

# ***“The Bauhaus” and “How Do We Build Decent, Beautiful, and Inexpensive Housing?”***

**Walter Gropius**

**Introduction by Dara Kiese**

**Translated by Annika Fisher**

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## Introduction

When the special Bauhaus edition of *Offset: Buch und Werbekunst* (Book and advertising art) went to print in July 1926, the school's masters had cause for optimism.<sup>1</sup> The new building in Dessau, designed by the director Walter Gropius (1883–1969), was set to replace Lyonel Feininger's somewhat archaic *Cathedral* woodcut as the school's beacon, and a cohort of eighty-one students were about to register for only the second year of studies in the new premises. Gropius's two articles in *Offset*—"The Bauhaus" and "How Do We Build Decent, Beautiful, and Inexpensive Housing?"—could be seen as something of a manifesto for the relocated school as it ended its first academic session. In fact, these articles restate many of the school's theoretical underpinnings while also emphasizing the pedagogical reorientation toward industrialized mass production and rational building that would characterize the Dessau years. In effect, Gropius was repositioning the Bauhaus (1919–33) within broader cultural and industrial discourses to address the challenges of rebuilding Germany, both literally and metaphorically, after the First World War.<sup>2</sup>

Despite the note of confidence struck in the articles, the Bauhaus still stood on shaky ground. After losing the support of the Thuringian state government in December 1924, the school left its first home in Weimar and moved to the industrial city of Dessau with the support of Social Democratic mayor Fritz Hesse. The political storm that played out in the national press damaged the Bauhaus's reputation and aroused public skepticism. Even as the new school was under construction, unions, building companies, and trade schools in Saxony began to voice concerns about their new neighbors. In response, the school launched a public relations campaign to win allies.<sup>3</sup> In one typical example, "The Bauhaus Defends Itself," a local newspaper published Gropius's point-by-point rebuttal to criticisms aimed at the school by a local construction workers union.<sup>4</sup>

The transition also took its toll on the school's internal affairs. Classes, studios, and housing had to occupy temporary spaces in Dessau for over a year while awaiting the completion of faculty homes and the new school building in late July and October 1926, respectively. During this period Bauhaus GmbH (the Bauhaus corporation) reported disappointing sales of workshop prototypes.<sup>5</sup> Faculty salaries were cut by 10 percent due to the relocation and a downturn in the economy, and, according to Gropius's explanation to a disgruntled Paul Klee, the Bauhauslers were "unpopular" because the public failed to

“understand . . . their artistic conception . . . particularly for the representatives of modern painting.”<sup>6</sup> Understandably, the school had difficulties attracting new students to compensate for an unusually high dropout rate.<sup>7</sup>

The special issue of *Offset* gave the Bauhaus masters an important platform upon which to clarify their mission and pedagogy. The articles elucidate the school’s transformation from the craft workshops of Weimar to the “laboratories” of Dessau, where design prototypes were to be given priority and a formal architecture program was to be introduced. Gropius elaborates on the current curriculum in a general overview of the school’s structural changes and mission, and then addresses the importance of rational building methods to meet housing demands. The subsequent five articles by other masters address these goals within the context of the various workshops: Marcel Breuer on experimental steel housing models; Gunta Stölzl on textiles; László Moholy-Nagy on visual communication in advertising; and Herbert Bayer and Josef Albers on typographical experimentation. *Offset* was a logical choice for drumming up business for the school’s new printing and advertising workshop. Its aspirations to do commercial printing are indicated by Wilhelm Ostwald’s standardized color scheme within Joost Schmidt’s cover design.

Stölzl’s article, “Weaving at the Bauhaus,” combats the climate of uncertainty by describing their “quest for law and order” in all design fields.<sup>8</sup> This return to order was to be accompanied by a structural overhaul bringing the school more in line with conventional institutions under the oversight of the Department of Education—a shift in emphasis that was reflected in the change of name to Bauhaus Dessau Hochschule für Gestaltung (Institute of Design). Workshops were streamlined in Dessau, replacing Weimar’s co-masters (fine artist and craftsman) with a single “Professor.” This singular role was mostly filled by recent graduates proficient in Bauhaus artistic and technical methods—Bayer, Breuer, Albers, Schmidt, Hinnerk Scheper, and, in 1927, Stölzl herself. The Bauhaus finally had the space and the means to begin developing a formal architecture program in April 1927 with the appointment of Hannes Meyer.<sup>9</sup> The articles in *Offset*, therefore, can be seen as an attempt to legitimize the new Dessau Bauhaus in the eyes of the public, the industry, and the state just prior to unveiling its new home and icon of modernity.

