Ernst Cassirer and (?) the Bauhaus: The Question of Functional Aesthetics

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Abstract. This paper contrasts the aesthetic thinking of Ernst Cassirer (1874-1945) with the creative work at the Bauhaus (1919-1933). From varied point of views I will ask for the overlappings and the differences. The aim of the Bauhaus — founded by Walter Gropius — was to develop a new unity of art and technology. Ernst Cassirer is widely considered as founder of the Philosophy of Symbolic Forms (1923-1929) which for him includes both art and to some extent also technology. In my paper my aim is to analyse the relationship between Ernst Cassirer and the Bauhaus in an effort to demonstrate the cultural (jewish-german) connections as well as philosophical and artistic technological conceptions with regard to their factual developments until the time of National Socialism and afterwards.

The aesthetic of the engineer for the Bauhaus follows the motto form follows function. This paper asks the question: how do the artistic works of the Bauhaus follow this principle? The aesthetics of the Bauhaus is demonstrated by a number of photographs. For Cassirer symbolisation means a forming operation. My thesis is that his theoretical aesthetic thinking implies a functional aesthetic. This functional aesthetics is based on the priority of the terms of relation over the terms of substance in addition to correlations through thing relations. In that respect the aesthetic of Cassirer is a science of rules, i.e. geometrical rules, that have developed out of observation, or rules of arithmetic. The works of the artists of the Bauhaus, including their designers, technicians and architects is above all a realisation of a similarly functional aesthetic approach. In contrast to Cassirer who has an anthropological access to aesthetics, which, for this reason, also touches on the ethics of humanity, the approach of the Bauhaus is based on the priority of the technical functionality. In this context we need to consider the historic consequences of a

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lack of common cultural and humanitarian goals within the Weimar Republic. This occurred despite of the progress in design, art and architecture in the first half of the 20th century.

In my paper I comment on the philosophy of being by Heidegger. It becomes possible then to review designed objects regarding their temporal characteristics in a different light.

Using the example of chair designer Marcel Breuer I am further approaching the subject of functional aesthetics of the Bauhaus. The aesthetic motto form follows function can be demonstrated by contrasting Breuer’s lattice chair Tī a with his Wassily chair. A chair including its volume, its material components like leather, steel or wood with qualities such as soft or elastic, the ratios of different parts including ratio of height, width, depth, are based on fixed measurement and instruction, where the function produces an ideal form. This means that a chair is based on the conditions of constructing a chair, in modification or necessity of the feature, that has the general principle of form and the general rule for the making of a chair. How is the substantial in its everyday handiness moved up against the Bauhaus drafts yet in another way? New theoretical references to Jacques Derrida emerge using the criteria of art and technology.

Image 1. Ernst Cassirer (1874-1945).

**Introduction**

Ernst Cassirer (cf. Image 1) became famous as the founder of the *Philoso...*  

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sophy of Symbolic Forms. At the beginning of his work he belonged to the Neo Kantians of the Marburg School putting a new emphasis on phenomena, experience and logic. From 1919 on he was a professor of philosophy and for a little while even rector at the Hamburg University until he was removed from his position in 1933 because of his Jewish parentage. He was only 70 years old when he died in New York in 1945, where he moved to in 1941 (from the exile in Göteborg). His well known cultural-anthropological writing Essay on Man in 1944 was elaborated during the time he spent at Columbia University in the last years of his life. The book is a reduced version of the Philosophy of Symbolic Forms which marks the philosophical period after his profound research on the theory of knowledge in the first decade of the 20th century. The first volume of the three parts, today integrated into the complete edition by Meiner publishing house, was written in 1923 (on language), the second in December 1924/25 (about mythical thinking) and the third in 1929 (on phenomenology of knowledge). After his studies amongst others in Marburg Ernst Cassirer married in 1902 his cousin Toni with whom he had three children.

In his works Cassirer examines how man has created his own universe of the symbolic that structures his perception of reality. In an anthropological manner he explores in what way the symbolic forms myth or religion, language, art, history, natural science and technology (Cassirer’s researches about technology have been added in 1930) are holding the general character of symbolic configuration.

My aim in this paper is to show how Cassirer’s thinking, based on functional aesthetics, overlaps in specific ways with the practical functional aesthetics at the Bauhaus. Ernst Cassirer’s Philosophy of Symbolic Forms became one of the most profound philosophies of culture. The Bauhaus until today is classified as the most modern art and design schools installed at the same time when Cassirer was active. Both developments came to an end through National Socialism. Nevertheless one may ask to what extent there was a “contact”? I will show how convergencies and differences between both developmentsturn out in detail.

My thesis is that Cassirer turned out to be someone whose thinking included functional aesthetics — discoverable when analysing and comparing his research and arguments regarding art and technology, that is to say looking at the functional mode of perception. Cassirer’s works includes
several passages characterising an approach on aesthetics on the basis of considerations about form and function. Cassirer’s functional aesthetics seems to converge the symbolic forms of art and technology. In this regard his functional aesthetics can be assigned to his philosophically systematic philosophy of culture, which explores the named symbolic forms as functional forms.

I am going to show that Cassirer as well as the Bauhaus are reflecting the motto *form follows function*. But at the Bauhaus we are dealing with idiosyncratic forms of functional realisations based on the section drawn individuality of artists, designers, architects and technicians. The practical outworking there at core follows geometrical base forms. Cassirer with his holistic thinking tries to put out the producing and perceiving of objects in space as functionally formed and in this regard as measurable and calculable. He makes logically and philosophically explicit that there is no absolute or ultimate reason of entities, only general functional forms of our rational and empirical knowledge.

Within this context I would like to consider that with both Cassirer as well as at the Bauhaus the concept of “beauty” is a different one on both sides. In Bauhaus teaching *beauty* no more depends on imitations or on mimetic qualities as produced in images, but on a functionalism given through a certain purpose through construction. For Cassirer functional aesthetics is given through perception and insofar he is going to embed beauty between two poles, a subjective and objective one.

The claimed functional aesthetics can’t be removed from its anchoring in history or time. The emphasis on this by Cassirer and the Bauhaus happened within a specific political time. This means we have to focus on the Bauhaus between its foundation by Walter Gropius to its closing by the Nazis in Dessau in 1933, where the Bauhaus had to move to in 1925. Regarding Cassirer we have to focus on the loss of his professorship in 1933 because of him being Jewish. In alliance with their overlapping the failure of Cassirer as well as of the Bauhaus because of the victory of the NSDAP

has to be seen in parallelism to the failure of the Weimar Republic.

For my reasoning I am in a first step (A. Bauhaus Design) going to show a few outstanding objects designed at the Bauhaus: exemplary objects of utility and constructions within their context.

The second step (B. Functional Aesthetics) consists of two parts: I will analyse Cassirer’s functional aesthetics in its particular emphasis of the form. Then I will ask for the analogy to the production at the Bauhaus with regard to the motto “form follows function” (a. Form Follows Function). Of importance will be the comparison of the Bauhaus and Ernst Cassirer as a Jewish philosopher of culture in regard to the artistic historical development before and during the Weimar Republic through The Sturm and the galleries or the Kunstsalon lead by Bruno and Ernst Cassirer (b. The Lack of the Human and Cultural Purpose).

Another approach to design at the Bauhaus will be given by taking into consideration Martin Heidegger’s time-based philosophy in the 1920s as well as his posthumous technological exemplifications. Cassirer’s philosophy allows to be put in contrast to Heidegger’s ontological thinking (A Digression on Heideggers).

Finally (C. Marcel Breuer’s Chair Design and Serialism) functional aesthetics will be explored as practically given in the 1920s by Marcel Breuer’s chair design. Its philosophical mode of seriality will be expanded.

**A. Bauhaus Design**

With the next step we are to focus on the Bauhaus with its outstanding design objects, its new constructional techniques, architecture and art. I would like to present five objects: (i) The so called Wagenfeld lamp, (ii) Marianne Brandt’s coffee and tea set, (iii) Gropius’ master house of Dessau, (iv) a weaving of Gunta Stölzl and (v) Peter Keler’s childrens cradle. Afterwards I will give some explanations to the thinking of the connection between form and colour at the Bauhaus (Kandinsky and others). We will be able to recognise the three basis forms used at the Bauhaus: triangle, circle and square in different usage. They were produced constantly in hundreds of variations and combinations.
(i) The “Wagenfeld lamp” was designed in 1924 by Wilhelm Wagenfeld, called series number WG24 (cf. Image 2). Wagenfeld was a pioneer of industrial design. His teacher was László Moholy-Nagy, who became the leader of the metal-workshop of the crafts school in 1928. In 1930 Wagenfeld was a staff member of the Jena glass fabric Schott + Gen. Famous until this day is a tea service developed for the daily use, made of so called Jenaer glass.


