

- 65. Lynn Segal, *The Dream of Reality: Heinz von Foerster's Constructivism* (Vienna/New York: Springer, 2001).
- 66. H. v. Foerster, "Kybernetik einer Erkenntnistheorie," in *Kybernetik und Biok* (Oldenburg, 1974); "Circuitry of Clues to Platonic Ideation," in *Aspects of the Theory of Artificial Intelligence* (New York: Plenum, 1960); *Understanding Systems: Conversations in Epistemology and Ethics* (New York: Plenum, 2002); *Understanding Understanding: Essays on Cybernetics and Cognition* (New York: Springer, 2002).
- 67. E. v. Glasersfeld and J. Richards, "The Control of Perception and the Construction of Reality," *Dialectica* 33, no.1 (1979): 37-38; E. v. Glasersfeld, *Radical Constructivism: A Way of Learning* (London: Routledge/Falmer, 1996); P. W. Thompson, *Radical Constructivism in Action: Building on the Pioneering Works of Ernst von Glasersfeld* (London: Routledge/Falmer, 2000); P. Watzlawick, *Invented Reality: How Do We Know What We Believe We Know?* (New York: W.W. Norton, 1984); *How Real Is Real? Confusion, Disinformation, Communication* (New York: Random House, 1977).
- 68. L. v. Bertalanffy, *General System Theory: Foundations, Development, Applications* (New York: George Braziller, 1976); *Robots, Men, and Minds: Psychology in the Modern World* (New York: George Braziller, 1969).
- 69. M.A. Arbib, P. Érdi, and J. Szentágothai, *Neural Organization: Structure, Function, and Dynamics* (Cambridge, MA: MIT Press, 1997).
- 70. G. Guttman, *Einführung in die Neuropsychologie* (Bern: Huber, 1972).
- 71. P. Baumgartner and S. Payr, *Speaking Minds. Interview with Twenty Eminent Cognitive Scientists* (Princeton, NJ: Princeton University Press, 1995).
- 72. O. Wiener, *Schriften zur Erkenntnistheorie, 1965-95* (Vienna/New York: Springer, 1996).

at Illinois State University. As a continuation of his psychophysical program, he published a series of writings about the construction of realities, self-organizing systems, observed systems, and cognitive processes in perception. In this series he developed an operative theory of knowledge put together from elements of physiology, information theory, perception theory, technology, and epistemology. This system he called Constructivism,<sup>66</sup> and he defined it as "an epistemology of the observed, signifying that the observer and observed are inseparably connected" (Von Foerster). Von Foerster transferred the cybernetic theory of cyclical causal chains to the epistemology: "knowledge or the process of the expansion of knowledge as a recursive calculation."<sup>66</sup>

In the essay "From Stimulus to Symbol: The Economy of Biological Computation," which appeared in *Sign, Image, Symbol* (1966) in the series *Vision and Value* (George Braziller, New York 1966), edited by György Kepes, Von Foerster explained the function of perception in cognitive processes by analyzing, for example, precisely those neuronal procedures that change signals into visual meanings, thus the course of information between an organism and its surroundings.

**Ernst von Glasersfeld**, an Austrian born in Munich in 1917, who later went to the U.S. in 1966 and became professor of cognitive psychology in 1970, is acknowledged as the second founder of "radical constructivism," according to which cognition is the creation or invention of reality.

The title of a 1979 essay by John Richards and Ernst von Glasersfeld, "The Control of Perception and the Construction of Reality," shows pointedly that in the theory of Constructivism, there is a great amount of perception in the construction of reality because as Von Foerster states, "an observing organism is itself part, partner, and participant of the observed world." Therefore, the whole appearance and illusion potential of perception is brought into reality. It is thus that reality is separated into real or fictive elements, as expressed in the title of two books by the third Austrian founder of Constructivism, **Paul Watzlawick: *How Real Is Real?*** (1976) and *Invented Reality* (1981).<sup>67</sup>

The Austrian founder of biological systems theory, **Ludwig von Bertalanffy**, worked at the University of Vienna from 1934 to 1948; he was de-Nazified and became active in Ottawa, Canada from 1949 and from 1955 in the U.S. (from 1969 as professor at the State University of New York in Buffalo). He also wrote (in the same volume of the Kepes series) about symbol systems, *The Tree of Knowledge*. In one of his later works, *Robots, Men and Minds* (1967), Bertalanffy also expanded psychology with cybernetic and thermodynamic concepts (from N. Wiener to I. Prigogine).<sup>68</sup>

Perception physiology, which Mach had furthered through his work on the ear (the discovery of the balance functions in the inner ear), was carried further by **György von Békésy**, who developed Mach's discovery of the inhibiting sense phenomenon as demonstrated by the example of the Mach bands. Békésy expanded the function of the Mach bands to other sensory areas and in 1928 discovered inhibiting effects in the inner ear for which he received the Nobel Prize in 1961. Over the years he applied his inhibition theory to all of the senses. In 1961 he published the book *Experiments in Hearing* and in 1967, *Sensory Inhibition*. Another Hungarian, **János Szentágothai**, made significant contributions to experimental brain research and with that, contributed to the definition of the brain as a neuronal machine.<sup>69</sup>

