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Anni Albers's Modernist Philosophy in Thread and Text

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ANNI ALBERS'S MODERNIST PHILOSOPHY IN THREAD AND TEXT

By

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ABSTRACT

Anni Albers (1899-1994), weaver, printmaker, and writer, began her studies at the Bauhaus in 1922, and she soon became a leading figure in the weaving workshop there. Leaving Germany in 1933 when the Bauhaus closed under the pressure of Nazi power, Albers permanently moved to America and began teaching at Black Mountain College in North Carolina. Here, she headed her own weaving workshop, which was based on Bauhaus pedagogy. In 1935 she visited Mexico for the first of twelve times; she visited Peru and Chile in 1953. With each trip to Latin America, she developed an increased interest in the weavings of the ancient Americas. From the mid-1930s to the early 1960s, she allowed aspects of ancient textiles to figure into her own weavings, and she described her admiration for ancient weaving cultures in her numerous writings.

Looking at the environments in which Albers worked, I situate her weavings and writings in the intellectual atmospheres of the Bauhaus, Black Mountain College, and her independent studies and travels in the Americas. Doing so reveals the complexity of her personal philosophy on art, which ultimately derived from the Bauhaus, and united art, craft, and design through universalism. Her weavings and writings from 1924 to 1966 reflect this art philosophy. Looking at the formal aspects of her wall hangings and analyzing her writings, I outline the extent of Albers's understanding of the theories proposed by intellectuals sharing her milieu, in particular Wilhelm Worringer (1881-1965). I show Albers borrowed aspects of his theories; however, I do not claim that she strictly adhered to Worringer's ideas. Instead, she deviates from them to emphasize characteristics unique to her medium of weaving and its history based in craft technique.

This thesis begins by establishing Albers's understanding of geometric abstraction through the Bauhaus. I investigate claims that she was indebted to Worringer's *Abstraction and Empathy: A Contribution to the Psychology of Style* (1908), which she and others likely read at the Bauhaus. Worringer's argument put forward a way to link ancient and modern art through a shared psychic state, characterized by feelings of chaos and the need for order, which he believed was manifested as geometric designs. My study shows that Worringer offered Albers one way to
relate the textiles of the ancient past to her modern weavings, but that she also found other connections after her move to the United States.

After 1933 she became increasingly devoted to the textiles of ancient America. This is confirmed by her use of Peruvian textile constructions, her collection of ancient American textiles, and her discussions of these weaving cultures in her writings. Additionally, Albers encountered other artists working in North and South America who likewise sought to apply abstractions from ancient American art to modernism. I compare works by Joaquín Torres-García (1874-1949), Adolph Gottlieb (1903-1974), and Shelia Hicks (1934-) to show a pan-American desire to find indigenous roots applicable to the modern day through universalism.

These different avenues of Albers's work, her Bauhaus education, study of Peruvian weavings, and dialogue with contemporary pan-American sources of universalism, point to her underlying belief that art was successful if it communicated a universal appeal and timelessness.

In integrating Albers's weavings and writings in relation to her philosophy, I demonstrate the extent to which her art and writings engage intellectually and stylistically with modernism. This thesis contributes to the scholarship where previous studies of Albers have not thoroughly acknowledged her participation in the discourse of modern art through her use of modernist ideals, theories, and writings. I provide a unique intellectual history of a weaver's work that shows how theoretical foundations equate her weavings and writings with vanguardism. Using a language belonging to the plastic arts, she removed false divisions between art media and advanced her concept of universalism by creating a link between ancient craft and modern art.
INTRODUCTION

Between 1924, the date of her first published essay, and 1966, the date of her final weaving commission, Anni Albers's (1899-1994) textiles and essays about weaving interdepend. Her weavings shaped the art philosophy she recorded and they visually carried out her written claims. Developing as a result of her Bauhaus education, Albers's philosophy asserts that art and craft can be equal, that direct experience with materials is necessary in the textile industry, and that true art represents timeless aesthetics. She continued to build on these ideas after moving to America in 1933, where her work became increasingly unique to her personal interest in pre-Columbian weavings. Scholars have failed to consider her writings in connection with specific textiles, which would reveal the materialization of her art philosophy. Thus, my thesis addresses both aspects of her work to demonstrate an exchange between her practice and theory. This close analysis additionally describes Albers's philosophical grounding in early-twentieth-century intellectual concepts, particularly those that Wilhelm Worringer (1881-1965) argued in Abstraction and Empathy: A Contribution to the Psychology of Style (1908). Albers adopted Worringer's claims, which explained contemporary trends in abstraction, to justify the modern aesthetic of her visual works, but she also departed from his theory to create her own philosophy that attended specifically to weaving. Although Albers shared ideas with Worringer, she reached a different conclusion about abstraction. For Worringer, abstraction was a dominant style that reappeared over time; for Albers, in contrast, abstraction was universal and timeless.

In my study I integrate the formal aspects of Albers's weavings with ideas drawn from her writings. During her time at the Bauhaus, from 1922 to 1933, Albers created fabric to be industrially mass-produced as well as individual wall hangings. She continued to make both types in America, but here she began referring to her singular textiles as "pictorial weavings," although they were always abstract, never representational or illustrative. The pictorial weavings, like her earlier Bauhaus wall hangings, were unique works of art made on a handloom. My thesis chapters treat Albers's work chronologically, limiting my scope to her Bauhaus wall hangings and American pictorial weavings. I will not attend to her prints, which she made after 1970 and after she stopped writing.
Her thirty-six individual texts remain largely unaddressed in the literature. Albers's writings appear in the form of essays for her published books, articles for art and craft journals, lectures, and unpublished statements. In conjunction with her weavings, they illuminate how she perceived her weavings as modernist works indebted to ancient examples. Her writings identify that geometric abstraction is innate in weaving, that Peruvian textiles serve as ideal sources, and that principles of universalism allow for connection of modern and ancient visual works. This thesis will attend to these three directions in Albers's art and writings.

Neil Donahue's method of intellectual history serves as a model for my research. In Invisible Cathedrals: The Expressionist Art History of Wilhelm Worringer (1995) and Forms of Disruption: Abstraction in Modern German Prose (1993), he evaluates the effects of Worringer's writings on contemporary artists, authors, and intellectuals; however, he does not focus on Albers and other Bauhaus members. Donahue's approach looks beyond the main topic of a piece of literature to illuminate underlying cultural issues and scholarship that shaped the author's thoughts. Utilizing this method, I place Albers's writings in a socio-cultural context to critically reveal how she perceived the craft of weaving within a discourse of modernism shaped in part by Worringer's social psychology.

Scholars have only cursorily attended to her use of Worringer's text to support her own ideas and art. Nicholas Fox Weber, in The Bauhaus Group: Six Masters of Modernism (2006), briefly summarizes how Albers defended her geometric style by using Worringer's theories. Virginia Gardner Troy, in Anni Albers and Ancient American Textiles: From Bauhaus to Black Mountain (2002), focuses on Worringer's interest in the psychology of "primitive" peoples, without making direct connections to Albers's work. Brenda Danilowitz briefly discusses Albers's written work in the introduction to the anthology Anni Albers: Selected Writings on Design (2000), identifying several themes in Albers's essays, including order and chaos, art and craft, and universal principles; however, she does not mention Worringer's writings on similar topics.

These sources provide only superficial investigations without addressing the extent of Worringer's influence on Albers's writings and visual work. My thesis fills this void by revealing the impact of Worringer's theories, which further enriches our understanding of Bauhaus artists and Bauhaus pedagogy. My study of Albers shows Abstraction and Empathy offered her one way to justify her modernist weavings; however, I also explain that after 1933
she departed from Worringer's theories and began using textiles from ancient Peru as her primary model for abstraction.

One main purpose of this thesis is to address a weaver who worked as a modern artist. Studies giving credit to weavers' dialogues with intellectual sources are absent from the literature. This paper shows the ways that Albers, as a weaver, tried to participate in the discourse of modern art, which at the time was dominated by painters and sculptors. I look specifically at her connections with Worringer to construct, in part, her intellectual atmosphere. In doing so, this study begins to situate weavers as active players in modernism. While I focus on only a few aspects of Albers's Bauhaus education and American context, I hope to provide a model for further research on other weavers that acknowledges their use of modernist ideals, theories, and writings to operate within the same sphere as avant-garde painters and sculptors. With this study, I also expand upon the interconnections of modern artists and weavers working in North and South America.