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(ii) A famous creation for the household is the Marianne Brandt coffee and tea set (series number MT50-55a) from 1924 (cf. Image 3). The material is silver and ebony and glass for the cover of the sugar bowl. Brandt’s tins and pots were one of the most valuable works of all Bauhaus design. Brandt died in 1983 in nearby Chemnitz (Saxony).

(iii) A famous architecture design are the four buildings of the Bauhaus masters Gropius, Moholy-Nagy, Feininger, Muche, Schlemmer, Kandinsky and Klee in Dessau from 1925-26. They were planned by Walter Gropius (cf. Image 4), one of the cofounders of modern architecture together with Le Corbusier and Ludwig Mies van der Rohe. Gropius (1883-1969) became famous as an industrial designer especially between 1910 (designing the Fagus-factory) and 1914 (through the exhibition Deutscher Werkbund). Henry van de Velde had proposed him as his successor at the Grand Ducal School of Fine Arts of Saxony when this changed into State Bauhaus Weimar. From 1915 to 1920 Gropius was married to Alma Werfel-Mahler who before was married to the Jewish born composer Gustav Mahler.

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4 Image from Fiedler / Feierabend (O. Arndt) 1999, page 432.
5 Ibid. (M. Kieren) 1999, S. 197.
Gropius managed the relocation of the Bauhaus to Dessau after its forcible closing in Weimar through the new right wing government elected in 1924 in Thuringia. After having been the head of the Bauhaus until 1928, he emigrated to Chicago in 1937.

With his architecture he was known for his modern instrumental-rational mode, which differs from strict functionalism. Its peculiarity is nevertheless its strict geometric and closed form, without any ornaments and without gable. The so called building kit form in variation seems to be composed of different sizes of cubes and rectangular blocks. Perceivable is the similarity with the abstract compositions in cubistic and abstract art (quadrangular and rectangular forms crossing or overlapping).

(iv) Another well-known Bauhaus-design are the colourful weavings made by Gunta Stölzl, the only female “masterweaver” of the Bauhaus. The chosen one here is titled “Slit Tapestry red-green” from 1927/28, 150 by 110 centimeters (cf. Image 5). The hanging is cotton, silk, linen. Stölzl’s work, *work of art*, seems inexhaustible concerning Bauhaus design with its favourite geometrical structures. Emphasizing the plane through lines to create fields, and “with a strong tendency to spiritual art”, the tapestry seems similar to Paul Klee’s conceptual designs for hangings.

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6 Image from Fiedler / Feierabend (A. Baumhoff) 1999, S. 357.
had to come back to Bern, the city of his childhood, after Hitler came to power. He became famous for his letter exchange with Marc Chagall regarding his deprecative attitude to First World War. He was teaching at the Bauhaus from 1920 for one decade. Klee started thinking modern art from the forming of the visual line. Like Kandinsky, he explored the line as a geometric figuration and means of showing, precisely as a general rule in its great variety — thought as a “relation” like also Cassirer had already pointed out: embodying a formal regulation, but not as a mimetic representation. Klee’s famous saying is: “A line is a dot that went for a walk.”

(v) Another famous icon of the Bauhaus is Peter Keler’s children’s cradle from 1922 (wood, coloured, rope, varnished), (cf. Image 6). Peter Keler was an architect and painter from Weimar (1898 — 1982). The cradle integrates the yellow triangle, the dark (“blue”) circle and the red quadrangle. What we have here in a striking manner as an integrated form of construction are the three basis forms used at the Bauhaus: triangle, circle and square enabling volume or spatiality. At the Bauhaus the forms were used constantly in hundreds of variations and combinations.

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7 Die Linie ist “ein Spaziergang um seiner selbst willen”. See Klee 1965 (1925), S. 6.
Especially Wassily Kandinsky, who was teaching at the Bauhaus from 1922 onwards as well as Johannes Itten, from 1919 to 1923, were busy with assigning the three basis forms to the primary colours yellow, red and blue. For Itten, who explored colours mainly as light colours (in difference to pigment colours) at the Bauhaus as well, red was the embodied material appearing static and heavy. That’s why he assigned red to the static form of the quadrangle. Yellow for him seemed to be thoughtful, spiritual or pugnacious and blue relaxed, moveable, meaning a constant movement. Kandinsky too had discovered colour from a spiritual and synthetical aspect through his work. He already had published *The spiritual in Art* in 1910 exploring for example “the inner sound of the ideal red”. In different ways Kandinsky and Ernst Cassirer refer to Goethe, but both by taking up his concepts of colour and form. Goethe had pointed out that the material form changes the subjective characteristics of its colour. That is to say *form* — which we can dissolve into function — as Cassirer shows in his researches — provides an objective hull. Through an example by Cassirer on the red colour within the four directions of the quadrangle it becomes clear that the experience of a colour through any form is a functional process combining a logical or structural determination with a psychological as well as mental meaning. The point of connection is that the concept of the functional in perceiving colours could — in artistic regard — be backtraced to Goethe and his experiments with colours, light and shadow in interaction with forms (through prisms) or cubes.

In art as well as in architecture and design for Kandinsky the spiritual was given by its form — and during his time as a teacher at the Bauhaus he was developing his specific constructive approach and a way of thinking in contradictions and complements. Like for Goethe, purple-red for example for him is the result of the cumulation or gain of yellow and blue to be considered as complementary colours. The effect of the same colour for Kandinsky depends on its alliance with the object.

Rather Kandinsky assigned the geometric basis forms to their body-type (ball, pyramid, cube). Oskar Schlemmer, who until today is famous

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9 See Kandinsky 2009, S. 68.
10 Ibid., S. 99-100 and S. 117-120.
12 See Cassirer 2002, PSF III.
through his *Triadic Ballett.* (established in Stuttgart in 1919) and who became teacher at the Bauhaus from 1922 then onwards explored the forms even as body-functions (in rotation for example)\(^{13}\).

But we are also referred to artistic (spiritual) issues that Johannes Itten made as a result of his exemplary *Tape Ball Colour Space* (in seven light grades and twelf tones).\(^{14}\) Many studies were done at the Bauhaus on the basis of colour scales or colour circles (following the order of the spectral colours).\(^{15}\) 1920 Itten created the *Tower of Fire.* (two cubes of coloured glas pile up spirally one upon the other).

While the Bauhaus emerges with its design objects, its new constructional techniques and art, it was inspired by the De Stijl Group from the Netherlands with its art relying on mathematic-geometrical principles: primary colours, horizontal and vertical (straight) lines, asymmetrical and arithmetical compositions (Theo van Doesburg or Piet Mondrian belonged to the group).

\[\text{Image 7. Poster De Stijl, 1923.}\]

\(^{13}\) See Schlemmer 2003.

\(^{14}\) See Fiedler / Feierabend (N. Schmitz), S. 233.

\(^{15}\) Goethe for example referred on a six part colour wheel, but like him and elsewise Newton, Ittens offered colour wheel is following a different interpretation of the different refractivity of the five or seven colours within the “white” ray of light.
Image 7 shows a poster from 1923 giving evidence of the importance ascribed to the cube from both sides. It says: “Welcome. Be happy for the New Design in Painting (Neo-Plasticism) already exerting influence on Europe’s art development. Many use the square but only few have an understanding of it.” And on the left side it says: “Only the [] of de Stijl is legally protected.”

If one compares the manyfold art works of the Bauhaus, design objects or architectural drafts in their variations, the main idea of the Bauhaus is to be recognised. One can find that at the Bauhaus the red square or cube functions as an ideal form. Image 8 illustrates the functioning of the red cube next to Bauhaus design and construction. On the bottom right the red cube — in contrast to the yellow pyramid and the blue ball — is described visually. On the bottom left we can see a 1922 painting of Peter Keler titled De Stijl I. What becomes obvious is that people from the

16 Image from Fiedler / Feierabend (A. Haus) 1999, S. 19.
17 Image from Salmen 2007, S. 63. Peter Keler’s image bears a resemblance to a picture of Piet Mondrian, who died in 1944 in New York. In an extraordinary way Mondrian (together with van Doesburg) worked with the technique of black lines and quadrangular colourfields. His style belonged to that of neoplasticism, in the 1920s with a concentration of visual language on reduction to horizontal and vertical lines, to the non-colours black and white and basis colours red, yellow, blue.
Bauhaus and de Stijl influenced each other.

On the top left is Farkas Molnár’s Der rote Würfel ("The Red Cube")\textsuperscript{18} from 1922/23 developed for the housing estate At the Horn. in Weimar. This is about a design or model for a detached house: a radical interpretation of just formulistic used parameters; coloured levels, pure geometry, reduction of volume. On the top right one can see László Moholy-Nagy’s painting Komposition. ("Composition") from 1923.\textsuperscript{19}

There is a huge experimental work on form and colours at the Bauhaus which refers to the geometrical basic forms mainly in their contrasting combinations. Within this context the analytical result Itten had organised by showing continuous colour functions is of interest.\textsuperscript{20} But with Cassirer, who explored functionally how we are able to understand the serial colours in their dependence of particular forms of expression or forms of description, it becomes philosophically clear that the same colour may have different significances.