In Austria, **Giselherr Guttman** drafted a neuropsychology of perception,<sup>70</sup> an area of research which flourished abroad as cognitive science. Two Austrians, Peter Baumgartner and Sabine Payr, are responsible for keeping track of the success of this Austrian export in the U.S. and for remembering the Austrian forerunners to cognition theory.<sup>71</sup>

The previously mentioned author, **Oswald Wiener**, also delivered contributions to cognitive research over the past thirty years, in that he laid out a theory of the creation and function of imaginary images.<sup>72</sup>

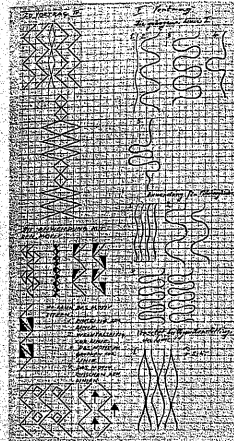
Perception and motion are distinguished as problem areas in the art of the twentieth century. Hungary and Austria have offered outstanding contributions to these areas. The Hungarian contributions by the golden foursome: Moholy-Nagy, Kepes, Vasarely, and Schöffer are well known throughout the world. The contribution of Austria has remained relatively unknown (apart from Kiesler, although it is not well known that he is actually an Austrian since he lived in New York from 1927 to 1965).

The following is a step-by-step attempt to present, for the first time, a coherent picture of the development of perceptual and motion art in Austria and Hungary.

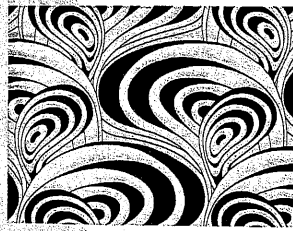
# Beyond Art: A Third Culture

S.37-41

## and the Quadratic World of the Wiener Werkstätte around 1900 (2005)



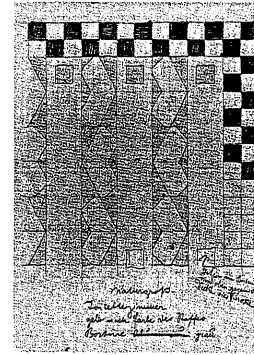
Formenlehre IV (teaching of forms), c. 1900



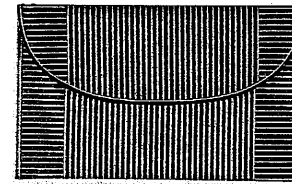
Koloman Moser, Foehn, 1899



Adolf Hölzel, Abstract Ornament, c. 1900



Josef Hoffmann, Sketch for a curtain



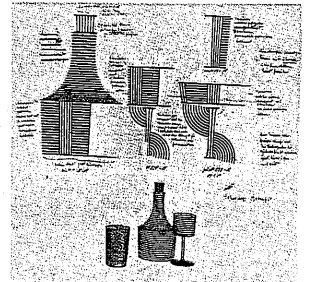
Josef Hoffmann, Purse, c. 1910



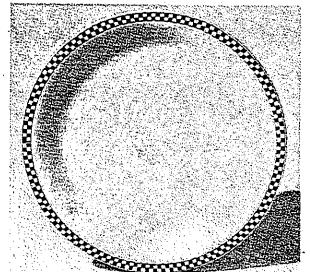
Adolf Hölzel, Composition, 1911



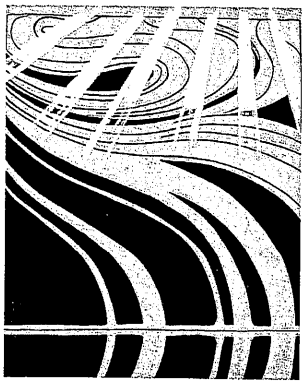
Felicien Freiherr von Myrbach among his students, 1902



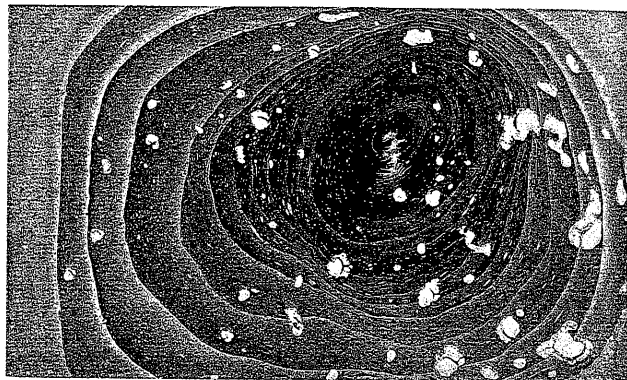
Josef Hoffmann, Service of glasses with carafe (design and product)



