BAUHAUS WEAVING THEORY

FROM FEMININE CRAFT TO MODE OF DESIGN

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Just as it is possible to go from any place to any other, so also, starting from a defined and specialized field, can one arrive at a realization of ever-extending relationships. Thus tangential subjects come into view. The thoughts, however, can, I believe, be traced back to the event of a thread.

–ANNI ALBERS, *ON WEAVING*

CONTENTS

INTRODUCTION

TEXTILES, TEXT, AND A MEDIUM-SPECIFIC CRAFT

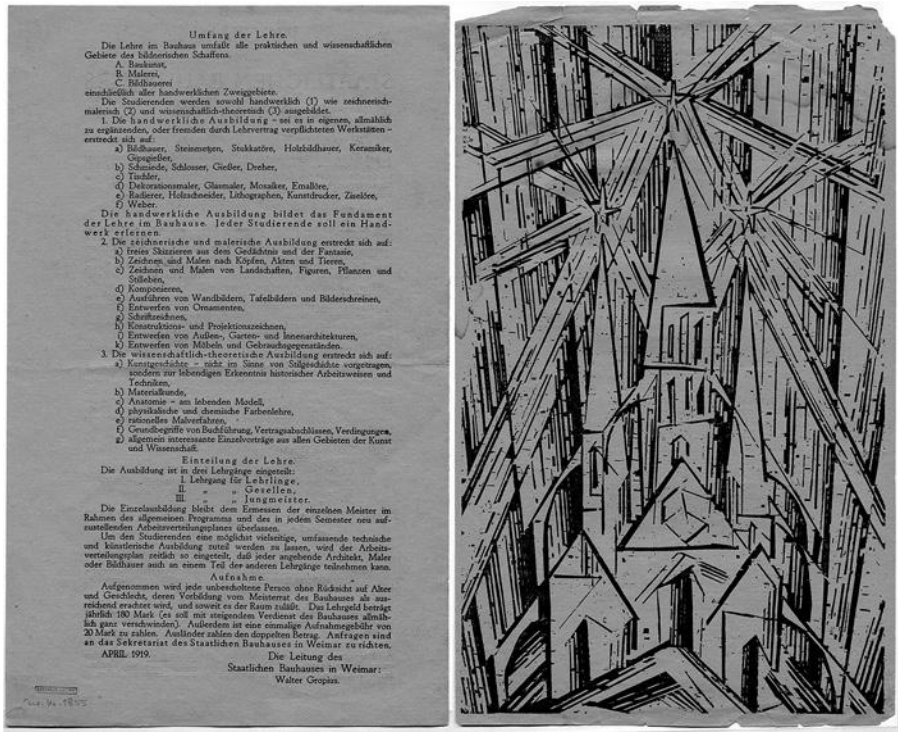
> The structure of a fabric or its weave—that is, the fastening of its elements of threads to each other—is as much a determining factor in its function as is the choice of the raw material. In fact, the interrelation between the two, the subtle play between them in supporting, impeding, or modifying each other's characteristics, is the essence of weaving.
>
> —ANNI ALBERS, *ON WEAVING*

Anni Albers published her second book, *On Weaving*, in 1965. A well-respected German American weaver who taught from 1933 until 1949 at Black Mountain College and had developed popular fabric designs for Knoll, she was also a prolific writer. Like her former volume *On Designing*, which was initially published in 1959 and reprinted several times due to its popularity, *On Weaving* became at the outset a powerful voice of the midcentury textile design movement in the United States.[1] Professional and amateur weavers read her texts, finding in them a philosophy of their craft's "essence"—the "supporting, impeding, or modifying" tension between structure and material that described a fabric's dimensions. But Albers's books also participated in a wider discourse within modernism concerning medium specificity. Indeed, the former Bauhaus student learned much from her education at that school, where different workshops investigated the limits of specific materials—like thread, clay, or celluloid and light—and tools—like looms, pottery wheels, or cameras—to grasp and articulate the principal elements of each craft. Drawing on the language of her mentors and peers, she analyzed "basic" and "modified" textile structures, narrated the loom's technological history, and argued for a "tactile sensibility"—the activation of "a distinctive textile trait": the "tactile blueprint" or "latent perceptivity of *matiere*."[2] So with her 1965 book, Albers synthesized what could be

described as the definitive treatise on weaving as a field of practice, a specific craft or medium that also, in so many tangential ways, could speak to other disciplines: to "those whose work in other fields encompasses textile problems."[3]

To understand how Albers's philosophy of weaving developed—how this craft came into a modernist language and also challenged its fundamentals—it is important to begin at the so-called beginning. The initial Bauhaus text, a 1919 brochure titled "Program of the State Bauhaus in Weimar," scripted by founder and director Walter Gropius, is well known for its attempt to establish the school's goal of art-craft "unity" in the aftermath of World War I. Here, Gropius envisions the school as a means toward the "unified work of art—the great structure" that is the built house. Yet among the bullet points of its final page concerning the "Range of Instruction," he also outlines areas of "craft training," distinct workshops. Applied arts intermingle with fine arts and theoretical instruction, suggesting that unity is a pedagogical matter of joining "practical and scientific areas of work."[4]

The pedagogical program sketched in this manifesto would, it should be said, prove less than stable.[5] As the workshops' identities and products shifted under the weight of economic pressures and the school's changing artistic and political allegiances, many of the initial crafts ("wood carvers, ceramic workers . . . lithographers") would be dropped over the course of the first several years, while new areas (furniture, advertising, and photography) would be added.[6] Significantly, only one mentioned area, weavers, was equipped with tools (several looms) shortly after the school opened in the city of Weimar and would continue to operate until the institution's doors finally closed in Berlin under pressure from Nazi forces. Weaving materialized in this context as a specific practice or craft—one dealing in a particular technology, material, and set of structures based on the interlocking of warp (vertical threads) and weft (horizontal threads). But perhaps more significant to this narrative is the fact that Bauhaus weavers began writing essays to develop parameters (and justifications) for their woven objects. Unlike most of their craft-workshop colleagues at the Bauhaus, the weavers were avid about the practice of writing; they were preoccupied with formulating (and reformulating) a theory of their craft's *Stoffgebiet* (material field) or *Gestaltungsgebiet* (formal field).



Umfang der Lehre.

Die Lehre im Bauhaus umfaßt alle praktischen und wissenschaftlichen Gebiete des bildnerischen Schaffens.

A. Baukunst,
B. Malerei,
C. Bildhauerei

einschließlich aller handwerklichen Zweiggebiete.

Die Studierenden werden sowohl handwerklich (1) wie zeichnerisch-malerisch (2) und wissenschaftlich-theoretisch (3) ausgebildet.

1. Die handwerkliche Ausbildung – sei es in eigenen, allmählich zu ergänzenden, oder fremden durch Lehrvertrag verpflichteten Werkstätten – erstreckt sich auf:
   a) Bildhauer, Steinmetzen, Stukkateure, Holzbildhauer, Keramiker, Gipsgießer,
   b) Schmiede, Schlosser, Gießer, Dreher,
   c) Tischler,
   d) Dekorationsmaler, Glasmaler, Mosaiker, Emailleure,
   e) Radierer, Holzschneider, Lithographen, Kunstdrucker, Zinkätzer,
   f) Weber.

Die handwerkliche Ausbildung bildet das Fundament der Lehre im Bauhause. Jeder Studierende soll ein Handwerk erlernen.