**B. Functional Aesthetics**

What has been stated so far opens up a direct connection to Cassirer, who made great efforts to analyse the functioning of signification in perception especially of colours and forms. In difference to Kant’s subjectivism, Cassirer’s approach to symbolic (aesthetic) formation is not based on the allocation of subjective (fictional) signs or terms for the perception of given objects. His concept requires much more the allocation of rules and structures that can be transferred from each of both spheres into the other.

**a. Form Follows Function.**

In his research Cassirer tries to overcome the division between form and matter. In this context he is able to fall back upon the “idea” of geometric forms in reference to the development of arithmetical thinking. This

\textsuperscript{18} Image from Salmen 2007, S. 95..

\textsuperscript{19} Image from ibid., S. 72. For comparison see also Karl-Peter Röhl’s Abstrakte Komposition. ("Abstract composition") from 1926. In: Fiedler / Feierabend (E. Badura-Triska) 1999, S. 168.

\textsuperscript{20} Like today for example we are confronted with the values of colours technological produced by functions (f(x, y, z)), offered through colourcatalogues or patterns.
was especially described in his writing *Substance and Function* (1910) and in regard to his research on Leibniz’ system (1902), before he was going to spend time on the philosophy of symbolic forms. For him, aesthetics becomes a science of forming on the basis of a so called real idealism. Latter rests upon mathematics, in particular on the fact of continuity through irrational numbers. Cassirer’s functional thinking refers to the priority of the so called *term of relationship* (that is to say our concepts and notations are referred to empirical coherencies) as opposed to the concepts of substance which were the fundament for the thinking in antiquity (there belonging to ideas or material entities, see Plato and Aristotle). The *term of relationship* enables to think of correlations which unfold in relations between things (the interiors of a room for example). Cassirer’s research on function have to be seen in contrast to an aristotelic thought substance: from today’s perspective the extensional conceived object or thing.

With the examples shown in section A it becomes clear that the forms of all material objects are based upon a constructive mathematical thinking — without the objects in its particular material being classified ideally like in ancient philosophy through the *term of substance*. Nevertheless Cassirer’s analytical researches give evidence of geometrical forms as “ideal functions”. They are based upon logic causal coherencies, i. e. mathematical principles or objective representable relations. “The quadrangle can’t be round, otherwise it loses the characteristic of being quadrangular” Cassirer states. In this context the spatial figuration is the paradigm for a trigonometric function, meaning the hull of a mathematical thought or the functional order of objects producing the form.

But Cassirer’s *aesthetical experience* joins much more different aspects so that for example the level of description (referring to the presentation of the space through sensual signs) as well as the actuality of feelings and imaginations overlaps with the theoretical (functional) level of the space (based on measurable values or parameters, that is to say numbers). From different point of views in his writings Cassirer makes explicit that language—formation as well as generated sensual qualities, intentions or

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21 Cassirer 2001, PSF I, S. 34.
22 Cassirer 1994, S. 17.
“feeling-qualities”\textsuperscript{23} may be understood as functional produced. In this regard our aesthetic perception is performed by relational and co-relational coherencies. Consequently signs and terms for Cassirer don’t mean any “mapping”, but relationships based on intellectual functioning (also concerning memory, Cassirer refers here to H. Bergson); they also rely on the different forms of life with its particular power of imagination (or better “the producing of it”). Nevertheless for him signs are autonomous creations of the spirit.

At the Bauhaus artists were primarily focused on manual processes, but also on forming or shaping the different materials or light (see for example Moholy-Nagy’s light constructions together with his experimental works on photography\textsuperscript{24}) by corresponding it to the basic forms or to light-colours in different combinations. Or they developed their ideas technologically in reference to individual theoretical research. In this regard another famous motto from 1923 \textit{art and technology — a new unity}, was primarily a desire of the architects favouring a New Building Activity (“Neues Bauen”) in a different way like with W. Gropius, L. Hilberseimer or H. Meyer.

Cassirer’s philosophical approach to aesthetics depends on the distinction of the symbolic forms as functional forms together with their impact on our bodily and sensual perception. Modern design by Cassirer may be seen as an overlapping of art and technology (in German language he uses the older and vividly term “Gestaltung”. Regarding his whole work Cassirer develops the term further taking recourse to Goethe’s showing of \textit{Idee und Gestaltung} / idea and design).

In his theory Cassirer tries to give evidence about the aesthetical experience by mainly looking at the perception of colours. But he overlaps only to a certain degree with Kandinsky as both follow Goethe’s research on colour and form.

Much more Cassirer puts his studies into effect with a philosophical emphasis on the primal phenomenon, the \textit{metamorphosis} and the \textit{symbol}. Kan-

\begin{itemize}
  \item \textsuperscript{23} See Cassirer 2006 (Essay on Man), pp. 86-87.
  \item \textsuperscript{24} See for example László Moholy-Nagy’s constructional works in Fiedler / Feierabend (M. Schmitz) 1999, S. 301 and 304.
\end{itemize}
dinsky has more emphasis on colours and their relations on the principle of an “inner sound or necessity”. At the same time Cassirer’s thinking is based on continuous series: on series functioning as functions or the series concept as relational concepts in perception. While experiencing the world principles of series determine or allow logical changeovers from element to element and organise them among certain point of views. In this context Cassirer insists on aesthetic perception exhibiting much more depth. “Our aesthetic perception exhibits a much greater variety and belongs to much more complex order than our perception with our ordinary senses does. In sensual perception we are content with comprehending the common and constant features of the objects of our surroundings. Aesthetic experience is comparably richer. It is pregnant with infinite possibilities which remain unrealised in ordinary sensual experience,” Cassirer states.

In summary, according to Cassirer’s wide explanations, our perception is made up of functional proceedings. There is no primordial form and hence no primordial substance or material. For Cassirer, experiencing a colour — by looking at an art work — depends on the function of expression, the function of description and the function of significance or meaning. Such a symbolic “pregnant” experience (in regard to consciousness and spirit) is proved by Cassirer as a mental forming operation. That is to say that we are able to reduce the difference between two colours, let us say red and blue, to a numeric difference. But for Cassirer it would be “a very inadequate way of speaking if we declare number to be more real than colour”.

What really is meant then is that a number has a more general meaning. But through his research on symbolic forms we would be able to explore the same “numeric” colours as sensory qualities and as feeling-qualities (taking our emotions and passions) who are altogether irreducible. In this regard they are secondary characteristics that have a primary pure quantitative determination as a basis. Both sensory qualities and feeling-qualities are real in Cassirer’s eyes or a step to reality as so far as they are measurable. Nevertheless art for Cassirer is an interpretation of reality not by concepts

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26 Ibid., p. 86.
27 Cassirer adds: “The world of our sense perceptions, of the so-called ‘secondary qualities’, is an intermediate position.” Ibid.
but by intuitions (also in this way he refers to Bergson by considering his research on memory). As a whole it becomes clear that Cassirer exceeds Kant’s subjectivism as given in the critique of judgement. Cassirer states that pleasure itself is no longer a mere affection, but becomes a function. In this regard his aesthetical thinking relates to beauty. This is less about taking up Kant’s statement of a “purposive without purpose” pointing to a formal purpose (allein die ästhetische Vorstellung der formalen Zweckmässigkeit), but to beauty in its idealistic anchoring. In his chapter about art in *Essay on Man* it becomes evident that Cassirer emphasises beauty as experience and productive process. Cassirer is taking up Goethe’s “sensous form” and he is referring to Schelling and Hegel for installing his notion of aesthetic beauty as a relation between (subjective) affects and mind. Cassirer’s researches on aesthetics and on art don’t remain by past idealism. In a new way Cassirer refers much more on the several artistic modes of expression and differentiated structures of perceiving the world through art. So he is able to come to the result: “The real subject of art is to be sought in certain fundamental structural elements of our sense experience itself — in lines, design, in architectural, musical forms.

“Art” at the Bauhaus was considered as tradition, an old style of earlier epochs (“classicism”, the architectural style of H. van de Velde). In contrast, the modern artists thought of themselves to be “avant-garde” or “post avant-garde” at the time when the “artistic revolutionary phase” that already had begun before World War I was over. “Beauty” then was supposed to be “a beauty of reduction”. In this context functionalism at the Bauhaus was aiming on the regression of pure aesthetical formal principles behind the intended purpose defining the form.

