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## Chapter 2

# The Bauhaus

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### Essential reading

<http://www.bauhaus.de/english>

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### Additional reading

- Bayer, H., W. Gropius and I. Gropius (eds) *Bauhaus 1919-1928* (Martin Secker and Warburg Ltd, 1975) [SBN 436036851].
- Borchardt-Hume, A. (ed) *Albers and Moholy-Nagy: from the Bauhaus to the New World* (London: Tate Publishing, 2006) [ISBN 1854376918 (hbk), 1854376381 (pbk)].
- Itten, J. *Design and Form, The Basic Course at the Bauhaus* (Thames and Hudson, 1975) [ISBN 0471289302].
- Kandinsky, W. *Point and Line to Plane* (Dover, 1979) [ISBN 0486238083].
- Naylor, G. *The Bauhaus Reassessed* (The Herbert Press, 1985) [ISBN 0906969298, 0906969301 (pbk)].
- Poling, C. V. *Kandinsky's Teaching at the Bauhaus; Colour Theory and Analytical Drawing* (Rizzoli, 1982) [ISBN 0847807800].

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## 2.1 Background

The importance of the Bauhaus in this course includes its attempts to rationalise design and production. The formalisation of these creative ideas lends itself to implementation in computer-aided design and visualisation tools. To understand this we need to review the work of some important individuals and their interactions.

The Bauhaus was founded by the architect Walter Gropius in Weimar in 1919. This school of architecture and design in a small town in Germany was to have a profound effect on artists, designers and art education in both Europe and the USA, leading to long-term influences on society in terms of architecture, interior design and furnishing.

Germany had undergone an industrial revolution following its unification from a number of independent states in 1871. The speed with which Germany had shifted from an agricultural country to an industrial one caused social problems. Large cities developed where small villages had been and the small cheap dwellings built for the workers led to slum conditions. Major industries such as Krupps expanded from a small steel works in Essen, to an enormous industrial complex manufacturing armaments. In 1885 Daimler and Benz built their first motor car. Roads and railways were constructed. The population of Germany quadrupled.

Germany was now an important trading nation and with this rise in importance, there was a related development in German art. Dresden and Munich, followed by Berlin, emerged as artistic centres. The artists in the German Expressionist movement were influenced by the work of Van Gogh and Gauguin with their use of colour to express emotion. Based in Dresden the 'Brücke' artists—Kirchner, Heckel, Bleyl and Schmidt-Rottluff—were influenced also by the linear quality of Gothic art and the fact that the artist carvers were anonymous members of a guild which did not differentiate between art and craft. The Brücke artists wanted their art to "speak to the people". They published a manifesto calling upon youth to revolt against old established ideas.

In Munich a New Artists' Association was formed. Members included Kandinsky, Jawlinsky, Münter and Franz Marc. They organised an exhibition of work by Picasso, Derain and Vlaminck in 1910, but the group broke up and Kandinsky and Marc formed the 'Blaue Reiter' group. In a publication they produced, Kandinsky wrote that distinctions between different art forms should be broken down.

Kandinsky had arrived in Germany from Russia in 1896. He had studied law, but turned to art and art theories, writing "Concerning the Spiritual in Art", a justification for abstract art. Kandinsky was affected by colour which caused him to hear definite sounds. This had an effect on the development of his art. He had an interest in colour for its own sake and by 1910 he had produced his first abstract painting of basic shapes, lines and forms. In his "Compositions", Kandinsky carefully arranged shapes and colour to attempt to communicate feelings to the spectator, whilst in his "Improvisations", which were more freely painted, he wished to express experiences and feelings.

New ideas concerning the direction of art were developing in other countries. In Russia, Tatlin pioneered constructivism, an abstract art form that made use of machinery and modern materials. In Holland, a group of artists published a journal called *De Stijl*. Mondrian was the most famous member of the group. The austere, abstract style had more influence on architecture than painting and also an influence on designers working in the Bauhaus.

