Beyond the Loom: Examining the Relationship Among Gender, Textiles, and Architecture at the Bauhaus

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Beyond the Loom:
Examining the Relationship Among Gender, Textiles, and Architecture at the Bauhaus

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Advisors: Patricia Berman and Andrew Mowbray

Submitted in Partial Fulfillment
of the Prerequisite
for Honors in Architecture

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# Table of Contents

Acknowledgements ................................................. 3  
Introduction ..................................................... 4  
Chapter One: The Gender Politics of Textiles: from Industry to the Bauhaus 10  
Chapter Two: Anni Albers: In Intervention Through Work and Writing 30  
Conclusion ....................................................... 54  
Discussion of Studio Art Installation 55  
Figures ............................................................ 60  
Bibliography ...................................................... 78
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Introduction

It is interesting in this connection 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.1

—Anni Albers, 1957

This brief insight by prolific German textile designer and theorist Anni Albers (1899-1994) offers, succinctly, an example of her questioning of the status of weaving and its relationship to gender. In the background of such a statement lies a critique of her experience at the Bauhaus. Albers was a student at the Bauhaus school of architecture, design, and crafts (1919-1933) starting in 1922. Along with other female students at the Bauhaus, Albers was channeled into the weaving workshop upon completing the school’s mandatory preliminary course. Inspired by the Bauhaus’s mission of contributing to a modern social, artistic, and spiritual system,2 Albers hoped to participate in the modernist movement and positively affect the world through design, but she was impeded by institutionalized gender bias within the school. While the Bauhaus’s admission policy explicitly prohibited sexual discrimination, its actual structure did the opposite. Simply because of their gender, talented female students like Anni Albers were prohibited from studying or practicing architecture, and they were given no choice but to continue their studies in the weaving workshop upon completion of the basic course. This differentiation and discrimination had its roots in a system certainly far older than the Bauhaus. The system of both instruction and an embedded hierarchy of the arts was pitted against women weavers in two ways. First, the association of weaving with “women’s work,”

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and second, its status as “craft” — handmade, “traditional,” and practical — instead of “art” — invented, original, and using the elite materials of a painter or sculptor.

The Bauhaus was founded in 1919 by Walter Gropius in Weimar, Germany. The school positioned itself as an incubator for a new modern social, artistic, and spiritual system through art, architecture and design. It aimed to synthesize art and craft towards mass-production of quality, affordable designs that would directly improve the lives of common people. When the school opened its doors, along with its Utopian social ideas came a deeply rooted gender bias. This bias destroyed the supposedly level playing field for men and women, manifesting itself not only through overt sexual discrimination against female students, but also through the perceived lowered status of weaving at the school. Even after the Bauhaus’s first decade, when the weaving workshop was the longest-running and most lucrative workshop at the school, providing critical financial support for other workshops, weaving was still considered a lower-order craft.

In the late nineteenth century, there were three categories of art as understood by academically trained artists: fine art (kunst), handicraft (handwerk), and arts and crafts (kunstgewerbe). In part because women were precluded from study at the fine arts academies, fine art and handicraft (such as woodworking and metalsmithing) were male domains, but arts and crafts (primarily “soft” or pliable materials) were considered a woman’s occupation with comparatively lower status. Arts and crafts were assumed to require little intellect or creative ingenuity. Weaving, for example, was associated with women’s leisure activities. The diminished status of weaving was further exacerbated by its perceived “feminization” following industrialization. Textile factories had begun to employ hundreds of thousands of female laborers in the late nineteenth century. Women emerged from the domestic sphere to participate in labor

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once exclusively performed by men. This shift disrupted a longstanding system of workplace
gender dynamics, and stirred mounting anxiety over the “feminization” (verweiblichung) of
industry and the “displacement” of male workers (verdrängung).\(^5\) I expand on this historical
backdrop in the first part of chapter one, and then discuss the issue of gender relations within the
Bauhaus in the second part of the chapter.

The Bauhaus was not immune to these gender conflicts and the deepening hierarchical
stratification among fine art, handicraft, and arts and craft. Art historian Anja Baumhoff
describes the school as a microcosm of its time, reflecting the political, social, and ideological
climate as well as the gender conflicts of the era.\(^6\) Thus, despite Walter Gropius’s initial vision of
an institution dedicated to equality and collaboration, the Bauhaus embodied historical gender
asymmetry, thus betraying its goals of abandoning nineteenth-century practices in favor of
modern ones. Women at the Bauhaus remained precluded from traditionally male areas of fine
arts and crafts. Yet the women of the weaving workshop challenged this institutional
framework through their success as both theorists and experimental producers.

This thesis considers Anni Albers as design interventionist: her work and writing
challenged gender stereotypes within the Bauhaus and in the arena of women’s labor. It also
presents Albers as the advocate for an entirely new and modern theory of weaving. Not only did
she challenge biases against women, but she also aligned herself with the Utopian ideologies that
permeated the school, proposing a new hybridized modernism outside of the male canon. Albers
positioned weaving as a modern material through her emphasis on the medium’s functional
characteristics — structure — rather on its decorative characteristics, disassociating the craft
with its “feminine” aspects — decoration. She asserted that textile design was about materiality:

\(^5\) Kathleen Canning, *Languages of Labor and Gender: Female Factory Work in Germany 1850-1914*
the harmonious balance among structure, surface, and functionality. This balance echoed the Bauhaus idea of uniting art and industry to create functional yet attractive design objects. In dissociating weaving from femininity, and incorporating weaving into the functionalist discourse of the union of art and industry at the Bauhaus, Albers elevated the status of women and their workshop to that of the other male-dominated workshops.

This thesis is structured in two parts: as context and reaction. In chapter one, I provide background on the historical relationship of weaving and gender in Germany, and its resulting complex manifestation within the school. I also discuss the influence of the Arts and Crafts movement, whose sexual division of labor perpetuated the hierarchy of arts over crafts and its translation to the status of men over women. The background contextualizes and explains much of the climate at the Bauhaus itself, and it provides a lens through which to view particular writing, quotations, and events relating to gender at the Bauhaus. I discuss the ambiguous and sometimes conflicting attitudes regarding what it meant to be a woman, and how the stereotypes and biases developed throughout history were repeatedly reproduced through the words and actions of male members of the Bauhaus, and often even as internalized sexism from female members. The weaving workshop can be understood as a stage upon which gender stereotypes were perpetuated, nullified, or used as a tool for power. In chapter two, I consider how Anni Albers responded to this system through her work and writing. Albers intervened with the gendered environment of the Bauhaus, carving out space within the modernist discourse for her craft, elevating its status and therefore the status of women at the school through a variety of techniques: administrative, in writing, and through design.

Much has been written about the achievements and innovations of Anni Albers, also, separately, about the gendered world of the Bauhaus, but a gap exists in the relationship between
the two. Among the most important publications are Sigrid Wortmann Weltge’s *Women’s Work: Textile Art from the Bauhaus* (1993), which provides a thorough background on the history of the weaving workshop at the Bauhaus from 1919 to 1933, arguing that the lack of literature on the subject stems from the traditionally low status shared by women and weaving at the school. Further, Anja Baumhoff’s pioneering *The Gendered World of the Bauhaus* (2001) offers an extensive examination of the manifestations of gender bias and sexual politics across the workshops of the Bauhaus. She argues that the Bauhaus's modernizing impact and social goals were weakened by its differentiating and discriminatory (gendered) policies. Ulrike Müller’s *Bauhaus Women: Art, Handicraft, Design* (2009) provides essays on 20 women and their work within the context of Bauhaus gender politics, including Anni Albers and Gunta Stölzl. T’ai Smith’s *Bauhaus Weaving Theory: From Feminine Craft to Mode of Design* (2014) builds on these earlier studies by considering the weaving workshop as a critical source of theoretical inquiry within the Bauhaus. Through close analysis of the weavers’ theoretical writings, she explores how these texts confronted the idea that weaving was an unintellectual craft and established value and legitimacy for weaving within the framework of modernism. Virginia Gardner Troy’s *Anni Albers and Ancient American Textiles* (2002) discusses Albers’ work with respect to the ancient textiles that profoundly influenced her. Nicholas Fox Weber provides multiple biographical sources on Anni Albers, and his books offer extensive insight on her life before, during, and after the Bauhaus along with an analysis of her work as it reflects her design philosophy.⁷ Primary source material includes Sevim Fesci’s 1968 interview with Anni Albers.

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for the Archives of American Art and essays by Anni Albers herself compiled in *On Designing* (1959) and *On Weaving* (1965).\(^8\)

This paper deliberately avoids significant discussion of the artist and educator Josef Albers, Anni’s beloved husband and lifelong artistic partner. Josef and Anni were richly involved with each other’s artistic development, and their work during and after the Bauhaus clearly demonstrates their intellectual and artistic exchange. Nonetheless, because my paper deals primarily with Anni’s response to the gendered environment of the Bauhaus through her theoretical writing, Josef’s experience has little to do with the discussion. I could devote a whole other thesis to writing about the rich exchange of ideas between the couple and their work, but to include such a discussion would be out of the scope of this paper’s argument.

In preparation for this thesis, I travelled to Berlin to conduct research at the Bauhaus Archiv, where I reviewed photographs, documents, and original textile samples relating to the Bauhaus weaving workshop as well as to Anni Albers. I also conducted research at the Harvard Art Museums, in which I viewed several textile samples and wall hangings by Albers. This hands-on research was an invaluable opportunity to contextualize Albers’ work within the larger context of the school, as well as to study the complex structure and innovative use of material in her work. Seeing these works in person confirmed the modernizing impact of her pioneering designs and theoretical writing.

In addition to this written thesis, I have also created a Studio Art installation related to Anni Albers’ work in textiles and their relationship to Architecture. While this Art Historical paper interprets past events, existing documents, and finished woven work, the Studio Art portion responds to my findings by imagining an alternative to the historical events. Albers was highly

\(^8\) Additional primary source material comes from the Josef and Anni Albers Foundation, the Bauhaus Archiv Berlin, and the Harvard Art Museums.
interested in the structure of her textiles, an attentiveness that would have led to fascinating buildings had she been permitted to pursue architecture. Thus, I conceptualized the project as an exploration of some of Albers’ ideas at the architectural scale. After researching the work and writing of several female students at the Bauhaus, Anni Albers’ exhaustive theoretical writing proved to be an inspiring resource which directed my studio art work into its final form as an architectural installation. I arrived at a final plan after carefully reading and analyzing Albers’ theoretical texts included in On Designing, particularly her 1957 essay “The Pliable Plane: Textiles in Architecture.” I will discuss the installation and its theoretical inspiration in detail after an analysis of Albers’ theoretical writing in chapter two.

Chapter 1: The Gender Politics of Textiles: from Industry to the Bauhaus

It is tempting to imagine the weaving workshop as a place of female empowerment, perhaps a cradle of feminism for a group of young, inspired women at the very moment that the “New Woman” emerged in Weimar Germany. There is no doubt that some extraordinary work came from the women of the Bauhaus, many of whom took themselves and their work seriously, producing innovative and highly functional designs. But to assume that the 1919 Bauhaus manifesto’s promise of absolute equality for the genders was actually experienced at the school is to erase a rich, complex, and historically relevant struggle surrounding the relationship of women to art and design.