2. Die zeichnerische und malerische Ausbildung erstreckt sich auf:
   a) freies Skizzieren aus dem Gedächtnis und der Fantasie,
   b) Zeichnen und Malen nach Köpfen, Akten und Tieren,
   c) Zeichnen und Malen von Landschaften, Figuren, Pflanzen und Stilleben,
   d) Komponieren,
   e) Ausführen von Wandbildern, Tafelbildern und Bilderschreinen,
   f) Entwerfen von Ornamenten,
   g) Schriftzeichnen,
   h) Konstruktions- und Projektionszeichnen,
   i) Entwerfen von Außen-, Garten- und Innenarchitekturen,
   k) Entwerfen von Möbeln und Gebrauchsgegenständen.

3. Die wissenschaftlich-theoretische Ausbildung erstreckt sich auf:
   a) Kunstgeschichte – nicht im Sinne von Stilgeschichte vorgetragen, sondern zur lebendigen Erkenntnis historischer Arbeitsweisen und Techniken,
   b) Materialkunde,
   c) Anatomie – am lebenden Modell,
   d) physikalische und chemische Farbenlehre,
   e) rationelles Malverfahren,
   f) Grundbegriffe von Buchführung, Vertragsabschlüssen, Verdingungen,
   g) allgemein interessante Einzelvorträge aus allen Gebieten der Kunst und Wissenschaft.

Einteilung der Lehre.

Die Ausbildung ist in drei Lehrgänge eingeteilt:

I. Lehrgang für Lehrlinge,
II. " " Gesellen,
III. " " Jungmeister.

Die Einzelausbildung bleibt dem Ermessen der einzelnen Meister im Rahmen des allgemeinen Programms und des in jedem Semester neu aufzustellenden Arbeitsverteilungsplanes überlassen.

Um den Studierenden eine möglichst vielseitige, umfassende technische und künstlerische Ausbildung zuteil werden zu lassen, wird der Arbeitsverteilungsplan zeitlich so eingeteilt, daß jeder angehende Architekt, Maler oder Bildhauer auch an einem Teil der anderen Lehrgänge teilnehmen kann.

Aufnahme.

Aufgenommen wird jede unbescholtene Person ohne Rücksicht auf Alter und Geschlecht, deren Vorbildung vom Meisterrat des Bauhauses als ausreichend erachtet wird, und soweit es der Raum zuläßt. Das Lehrgeld beträgt jährlich 180 Mark (es soll mit steigendem Verdienst des Bauhauses allmählich ganz verschwinden). Außerdem ist eine einmalige Aufnahmegebühr von 20 Mark zu zahlen. Ausländer zahlen den doppelten Betrag. Anfragen sind an das Sekretariat des Staatlichen Bauhauses in Weimar zu richten.

APRIL 1919.

Die Leitung des
Staatlichen Bauhauses in Weimar:
Walter Gropius.

Walter Gropius, "Manifesto and Program of the State Bauhaus in Weimar," April 1919, with *Cathedral* by Lyonel Feininger (detail, pages 1 and 2). Photograph by Markus Hawlik. Bauhaus-Archiv Berlin. Copyright 2013 Artists Rights Society (ARS), New York / VG Bild-Kunst, Bonn.

Through texts that explored weaving's material elements, loom practice, and functional applications, a Bauhaus theory of weaving emerged. And against a backdrop of political and social upheaval in the Weimar Republic, weavers like Anni Albers, Gunta Stölzl, and Otti Berger harnessed at different moments (and to different ends) the rhetoric of expressionist painting, Neues Bauen architecture, and Neue Optik photography, often defying the categorical boundaries that defined modernism. What they accomplished was a profound step in the recognition of weaving as a specific craft—one that could be compared to, and differentiated from, other media.

To further sketch out the context of the workshop's theoretical project, it is important to turn to the year 1926, when during the initial full year of the Bauhaus's operation in Dessau the weaving

workshop's technical master Gunta Stölzl published her first essay on the field, "Weaving at the Bauhaus."[7] Halfway through the life of the school, in reaction to the expressionist ideology that characterized its first several years, Stölzl sought to bring her workshop in line with Gropius's new directives, his new "Principles of Bauhaus Production."[8] Gropius had already abandoned the romanticism of the earliest years—the antitechnology stance that owned the school from 1919 to 1923—but by 1926 he was fully engaged in the functionalist paradigm and insisted that the workshops do the same.[9] So following the director's insistence that in order for design to "function correctly—a container, a chair, or a house—one must first of all study its nature," Stölzl declared in sync that "a woven piece is always a serviceable object, which is equally determined by its function as well as its means of production."[10]

In order to arrive at this relatively simple dictum—drawing on the functionalist paradigm introduced to design through architecture—the weaver first had to diagnose a troubling condition of the early, Weimar-period textiles. Stölzl pointed to the fact that so many wall hangings and carpets woven by the workshop's students (Hedwig Jungnik, Lore Leudesdorff, Ida Kerkovius, or herself) were based on "principles of pictorial images," or that they were, essentially, "picture[s] made of wool."[11] She had to dismiss the paradigm of one medium (painting) in order to accommodate the rhetoric of another (architecture). The problem was not, it seems, that the early works were formally experimental, but that unlike the later textiles there had been little investigation into weaving's means—the interactions of color and material, "the variety of possible interlacings"—or that "the characteristics of the material limit[ed] its usage." As pictures made of wool—concerned with applying Paul Klee–like motifs or Wassily Kandinsky–like abstract compositions—the early tapestries failed to provide an understanding of the "basic laws of [their] field of specialization."[12]

One might interpret Stölzl as saying that the workshop's earliest work was inadequate on two interrelated levels: on the one hand, weaving's specific strengths as a craft had been neither developed nor theorized; on the other, the early tapestries lacked the transcendental or emotive impetus of the expressionist paintings to which they were compared; the fabrics merely "started with image

precepts." If evaluated against the "true" picture, painting, pictorial weaving inevitably appeared a weaker, ineffectual medium.

This book thus wrestles with the problem implicit in Stölzl's statement regarding the "picture made of wool": how, in other words, did the weavers come to terms with the specificity (and apparent inadequacies) of their field with respect to others (like painting or architecture), and how did they go about giving it a theoretical voice?

As it turns out, the 1926 text by Stölzl followed on the heels of another essay by student Anni Albers, titled "Bauhaus Weaving," which argued that weaving's processes, structures, and materials are best explored through direct experimentation on a loom.[13] In 1924, Albers's text functioned as a manifesto of sorts, arguing against modern methods of textile design, whereby the pattern draughtsman (*Zeichner*), due to the mechanization of cloth production, was too isolated from the material and practice. She thus contended that it was necessary to "begin again," to better integrate handwork at the loom with design.[14] What Albers's essay precipitated was a language for understanding how craft and design at the Bauhaus were always bound—one was dependent on the other.

Perhaps most remarkable about Albers's essay, published five years after the opening of the Bauhaus, is not just that it counts as *her* first text on the workshop's craft, but that it might also count as *the* first attempt to specify a modernist approach to weaving practice—one that embraces an "old" method of "handwork" in order to consider the fundamental elements of the weave, and to experiment and create new fabrics from within these constraints.[15]

Earlier and contemporaneous essays by other textile practitioners lack an attention to the means and the materials. The English Arts and Crafts movement leader William Morris, for instance, examines in his essay on "Textiles" (1893) the history of woven cloth and gives recommendations for the best way to design patterns (implicitly on paper) for tapestries and carpets.[16] Russian avant-garde artist Varvara Stepanova, alternatively, considers modern clothing's relationship to fabric design.[17] She declares in "From Clothing to Pattern and Fabric" (in 1929, several years after she and Liubov Popova started designing for a cotton-printing factory) that it "is time to move from designing a garment to designing the

structure of the fabric," stressing the importance of beginning with a consideration of the cut of clothing in their drafting of geometric patterns.[18] Albers, by contrast, describes how Bauhaus weavers were attempting to renew a direct, manual contact with materials through work at the loom. In this text and others by Albers or her Bauhaus colleagues, we find a textual exploration of weaving's material elements, its technical practice, functional applications, and similarities to (or differences from) other media in order to determine what constitutes a specifically modern practice—one suited to creating various kinds of textiles for modern life. In other words, a modern theory of *weaving* does not emerge until the students of this Bauhaus workshop begin coming to grips with their craft's "basic conditions."