Walter Gropius (1863–1969) had been a student at the Weimar School of Arts and Crafts when the Belgian architect Henri van de Velde had been its director. Van de Velde pioneered the Art Nouveau style. He designed the building which was opened in 1907, offering courses in printing, weaving, ceramics, book binding and precious metalwork. An art academy was on the same site. In 1915 the school was closed and the workshops dismantled.

Before the outbreak of the 1914–1918 war, Gropius had worked in the design office of Behrens at AEG where he had developed ideas for standardising components for construction and written, with Behrens, a Memorandum on the Industrial Prefabrication of Houses on a Unified Artistic Basis.

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## 2.2 The Beginning of the Bauhaus

In 1907 an organisation called Werkbund, led by Muthesius, an architect, was formed. Muthesius maintained that industry, not the artist had the energy to make cultural changes. He held that architecture should move towards standardisation. Gropius disagreed with this theory, as he considered that the artist or architect should determine the forms of buildings.

Gropius and his partner Adolf Mayer were successful architects before the First World War. Gropius had designed the model factory for the Cologne exhibition, the Fagus factory<sup>1, 2</sup>, furniture and a locomotive. After the war Gropius was asked by the Weimar State Council to formulate his plans for establishing a school of art and architecture. In 1919 Gropius was appointed as director.

### 2.2.1 Principles for the Bauhaus

Gropius produced the Bauhaus Manifesto to set out his aims for the school.

He wrote that all creative arts were to return to the crafts and there was to be no difference between the artist and craftsman. Architecture was the supreme art form.

Artists must be trained to work for industry. Artists, architects, sculptors and craftsmen should all work to one common goal.

The Bauhaus staff would consist of a master and a journeyman to each workshop, ensuring that techniques as well as design ideas were brought together.

There were to be six categories of craft training:

**Sculpture** stonemasons, woodcarvers, ceramic workers and plaster casters

**Metalwork** blacksmiths, locksmiths, founders and metal turners

**Cabinet making**

**Painting and decorating** glass-painters, mosaic workers and enamellers

**Printing** etching, wood-engravers, lithographers and art printers

**Weaving**

Apart from studies in these areas, students would experience instruction in drawing and painting, including colour theory, the science of materials and basic business studies.

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## 2.3 Bauhaus developments with new staff

Johannes Itten joined the Bauhaus in 1919. He developed the Basic Course of one term's length. Here the students were taught to develop self-confidence. They were taught theories of form with emphasis on the simple basic forms of circle, triangle and square. Compositions were made employing the three shapes. These shapes were derived from Cubism and were seen as historically primary in art. Also they are independent of nature and easily produced, appearing in Itten's Wood and Metal Workshops. In addition, students learned colour theory in order to understand the expressive qualities of colour and colour contrasts, and consideration of materials and texture. The latter were considered essential for commercial artists and industrial designers.

The *Processing* package, introduced later in this unit, can be thought of as a simple workbench providing a basic stock of elementary shapes and colours, together with the tools to combine and manipulate these basic elements, to design and produce

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<sup>1</sup>[www.greatbuildings.com/buildings/Fagus\\_Works.html](http://www.greatbuildings.com/buildings/Fagus_Works.html)

<sup>2</sup>[www.brynmawr.edu/Acads/Cities/wld/06790/06790m.html](http://www.brynmawr.edu/Acads/Cities/wld/06790/06790m.html)

novel products. Correspondingly, Bauhaus staff initiated what are now some standard image manipulation techniques. For example, Itten (1975, p.21) has an interesting 'Light-dark analysis of a picture by Goya', where the breakdown is into a regular array of squares that predates modern 'image pixelation' by more than half a century. Another example is 'Happy Island', which is an oil work on canvas<sup>3</sup>. The same Itten text has examples of image kaleidoscoping (1975, pp.56, 57) using regular photographic darkroom techniques, but which can now be simply carried out in standard photoimage processing packages.