In order to understand the particular attitudes towards women and textiles at the Bauhaus, it is essential to consider the gender relations that resulted from the changes in Germany’s textile industry as the nation transitioned its mode of production from agrarian to industrial. Much of
the sexism and gender bias at the Bauhaus was fueled by workplace gender politics emerging from the changes in the textile industry. Bauhaus women’s lowered status and exclusion from the rest of the workshops within the school must be contextualized with the historic backdrop of the textile industry and its strained gender relations.

While many German industries were transforming from agrarian to industrial in the later nineteenth century, the textile industry was particularly all encompassing and symptomatic of the societal impact of change. In *Languages of Labor and Gender*, Kathleen Canning describes the textile industry as “an emblem of modernization, of the transformation of technologies and tools, families, communities, and divisions of labor.” The industry underwent increased mechanization as it shifted from hand to machine-based production, allowing women to occupy labor roles previously monopolized by men for the first time. The transition took place in Germany during the second half of the nineteenth century. The textile industry was the first to move production from the household to the factory. With new mechanized looms, mass production lowered the cost and increased the supply of textiles, making them commercially available to a larger base of consumers. Factories no longer required skilled labor for hand crafting textiles; they needed unskilled hands to operate the machines. This demand for a new kind of labor brought about a complete shift in the gender demographics in the workplace. For the first time, textile mills employed hundreds of thousands of working class women. Between 1882 and 1925, the number of women employed in industry rose significantly from 1.2 million to 2.9 million. Of course, the terrible toll on young men taken by the Great War accounted for some of this increase. However, even before the war, 68% of the textile manufacturing

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9 Canning, *Languages of Labor and Gender*, 3.
10 Ibid., 16.
workforce was female in 1907. Indeed, in that year, 68% of female wage earners worked in textiles and garments.\textsuperscript{11}

The textile mills were the first factories to render male workers superfluous. As female hands replaced male hands in the workplace, textiles as a medium and industry were “feminized.” Canning writes that feminization “denoted the infiltration of women into previously male arenas of paid employment and was thus usually aspired with, or even coterminous with, the subsidiary process of \textit{verdrängung}, the displacement of men from their jobs by the incursion of women workers.”\textsuperscript{12} In addition to the growing female presence in the textile industry, demand for labor grew in “men’s industries” such as mining and machine manufacturing, drawing male workers out of the textile industry.\textsuperscript{13}

With the significant shift in gender demographics, textile mills became a source for gender conflict and competition between the sexes. This change challenged the traditional family model of the \textit{Familienväter} (male breadwinner) and was criticized for causing for the ruin of the traditional family structure. Kathleen Canning writes:

Female factory labor came to represent an urgent social problem in Germany, a profound rupture in the relationships between the sexes, between social order and sexual order…The textile industry posed unique dangers to masculine identity…for in the narratives of social reform and weavers’ protest, the mechanized textile mills symbolized ‘the problem of female competition in capitalism: they were the first factories to make male workers superfluous, to cast the \textit{Familienväter} [male breadwinner] into the streets.\textsuperscript{14}

As the textile industry transformed, written work reflected the anxieties surrounding the mechanization of textile manufacture, and the feminization of textile work. Robert Wilbrandt, who was vocal in expressing the plight of male weavers throughout industrialization, wrote:

\begin{itemize}
\item \textsuperscript{11} Ibid., 34.
\item \textsuperscript{12} Ibid.
\item \textsuperscript{13} Ibid.
\item \textsuperscript{14} Ibid., 4.
\end{itemize}
“The textile industry was the first factory industry in the world to throw the male workers, who became superfluous time and again, into the streets.” His description of male workers being “thrown into the streets” and made “superfluous” suggests a serious anxiety concerning the perceived threat of women to men in industry and to the traditional family order. While statements such as Wilbrandt’s dramatized the plight of men and depicted women as destroyers of society, the textile industry itself also absorbed some of the contempt, and its status was transformed.

Throughout the process of feminization, the status of textiles was lowered not only due to its association with women, but also because of its transformation from a skilled to unskilled craft. New technologies of production redefined the type of labor needed to work mechanical looms, eliminating the need for skilled labor. Male hand-weavers who were once hired for their skill and physical strength were no longer needed for the operation of mechanical looms. Canning writes, “Mechanical looms broke [men’s] monopolies on skills and physical strength.” Wilbrandt’s writing reveals the perceived difference in the quality of labor and inherent artistic intelligence between men and women. He wrote: “[Skilled male hand-weavers] were transformed from a master into a hired hand [handlanger], from a man into a maiden.” Wilbrandt’s language reflects a perceived difference between the sexes in their inherent skill: equating the male as a “master” and the maiden and the “hired hand.” This distinction suggests that there is a difference between the man and woman’s humanity and intelligence, between the “authentic” and the imitator. The man is an individual master who knows the craft thoroughly. In contrast, the woman is reduced to a body part: her hand. A hand has no intelligence; it just performs a task mindlessly. The widely accepted biases against women’s intelligence had much

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15 Ibid., 36.
16 Ibid.
17 Ibid., 35.
to do with the long-standing system of hierarchy within the arts that had been divided since the Renaissance by class and gender.

The association of textiles with arts and crafts exacerbated the medium’s lowly status. The hierarchy of arts emerged during the Renaissance, when artists deliberately drew distinctions between themselves and craftspeople. Such distinctions were critical for aspiring artists to distinguish their work as invention rather than mere production. Women had been excluded from the guilds since the Middle Ages, establishing both the artist and handicraftsman as male domains. In twentieth-century Germany, the hierarchy of arts still reflected the old model, and also included a third tier that stratified the arts not only based on inventive ability, but also by gender. These categories were Kunst (fine art), Handwerk (handicraft or craftsmanship) and Kunstgewerbe (arts and crafts). While fine art and handicraft were male domains, arts and crafts were a female domain, associated with amateurism and domesticity, with a much lower status. It was a widespread belief that arts and crafts were associated with women’s leisure activities and hobbies such as needlework and embroidery. Thus, the associations with leisure rather than productive work went hand in hand with the perception of women. Even though women were now laborers outside of the domestic sphere generating the materials once produced by men, the fact that women were now in charge of producing textiles brought them out of the male Handwerk category, and denigrated their work to the Kunstgewerbe category. Ultimately, female textile workers were relegated to what Canning succinctly describes as the “lowest echelon of skill, wage, social status, and political consciousness” precisely because of their gender.

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18 Baumhoff, The Gendered World of the Bauhaus, 47.
19 Ibid., 19.
20 Canning, Languages of Labor and Gender, 3.
The Arts and Crafts movement (1880-1910) also played a critical role in shaping the Bauhaus social structure, ideology, and curriculum. William Morris, heavily influenced by the writing of John Ruskin, was at the forefront of the movement in England, which established a critique of the fragmentation and specialization of factory production. It aimed to revive the high standards of craft and rekindle a connection to the materials and processes lost through industrialization. Nevertheless, as art historian Anthea Callen argues in “The Sexual Division of Labor in the Arts and Crafts Movement,” a sexual division of labor and status characterized the relations within the Arts and Craft movement. As I will discuss toward the end of this chapter, these gender-based relations of the Arts and Craft Movement also carried over to the Bauhaus.

The Arts and Crafts movement reinforced what Callen describes as the dominant patriarchal ideology. This ideology was strengthened by the sexual division of labor that deepened with the growth of industrialization in the late 18th and early 19th century. The home ceased to be the center of productive labor for men and women. Instead, in the patriarchal model, men actively labored in workshops and factories outside the home. Women—particularly middle class women—were expected to passively subscribe to the modern notion of domesticity. This modern bourgeois ideology insisted that women belonged in the home and their life goal was to bear children. In Old Mistresses: Women, Art and Ideology, Pollock and Parker write: “‘Artist’ became increasingly associated with everything that was anti-domestic… As femininity was to be lived out in the fulfillment of socially ordained domestic and reproductive roles, a profound  


contradiction was established between the identities of artist and woman.” In short, a woman’s occupation in art and womanhood were seen as antithetical, automatically relegating any kind of art pursued by women to the domestic setting, which barred them from the kind of art requiring a studio or workshop.

In a world where everything was increasingly measured by profit, women’s reproductive and domestic labor was seen as having little value. Callen argues that while the Arts and Crafts movement afforded middle class Victorian women access to artistic training and the possibility of paid home-based work, it strengthened gender-based divisions in the field. Even though women could not legitimately pursue art and earn wages for their work, it is critical to note that the kind of artwork women engaged in was domestic and never interrupted the patriarchal status quo. Callen summarizes an argument from Parker and Pollock: “It was by labeling certain aspects of artistic production "domestic"—i.e., crafts—that, in the evolution of the modern concept of art, the split between "high" art and the lesser arts was formed: the preservation of the very fabric of that society's structure. One of the few occupations that came to be recognized as suitable for middle-class Victorian women was artwork.” Thus, women’s participation in “low” art within a domestic setting barred women from directly competing with the type of high art, status, wages of men.

In the Renaissance, men were responsible for invention, creativity, and planning of “artwork,” while manual labor would be relegated to a lower-status executor. The hierarchical split resurfaced within the Arts and Crafts movement, now applying to labor performed by men.

25 Ibid.
26 Ibid.
27 Ibid., 4.
and women, respectively. Women’s work was almost always menial, small-scale, and delicate. The technical and creative aspects of jobs were reserved for men. Embroidery, lacemaking, bookbinding, jewelry and metalwork were all seen as acceptable feminine pursuits. As Callen succinctly put it, “Few women made the pots they decorated.”

Because of its execution by women who were discouraged from intellectual or creative work, embroidery lost its previously high status and became characterized as mindless and decorative female activity only requiring manual dexterity. Even William Morris, who mastered and practiced embroidery, followed the sexual division of labor in the craft. While he taught himself the craft by mastering ancient techniques, he took on the role of the creative pioneer, passing on the mundane execution work to the women of his family and workshop.

The sexual division of labor and status of the Arts and Crafts movement heavily influenced the gendered environment of the Bauhaus. In reviving the medieval model of crafts guilds and applying it to the new alliance between the artist and craftsmen, the Bauhaus also adopted the antiquated gender divisions of status and labor, betraying its promise of equality for the sexes. Many of the differentiating attitudes towards women discussed in this section were reproduced at the Bauhaus through its admissions policies, division of workshops, and the social attitudes towards women.

At the Bauhaus

The status of women and weaving was determined by the industrialization of the textile industry in Germany and the Arts and Crafts movement in England, which set the stage for the gender relations at the Bauhaus. The weaving workshop specifically was a place in which the

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28 Ibid.
29 Ibid., 5.
30 Ibid., 4.
role of the woman artist and nature of her work was constantly in question, and can be analyzed as a stage upon which gender stereotypes were internalized, challenged, or used as a tool for empowerment. This chapter examines the various manifestations of gender inequality within the Bauhaus, relating the gender-based biases back to the movements that preceded them. I begin with a discussion of the structure of the school, which fundamentally excluded women through its revival of the medieval guild system for its curriculum. I then discuss how women were discriminated against through various administrative and curricular policies, and conclude with an analysis of student and teacher voices regarding gender within the Bauhaus.