Reframing the History

The weaving workshop tended for many decades to be an afterthought in historical discussions of the institution.[19] This changed in the early 1990s when Sigrid Wortmann Weltge published *Bauhaus Textiles: Women Artists and the Weaving Workshop*.[20] Crucial in framing the history of the workshop and bringing the original work of the weavers to an English-speaking audience, Weltge's text documented the activities of the workshop and showed how the status of textiles at the school was largely problematic given the fact that it was associated with "women's work." Around this time, two monographs on its master, Gunta Stölzl, and one exhibition catalog on the workshop were also published in German.[21] Since then, Anja Baumhoff has investigated the problematic role of gender within the school's internal politics and craft–fine art hierarchy, providing significant research on the weaving workshop's position within school policies.[22] And Virginia Gardner Troy's monograph on Anni Albers has examined the interest of Bauhaus weavers (and modern German artists generally) in ancient textile artifacts and techniques from South America.[23]

From these authors much was learned and transmitted about the weaving workshop's history and its key players—one that may otherwise have been lost. Prior to the Bauhaus's opening in April, Helene Börner—the weaving workshop master at the Weimar applied arts school, directed by Henry van de Velde—signed

a contract with Walter Gropius stipulating that the school could use her looms while providing her with free rent. Börner thereby became the de facto master of craft for the workshop until 1925, when the Weimar Bauhaus closed. Though a trained weaver, Börner's presence in the workshop seems not to have made much of an impact on the students. According to the recollections of Anni Albers, who joined the workshop in 1923, the students had little clear instruction in proper technique in these early years and so approached the medium through "amateurish" experimentation with techniques and materials and as pictorial compositions that resulted, predominantly, in wall hangings, carpets, and blankets.[24] In 1920, the Masters Council and Gropius decided to form a women's class for the school's female population, which was then tethered to the weaving workshop. Following Johannes Itten, painter Georg Muche became the workshop's master of form in 1921. By 1923, the year of the first Bauhaus exhibition, several among the students began to stand out. Among them were Gunta Stölzl and Benita Otte, who had together gone to Krefeld to be trained in the technique of dyeing the previous year. So when the school left Weimar in 1925, Stölzl, who had passed her journeyman's exam in 1922, became the workshop's master of craft and, then later, in 1927, the workshop's head (replacing Muche). Moving into its new Dessau home in 1926, the workshop purchased its own equipment and became increasingly sophisticated in its instruction, orienting classwork to the production of industrial prototypes for architectural textiles. After Hannes Meyer's resignation as director in 1930, with the appointment of Ludwig Mies van der Rohe, the weaving workshop became an extension of the interior design workshop and Lilly Reich was its head from 1931 until the school closed in 1933.

This narrative has gone a long way to understanding the weaving workshop's production, characters, and alliances. Little to none of the current scholarship, however, has critically analyzed how the weavers shaped their craft through text, or how their textual pursuits significantly engaged with thought on craft and media more generally. There has been no investigation of the ways that weaving, as it was theorized through the weavers' writing and practice, retextures the Bauhaus's discursive field. This is not to say that the weavers' writings, or the fact that they wrote, are unaddressed; Nicolas Fox Weber and Brenda Danilowitz have, for instance, commented

extensively on the crucial role of writing in Anni Albers's practice.[25] But very little of the extant literature on the workshop provides a sustained view of the Bauhaus weavers' writings within the school's and Weimar Republic's theoretical landscape, or that of postwar discussions of media more generally. The present volume thus finds new value and significance in the work they did as writers.

If this reframing is important, it is because it raises (and begins to answer) several fundamental questions about the relationship of specific "crafts" to other fields nominated as "art" or "design." Most important, are the concepts of craft and medium isomorphic, or structurally distinct? How might a craft, like weaving, challenge modernist assumptions about specific media, like painting or photography? And to what degree are crafts and media reliant on theoretical, textual armatures to be specific? And related to these questions, the investigation opens onto an interdisciplinary terrain: how is a particular craft's *value* a function of social categories (of gender, or manual versus intellectual labor)? Does weaving's association with women require us to reconsider a general (neutral) understanding of craft practices, forms, and skills? Conversely, how are notions of gender and femininity complicated when confronted with the techniques, functions, and art historical or modern-industrial metaphors that are used to define textiles?

Bauhaus Weaving Theory thus draws on the recent surge of critical interest in the area of craft and textile studies, which has resulted in new perspectives on a domain traditionally denied a meaningful place in mainstream art history and art theory.[26] As today's e-textile designers increasingly become theoreticians of their field, needed now is a prehistory of those investigations of new media.[27] Textile designers after the Bauhaus continued to be technological and scientific researchers, but few scholarly studies have examined their critical import.[28] Through this book I hope that a study of the Bauhaus weaving workshop's craft will frame a stronger understanding of these and subsequent developments in textile design and fiber art.

Finally, and perhaps most important, the present work seeks to open up the debate over the related concepts of "craft" and "medium," and to consider how an application of theory to weaving might shed light on some of the assumptions of the art historical discipline.[29] In focusing on the weavers' texts about their objects

and practice, *Bauhaus Weaving Theory* confronts a long-standing assumption in art history that the crafts are manual or technical, but never intellectual, arts.

A Specific Craft, a Specific Medium

The assumed binary between manual and intellectual practices has been addressed by a few authors in recent years.[30] Most notable among these is craft theorist and historian Glenn Adamson. Beginning the introduction to his book, *Thinking through Craft*, with a question that sums up craft's predicament, Adamson writes: "Thinking through . . . craft? Isn't craft something mastered in the hands, not in the mind? Something consisting of physical actions, rather than abstract ideas?"[31] And defying this expectation, Adamson looks at craft from a kind of meta-level, as a category, process, and "conceptual limit." Indeed, his book does just what the title sets out to do: *think through* the conflicted terrain that marks craft as a limit of modern art. This is important, for while the field of fine art has a longstanding connection to "concepts" or "intellectual labor" in Western culture dating back to the Renaissance (in treatises like Alberti's on architecture or Leonardo's on painting), craft's relationship to "theory" and "thinking" in that context has been a bit more tenuous.[32] Craft, it seems, is by definition not an "intellectual exercise."[33] Although the nineteenth century generated ideas on craft by John Ruskin and William Morris of the Arts and Crafts movement, attempts at generating a specific philosophy or theory of craft since modernism (the early twentieth century) have in most ways been marked by fits and starts. David Pye's writing on "workmanship" and skill is a notable exception, though his writing is obscure among mainstream art and design circles.[34]

A significant argument of Adamson's book is that while craft is certainly a category used to classify certain medium-specific practices (like glass blowing or ceramics), it needs most of all to be understood as a "a way of doing things"; it does not refer to a "defined practice but a way of thinking through practices of all kinds."[35] According to Adamson's account, the concept of craft is organized around "material experience" on the one hand, and "skill" on the other. Indeed skill, as he argues following Pye, may be "the most complete embodiment of craft as an active, relational

concept rather than a fixed category."[36] (To put it another way, unlike this word *art,* the word *craft* can be used in a sentence as both a noun and a verb.) Thus, it applies to the sculptural work that Constantine Brancusi shapes out of stone as much as it applies to Peter Voulkos's work in clay—something connected to the history of ceramics, a so-called handicraft or decorative art with all of the assumptions about amateurism and skill that go with it. And as a process, craft is not just a distinct category but is the veritable "horizon" of (all) art—that which yields its possibilities yet disappears in the process. Citing Jacques Derrida's notion of the *parergon,* Adamson ultimately argues that craft must be understood as that which is "supplemental" to the "autonomous" (modern) work of art.[37] Craft is pervasive (everywhere in art and design), and yet mostly unrecognized. As the concepts of art come to the fore, the work's craft is that which recedes, or moves to the periphery, like a frame.[38]

It requires noting that Adamson's thought on craft while incredibly valuable to a discussion of weaving is less about an investigation of the specific thinking that arises within a particular craft than about the underlying "way of doing things" that permeates "practices of all kinds." This means that Craft, a general category like Art, is given conceptual clarity, but the specific knowledge and ideas generated by certain manual techniques and tools are less central to his argument. The differences between specific crafts and media are reduced, in some sense, to "process" writ large.