Essential to this thesis are Albers's own writings, many of which appear in the two collections she published during her lifetime: *On Designing* (1959) and *On Weaving* (1965). In addition to these essays, mostly pertaining to her art philosophy, Albers also contributed to a book *Pre-Columbian Mexican Miniatures: The Josef and Anni Albers Collection* (1970), which reproduces ancient figurines that she purchased with her husband, and a small exhibition catalogue, *Anni Albers: Pictorial Weavings* (1959). Brenda Danilowitz, in *Selected Writings on Design* (2000), assembles essays from *On Designing* and *On Weaving*, individually published articles, lectures, and previously unpublished statements. Danilowitz also includes an extensive bibliography of Albers's writings.

Albers likely felt the need to write about her work because in the first half of the twentieth century, the written word carried more weight than a medium assumed to be craft, and at that time, weaving was not considered an art form. Albers's writings gave her textiles academic backing, and they revealed the intellectual aims of her compositions, mainly, that they were meant for contemplation and visual escape. Beginning in the 1920s, the medium gained status and attention in the art world, mostly through the weaving workshop at the Bauhaus and other modernist textile artists working in Europe.

In America, Albers encountered some weavers who did not appreciate her avant-garde interests. For example, Albers submitted an essay, "Handweaving Today: Textile Work at Black
Mountain College" (1941), to the craft magazine *The Weaver*. Here, she plainly outlined the goals of her weaving workshop at Black Mountain College, roughly based on her own education at the Bauhaus. The traditionalist American weaver Mary Atwater fired back an essay of her own in the following issue. "It's Pretty--But Is It Art?" lambasted Albers's claims that weaving could be art. Atwater wanted weaving to remain a simple pastime, based on replicating patterns from "recipe" books.²

Not only was weaving-as-art not well understood at the time in America, abstraction in general was viewed as suspect. Thus, Albers had two concerns at stake. But not all of the assessments of her written work were negative. Numerous reviewers of her book *On Weaving*, many of them important authors in the field of textiles, such as Lili Blumenau and Irene Emery, responded favorably. Each was impressed with her discussions on aesthetics, her philosophy about weaving, and the universalizing qualities she attributed to the medium.³

In general, Albers's writings reached an audience either interested specifically in the crafts or more broadly in the arts. In addition to *The Weaver*, mentioned above, she contributed essays to the magazines *Craft Horizon* and *Design*. *On Weaving* was directed toward textile artists interested in both theory and technique. Other essays appeared in *Arts and Architecture*, a showcase magazine having a major impact on the development of modernism in the U.S., and various exhibition catalogues of her work and that by other artists. Some of her writings were also published for smaller audiences in the *Black Mountain College Bulletin* and Yale's *Perspecta*.

According to Weber, Albers read Worringer when she first arrived at the Bauhaus and latched on to his idea of visual resting places.⁴ She later discussed these visual resting places in her essay "Designing" (1943), and she specifically described Worringer's text *Abstraction and Empathy* in a 1950 book review of Ben Nicholson's *Paintings, Reliefs, Drawings*. It is unknown if she read any of Worringer's other publications, such as *Form Problems of the Gothic* (1910), his important follow-up to *Abstraction and Empathy*.

The foremost direction of research on Albers in the last decade focuses on her interest in pre-Columbian textiles. The exhibition catalogue *Anni and Josef Albers: Latin American Journeys* (2007), edited by Brenda Danilowitz and Heinz Liesbrock, includes essays about her collection of woven artifacts and how ancient and modern Latin American cultures influenced her artwork. It also outlines the couple's thirteen trips to Mexico between 1935 and 1967 and
their single trip to Chile and Peru in 1953, where they visited archeological sites at places such as Monte Albán, Teotihuacán, and Machu Picchu. Virginia Gardner Troy's extensive study on the topic, *Anni Albers and Ancient American Textiles* (2002), concentrates on Albers's lifelong interest in pre-Columbian textiles and the ancient Andean source materials available to her.

Both Albers and Worringer were interested in modernism's ties to the art of ancient peoples. Robert Goldwater, who would later become the first director of the now-defunct Museum of Primitive Art in New York, with its collection of the arts of Africa, Oceania, and the Americas, directly contextualizes Worringer's views on so-called "primitives" in his pioneering and influential *Primitivism in Modern Art* (1938). More broadly he describes a general interest in ancient Peruvian art as a means for affecting the direction of modern culture. His book is helpful in understanding the context in which Albers formed her own views.

As previously indicated, my thesis ultimately illuminates Albers's idea of art as universal, a divergence from Worringer's theory. Albers first became aware of universalism at her time at the Bauhaus. Scholars, such as Frank Whitford in his *Bauhaus* (1984), have proposed that Theo van Doesburg prompted the interest in universal art at the Bauhaus.

In addition to sources at the Bauhaus, Albers tapped into pan-American sources of universalism. There was a growing trend in Latin America during the 1920s and 1930s towards constructivist aesthetics, which was often combined with ancient sources to juxtapose the local and universal. Indeed, Uruguayan artist Joaquín Torres-Garcia (1874-1949) was instrumental in promoting this linkage throughout Latin America after 1944 with manifesto for Constructive Universalism. Albers likely encountered modernist art on her travels to this region and related to them because of her Bauhaus education and her interest in pre-Columbian artifacts. Tricia Laughlin Bloom, in her essay in *Constructive Spirit: Abstract Art in South and North America, 1920s-1950s* (2010), and Barbara Braun, in *Pre-Columbian Art and the Post-Columbian World: Ancient American Sources of Modern Art* (1993), outline the pan-American artistic trends occurring simultaneously with Albers's work in the United States. In both, Albers is cited as participating in these trends.

My thesis examines Albers's visual and written work chronologically and within the context of German intellectual history, particularly Worringer's main argument in *Abstraction and Empathy*, which explained modern art by comparing its abstract tendencies to that of "primitive" cultures. Worringer believed that modern people, like those of the ancient past,
perceived the world as being full of chaos, and, therefore, they made abstract art to create order and control. Albers and Worringer sought to contribute to the development of the modern world by connecting to aspects of "primitive" life. Their ideas did not seek to return to earlier times, but to relate to the assumed psychology of ancient peoples as a way to rationalize the art and culture of the present day. My thesis chapters show that Albers justified her work through Worringer's psychological concept of abstraction, but that she also departed from his ideas to create her own philosophy, which specifically attended to weaving and the notion of timelessness.

In the first chapter, I focus on the intellectual atmosphere at the Bauhaus as it relates to Worringer's claims and to the weaving workshop. I argue that Worringer directly influenced the Bauhaus at this time through his association of a chaotic world with a need for order, and I show how Albers was a part of this trend, which also included artists such as Wassily Kandinsky (1866-1944), Paul Klee (1879-1940), Josef Albers (1888-1976), and László Moholy-Nagy (1895-1946). Albers wrote in her essay "Wohnökonomie" (1924) that modern life required objects that functioned easily, and with that came reductive forms lacking in ornamentation. In later essays, she elaborated on the chaos of the modern world, and she offered a solution in simplified, angular shapes indebted to the Bauhaus style. The pervasive sense of unrest, particularly in the early-twentieth century in Germany, was what Worringer, Albers, and others were responding to in their work. They felt that this sense of anxiety could be transcended through geometric abstraction and order.

Immediately after her move to America, Albers still held on to Worringer's notion of connecting chaos to abstraction and the modern world. Her weavings retained geometrical elements, but they became more tactile and organic. In the second chapter, I assert that with her distance from the Bauhaus atmosphere, Albers began to turn away from Worringer's ideas, particularly from his claim that the materials have little impact on the final work and his disassociation of craft and art. Albers's interest in returning to the origins of the working process through direct contact with the raw materials and basic weaving constructions was related to her interest in pre-Columbian textiles. Nevertheless, Albers's new direction still functioned within the psychology underlying Worringer's claims that more broadly united the current direction in art to humankind's earliest times. Worringer resorted to monolithic terms in his writings, but Albers was much more specific in the non-western cultures she admired, placing great value on
the work of ancient Peruvian weavers. Her interest in the tactility of fabric also may have been related to the pedagogy used by other Bauhaus members, such as Moholy-Nagy and Josef Albers, who were concerned with the haptic nature of materials. She believed the modern world needed this contact with materials as a means to invoke a primal state of mind and to provide stability to cope with contemporary problems.\(^5\) In her new American context, Albers integrated experiments with materials derived from the Bauhaus and her studies of pre-Columbian textiles into her own pedagogy at Black Mountain College.