The new curriculum outlined in *Offset* marks a substantial shift from craft-based training to industrial production, and toward greater disciplinary professionalization. Rather than developing “artists, sculptors, handicrafts and crafts,”

students would now receive “craft, technical and formal training” before advancing to either the architecture program or the Practical Research Department for prototype production.<sup>10</sup> Leaving clay, glass, and stone behind in Weimar, workshop instruction was reduced from ten areas in 1921 to five areas as of 1925: wood (cabinetry), metalwork, color (wall painting), fabrics (weaving), and printing (books and graphic arts).<sup>11</sup> Just three months later, these material-based designations (and the guild associations they had accrued) would be dropped altogether and reference made only to “workshops” generally.<sup>12</sup> With the inauguration of the Architecture Department in 1927, the workshops were integrated into areas of study mirroring the professionalization of such fields as architecture, industrial design, graphic design, and advertising: Architecture, comprising Building and Interior Furnishings (fabrics, wall painting, cabinetry, metal); Advertising (with photography and graphic design—printing and typography); Stage; and Free Painting and Sculpture.<sup>13</sup>

This move toward specialization drew criticism from some of the trade schools and industrial manufacturers, which saw the Bauhaus as a new competitor, but equally from Breuer and other Bauhausers, by whom such changes were seen as a retreat from the school’s founding principles of experimentation and interdisciplinarity.<sup>14</sup> In the first of his *Offset* essays, Gropius rebuts these criticisms: “Bauhaus production does not mean, as is often assumed, competition between handicraft and industry. Rather, it is much more concerned with creating a new form of development that supports them both.” He asserts that the expanded opportunity of experimentation in the preliminary course, now spanning two semesters, helps cultivate the creativity and individuality needed for subsequent collaborative design work. Students then earn an apprentice certificate from the *Handwerkskammer* (Masters of the Handicrafts) to distinguish them from the “dilettantism of the applied arts in the previous generation” and place “the whole creative operation into [their] hands . . . [in] contrast with factory labor.” Lastly, students advance to the third and final tier of a Bauhaus education as they gain practical experience in architecture or design, working directly with manufacturers and builders. “Construction should unify all productive workers—from simple manual laborers to extraordinary artists—in order to create a collaborative work.”

Gropius argues that Germany’s urgent need for new, affordable housing necessitates this reorientation toward industrial technologies in residential construction. The Bauhaus texts in *Offset* share a common goal of developing new, more efficient methods of production and clarity of form by “determining the



Walter Gropius, ca. 1919. Photo: Louis Held.

character of each object and considering its natural functions and conditions.” Renouncing “fake” or “superficial” industrially produced designs that mimic handicraft production, Gropius urges the recognition of the inherent logic and beauty of industrial production as an authentic expression of contemporary culture and as a legitimate means to improve society.

But this was a hard sell in the face of widespread ambivalence toward industrialization and mass production. Gropius seeks to reassure the reader about a technological future with appeals to Expressionist tropes of “unity”—between practice and theory, between the individual and the collective, and between craft and art. Updating the 1919 Bauhaus manifesto that the unity of arts and crafts serves people instead of the building, Gropius writes in 1926: “The overarching principle of the Bauhaus is the bringing together of many arts to form a new unity—an indivisible whole—that is anchored in the people themselves and requires life itself to attain purpose and meaning.”

The new Bauhaus buildings, and particularly the masters’ houses, seem to exemplify the rational approach to building that Gropius discusses in “How Do We Build Decent, Beautiful, and Inexpensive Housing?” with respect to collaboration, standardized building blocks and types, and cost-effectiveness. But these were more symbolic renderings than the full application of his ideals. That same year, however, Gropius did begin to achieve some of his goals in Dessau Törten (1926–28), an affordable housing estate in the south of the city, where he experimented with new materials and assembly-line production methods. Unfortunately, the project provoked a public outcry over shoddy construction and cost overruns, leading to Gropius’s eventual resignation from the Bauhaus in 1928. In retrospect, this was a setback but not necessarily a failure. Törten’s Taylorist working methods, represented in a conceptual construction scheme by a student in the wall-painting workshop, were taken up by many architects and theorists in their attempts to address the shortage of “existenz-minimum” housing. This outlook informs Gropius’s concluding remarks, in which he makes the case for government, industry, and business to unite in their support of the Bauhaus, where experimentation and trial and error can lead to the innovations necessary to navigate this new modern terrain.

In his “Foreword to the Impartial Reader,” *Offset* editor Otto Horn argues that the Bauhaus is more than a style comprised of thick lines and colored circles and triangles. “Constructivism, according to the Bauhaus, wants to be seen as a worldview.”<sup>15</sup> It was incumbent upon Gropius to explain the theoretical

underpinnings of modern architecture and design, and to contextualize both theory and practice within the postrevolutionary conditions of Weimar Germany. “The task of the architect,” he writes, “is to determine the general plan by answering ‘how do we want to live?’ on the basis of a sociological investigation of housing needs.” These articles, themselves a product of sociological investigation, exhibit Gropius’s mastery in addressing manifold concerns of the construction industry, trade schools, the local government, the public, and his fellow Bauhausers. As a visionary and prolific publicist, Gropius demonstrates his finesse in promoting both ideological and practical advances amid a minefield of competing forces.

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#### Notes

1 *Offset: Buch und Werbekunst* (special issue on the Bauhaus), no. 7 (July 1926).