For this reason I would like to claim that with Cassirer, in aesthetical perception, although it is about subjective physical conditions, we nevertheless would be able to speak of an adequate or appealing design when it

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29 Kant 2009, KdU, B XLIV.
30 Cassirer 2006, pp. 159 and 161.
31 Ibid., p. 154.
32 Ibid., p. 159.
33 Ibid., p. 171.
comes to constructive paradigms. We are always concerned with an “universal sense form” in reference to the function, or with objective forms in reference to functions, or to functional series in empirical ways.

After having shown various differences and overlaps concerning aesthetics at the Bauhaus and next to E. Cassirer I am now going to unfold in what way the convergence of both culminates in the motto form always follows function. The motto comes from Louis Sullivan, his article The Tall Office Building from 1896, and Dankmar Adler (architect, at last in Chicago). The motto is bound to the Bauhaus slogan already alluded to: Art and technology—a new Unity. In 1923 Gropius introduced the words to carry on a change from manual to industrial production. The concept was to train a new kind of artist-technician, capable of coordinating the work of all the many specialists; to assure a new standard of quality in industrial produced goods. Whereas art and technology with Cassirer are allowed to be classified as symbolic formed results. Art offers new views on the form of things and in this regard follows form function, that is to say related to an open (future) way of perceiving things. The distinctive feature of technology is its being determined by function. Art and technology may be seen as two symbolic forms which mesh as a “relational whole” by integrating sense, feeling and body qualities forming a “somatic presence”.

When Cassirer stated in 1930: „In his technological behaviour man owns no defined form, but first has to search for it” — he doesn’t only leave behind metaphysical views, he much more allows us to understand technical and technological production as a generated body and sense related mode (that is to say now: technology not only perceived as material and converted data). Sensation (“Empfindung”) for Cassirer, becomes clear, is not given in equal measure from outside, but through individual mind-body-relations.

So on the one hand the motto Form follows function, for Cassirer speaks of an universal feature of production and aesthetical principle in the sense

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35 Cassirer aims on offering technology a place “in the whole of culture” (that is to say on considering technology as a symbolic form like art) and to question its principle of becoming in the sense of a “forma formans”. Ibid., S. 42-43.
36 Cassirer 2002, PSF III, S. 141.
37 Cassirer 1995, S. 55.
of a rule. *Form follows function.* is about a relation of elements that join a specific formed subject-matter kept together by fulfilling a defined logical condition. But on the other hand, with Cassirer any specific function of this relation of elements is related to psycho-physical conditions which may also cause dysfunctionality (and is in this regard intensional). When every symbolic pregnant perception for him somehow is ascribable to basic geometrical forms such as triangle, square, or circle as views ("Anschauungsformen") leading to a logical perception (in a *vectorial* extent) it is aiming on a “whole” that at the same time is not complete, but a specific “differential”.

In matters of design we have learned from Cassirer that different mathematical functions may belong to one form and different forms to one function. So Cassirer somehow helps us to understand a concept put forward by Gropius. Gropius possibly denied the existence of any “good form” in the sense of: there are criteria for one “good form” or there are right and false forms.\(^3\)

I would argue that through the Bauhaus as well as with Cassirer it becomes obvious that “form” (its quality) always is the result of a specific produced and perceived “function” (depending on quantity), but does not exist independent of experience.

As exposed for Cassirer art and technology are classified as symbolic forms. The act of symbolisation means a *forming operation.* He assumes a priority of the material principle, as well in physical regard. Sensuality is subordinated to the functional. At this point we understand that aesthetics for Cassirer is a *science of form* in general.

Within this context Cassirer concentrates on perception processes and on phenomena of expression which enable the specific spiritual forming of our being there. Latter is based on an intentional *experience.* (“Erleben”).\(^4\)

Cassirer’s key to understanding these processes of experiencing is the al-

\(^{3}\) Walter Gropius insisted on not to design objects, but functionals systems adapted to living conditions. See Fiedler / Feierabend (A. Haus) 1999, S. 21. About the functionalising of colour at the Bauhaus, see also Hajo Düchting who describes the functional Dessauer phase (1925-1928) under Gropius and from 1928 to 1930 under Hannes Meyer. Düchting 1996, S. 15.

ready referred to “symbolic pregnancy”\(^{40}\). With this we understand a way, „through which an experience of perception as sensual experience at the same time holds a certain ostensive sense and brings it to an immediate concrete view.”\(^{41}\) A “symbolic pregnant” feature is based on an “ideal woveness” (ideelle Verwobenheit).\(^{42}\) It emerges through a function of expression (within a movement of expression), in this regard meaning *a forming following a function*.

*b. The Lack of the Human and Cultural Purpose*

Is there any deeper reason why I am taking the connection between Ernst Cassirer, the Philosopher of Culture, and the Bauhaus as an important theme? What is the research interest of my comparison? The answer might be found in the manner how the diverse culture in Germany during the first half of the 20th century “happened” or “did not happen”.

On the one hand one can — at this time — recognise a common interest in the development of culture with a special view on modernity (I am beginning with the end of the 19\(^{th}\) century) on the side of the philosopher of culture Ernst Cassirer and more practically on the part of the Bauhaus as the most “modern” art school in the 1920s. On the other hand there is the failure of a broad cultural development through the victory of unparliamentary powers and through National Socialism at the beginning of the 1930s that affected the acting of some people at the Bauhaus and the acting of the Cassirer family to which Ernst belonged to.

Ernst Cassirer’s cousins Paul and Bruno Cassirer, were both collectors, art dealers and publishers (also the artists or masters of the Bauhaus — but without them having been in an immediate contact with each other).

\(^{40}\) Ibid., S. 230. *Pregnance* can only become efficient within the act of perception. Every real symbolic pregnant perception contains an immediate presence. Every moment is saturated with functions through a constructive thing-character-arrangement. Every constructed thing comprehends a rule which the figuration, geometry, structuring, designing or composition follows. Perception belongs to a certain sense order. The ideally woveness onto a certain sense order forms the pregnance which also is a perception of body.


\(^{42}\) Ibid.
They for example had a preference for artists like Max Liebermann, Lovis Corinth, Max Slevogt or Georg Kolbe. Paul Cassirer in Berlin had arranged several art exhibitions already in the German Empire. He had organised the “Berliner Secession” originally in 1898 together with his cousin and successful publisher Bruno Cassirer.

The Bauhaus was closed by the Nazis in 1933, at the same time Ernst Cassirer as a Jew had to leave his country. Behind the background of the historical dramatic facts at the end of Weimar Republic I would like to ask for the differences regarding the “German” and “Jewish views” on a future culture before 1933. It could happen that we will find some enlightening points of intersection there concerning The Bauhaus and Ernst Cassirer. Already before First World War there was a general anti-semitic strained relationship between agents of the avant-garde and the so-called reaction. In regards to artistic development there was a “dispute” between both sides. Back then in art, impressionism, classicism or the ornament belonged to the “old”. Yet before 1914 architect Adolf Loos in terms of a Nietzschean way of articulation had proclaimed the “illness” of recreating an van de Velde ornamental style.

From the beginning of the Weimar Republic on the political development was more dominated by questions of economics and politics, and the ten-

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43 From 1920 until 1933 Liebermann was head of the Prussian Academy of Arts at Berlin. With some paintings Liebermann had also referred to the former Weimarer Malerschule from which avantgardistic art had distanced themself.

44 Bruno Cassirer with his publishing company published Ernst Cassirer, whereas Paul was engaged in publishing the writings of the philosopher Ernst Bloch.

45 The problem of the conceptual classification in regards to „Judentum“ (jewry) and „Deutschtum“ (german heritage) is discussed by Christoph Schulte, in: Schulte 1993, S. 5–27.

46 See the writings of Adolf Loos from 1908–1911. Loos: „Ornament ist nicht Ausdruck unserer Kultur“ (“Ornament is not the expression of our culture”), S. 50. „Ornamentlosigkeit ist ein Zeichen geistiger Kraft“ (“having no ornament is an indication of mental power”), S. 57. „Ornamentik ist unästhetisch“ (“the ornament is unaesthetic”), S. 54, and so on. Loos 2009. Later, in the 1920s, one could also hear critique from the far side on the “repeating quadrangle style” at the Bauhaus.

47 The first meetings of the German National Assembly with its legislative procedure after the destruction of monarchy happened in the National Theater in Weimar (hence “Weimar Republic”), later in Berlin.
sions between socialism\textsuperscript{48} and social democracy (the “Worker Question”), the tensions between liberalism and more conservative parties. In addition there was aggression from the extreme right against both Jews (the “Jewish Question”) and the left. This outlined social context also concerns the “relation” between “Jewish” and “German” artists and intellectuals like the Cassirers, a well-known and well-off “civil” and “emancipated Jewish” family in Germany with their wide spreaded living in different areas \textsuperscript{49}.