The Bauhaus privileged men in its reaffirmation of the traditional patriarchal model within the school’s structure. The return to this structure reflected the anxieties surrounding the weakening of the patriarchal model following the Industrialization and the harrowing Great War.31 As Canning argues, the process of verdrängung, the displacement of men from their jobs by the women workers, led to hysteria surrounding feminization of industry and the resulting deterioration of the traditional family model of the Familienväter (male breadwinner).32 Beyond the workforce, there was also the horror of the war that challenged the patriarchal model. Historian Kaja Silverman calls the dissolution of the patriarchal structure the cause for “a profound crisis of masculinity” bringing about a shattering of “the self-image of society.”33 Ray argues that the traumatic experiences of war combined with the economic and physical hardships “contributed to the crisis of the imperial model of patriarchy.” The response within the Bauhaus was to heal the sense a generation’s bruised masculinity.34 Women were excluded from participating in classes through higher fees and restrictive admissions quotas. Furthermore, while

32 Canning, Languages of Labor and Gender, 34.
men enjoyed access to “masculine” workshops such as furniture building, painting, and architecture workshops, women were placed into “feminine” workshops such as weaving, bookbinding, and pottery. This distinction reinforced the dominance of men within the school, thus strengthening the patriarchal model.\textsuperscript{35}

The Bauhaus revived the old model of hierarchy in the arts by recasting its students and professors as apprentices, journeymen, and masters, thus aligning the structure of the school with medieval crafts guilds. This medieval model erased women, who had been excluded from the guild system since the Middle Ages. Anja Baumhoff writes:

The Bauhaus adopted the semi-authoritarian structure of craftsmanship, which traditionally marginalized women. Accepting the fact that women were alien to the male-dominated handicraft tradition, the Bauhaus leaders set up a separate sphere of female activity, encouraging (and sometimes requiring) women to work in arts-and-crafts areas such as weaving.\textsuperscript{36}

Differentiating and discriminatory attitudes and policies towards women at the Bauhaus revealed that the common narrative of egalitarian values belonged more to the realm of imagination than of reality. When the Bauhaus was opened in 1919, its statutes promised to treat all admitted students as equals regardless of their gender, stating: “Every legally eligible person whose talent and training are considered adequate will be accepted without regard to age and sex by the council of masters.”\textsuperscript{37} Walter Gropius called for “No difference between the beautiful and the strong gender, absolute equality, but also absolute equal duties.”\textsuperscript{38} Such a policy was largely an unprecedented opportunity for women. Nevertheless, Gropius’ rhetoric, intended to be

\begin{itemize}
\item\textsuperscript{35} Ibid.
\item\textsuperscript{36} Baumhoff, \textit{The Gendered World of the Bauhaus}, 47-8.
\item\textsuperscript{38} Sigrid Wortmann Weltge, \textit{Women’s Work: Textile Art From the Bauhaus} (San Francisco: Chronicle Books, 1993), 41.
\end{itemize}
equalizing despite its distinction between superficiality and inherent power, did not match reality.

The unequal treatment of women at the Bauhaus was driven by deeply entrenched biases regarding their supposed inability to produce the kind of work within the male disciplines of \textit{kunst} and \textit{handwerk}. Instead, women were channeled into \textit{kunstgewerbe} disciplines, primarily weaving and bookbinding. Baumhoff’s book investigates the discrepancy between the Bauhaus’ vision of equality and the reality of its sexism, arguing that the discrimination against women betrayed the school’s egalitarian social mission:

While the first Bauhaus statues, such as its admissions policies, explicitly prohibited sexual discrimination against women, the \textit{de facto} Bauhaus policy did just that. This was due to the fact that craftsmanship was traditional a male sphere in Germany. Women were excluded from most of the old handicrafts, and also from most of the art academies until the early 1920s. When Gropius wanted women to become craftsmen he knew that they could hardly be professional handicraftsmen but that they could only do arts and crafts. Keeping women out of the traditionally male areas of the crafts and the fine arts was merely a continuation of nineteenth-century practices and thus should have belonged to the concepts the Bauhaus ostensibly strove to overcome. This differentiating and discriminatory policy undermined the social ideas of the Bauhaus and weakened its modernizing impact.\footnote{Baumhoff, \textit{The Gendered World of the Bauhaus}, 47-8.}

Baumhoff’s statement reveals the perceived difference between female and male student’s ability to engage in the arts. “Being” an artist versus “doing” art denote different levels of engagement with the practice, suggesting that women engage in it as a pastime rather than a profession. Such a belief echoes the remarks of Robert Wilbrandt,\footnote{See chapter one part I, page 3.} who drew distinctions between men and women’s inherent artistic intelligence. He referred to men as masters and to women as hired hands.\footnote{Canning, \textit{Languages of Labor and Gender}, 35.} Baumhoff writes: “The weaving workshop was always looked down upon by those at the Bauhaus as a mere arts-and-crafts area. This reputation was analogous to that of its
practitioners: the low status of women was carried over to their craft."\textsuperscript{42} Because of its association with domestic production, weaving was viewed as a mindless and simple craft. However, the purveyors of this stereotype failed to recognize the mathematical and highly technical nature of weaving.

The biases against women in the arts were powerful enough to motivate Walter Gropius to deviate from his promise of absolute equality of the sexes. Baumhoff notes that “Rhetorically, Gropius was careful to advance equal opportunities for women, yet his declarations on this topic were intended primarily to illustrate the Bauhaus’ progressiveness and were not an accurate representation of what was actually taking place in the school.”\textsuperscript{43} Gropius wished to segregate the school by gender, deeming workshops that had direct links to architecture, such as metalwork and furniture, as masculine workshops.\textsuperscript{44} He had greatly underestimated the desire of women to study at the Bauhaus and found the proportion of female applicants concerning.\textsuperscript{45} Only a year later, in 1920, Gropius suggested a “tough separation, at the time of acceptance, most of all for the female sex, whose numbers are too strongly represented,” and established a women’s class in May of 1920.\textsuperscript{46} Within two years of the school’s founding, the Bauhaus had established the weaving workshop as a women’s class and channeled most women into it upon completion of the basic course.

In 1921, Gropius and the council of masters appointed Gunta Stölzl to lead the women’s class, which had fused with the weaving workshop.\textsuperscript{47} The council of masters claimed the establishment of the workshop accommodated the desires of its female students to have their

\textsuperscript{42} Baumhoff, \textit{The Gendered World of the Bauhaus}, 68.
\textsuperscript{43} Baumhoff, \textit{The Gendered World of the Bauhaus}, 54.
\textsuperscript{44} T’ai Smith, \textit{Bauhaus Weaving Theory: From Feminine Craft to Mode of Design}, (Minneapolis: University of Minnesota Press, 2014), xxvii.
\textsuperscript{45} Weltge, \textit{Women's Work}, 41.
\textsuperscript{46} Baumhoff, \textit{The Gendered World of the Bauhaus}, 64.
\textsuperscript{47} Ibid.
own domain. Realistically, establishing a women’s class was a convenient solution to the ‘problem’ of the overrepresentation of women in “male” workshops. While the weaving, bookbinding and pottery workshops were at first open to women, the pottery workshop rejected women, and the bookbinding workshop was dissolved in 1922, leaving the weaving workshop as the only option for female students at the Bauhaus.\footnote{Weltge, \textit{Women’s Work}, 41-2.}

Gender-based discrimination occurred even in the co-ed preliminary course. The instruction influenced students in their choice of workshop, by focusing on and encouraging the student’s particular creative abilities according to gender. Women were often told that they did not think constructively, a mode of thought assumed to belong exclusively to engineers and architects. Instead, they were encouraged to work one-dimensionally, in the female domain of ornamentation, decoration, and applied arts.\footnote{Baumhoff, \textit{The Gendered World of the Bauhaus}, 64.} Kitty Fischer, a student at the Bauhaus, wished to become an architect. However, the evaluation from the preliminary course “showed that all of her products were decorative rather than constructive, a requirement for architecture,” and she was channeled into the weaving workshop.\footnote{Ibid., 65.}

The admissions policy excluded women from masculine disciplines and barred them from architecture on principle. In a letter to female applicant Anni Weil, Gropius wrote:

\begin{quote}
It is not advisable, in our experience, that women work in the heavy craft area such as carpentry and so forth. For this reason of women's section has been formed at the Bauhaus, which works particularly with textiles; bookbinding in pottery also except women. We are fundamentally opposed to the education of women as architects.\footnote{Walter Gropius, Letter to Annie Weil, February 1921. Cited in Baumhoff, \textit{The Gendered World of the Bauhaus}, 59.} 
\end{quote}
To explain that there was no extant architecture workshop at the Bauhaus in 1921, (there would be none until 1927\textsuperscript{52}), would have been the proper response to the inquiry, but instead Gropius chose to frame Ms. Weil’s inability to participate in architecture as a result of her gender.

Gropius drew distinctions between artists and craftsmen, valuing architecture above all other disciplines. This distinction inevitably placed women below men in the hierarchy within the school. Although Gropius seemed to draw no distinctions between the status of craftsmen and artists on paper, he clearly placed the artist above the craftsman by differentiating between the talented students and the producers. He wrote: “the majority will become simple producers of things, only a very few exceptionally talented will not be hemmed in.” By distinguishing between a select group of “exceptional” students and the rest of the students, Gropius replicated the hierarchy he sought to abolish. Furthermore, he placed architects (himself and a number of male students) at the highest level of esteem within the school, deepening the hierarchical stratification. He unabashedly stated: “Architect: that means, leader of the arts.”\textsuperscript{53} Women could never be what Gropius called the “leader of the arts” because they were barred from practicing architecture, and because they were seen as unable to be “exceptional” artists. Thus, Gropius’ statement implied a subordination of all other disciplines to architecture at the school, placing women at the bottom of the hierarchy by default.

Many Bauhaus masters dismissed weaving as applied art, which on its own had no intellectual value, unlike painting and architecture. They saw it as a strictly manual practice that borrowed the formal theories of paintings.\textsuperscript{54} Contemporary art criticism followed the common narrative that work with hard materials required of sculpture and architecture were “masculine”

\textsuperscript{52} Baumhoff, \textit{The Gendered World of the Bauhaus}, 59.
\textsuperscript{54} Smith, \textit{Bauhaus Weaving Theory}, xxvii.
disciplines, and that the “feminine” arts belonged to a “weaker sex,” which was unable to work with such materials and was incapable of spatial thinking. These assumptions were rooted in the rhetoric surrounding the feminization of industry. Magdalena Droste notes the fear of feminization of architecture at the Bauhaus. Droste writes: “Much of the art then being produced by women were dismissed by men as ‘feminine’ or ‘handicrafts.’ The men were afraid of too strong an ‘arty-crafty’ tendency and saw the goal of the Bauhaus—architecture—endangered.