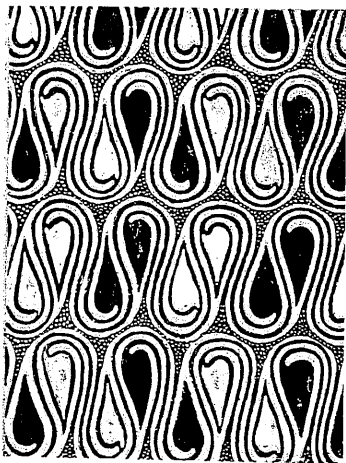
School Koloman Moser, Plate, c. 1902



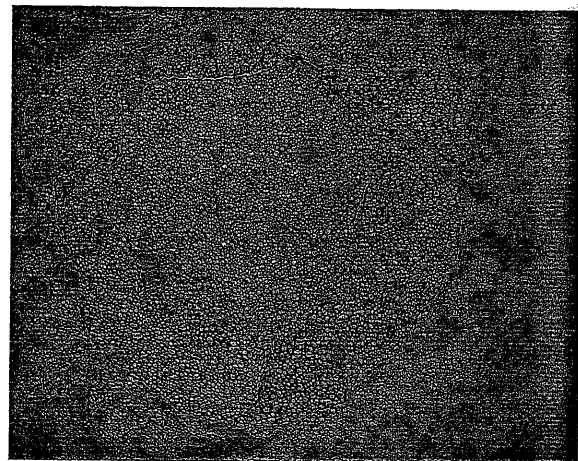
Ernst Stöhr, sketch for *Ver Sacrum*, 1899  
Ink on paper, 30 x 25 cm



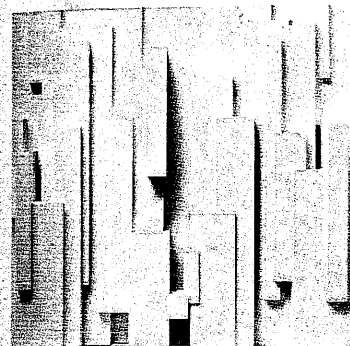
Leopold Stolba, *Untitled (Whirling Form)*, 1904-06  
17 x 27.5 cm



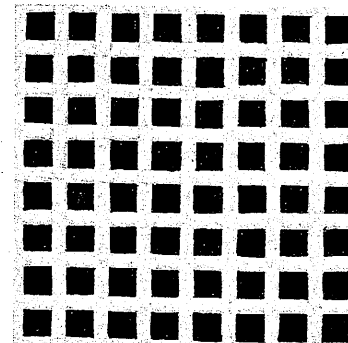
Koloman Moser  
Sketch for floor covering *Meauquettes-weaving*, 1899  
Indian ink, transparency paper, mounted on  
cardboard, 20 x 17.5 cm



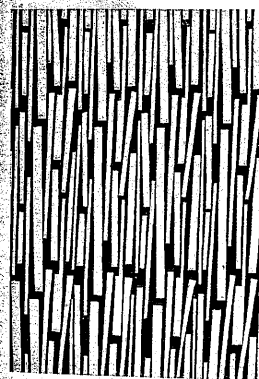
Leopold Stolba  
*Untitled (Red Structures)*, 1904-06  
Oil emulsion on paper, 16.5 x 21 cm



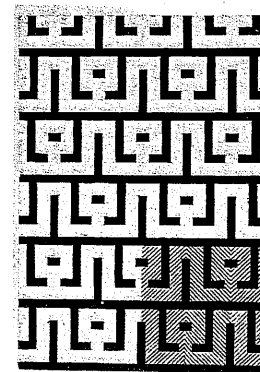
Josef Hoffmann, *Supraporta Relief*, c. 1902  
Wood, painted white, 94 x 96 x 15 cm



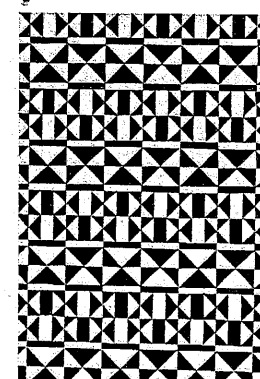
Josef Hoffmann, *Geometrical Abstraction*, c. 1900  
Indian ink on paper, 29.5 x 29.5 cm



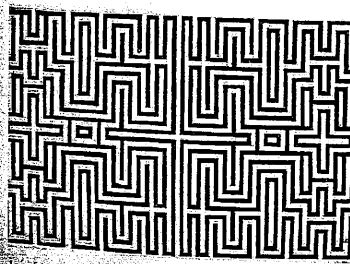
Josef Hoffmann, *Abstract Composition*,  
c. 1900  
Ink, pencil on paper, 42 x 29.6 cm