In regards to my theme I am trying to show immediate points of contact between the Cassirer family and artists of the Bauhaus, contacts which were given early through “third persons” and places (somehow as meeting or mental connecting points):

— As Paul Cassirer had spent time in Munich during the turn of the century, Wassily Kandinsky was staying in Munich from 1900 onwards. At this early time the poet Stefan George was influential — whom Ernst Cassirer as well as Kandinsky had met there. We know about this fact from Toni Cassirer\textsuperscript{50} as well as publications like the *Jahrbuch für die geistige Bewegung*.

— By studying Toni Cassirers biography we realise that she and her husband were in close contact with their cousins, especially publisher Bruno Cassirer and his wife.\textsuperscript{51}

— Kandinsky had taken the chance of exhibiting at the Berliner Secession in 1902 as well as at the New Berliner Secession in 1911 at the Kunstgalerie Potsdamerstr. 122 which was lead by collector Paul Cassirer (him becoming president of the New Secession in 1912).\textsuperscript{52} In 1912-14 Kandinsky founded the *Blaue Reiter* in Munich before he had to leave Germany and went once again going back to Moscow.

— It was Herwarth Walden\textsuperscript{53}, publisher of the weakly avant-garde magazine for art and culture *The Sturm*,\textsuperscript{54} who had offered Kandin-

\textsuperscript{48} and communism.
\textsuperscript{49} Nearly all of the Cassirers possessed art works. See Brühl 1991.
\textsuperscript{50} Comp. T. Cassirer 2003, S. 70–71.
\textsuperscript{51} See ibid., S. 106.
\textsuperscript{52} See Mühlhaupt 1991.
\textsuperscript{53} Walden was first married with Else Lasker-Schüler (Jewish).
\textsuperscript{54} Walden worked together with Paul Cassirer from 1910 to 1912 in exhibitions because of his growing interest in art. See Friedrich Pfäfflin: *Herwarth Walden und Karl Dratf*.
sky several opportunities for exhibiting. In 1913 Walden had organised the exhibition Erster deutscher Herbstsalon, with pictures of the The Blaue Reiter and of Paul Klee as well as Lyonel Feininger.\(^{55}\) The Sturm Art School, installed in 1916, was lead by Georg Muche (until 1920).

— Herwarth Walden, for whom the first part of Ernst Cassirer’s Philosophy of Symbolic Forms was of importance (on the basis of Substance and Function in 1910)\(^{16}\), had published an article on “technology and art” in The Sturm in 1921.\(^{57}\)

— Later “Bauhäusler” like E. Klee, W. Kandinsky, L. Feininger, G. Muche, L. Schreyer, L. Moholy-Nagy or O. Schlemmer had been reviewed in the The Sturm, established in 1910 or had exhibited in Walden’s migrating art galleries (from 1912-25). Step by step they were becoming famous then because of their works as masters and their publications at the Bauhaus.

— Also from ca. 1912 on intensive discussions and critiques in art magazines like Der Sturm, by Walden and Das Kunstblatt, by Paul Westheim, both writers who have been in strong competition to each other, seemed to have generated a specific artistic atmosphere in the Berliner art scene.\(^{58}\) Their disputes over many years with contrasting “judgements” also concerned Bauhaus art and architecture.\(^{59}\) On the part of Bruno Cassirer, founder of the art magazine Kunst und Künstler (“art and artist”), in it was his editor Karl Scheffler who published negative reviews on Kandinsky or Feininger from

\(^{55}\) Paul Cassirer’s art salon was to some extent an „example“ for Walden. See Brühl, S. 33. But at the exhibition Erster Deutscher Herbstsalon (1913), organised by Walden and also Kandinsky, no one who was invited there should exhibit at Cassirer. Reason therefore might have been an affront against Kandinsky’s art in very early times. See Brühl. S. 36 and 49.

\(^{56}\) See Brühl 1983, S. 94.

\(^{57}\) Ibid., S. 98.

\(^{58}\) See Windhöfel 1995, S. 93-112.

\(^{59}\) Westheim became an influential art critique and author: conservative, also liberal-economically thinking and from a “civil” rising jewish family like Paul Cassirer who had supported him through the Pan Press. See Windhöfel 1995, S. 215-246.
the Bauhaus.\textsuperscript{60}

So, the ambitious artists and designers in Germany must have known of each others activities in different ways.

— In October 1913 Gropius and Gertrud Grunow, an opera singer and Bauhaus master from 1920–24, as well as Ernst Cassirer, were participants at the first Congress for Aesthetics and Art History in Berlin. It was about a meeting to discuss questions of music design, aesthetics of colours and acting, chaired by psychologist and member of the Theosophic Society Max Dessoir but also with a broad and special interest in the art of building (with an emphasis on the style of van de Velde). But in 1919 director Gropius will have removed the non-symmetrical, non-ornamental artists from The Sturm to install the Bauhaus workshops.

There are more different contact lines and points of intersection of which at this point I just would like to give a small insight:

— Still in the Wilhelminian epoch architect Henry van de Velde, founder of the New Grand-Ducal Saxon School of Arts and Crafts in 1907, had furnished the art saloon in Bruno and Paul Cassirer’s house in Berlin (Victoriastraße 35); art patron Harry Graf Kessler who had chaired the Museum for Art and Arts and Crafts in Weimar from 1903 on for a long time had worked together with Henry van de Velde as well as with Paul Cassirer (founder of the art magazine PAN)\textsuperscript{61}. In 1933, Kessler who in Weimar Republic had supported the moderate left, had to emigrate.

— Then we know about the common interest in Goethe’s knowledge on form and colour by Ernst Cassirer and with a theosophical background by Wassily Kandinsky; both are focusing on design-theoretical and –psychological contexts in regard to colours even if in a different manner.\textsuperscript{62}

\textsuperscript{60} See Brühl 1991, S. 258 und S. 259.

\textsuperscript{61} In addition see the “cosmopolitical” cultural and political engagement of Harry Graf Kessler and Paul Cassirer, described by Sigrid Bauschinger: Paul Cassirer und René Schickele. Der Verleger und sein Autor. In: Feichenfeldt / Raff 2006, S. 228–239, esp. S. 237.

\textsuperscript{62} Interesting to me also seems to be a crossing point in respect to Schiller’s aesthetics regarding Ernst Cassirer, the humanist, and Oskar Schlemmer (who at the Bauhaus was producing a functional aesthetic view on man’s body).
— In 1924 artist and master Gertrud Grunow had to leave the Bauhaus like dramatic adviser master Lothar Schreyer who with their artistic activities both moved to Hamburg. Then from 1924 to 1933 Grunow was working in Hamburg in the psychological laboratory and institute (lead by William Stern) as well as at the philosophical seminar of Ernst Cassirer (who was in close interchange with Stern and gathered many suggestions from the library of Aby Warburg). She was in close contact with Gertrud Bing, the assistant of Aby Warburg doing a PhD under Ernst Cassirer.

Following different theoretical research there was a common cultural and political generated field for an encounter but through it on the other hand, as one could point out, went a deep disruption. The division mainly refers to a tension (or difference) between the so called art tradition and the avant-garde (or later post avant-garde) in regards of art and culture. This becomes clear for example through the increasing agitation on the part of Herwarth Walden and his supporters fighting for the avant-garde (first celebrating and publishing the Austrian artist Oskar Kokoschka in 1910) and the “civil” like Paul Cassirer (who exhibited Kokoschka 1911 in Karlsbad). For them, the latter was still supporting impressionistic art and the “civil art” attacked from their radical side. They at first had supported Kokoschka (who by the way sustained a love affair with Alma Mahler-Werfel, the wife of Walter Gropius for a few years from 1911 on). Walden who later moved to Soviet Union insisted on having discovered the true characteristics of expressionism in art.

Then, in the Weimar Republic the division between the various artistic-philosophical movements broadened because of differences in their thinking. Their opinions led them to opposing political activities in respect to the new economical organisation of the republic, mainly regarding a socialist versus a liberal view on which they were unable to agree. Economical and social problems divided the several groupings more and more. Strong discrepancies generated a human and cultural lack within the german so-

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63 See Toni Cassirer’s note about Stern’s message to Ernst Cassirer in 1919 concerning right straightened students in Hamburg trying to boycott jewish professors. T. Cassirer 2003, S. 124.

64 See Cassirer 2002, PSF III.
ciety and as well within the artistic working network, which once was a together working mix of Germans and german Jews or jewish Germans.

Looking at this context one can recognise uncertain political opinions, making it impossible today to judge in simple ways. Karl Kraus, publisher of the famous satire *The Fackel* (1899-1936), for example distanced himself from Walden after once having been an advocate of *The Sturm*. As did architect Adolf Loos who kept a civil architectural style even if engaged for the so called underprivileged.