In the final count, the question remains whether "craft," as it is applied to weaving or carpentry, can be differentiated from "medium," as it is applied to painting or photography. Both concepts, when related to specific categories of practice, are used to describe the "properties," "materials," "techniques," and "skills" of various disciplines. If craft is not seen as the inverse (or supplement) of art, as Adamson determines, but is rather understood in relation to medium, then the questions organizing the art-craft field shift: are "medium" and "craft" symmetrical, or are these two categories structurally distinct? Or both?

Adamson might argue that the term *craft* is better understood not so much categorically from within the various disciplines or individual crafts but, rather, as the supplement or horizon of modern art. Or, as he says more recently, we need to understand the idea of craft historically, as that highly contested concept that was

in some sense invented alongside design within and against the beginnings of industrialism.[39] While agreeing with these points wholeheartedly, I would nevertheless argue it is productive to consider more actively the structural parity of craft and medium (or the crafts and media) as they exist within modernist discourse in order to account for the crossover between the high and applied arts, or technical switches that happen, especially today, as the realms of craft and new media have begun to assemble. It is productive to exploit the similarities and differences between these terms in order to think through, for instance, Buckminster Fuller's comparison of Anni Albers's "woven fabric surfaces," with the "multi-dimensional . . . complexities" of "Earth's cities," as seen from "aeronautical altitudes."[40] (Spaceships, televisions, architecture, and Peruvian textiles similarly collide in Albers's writing.) And to think of a specific craft in Germany and America in the twentieth century it is necessary, I would argue, to understand how it plays out within the parallel discourses of "medium specificity" and media studies as they arose at the Bauhaus (in the writings of Wassily Kandinsky on painting and László Moholy-Nagy on photography) and were further developed in postwar America. Much is gained by looking at a certain genus of trees to gain a picture of the forest's health. Using a case study, like Bauhaus weaving theory, which harnessed various other discourses, provides a lens onto the specificity and permeability of individual crafts or media within modernism. In other words, understanding how one medium-specific craft came to be defined helps to grasp related parameters, the key questions and values, that defined others.

The emergence of a modernist, early-twentieth-century discourse concerning medium specificity finds precursors in the large number of texts that evolved in the wake of the Enlightenment.[41] Just as the idea of "art as such" was coming into being in the eighteenth-century field of aesthetics, a contradictory but also supportive discourse emerged that sought to distinguish the "unique nature of each art and the material medium in which it operated."[42] In 1766, Gotthold Ephraim Lessing's *Laocöon* attacked the idea that painting and poetry were "unified" as mimetic arts; instead, he argued for distinguishing them according to their different "means and signs," or the fact that one "employ[s] figures and colors in space" while the other "articulate[s] sounds in time."[43] A

Lessing-like argument extended into the nineteenth century, when critics like August Wilhelm Schlegel (in his *Philosophische Kunstlehre*) hoped to establish a "natural history of art" that explained "the very laws governing the stages of the unfolding of a process."[44] And then with Hegel came an articulation of the ways that different art forms are "distinctly fitted to manifest the ideas and attitudes of a particular age."[45]

The concern with defining the parameters of specific arts became most acute in the early twentieth century in essays by abstract painters like Kandinsky. Defending nonobjective form against what critics saw as its decorative nature, the artist would declare in 1914 that the "greatest dangers" facing painting include "ornamental form, the form belonging mainly to external beauty, which can be and as a rule is outwardly expressive and inwardly expressionless."[46] By this he meant to distance his practice in abstraction from a certain, general condition of "stylized form" across the applied arts—as found, for instance, in the Jugendstil or art nouveau movements. So while Kandinsky's notions of synesthesia were integral to his grasp of formal problems (Richard Wagner and Arnold Schoenberg inspired his notion of a form or color's inner *Klang*, or sound), that contradiction was also suspended in his ambition to capitalize on a certain image of pictorial practice as self-sufficient, internally motivated.[47] He would even insist that "every art has its own language and means appropriate to itself alone—the abstract inner sound of its elements. As far as this abstract, inner sound is concerned, none of these languages can be replaced by another."[48] Painting deals in color, music in sound, dance in movement. The analytical specificity of any artistic "language" or art (like painting) must be grasped completely before it can be resynthesized, for example, into a theatrical stage set or as the mural on a modern building.

The concept of medium specificity took several decades and a continental divide to become fully entrenched as a modernist dictum, but when Clement Greenberg insisted in 1960 that the task of modernism was to "eliminate . . . the effects borrowed from another art," such that "each art would be rendered 'pure,'" the critic could claim this process as the result of a teleological end game.[49] The insistence on specificity became a rigid doxa, and the contradictions of medium-specific investigations would come to a

head: a positivist examination and promotion of painterly materials and technique (*techné* and matter) paradoxically established art's (Hegelian) Spirit or idea. The goal—somewhat as it was for Kandinsky in 1914—was to combat "Kitsch"—all mass and popular forms, like television, but also all things "decorative" and functional, like "craft."[50] So when "medium" took over from "the particular arts" as the lingua franca of the mid–twentieth century, it stressed the distinction held by Kant between art and handicraft, affirming that the process of each particular art was "free" and "purposive . . . in itself" (whereas the crafts were mere "work").[51] Kantian aesthetic autonomy was fully conflated with medium specificity; Greenberg's (rather positivist) "medium" could be "art" precisely because it was defined by clear material and practical parameters.[52]

Still, it must be noted that the concept of *medium* also bears a different history—as this term came into significant use in the Bauhaus context in the 1920s primarily through discussions of media like film and photography. When Moholy-Nagy brought his photographic and typographic practice to the Bauhaus in 1923, his texts on "optics" published in avant-garde journals like *i10* were among some of the initial attempts to capture the conditions of this instrument and its light-produced images, setting the stage for subsequent investigations of media that deployed distinctly modern apparatuses. That the Bauhaus weavers looked to architectural and then photographic theory for their initial theories of the craft is telling. A formal vocabulary borrowed from Paul Klee's and Kandinsky's ideas about the pictorial arts is certainly apparent in their writings, but more notable were the *Sachlichkeit* discourses of architecture and photography. Perhaps the student Otti Berger, who in 1929 related textiles to photography and architecture in her first essay on "Stoffe im Raum" (Fabrics in Space), recognized a potential that was otherwise unattainable (and outdated) in the academic arts.[53] It could even be said that media and crafts were determined by a similarly peripheral identity at that time.