Attitudes and statements of Bauhaus masters Oskar Schlemmer and Georg Muche suggested that this narrative was also widespread at the Bauhaus. Schlemmer believed that weaving demanded little mental capacity. He said: “Where there is wool, there is a woman who weaves, if only to pass the time.” His statement implied not only that weaving was a mindless activity that women did out of habit, but also that women at the Bauhaus were only there as amateurs for entertainment, rather than contributing to something meaningful. The master of form of the weaving workshop, Muche dogmatically disassociated himself with woven work. He promised to never “weave a single thread, tie a single knot, make a single textile design.”

Muche’s language reveals his fear of feminization and an apparent disgust for the feminine, non-intellectual process of weaving. His convictions are so strong that even handling textiles could threaten his reputation and status at the school. He left the handling of the material to master of craft Helene Borner.

The supposed subservience of weaving to architecture (and by extension, women to men) is evident in the comments of Otto Dorfner, master of craft in the printmaking workshop. Under

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55 Baumhoff, The Gendered World of the Bauhaus, 68.
57 Weltge, Women’s Work, 41.
58 Ibid., 59.
59 Ibid., 42.
the belief that there was a difference in women’s and men’s abilities, Dorfner advocated for the barring of women from ‘male’ workshops:

The textile and women’s sections must definitely be enlarged so that Bauhaus women have a sphere of work appropriate to their natural constitutions in which they can be productive. Women do not belong in the building workshops. We should let the women weave rugs and fabrics, dye, print and paint them; let us allow them to knit and produce clothing, so that they can constitute a productive force at the Bauhaus whose products can be used to furnish the building comfortably.  

Dorfner, along with the majority of the council of masters, expressed an argument rife with gender-based assumptions. His statement reflected the stereotype that women were unable to think spatially, and insinuated that women were inferior to men by encouraging their supporting role to architecture. German art historian Hans Hildebrandt, who had close ties to the Bauhaus, published an essay in 1928 in the book Die Frau als Kunsterin (Woman as Artist). Hildebrandt’s words summarized the attitude towards women:

Important alone is the fact that the multitude of dilettantish women and those who remain dilettantes even while practicing a profession is considerably larger than the number of men who remain on that level…The fundamental characteristic of female is…the tendency for the superfluous.  

Of course what Hildebrandt’s assumptions failed to take into account was the men’s refusal to take women seriously and grant them the same opportunities to excel or explore a discipline beyond the “dilettante” level.

Today, it is easy to feel appalled at the bias and blatant discrimination against women at the Bauhaus. However, such accepted attitudes went largely unquestioned at the time. Both men and women perpetuated traditional gender stereotypes. While a handful of women at the Bauhaus spoke out against their experiences of sexism, their voices were the minority. A

60 Baumhoff, The Gendered World of the Bauhaus, 60.
common gender-based ideology held by both men and women at the Bauhaus was that women’s femininity rendered them unable to think spatially. Under the assumption that heavy planes, hard metals, and painting at the architectural scale were not the right occupation for women, they were encouraged to pursue weaving, seen by many as appropriately feminine for its decorative and one-dimensional nature. Remarks by Helene Nonné-Schmidt, a member of the weaving workshop and the wife of Joost Schmidt, provide a good example of internalized sexism that was a result of the set of cultural norms perpetuated by her relatively insular environment. She wrote specifically about the differences between male and female artists, replicating stereotypes. She argued: “[women lack] the spatial imagination character in men,” declaring weaving to be a “field of work appropriate to a woman and her talents.” In a 1926 article, she wrote: “The vision of a woman is to some extent child-like, for like a child she sees the singular and not the universal,” suggesting that women’s artistic imagination, which she referred to in the same article as “a lack of intellect,” was one-dimensional rather than constructive.

Despite perpetuating the belief that there was a significant disparity between women and men’s inherent spatial intelligence, Helene Nonné-Schmidt as well as Gunta Stölzl framed these differences as strengths. In her 1926 essay “Weaving at the Bauhaus,” Stölzl asserted that an individual’s gender determined his or her strength in different forms of creating and thinking. She wrote: “Weaving is primarily a woman’s field. Play with form and color, an enhanced sensitivity to material, the ability to feel and adapt strongly, more rhythmic than logical thinking are all predispositions with which the female character is general equipped, which makes women

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63 Weltge, *Women’s Work*, 44.
64 Weltge, *Women’s Work*, 100.
particularly able to achieve great creativity in the field of textiles.” Her statement represents a strategic balance between accepting stereotypes and using them to women’s advantage, claiming that the female skills make for creativity in textiles. Instead of framing the abilities of the female character as inabilities; Stölzl dwelled on the benefits of being a woman. Nonné-Schmidt also framed women’s nature as a valuable creative strength. She encouraged women to use their rich imaginations, sensitivity to color, and attention to detail to their advantage. She wrote: “Indeed there are even signs that a woman looks at her limitations knowing that this is a great advantage. The lack of intellect results out of a greater originality and harmlessness that is much closer to life itself.”

While an increased range of vocations and educational opportunities were becoming increasingly available to women throughout Germany and Europe, the widespread belief was that women’s ultimate task in life was motherhood. Education and employment were largely considered preliminary stages in life leading to motherhood. Progressive as it may have been, the Bauhaus was not immune to this societal standard. Many women at the Bauhaus regarded their work as a stopgap until marriage, not a lifelong occupation. Gunta Stölzl reflected: “I believe that I have a mission here and it is no longer to become Werner’s wife, but to become a woman in general, somehow to be there for everyone; perhaps our paths will someday lead to marriage, to a child—this will always remain my highest aim.” Despite her visionary and prolific output and her success as the only female master at the Bauhaus, even Stölzl valued childbearing over her leadership of the weaving workshop and her own work.

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67 Weltge, Women’s Work, 100.
69 Ibid., 99.
70 Stadler et. al, Gunta Stölzl: Bauhaus Master, 57.
It is important to recall that the women of the Bauhaus were a part of a relatively insular environment, and their self-conception and position on their role as women in a modern design movement was largely restricted to their immediate surroundings.71 There were few female models of independence at the Bauhaus. With the exception of Anni Albers, who maintained a separate identity from her husband, most of the women served as “pillars of support” for the men in their lives. For example, Ise Gropius worked as what Weltge describes as “a fundraiser, diplomatic emissary, and supporter of her husband’s ideas.” Ise undoubtedly played a critical role in the success of her husband. But her role as a supporter overshadowed any intentions she may have had to lead an independent life driven by her own ideas, goals, or work.72

Writings from female students at the Bauhaus suggest that they were aware of and affected by the difference drawn between them and their male counterparts, but their level of dissatisfaction with the status quo varied. The student Kathe Brachmann was one of the few critical and outspoken voices in the early days of the Bauhaus. In the student paper Der Austausch in May 1919, she criticized the common belief that the “natural” female task as motherhood and that their creation was children, not professional work: “We are, like all professional women, to men at least, objects of pity. ‘Why don’t you follow your natural calling?’ that is the most penetrating question which they ask, and some even ask more superficial questions.”73 Another student, Resi Jager-Pfleger indirectly supported Brachmann in expressing her frustration with men’s treatment of their inability: “If we muster all our energies and work seriously, we want to be more than merely tolerated. We women can study just as diligently as the men.”74 However, even her convictions were marked by internalized sexism:

71 Weltge, Women’s Work, 98.
72 Ibid., 99.
73 Baumhoff, The Gendered World of the Bauhaus, 55.
74 Weltge, Women’s Work, 101.
“But how far we can go in art with our feminine feelings depends on each individual.” Jager-Pfleger’s comment reflects the internalization of the belief that women had a cap to their creativity simply because of their “feminine feelings.”

Women entered the Bauhaus full of hope to contribute to the modern vision of the school. Just like men, they were dedicated to rebuilding society for the better through design. Many female students, including Gunta Stölzl, had been Red Cross nurses on the battlefield and had witnessed the horrors of war.75 Anni Albers recalled feeling disappointed by her relegation to the weaving workshop, feeling that working with threads would be inadequate means to properly contribute to a new future: “My beginning was far from what I had hoped for: fate put into my hands limp threads! Threads to build a future? But distrust turned into belief and I was on my way.”76 To realize their goals of joining the modernist movement was arguably much harder for women at the Bauhaus not because of their supposed inability to work constructively, but because of the highly gendered environment they were a part of. The apparent lack of solidarity against gender-based discrimination and differentiation among women begs the question, to what extent was it essential to accept the stereotypical female identity in the name of modernist Utopia which they so strongly believed in and wished to contribute to? Was it in their best interest to challenge the limitations imposed upon them or make the most of them?

There was no clear, unified voice of feminism that emerged from the women of the weaving workshop. Through my focus on Anni Albers in the next chapter, I explore how she worked to establish a place and voice for herself and other female students in the school by challenging gender stereotypes and expanding the modernist discourse beyond the male canon. In the next chapter, I explore how Albers reframed weaving in modernist terms, aligning her

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medium with Bauhaus ideals of the unity of art and technology, thus stripping her craft of its gendered associations and elevating it and the status of women to that of men and their workshops.

Chapter Two: Anni Albers: An Intervention Through Work and Writing

This chapter investigates the strategies with which Anni Albers and the women of the weaving workshop challenged their lesser status at the Bauhaus. I first provide a brief biographical segment on Albers, contextualizing her life and education up until her placement in the weaving workshop; at which point her educational opportunities were curtailed by the school’s gender policy. With this context established, I frame the next section as Anni Albers’ intervention with this system beginning at the point of discrimination. Albers and other members of the workshop utilized two main strategies to challenge the gender-based discrimination they faced and to strengthen the reputation of weaving. The first strategy was the restructuring of the weaving workshop under Gunta Stölzl’s leadership. The restricting was catalyzed in 1923, when Gropius changed the school’s focus, calling for increased productivity through a stronger alliance between industry and the arts.77 From this point onward, the weaving workshop aligned its organization and curriculum with this new production-based ethos that championed the unity of art technology. Stölzl reconfigured the workshop such that its designs were at once innovative, functional, and fit for industrial production. The commercial success of these designs provided a robust financial backbone for the rest of the school.78

78 Weltge, Women’s Work, 64, 110.
The second strategy is illustrated by Anni Albers’ theoretical writing. Her writing proposed a modern theory of weaving through three techniques: dissociating her craft from gender by rethinking the nature of textiles themselves, aligning it with the principles of modernism and the principles of the Bauhaus, and placing it in dialogue with a long history of theoretical discourses on architecture. Throughout the paper, I utilize Albers’ work and writing as illustrations of these strategies.