Lothar Schreyer, dramatic advisor and master at the Bauhaus as well changed his position from the left leaning *Sturmbühne* (belonging to *The Sturm*) to a more Christian oriented *Kampfbühne*, the theatre of Hamburg he was managing. Paul Westheim (the critic), having initially rejected Kandinsky’s art for many years in his articles would change his opinion on Kandinsky from 1927 onwards.65

On the level of art the different opinions were also characterised by the opposition of esoteric and rational attitudes (cp. Johannes Itten, the Bauhaus master whom Walter Gropius dismissed in 1923 because of his esoteric education and behaviour). Several (often personal) disagreements were more and more causing tensions in relationships amongst artists affecting their cooperation because of their different attitudes regarding politics and economics.

The difficulties and strong tensions of an unstable social situation characterise the development at the Bauhaus in a particular way from 1919 until 1924, especially as regards its provoked removal to Dessau in 1925. Gropius will have to decide to dismiss masters like Itten and Grunow (latter once recommended to Gropius by Itten) or Schreyer. Gropius was going to keep László Moholy-Nagy, who during his early time of teaching was in favour of socialism, then was convinced of the positive possibilities of technical design for all social layers and who later would install technical renewals in photography as well as work in the field of advertisement. Moholy-Nagy would leave Germany via England to the United States in 1928, like Gropius.

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65 See Windhoevel, S. 243.
This is to say that the Bauhaus and the Cassirers with their thinking are to be found in the same trace of modernism, in some respect even in political regards — that is to say both sides were fighting for the social participation of all citizens and in this regard they were campaigning for mental freedom as a possible feature of Weimar Republic.

It seems as if there was a “contact without contact”. “Germans” and “Jews” needed each other for certain purposes or realisations but without becoming friends, that is to say under the disguise of a hidden or quite public antisemitsm and as well by each staying for themselves. The aim of the Cassirers seemed to be an intellectual, ideal, artistic and economical living form focused on cultural and social integration. Amongst many others “engaged” authors Paul Cassirer had published writings of Eduard Bernstein who also was seen as a New Kantian, but this was in connection with his research on a scientific socialism favouring the parliamentary democracy (and with critique of marxist philosophy of history). Ernst Cassirer, the Marburg Neokantian, with his comprehensive and special philosophical explanations remained idealistic (also as an Hegelian, as well as with his work as researcher of Goethe) whereas at the Bauhaus and in its environment one felt much more accompanying to Nietzsche’s opinion of art (see for example Paul Klee’s writings).

The overemphasis of the functional at the Bauhaus seemed to be a psychological (social) and philosophical “answer”, a sort of a mental “cleansing” from a false or instrumentalised idealism, a cleansing from the sad experiences of the years before, the First World War and even the two Russian revolutions, 1905-07 and 1917. This meant that the “future” was brought to expression within formulistic slogans (form follows function, art and technology — a new unity). In this context it seemed as if the break of the esoteric behaviour of Johannes Itten, e. g. his practising of the esoteric “Mazdaznan” living form, expresses a sort of an outbreak of the rational direction to a spiritual way of living. This yet means a contrast to Gropius’

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66 For the personal estimation on antisemitism at the Bauhaus by Alma Mahler-Werfel: see Beyme, S. 562.
67 In 1928 Ernst Cassirer held a speech to the Ceremony of the Constitution on 11th of August 1928 (“Verfassungsfeier am 11. August 1928”) in Hamburg focusing on the human and civil rights (“Menschen und Bürgerrechte”) by referring to the American Bill of Rights.
opinion and the one of many Bauhaus masters who were trying to put the economic (industrial) production forward. Regarding the relationship between the engaged Cassirers and the non-Jewish artists (with their relative involvement and their different political attitudes concerning the Weimar Republic) it is to be noticed that the failure of the Weimar democracy in some respects was caused by insolvable questions on economics that at random were pulled together with unsolved problems in regards to the Jewish question, that is to say the question of their integration (the question of their “national or ethical status” as Jews). The philosophical, artistic and political engagement of the Cassires was focused on economic efficiency and social integration for which their families had oriented themselves through “Jewish emancipation”. The question of integration may be seen as main reason why they approved the ideas of liberalism and (social) democracy.

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Regarding the issue for the “human being” the Jewish-German-relationship as a cultural fact was mirroring the lack of the human and cultural purpose of the Weimar republic (which stays with the philosopher Kant an end in itself). By proclaiming the “international” the Bauhaus was mainly focused on the universality of technology beyond different cultural (mixed) parentages unfolding a “Little Vienna” at the institutes. At this point it becomes clear that the presentations with which Jewish “emancipated” philosophers tried to imagine theoretically “culture” or had offered a “thinking of modern culture” outclassed the practical and personal efforts of most of the german intellectuals and practitioners in ethical ways.

Cassirer’s scientific cultural thinking as a whole, with the philosophy of symbolic forms as main part, seems to be the result of the described crisis. This crisis arose from a decline which is paradoxically given by the over-accentuation of the functional itself, its one-sided influence on economic, social and political developments — and which caused him to renew “transcendental idealism” (proving him as a Neo-Kantian). Ernst Cassirer keeps an idealistic aspect by developing the symbolic forms as human forms of expression (in the 1920s) and by stressing their anthropological condition.

68 See for example Paul Cassirer’s publications of Ferdinand Lassalle and Eduard Bernstein on socialism.
69 At heart referring to „International Architecture“. See Gropius (1981 / 27).
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(see his writing Essay on Man). In this context design is meant process-related, as an act of designing of human beings and of human beings in the world.

In 1925 the Bauhaus was removed to Dessau for political reasons. The Bauhaus takes a development which parallels the political unstable situation of the Weimar Republic which was going to be closed by the Nazis in 1933. Cassirer’s anthropological thinking in the 1920s and 1930s remained without any possibility to influence the social development, which eventually lead to the Nazi crimes. He would leave to Gothenburg via Oxford, and in 1941 to New York.70

A Digression on Heidegger

I would like to clarify in which ways Ernst Cassirer overlaps with (or differs from) the Bauhaus by contrasting his thinking with the thinking of Martin Heidegger. After all, it was with Heidegger with whom Cassirer held the famous Davos Disputation.

Cassirer’s theory of cognition is rubbing itself against the theory of the younger Heidegger who at the same time offers a new ontological view on the “event”.

I am going to refer to Heidegger whose thinking — in contrast to Cassirer and the Bauhaus — offers another aesthetical approach in the late 1920s. The reason for this is Heidegger’s reference to the essence or the essential in such a way that he is able to develop the question of being and existence. Existence becomes a mode of its possible temporal and spatial being. So, Heidegger allows another approach to design and living form that will be explained as follows.

His philosophy in Being and Time (from 1927) does not rely on constructive thinking. Instead, it is bound to existential questions like that regarding, for example the “ready-to-hand” of a tool for manufacturing objects with its respective being. A tool integrates an existential “quality”. In this sense, time and space are bound to human existence or the being-there (the relevance of questioning the “how of time” in contrast of

70 Like a few Bauhäusler managed like Walter Gropius, Marcel Breuer, Mies van der Rohe, László Moly-Nagy.

asking “what is time”). Being at this point is bound to differences that have to be seen as inner or essential differences, the same as another, against the background that identity emerges from being the self (Selbigkeit), less from any identity considered as a formulative relation. For Heidegger “the identical” has to be seen “as a fugue of its different shaping.”

By focusing on existence Heidegger’s thinking does not aim at the most efficient solutions in economical or industrial sense. This becomes clear again in later texts such as: The Question concerning Technology (1953/4) or The Thing (1950). There he had already managed the so called “turning”, fulfilled in the 1930th, involving a leap from the existential truth to the truth of being, which also becomes clear in The Origin of the Work of Art from 1935. Of importance is that Heidegger’s thinking is based on the questioning of the causa materialis, the causa formalis, causa finalis and causa efficiens as given by Aristotle with regard to technology. Heidegger somehow makes fall the “causa finalis” — the purpose — the relevance in producing things as a main aim of technology. At this point the difference to Cassirer — who is defending the principle of causality — becomes obvious: Heidegger replaces the causality in which technology is based on through the term “verschulden” (“being the cause of something”). So the interesting point with Heidegger is, that there would be, in regard to “construction”, another viewpoint on the problem of any functional “rest” — the functional rest that isn’t dependent — or the mathematical values (numbers) that do not fit as a “constructive problem” (by what creative liberty would become possible for Cassirer).