It is with this background in mind that a productive ambivalence is witnessed throughout this book—about whether to call weaving a craft or a medium. The point of bringing the word *craft* into dialogue with *medium* is not meant to legitimate weaving practice as "art." (As Adamson reminds quite bluntly: "Anything can be taken for art, craft included, and that is all there is to say on

the matter."[54]) Rather, an investigation of the weavers' theories, if framed by this relationship, has the radical capacity to shed light on each category's already hybrid nature—the fact that, even within early-twentieth-century modernism, a textual understanding of any practical field (be it weaving, painting, architecture, or photography) was always striated by the terms of other media, other crafts. Emphasizing the craft of weaving, nevertheless, bears a political weight, insofar as it becomes necessary to grant that *thinking* indeed emerges within manual practices, within labor. Perhaps craft and labor are not about turning off the brain but about reactivating different centers. As the weavers' writings and textiles show, ideas became manifest in their physical manipulation of the loom—either unwittingly or with a bit of savvy.

The Bauhaus provides the perfect setting in which to analyze the relationship between crafts and medium. For it is here, in the school's workshops and modernist curriculum, that the two areas came head to head, in dialogue and in juxtaposition. What the work and writing of the Bauhaus weaving workshop reveal is that no medium or craft, however specific, can be divorced from the network of other media—and the political landscape—in which they come alive, (re)produce, and reside. While specific crafts may bear specific, unique properties, structural features, and technical practices, the terms of their identities are always counted along these lines. It is in this space of parity that differences and values emerge.

Feminized

Important to understanding weaving's identity as a craft or medium at the Bauhaus is an investigation of its apparently feminine gender and the contradictions that this identity entailed. In a passage from her 1957 essay "The Pliable Plane: Textiles in Architecture," Anni Albers reflected on what she identified as the paradox of weaving's "feminine role" in modern culture:

> It is interesting . . . to observe that in ancient myths from many parts of the world it was a goddess, a female deity, who brought the invention of weaving to mankind. When we realize that weaving is primarily a process of structural organization this thought is startling, for today thinking in terms of structure seems closer to the inclination of men than women.[55]

Even twenty-four years after leaving the Bauhaus and Berlin, Albers was never able to reconcile weaving's apparent femininity with her technical approach to and theoretical conception of her medium. While the craft has been historically designated as feminine, weaving's "process of structural organization" indicated to Albers that the mental faculties used to construct a woven textile (such as the complex mathematical determinations used in threading a loom for various structures) seemed "closer to the inclination of men than women."

Although Albers hoped to discard this association, annoyed over a lack of respect for her work in the hierarchy of the arts, her statement only affirms that a definition of weaving is entwined with the question of gender. Weltge and Baumhoff have pointed out that the gender politics of the Bauhaus firmly established the femininity of the weaving workshop, and that this identity has a history. During the first two years, before the workshops were fully established, no definitive gender was assigned to them, and a male student, Max Peiffer-Watenphul, participated in weaving activities.[56] But by 1921, the weaving workshop and the women's class were tied together. The women's class was set up by the weaver Stölzl, who claimed a desire to create a separate space for the many women entering the school, but also at the encouragement of Bauhaus director Walter Gropius. He wanted to segregate the female population from the other, "masculine" workshops, such as metalwork or furniture, which held more direct links to architecture; thus, a policy established what was and wasn't so-called women's work.

But if weaving's feminized identity was reinforced by policies, it was also, according to Weltge and Baumhoff, produced through statements about the nature of the craft: like the words of painter and Bauhaus master Oskar Schlemmer: "Where there is wool, there is a woman who weaves, if only to pass the time."[57] The very craft is, as Schlemmer's ditty indicates, a pastime, one accomplished with little mental concentration. And women weave, one is led to think, out of sheer habit. So when Georg Muche took over as form master of the weaving workshop in 1921, he made every attempt to disassociate himself from the weavers' work, putting his energy toward painting or his first architectural design, the Haus am Horn in Weimar (1922–23), and he swore never to "weave a single thread,

tie a single knot, make a single textile design."[58] While it may be easy and amusing to dismiss the thoughts of these men, what their language shows is that gender not only pertained to the actual women weaving in the workshop; it also involved the way in which the textile craft was defined. It seems that the physical material of thread and the process of handling it might have, as Muche thought, threatened his status at the school, for weaving with its grounding in manual (not intellectual) abilities is intrinsically feminine. Weaving's femininity was not simply a matter of subjects but also of objects, practices, and semantics.[59]

Weaving occupied a feminized status at the Bauhaus institution in many ways, but perhaps primarily because its materials and practices were considered subordinate to the more fundamental practice of form and color theory (taught by painters like Johannes Itten or Kandinsky) or the functionalist logic of architecture. Especially early on, the Bauhaus masters mostly dismissed weaving as an applied art, whose secondary (or tertiary) position afforded it no intellectual dimension of its own. As a manual practice, weaving was seen merely to borrow or *apply* the formal and functional theories that painting or architecture developed.[60] So more than its connection to a female subject who weaves, weaving was feminized as a "linguistic absence" in the language of artistic media.[61] The fact that weaving could not reference a longer history of theoretical inquiry into its specificity—as found, for instance, regarding painting (from Leonardo to Kandinsky), or regarding architecture (from Vitruvius to Adolf Behne)—contributed to its feminine role.

Still, it is important to understand that the Bauhaus workshops, crafts, and artistic media do not correspond to a field of neat analogies between masculine and feminine. Even the discipline of painting was always on the verge of slipping into the (feminine) status of a merely decorative art, and architecture held tenuously to its rights to authorship.[62] Expressionist painters anxiously wrote essays denying any association of their work with ornamentation, and internal debates within the Werkbund and the Neues Bauen movement suggest that architects were often nervous about their discipline's status as an art.[63] Moreover, the metal workshop, presumably a domain of men, was led in its most productive years by a woman, Marianna Brandt; and while the pottery workshop's form master Gerhard Marcks rejected the intrusion of women into its ranks, it

Students of the Bauhaus Weaving Workshop, collage for "9 jahre bauhaus. eine chronik," 1928. Upper row, from left: Lisbeth Östreicher, Gertrud Preiswerk, Helene Bergner, Grete Reichardt; lower row, from left: Lotte Beese, Anni Albers, Ljuba Monastirski, Rosa Bergner, Gunta Stölzl, Otti Berger, and workshop master Kurt Wanke. Bauhaus-Archiv Berlin.

was nevertheless a site where women were assigned. Ultimately we find that the term *feminine* weaves together multiple, often contradictory, associations.

Thus, a project on weaving at the Bauhaus must investigate the inconsistent signifieds attached to this singular, gendered signifier. Adolf Loos's infamous essay "Ornament and Crime," integral to modernist architectural thought in the early twentieth century, situates the applied arts and ornament in a homologous relationship to femininity and degeneracy.[64] But the discursive connections that gender weaving also sprout from a dual history of domestic (amateurish) production on the one hand and industrial (wage) labor on the other. While the Bauhaus tended at first to view weaving

Women textile workers in Crimmitschau, Saxony, Germany, striking for a ten-hour working day in 1903–4. ullstein bild / The Granger Collection, New York.

practice as a gentle, domestic craft best suited to the female sex, in Germany at this moment the identification of textiles with industry involved the image of women toiling in factories, or striking for twenty-two weeks to achieve a ten-hour workday.[65] Karl Marx wrote of the new surplus of women who entered textile factories in the late nineteenth century once the deployment of "machinery dispense[d] with muscular power," allowing for the employment of "workers of slight muscular strength."[66] And so by the 1920s, the association of textiles, machines, labor, and women had become so pervasive in the popular imagination that these terms were inextricably bound.[67]

The terms and values of Weimar culture are, as design historian Frederic Schwartz has said, "not merely unstable; they could, in fact, turn into their opposites."[68] So, too, the role of gender within Weimar society and the Bauhaus institution was often marked by contradictions and turns that made the designation of weaving as feminine a complicated proposition. As I hope to show, the understanding of this medium as at once a handicraft, a product of mechanized labor subject to an apparatus, a sign for the problems of domesticity, and an anonymous entity reveal the extent to which the label *feminine* was never consistently applied with the

same meaning or value. Neither *masculine* nor *feminine* are understood here as absolute qualifiers.