Annelise Fleischmann Albers was born in June 1899 in Berlin. Her mother, Toni, came from a German-Jewish publishing family, and her father, Siegfried, was a furniture manufacturer. During her teenage years, she received home tutoring from an art teacher. When she was seventeen, she began training with the Impressionist painter Martin Brandenburg. Albers then enrolled in the Kunstgewerbeschule (School of Decorative Arts) in Hamburg, but grew bored after a year of embroidery instruction. When she learned of the Bauhaus, she left Berlin for Weimar and applied to the school, hoping to study painting, but she was at first rejected. Despite the rejection, she stayed in Weimar. She met and fell in love with Josef Albers, who had been a student at the Bauhaus since the fall of 1920. Though he was her elder by 11 years, she convinced him to help her re-apply, and she successfully began her studies at the Bauhaus on April 21st 1922.79

Once Anni Albers finally enrolled at the Bauhaus, she first received basic instruction from Georg Muche and then took Johannes Itten’s preliminary course and introduction to artistic design, where she excelled. However, upon completion of these courses, Albers was told that her abilities were more decorative than constructive.80 She was informed that the weaving workshop

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80 Baumhoff, The Gendered World of the Bauhaus, 64.
was the only pathway open to her if she wished to continue her studies.\textsuperscript{81} In a 1968 interview for the Archives of American Art, Albers recalled feeling frustrated by this restriction, believing at the time that weaving was “rather sissy…I considered weaving too womanish,” an attitude mirroring the bias that she experienced.\textsuperscript{82} Though she felt out of place, she made the most of the situation: “I was looking for the right occupation and so I began weaving with great enthusiasm, as this choice caused the least comment.”\textsuperscript{83} With this positive and ambitious attitude, Albers started her journey alongside a number of equally driven women in the weaving workshop. The next section introduces the weaving workshop at the point of Albers’ enrollment. She was a part of an environment that gave her the opportunity to master weaving and develop a modern theory for it.

The Bauhaus’s relocation from Weimar to Dessau catalyzed critical changes in the weaving workshop’s output and curriculum. Under the directorship of Gunta Stölzl, the workshop redefined the medium by prioritizing its functionality, thus removing it from its traditional perception as a low-status, low-intellect female craft. The weaving workshop restructured itself in three ways: first, it developed functional rather than pictorial weavings: in doing so, the weavers claimed autonomy by taking creative ownership of the process. They created their own abstractions and no longer played a role of mindless reproduction through the reproduction of male creations. Second, it aligned itself with New Unity movement: increasing production, embracing new technology, and valuing production over experimentation. The new workshop space in the Dessau building equipped the weavers with technology facilitating


\textsuperscript{83} Müller, \textit{Bauhaus Women}, 52.
commercial production. This equipment included seven new Jacquard looms, which proved to be critical to developing prototypes for industrial production.\textsuperscript{84} Lastly, the workshops’ revised organization and curriculum provoked equally strong innovation and commercial production by dividing the workshop into two subdivisions: the teaching workshop, and the experimental workshop and production workshop.

This change was a part of larger transformations within the school. Inspired in part by the \textit{Neues Bauen} movement, which placed critical importance on function, purpose, and utility in architecture, Gropius reassessed the Bauhaus curriculum in 1923. During a speech at the Bauhaus exhibition that year, he declared that the school would now work towards the marriage of art and technology calling it a “new unity.” He urged all the workshops to increase their production, minimize aimless exploration, and move towards industrialization for creating standardized products.\textsuperscript{85} Gropius canceled “all experimental work in the workshops” and urged students to “work productively, replicating Bauhaus models.”\textsuperscript{86} Though this change took some time to come to fruition within all of the workshops at the Bauhaus, it quickly took seed in the weaving workshop.

Driven by a motivation to separate men and women to keep the latter out of the male-dominated workshops, Gropius invited Stölzl to lead the weaving workshop in 1926. Baumhoff identifies Stölzl’s acquiescence to Gropius’ determination to make a separate women’s class as an instance of internalized sexism. While this was surely the case, T’ai Smith argues that Stölzl’s acceptance of this task was also tactical and empowering, in that it was motivated by a desire 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.” Furthermore, her advocacy for a

\textsuperscript{84} Weltge, \textit{Women’s Work}, 90.  
\textsuperscript{85} Smith, \textit{Bauhaus Weaving Theory}, 42-3.  
\textsuperscript{86} Ibid., 47.
separate women’s workshop was tactical in terms of marketing. Stözl appealed to bourgeois female clientele, newly invested in the home, as a path toward modern life for the working woman in that her products were now developed for women, by women who were attuned to the news of the modern woman. Thus, her desire for a separate sphere can be understood as an extension of the larger debate of a woman’s place in society. 87

Under the direction of Gunta Stölzl, the weaving workshop associated itself with modernism and rebranded itself as a modern medium. In 1926, Stölzl outlined her vision for the weaving workshop in her article, “Weaving at the Bauhaus.” She began by aligning weaving with other design fields, by establishing a set of guiding principles: “In all fields of design today, there is a striving for universal laws and order. Thus, we in the weaving workshop have also set ourselves the task of exploring the basic laws of our field of specialization.” 88 Stölzl continued by distancing the modern weaving medium from traditional weaving, which replicated the imagery of painting. She wrote: “In the early days of our work at the Bauhaus, principles of pictorial images formed our foundation—a woven piece was a painting made of wool, so to speak.” These “paintings made of wool” characterized the bulk of the woven output from the early days of the Bauhaus. 89 Such early textiles were aesthetic explorations of material and color, and while they were investigative in nature, they clearly borrowed the visual language of other disciplines. Later, in a 1931 article in the magazine Bauhaus Zeitschrift für Gestaltung, Stölzl noted that the early textiles were like “poems heavy with ideas, flowery embellishment, and individual experience.” The early “pictures made of wool” model of weaving indicates that cross-over and exchange of artistic ideas was alive and well at the school, but certainly did not help the weavers to challenge the gender-based trope of men as creative geniuses and women as

87 Ibid., 77.
88 Ibid., 66.
89 Weltge, Women’s Work, 44.
mere producers incapable of developing their own original art. Thus, the weaving workshop transitioned away from pictorial weavings and toward functional fabrics.\textsuperscript{90}

The new curriculum encouraged investigation of materials and weaving methods, not for the exclusive sake of exploration, but as a means to an end: developing practical, useful fabrics.\textsuperscript{91} Stölzl wrote: “Today it is clear to us that a woven piece is always a serviceable object, which is equally determined by its function as well as its means of production.”\textsuperscript{92} After 1923, the weavers abandoned decoration and ornamental effects in an effort to modernize their craft. Thus, the weaving workshop moved into a modernist, functionalist mode of design. This transition abandoned pictorial weavings in favor of affordable textiles that met the diverse needs of contemporary society. Now, research into the end use of the fabric through sample-weaving that explored combination of materials such as man-made fibers, raffia, bast and cellophane the emphasis were all considered before personal artistic expression.\textsuperscript{93}

The women of the weaving workshop also considered the different functional roles of textiles in three-dimensional space as constructive elements. Stölzl wrote in the essay, “Weaving at the Bauhaus:” “Static, dynamic, sculptural, functional, constructive, and spatial elements are not excluded as long as they are within its means and subject to the laws of the plane.”\textsuperscript{94} She began to think of different textiles performing spatial functions within architecture; contributing to the total environment.

A carpet can be incorporated into the layout of a room, and as such, can have a determining spatial function; it can also, however, be conceived of as an independent “thing in its own right,” whose form and color vocabulary may deal with any two-dimensional theme…Upholstery fabric, since it is fixed in a room and bound to its functionality, demands an attractive structural surface.

\textsuperscript{91} Smith, \textit{Bauhaus Weaving Theory}, 45.
\textsuperscript{92} Stadler et. al., \textit{Gunta Stölzl: Bauhaus Master}, 85.
\textsuperscript{93} Weltge, \textit{Women’s Work}, 102.
effect...Gobelins and wall hangings are not functional objects. Different criteria apply to them, they can be considered expressions of fine art, which are, however, determined by the weaving process.  

Stölzl’s divisions of textiles according to their function, such as her distinction between upholstery and wall hangings, reveals the new perceived distinction between artistic expression and spatial function.

The weaving workshop reorganized its curriculum into two separate units upon its relocation to Dessau. The first unit was the teaching workshop, in which students learned the process of weaving. The second unit was the Experimental and Production workshop, for both exploratory work and the development and production of industrial prototypes. The Experimental and Production workshop was critical step in the process of modernizing weaving. The new structure brought about work that was both innovative and commercially mass-producible, leading the workshop to commercial and financial success. The Dessau weaving workshop aimed to develop affordable, durable, and contemporary textiles for a broad market.

Weltge notes that to achieve these outputs, weavers were encouraged to “systematically to investigate a whole range of design problems in an environment that resembled a laboratory more than a studio.” She adds that the physical proximity of the teaching workshop to the Experimental and Production workshop allowed weavers to experience “the entire range of the craft, inspiring them toward greater achievement in a shorter time span...something that was completely lacking in other schools.” In this interdisciplinary environment, students were instructed in weaving technology, dyeing techniques and the use of mechanical equipment. Upon

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94 Ibid., 86.  
95 Ibid., 87.  
96 Ibid., 90.  
97 Ibid., 92.
mastery of these basic skills, students could experiment and develop new designs for interior fabrics and industrial production.98

The weavers aimed to reach a wider public than before, calling for a transition from handwork to machine work when large production was concerned. Nevertheless, with its new structure, the weaving workshop grappled with the question of experimentation: how could textiles suited to modern life be developed without losing time on what Gropius referred to as “unnecessary experiments?” The weaving workshop adhered only in part to Gropius’ order to work productively and cease all experimental work.99 Thus, experiments were conducted, but not in a “useless” manner. Albers reflected on this shift in her 1938 essay, “Weaving at the Bauhaus.” While the early days of weaving had been characterized by “uninhibited play with materials,” the weaving workshop shifted to aim for “usefulness” in design rather than “free play with forms.” This shift was facilitated by “systematic training in the construction of weaves” and education in yarn dyeing. Ultimately, she viewed these changes as disciplining that came after free exploration.100 Stölzl maintained that the mechanical weaving process alone was not yet well enough developed that it could provide the kind of creative possibilities that come from working on the handloom.101 Thus, the handloom remained an integral part of the curriculum, on the condition that machines would take over for mass production.102 Experimentation was justified—to a certain extent—as a necessary tool in the creative process.

Facilitated by the structural changes to the weaving workshop, “usefulness” was now a primary goal in woven work, and this goal was communicated beyond the workshop walls.

98 Ibid.
99 Ibid., 90.
101 Weltge, Women’s Work, 97.
through print communication and photography. The 1927 issue of *Bauhaus Zeitschrift für Gestaltung* (Fig. 1) provides analytical descriptions of two textiles, demonstrating the workshops’ growing interest in structure, material, and functional application. The magazine editors systematically provide technical details to accompany the close-up images of textile samples: type (i.e. cotton, rayon), function, (i.e. curtain fabric, tablecloth), warp and weft materials, thread color, thickness, and cost per meter.

Four years later, the July 1931 issue of *Bauhaus Zeitschrift für Gestaltung* (Figs. 2-7) went a step further in illustrating the weaving workshop’s emphasis on structure and functionality by providing high-resolution close-up images of Bauhaus textiles by Walter Peterhans that capture their complex structures and surfaces. The entire publication is six pages, and contains an essay by Gunta Stölzl, “Utility Textiles for the Bauhaus.” Smith notes that Peterhans’ photographs “helped to present textiles as structurally, materially, and industrially sophisticated products. With detailed, close-up photography, the textures came into focus.” His photographs capture the structural details of fabrics through extreme close-ups and strong lighting contrast, highlighting its materiality, structure, luster, and malleability. The image of a partially deconstructed textile (Fig. 9) illustrates the textile’s materiality and structure. The pulled-apart section reveals the textile’s raw material components as well as how they are combined to make a whole. The quality of these five distinct materials visually explains how the textile achieves its apparent rigidity and luster.