2 Gropius contends with ongoing questions about reconciling individual artistic expression and standardization that were famously brought to the fore in the 1914 German Werkbund debates. See John Macuika, “Wilhelmine Precedents to the Bauhaus: Hermann Muthesius, the Prussian State, and the German Werkbund,” in *Bauhaus Culture: From Weimar to the Cold War*, ed. Kathleen James-Chakraborty (Minneapolis: University of Minnesota Press, 2006), 1–25.

3 Publicity efforts include journal and magazine articles, lecture tours, exhibitions, and, from 1925, a Bauhaus books series. The school’s quarterly journal, first published in December 1926, will include variations of these articles.

4 “Das Bauhaus verteidigt sich,” *Dessauer Zeitung*, June 22, 1926. Newspaper clipping from Presse Bauhaus, Mappe 6510, Bauhaus-Archiv, Berlin.

5 Bauhaus Incorporated, est. 1925, Ise Gropius, diary entry, March 5, 1926, unpublished ms., Bauhaus-Archiv, Berlin.

6 Walter Gropius, letter to Paul Klee, in Hans Maria Wingler, ed., *The Bauhaus: Weimar, Dessau, Berlin, Chicago* (Cambridge, MA: MIT Press, 1969; 1986), 120.

7 Ise Gropius, diary entry, March 22, 1926. Media savvy Ise Gropius suggested that they spruce up promotional material with more photographs.

8 Gunta Stözl, “Weaving at the Bauhaus,” *Offset: Buch und Werbekunst*, no. 7 (July 1926): 405–6. Extract translated in Wingler, *Bauhaus*, 116.

9 According to Ise Gropius’s diary entry (April 22, 1926), Mayor Hesse initially refused to support an architecture program because of hostility from the building trade schools (*Baugewerkenschule*). Only a few students received architectural training before 1927, which took place mainly in Gropius’s studio. For clarification about architecture at the Bauhaus, see Klaus-Jürgen Winkler, *Baulehre und Entwerfen*

am *Bauhaus 1919–1933* (Weimar: Bauhaus-Universität, 2003); Wallis Miller, “Architecture, Building and the Bauhaus,” in *Bauhaus Culture: From Weimar to the Cold War*, ed. Kathleen James-Chakraborty (Minneapolis: University of Minnesota Press, 2006), 63–89; Martin Kieren, “A Review of Personal Life and Work—Walter Gropius the Architect and Founder of the Bauhaus,” in *Bauhaus*, ed. Jeannine Fiedler and Peter Feierabend (Cologne: Könemann, 1999), 188–203.

**10** The comparison here is between the prior statutes of the state Bauhaus in Weimar, published in 1921 and superseded by the 1925 curriculum included in *Offset*.

**11** For a concise chronological overview of events, see Adrian Sudhalter (with research contributions by Dara Kiese), “14 Years Bauhaus: A Chronicle,” in *Bauhaus 1919–1933: Workshops for Modernity*, ed. Leah Dickerman and Barry Bergdoll (New York: Museum of Modern Art, 2009), 323–37.

**12** “Workshop Instruction, Bauhaus Dessau: Statutes, Teaching Regulations,” in Winkler, *Bauhaus*, 122. These statutes were adopted in October 1926 but not published until 1927.

**13** *Bauhaus Dessau Hochschule für Gestaltung: Prospekt* (Dessau: Bauhaus, ca. 1927).

**14** Ise Gropius, diary entry, March 5, 1926. Ise reported Breuer’s concerns about specialization.

**15** Otto Horn, “Vorrede an den unbefangenen Leser,” *Offset: Buch und Werbekunst*, no. 7 (July 1926): 355.

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## *Curriculum at the Bauhaus*

### **AIMS:**

1. The training of artistically gifted people in the fields of craftsmanship, technology, and form so that they may work together on building construction.
2. Practical experimental work for construction and home furnishings. Development of standard designs for industry and craft production.

### **TEACHING FIELDS:**

1. Practical instruction in:
  - a) Wood (carpentry)
  - b) Metal (silver and coppersmithing)
  - c) Color (mural painting)
  - d) Textiles (weaving, dyeing)
  - e) Book and art printingSupplementary teaching areas: materials and tools, basic concepts of bookkeeping, pricing, contracts.
2. Form studies (practical and theoretical):
  - a) Visual analysis (materials science, nature study)
  - b) Rendering and representation (methods of projection display, building construction, technical drawing and modeling for spatial structures, designing)
  - c) Design (theory of space and color)Supplementary teaching areas: lectures from the fields of art and science.