Why Writing?

It seems useful at this point to address a question subtending the discussion thus far. Before turning to the chapters to understand the complex avenues through which theoretical writing on weaving first emerged at the Bauhaus—that is, the *how*—it is important first of all to address the *why*: why was this discourse first initiated here and not, say, at other locations in Germany (that is, in Crimmitschau or Krefeld, which were major textile industry towns, or at Burg Giebichenstein, where former Bauhaus student Benita Otte taught between 1925 and 1933)?

Answering this first of all requires making some general arguments about the far-reaching importance of the school's theoretical program. The Bauhaus may ultimately have achieved mythic status because so many *Bauhäusler* emigrated to the United States and became leading figures in art and design education there (Josef and Anni Albers, Moholy-Nagy, Gropius, Marcel Breuer, and so on), but the school's reputation was crystallized even before this—precisely because Bauhaus artists were constantly engaged in debates within the classroom and then publicized those debates with the outside ("to expand its pedagogical range").[69] Most significant, there was the production of the *Bauhausbücher* series, which was edited by Gropius and Moholy-Nagy and ultimately yielded fourteen volumes, the authors of which included many of the most important figures in the international avant-garde.[70] As Adrian Sudhalter has pointed out, "Reaching a widespread international readership, the *Bauhausbücher* effectively promoted the school and its production-oriented position of the mid-1920s."[71] Indeed, as I will argue in chapter 2, there is a degree to which the weavers' early theoretical writings were initiated as part of what could be called a marketing campaign by the school in its drive to gain political recognition from the supporting state apparatus and from industrial clients. Discourse in the form of magazine articles, special issues, and books was an important part of the school's functional lifeblood, not just an abstract engagement with modernist ideas. Moreover,

the Bauhaus was especially vexed politically in part because it was so vocal in its ideas and so good at broadcasting them; one might say it was caught in a kind of vicious circle: the more the institution felt it needed to back up its program with text, the more it was attacked, the more it needed to respond. (Other institutions in Germany at the time were not as visible and hence not as theoretically motivated, or perhaps they were less visible because they were not as motivated by political fallout at every turn.) And unlike most schools in Germany at this time, the Bauhaus had one particular "modernist titan"—Kandinsky—who was already a prolific writer on art when he came to the school to teach in 1920. Surely his complex ideas on the medium of painting in 1912, as I will discuss in chapter 1, inspired the weavers so enormously that they almost needed to respond through language.

Language and writing as much as painting were central to Kandinsky's practice as an artist, and his presence was especially important to the fostering of a discursive Bauhaus early on. Likewise, Gropius's "Manifesto and Program," which was meant as an advertising pamphlet to appeal to students, suggested at the outset that the school was as much a practical site as a space for quasi-philosophical explorations. The ideas expressed through texts by Moholy-Nagy and Klee only fortified this environment. And so the Bauhaus weavers were rather born from a theoretically charged matrix, where the articulation of ideas was as important as the practice. They had to secure their status at the school by way of text. It was not enough to do a practice, like weaving; they also had to establish the "basic laws" of their medium, in writing, for the workshop's products to be considered valid in the eyes of the school.

The Work of the Chapters

The chapters in this book do not provide a comprehensive survey of the Bauhaus weaving workshop and its products; rather, they consider the weavers' writings on their craft in the context of other media: painting, architecture, photography, and patents. Determined by a general chronology, each of the first three chapters examines a key moment in the workshop's evolving theory of its formal field set against the school's inconsistent political ambitions and the cultural and sociological debates of the time. These chapters

will demonstrate how various competing discourses of the Bauhaus overlapped and clashed, and how they erupted in the writings of the weavers. Their essays are used as a lens onto several important dualities that defined media during the Weimar Republic: artistic practice and manual labor, experimentation and function, tactile and optical perception. Chapter 1 examines the workshop's early years (1919–23), when its tapestries and carpets were understood as "pictures made of wool" and weaving lacked a theoretical armature. Expressionist artists like Kandinsky and Itten saw painting as a conduit to the artist's soul, while weaving was too domestic and laborious to hold significant depth. Setting these objects and texts against contemporaneous Marxist debates about labor, this chapter considers the vexed status of abstraction in the Weimar Republic. The second chapter examines the initial theories of weaving, written by Anni Albers, Helene Schmidt-Nonné, and Gunta Stölzl between 1924 and 1926. As the school abandoned its purely experimental beginnings and catapulted itself toward a technological future, a modernist theory of weaving was born. Harnessing the functionalist (*Sachlichkeit*) discourse of the Neues Bauen movement (Adolf Behne and Walter Gropius), they specified the use of textiles in architectural space. Chapter 3 examines how weaving student Otti Berger drew on László Moholy-Nagy's arguments regarding the "optical" nature of photography to develop a complementary theory of tactility as it pertained to cloth. While close-up photographs of Bauhaus textiles in magazines and brochures worked to sell the workshop's products, Berger reflected on the simultaneous visuality and "hold-ability" (*Haltbarkeit*) of the woven medium.

The fourth chapter shifts direction somewhat. In 1932, Otti Berger began to seek intellectual property protection for her textile fabrication techniques. Identifying herself as a patent "author"—an "inventor" in a design world mostly marked by anonymity—she would also define her craft anew. What she developed through patent applications (in dialogue with her patent attorney) was a theory of textiles for the modern age, a language that harnessed legal rhetoric (not quite a medium, but an apparatus, nevertheless) with that of functionality and "properties."

The book's conclusion examines how the writing of Anni Albers quickly expanded after she immigrated to America with her husband, Josef, in 1933. Through texts published in magazines or

catalogs and ultimately in two books—*On Designing* (1959) and *On Weaving* (1965)—she considered terms like *medium* and *design* as they integrated and, in postwar America, increasingly eclipsed the work of *craft*. In this chapter, Albers is set into dialogue with several significant and incongruent voices on media from this moment.

As the chapters demonstrate, the weavers' texts at once posit the specificity of their craft—how it was, for instance, specifically gendered—but also the way in which any such definition was inseparable from other fields. Their texts point to the social and artistic worlds that shaped weaving as a distinct entity with specific parameters, and the particular practice through which it was reenacted or transformed.[72] The chapters thus show how the entwinement of one disciplinary space with the next is, on the one hand, specific to textiles but, on the other, is a general case of media. And it is of this condition that the weavers' writings remind.