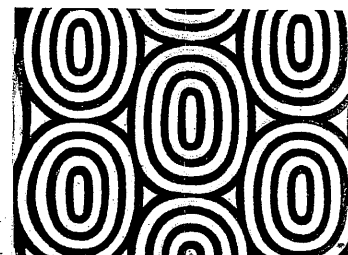
Josef Hoffmann, *Abstract Composition*,  
c. 1900  
Ink, pencil on paper, 29.2 x 21 cm



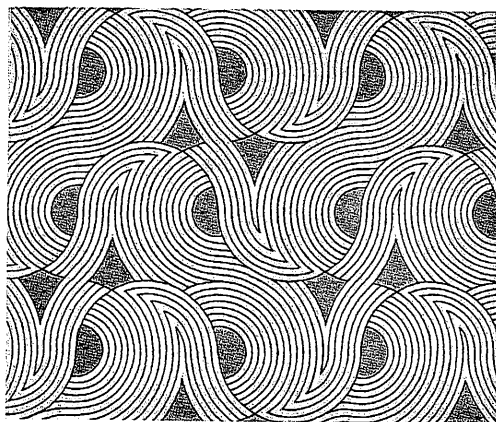
Josef Hoffmann, *Abstract Composition*,  
c. 1900  
Ink, pencil on paper, 29.2 x 21 cm



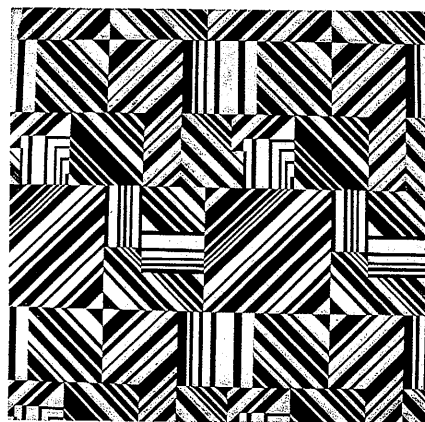
Josef Hoffmann, *Abstract Composition*, c. 1900  
Indian ink, pencil, ink, squared paper, 29.9 x 42.2 cm



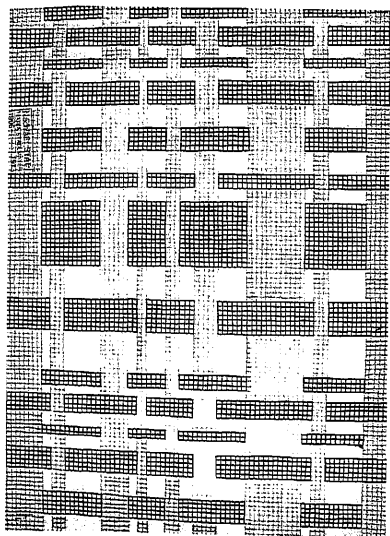
Josef Hoffmann, *Abstract Composition*, c. 1900  
Indian ink, pencil, squared paper, 29.8 x 40.8 cm



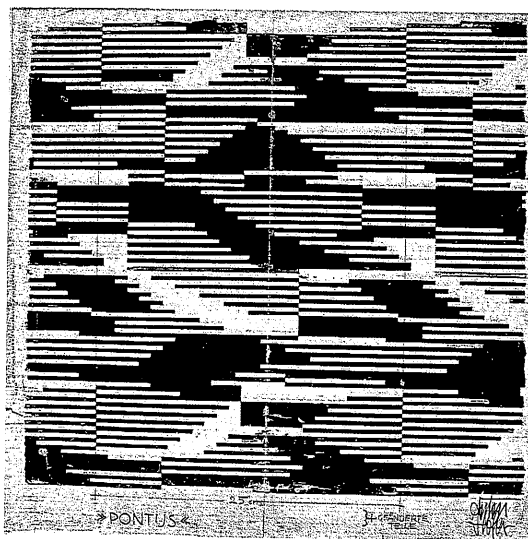
Anton Hofer, *Composition (Wavy Lines)*  
Indian ink, opaque water color on paper, 48 x 56 cm



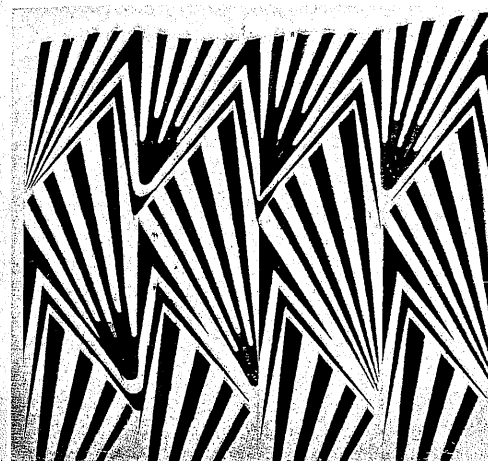
Anton Hofer, *Agata (Plane Ornament)*  
Indian ink on cardboard, 50 x 50 cm