### **SYLLABUS:**

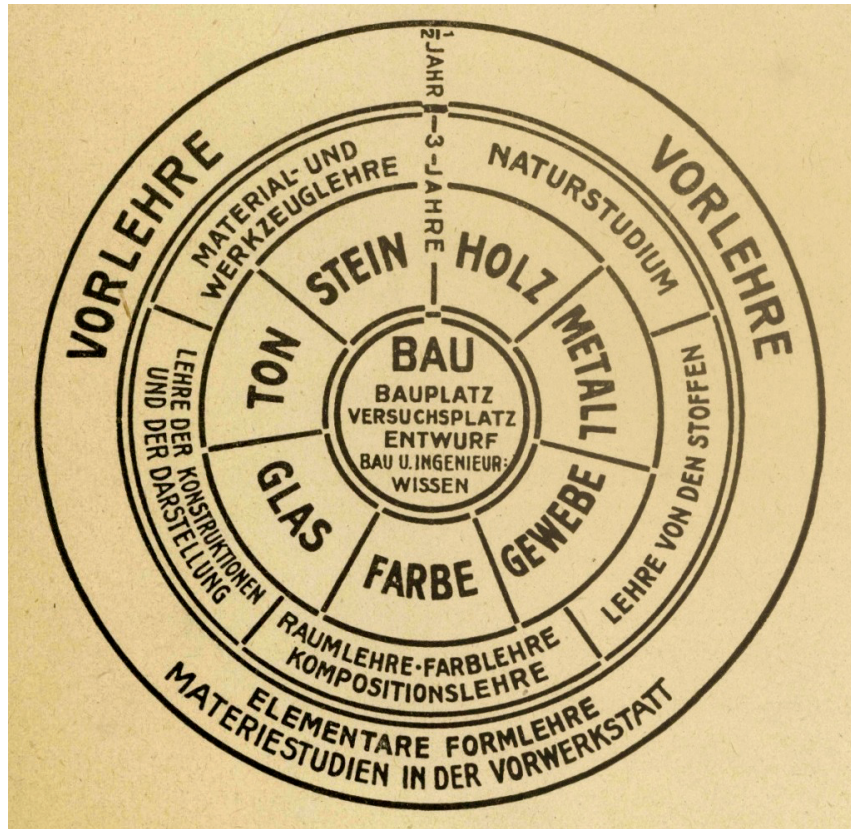
1. Foundation studies:

Duration: Two semesters. Elementary form studies linked to practical exercises in the workshop for basic training. In the second half of the year there is a trial participation in a training workshop.

Outcome: Definitive admission to main courses.
2. Main courses: Practical studies in one of the training workshops, leading toward a statutory certificate, and the complementary study of form (including preparatory classes in architecture; see Teaching Fields 2b above).

Duration: Generally six half-year semesters (as in official regulations).

Outcome: Journeyman in the Chamber of Handicrafts.



Walter Gropius, Diagram of the Bauhaus curriculum, 1923. Letterpress on paper. Bauhaus-Archiv, Berlin.

Eligibility for admission to the architectural studies class. Optional teaching certificate in Bauhaus architecture, and entitlement to proceed to the practical experimental departments, provided that this will not lead to transference from the chosen independent practice.

3. Architectural studies: Preparation for professional qualifications in architecture. Training in the design office, possibly in connection with practical construction projects. Building construction (iron, concrete), statics, model building, and additional technical studies.

Duration: Three half-year semesters, with or without interruption.

Outcome: Certificate of the Bauhaus.

**PRACTICAL EXPERIMENTAL DEPARTMENTS:**

To develop and test economically viable models and works for industry and crafts, especially for architectural construction and home furnishings. Successful completion of at least one year of work in the experimental test department will result in eligibility for the Bauhaus certificate.

**TEACHING STAFF:**

W. Gropius, L. Feininger, W. Kandinsky, P. Klee, L. Moholy-Nagy, G. Muche, O. Schlemmer, J. Albers, H. Bayer, M. Breuer, H. Scheper, J. Schmidt

**ADMISSION:**

The basic or foundation course is the prerequisite for all further work at the Bauhaus, and is therefore compulsory for each new entrant.

Admission to the basic course (April and October) is available to those whose talent and qualifications are deemed sufficient, and who are over 17 years of age.

The building theory course consists of qualified architects who have successfully completed the basic course, have passed through the external trade schools (construction and engineering schools), and have completed a craft apprenticeship, or can demonstrate at least two years of construction work practice.

In the experimental or test departments we are looking for qualified engineers, architects, mechanics, technicians, and artisans who have successfully completed the foundation course, are in possession of a journeyman qualification or can prove more years of practical work experience, and have obtained the Bauhaus certificate.

Application to the foundation course must be made with the following materials:

1. Examples of personal drawings or handcraft work
2. CV (covering education, nationality, personal circumstances and maintenance—for minors, confirmation of means by parent or guardian)
3. Police certificate of good character
4. Medical certificate of good health
5. Photograph

6. If appropriate, testimonials of previous artisanal or theoretical training (certificate of apprenticeship, school leaving certificate)

Each applicant is initially admitted for a half year, one semester, within the foundation course. Provisional admission to a training workshop depends upon the personal suitability of the applicant and on a sample of work produced in that half year.

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## *The Bauhaus*

Now gaining acceptance is an understanding that the living spirit of architecture is rooted in an entire civilization, encompassing all areas of human creation—including the “arts” and technologies—all of which begin and end in the building.

The art of building entails the possibility of combining a plurality of creators for a collaborative effort; each part should stand in relation to a greater whole. In contrast to the isolated individual or the partial image, this type of work is like an orchestra, and is furthermore the very reflection of a spirit of community.