Thus, for the purposes of this book, weaving is as much a craft and medium as it is an apparatus (*dispositif*), in the Foucauldian sense. It is as much a specific practice (set of materials, tools, and way of putting things together) as it is a "heterogeneous ensemble consisting of discourses, institutions, architectural forms . . . propositions—in short, the said as much as the unsaid."[73] Weaving is at once *this* particular technique as opposed to *that* one (say, painting or architecture), and also the network that in various concrete, practical, and theoretical modes links together the competing discourses of modernism.

the installation of a Murphy bed, any room could also function as a bedroom.) Thus functionalism in the fabric was less about specificity (a specific object for a specific function) than it was about variability. The textile medium's soft flexibility made it suitable to change and to what might be referred to in today's context as "mass customization."[85] The fabric must meet the demands of mobile and economic living—able to be folded into a small space and put away in a drawer, used as a curtain or convertible wall divider. This would be important for the modern dwelling, whose requirements were determined by strict limitations on space.[86]

Functionalism served the weavers well: they used it to redefine their medium and to reject the logic that otherwise identified their practice as a "feminine handicraft"—as "domestic" (mindless) work with little purpose. The *Stoffgebiet* of weaving, they seemed to argue, is particular enough to deserve a theory: a rigorous description of its processes, or the "conditions of it manufacture," as well as its multiple functions. One might go even further to say that Schmidt-Nonné and Stölzl did a fine job of beating Gropius and Behne at their own rhetorical game. In their (gender-neutral) discussion of functional *Sachen* and architectural form, Gropius and Behne provided no discussion of *adaptability* and *flexibility,* terms that the weavers would use to identify the specificity of textiles. So with the weavers' description of a textile that out-functions cement-and-steel buildings, their theoretically defined "adaptable" object significantly challenges the formal parameters of functionalism.

Thus the weavers' theories of their medium also worked, perhaps in spite of their intentions, as a kind of feminist call-to-arms, a manifesto for recognition, in an institution that otherwise subsumed their work under the rhetorical and physical frame of architecture. An embrace of adaptability gained them a theoretical vocabulary and identity, even as it also in some sense returned them to a consideration of the domestic interior, the home.

The Function of *Frauenkultur*

Which brings us to the final, more obvious problem in the *Sachlichkeit* discourse. Insofar as it is a discourse of use, it must ultimately acknowledge the existence of the user. And these users are not

(neutral) "humans" (as Behne or Gropius might suggest) but, rather, specific beings: some are artists or architects occupying a Bauhaus *Meisterhaus,* with a predilection for walls covered in neutral or bolder tones, while others are *Hausfrauen,* women who clean and fold fabrics and are well positioned to advocate for new designs in domestic housing. Of course this little fact was not lost on all writers about the Neues Bauen. In one book, architect Bruno Taut highlighted the "new dwelling" and the redesign of domestic space with an eye toward developments in another modern movement. The German women's movement or, rather, the women's "culture" it inspired (*Frauenkultur*), was put to service by this "new architect" in 1924, in a book that identified the new, female user as nothing less than a creator. *Die neue Wohnung: Die Frau als Schöpferin* (The New Dwelling: The Woman as Creator) sought to capitalize on the growing popularity of the women's movement among the female population. So Taut's book—something of a promotional campaign for his own dwelling designs—added a subheading that would equate the most advanced architecture of the moment with the language of feminist progress.

The utility of the *Frauenkultur* for architecture was clear enough in Taut's mind to put it front and center. As historian Mark Peach points out, Neues Bauen architects hoped that by "converting women to the cause of modern architecture" they would become the strongest advocates for new definitions space.[87] "Once the New Woman saw the light and began to demand the efficient, airy, sunny, and hygienic home foreseen by modern architects," Peach notes, "the movement could only succeed, given the influence over domestic issues supposedly wielded by women."[88] Modern architects figured that the changed psyche of the converted modern woman would help promote the cause of the New Dwelling. Taut wrote *Die neue Wohnung* the year he became head of the city planning board in Magdeburg, and the text signaled his shift in interest from the earlier expressionist architecture toward the "social and cultural implications" of designing new forms of dwelling for the masses.[89] At this point, Taut was determined to address the rising housing shortage in Germany's cities, and he hoped that a member of the Neues Bauen movement (or he himself) would be hired to meet the task. His argument depended on women's change of

mind "in this [modern] direction." For, as Taut declared, "in order to even begin to build better homes the woman must emphatically demand them."[90]

By giving her a new, more economically designed living space, free of comfortable yet hard-to-clean drapery and other sentimental items (*Gefühlsdinge*), Taut even claimed to advocate for woman's best interest, reciprocating the camaraderie she might offer him in support.[91] He argued that his design would rid her of unnecessary emotional "nervousness" caused by the expectations of a traditional dwelling environment. But this attempt to align women's revolutionary goals and the "revolution of the household" had another, rather retrograde purpose, as found on the dedication page of his book:

> Dedicated to women!
>
> The century's pendulum has reached the bottom—ready for an upswing. What until that point was negation, now becomes affirmation with a new goal. Hitherto, woman was forced to turn her back on the home and now is turning toward it again. Mere critique [now] becomes a creative act. Critique is no longer reproach and reprimand, but a perspective on the new path.[92]

Instead of abandoning her maternal role for a career, with the new architect's help the woman could return to the dwelling (somehow) refreshed. In Taut's indictment of "critique" (or rather "reproach and reprimand"), he implores women to maintain their "Mütterlichkeit" (motherhood) in the face of modernity.[93] So while Taut uses the women's movement to aid in his book's popularity, his dedication also performs a preemptive tactic, by dismissing feminist criticism as obsolete. Were the woman to "turn her back on the home," Taut recognized, she would surely be in no position to advocate for the architect's New Dwelling.

The problems of the household would remain the sphere of the woman, even after she achieved the right to vote. Explicitly acknowledging rather than disregarding this fact, Anni Albers (still known by her maiden name Annelise Fleischmann) published her second magazine article titled "Wohnökonomie" (dwelling-economy) in 1925. It was not a theory of weaving per se, but it

pinpointed the Bauhaus weavers' budding interest in the economic concerns and functional requirements of fabrics within modern interiors and initiated a dialogue on the function of cloth for the New Dwelling. Similar to the neologism coined by Le Corbusier, "dwelling-machine," which was translated into German as *Wohnmaschine,* the word *Wohnökonomie* (which Albers no doubt exploited to recall its precedent) was entirely in keeping with the economic agenda of Weimar society.[94] In her essay she was responding to the trend among German architects of praising "americanischen Hauswirtschaften," or American-style home economics, and its Taylorized system of efficiency applied to the household.[95] As Albers explains, "Economy is a requirement today in every area of economic life," yet "the *Wohnökonomie* . . . has been little considered. Four hours of freedom won through economic house design means an essential change in the current life picture."[96] Although the landscape of the Weimar economy had been up for continual review since 1919, perhaps even with respect to the newly minted working woman, the sometimes severe consequences for the housewife were only beginning to come under scrutiny. "The traditional form of the household," she writes,

> is an exhausting machine that makes the woman a slave to the home. Poor arrangement of rooms and interior furnishing (seat cushions, curtains) steal her free time, thereby limiting her development and creating nervousness. The woman today is the victim of a false *Wohnform.* That we must perform a full remodeling of this form should be obvious.[97]

Published in the pages of *Neue Frauenkleidung und Frauenkultur*'s special issue on the Bauhaus (following an article by her soon-to-be husband, Josef Albers), the weaver's article harnessed the concerns of the Weimar housewife-cum-working woman. Albers could diagnose, in part from experience, that the New Woman required an economical rather than a "false *Wohnform,*" that she wished not to be a slave to the home. So in focusing on upholstered chairs and curtains, Albers suggested that any path toward deenslaving the woman and remodeling the household form had to begin with a reconception of household fabrics. The way she combines the discourse of architecture, technology, and the women's

movement sets the stage for the method by which later texts from the weaving workshop would frame the medium. What her article does is to join economic, architectural, practical, textile, and so-called women's questions in a concise, modernist manifesto using the neat language of combined pragmatism and utopian aspiration: "Our clothing accords with the demands that transportation, hygiene, and economy pose to it. (In a hoop skirt one cannot ride the railway.)"[98] The design of chairs, lamps, houses, and clothing is required to meet the demands of current social life, and the solution is, she argues, not the creation of a new "style (facades, motifs, ornaments)" but, rather, the design of a single reproducible "type," like telephones that simply fill a function and nothing more. Her task was to explicate in the clearest terms possible the interior design ideas that pervaded the Bauhaus after 1923 by using the language of *Frauenkultur*. And in adapting this movement's language, Albers was able to frame textile products for a new audience of Neues Bauen–friendly women.