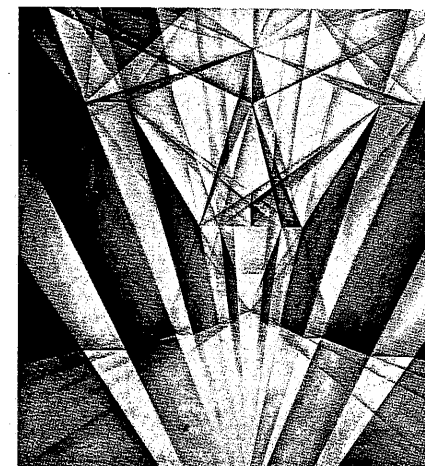
Maria Luzia Stadlmayer-Bieber, *Abstract Composition*  
Opaque water color on transparency paper, 58 x 42.5 cm



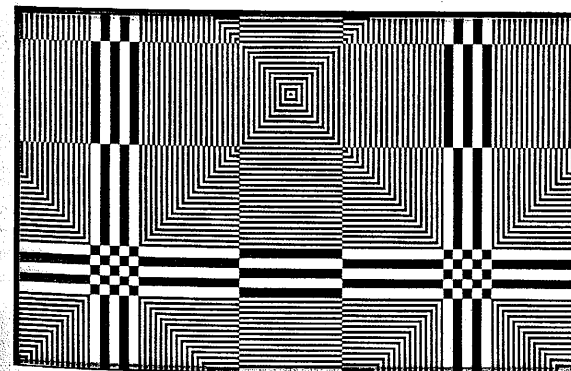
Anton Hofer, *Pontus (Plane Ornament)*  
Opaque water color, pencil on cardboard, 43 x 43 cm



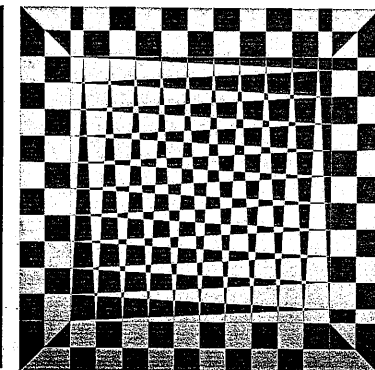
Ilse Bernheimer, *Abstract Composition*, 1913  
Tempera on paper, 38 x 39.5 cm



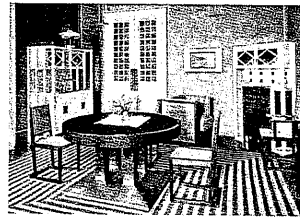
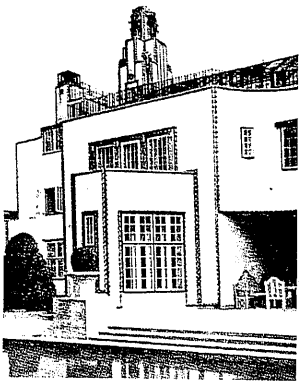
Otto Erich Wagner, *Untitled*, c. 1923-25  
Graphite on paper, 101 x 100 cm



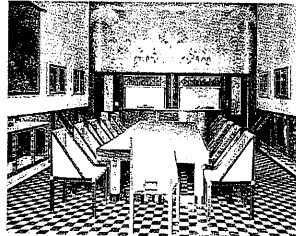
Anton Hofer, *Gizeh*, 1936  
Indian ink on paper, 39 x 63 cm



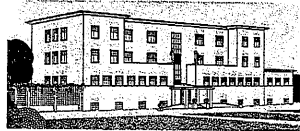
Friedrich von Berzevicy-Pallavicini, *Composition*, 1932  
Tempera on paper, 140 x 140 cm



Josef Hoffmann, Dining Room, house of Dr. Hans Salzer, Vienna 1902



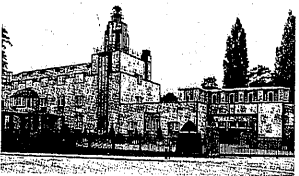
Josef Hoffmann, Dining Room, house of Editha Mautner von Markhof, Vienna 1904



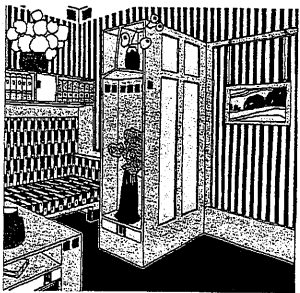
Josef Hoffmann, Sanatorium Purkersdorf, 1904-06



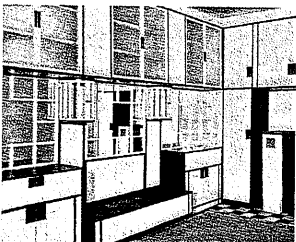
Ludwig Wittgenstein, Villa Stoneborough, Kundmannngasse, Vienna, 1927/28