The overarching principle of the Bauhaus\* is the bringing together of many arts to form a new unity—an indivisible whole—that is anchored in the people themselves and requires life itself to attain purpose and meaning. From the ground up, the new spirit of construction demands new conditions for all types of formative creation. Through this novel conceptualization of artwork, we must abandon the previous understanding of art as a detached concept without any link to life, a view in which art was seen as a luxury in the eyes of the masses. The new vision must affirm a practical attitude toward our environment and prioritize the organic design of things that originate out of their own modern principles, without romantic euphemisms or playfulness.

\*The Bauhaus was formed in the year 1919 in Weimar out of the existing Großherzoglich Sächsischen Hochschule für bildende Kunst and the Großherzoglich Sächsischen Kunstgewerbeschule. In 1925 it moved to Dessau.

The Bauhaus will provide up-to-date improvements for all housing needs, from the simple home appliance to the complete house. But it will do this not in the sense of “craft,” in which things are adorned through formal elements or “matched” parts that repeat the same designs or materials. Instead, this approach to design will be achieved by determining the character of each object and considering its natural functions and conditions. In the past, the so-called applied arts, which were the only way for those working in the arts to connect to real life, mostly devolved into aesthetic conjecture, since the knowledge of academics and art dealers was limited to drawing and painting, lacking all comprehension of material, technological, or economic realities. The Bauhaus has found a new way to allow these people to play a productive role in society and to apply their skills to fulfill everyone’s needs. The Bauhaus’s educational plan consists of: 1) the foundations, 2) studies of materials and form, and 3) construction design.

The foundational study, which lasts one year, provides a broad preparation for the subsequent study of materials and form. Inseparably bound together, the material and formal work will be developed with the goal of freeing the creative energies of the students as they learn to grasp the nature of materials and recognize the essential laws of artistic design. Any allegiance to a particular style or movement is deliberately avoided.

The study of construction design is the most important prerequisite for architectural work. It combats the dilettantism of the applied arts in the previous generation. For this reason, each pupil is obliged to complete a contractually defined course that conforms to the certificate of apprenticeship from the Chamber of Handicrafts. This study in craftsmanship serves only to train the artisan’s hand and to further his technical ability; it is a means, not an end in and of itself. Our goal is a multifaceted education, not the isolation of each craft skill. Craftsmanship is an invaluable means of harmonizing a developing society, but the handicraft of the past no longer exists. The human spirit compels the tools of labor to develop in a manner ever more perfected and refined—that is, increasingly to mechanize material labor and to unburden intellectual labor. For this reason, a conscious return to the handicrafts of old would be an atavistic error. The Bauhaus asserts that the machine provides the most modern means of production and seeks a confrontation with it. But it would be senseless to send an artistically gifted but truly unprepared student into the industrial world in order to resurrect a lost connection to the realm of labor. He would suffocate in the materialistic and one-sided spirit of labor that characterizes today’s factories. The world of craftsmanship speaks to the student’s intellectual

orientation and is accordingly the best means of providing him with a true education. It places the whole creative operation into his hands. This contrasts with factory labor, which differs fundamentally from craftsmanship not because of the increased technological refinement of machines in relation to primitive manual tools, but as a result of the division of labor inherent in manufacturing operations in comparison with the unified nature of work that is crafted by hand. The development of the economy, however, necessitates a division of labor just as it necessitates machines themselves. Since the unity of creation inherent in folk handicrafts was lost as a result of the proliferation of machines, the root of evil must be sought in the false, overly materialistic mind-set of this era—in the deficient connection of the individual to the whole—and not in machines themselves and the division of labor that results from them. The artisan needs to know this, so that he does not stagnate in his own little world. An educational background in craftsmanship is absolutely essential for everyone who wants to design and build, as it not only strengthens the student's intuitive spatial imagination, but also creates an unconscious connection between his being and the materials and laws of nature. His entire ability to create becomes rooted in the elements. He becomes familiar with technique in its very nature, and he does not lose himself in theory and calculation.

*The study of form.* An intellectual education goes hand in hand with a practical one. Theory is not a recipe for artistic handicraft, but it is the most important and objective means for collaborative creative work. Theory creates the common basis upon which a plurality of individuals can jointly produce a greater unified creation; it is the result not of individuals but of generations. The Bauhaus works consciously to reform the means of expression and design that are necessary to attain its primary goal. Since true collaboration is not achieved by the ability and talent of individual personalities, the unified nature of a work that is created by the plans of a single man and implemented by many helpers can only be superficial. In actuality, every collaborator's intellectual efforts are necessary. The unity of the whole work can be achieved only through the collective determination to create something out of its natural properties, so that its constitution and its visible consequences reflect the proportional relationship of all of its parts.

Just as the study of counterpoint for the musician will always remain a self-evident prerequisite for composition, a knowledge of theory is required of the visual artist. Creative freedom is based not on access to limitless expression and materials, but on free movement within strong and legitimate boundaries. Knowledge of form must remain in a constant dialogue with workmanship. If it



Joost Schmidt, cover of *Offset: Buch und Werbekunst*, no. 7 (July 1926).

does, then drawing-board or conceptual design loses its status as an academic end in itself, and gains new purpose as a true supplementary aid.