The questions of gender and women's culture were indeed central to the discussions. But as the new functionalist architecture came to depend on the language of the women's movement in order to advance its own goals, the reliance would yield several problems for its functionalist ethos. Functionalism was in some sense a theory of specificity—specific spaces for specific functions—and yet the specificity of the New Woman was perhaps too specific. The incorporation of *Frauenkultur* into functionalism, on the one hand, neutralized the women's movement into the clean "white cubes" of the new architecture and, on the other, gave it a "feminist" tint. This was especially the case as Taut's ideas on the New Dwelling were (re)harnessed, in turn, by the women's movement.

Both Albers's essay and Taut's book in fact preceded a series of texts found in magazines concerning a parallel interest in the refashioning of the household's economy (or mechanics of operation) and the fashioning of the New Woman and/or Housewife as an active agent of society and culture. Taut's book, as well as the New Dwelling's style and functional operation, suddenly became a popular topic of discussion in the press.[99] Women's organizations and periodicals debated the significance of the new architecture, particularly in response to Taut's conception of the *Idealwohnung*. Between 1925 and 1926, a number of texts in *Die Frau: Monatschrift*

für das gesamte Frauenleben unserer Zeit addressed the problem of coordinating a career with the duties of the household.[100] Most texts merely reiterated the new architecture's theories.[101] Others, however, adapted the rhetoric to a field of debates about "Wohnungsbau und Haufrauen," shedding new light on the significance of functionalist thought.[102] Again, the influence from Taut and Le Corbusier to the magazine's female readership and writers was not a one-way street.

The women's movement had been grappling with the double bind of the housewife in modern society, in addition to addressing the most pertinent concerns of the bourgeois woman and/or the female intellectual, at least since 1894, when the Bundes deutscher Frauenvereine began to lead its charge. Figuring how to balance *Hausarbeit* and *Kopfarbeit* (mental, or intellectual work) was a central mission of *Die Frau*.[103] Throughout its history, from 1893 to 1944, the magazine was interdisciplinary in its scope and addressed a range of topics and fields from religion, philosophy, and the arts to economics, education, social injustices, and female labor.[104] For example, Grete Lihotzky's essay on the "Rationalization in the Household," published in the first year of *Das neue Frankfurt,* identified areas—like the kitchen's design, good lighting, and well-chosen wallpaper—that would be useful to the reformation of the dwelling for the New Woman.[105] But it also made the point that the Frankfurt Housewives' Association had recognized "for more than a decade . . . the importance of relieving the housewife of unnecessary burdens and have spoken out for central management."[106] Similarly, "Frauenanteil an der Lösung der Wohnungsfrage" (Women's Role in the Solution of the Dwelling Question) by Dr. Edith Jacoby-Oske, expressed concisely the sentiment of that moment—that women's concerns were central to the questions and solutions of the new architecture and were leading the charge.

Nevertheless, multiple viewpoints were knotted up in the women's movement, and not all of them were in agreement about whether to remodel the home. While male architects perceived the movement as a straightforward revolutionary force, in fact the feminine revolution between 1923 and 1926 was rupturing at its seams from the inside, with women antagonistic to the new requirements of outside employment in addition to work in the home. As Detlev

Peukert notes, the women's movement had to recognize that the image of the efficient housewife was far different from reality:

> On the face of it, these new efficient methods of household management were time-saving, but the result was not necessarily to make women's work easier. Women were still stuck with the double burden of housework and a job, or they were expected to spend more time on housework and child care in order to meet the norms of modern family life that were being promoted. Conforming to new standards of hygiene or interior decoration similarly took more time, not less.[107]

A plain return to motherhood and home seemed to some women in the wake of economic and social upheaval a practical solution to the uncertain roles imposed by modernity. Members of the Bund für Mutterschutz (League for the Protection of Mothers) sought, following WWI, to reinvest a Wilhelmine ideal of motherliness (*Mütterlichkeit*).[108] Marianne Weber, for instance, saw the "special cultural mission of women" to be the restoration of morality and civilization based in the household.[109] There was also the fact that some women activists during the Weimar Republic often supported the idea of a separate female sphere in spite of their interests in equal rights. Historian Ute Frevert explains that suffrage movements wanted "conditions allowing the free development of the female character" at the same time that they sought emancipation.[110] Much of the feminist discourse at this moment hardly included a radical critique of gender roles.

Marketing Modernism

One might say that the specificity and complexity of the *Frauenbewegung*'s views on the New Dwelling underpinned the organizational logic of the Bauhaus weaving workshop. Stölzl, for example, found it rather useful that Gropius wanted to separate female students from the other *Bauhäusler* by establishing a women's class. Anja Baumhoff diagnoses this act as an internalization of sexism: "A precondition for her employment in the weaving workshop was her willingness to accept gender ideology."[111] Though surely the case, Stölzl may have had other motivations for creating a separate sphere for the development of the (adaptable) "female

character"—one of which was to secure a space in which the specific conditions of her medium could be explored without the direct oversight of (male) masters and business managers. Moreover, she was undoubtedly savvy about her audience: a bourgeois female clientele newly reinvested in the home and perhaps interested in an affirmation of applied-art practices like weaving. The act of establishing the women's class was thus engaged in a larger debate in the Weimar Republic concerning woman's place in modern society and in the New Dwelling, but it was also, quite simply, good marketing. (Even before the culture industry actively capitalized on feminism in the 1970s, the weaving workshop—like Taut and the writers for *Die Frau*—had participated in this process.)[112] And so we note the complexity of the weavers' theories: the adaptation of modes of advertising was paralleled by a simultaneous capitulation to, and critique of, traditional gender dynamics. Perhaps Stölzl figured that the language of adaptability would leave clients feeling as though functionalism might also work for them—an apparently feminine brand of functionalism.

One key feature of Bauhaus textiles, in fact, was their ability to adapt to particular color choices—as evident in a table or aisle runner, designed by Stölzl and reproduced by Helene Börner for a female client who asked for "black with fresh blues and greens" in lieu of shades of purple.[113] This object—initially developed as a pictorial wall hanging—came in a design of layered, intersecting rectangles that adjusted easily to the length requirements of a given runner, while its abstract geometry was flexible enough to account for variations in color desired by the customer (see Plate 3). (Indeed, it might be said that these picky clients with "feminine" tastes helped inspire the workshop's prescient model of flexible manufacturing, as suggested in Schmidt-Nonnés article.) So when Stölzl's 1931 essay argued that an "understanding of and feeling for the artistic problems of architecture will show us the right way," she was still speaking to her object's female users, using a coded language of adaptability. If she had internalized the sexism of the masters, it was not just in the organization of the Bauhaus women's class but in her view of, and appeal to, the workshop's female buyers.

Thus as the writings of the weavers initially developed using the language of functionalism, their theories were not simply *about* an

object; they were also often speaking *to* a certain subject—the New Woman, a specific consumer who was accommodating the ideas of the New Dwelling. Bauhaus weaving theory, as it was established between 1924 and 1926, was a modernist articulation of an object and practice, but it was also a means to explain and justify why the weavers did what they did, or why a client might pay for an expensive Bauhaus fabric. The particular recipient of the message (the gendered user), it seems, was an important part of this medium-specific, form-functional equation.