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103 Ibid.
104 An original copy of the 1927 edition (BR49.42.13) is available to view at the Harvard Art Museums/Busch-Reisinger Museum study room.
105 An original copy of the 1931 edition (BR49.42.4) is available to view at the Harvard Art Museums/Busch-Reisinger Museum study room.
In her featured article, Stölzl notes that the very structure and material of fabric prototypes creates opportunities for multiplicity of functions. Because color, pattern, luster, and softness (all well-documented by Peterhans’ photographs) are components of a single textile, the combinations of these elements have the potential to change the functionality of a textile. For example, cellophane, when combined with various colored threads, can reflect light, and Stölzl saw functional potential for this visual property: to illuminate architectural space. Together, both editions of Bauhaus Zeitschrift für Gestaltung provide clear evidence of the workshop’s ongoing commitment to functionalism and its success in presenting its mode of design as integral to the school’s identity.

Before the weaving workshop shifted towards technology and production, the most popular products coming out of both the weaving workshop were sold not for their functionality but for their unique appearance—a direct result of the formal experimentation that went on. Such items were popular with wealthy female patrons, who purchased many well-crafted shawls and blankets, and provided a good source of income for the school. However, a new revenue stream from a broader base of consumers emerged with the shift in the weaving workshop’s structure. The combination of experimentation and industrial production led the Bauhaus weaving workshop to a different source of revenue: selling products for mass production through major textile firms. Firms such as Polytextil-Gesellschaft in Berlin and Deutschen Werkstatten bought and manufactured the Bauhaus designs. This time, rather than profiting from individualistic items such as shawls and blankets marketed towards wealthy female patrons, the Bauhaus weavers expanded their market to the industrial one, successfully selling their products for industry in firms in Berlin and Dresden.

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107 Ibid., 67.
108 Smith, Bauhaus Weaving Theory, 47.
109 Wingler, Bauhaus, 465 and Weltge, Women’s Work, 112.
The commercial and financial success of the new Bauhaus weaving workshop was empowering and legitimizing. The success of the weaving workshop was a direct result of its emphasis on functionality and industry and its unique curriculum which blended teaching, experimental research, and production for industry. By embracing new technology and striving for functionality, the weavers claimed autonomy, establishing weaving as a field in its own right and sharing their new identity through print media. The success of the Bauhaus textiles lessened the perception of their craft as a low-status, low-intellect female craft for dilettantes. Weaving had become a veritable voice in the modern movement.

Albers as Author of Textile Modernity

In the next section of the chapter, I consider the work and writing of Anni Albers specifically. She shared many of her theories and influences with other women in the weaving workshop, but her writings demonstrate a noteworthy depth and enduring dedication to developing a mode of design that placed weaving within the discourse of modernism at and beyond the Bauhaus.

As the weaving evolved from an individualistic “arts and crafts” orientation to a functionalist one, Albers developed a theoretical armature that defined the medium’s principles through writing, asserting an individual identity for her medium.\(^{110}\) Her theoretical writing applies *Neues Bauen* principles to weaving by emphasizing on function, purpose, and utility. This *Neues Bauen*-inspired philosophy aligned Albers’ theories with those of the post 1923 phase of the Bauhaus. During this phase, Stölzl urged experimentation within the workshop for the development of practical and commercially producible textiles. In addition, Albers’ theoretical writing complicated the *kunstgewerbe* conception of weaving and its gendered

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\(^{110}\) Smith, *Bauhaus Weaving Theory*, 41.
associations through increased focus on the use of fabrics in architectural space and on their ability to meet the demands of modern life. Finally, Albers inserted her modernist theories of weaving into the historical discourse on architectural theory from which her medium had traditionally been excluded.

Albers aligned her craft with the principles of functionalism, chiefly through her preconception of the function of textiles: from idiosyncratic art pieces to anonymously functioning textiles suitable for use in modern architectural interiors. In developing her theory of weaving, Albers stressed the importance of anonymity in design. Between 1924 and 1926, Albers abandoned one-of-a-kind weavings in favor of anonymous, functional textiles. This change occurred naturally as she began thinking through the requirements of her product and how the loom and the materials could be harnessed to give a textile a particular functionality.\textsuperscript{111} Albers noted: “In my own work I try to separate very clearly the utilitarian objective work from that what I think of as in the direction of art.”\textsuperscript{112} This design philosophy was also articulated in her essay, “Design: Anonymous and Timeless,” in which Albers stressed that a good designer respects the material and allows it to be the “directive force.”\textsuperscript{113} She wrote:

\begin{quote}
The good designer is the anonymous designer, so I believe, the one who does not stand in the way of the material; who sends his products on their way to a useful life without an ambitious appearance. A useful object should perform its duty without much ado.\textsuperscript{114}
\end{quote}

In emphasizing the importance of anonymity in authorship as the key to maximizing practicality of a designed object, Albers implicitly extracted her work from the decorative domain and placed it into that of functionalism. She distinguished her work and methodology as a deliberate

\begin{flushleft}
\textsuperscript{111} Ibid., 40.
\textsuperscript{112} Albers, “Oral history interview with Anni Albers.”
\textsuperscript{114} Ibid., 7.
\end{flushleft}
marriage of practical and aesthetic needs, whose unity makes a complete form. Albers wrote:

“This complete form is not the mixture of functional form with decoration, ornament or an extravagant shape; it is the coalition of form answering practical needs and form answer aesthetic needs.”

In other words, Albers selected her materials—whether it was jute, straw, hemp, cellophane and aluminum—not for their visual appearance, but for their suitability to producing characteristics in the textile’s structure and surfaces.

Albers’ writing upends the relatively recent associations of weaving with femininity by focusing instead on its structure. In doing so, she divorces it from its lesser status in the hierarchy of art and design. She identifies the fact that textiles are constructed wholes from separate parts and that weaves are structural, an insight which seems to respond to Adolf Loos’s quintessential modernist essay outlining modernism, “Ornament and Crime.” The essay lambasted applied arts as “ornamental,” “feminine,” and “degenerate.”

According to Baumhoff, “The feminine, the ornamental, the craft-oriented and the fashionable seemed inevitably interrelated and thus had to be reformed together if modernism was to prevail.” Thus, we can view Anni Albers’ determination to rid her craft of such ornamental and feminine associations as a strategy to be a part of the modern movement.

In her 1957 essay, “The Pliable Plane: Textiles in Architecture,” Albers strips the weaving of its feminine associations by going to its ancient historic beginnings. At first, weaving was structural, forming transportable shelters and clothing for nomadic life. Later, she notes, “with weaving traditions established, embellishing as one of the weaver’s tasks moved to the foreground and thus the feminine role in it has become natural in our eyes.”

\[115\] Ibid., 3.
\[116\] Smith, Bauhaus Weaving Theory, 183.
\[117\] Baumhoff, The Gendered World of the Bauhaus, 479.
\[118\] Ibid.
contextualization of modern weaving to its ancient origins brings it back into its constructive and highly functional role, properties that align with the aims of modern design’s emphasis on structure, simplicity, and lack of ornamentation. In the same essay, she goes further by casting doubt on the perceived “feminine” role of textiles:

With their relaxed duties, that is, no longer having to guard our life, they have accumulated more…aesthetic functions. These, in time, have moved so much to the foreground that today “decoration” has become for many the first and sometimes only reason for using fabrics. In “decoration” we have an additive that we may well look at, if not skeptically, at least questioningly.  

These passages from “The Pliable Plane” illustrate Albers’ strategy of legitimizing the new industrial direction of Bauhaus textiles.

Albers then goes on to identify the “masculine” structural properties of textiles:

It is interesting in this connection 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. 

This observation aligns weaving with architecture, demonstrating her interest in bringing weaving out of the domain of femininity and into an architectural framework in just two sentences. She both recognizes and questions the historically feminine reception of weaving.

By drawing connections between the ancient and industrial textiles, and focusing on their shared structural (rather than decorative) qualities, Albers grounds her modern mode of design in the authority of respected ancient civilizations. Furthermore, her insight into the similarity between industrial production and ancient production effectively ties modern times to ancient times and erases the developments that occurred in between the two. This moment, of course, is

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121 Translation by author from original: “Weberei ist ein altes handwerk. Seine mechanisierung hat es nicht wesentlich verändert; nur hat dies eine entfremdung vom material mit sich gebracht.”
the period during which weaving gained its feminized status and its associations with surface rather than structure. Thus, her modern weaving theory erases women from the medium’s identity altogether.

Another strategy Albers employed to remove weaving from the decorative domain was to write about its relationship to modern architecture, and she wrote extensively about the role of textiles in architectural space. The name “Bauhaus” in German literally translates to “construction house.” Albers made it clear that the “construction” element of the school’s identity through name did not refer exclusively to architecture. Having the verb *bauen* (to construct) as a part of the school’s name was reflected in the weaving workshop’s emphasis on structure in its theory.\(^{122}\) At the beginning of “The Pliable Plane: Textiles in Architecture,” Albers identifies similarities between weaving and building. She argues that weaving has to do with “*bauen*” both in terms of its structure and its construction. Albers writes: “Both [architecture and weaving] construct a whole from separate parts that retain their identity, a manner of proceeding, fundamentally different from that of working metal, for instance, or clay, where parts are absorbed into an entity.”\(^{123}\) The *construction* of buildings and textiles, she notes, are the same in that they are both “built” from separate building blocks. The *structure* of weaving, which she describes as “interlacing threads … [which have] proved in the course of time so potent in possibilities,” is similar to the process of structural organization in architecture.

In a 1926 leaflet, Gropius insisted that present-day architecture, from the simplest household appliances to the finished dwelling, must be a “rational” endeavor, meeting the requirements of modern life.\(^{124}\) Again in “The Pliable Plane: Textiles in Architecture,” Albers seems to respond directly to this request. After listing the functional qualities of textiles in indoor

\(^{124}\) Smith, *Bauhaus Weaving Theory*, 60.
environments, she looks beyond their basic functions of providing warmth and privacy. Directly replying to Gropius’ call for designing for the requirements of modern life, Albers writes: “we ask of our fabrics more diversified services than ever before,” proposing that textiles must answer modern problems such as “sound-absorption, a problem growing with a noisier world.” She also states the need for new fabrics that are resistant to the wear and tear of modern life: “Today we may want [textiles] to be light-reflecting, even fluorescent, crease-resistant or permanently pleased and have such invisible qualities as being water-repellent, fast-drying, non-shrinking, dust shedding, spot resistant and mildew-proof, to name only a few.”

By directly responding to Gropius’ call for designs that meet the requirements of modern life, Albers aligns weaving with the rest of the school’s modernist identity. Albers’ experimentation with materials, woven structures, and complex methods such as the eight-harness loom and the new Jacquard loom directly illustrate her dedication to her written theory. Her fearless use of technology to investigate and execute her ideas demonstrates her interest in exploring different technologies, structures, and materials as a means to uncovering the full range of her medium’s functionality, purpose, and utility in modern life.