After two to three years of fundamental studies in materials and form, the apprentice makes his journeyman's piece for the Masters of the Handicrafts and earns his open apprenticeship certificate. An apprentice trained in this manner is prepared for productive, active involvement in the Bauhaus workshops. These workshops are essentially practical laboratories in which prototypes can be carefully developed from models and constantly improved as part of the modern process of preparation for manufacture. The Bauhaus takes the view that craftsmanship and industry today are becoming consistently more alike and must eventually merge to generate a new unified form of creation—one in which handicraft will support the experimental work necessary for industrial production in the future. For this purpose, the Bauhaus aims to create a new type of worker who can collaborate with both industry and handicraft, and who is a master of both technology and form in equal measure.

Only through sustained contact with advanced technology, and with the discovery of new materials and new constructions, can the individual, molded by this teaching, attain the ability to create a vital relationship between the present and tradition. The creation of prototypes of practical appliances for daily use is a societal necessity. Most people have the same needs in their lives. The masses need housing and household appliances; the forms that these take are a matter more of sense than of passion. Producing such designs through machines is an effective way of alleviating the individual's own physical labor by satisfying the necessities of life through mechanical assistance—using steam power and electricity—and so of providing him with industrially reproduced goods that are more economical than those produced by hand. One need not fear that such standardization will violate the individual, just as there is no need to fear that the dictates of fashion will transform all clothing into uniforms. Despite the standardized homogeneity of the parts, the individual still has ample room for personal variation. As a result of natural competition, the number of versions of a certain thing remain so plentiful that the individual retains his personal choice to select the design that appeals to him the most. Design engineers of new models must be thoroughly familiar with the mechanical production methods employed in manufacturing and reproducing their works, which, even if the actual model is worked out by hand, differ from methods of handicraft. The particular nature of the machine is such that it develops its own novel "authenticity" and "beauty," apparent in its results, while

the illogical imitation of handcrafted products by means of the machine carries the stigma of the surrogate.

Designs that are fully worked out in the Bauhaus workshops are reproduced by other craftsmen or industrial companies with whom the workshops have business relationships. Thus Bauhaus production does not mean, as is often assumed, competition between handicraft and industry. Rather, it is concerned much more with creating a new form of development that supports them both. The objectives of the laboratories are clearly directed at removing the burdens of preproduction from industrial and handicraft companies through the creation of designs that are economically and formally flawless. Accordingly, Bauhaus workshops do not want to generate their own mass production facilities. New forms have often arisen through the determined consideration of all modern methods of production, construction, and materials—forms that deviate from tradition and appear unfamiliar and surprising. On the other hand, the search for new forms at any cost, if they do not arise from the object itself, is rejected, as is the application of purely decorative forms of ornament, invented or historical. The Bauhaus fights against such imitations, inferior work, and the dilettantism of the applied arts; instead, it fights for a new quality of workmanship.

The most important and final field of study at the Bauhaus deals with building design. Only a qualified journeyman gains access to the design studio, where he will be involved with a team to complete practical tasks, based on evaluations of his previous work. For fruitful collaborative work on construction projects, the most important prerequisite is a clear understanding of our new thoughts on building. In recent years, the art of architectural design has become feeble and sentimental, its primary purpose being the formal application of motifs, ornaments, and moldings that cover the building. Architecture has become a vehicle for superficial and dead decoration, instead of flourishing as a living organism. Naturally, its elemental connection to technological advances was lost as part of this decline. The architect remained afloat in a sea of academic aesthetes. We reject this kind of architectural practice. We want to create a clear, organic body of architecture—one that in its very aims and purpose gives functional resolution to the interwoven tension of its structural parts, and casts off anything unnecessary that obscures the true character of the building.

Due to the enormous outlay of technological and material resources, the implementation of this core principle is progressing incrementally. Since architecture requires a collaborative effort, its success depends not on individuals but on the

interests of the collective. The problem of housing as a whole has yet to be fully considered sociologically, economically, technologically, and formally, and is far from being systematically resolved. Accordingly, as yet there are no generally useful solutions that apply to our modern era. The chaotic disparity of our many different housing types indicates that our ability to even conceptualize which accommodations would be best suited to modern man remain vague. Most members of civilized societies have the same housing and survival needs. Thus it is incomprehensible that the modern housing unit cannot feature the same uniform succinctness as do our clothes, shoes, suitcases, and cars. It is unjustifiable that each house in a villa development has a different floor plan, a different exterior, and a different architectural style, and is made out of different building materials. These differences are evidence of senseless waste and suggest a lack of design awareness typical of the parvenu. By contrast, the old farmhouse in the north and south, for example, or the community center of the eighteenth century, had a consistent, almost uniform design in its floor plan and overall structure throughout all of Europe. Complete standardization, however, as seen in English suburban housing, is not to be recommended, since the violation of all individuality is always shortsighted and wrong. Such monotony would be avoided immediately by adhering to the basic requirement that only the building's components be standardized and that the resulting structure be made up out of varying these parts. A building's purpose and function will determine how the standardized construction elements should be organically combined. A structure's beauty will come from its good material construction and its clear, simple design, not from ornamentation and moldings. The creative skills of the architect will determine the success of the building constructed out of these architectural components, as if they were selected from a "giant box of building blocks." The standardization and regularization of these components place no restrictions on individually designed creations, and this is something we all desire. There must also be a fundamental change to construction practices themselves, since only the industrialization of all necessary building elements—including the walls, ceilings, and roofs—will lead to a comprehensive solution to our current housing problem.