For Heidegger the facilities of a living form like working in a “small office” would not be seen from so called progressive, “objectivated values” that have to “fit” into a certain purpose. Much more they would be “questioned” in respect to the “existential or timely attitudes” they are provoking. “Téchne” (greek), Heidegger clarifies, means to salvage the truth, not just to fabricate, more to perceive something as something. With reference to Heidegger’s existential terms and with respect to practical building (or engineering) one feels provoked to underline that technology does not

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72 See Heidegger 2000 (Die Frage nach der Technik), S. 9−10.
73 Ibid., S. 14.
function by relying upon its “essence” or a sort of techniques. So the key difference between Cassirer and Heidegger regarding technology (I am referring to the “hardware”, not *téchne* as techniques) is that Heidegger tries to get rid of the problem that functional systems work as systems (that is to say circular, as a “whole”). If technology or something in life does not function human beings often need purposive constructional solutions what rather seems to be the initial point for Cassirer.

So, if we want to use “technology” in everyday life, technicians or engineers have to tackle the complex problems concerning the technological functioning of elements. At the Bauhaus workshops it was necessary to prove material in its usability, including its practical characteristics.

Heidegger’s thinking marks another aesthetical approach on art and ‘*stuff*’. ‘Stuff’ (Zeug) serves as a term in an ontological (idealistic) sense, it is applied to equipment or things which are usable for something in a special way, for example because of their exceptional material being. It has to be noticed, that for Heidegger art means the producing of ‘stuff’ and thinking about ‘stuff’, which is primarily not thought aesthetically in the way of “questioning or recognizing beauty”. For Heidegger hand-made or manual work as well as art means *poiesis*. Therefore ‘*stuff*’ is questioned in its handiness (“Zuhandenheit”) for a providing, caring and concerned existence. Design objects are “readiness-to-hand”, not just available. So, Heidegger’s emphasis on the “comprehension of being” becomes explicit in reference to assignment to materials, the works (or designs) as a “Stoff-Form-Gefüge”74 (“material-form-fabric” or “texture”) dependent on leather, threads, needles or other material.75

Building upon Heidegger’s late thinking on ‘*stuff*’ like designed things allows an existential approach on “living” that he calls “dwelling”. That is to say for example that with Heidegger a special material might be questioned in its “wherefor”. Questions of the affordability of *industrial design* and on economics to what the Bauhaus was directed to (in regard to the supplies of a “mass” of people), may be contrasted with Heidegger’s concept of “dwelling” that on a first step is not based on a maximum profit seeking.

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75 Comp. Heidegger 2010 / 1936, S. 42 and 58.
which would add the human being (the being-there) “afterwards”.

“Dwelling”, discussed in his text: Building Dwelling Thinking (1951), refers to spatial qualities not through functionality (geometry, mathematics) in terms of optimizing space but in their belongings to the fourfold “elements” of earth, sky, god and mortals (of interest insofar is the ontological thinking of the manifold directions based on the “four” in difference to the “cube”, see part A). Not only quantitative conditions are of relevance but my temporal-spatial being-there by the four world neighborhoods. That is why Heidegger insists on the „Geviert” (the “fourfold”) as a square, or better as a bridge; space for him always means a sort of a bridge, connecting our being-there with ‘stuff’.76

For Heidegger not all buildings are dwellings in the sense of habitable spaces which allow to combine dwelling, thinking and living. He writes: “Yet space is not something which faces man. It is neither an external object nor an inner experience. It is not that there are men, and over and above them space; for when I say “a man” and in saying this word think of a being who exists in a human manner — that is, who dwells — then by the name “man” I already name the stay within the fourfold [in German: Geviert, B.L.] among things”.77 Heidegger invites us to produce things or buildings as places.

In contrast to Cassirer Heidegger asks: “What is the relation between location and space? What is the relation between man and space? Are the planned buildings constructed to house people?” Heidegger asks for the kind of living conditions in regard to the existential orientation of human beings. When Heidegger focuses on the relation between human beings and space as an “essentially thought dwelling” then the “attentive thought” once more characterises the handiness (“Zuhandenheit”) of designed objects as well as of tools. Measured values are not the foundation for the essence of space. Space is not primarily to be understood in its geometri-

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76 Compare Cassirer’s functional approach on “the four”, in Cassirer 1994, S. 32.
78 Office and apartment blocks, with its so called “international style”, built in the 1950s in cities like Chicago or New York by L. Mies van der Rohe. See Fiedler / Feierabend (Ch. Asendorf) 1999, S. 227 and 228. Does this style still embody the attitude of the early Bauhaus? I would like to question.
cal measures, but by ‘stuff’ that provides a joining of spaces, interspaces or gaps like a fugue does.

Martin Heidegger turns against geometry as the measuring of the world\(^9\). Yet his embroilment into National Socialism as a rector of the University of Freiburg from 1933 to 1934 (see his 1933 speech as rector of the University: *The Self-Assertion of the German University*\(^{80}\)), his conceivable calculating ratio as regards his keeping silent on how he had behaved during the time of National Socialism or his argumentation in conversations after 1945, can in my opinion be seen as a proof for the negative transgression of his own philosophical-ontological implications.\(^{81}\)

“Providence”, “chance”, “coincidence”, “fugue” are terms on which Heidegger relies to describe dwelling or building.\(^{82}\) At the Bauhaus Lyonel Feininger (1871-1956) was the first Bauhaus master as well as Paul Klee who similar imagined the fugue to visualise space, but mainly in music and rhythmical regards. One of Klees’s famous images is titeled “Fuge in Rot”\(^{83}\) (“Fugue in red”) recurring to a painting technique considered as “polyphon”.\(^{84}\) Feininger himself owned a dimensionally accurate modern low bookcase for his music room with two and three small levels which could be seen as a fugue in its thingness.\(^{85}\) He takes the idea of the fugue also from his organ compositions (“Feininger’s Fugen”) and paintings on cathedrals (nevertheless proclaiming the “Cathedral of Socialism” at the early Bauhaus). In the Bauhaus manifesto of 1919 a woodcut by Feininger\(^{86}\) was referring to a church in “Gelmeroda” (Weimar).

Through fugueness space becomes a tangible arrangement. With Heidegger we are philosophically concerned with the “thingness of the fugue”. Cassirer as well takes up the term (talking for example of the perception

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\(^{79}\) Heidegger 2000 („…Dichterisch wohnet der Mensch…” / Poetically man dwells), S. 199.

\(^{80}\) Heidegger (1990 / 1933).

\(^{81}\) See Altwegg 1988.

\(^{82}\) Heidegger 2000, S. 160.

\(^{83}\) See Düchting 2005, S. 28.

\(^{84}\) See also Pöggeler 1995.

\(^{85}\) See Fiedler / Feierabend (Ch. Metzger) 1999, S. 278.

\(^{86}\) *Programm des Staatlichen Bauhauses in Weimar*, (Programme of the State Bauhaus), see in: Fiedler / Feierabend (K. Wilhelm) 1999, S. 180.
taken as an “objective fugue”\textsuperscript{87}, but doesn’t want to project it like Heidegger does. Nevertheless Cassirer “leaves behind” his NeoKantian attitude when taking up Heidegger’s notion of time which is founded in presence as a presence of the present, presence of the past and presence of the future\textsuperscript{88} that is to say shaping itself like a “fugue”. With it, that is to say through relations back and forward present time grasps three different regulations. But Cassirer does not give up his position of the comprehension of the functional.

In contrast to Heidegger one can say, for Cassirer functional aesthetics “happens” in our modern times logically by manual operations as well as mechanical up to technical and technological procedures. That’s why he in \textit{Symbol, Technik, Sprache} (1930; title in English: “Symbol, technics, language”) focuses on the intention given with technical forms as \textit{formed result} with a precedence of the material principle. But at the same time Cassirer tries to explore human conditions: his researches on the material-form-relation include psychological and physical conditions as deficient, insufficient or inchoate conditions, for example in regard to the brain and to the retina as well as to memory so that we are about a fragmentary perception which finally turns out to be dysfunctional.

\textbf{C. Marcel Breuer’s Chair Design and Serialism.}

Using Marcel Breuer’s chair design, a comparison of the slatted (latten) chair \textit{Ti 1 a} and the Wassily chair, I in the end would like to explore functional aesthetics in its serial characteristics. Having discussed Cassirer’s term of relationship and Heidegger’s philosophy of essence I am going to examine seriality in its philosophical mode as newly explored in the late 1960s by Jacques Derrida.

In postwar Europe the Bauhaus became the most important center of modern art. Marcel Breuer (born in 1902 in Pecs/Hungary and who died in 1981 in New York City) had stayed at the Bauhaus from 1920 to 1928. His idea was one of making furniture out of tabular steel. No one at this time used

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\textsuperscript{87} Cassirer 2002, PSF III, S. 65 or see Cassirer 1995, S. 59-60.

chromium plated steel — the material of bicycles — inside a home. Within a few years the young master who in 1924 had taken over the direction of the furniture department designed remarkable tabular steel chairs, stools, tables and desks including several notable interiors, developing the concept of unit-furniture. Gropius appointed Breuer to Harvard Graduate School of Design, so he moved to the United States in 1937. Breuer was known for combining an aesthetic sense with practical know how. One of his motti was: “I like to think of the most luxurious house and I like to contribute to the social aspect of architecture”\(^89\).