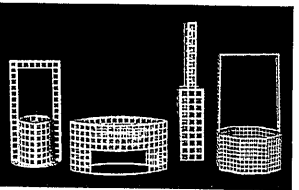
Josef Hoffmann, Palais Stoclet, Brussels, 1905-11



Max Benirschke, Corner in a library room, c. 1901



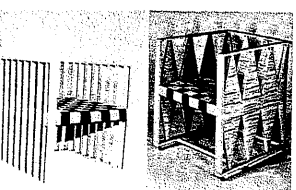
Koloman Moser, Guest room in his apartment on Hohe Warte, c. 1902



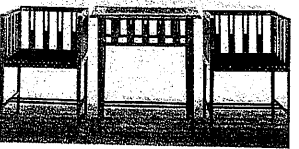
Josef Hoffmann, Flowerbowls, c. 1905



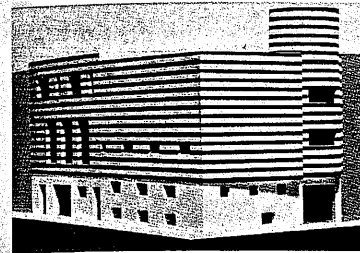
Josef Hoffmann, F. Messner, Study in Villa Biacy, Vienna, 1902



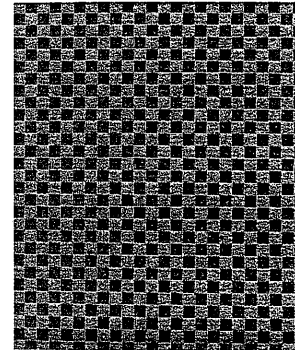
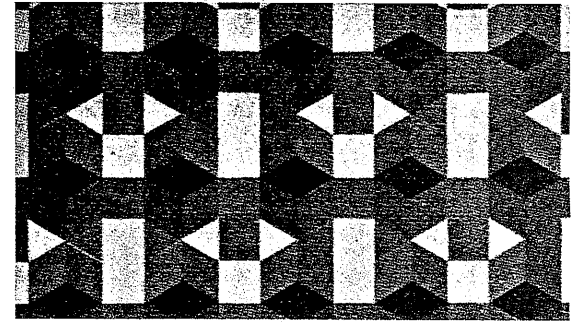
Koloman Moser, Purkersdorfer chair, 1903



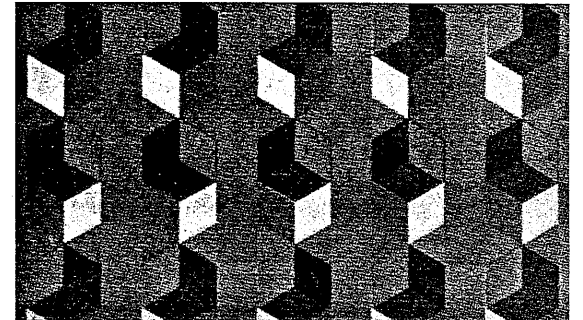
Fritz Zeymer, Chairs and table, 1910



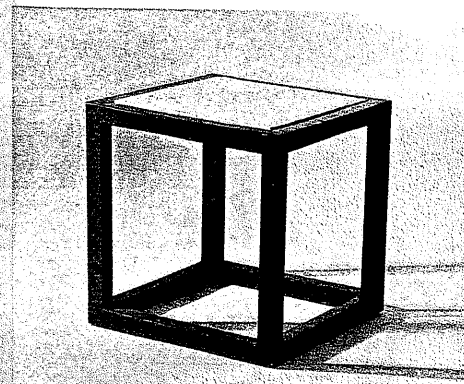
Adolf Loos, House Project for Josephine Baker, 1928 © VBK, Vienna, 2005



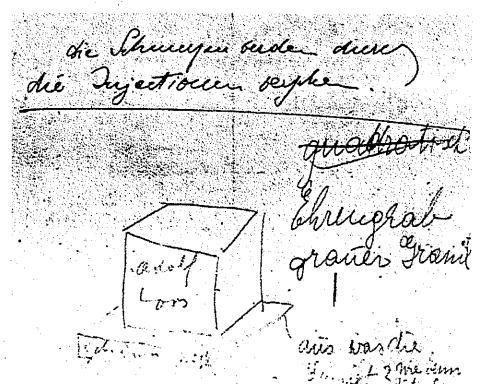
Koloman Moser, Catalogue Cover, XIII. exhibition of the Secession, Vienna 1902