While Albers was introduced to universal principles at the Bauhaus, I assert that she also encountered pan-American sources of universalism after moving to the U.S. Many artists in Latin America at midcentury worked in a constructivist style and sought to convey universal aspects in their art. This sense of universalism that expanded across both American continents may have contributed to her work through her preexisting interest in pre-Columbian cultures. This area of research has not been specifically pursued in the current literature on Albers, but it is one I investigate in my third chapter by comparing the formal and theoretical similarities between Albers and Torres-Garcia and by examining her travels in Latin America. After discussing Albers's notion of universalism, which she paired with timelessness, I show how her understanding of art differed from Worringer's theory. Worringer's broad view of art history attempted to explain the occurrence of two alternating dominant trends in art (abstraction and naturalism). Conversely, Albers wanted to situate herself in the art world, and she did this by connecting the aesthetics of ancient and modern art through a shared universal language that supposedly anyone could understand.

In her writings, Albers argues that art is one of the few constants in the world and that it provides mental security for modern people. Albers is able to formulate her art philosophy and relate her weavings, abstract in design, to this sense of timelessness because of her initial understanding of Worringer's claims in *Abstraction and Empathy*. Worringer helped guide her to an increased interest in pre-Columbian cultures, and he provided her with an explanation of modernism that related to art and life of the past. Still, she diverged from his ideas when it came to the use of materials, universal principles, and timelessness. In my thesis, I argue that Albers came to her personal philosophy about art and her concept of universalism by combining intellectual theories that shaped the Bauhaus, formal elements of ancient crafts, and contemporary pan-American sources of universalism.
CHAPTER ONE

THE BAUHAUS ATMOSPHERE

Albers encountered abstraction as a direction in modern art at the Bauhaus, where she began classes in 1922 at the age of twenty-three. Her artistic experience prior to that time consisted of figural studies in private lessons and painting studies with Martin Brandenburg, a German impressionistic landscape painter. She also briefly attended the Kunstgewerbeschule (School of Applied Arts) in Hamburg, a craft school that emphasized basic needlework technique, pattern, and repetition. At the Bauhaus, she fully accepted a new aesthetic and philosophy about art that allowed shapes in weaving to take on formal and conceptual importance, reflecting a general trend in modernist directions of weaving in Western Europe at large. Fabric artists at the Bauhaus challenged the hierarchy of fine art by maintaining that the traditionally understood "craft" of weaving was a medium relevant to modernism and one that could be artistic, utilitarian, or both. Albers and other members of the Bauhaus weaving workshop played a vital role in changing conventional assumptions about their medium.

In this chapter, I begin with the intellectual context surrounding the formation of the Bauhaus, focusing on Walter Gropius (1883-1969), Wilhelm Worringer, Alois Riegl (1858-1905), and Gottfried Semper (1803-1879). Establishing this information provides a background to understanding the visual work of Bauhaus artists. By introducing four Bauhauslers and four weavers from Europe and Russia working in a modernist style, I show how Albers's work is similar in design and theory to broader trends. After a discussion of Albers's Bauhaus weavings, I examine two essays she published in 1924, both of which explain the style and purpose of work she and others at the Bauhaus sought to achieve. To end my discussion of her visual and written work at the Bauhaus, I consider Weber's linkage of Albers and Worringer through the idea of visual resting places, and I speculate on the extent of her understanding of Abstraction and Empathy. I argue Albers, like other modern artists in Europe and at the Bauhaus, applied the theories of Worringer loosely as a rationale for her abstract style. Later chapters show how her
weavings and writings change in regard to Worringer and the intellectual atmosphere of the Bauhaus.

The German architect Gropius founded the Bauhaus in 1919 and directed the school until 1928. Although different aims were emphasized at different times, overall, the Bauhaus intended to unite art, craft, and industry. Students were encouraged to create both works of fine art and designs for practical application. Much of the school's curriculum was based on the modernist notion, first discussed with architecture, "form follows function." As the motto implies, students sought to make their art objects useful, efficient, and lacking in excess ornamentation.

A number of factors contributed to the formation of the Bauhaus and its pedagogy, a context most thoroughly described by Rainer K. Wick in *Teaching at the Bauhaus* (2000). In particular, Wick discusses preceding craft workshops and intellectuals of applied arts that laid the groundwork for the Bauhaus to develop. The Deutscher Werkbund (German Work Federation), founded in 1907 in Munich, sought to integrate the artist into the process of machine production to make artfully designed industrial products for a mass audience. These workshops affected the focus of the Bauhaus principles in terms of industrial design, functionalism, and a machine aesthetic. Barry Bergdoll, an architectural historian and curator, places Gropius's writings under the auspices of the Werkbund because they combine industry and art in the same fashion as the federation's mission.

Semper, a German architect and author on the technical arts, encouraged the formation of museums and schools focusing on the arts and crafts. In his essay "Wissenschaft, Industrie und Kunst" ("Science, Industry, and Art") (1851), where he reflected on the Great Exhibition in London, Semper addressed the lack of artisanship in modern industry. Semper's ideas may have filtered into the Bauhaus through the workshops preceding it, such as the German Werkbund. Bergdoll also connects Gropius to the time when Semper's ideas were most in vogue, revealing that Gropius cited Semper in a 1919 lecture to some of the first Bauhaus students and that both men considered craft to be the origin of architecture.

One figure Wick does not address in his history of Bauhaus pedagogy is Worringer. According to Reyner Banham, an architectural historian, Gropius attentively read *Abstraction and Empathy*, cited Worringer in a 1913 lecture, and unknowingly exchanged images with Worringer. In the last case, photographs of American silos and factories printed with his essay "Die Entwicklung moderner Industriebaukunst" ("The Development of Modern Industrial
Architecture") (1913) reappeared in Worringer's book Egyptian Art (1927). Seemingly, Gropius was most interested in Worringer's theory as it related to unornamented structures and simple forms derived from architecture of ancient cultures, in particular Egypt. In Donahue's review of the Gropius-Worringer connection, he asserts that both men felt certain styles were favored because of an underlying psychological drive, one that could link the modern and the so-called "primitive" worlds.12

The basic premise of Abstraction and Empathy is based on the assumption that cultures have a unified group psychology that is visually manifested in art. Worringer's argument is grounded in the notion that art "[arises] from psychic needs, [and] gratifies psychic needs."13 He defines psychic states as "mankind['s] . . . relation to the cosmos . . . [and] . . . to the phenomena of the external world."14 Worringer identified two dominant psychic states, chaos and harmony, and two corresponding styles in art, abstraction and empathy. Worringer associated abstraction with ancient or primitive peoples who found "beauty in the life-denying inorganic, in the crystalline" and the term empathy, broadly indicating naturalism in art, with the Western world's preferred aesthetic of realism that ultimately derived from Classical art.15

In his book, he outlines, "Whereas the precondition for the urge to empathy is a happy pantheistic relationship of confidence between man and the phenomena of the external world, the urge to abstraction is the outcome of a great inner unrest inspired in man by the phenomena of the outside world."16 This establishes that ancient people feared the chaos of the unknown in their world and that they created abstract art as a way to cope with this fear. Implicitly, the more chaotic the world, the more abstract the art. Likewise, those who tended toward naturalism, and were thus "empathetic," had a complex understanding of their world and lived in harmony with it.

Worringer borrowed the term empathy from the German philosopher Theodor Lipps (1851-1914). Lipps' term favored the subject of a work of art and its comparisons to nature, and it implied the categories of pleasurable and unpleasurable, beautiful and ugly.17 However, Worringer argued that applying such an aesthetic to art was biased according to one's contemporary time and was not appropriate for all cultures and all eras. Instead, he asserted the polarity of abstraction and empathy and claimed these styles were created under different psychological dispositions. Therefore, art must be understood in the context of its associated psychic state. Neither the reductive geometries of abstract art nor the naturalism of empathic art
were better or more beautiful in Worringer's opinion, but simply represented the psychology of the artist and the artist's larger culture. A culture's overarching psychology, not Lipps' notion of empathic aesthetics based in Classical art, became Worringer's gauge in which to measure art.

