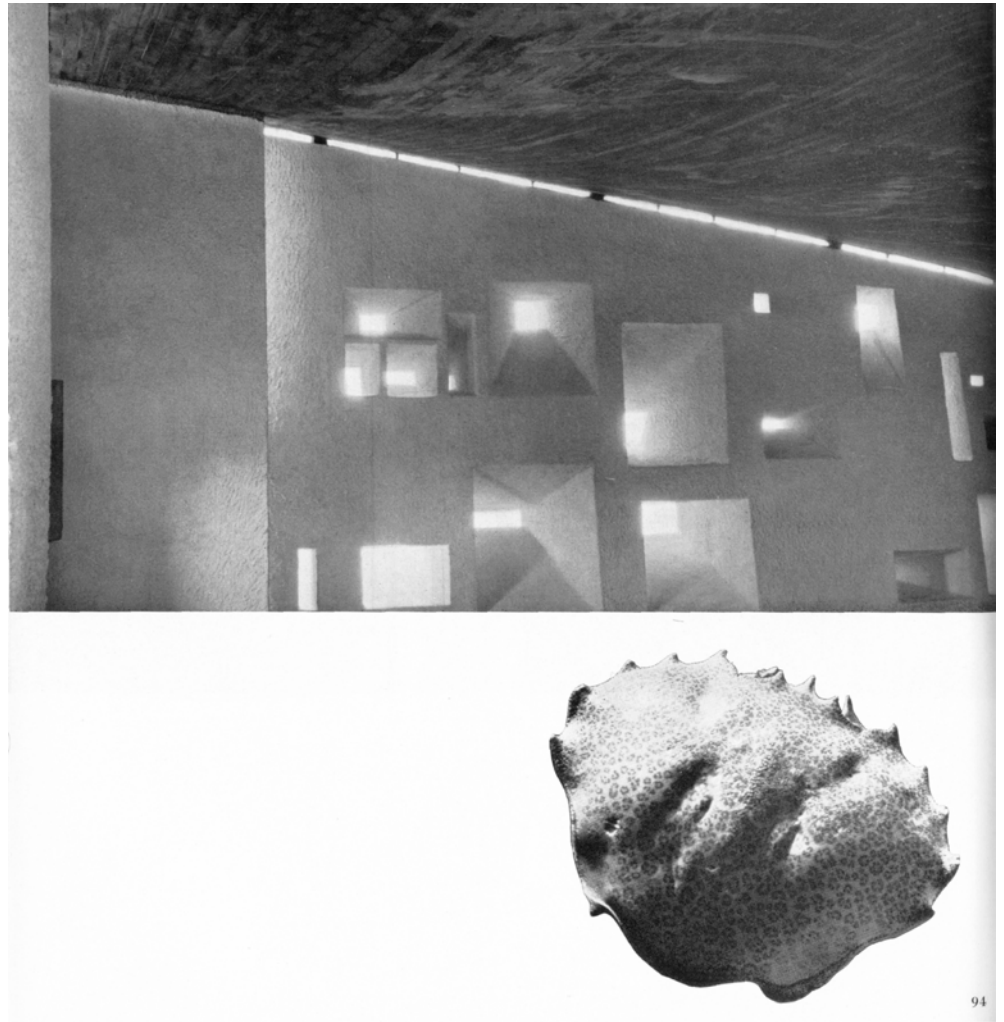


Figure 13
 Designed and found objects.
 Detail of the interior of the chapel of
 Ronchamp and crabshell,
 reproduced in: Le Corbusier, *Ronchamp*,
 Stuttgart: Hatje 1957
 (= Les carnets de la recherche patiente 2),
 photographs by Lucien Hervé,
 designed by Le Corbusier, page 94.

Hervé complemented by works by eight other photographers, most notably Franz Hubmann who shows the chapel with the faithful on a day of pilgrimage. In contrast to the house of his parents, *Ronchamp* does not document the process of change as much as the “patient search”, “allowing a work to mature and develop”. In the third chapter of the book, Le Corbusier reports on that magical moment when an idea emerges out of the location and the sketches continuing to the development of the form out of the material and the source of inspiration – in this case, a crab shell (fig. 13). And finally, an “appendix”, a short final remark: Le Corbusier was not satisfied with the Cross behind the main altar: “the problem did not leave me in peace and today, after two years, I have started designing”.⁵⁰

In the third volume, *Kinder der strahlenden Stadt* (fig. 14), which was published three years after Le Corbusier’s death, the architect writes that he had “devoted his life to the search for a binding architectural form that makes it possible to fill a mechanized world with wellbeing.” Le Corbusier’s “fifty year search for worthy housing” ended with the “Unités

50. Le Corbusier, *Ronchamp* (reference 47), 130.



Figure 14
 'Humanisme total'.
 Cover of the German edition of Le Corbusier,
Kinder der Strahlenden Stadt,
 Stuttgart: Hatje 1968
 (= Les carnets de la recherche patiente 3),
 photographs by Lucien Hervé and Louis
 Sciarli, designed by Le Corbusier / Jean Petit.

When the reader crosses the Alps or drives across America in the company of the author and photographer, when he approaches a house and passes through it, moves ironing boards and chairs around, where the mobility of architecture and furnishings are demonstrated in images and the book, and when maids flit across the scene, even when the artistic search of the designing genius appears, it is ultimately all only a matter of liberating what has been described and photographed from its fixed location. According to Victor Hugo, the mobility of books made it possible for thoughts to free themselves from the location and become mobile: 'sous la forme imprimée, la pensée [...] est volatile [...] Elle se mêle à l'air [...] et occupe à la fois tous les points de l'air et de l'espace'⁵⁴; and one could add, the same applies to architecture.

d'habitation" – his almost testamentary book condenses this period using a childlike daily routine.⁵¹ More than thirty years after his book *La Ville radieuse* was published, the architect and the children take us on a 24-hour tour through the apartments ("This is our dining room"), buildings and kindergarten on the roof of the Unité photographed by Louis Sciarli and, once again, Lucien Hervé.⁵² When dealing with his high-rise residential buildings, this visual tour does not introduce us to the technical function of the plan, although this is explained in passing when describing how a lift works: "The specialists and real insiders, the fanatics, those who really understand, they are...the children."⁵³ The book much more shows us the fulfilment of the architect's social vision – motion in architecture evokes emotion through architecture.

51. Le Corbusier, *Kinder der Strahlenden Stadt*, Stuttgart: Gerd Hatje 1968 (= Les carnets de la recherche patiente 3), 5, 9. Cf. de Smet (reference 48), 226-229.

52. Le Corbusier (reference 51), 29.

53. Le Corbusier (reference 51), 39.

54. Victor Hugo, *Notre-Dame de Paris*. Chapter 5/2, Paris 1832, cited here from the edition in the Paris Librairie Générale Française 1972, 234.