For this reason, the Bauhaus has taken on the task of setting up an experimental test center that brings together the work of engineers, businessmen, and artists in an attempt to unify the technology, commerce, and design process needed for architecture. The goal here is to push toward maximum standardization and maximum variability in housing construction. This task is part of the artistic, as well as the technological, development of our time. Just as any systematic process of development involves countless attempts before the final

design of an object is settled upon for factory production, so too does the comprehensive task to produce standardized elements for industrial-type construction require the full integration of efforts from the artistic, technological, and commercial spheres. This is the path to true foresight and economy, not in the creation of artificial building methods (*Ersatzbauweisen*).

The connections that link such architectural organisms to industry and commerce, by their precision and their efficient utilization of space and materials, will ultimately also determine the design of the largest building unit: the city. Every builder must grasp the city's purpose in order to be part of its creation and must recognize the determining factors of its appearance:

Simplicity in multiples

Limiting design to standardized basic forms, and attending to their order and repetition

Organizing all constructional units according to the function of the buildings, the streets, and the means of transportation

This spirit of construction can be supported only by people who stand firmly upon broad educational foundations, who assess correctly the world in which they live, and who envisage and create representative structures that reflect this world through the unification of their knowledge with their acquired skills. Whosoever wishes to contribute something essential to the new building culture must have developed his own inner cultural life. This is crucial! It is not just skills and knowledge—for the majority of individuals to make an impact, it is first necessary that they lose their vanity and practice self-discipline. Every living form is an expression of an inner corollary. This objectification is not just notional; it also comes from lived experience—that is to say, an overcoming of the self—which must precede creation so that the product attains a meaning that transcends the personal.

Thus the formation of the Bauhaus doctrine culminates in the promotion of an inclusive unity of labor that envisions the creative pursuit of design as part of an indivisible whole; the artistically gifted person should regain the correct sense of an interwoven design and construction process. The joy of building in the broadest sense of the word must overshadow the design process on paper. Construction should unify all productive workers—from simple manual laborers to extraordinary artists—in order to create a collaborative work. For this reason, the basis of their shared education must be broad enough to allow every talent to find its way forward. Experimental work and preliminary

speculation is just as important to the overall project as the practical execution and production. Since it is not possible to select the best talents from the outset in any generally applicable or methodical manner, each individual must find his own appropriate field within the framework of the community throughout the course of his own development. After the students have completed their construction and design education, unfettered speculative experimentation will come easily to them, so that the work of the collective is continually refreshed. They will force the machine into the service of their ideas, and both industry and craftsmanship will seek out, and benefit from, their comprehensive education.

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## *How Do We Build Decent, Beautiful, and Inexpensive Housing?*

The issue of housing has yet to be considered in its full sociological, economic, technological, and formal framework, and, on the whole, its problems have not yet been systematically addressed from the ground up.

The housing of people is a matter of basic need. Just as 90 percent of the populace no longer consider having their footwear custom-made when most of their specific needs can be fulfilled by readily available and increasingly well-made stock products, so too will people in the future be able to order suitable housing from warehouses. The fundamental shift of the entire construction business toward industrialization is a compelling reason for a modern solution to the housing problem. An efficient construction industry that produces decent and affordable housing requires:

- 1) the production of houses through large-scale, factory operations that keep warehouses well stocked. This housing will be created no longer at the construction site, but instead at specialized factories with all the ready-to-assemble components, including ceilings, roofs, and walls. The principle of standardization forms the basis for the large-scale production of these construction kits;

- 2) the application of new space-saving and material-saving techniques and materials;
- 3) rational construction methods at the building site. This will involve ready-to-assemble drywall construction, kept to a precise timetable;
- 4) rational plans that are efficient and precise down to the last detail, like the assembly instructions for a machine. These should be fully worked out before any construction begins;
- 5) a long-term fiscal policy on the part of the building's financial backers, who should avoid any increase in building expenses by eliminating all unproductive intermediaries.