Because Worringer linked art to a group's psychology and external environment, but not its time, modern people could relate to those from the past through a shared sense of chaos and uncertainty experienced, for example, during the political, social, and cultural turmoil in early-twentieth century Europe. During Worringer's lifetime and while he drafted *Abstraction and Empathy*, a great deal of industrialization and urbanization occurred in Germany, which resulted in cultural and class strains. Military battle was on the horizon when Worringer was writing, and this became a reality for his readers. The life of the Bauhaus (1919-1933) coincided with that of the Weimar Republic (1918-1933) and its political instability. In the early-twentieth century, Germany entered economic depression and fell under Nazi power, which forced the Bauhaus to close. This history clarifies why artists and intellectuals were preoccupied with fear, chaos, and the unknown and why they sought some kind of escape, often through art. It sets a backdrop for the explanation Worringer provides for modernism, that essentially times of chaos breed abstraction in art. This aspect of his thesis provided a way for modern artists to rationalize their abstractions, which were formally similar to art of ancient and primitive cultures who supposedly lived in chaos as well.

Describing a primitive culture in a psychic state ruled by chaos, Worringer writes:

Tormented by the entangled inter-relationship and flux of the phenomena of the outer world, such peoples were dominated by an immense need for tranquility. The happiness they sought from art did not consist in the possibility of projecting themselves into the things of the outer world, of enjoying themselves in them, but in the possibility of taking the individual things of the external world out of its arbitrariness and seeming fortuitousness, of eternalizing it by approximation to abstract forms and, in this manner, of finding a point of tranquility and a refuge from appearances. Their most powerful urge was, so to speak, to wrest the object of the external world out of its natural context, out of the unending flux of being, to purify it of all its dependence upon life, i.e. of everything
about it that was arbitrary, to render it necessary and irrefragable, to approximate it to its absolute value.\textsuperscript{19}

In this passage, Worringer touches on many concerns circulating in the European art world during the early-twentieth century. He writes that for people living in times of chaos, abstract art creates a feeling of tranquility and happiness, made possible by isolating the subject from the external world. By eliminating the subject's appearance to the world and its relation to three-dimensional space, it becomes a pure and distinct shape that is eternal, symbolic, and easily grasped in the mind. He claims reductive shapes create stability and establish a known variable through a visual "refuge" from chaos.

Worringer's explanation of psychology in art relied on the work of the Viennese art historian Riegl. He used Riegl's term "absolute artistic volition" (or, \textit{das Kunstwollen}, "the will to art") to situate inner psychic needs as the driving force of creativity.\textsuperscript{20} Essentially, both were concerned with the stylistic tendencies of a group, arguing that these tendencies were grounded in a unified psychology. Worringer used absolute artistic volition like Riegl to claim that art was solely dependent upon an inner urge to create and entirely independent of skill, training, materials, and utilitarian purpose. By emphasizing the psychologically driven "will" of the artist and deemphasizing the artist's ability, both Worringer and Riegl allowed for aesthetical beauty in ancient and primitive art because it was created from a different urge than that of the Classical world and therefore should not be judged by the same standards. Worringer believed that the conventions of classical aesthetics do not, and should not, apply to the abstractions of what he perceived to be primitive cultures. This interest in groups not traditionally considered within mainstream Western culture, in Worringer's case, Egyptian, pre-Columbian, and early Gothic, may also be attributed to Riegl, who focused primarily on Late Roman and Medieval art.\textsuperscript{21} Both approached aesthetics from the viewpoint that all cultures were valuable to the study of art.

Another aspect important to Worringer's thesis and that he borrowed from Riegl was the duality of the haptic and the optic. The term \textit{haptic} implies an understanding achieved through the sense of touch, while \textit{optic} suggests an understanding through the sense of sight. The haptic is often associated with objectivity, as one assumes that the texture of an object is real and cannot be feigned. The optic is associated with subjectivity because the eye can be tricked and does not always register a true image of a three-dimensional space. In the Riegl-Worringer line of
thinking, ancient artists perceived their world primarily through haptic (tactile) means, as opposed to those in later Western cultures, operating from the standpoint of classical aesthetics that were optic in nature.\textsuperscript{22} According to Worringer, ancient people felt a "spiritual dread of space," that is, they feared the expansiveness and uncertainty of the three-dimensional world, perceived optically.\textsuperscript{23} Therefore, he argues that these people depended on their sense of touch as means to reassure their limited understanding of the world.

Worringer further linked tactility to geometric abstraction through the flat plane, created only with a horizontal and a vertical surface. He likewise associated the optical suggestion of depth to naturalism. To arrive at this conclusion, he used Riegl's "plane theory," where the certainty of definite shapes "was possible only within the [two-dimensional] plane, within which the tactile nexus of the representation could be most strictly preserved."\textsuperscript{24} In \textit{Abstraction and Empathy}, he quotes Riegl as saying, "[The] plane is not the optical, with which, if we are at any distance from things, the eye deludes us, but the haptic (tactile), which is suggested to us by the perceptions of the sense of touch; for it is upon the certitude of tangible impermeability that, at this stage of development, the conviction of material individuality also depends."\textsuperscript{25} By identifying the emphases on a flat plane, single forms, and suppression of three-dimensional space as characteristics of abstraction, Worringer implies that abstraction is firstly understood through a haptic sense.\textsuperscript{26}

\textit{Matière} refers to either the tactile sensation of materials or the exploration of surface qualities.\textsuperscript{27} As such, it corresponds with the haptic. Bauhaus instructors, such as Josef Albers and Moholy-Nagy, used \textit{matière} studies when teaching their Preliminary Courses. Their students experimented in a variety of media, including paper, fabric, wood, and found objects, and they focused on the innate characteristics of the material's unique strengths. Josef Albers distinguished the terms material and \textit{matière} in his courses, material being the raw substance, \textit{matière} being the sensation afforded by the material.\textsuperscript{28} Moholy-Nagy in particular was interested in training the sense of touch; such training intended to improve society at large and not just increase one's perception.\textsuperscript{29} Moholy-Nagy and others at the Bauhaus assumed that "primitive" people worked more closely with their materials and thus achieved a sense of purity and supposed truth. Modern man could tap into such truths by using ancient working methods, or as Worringer suggests, a shared psychology. Naturally for Anni Albers and the weaving workshop, tactility was closely associated with weaving. It also related to the broad concern of the Bauhaus
expressed by her husband Josef as "contact with material." She discusses the tactile nature of her work through the concept of matière in one of her final essays, "Tactile Sensibility" (1965), in a way that still echoes the principles of Bauhaus pedagogy.

In the weaving workshop, experimentation with materials bridged the conventional categories of art and craft. While Worringer addresses the haptic nature of early art, he rarely discusses craft specifically, nor does he suggest that art and craft can be the same. He identifies his main concern as the "plastic arts." When he does talk about objects that might be considered craft, such as clay figurines, he connects them with an "imitation impulse." He identifies this impulse as a part of the history of handicraft, claiming, "[It] has prevailed at all periods, and its history is a history of manual dexterity, devoid of aesthetic significance. Precisely in the earliest times this impulse was entirely separate from the art impulse proper; it found satisfaction exclusively in the art of the miniature, as for instance in those little idols and symbolic trifles that we know from early epochs of art and that are very often in direct contradiction to the creations in which the pure art impulse of the peoples in question manifested itself."

Worringer never discusses weaving, and his "imitation impulse" theory does not generally apply to the medium. Nonetheless, as he is concerned with fine art, and distinguishes between the history of art and the history of handicraft, one surmises that Worringer felt that craftspeople did not respond to environmental changes in the same way artists did, craftspeople adhering to tradition or imitation rather than expressing the overarching psychology of the era through their work. Conversely, Semper did not distinguish between art and craft. Yet, like Worringer's and Riegl's widened concern for all cultures, Semper did not use conventional classical aesthetics limited to the Western European world to identify beauty or successful works. The strongest aesthetic examples in modern times, Semper believed, were created when artists applied their knowledge of materials and ancient working methods to the industrial arts. In his book *Style in the Technical and Tectonic Arts* (two volumes, 1861 and 1863), he asserted, "Stylistic correctness depends first on the natural properties of the raw material to be treated; these properties must be thoroughly known to anyone intending to produce a technical work or anyone called upon to prepare instructions, directions, and patterns for the producer."