The Metal Workshop was founded to develop prototypes for mass production. Gropius maintained that standardisation of goods was the means by which the masses could acquire items, so designs should be suitable for furnishing a house. Marianne Brandt and William Wagenfeld achieved the most successful work. Wagenfeld designed table lamps with straight shafts and an opaque glass shade<sup>4</sup>. Brandt produced designs that were criticised for putting the light bulb in the foreground. Her reflectors were made of nickel-plated metal. They had moveable shades and arms for good light dispersion<sup>5, 6</sup>.

Marianne Brandt was the only woman in the Metal Workshop. Most women students joined the Weaving Workshop where they experimented with techniques. They created tapestries using a variety of materials and by 1931 made a range of handmade fabrics in muted colours ideal for mass production<sup>7</sup>.

Paul Klee and Wassily Kandinsky joined the Bauhaus in the early 1920s. Klee and Kandinsky had both been members of Der Blaue Reiter. Klee developed an independent theory of colour and an analysis of the creative process. His work was derived from nature/landscapes, plants, sea, stars and buildings. Kandinsky continued to work on his theories concerning the "science of art", the underlying elements and themes (see, for example, "Point and Line to Plane", (Kandinsky, 1979)) in discussing a theoretic approach to analysis and synthesis of painting. Another good source for examples of shape and colour work is "Kandinsky's Teaching at the Bauhaus" (Poling, 1982). There were debates within the Bauhaus concerning the relevance of these ideas in an institution that placed technology at the heart of experimentation and an analysis of material. However the painters stayed as their fame contributed to the success of the school.

Sommerfeld House was designed by Gropius and Mayer in 1921 for a timber merchant.

Three students worked on the interior designs: Joost Schmidt made relief carvings on the staircase, Josef Albers designed the stained glass windows and Marcel Breuer designed the furniture. Breuer's furniture was influenced by Reitveld's Red/Blue chair designed in 1917 and illustrated in *De Stijl* magazine<sup>8</sup>.

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## 2.4 Movement towards Constructivism

In 1923 László Maholy-Nagy was invited to teach at the Bauhaus to replace Itten. He was a Constructivist whose work emphasised the importance of the machine.

<sup>3</sup>[metropolis.co.jp/tokyo/515/art.asp](http://metropolis.co.jp/tokyo/515/art.asp)

<sup>4</sup>[www.bauhaus.de/english/bauhaus1919/werkstaetten/werkstaetten\\_metall.htm](http://www.bauhaus.de/english/bauhaus1919/werkstaetten/werkstaetten_metall.htm)

<sup>5</sup>[www.architonic.com/mus/8100111/1](http://www.architonic.com/mus/8100111/1)

<sup>6</sup>[www.trocadero.com/MuseXX/items/142321/item142321store.html](http://www.trocadero.com/MuseXX/items/142321/item142321store.html)

<sup>7</sup>[www.bauhaus.de/english/bauhaus1919/werkstaetten/werkstaetten\\_weberei.htm](http://www.bauhaus.de/english/bauhaus1919/werkstaetten/werkstaetten_weberei.htm)

<sup>8</sup>[www.terraingallery.org/Anthony-Romeo-Chair.html](http://www.terraingallery.org/Anthony-Romeo-Chair.html)

Constructivism, he declared, could expand from an art form into industrial design. Josef Albers had trained as an art teacher before becoming a Bauhaus student. He now began working with Maholy-Nagy on teaching the Preliminary Course where, without using workshop equipment, tasks were given to explore the nature of materials. Moholy-Nagy directed experiments in form. He emphasised that, in an industrial culture, the need to understand the load-bearing properties and other characteristics of materials was essential, linking design and engineering. Maholy-Nagy was interested in the development of photography and reflected light compositions. He experimented with optical and acoustic equipment to make new creations. A starting point in reading about their influence is Borchardt-Hume's edited collection "Albers and Moholy-Nagy: from the Bauhaus to the New World" (2006).