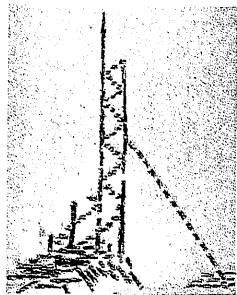
Lily Greenham Green Cubes in Motion



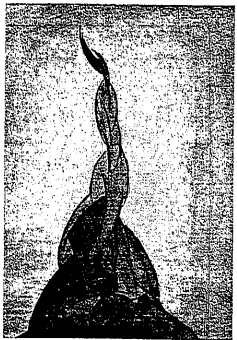
Josef Hoffmann, Cubic table, c. 1904



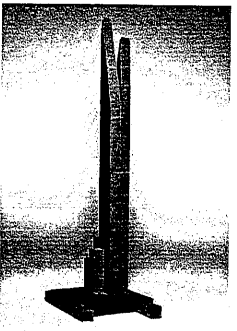
Adolf Loos, Sketch for his tombstone, 1931 © VBK, Vienna, 2005



L.W. Rochowanski, *Rising IV*, 1921  
Charcoal on paper, 45 x 31 cm



L.W. Rochowanski  
*Untitled (Abstraction)*, 1923  
Pencil, gouache on paper  
21.5 x 14.5 cm



L.W. Rochowanski, *Untitled*, 1925  
Wood, 44 x 15.5 cm

**Leopold Wolfgang Rochowanski**, born 1885 in Zuckmantel, Silesia. Studied humanities and at the Faculty of Law at the University of Vienna. Poet, writer, playwright, art writer, and graphic designer. Theater and art consultant in Berlin, Prague, and Paris. Curator of the exhibition *Modern Austrian Art* in Prague (Klimt, Schiele, Moll, Boeckl et al.), 1908. Publications on A. Hanák, J. Hoffmann, F. Cizek, Viennese pottery, Viennese youth art. Pen-and-ink drawings (physiognomic character studies), 1944-1945. Founded the Agathon gallery, opening with an exhibition of Franz Cizek's "Viennese Youth Art," 1946. Publisher of the art magazine *Die schönen Künste*, 1946/47. Died 1961 in Vienna.

References:  
L.W. Rochowanski, *Der Formwille der Zeit in der angewandten Kunst* (Vienna: Burg, 1922).  
B. Leitner, *Rochowanski 1885-1961. Eine Montage*, Academy for Applied Arts, Vienna (Ostfildern: Cantz 1995).

**Otto Erich Wagner**, born 1895 in Klepacov-Blansko, Moravia. Studied at the Arts and Crafts School in Vienna (F. Cizek, R. Larisch), 1922-1924. From 1924 teaching assistant with Cizek. Taken on as an assistant by C. Kosak; 1935. Teaching assistant with R. Klaus at the workshop for folk and tradition, 1938. Member of Vienna Secession. Besides teaching he worked also as a graphic designer and painter. Participation at the International Arts and Craft exhibition in Paris, 1925. Died 1979 in Vienna.

References:  
**Otto Erich Wagner** (Vienna: Galerie Nebahay, 1985).

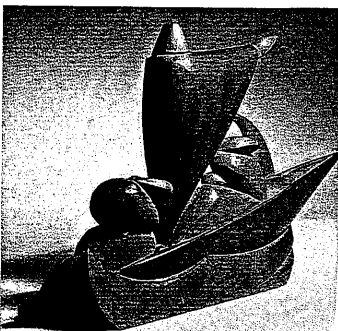
**Anton Hofer**, born 1888 in Bolzano. Studied at the K.K. Technical College Bolzano, 1901-1905. Studied at Academy for Applied Arts, Vienna (K. Moser). Member of the German Werkbund, 1910. Founding member of the Austrian Werkbund, 1912. Trainee with Franz Cizek, 1912/13. Worked as a designer for interiors, as well as in the field of applied arts. Died 1972 in Bolzano.

References:  
**Anton Hofer. Ein Leben für künstlerisches Gestalten** (Bozen: Südtiroler Künstlerbund, 1978).

**Erika Giovanna Klien**, born in Borgo, South Tyrol. Attended Arts and Crafts School in Vienna (with F. Cizek). Encounter with Béla Uitz, 1923. Instructor at New School for Social Research, New York. Design of the *Kinetic Marionette Theater*, 1924. Purchase of works by the Société Anonyme, 1926. Moved to the U.S.A., 1929. Instructor at several art schools following the Cizek-method. Until her death, analysis of the optical conversion of kinetic phenomena. Died 1957 in New York.

Group exhibitions  
1925 International Arts and Crafts exhibition, Paris  
1926/27 Société Anonyme, New York  
1930 New School for Social Research, New York  
1931 Art Center, New York

References:  
**Erika Giovanna Klien, Zeichnungen und Graphik von 1920-1950** (Munich: Galerien Maximilianstraße: Galerie Pabst, 1983).  
**Erika Giovanna Klien und 10 Künstler des Wiener Kinismus**, (Munich: Galerie Pabst, 1986).  
**Erika Giovanna Klien. 1900-1957** (Vienna: Museum of Modern Art, 1987).