The first two volumes of Semper's book focus on materials, working techniques, and the function of the art object. These sections pegged Semper as a materialist. In their writings,
Worringer and Riegl openly opposed Semper's materialistic theory, which emphasized technical ability over a psychological drive to create art. Important to note, Semper originally intended to publish a third volume that focused, as his biographer Harry Francis Mallgrave put it, "almost exclusively on style's external variables . . . that is, on the personal, social, and cultural conditions giving rise to style," which may have attended to psychological states as a determining factor of style. 

The traditional comparison of Worringer's notion of an artist's "will" to Semper's "skill" further extends to the usual division between plastic arts and craft, where art is created spontaneously by a "genius" and craft is based on technical knowledge and conventions. Albers continuously challenged this division through the choices made in her weavings and through the arguments made in her writings. Her aversion to these traditional categories was clearly based within the context of her education, as the Bauhaus workshops embraced aspects of both art and craft and aimed for unity between the two.

After publishing *Abstraction and Empathy*, Worringer was not widely accepted in academia because his argument lacked empirical evidence and made sweeping claims that glossed over the differences among cultures; however, his book was timely for many modern artists who already were drawn to art of the past. Worringer's book played into the growing trend of primitivism in Europe, existing earlier with artists such as Paul Gauguin (1848-1903) and contemporaneously with Pablo Picasso (1881-1973) and German expressionists like Ernst Ludwig Kirchner (1880-1938).

Worringer provided a theoretical reasoning for artists to connect modernism with abstract shapes found in ancient art by claiming that both groups felt psychologically bewildered in a world of chaos. While artists accepted him as providing a means to justify the aesthetics of modern art and their use of primitive source material, he was not initially elevating either abstraction or realism but attempting to identify and explain two dominant trends in art. However, between 1910 and 1921, he essentially became a spokesperson for modernism, in particular expressionism. Donahue established that Worringer's follow up to *Abstraction and Empathy, Form Problems of the Gothic* (1910), was a "disguised manifesto for the new art of German Expressionism," although Worringer later rejected modernism in his essay "Questions about Contemporary Art" (1921).
Art historian Magdalena Bushart draws attention to a problem pertaining to Worringer and modernism, that is that Worringer was writing before expressionism and various forms of geometric abstraction had solidified as artistic styles. He completed *Abstraction and Empathy* in 1907, and he obviously could not foresee what would develop in the art world. Donahue, however, asserts Worringer was a catalyst for modernism. With this in mind, it is essential to understand *Abstraction and Empathy* as a text that artists exploited for their own work as they saw fit, with a general disregard for the details of Worringer's argument.

Discussions of Worringer and his text appear in the scholarship on several Bauhaus artists and build a case for his influence there. It is possible that Gropius was responsible for integrating Worringer at the Bauhaus, as he was familiar with *Abstraction and Empathy* by 1913. According to Weber, *Abstraction and Empathy* was on the Bauhaus reading list for incoming students, which is where Albers supposedly first encountered the book. Art historian Peter Selz identifies numerous connections between Worringer and contemporaneous avant-garde painters in his book *German Expressionist Painting* (1957). Importantly, Selz discusses Kandinsky and Klee, both of whom taught at the Bauhaus, in terms of Worringer's thesis.

Considering the influence of Worringer at the Bauhaus, I briefly examine here the visual work of four artists at the school. Their work is formally similar to Albers's, all representing a widespread trend at the Bauhaus in using grids, bands, stripes, and other angular shapes. At the end of this section, I establish a broader context for geometric abstraction in avant-garde weavings.

Kandinsky discovered *Abstraction and Empathy* as soon as it was published. In 1908, he met Worringer, who influenced *Der Blaue Reiter* by providing an explanation applicable to the main intentions of the group, namely the expression of one's inner psychology through abstract art and aesthetics derived from "primitive" cultures. Kandinsky was initially interested in expressionistic line, which Worringer associated with early gothic art from Germany. For Worringer, the linear elements of Gothic art represented the transcendental qualities of abstraction. Like many of his contemporaries, Kandinsky attempted to use art as an escape from the chaos and fear of the world. He outlined this and the mystical aspects of his abstraction in his text, *Concerning the Spiritual in Art* (1911). Kandinsky's later work at the Bauhaus moved away from his previous use of expressionistic line and more toward geometric, hard-edged shapes. His paintings became less poetic and less decipherable as a story or narrative. Albers
took Kandinsky's class "Theory of Form" at the Bauhaus in 1925, but she was already knowledgeable about his experiments with the emotional qualities of pure shapes. Albers and Kandinsky continued their friendship through correspondences after she moved to America.

Klee, too, soon found *Abstraction and Empathy*. He generally followed Worringer's ideas, but he criticized the specifics of Worringer's argument more than did Albers. Like Worringer, Klee was interested in the art of ancient cultures and the notion of chaos in modern art; however, Klee desired to withdraw from the hardships of the world into a realm of artistic play. Albers bought a painting by Klee, *Zwei Kräfte* (1922), while still a student at the Bauhaus (Figure 1). The small watercolor is abstract with angular shapes that are marked by solid arrows, suggesting directionality. Other areas are more ambiguous and are not delineated. There is a variety of color but mostly earth tones. Troy writes that the painting indicated the two motions of weaving, vertical (warp) and horizontal (weft), and therefore, explains Albers's interest in it. From 1927 to 1929, Klee taught courses for the Bauhaus weaving workshop, which gradually altered his direction in painting. During that time, he began using the gridded structure and registers of weaving more overtly. Additionally, some of his paintings can be read from multiple orientations like a textile, and he emphasized the canvas fabric.

Klee was an important figure to Albers. He introduced her to semiotics through his studies of the pictograph, ideograph, and calligraph, aspects of which she increasingly used in America. She called him "her god" and revered his work, even though she found his teaching dense. She would come to understand Klee's teachings only after she moved to America, perhaps reinterpreting his work in a way that allowed her to form her weavings through a sense of loosened geometry like his.

There were other artists at the Bauhaus who had less to do with Worringer, but who are nonetheless important comparisons to Albers. Moholy-Nagy brought his brand of abstraction to the Bauhaus in 1923. His paintings, photographs, and graphic designs made at the Bauhaus formally correspond to the constructivist style. As such, they are geometrically abstract, emphasize reductive shapes on flat, solid grounds, and, according to the artist's beliefs, maintain a social purpose.

Moholy-Nagy arrived at the school in 1923, a few months after Theo van Doesburg (1883-1931). Van Doesburg's de Stijl manifesto, *Principles of Neo-Plastic Art* (1919), defined a style of pure geometric abstraction that presumably communicated a universally understandable
message that would lead to a utopic ideal.\footnote{48} Universalism became a widespread notion for modern artists as a way to create affinities with various groups. This is something that Albers continued to concern herself with in her writings throughout her lifetime. Van Doesburg is also frequently cited as instilling a neoplastic style emphasizing "clarity and economy" at the Bauhaus, although this has been challenged by Michael White.\footnote{49} Interestingly for the connections between geometric shapes and unity of the whole, the supposed origin for the name of the art group de Stijl was the title of Semper's text (\textit{Der Stil}).\footnote{50} The utopic aims of both constructivism and de Stijl generally parallel Worringer's claim that abstract art serves the purpose of finding a visual escape from the external world, although neither group was particularly indebted to him.

The trends of geometric abstraction did not only apply to Bauhaus painters, as Albers attests. The weaving workshop textile designers saw their use of pattern and shape as contributing to this new direction in modernism. They were not alone in this belief. A larger trend of presenting textiles as modern art instead of craft was also reflected in Paris and Russia, as is demonstrated below, where weavers also applied theoretical notions of abstraction to weaving.

The weavers at the Bauhaus aimed to create both beautiful and functional textiles. Their products emphasized abstract shapes, exploration with raw materials over basic technique, and unification of handweaving and the machine aesthetic.\footnote{51} Gunta Stölzl (1897-1983) was the workshop director from 1927 to 1931 and a close friend to Albers. According to art historian Sigrid Weltge-Wortmann, Stölzl and Albers shared similar beliefs, particularly in that simplicity of form represented clarified vision.\footnote{52} Unlike Albers, Stölzl used more color and abandoned the grid by avoiding shapes with right angles.