A Bauhaus student, Ludwig Hirschfeld-Mach, in 1923 wrote a score for a colour sonata of three bars using a combination of light and music. Lights and templates were moved in time to the fugue-like music. In 1924 Hirschfeld-Mach wrote:

Yellow, red, green, blue in glowing intensity move about on the dark background of a transparent linen screen—up, down, sideways. They join and overlappings and colour blendings result. (Bayer, Gropius and Gropius (1975), p.65)

Maholy-Nagy experimented with photography, producing photograms and photomontages. He maintained that traditional painting was finished. The move from working on a canvas to creating art through mechanical means meant that artists were no longer involved with creating a piece of art. In 1922 Maholy-Nagy ordered his 'telephone abstract enamels' from a factory. He described these works as "enamel pictures executed by industrial methods"<sup>9</sup>.

Maholy-Nagy was also involved with typography and page layout, which was itself an art form. He moved away from static lay-outs to dynamic ones, especially in poster work in the style of Lisitsky, a Russian Constructivist whose poster of 1919 shows a red, triangular wedge (representing the Communists) being driven into a circle of white (the White Russian Army)<sup>10, 11</sup>. These symbols could be easily understood even by an uneducated peasant population.

In 1923, whilst Germany was in the grip of rising inflation, a competition was held in the Bauhaus to design an experimental house to demonstrate the abilities within the school, the design to be chosen democratically by staff and students. Georg Muche, who had joined the staff as a painter, won with a design for a single storey house, named "Haus am Horn"<sup>12</sup>. Constructed from concrete, the main part of the house was the living room lit by a clear-storey. Other, smaller rooms were set around it including a small, easy-clean kitchen with built-in storage and where everything was within reach. The aim was for economy of space, time and energy. The house was furnished by members of the school.

The Bauhaus mounted an exhibition in 1923. There were lectures by Gropius and Kandinsky and performances of the Triadic Ballet by Schlemmer<sup>13</sup> who had painted murals on the walls of the Bauhaus. Music was provided by the Bauhaus jazz band as well as concerts at which works by Hindemith, Busoni and Stravinsky were played. This made Weimar the focus of the avant-garde, but locally Hitler's

<sup>9</sup>[www.jstor.org/view/0024094x/ap050079/05a00140/1?frame=noframe&userID=9edf3b4a@goldsmiths.ac.uk/01cc99332800501bab95e&dpi=3&config=jstor](http://www.jstor.org/view/0024094x/ap050079/05a00140/1?frame=noframe&userID=9edf3b4a@goldsmiths.ac.uk/01cc99332800501bab95e&dpi=3&config=jstor)

<sup>10</sup>[www.sovr.ru/english/show/virtuall1.shtml](http://www.sovr.ru/english/show/virtuall1.shtml)

<sup>11</sup>[www.allposters.com/-st/Lazar-Lisitsky-Posters.c81955\\_.htm](http://www.allposters.com/-st/Lazar-Lisitsky-Posters.c81955_.htm)

<sup>12</sup>[www.hausamhorn.de/](http://www.hausamhorn.de/)

<sup>13</sup>[www.meisterhaeuser.de/en/bewohner\\_5\\_schlemmer.html](http://www.meisterhaeuser.de/en/bewohner_5_schlemmer.html)

National Socialists were gaining popularity and they cut the grant to the Bauhaus, forcing it to re-locate to Dessau in April 1925.

Dessau was then an industrial town where Junkers had their aircraft factory. The Bauhaus was amalgamated with the local trade school. Here the course was re-assessed. Maholy-Nagy and Albers ran the preliminary course and Maholy-Nagy also headed the Metal Workshop.