\textsc{Image 9} shows Breuer’s armchair \textit{Ti a} constructed between 1922-1924\(^90\) (the textile of one of the first constructions consisted of canvas, with dark and blue stripes\(^91\)). The design is based on anatomic research. Horsechair fabric (in tension) was used in place of upholstery, to support the body of the sitting person in comfort. Using only wooden boards of equal thickness amounted to an experiment with elementary forms\(^92\). \textsc{Image 10} shows the

\(^89\) Blake / Brodovitch 1955, p. 11.
\(^90\) Image from Bauhaus Museum Weimar.
\(^91\) Blake / Brodovitch 1955, p. 19.
\(^92\) Breuer reported that the rebellion against rigid symmetry moved Bauhaus people 1920 towards an asymmetrical composition. Symmetry was “comme il faut” before. The center of a thing is its most important zone. An elemental symmetry is found in most primary natural forms, in all geometric forms. Symmetry was a system of practical relations.
same armchair\textsuperscript{93} in comparison with Breuer’s \textit{Wassily chair}, once \textit{black}\textsuperscript{94} and another time \textit{white}.\textsuperscript{95} (Klubsessel B3, 1925, steel tubenickel plated) and a red folding chair (club chair B4, in red, 1927)\textsuperscript{96}. Again it becomes clear how Bauhaus design orients itself by relating for example the basic colour red (or white or black), to a technological (industrial) produced colour to the basic quadrangularform.

The \textit{Wassily Chair} was the first chair with a resilient structural frame of continuously bent steel tubing. The body is supported on all sides between bands of fabric under tension. In place of legs, the chair has sled supports and slides easily. The light interwoven structure should suggest a new form concept. So one can see that Breuer “shifted” materially: from crafts (wooden) to industrial technology (aluminium furniture) like the slogan “art and technology — a new unity”\textsuperscript{97} asked for. Breuer’s modern style to a center. Construction and economy turned them towards proven solutions and experiments with new developments and adventures of progress. From Blake / Brodovitch 1955, pp. 10-11.

\textsuperscript{93} Image Slatted chair (on the left) from Salmen 2007, S. 101.
\textsuperscript{94} Image from Bauhausmuseum Weimar.
\textsuperscript{95} Image from Fiedler / Feierabend (K. Hintz) 1999, S. 624.
\textsuperscript{96} Ibid.
\textsuperscript{97} See The Bauhaus Manifesto from 1919.
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Birgit Leitner

aims to have equal weight, equal clarity, and equal expression to each important element.

Breuer’s chairs generate references and respectively modes of spatial form configuration adapted to quadratic (or cubic or angled) appointments (like expanded below), small at the top or equably expanded. The colour chosen for the material of the seating allows coming back to the term of series. The aesthetical device form follows function, can be analysed by using the example of the chair: the chair consists of his volume, its material designation (leather, steel or oak wood with attributes like hard or elastic). The proportions (surface percentage in height, breadth, depth) are based on fixed measures and arrangements. The function coming into being creates an ideal form.

![Image 11. Advertisement for Breuer’s Chairs.](image)

Breuer’s chairs are an example for functionalism at the Bauhaus aiming on the abdication of pure aesthetical formal principles behind the intended purposeful (in German: das “Zweckmäßige”) defining the form. “Zweckmäßigkeit” can be translated from German into English with “practicable”, “functional” as well as “purposeful”. But this “purpose” as a part of the construction is not related to Kant’s “purposiveness without purpose” (referring on formal qualities in aesthetics when judging a beautiful felt object). Nor would I say that this purpose intentionally (or willingly) is

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98 See also the title of the Werkbund magazine “Form” (1925-33) in which Bauhaus people published.

99 Kant, KdU, § 10 und 11.
considered as a “good purpose” in moral respects, that is to say would have meant a behaviour or an action in this regard.

At the Bauhaus the *purposeful* meant “usability” for practical and comfortable purposes on the basis of functional proportions. So the functional itself meant much more “Zweckfunktion” (in English: what construction or design tends to be practical for the human body and for living in small rooms or houses). Breuer himself delivers the proof (cf. *Image 11*) when characterising his tabular steel furniture in 1927 through the descriptions “elastic back rest”, “elastic arm rest”, “elastic head rest”, “elastic cross pillar”, and “elastic seat”.

![Image 12. Sales Brochure of Breuer’s Furniture.](image)

The final image* Image 12, from ibid. (A. Gleiniger), S. 331.

The final image shows how the designed elements are mirroring the rhythm and pattern of mass production. In this scope we are faced with a thinking in continuous colour and form series and their degrees of strength. As a result things as designed objects become easier to reproduce, serial and manageable for everyday commodities of a mass of people. But in regard to an objective design the *temporalisation of time* and *time-becoming space* may be perceived as a *codified and designed temporalisation of time* and *becoming space*.

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* Cf. *Image 12, from ibid. (A. Gleiniger), S. 331.

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Image 12 shows that the signs of the mobiliar express the pieces of furniture to be equivalent to each other, more or less convertible, easily replaceable and so on. The industrially produced series creates the aesthetics of iterability. There is repetition and variation creating differentiality as the “infinite” characteristic of functional aesthetics in mathematical ways. The resulting style of such functional produced articles of furniture marks the individuality of Breuer as designer.

The image makes clear that we do not think the functional design objects how they might belong together “causal”, as if there would be merely one logical or ideal way how the pieces could be put or fit together as a whole arrangement. Much more the design is perceived as a set of single related or analogous pieces which enables individuals to realise his or her own ideas easily. There is rather the possibility for many individuals to create their singular bigger or smaller spaces and to combine the heterogeneous articles of furniture following his or her own taste and by quick sliding the modular elements.

Philosophically considered we cannot imagine the production of such design objects within the coherence of the metaphysically thinking of substance (substance as something implicating an ideal entity or an absolute being), because of the disparity of the origin, meaning the replacing of substance through the necessity of relations; as explained by Cassirer within an infinite thinking and calculating. The latter was phenomenologically (that is to say primarily through our “visual writing”) elaborated by Jacques Derrida but with a close link to Heidegger’s thinking of temporalisation. Derrida’s theoretical access is opening the liberty (of modernity) to change, improve or transform measures that is to say to play with signs, codes and differences, but not to think them dependent of any external signifier. Derrida enables us to think the same object or “the sign of a design” through its dislocation in other environments or in its relative pres-

102 Derrida (see e. g. Derrida 2009) refers to the difference between signifier and significant philosophically, marking a non-presence of “the thing itself”, in regards to the thinking of an origine. In this way the signification is based on a “broken sense”. With Cassirer this broken sense of a “sense-functionality” is much more bound to dysfunctionalties (“pathologies”) in physiological and mental ways. Cassirer (see 2002, PSF III).

ences. With every new conception the furniture “will not stay the same”.

As with Derrida every presentation is not mimetic, but the object is put into a shifted presence in respect to its “real being” any written or printed signs show objects in their “absence”. From the view of the real objects there is only the secondary preliminary feature of the emblem — characterising the anti-metaphysical being of the objects. Already Cassirer stated that instead of the presence to representation (“Vergegenwärtigung”) we just have forms of relations through signs and sign systems. With Cassirer (part B), it should have become apparent, that real being consists of an incomplete or excessive perception. In this “narrowed” regard it is true for Derrida as well as Cassirer that “the incompleteness of the real” would enable designing and its process.

Conclusion

This paper contrasted the aesthetic understanding of the Bauhaus with the approach used by Ernst Cassirer.

There were three areas which were relevant in view of the accomplished comparison (to my knowledge, this connection has so far not been analysed in the literature): first there is a commonality in “functional aesthetics”. This allows the rediscovery of the interconnectedness of shape and function as a specific tool for design: form follows function, as a practical understanding at the Bauhaus and in its theoretical traceability through Cassirer. Second, we were able to reveal hidden points or planes of contact in line with artistic exhibitions, publications as well as renewable concepts of art by the medium of former gallery Paul Cassirer as well as the journal and gallery The Sturm. The references go back to the German empire. Third, both “sides” ultimately fail inevitably through the emergence of National Socialism. Researching the philosophical, aesthetic and historic overlap of Bauhaus and Cassirer, points to a new understanding of the specificity and significance of both subject matter. By contrasting the two, the functional aesthetics of Cassirer in its modernity at the time becomes concrete in a new way. The multi-faceted Bauhaus with its to this date individual design can be classified or illuminated afresh from a cultural-historic perspective.

References