For example, Stölzl's \textit{Wall Hanging} (1927/28) is variegated with bright, chemically-made colors (Figure 2). There seem to be sections of patterns where similar shapes repeat, but these patterns also vary across the textile. With the combination of horizontal, vertical, zigzag, checked, and curved shapes, one gets a sense of movement and rhythm atypical to many weavings. Stölzl was working against the tendency in weaving to form square patterns, and therefore, shapes in her weavings do not always correspond to the larger whole. She differs from Albers in this regard. The result is a textile that does not seem to form a unified whole, but one that creates an overwhelming awareness of pattern and color.
Simultaneously, in France, Sonia Delaunay (1885-1979) created avant-garde weavings. Her compositions compare with Stölzl's work through their emphasis on color and bold shapes, often geometric, that do not necessarily correspond to the larger whole of the weaving construction. Delaunay wrote about her work as did Albers, but not to the same extent. Her writings tend to focus on her interests in color; however, in "Rugs and Textiles" (1925), she wrote that art reflects "the spiritual condition of an epoch," which might possibly relate to Worringer's theory of group psychology.\(^{53}\) One of Albers's Bauhaus wall hangings was reproduced in Delaunay's book *Tapis et Tissus* (1929), which included work by numerous other modernist fabric artists in Europe and Russia.

Russian artists Liubov Popova (1889-1924) and Varvara Stepanova (1894-1958) rethought wearable textiles and industrially-produced fabrics by placing emphasis on the machine and bold geometric patterns.\(^{54}\) In this sense, their work is akin to the aims of the Bauhaus and the aesthetics of constructivism, and they share philosophies similar to Albers's. Popova and Stepanova were also included in Delaunay's *Tapis et Tissus*. Meanwhile, working back in Germany, Swiss artist Sophie Taeuber-Arp (1889-1943), like Albers, was responding to the innate geometries of the weaving process. She navigated between the conventional dichotomy of high art and craft by using objective, timeless shapes with utilitarian objects such as costumes.\(^{55}\)

Like other artists at the Bauhaus and in Western Europe at large, geometric and hard-edged shapes characterize Albers's visual work in the 1920s. Her Bauhaus wall hangings are typically composed of horizontal bands or patterned rectangles. The squared nature of these shapes references the external, rectangular form of the weaving. All illusionism is banished to emphasize the flatness of the plane. Her choice to work in an austere geometric style is no doubt due to a variety of factors that influenced the Bauhaus.

The earliest phase of the Bauhaus, from approximately 1919 to 1921, sought to reestablish the handicrafts within modernism.\(^{56}\) Bauhaus artists at this time often took inspiration from expressionist tendencies in folk art or non-western traditions. Albers arrived at the Bauhaus when this design principle was changing, so her work is not representative of this trend. She retained from the earliest phase an interest in functionalism, as this aspect remained a part of the Bauhaus pedagogy in varying degrees until the school's closing.
Around 1922, partly because of the introduction of de Stijl by van Doesburg in that year, Bauhaus students began making works of art that were cubic and reductive in composition. In the weaving workshop, this meant creating wall hangings that essentially functioned like modernist easel paintings. Albers would continue to work in this mode throughout her weaving career, often drawing comparisons between paintings and textiles in her writings. Supplementing the aesthetic changes brought by de Stijl, Bauhaus administrators transitioned the focus of the school away from expressionism and toward lab work, where artists essentially became technicians. According to art historian and curator Leah Dickerman, Albers and other Bauhauslers started to implement the "logic of the grid" into their work.\(^5\) This was especially true of the textiles produced by the weaving workshop. Klee's classes for weavers included studies of matrixes, which emphasized gridded pattern. Two aspects of de Stijl encouraged the use of the grid as well: elementism, as it emphasized right angles, and integration, as a way to unite parts into a new whole.\(^\)\(^6\)

Looking at Albers's Bauhaus weavings chronologically reveals changes in her aesthetics, the formal similarities with other artists, and the evolving principles of the Bauhaus. Her earliest works, from 1922 to 1924, tend to be formed by wide bands, mostly horizontal. These works are often symmetrical, or at least equally weighted on the left and right, top and bottom. The colors are most often neutral.

In *Wallhanging* (1924), Albers created a static, unified whole by adhering to the horizontal and verticals innate in the weaving process (Figure 3). The textile can be equally divided into four similar quarters. Formally mirroring itself from top to bottom and left to right, she achieved a sense of balance. This work is devoid of subject matter. By composing a work of pure form, Albers avoided her own subjective nature, and, thus, created a weaving that she perhaps thought of as timeless or universally applicable. Like all of her Bauhaus works, this wall hanging is untitled, a feature she adds to her American weavings.

Her textiles from 1925 and 1926 bear a close resemblance to her husband Josef's so-called "thermometer paintings" and glassworks, which is likely due to their similar Bauhaus background and their artistic dialogue.\(^5\) In works from these years, narrow stripes, still mostly horizontal, vary in length and may be stacked so as to create the illusion of a vertical shape. These works are sometimes more colorful, and this is especially true of her gouache studies for weavings. As early as 1925, the colors she chose for her weavings and preliminary studies were
often a combination of primary colors and neutrals, eliciting a visual comparison to de Stijl paintings by van Doesburg and Piet Mondrian (1872-1944). Not coincidentally, van Doesburg had already made an impression on the Bauhaus during his time in Weimar, and his *Principles of Neo-Plastic Art* was republished by the Bauhaus in 1925.\(^6^0\)

*Wall Hanging* (1925) is characteristic of her work from this time (Figure 4). She still adheres to the innate geometric qualities of weaving construction; however, this work includes more pattern and variation. It brings to mind a comparison with music, which has an underlying harmony often modified throughout a song for interest. With this weaving, there seems to be a common denominator among the stripes that is perhaps doubled or tripled in width to create different sized bands of similar proportions. Thus, when several thin stripes are layered, they form a more defined rectangular shape. The repeating bands in this work create a more lively effect than her *Wallhanging* from the previous year (Figure 3). The work from 1925 also includes repeating elements at the top and bottom that act like borders.

Around 1927, her woven work became more patterned because of her use of repeating rectangular shapes. *Black-White-Red* (reconstruction of the 1927 original) is composed of twelve distinct columns and six rows (Figure 5). This format is more regular than her *Wall Hanging* from 1925 (Figure 4). In this later work, stripe-filled rectangles alternate with crosses. Four rectangles of each style repeat in every row, and two repeat in every column; however, there still is not an exact pattern continuing across the textile. Again, Albers achieves a work that conveys both harmony and variation. This work, like her *Wallhanging* from 1924 (Figure 3), can be divided into quarters that generally mirror each other. The heavily gridded composition creates balance, and it contrasts with the movement in Stölzl's contemporaneous work (Figure 2).

Albers's work at this time also reflects the third and final trend in Bauhaus pedagogy. From about 1926 until the closing of the school, Bauhaus directors, under the pressure of the government, felt the need to prove the ways in which the school was contributing to society. To do this, they encouraged students to create useful objects and industrial designs that would unite fine craftsmanship, functional objects, and modern aesthetics. Albers made designs for utilitarian objects, such as tablecloths and rugs, and prototypes to be mass-produced, such as drapery material and theater curtains. This was the main direction of her work during her last years at the Bauhaus. She continued to make utilitarian objects and fabric samples after her
move to the U.S. in 1933, but in much smaller numbers. In America the wall-hanging format became her primary mode of working.

While at the Bauhaus, Albers published her first two essays on weaving (both in 1924), which correspond with her way of working with textiles. "Bauhausweberei" ("Bauhaus Weaving") was printed in a special edition of Junge Menschen, a monthly magazine published in Hamburg between 1919 and 1927, on the Bauhaus. She begins her essay, "[In ancient times], because of the close relationship to loom and material, fabrics were created that were good, because they were woven according to the inherent properties of handicraft and material. . . . The Bauhaus seeks to restore the overall contact with the material." Thus, the weaving workshop was firstly concerned with applying traditional materials and working processes to modern art and design. The themes of working within the limits of the material and integrating ancient crafts with modern design recur in Albers's later writings.