Marcel Breuer headed the Furniture Workshop whilst two other Bauhaus trained designers, Herbert Bayer and Joost Schmidt, took on the Printing and Sculpture Workshops. Georg Mueche was given responsibility for the Weaving Workshop. Gropius wrote:

The creation of types for useful objects of every day use is a social necessity.  
(Naylor (1985), p.125)

The school's aim was to research the needs of modern households and produce relevant designs that industry could produce on mass. Mueche designed a metal house in 1925 whilst the architects in Gropius's office designed a new Bauhaus building<sup>14, 15</sup> consisting of two L-shaped buildings with flat roofs, one to house the students and the other to house the workshops. The workshop had a curtain wall made of glass, that allowed people outside to see what the students were creating.

Also built at this time were houses for the staff. They were made of concrete with flat roofs, large windows and balconies. Each house had a studio. They were set in landscaped gardens which were ten minutes walk from the Bauhaus<sup>16, 17</sup>.

In Dessau, the architects undertook a housing project for workers called the Törten Estate<sup>18</sup>. These were state financed and built at low cost. They were small two-storey buildings made of concrete with flat roofs. Three hundred and sixteen one-family units were built, each having three bedrooms, a kitchen-diner and a living room. Central heating, double glazing and built-in cupboards were provided. Each house had a large garden for growing vegetables. These houses were intentionally experimental. Gropius decided that a national plan for housing was necessary and should include financial planning, study of methods for industrial production, storage of pre-fabricated units and study of efficient use of materials, as well as standardising building components.

Gropius left the Bauhaus in 1927 and his place was taken by Hannes Meyer (Hans Emil Meyer), whose interest was in social housing. Meyer advocated "a technical, not an aesthetic process" to designing buildings. Past styles were to be rejected in favour of modern. He laid stress on collective rather than individual work. He believed that the new house should be pre-fabricated for building on site. Those involved on building schemes should be economists, statisticians, industrial engineers, standardisation designers, heating engineers and even climatologists, before involving an architect. For Meyer architecture should be functional<sup>19</sup>.

Maholy-Nagy insisted that designers should see their ideas through to completion and take note of their impact on individuals and society. He foresaw the time when electrically powered machines would reduce labour hours and the labour force required by industry.

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<sup>14</sup>[www.bauhaus.de/english/bauhaus1919/architektur/index.htm](http://www.bauhaus.de/english/bauhaus1919/architektur/index.htm)

<sup>15</sup>[www.tu-harburg.de/b/kuehn/wg21.html](http://www.tu-harburg.de/b/kuehn/wg21.html)

<sup>16</sup>[www.c20society.org.uk/docs/building/bauhaus.html](http://www.c20society.org.uk/docs/building/bauhaus.html)

<sup>17</sup>[www.tu-harburg.de/b/kuehn/wg21.html](http://www.tu-harburg.de/b/kuehn/wg21.html)

<sup>18</sup>[www.creen.demon.co.uk/travel/dessau.html](http://www.creen.demon.co.uk/travel/dessau.html)

<sup>19</sup>[www.bauhaus.de/english/bauhaus1919/architektur/architektur\\_meyer.htm](http://www.bauhaus.de/english/bauhaus1919/architektur/architektur_meyer.htm)

Marcel Breuer experimented with furniture made from tubular steel, for domestic use. He welded pieces of steel together to make a chair<sup>20</sup>. Maholy-Nagy photographed the prototype. When it was published in a newspaper, people wanted to buy the chair because it was light, simple, comfortable and inexpensive.

In the Typography Workshop, Herbert Bayer designed the Universal Type<sup>21</sup>. He wrote:

Why do we write and speak with two different alphabets simultaneously? We do not speak with a capital "A" and a small "a"; to convey one sound we do not need large and small letter symbols. (Naylor (1985), p.159)

He aimed to produce guidelines for a more precise visual language.

As the depression worsened in Germany, designers began to feel that Meyer was planning to turn the Bauhaus into a trade school. Before the move to Dessau, painters had developed theories of space, form and colour that they taught to the students. Meyer tried to diminish their influence. He increased the staff with architects and began a programme on research into the requirements of social housing. He re-organised the Bauhaus into four departments. Workshops were now to operate for three days. The new departments were building, advertising, interior design and textiles.