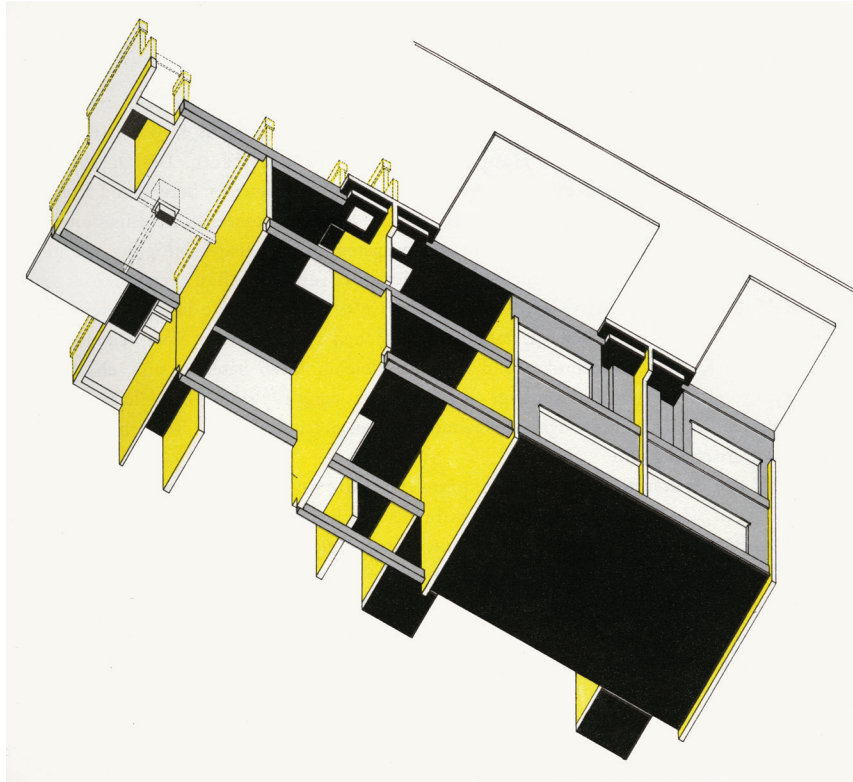
Through the use of industrially oriented, ready-to-assemble dry construction, it is possible to avoid the countless surprises and eventualities that are an inescapable consequence of the old building methods. These include installation of components that do not fit as a result of either inexact measurements of the masonry or the effects of moisture, unexpected or additional day wages (for caulking and plastering), or the loss of time and money due to delayed drying times—all among the frequent results of rushed planning for “customized” house designs.

In contrast, machine-manufactured building components would be available regardless of the time of year or weather conditions, would eliminate construction problems caused by humidity, would assure that all parts fit together properly, and would be available for a set price and involve a short, predetermined assembly time that is guaranteed.

The justified necessity of individual expression would be safeguarded through the fact that only the components and not the houses themselves will be standardized, allowing for the assemblage of many different housing configurations. Hereby maximum variability can be unified with maximum standardization.

The task of the architect: to determine the general plan by answering the question “How do we want to live?” on the basis of a sociological investigation of housing needs. He must conceive of precise assembly plans for different house types and different sizes through collaboration with the engineer and the salesman.

The task of the engineer: to invent new construction materials by processing raw materials in special ways so that they are readily available and inexpensive, with the goal of saving space and volume while increasing load capacity. These new building materials should be for a) the skeletal framework with



Isometric projection of detached houses at Törten in Dessau from *Offset*, no. 7 (July 1926).

non-load-bearing walls within load-bearing scaffolding, and b) the creation of building structures from a homogeneous material without a separate load-bearing framework. The engineer must invent new designs for windows, doors, plumbing, and household appliances.

The task of the businessman: to set up economical manufacturing plants to produce all standardized and typical construction elements. He should constantly seek to reduce costs by advancing production methods and expanding markets, as well as pursuing inexpensive mortgages.

The assumption that industrialization would make buildings ugly is erroneous. On the contrary, the unification of the construction elements will have the wholesome result of new homes and cities sharing the same character. Monotony, as is seen in suburban English housing, need not be feared as long as the stipulation is upheld that only parts of the structure should be standardized, while the entire building composed of those parts should be varied. The standardization of the components provides a sense of order and calm just as coordinating our clothing does. Similarly, there will still be room for distinctive individual and national characteristics to express themselves.

In the coming decades various forms of ready-made, furnished houses will be available from warehouses and will become the main product of the building industry. The execution of this task will necessitate a unified effort on the part of state and local government agencies, as well as professionals and laypeople. Big developers, states, local authorities, and large-scale industries, who will all profit from the anticipated decrease in building costs in the future, have the responsibility of financing today's experiments: public testing grounds for construction and aid from public funds are in urgent demand. In industry there are countless trials before the final design is perfected and goes into production—a process that requires systematic preparation, with the equal involvement of salespeople, engineers, and artists. Similarly, the production of standardized building components will require systematic experimentation, made possible by the generous cooperation of industrial, economic, and artistic forces.

Where are the German testing grounds that will staunch the unbelievable waste of materials, time, and work? The movement toward the industrialization of house building is unstoppable, since it is rooted in the necessities of our time. The pace of its development depends less on available funds than on the resolve to change and organization of the plans. During the war, thousands of kilometers of trenches were dug because they were considered necessary. Nobody asked about their profitability. Is the protection of the family and the health of the people of any less importance?