"Wohnökonomie" ("Economic Living") appeared in a Bauhaus supplement for the women's magazine Neue Frauenkleidung und Frauenkultur, published in Karlsruhe beginning in 1913, and it addressed the New Woman in Germany. In the essay, Albers identifies the need for efficiency in the bustle of modern life, and she simultaneously asserts the Bauhaus's role in designing these more physically economical prototypes (door handles, teapots, chairs, etc.) for production. The objects of the previous decades no longer served modern needs and could not simply be improved, but needed to be redesigned completely. In this essay, she identifies the primary goal of the Bauhaus: "It wants things clearly constructed, it wants functional materials, it wants this new beauty." She continues, "This new beauty is not a style which matches one object with another aesthetically by using similar external forms (facade, motif, ornament). Today, something is beautiful if its form serves it function, if it is well made of well-chosen material." The essay relates more to utilitarian objects than fine art, but it nonetheless calls for simple forms without ornamentation.

The two essays she wrote for Bauhaus publications were primarily related to communicating the school's social objectives. While Albers certainly accepted the Bauhaus pedagogy whole-heartedly (it remained a part of her own art philosophy for the rest of her life), the articles essentially served as propaganda for the school and are limited to discussions on materials and creating utilitarian, aesthetically pleasing objects. They reaffirm Albers's Bauhaus education as it relates to materialism and functionalism, which makes her writings seem more
akin to the ideas of Semper than Worringer. Still, describing ancient working methods for contemporary artists and the need to control the modern world through order could suggest her knowledge of Worringer as well. "Bauhausweberei" and "Wohnökonomie" mostly express the goals and principles of the Bauhaus, but they also set the precedent for Albers's later writings by discussing her method of working, theoretical concerns pertaining to the mindset achieved by using ancient weaving techniques, and sustained interest in the effects of particular materials.

During her time at the Bauhaus, Albers's visual work adheres to geometry and order. In later writings, she claims order in art provides a solution to chaos, but at the Bauhaus, she offers only that well-designed, simple objects will make modern life easier. Albers's writings and weavings at the Bauhaus cannot be directly tied to a psychological response to chaos, but some of her American essays from the 1930s and 1940s specify that clear, open forms provide a space to rest one's eyes, mind, and spirit from the disorder of the modern world.

Notably, two of her American writings that address the psychic state of the modern world are reflections on the Bauhaus: "Weaving at the Bauhaus" and "On Walter Gropius." This suggests that she was familiar with Worringer's theory during her education. An essay for the exhibition catalogue Bauhaus: 1918-1928, "Weaving at the Bauhaus" (1938), begins, "In a world as chaotic as the European world after World War I . . . [a]nyone seeking to find a point of certainty amid the confusion of upset beliefs, and hoping to lay a foundation for a work which was oriented toward the future, had to start at the very beginning." For Albers and others in the weaving workshop, starting at the beginning referred to the basic materials. She explains, "They [the Bauhauslers] believed that only working directly with material could help them get back to a sound basis and relate them with the problems of their own time." These problems, the chaos of a nation, bring to mind Worringer's theory of psychology. Like Worringer's theory, Albers's solution is a "sound basis," some sort of stability afforded by working directly with materials as did ancient civilizations.

The essay "On Walter Gropius" (written in 1947 but published only in 1969 as an obituary for the Bauhaus founder) describes how Gropius created stability for students by defining a direction for them. Here, she writes, "Outside [the Bauhaus] was the world I came from, a tangle of hopelessness, of undirected energy, of cross-purposes." In a language similar to Worringer's, Albers asserts in both of these essays that her time at the Bauhaus was imbued with a sense of chaos, namely political instability caused by warfare.
In other writings, she begins essays with statements such as: "Life today is very bewildering," "Our world goes to pieces; we have to rebuild our world," and "Times of rapid change produce a wish for stability, for permanence and finality." In response to chaos, she calls for order and constancy in art as a way to regain control. Essays like "Art—A Constant" (1939) assert that through the unchanging qualities of art, society can deal with the unknown and realize transcendental truths. Science, religion, and philosophy fail to provide this sense of stability because they are either too dogmatic or they are not timeless, as the fields are always changing. She is not interested in the progression or evolution of art. Partly because of her Bauhaus education, Albers makes abstract art static through the concept of universalism. In doing so, the permanency of art imparts security from the fear that exists in the world, especially the modern world.

Art can relieve the sense of unease by its permanency but also by abstract shapes removed from the recognizable world. These reductive but distinct shapes can be grasped in the mind as an eternal symbol. Such shapes are what Worringer called a "refuge from appearances." Weber, Albers's biographer, identifies her use of visual resting places in her weavings as a link with Worringer. In *Abstraction and Empathy*, Worringer singles out pure geometric abstraction as a means to "create resting-points, opportunities for repose, necessities in the contemplation of which the spirit exhausted by the caprice of perception could halt awhile." Worringer brings this up as he begins to explain the style of abstraction. Elsewhere in his text, he establishes that abstract forms are the best way for people to create a visual space that allows them to escape the chaos of the external world. He writes, "These regular abstract forms are . . . the only ones and the highest, in which man can rest in the face of the vast confusion of the world-picture." In this statement, he does not distinguish the ancient or modern person, but from the context of his book, it is surmised that he is speaking of any society ruled by a psychic state of chaos.

Similarly in her "Designing" (1943), Albers establishes the need for "objects of art . . . which protect and serve us, give us rest and ease," the same objects that "[lead] to contemplation." This statement, coupled with several other essays that mention the need to create order in a world of chaos, lead me to conclude that Albers was familiar with Worringer's ideas and resorted to parts of his theory in her own philosophy and work. Although Weber states
Albers read *Abstraction and Empathy* at the Bauhaus, this cannot be determined from Albers's writings or her archives.

Being a part of a larger group at the Bauhaus who were certainly familiar with Worringer, such as Klee and Kandinsky, provides circumstantial support that Albers was aware of his ideas during that period. Albers may have found rationalization in Worringer's modernist explanation for abstraction through group psychology. Like other artists she did not use Worringer's text as an explanation of the history of art, but she related it to the aesthetics and purpose of her own work. At the Bauhaus, she developed an interest in geometric abstraction as way of ordering her compositions and visually coping with the stresses of the world. Justification for these interests suggest her recourse to the writings of Worringer, especially to his idea of visual resting places.

As demonstrated in this chapter, a combination of factors contributed to the intellectual atmosphere surrounding the Bauhaus and its pedagogy. These include an increased number of craft and applied arts workshops, a concern for design in industry, and an underlying theoretical reliance on Semper's materialism and functionalism. Worringer's theories offer one rationale for modernist abstraction, but he only addresses the plastic arts. Semper's ideas may have resonated more with Albers, as he attends specifically to weaving in his writings; however, there is little evidence for his direct influence on her in the scholarship. Still, I suggest Albers found aspects of these intellectual figures' theories within the Bauhaus sphere, and she applied their work, along with her education, in a way that unified art, craft, and design through geometric abstraction.

After Albers moved to America, the abstract art of ancient cultures became increasingly important in her weavings and writings. She relaxed the geometry in her work. Her writings show an increased interest in chaos and modern applications of ancient working methods. In the U.S., she expanded beyond Worringer's text in terms of non-western cultures and the haptic nature of weaving. Her personal philosophy for weaving, which developed within the context of the Bauhaus, became fully realized after she began working at Black Mountain College (1933-1957), an experimental liberal arts school in North Carolina. With her transition from Bauhaus student to professional artist, her philosophy shifted to stress her understanding of pre-Columbian craftwork and reflected her new American context.
Chapter Two

Albers's Move to America and Her Return to Beginnings

Albers encountered ancient textiles during her studies in Germany, but moving to the U.S. in 1933 provided her with more accessibility to these artifacts. According to Troy, the Bauhaus owned examples of ancient fabric samples, particularly from Andean countries, emphasizing Wari and Tiwanaku cultures (Middle Horizon period, A.D. 600-1000), and some Bauhauslers in the weaving workshop chose to imitate the iconography from these samples. Albers did not participate in this trend, but she was interested in ancient weaving constructions. At this early stage, Albers was drawn to the artifacts of ancient Peru. She acquired books written by German archeologists working in Latin America, notably Walter Lehmann's *Kunstgeschichte des Alten Peru (The Art of Old Peru)* (1924). She also visited anthropology museums, such as the Berlin Museum für Völkerkunde (now the Ethnologisches Museum), which housed extensive pre-Columbian collections.