Cizek School, *Untitled (At the Lake Genezareth)*  
Wood, 32.5 x 48 cm



Cizek School, *Untitled (Sinking)*, 1931  
Terracotta, 24 x 22 cm

## Bernhard Leitner

### Viennese Kineticism



Johanna Reismayer-Fritsche  
*Kinetic Composition with Letters*, c. 1921  
Tempera, collage

Viennese Kineticism, which lasted only a few years (from 1920 to 1924), was as notable as it was peculiar: notable for both its institutional framework and creative results; peculiar for its relationship to the European avant-garde of that time. Also, above all, it was notable for its key intellectual figure, Franz Cizek.

Franz Cizek (born 1865 in Leitmeritz, died 1946 in Vienna) led the General Department of Ornamental Form Theory at the Kunstgewerbeschule (Arts and Crafts School) in Fichtegasse (Fichte Alley) in Vienna. He also worked with children, teaching courses he developed himself. It was this work with four- to eight-year-olds (the success of which will not be discussed here) that made him known in the 1920s and 1930s well beyond the borders of Austria — in England, France, and the USA.

The legacy of Kineticism, and with it Cizek's achievements, was significantly more Austrian. The principles that Cizek developed in his department were merely tolerated by the school directors, and the work of his students was (according to oral history) often turned down, ignored, and not taken very seriously by Roller, Hoffmann, Peché, Loeffler, and the other influential powers of the school. With the exception of the work *Formwille der Zeit* — a personal interpretation of the Cizek school with an inventory of ninety-three illustrations, published by L. W. Rochowanski in 1922 — Kineticism was hardly known beyond the confines of the school and, as a creative contribution to the period between the world wars, was as good as fully forgotten. Cizek's achievements in this field were even then overshadowed by the success of his children's education program, and this has not changed up to the present.

After some late secessionist years and a short, pompous expressionist phase, after 1920 Cizek concentrated on formal problems of rhythmicity. The main focus of Kineticism (the term is Cizek's invention) was on confrontation with rhythmic movement and the deconstruction of movement sequences. Existing rhythms (and their power potentials) should be recognized, experienced, formally changed, or worked out — through new vision, new recognition.

Its relationship to French Cubism, Italian Futurism, Russian Suprematism, and Constructivism is obvious, but Viennese Kineticism insisted on being independent from Picasso, Balla, Malevich, and El Lissitzky. The circumstances of its creation appear to justify this claim: Kineticism was the product of an Austrian governmental official and professor who, in the matter of this artistic confrontation, never set pen to paper. Cizek was the intellectual leader, but mostly untrained (artistically and intellectually) students aged eighteen and older produced the works of Kineticism in charcoal, oil, wood, and plaster.

Cizek himself may have discussed problems involved in the study of form, providing international examples in his course on General Form Theory, but he recorded no so-called "Theory of Kineticism," and no such document was ever distributed. The students of the General Department of Ornamental Form Theory had to define tasks and problems themselves, and Cizek did not correct them. He was intellectually omnipresent and, apparently, stimulating even in his frequent silence.

It is this type of informal institutionalization and its immediate, direct work with new formal and compositional problems, the obvious mixing of Cubist, Supremacist, and Constructivist aspects — the simultaneous absorption and melting and molding in the works of the primarily visually defined Kineticism — that makes Kineticism a very specific, independent art form. The known works of the Cizek school between 1920 and 1924 are interesting enough to qualify Viennese Kineticism as a serious movement, separate from the usual scholastic copying of the reigning avant-gardisms.

The clear dominance of improvisation — the rapid realization of an idea with often-very simple, cheap materials — was an expression of the seeking and freeing of new powers of abstraction and rhythm. The works were not made to be popular or widespread phenomena. The improvisational as well as the synthetic character of many of the works is not atypical for Viennese styles. The same applies to a further characteristic: Kineticism was entirely apolitical.

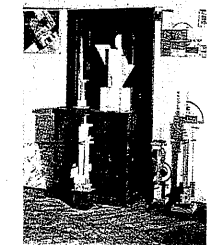
Students could stay one or more years in Cizek's class. For most, the prevailing climate was a guarantee of fruitful, creative work. However, most did not continue to develop as artists after leaving the class. A few grew beyond it and developed an unmistakable artistic personality (such as Erika Giovanna Klien). Cizek was clearly the motivating element. The majority of the pupils were female, and three of these women formed a definitive trio that led the others in productivity and intensity: Ullmann, Klien, and Karlinsky. Their works, as

**Franz Cizek**, born 1865 in Leitmeritz, Czech Republic. Academy of Fine Arts, Vienna (General painting class, Prof. Rumpel; special class for historical painting, Prof. Trenekswald), 1885-1889. Art teacher at the k.k. secondary school in Vienna VII, 1897-1903. Professor at the School for Embroidery in Vienna and director of the training school at the School for Arts and Crafts of the Austrian Museum of Art and Industry, Vienna, 1903-1906. He taught ornamental drawing and composing, directed the course for juvenile art. From 1908 superintendent for art at commercial state schools. Died 1946 in Vienna.

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School exhibit, 1924