A critic of modern textiles might say that the so-called architectural heyday of textiles is over now that humans are primarily sedentary in their domestic patterns. To some extent, textiles can be seen as playing a supporting role to architecture in their role as wall coverings, curtains, and carpets. Yet, Albers seems to foresee such criticism, and asserts that the same property of textiles that made them so valuable to nomadic civilizations, namely their dynamism and flexibility, makes them essential to sedentary civilizations. She writes:

In our settled existence the character of mobility in our fabrics is nevertheless manifest: as curtains…they [let] in light or [shut] it out, thereby changing dramatically the appearance of a room…They can be lifted, folded, carried, stored

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\(^{125}\) Smith, *Bauhaus Weaving Theory*, 45.
away and exchanged easily; thus they bring a refreshing element of change into the new immobile house.  

Albers notes that the dynamic, mobile nature of fabrics has endured from ancient times into modern ones. Originally, the dynamism of fabrics was utilized by nomadic civilizations to quickly move from one area to another. The present challenge of architecture for sedentary populations is in fact, its immobility. Thus, Albers finds the value and necessity of textiles in the modern dwelling, identifying their essential ability to enliven modern domestic spaces.

Albers’ insight can also be interpreted as a strategy of elevating the status of weaving. In arguing for the necessity of textiles in activating modern architectural space, Albers lifts their status with respect to architecture. In an environment in which weaving was considered a dilettantish decorative art, her claim subverts such hierarchical distinctions by pointing out that without textiles, architecture is essentially lifeless. By extension, she elevated the status of the weavers and their workshop to, or if not above, the other workshops at the Bauhaus.

Albers’ woven work and writing echoed and elaborated on theories of modernism at the Bauhaus. By aligning weaving with modernism, Albers introduced weaving into a discourse that previously excluded women. As discussed earlier in this chapter, Gropius called for the end of unnecessary experiments in all workshops in the name of modernism. However, Albers acknowledged the importance of Gropius’ mandate, yet subtly challenged what he had to say in her November 1924 essay, “Bauhausweberei.” In this article, she advocated for holistic contact with the material. The essay appeared in Junge Menschen magazine, and it laid the foundations of her nuanced approach to design.  

Grappling with the question of how the weaving workshop

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127 Annelise Fleischmann, “Bauhausweberei,” Junge Menschen 5, no. 8 (1924), 188. Fleischmann is Anni Albers’ maiden name. My understanding of this article, printed only in German, comes from T’ai Smith’s translation in Bauhaus Weaving Theory as well as my translation of the original copy which I viewed at the Bauhaus Archive (record no. 004836346).
might move towards functional weaving for industry without losing experimentation, Albers proposed a new theory of weaving which acknowledges the future of weaving as machine-driven for mass production, yet emphasized the importance of experimentation in achieving functional design.

Albers noted that the division of labor within the textile industry was to blame for poorly designed products. This division separated the draftsman, who planned the patterns, from the weaver, who executed the mechanical process of weaving. Thus, the connection among technique, process, and material was lost in this division between design and production. Albers proposed that this rift should be erased, and promoted the Bauhaus weaving workshop as an “attempt…to once again to produce [textiles] through a holistic contact with the material…[to] try anew to teach this feeling.” The essay proposes that the future functionalist method of fabric production was rooted in a history of experimental handicraft. She argues for the return to weaving methods as a means to achieving functionalist textile design. Establishing a connection to the fundamental components of the woven piece, she argued, empowered the weaver with an intimate understanding of the craft. Her essay concludes that the weavers can commit to industry precisely because of their thorough understanding of the mechanics of the craft. Thus, her advocacy for this kind of creativity can be understood as a means to an end.

Fifteen years later, Albers refined this nascent theory in her 1939 essay, “Art—A Constant.” She once again reiterated the importance of working with a material this time not exclusively for weaving but for all artistic pursuits:

Such work by hand may seem in this time of mechanical processes rather futile. But in many cases we have thought also of mathematics…as merely speculative and useless in a practical sense. Often it means chiefly a means of intellectual

129 Ibid., 49.
130 Fleischmann, *Bauhausweberei*, 188. Author’s translation.
training. However it has brought results of great advancement in science. Manual work in this form may also lead to an unforeseen impetus in art.\textsuperscript{131}

Thus, Albers suggests that the “manual work” is the intellectual training needed for successful industrial production. Her analogy between the importance of mathematics as leading to scientific advancement carries to her theory of instrumentalized creativity in weaving for achieving greater functionality in textiles.

Albers’ 1928 thesis project, to create a light reflecting, sound-absorbing fabric (Figs. 9-11) provides a comprehensive illustration of the theories discussed thus far. The fabric, for which she earned her Bauhaus diploma in 1931, was developed for the auditorium of a trade union school, the \textit{Allgemeinen Deutschen Gewerkschaftsbundeschule} in Bernau.\textsuperscript{132} Hannes Meyer, the director of the Bauhaus who succeeded Gropius, asked Albers if she could develop a fabric to dampen an echo in the auditorium. Combining two different materials in a complex structural weave, Albers designed a fabric that was sound absorbing on one side and light reflecting on the other. The obvious solution at the time would have been to mount sound-absorbing velvet to the walls, but they would have to be dark so as not to become soiled. Because she wanted the fabric to absorb only sound and not light, Albers used a unique construction method to create a front and back of the textile. Albers had the idea to use light-reflective cellophane. As the exterior surface of the material, the sound-absorbing velvet was “put in an interesting construction into the back of this material.” The final piece had a light-reflecting surface and a sound-absorbing back.\textsuperscript{133}

This material and structural innovation illustrates Albers’ interest in materials and how their inherent properties could be used to solve functional problems in design. Albers noted: “a

\begin{flushleft}
\textsuperscript{133} The handwoven sample of this material is available at the Bauhaus Archiv Berlin. Inventory number: 401.
\end{flushleft}
light-reflecting material was something completely new at that time, as was a sound-absorbing material that had a light surface. So this was quite an intriguing kind of textile engineering.”

Her process in developing the dual-functioning fabric clearly illustrates the thesis of her early essay, “Bauhausweberei,” in which she stressed the importance of hand weaving as a step to creative industrial work. The fabric demonstrates Albers’ interest in intimately understanding the properties of raw materials, and creatively combining them through weaving structures as a means of solving real design problems.

The fabric also demonstrates Albers’ interest in aligning textiles with architectural space. Her design dynamically relates to its environment, and exhibits her ability to make textiles essential, rather than subservient to, architectural space. Smith beautifully describes the architectural function of the fabric: “Albers’s design for soundproofing fabric…functions to insulate the interior of the architectural space, in effect cloaking the body in a silent vacuum-like environment. The textiles appeal to the entire body’s inhabitation of space.”

It is fitting that the fabric was the capstone of her Bauhaus education as it encapsulated many of the design principles she had developed during her time at the school. Albers’ dual-functioning fabric demonstrated a successful exploration of material as a means to achieving innovative functionality, and illustrating the integral relationship of textiles to architecture.

History as Strategy

The final strategy I discuss in this chapter is Albers’ alliance of weaving theories to a long history of theoretical architecture discourse, which historically excluded women. Albers tied weaving back to a number of modes of architectural thought throughout history. A woman

134 Albers, “Oral history interview with Anni Albers.”
135 Smith, Bauhaus Weaving Theory, 102.
writing theory was unprecedented, and her efforts to refer to the past indicate her desire to be taken seriously. Being perceived as erudite was crucial to being taken seriously as a woman. Thus, Albers placed her writing in dialogue with a broad spectrum of architectural history and theory including Ancient pre-industrial, industrial, and post-industrial modes of thought. By developing a unique and robust theory about the relationship between technology and craft and placing it in dialogue with crucial historical texts considering the relationship of material, surface, and architecture, Albers elevated the status of weaving within the hierarchy of art and design. Smith notes that weaving lacked the lineage of theoretical inquiry of mediums such as painting or architecture. While Kandinsky could reference Leonardo and Adolf Behne could reference Vitruvius, Albers had no direct theoretical discourse to draw from for her specific medium.136 Thus, she drew her own ties back to history through her theoretical writing in an effort to legitimize her medium and to bring it into an intellectual domain historically reserved for male disciplines.

The earliest of Albers’ theoretical writings connect the medium to its ancient roots. Albers was profoundly influenced by Pre-Columbian Peruvian and Ancient Andean textiles.137 She was inspired by the technical complexity that the ancient weavers achieved using simple handlooms.138 Her early writing at the Bauhaus reveals her respect for ancient weaving methods. In fact, her 1924 essay, “Bauhausweberei” begins with a firm reminder that weaving is an ancient craft whose basic structure has changed little, even with the modern tools of mechanization. She was committed to this claim throughout her life, and 35 years later, wrote in

136 Smith, Bauhaus Weaving Theory, xxviii.
138 Albers gained firsthand knowledge of the culture and textiles visiting The Berlin Museum für Volkerkund, acquired a lot of non-European art, particularly Andean textiles. In 1907, the museum’s textile collection held an astonishing 7500 pieces.
“Constructing Textiles:” “Modern industry is the new form of the old crafts, and both industry and the crafts should remember their genealogical relation…We can look forward to the time when it will be accepted as a vital part of the industrial process.” This genealogical relation is, of course, to the textiles of ancient Peru. She suggests: “Industry should take time off for these experiments in textile construction, and, as the easiest practicable solution, incorporate hand-weavers as laboratory workers in its scheme.” By repeatedly underscoring the ancient origin of modern textiles, and the endurance of the same woven structures through time, Albers grounds her medium in a universally respected and authoritative history that predates any of the other media at the Bauhaus.

Having established a strong foundation in ancient textile production, Albers also aligns her theories with relatively recent history in Europe: the Renaissance. In her article “On Concrete Materiality in Architecture,” Ute Poerschke analyzes the role of materials in architecture, examining theoretical writings starting from the eighteenth century to explore the historical relationship between material, form, and function. She identifies a theme that runs through time, starting with architectural theorists Francesco Algarotti and Carlo Lodoli. Both theorists wrote about the importance of honesty in materials. Lodoli argues that a building’s “truth” and “essence” is directly related to its form; a building’s flexibility or stiffness, for example, should be determined by the constructive properties of the materials from which it was built. This essence is directly related to form. In his 1756 essay Saggio sopra l’architettura (Essay on Architecture), Algarotti draws from Lodoli, writing, “Representation should be the correlative of function.” It follows that each building material should signify itself, a principle on which

determines the building’s degree of honesty.\textsuperscript{141} He concludes, “Nothing is more absurd than when a material is made not to signify itself, but is supposed to signify another.”\textsuperscript{142} Roughly eighty years later, in 1834, Gottfried Semper wrote a sentence similar to the Algarotti and Lodoli’s shared sentiment, yet it was updated to accommodate the new materials of the Industrial age: “Let the material speak for itself; let it step forth undisguised in the shape and proportions found more suitable by experience and science. Brick should appear as brick, wood as wood, iron as iron, each according to its own statical laws.”\textsuperscript{143}

Seemingly inserting herself into the ongoing discourse regarding the close relationship of architecture’s material to its form, Albers applies the same argument to her craft, thus aligning it also with the industrial mode of architectural theory. In her 1943 essay, “Designing,” she discusses about the importance of listening to the materials:

[The designer], As the one who makes something from beginning to end and has it actually in hand, he is close enough to the material and to the process of working it to be sensitive to the influences come from these sources...For the craftsman, if he is a good listener, is told what to do by the material, and the material does not err.\textsuperscript{144}

In her anthropomorphizing of the material, she implies that the material itself has a voice. This voice, if listened to, leads to a particular form without “err.” Her argument clearly echoes Lodoli, Algarotti, and Semper’s call to let the material speak for itself. Thus, her statement aligns the importance of material not only in architecture, but also in weaving.