Workshops were to become self-financing through commissions. The interior design department, under former student Alfred Arndt, designed low cost furniture for mass production and wallpaper which became very popular and helped finance the department<sup>22</sup>.

The textile department liaised with the manufacturing industries and Walter Peterhans joined the advertising department where he focused on teaching photography not as an art form but as a science<sup>23</sup>.

Meyer was forced to leave the Bauhaus in 1930 by the Nazis, who accused him of allowing a communist cell into the school.

Mies van der Rohr succeeded Meyer. He had worked with Gropius in Behrens' office. He had begun to design skyscrapers and was a supporter of functionalism. The school closed for a period and when it opened it was more a school of architecture than design.

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## 2.5 The last phase of the Bauhaus in Germany

The Nazis had little sympathy with van der Rohr's ideas on simplicity and functionalism. The school in Dessau was closed and van der Rohr moved the Bauhaus to Berlin. However, after a number of raids by the Nazis the school closed down. Many of those who had worked there eventually settled in the United States of America.

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<sup>20</sup>[www.designmuseum.org/design/marcel-breuer](http://www.designmuseum.org/design/marcel-breuer)

<sup>21</sup>[www.type.nu/bayer/univer.html](http://www.type.nu/bayer/univer.html)

<sup>22</sup>[www.artmuseums.harvard.edu/collections/servlet/webpublisher.WebCommunication?ia=cosrch&ic=simple&txtArtist=Albers,+Josef](http://www.artmuseums.harvard.edu/collections/servlet/webpublisher.WebCommunication?ia=cosrch&ic=simple&txtArtist=Albers,+Josef)

<sup>23</sup>[www.ifa.de/a/a1/foto/ea1bpebi.htm](http://www.ifa.de/a/a1/foto/ea1bpebi.htm)

## 2.6 Summary and learning outcomes

This chapter has given an introduction to the Bauhaus in terms of its development, its main participants, and its influence on the rationalisation of design, manufacturing and production.

With a knowledge of the contents of this chapter and its directed reading you should now be able to:

- name the main person who drove the formation of the Bauhaus, state his profession early in life, name the main area in which he developed ideas at Behrens, and explain how this background shaped his statement of aims for the Bauhaus
- name the main contributors to the development of the Bauhaus and its courses, and briefly describe the background and interests of each of those contributors
- illustrate the practical orientation of the Bauhaus by listing the six categories of craft training, and briefly state what was involved in each
- list the three simple forms utilised in the Basic Course, state their derivation, and give examples of artefacts, designed at the Bauhaus, that utilise those forms
- name two of the fine artists involved in the Bauhaus who contributed to the theory of colour, and describe those contributions
- state who at the Bauhaus was the driving force behind the idea of creating art by mechanical means, and give examples of his work created in this way
- describe and illustrate the influence of the Bauhaus on the design of housing and household artefacts
- describe and illustrate how the Bauhaus influenced trends in design and practice for manufacturing.

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## 2.7 Exercises

Use the recommended reading and other relevant texts in working on the following exercises. In your writing, be sure to place any material from sources in quotation marks and identify the source at the point of use, and provide a full reference list at the end (this is to ensure you avoid plagiarism—see News page advice, and Student Handbook). Long quotations have no value in showing understanding or earning marks. In any assessment it is your own contribution in your own words that matters.

1. Discuss the importance of the contributions of Itten and Albers/Moholy-Nagy in the development of the Foundation Course at the Bauhaus. Include consideration of the contrast between the Nature and Machine approaches and their effects on teaching and outcomes for the students.
2. Discuss which of the Itten and Albers/Moholy-Nagy approaches to design teaching lends itself most easily to implementation and expression, with computer-aided tools for pictorial expression, such as the *Processing* package used in this unit. Include an appraisal of the benefits, or otherwise, of possible languages of basic shapes (such as that of triangle, circle, square), and their differing emphases on two- and three-dimensional work.