Finally, Albers connected her theoretical writing to that of her contemporary, László Moholy-Nagy, who discussed the importance of structure, texture, and surface in dictating the end product. At the Bauhaus, Moholy-Nagy studied materials with regard to construction and

\begin{itemize}
  \item \textsuperscript{141} Ibid., 152.
  \item \textsuperscript{142} Ibid., 149.
  \item \textsuperscript{143} Ibid., 150.
  \item \textsuperscript{144} Anni Albers, “Designing,” in On Designing (Middletown, CT: Wesleyan University Press, 1962), 59.
\end{itemize}
surface. (The experience of tactility was an important concept throughout the Bauhaus. Josef Albers encouraged students to make “contact with material,” and Johannes Itten placed importance on sensory training, encouraging students to explore a series of textures with their fingertips.) In his 1929 book *The New Vision*, Moholy-Nagy discussed the importance of tactile education. His version of the preliminary course had students conduct “tactility exercises” on the premise that touch is the foundation of sense perception. Poerschke describes the goal of these exercises as: “Experiencing the material by working with it manually, and feeling the material surface was meant to lead to an understanding of the material properties of structure, texture, and surface aspect and ‘accede to the desire of the material, instead of subduing it.” As previous quotes have shown, Albers was also concerned with working with material to understand its structure, texture, and surface, thus aligning herself with the writing of Moholy-Nagy.

Perhaps the most significant of Albers’ historical linkages is that of modern textiles to ancient textile production. By connecting the two, Albers entirely bypassed the period in which textiles were associated with dilettantism, decoration, and femininity. Her suggestion that the structural role of textiles in ancient times was more of a male domain than a female one raises further questions regarding Albers’ relationship to gender. It can be argued that through combined rejection of the female association of weaving and through the alignment with the “masculine” properties of weaving, Albers actually reified the Bauhaus model of building and construction as a masculine discipline. Indeed, at first glance, Albers’ strategy of identifying the “masculine” nature of weaving seems counterproductive to the empowerment of women. However, her strategy did in fact raise the status of women precisely because their constructive

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nature proved the misconceptions — which were never true — about women’s inherent inability to think constructively, wrong. Thus, she liberated women from a limiting system, which automatically expected less of them.

It is also important to consider the lack of an overtly “feminist” tone given Albers’ place within the school and how she related to the men around her. Albers wrote and spoke about how male masters, particular her teacher Paul Klee, whom she idolized, influenced her profoundly. Referring to Klee as “her god at the time,” Albers’ sensitivity to color, passion for abstraction, and love of geometry were all indebted to the influence of Klee’s constructive systems of design.147 To vilify an idol would have seemed counterintuitive, and as Weltge points out, there were few female role models of leadership at the Bauhaus.148 Thus, Albers’ relationship to men was one of respect rather than resentment, even if their biases did give rise to and replicate and the very system of inequality she sought to overcome. Today we have an idiom, “If you can’t beat them, join them.” It seems that by subscribing to the gendered divisions within the arts, Albers employed this line of thinking in her rejection of weaving’s “feminine” nature in favor of its “masculine” structure.

Conclusion

The work of Anni Albers is celebrated today for its elegance, technical mastery, and innovative use of material. However, it is often presented as detached from her experience of labor, and from the challenges of the gendered world of the Bauhaus. However, her experience as a woman at the school had an indelible impact on her work and writing for the rest of her life. In fact, the majority of the articles cited from On Designing were written a number decades after

148 Weltge, Women’s Work, 99.
Albers’ Bauhaus years, yet their argument can invariably be tied back to her experiences with gender.

This paper has presented the conditions of gender-based discrimination in order to provide a backdrop against which Anni Albers’ theoretical writing can be read as an intervention. As chapter two illustrated, Albers developed a number of strategies to divorce weaving from its gendered associations and to incorporate it into the broader discourse of modernism. Her interest in the functionality of textiles and aligning her medium with architecture can be understood as a direct response to wanting to carve out a space of higher status for weaving at the Bauhaus. By discussing functionalism and the architectural role of textiles, Albers fearlessly challenged the stereotypes of weaving as a decorative, low-status craft. Through her connection of her own theories to those of male architectural historians throughout history, Albers introduced her voice into a discourse that historically excluded women. Her multiple strategies to elevate the status of weaving and place it within the discourse of modernism through extensive theoretical writing was an effort largely unprecedented by any other female designer at the time. Albers’ efforts reveal not only her strength and determination to establish a presence for women in the world of art and design, but also the degree to which she was affected by the gendered environment of her school.

Discussion of Studio Art Installation

The studio art portion of my thesis synthesizes the findings of my research on the relationship among gender, textiles, and architecture at the Bauhaus. After researching the work and writing of several female students at the Bauhaus, Anni Albers’ exhaustive theoretical
writing proved to be an inspiring resource which directed my studio art work into its final form as an architectural installation. I arrived at a final plan after carefully reading and analyzing Albers’ theoretical texts included in On Designing, particularly her 1957 essay “The Pliable Plane: Textiles in Architecture.” My reading of these essays, along with three Albers textiles: *Red Meander* (1954), *Pictographic* (1953), and *Two* (1952), inspired the installation.

The slightly raised surfaces of the red lines in *Red Meander* (Fig. 11) suggest the walls of labyrinthine maze. Combining the sculptural, three-dimensional quality of the red line and its reference to an architectural plan, *Red Meander* toys with a space between weaving and architecture. This textile, along with *Pictographic* (Fig. 12) and *Two* (Fig. 13), prompted me to interpret the textiles as actual architectural plans. I used Albers’ theoretical writing about the architectural nature and purpose of textiles as a set of guidelines to guide my own design.

The project is anchored within a particular framework of guiding concepts consisting of my interpretation of Albers’ ideas and theories about textiles in and as architecture. There are a few main concepts I explored in the form of my installation, which I will elaborate on and relate back to their root in Albers’ theoretical writing in this section. The four main themes I explored are self-reference, materials, the role of textiles within architecture, and their role as architecture.

The first concept is that of the self-referential textile, in which the nature of a textile’s construction is replicated at a larger scale in its form. From her fifth semester at the Bauhaus onwards, Albers actively sought to develop a weaving pattern that defined its structure. Albers’ 1926 study for a wall hanging (Fig. 14) illustrates the principle self-referential textiles: in which the form displays the nature of its construction.¹⁴⁹ In the study, various bars of color cross under and over one another, clearly replicating the structure of interwoven threads at a large scale. I carried the idea of self-referential textiles into my own installation. The three embroideries that

are placed intermittently throughout the walls of the installation refer directly to the installation itself. That is, the embroideries represent the translation from plan to isometric projection of the space in which they exist. The first embroidery (Fig. 15) is the plan view, the second embroidery (Fig. 16) is an intermediate view in which the plan is skewed according to the isometric conventions, (Fig. 17) and the final embroidery is the isometric project of the space, with walls.

The second concept explores materiality, which Albers wrote about extensively. Albers valued materials not for their decorative purpose, but in a functional context in which their structure and texture would themselves be of interest. She wrote: “Avoiding decorative additions, our fabrics today are often beautiful, so we believe, through the clear use of raw material, bringing out its inherent qualities. Since even solid colors might be seen as an aesthetic appendage, hiding the characteristics of a material, we often prefer fabrics in natural, undyed tones.” This quote directly informed my choice of materials for the installation. Albers’ appreciation for natural, undyed materials and her consistent usage of cotton-based materials throughout her weavings led me to choose high-quality cotton plain-weave burlap for my own installation.

With regard to the role of textiles within architecture, Albers described the psychological properties of textiles as peaceful and warm. Albers thought of “soft play of folds and luster or fuzz of fibers” as an antidote to flat, hard surfaces that characterized certain uninviting modern interiors. Wall partitions, she argued, could bring “tranquility” to living areas. In “The Pliable Plane,” Albers wrote: “By introducing materials suited to partitioning sections of interiors, they

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150 Albers, “Constructing Textiles.”
151 Plain weave is the simplest weaving technique: the warp and weft alternatingly overlap one another to form a grid.
have contributed specifically to impressions of spaciousness and lightness in our living areas, that is, to tranquility.”

Albers also called for “a strong subordination of details to the overall conception of an architectural plan. When we decorate, we detract and distract.” Thus, I aimed to create a space that would combine simple materials and geometries to activate and transform the installation site. I hoped that the meandering journey the body makes throughout the installation would be a source of amusement, intrigue, and calm. I scaled the installation such that the body would not be oppressed by overly narrow spaces, yet could experience intimately the properties of the fabric walls: their texture, opacity, and natural softness.

The final concept was the role of textiles as architecture. Albers suggested in “The Pliable Plane” that textiles could be “a counterpart to solid walls.” In this essay, she cited Lilly Reich and Mies van der Rohe’s Velvet and Silk Café, designed for the 1927 Women’s Fashion Exhibition (Fig. 18), whose walls consisted of velvet and silk suspended from curved and straight steel rods. Albers adopted the use of fabrics as architectural elements, writing: “Today we have no time for frills we hang our curtains from ceiling to floor in straight folds. Instead of decorative elements they thus become an integral architectural element, a counterpart to solid walls. Mies van der Rohe was one of the first to use them in architectural form.”

Many of Albers’ theories remained abstract for me until I installed my final project in May. For example, I was delighted by the semi-transparency of the fabric walls, which allowed for the silhouettes of figures to be made out as they walked through the installation. Additionally, the movement of the body circulated the air throughout the installation, causing the fabric walls would flutter ever so slightly, in a beautiful and unexpected way. Finally, the body’s physical

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proximity to the walls allowed for the sort of intimate interaction with the structure and materiality of the fabric that Albers valued so highly.
Figure 1.
Figure 2.
Figure 3.

Figure 4.
Figure 5.

Figure 6.
Figure 7.
Figure 8. Zeiss Icon, Anni Albers’ sample fabric, manufactured fabric, and license, 1930. Photograph.
Figure 9.
Figure 10.
Figure 11.

Figure 12.
Figure 13.

Figure 14.
Figure 15.

Figure 16.

Figure 17.
Figure 18.
Ludwig Mies van der Rohe and Lilly Reich, *Café Samt & Seide (Velvet and Silk Café)*, 1928. Silk, velvet, steel.
Studio Art Installation Images
Bibliography

Books


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