The abstract patterns, pure forms, techniques, and visual language of the ancient Peruvian textiles resonated with Albers. Simultaneously, it suited her Bauhaus style and Worringer's thesis that aligned geometrical shapes with both ancient and modern cultures. Albers maintained elements of the Bauhaus mode of working, such as geometric design and concern for utility, throughout her life; however, she abandoned uniform texture and the mechanized working process in her personal art after 1933. By working on a handloom, Albers achieved the tactile quality of the ancient weavings while continuing to use geometric shapes.

In this second chapter, I assert that, with her distance from the Bauhaus atmosphere, Albers began to turn away from Worringer's ideas, particularly from his claim that the materials have little impact on the final work and his disassociation of craft and art. I argue that Albers countered these notions in two ways. First, with her personal study of ancient weaving cultures of the Americas, Albers sought to work as closely as possible with the raw materials and basic constructions of her medium. Second, through playful experimentation that derived from Bauhaus pedagogy, she emphasized the haptic nature of the materials and final fabric in her work and in her teaching. Both aspects intertwined with her belief that the modern world needed
contact with the original materials to invoke a clarified state of mind and to provide stability in a world of chaos, which relates to Worringer's theory on a broad level.

Albers differed from most artists and intellectuals of the early-twentieth century in her understanding of "primitive" cultures through the terminology she used, her interest in exhibitions, collecting of ancient artifacts, and friendship with researchers in anthropology. In this chapter, I outline the main avenue of research on Albers in the past decade, which intersects with studies of primitivism and postcolonialism. Attending to her collection of pre-Columbian textiles and miniatures, I set up a discussion of Albers's weavings. To conclude this chapter, I look closely at Albers's writings as they pertain to Peruvian textiles, experimentation, and work with materials. Chronologically, this chapter will focus on stylistic changes and continuances occurring in Albers's written and woven work in the decades following her move to America.

During the 1930s in both Europe and America, many artists adapted formal elements from so-called "primitive" cultures to their modernist aims, as had vanguard artists from Gauguin to Picasso to the German expressionists before them. Complex political and socio-economic factors resulting from the end of World War I, including renewed colonization efforts and realignments of administrative power, as well as the rise of Nazism and the consequent emigrations of Jewish intellectuals and artists, led both to trans-Atlantic cultural exchanges and to national obsessions with collective origins. European artists continued to derive inspiration from African and Pacific cultures, while a number of artists and arts professionals in the U.S. turned their attentions to their own hemisphere, looking to the work of ancient and tribal peoples from the Americas. Primitivism based upon African prototypes existed in this new context, particularly through the work by the Harlem Renaissance artists and intellectuals, but this was paralleled by a primitivism dependent upon an interest in the indigenous cultures of the Americas, a heritage separate from that of Europe.

This heightened interest in the artifacts of ancient cultures seemingly helped traditional artisanship rise to the level of fine art in both Europe and America. Albers participated in and promoted this movement by aligning her visual work with ancient Peruvian weavings through her working process, construction techniques, and writings. She further engaged with this dialogue through the craft magazines in which she published her writings. For example, she submitted three essays (in 1943, 1961, and 1969) to *Craft Horizons*, a magazine that often
featured articles about non-western art and craft's relation to the conventional distinctions of fine and modern art.\textsuperscript{78}

Where Albers was specific about the culture she was interested in and praised, Worringer had been much more general, using monolithic terms in his writings that group together all ancient and "primitive" people. In \textit{Abstraction and Empathy}, he mentions twice the "shimmering veil of Maya," but otherwise neglects ancient American art in his discussions.\textsuperscript{79} Albers was never this vague when speaking of the ancient Peruvians. She singled them out and elevated their work, calling their artifacts "art" and claiming that they invented everything we know about weaving, aside from contemporary chemical dyes, synthetic fibers, and mechanical production.\textsuperscript{80} As Albers saw it, modern people had much to learn from ancient Peruvian culture, particularly in the realm of design. While Worringer may have helped stimulate Albers's interest in the art of ancient cultures, he is not a model for her study of pre-Columbian cultures. Instead, her interest in the subject is primarily personal.

As Fiber Artist Ed Rossbach describes, when Albers arrived in America, her style of working was viewed as foreign and intellectual.\textsuperscript{81} This, however, added credibility to her work because European modernism was believed to be a step ahead of America in the 1930s. The way she discussed ancient cultures was cautious and scholarly, as opposed to someone like the American weaver Mary Atwater who, in Albers's eyes, carelessly borrowed iconography from other cultures. Atwater exemplified American craft-revival traditions, and she could be called Albers's rival. Her "recipe" books diagramed Peruvian patterns to be replicated by modern hobbyists, and she adamantly denied that weaving could be art.\textsuperscript{82} Albers and Atwater had a written exchange on the pages of \textit{The Weaver}, each criticizing the other's work.\textsuperscript{83}

Another way Albers specified her interest in pre-Columbian cultures was by actively seeking out relevant exhibitions, books, and classes. She saved newspaper and magazine articles on Peruvian artifacts and gallery displays, which are now in the Josef and Anni Albers Foundation archive.\textsuperscript{84} When her husband worked at Yale University in the 1950s, she took classes with the renowned pre-Columbian scholar George Kubler. In his class she wrote a paper called "A Structural Process in Weaving: A Suggestion Applied to a Weaving Problem of a Remote Past and Applicable Today" (1952), later published in her book \textit{On Designing} (1959). The paper provided her explanation of how ancient Peruvians of the Paracas culture (Early Horizon period, 900 B.C.-A.D. 200) were able to weave extremely large textiles, a problem
facing all weavers as the dimensions of their looms typically limit their work. In this essay, Albers describes the various loom types used by the Peruvians and the dimensions of textiles found in burial contexts. She suggests the largest textiles were made with double weaves, tubular weaves, and elaborations on these techniques with the help of heddle rods. Essentially, Albers concludes that layers of cloth were woven individually, but simultaneously, on a single loom, joined at an edge, and unfolded when removed from the loom to create a much larger textile than normally possible. She corresponded with Junius B. Bird, an important pre-Columbian archaeologist and Andean textile specialist, about the structure of ancient weavings, and reworked this essay she wrote for Kubler's class after a lengthy discussion with Bird.  

Within a year of moving to the U.S., Albers visited Mexico and began acquiring ancient textiles (Figure 6). She sometimes cut these samples apart to share with other collections or to study their constructions. She diagramed with a specialized notation in *On Weaving* how these textiles were made, explained these techniques in her writings, and replicated them in her own weavings. Her collection expanded to 113 Andean textile pieces, representing a diverse crosscut, which Kubler helped catalogue.  

She also collected ancient miniature figurines with her husband. Like the textiles, she found these artifacts in local markets, most frequently in Mexico, as described in her introductory essay for *Pre-Columbian Mexican Miniatures*, although some came from galleries specializing in "primitive" art, such as Altman Antiques. With this book, small pre-Columbian objects were reproduced in a large format to show that the miniatures could compete with bigger, and more popular, sculptural works. Although she argues in her essay that great art does not depend on scale, the layout seems to contradict the intentions of her book.  

In the past decade, the main avenue of research on Albers, led by Danilowitz and Troy, focuses on her knowledge of pre-Columbian textiles and artifacts. Evident by the language she used in her writings, she understood the ancient Peruvians as a specific group, not generalized with other ancient weaving cultures. It should be noted that Albers rarely identified specific cultures within her larger notion of "ancient Peru." This is partly due to the fact that chronologies had not been firmly set for these cultures, and modern archaeology was still relatively new to the region. Notable also, the cool, dry climate of Peru preserved many textiles for thousands of years, where few have survived elsewhere. Thus, availability of fabric examples likely shaped Albers's interest. It is also necessary to recognize weaving in Latin
America as a living tradition. In addition to ancient examples, Albers acquired textiles from modern Mexican cultures, and contemporary weavers there taught her how to use a backstrap loom and expanded her knowledge of several textile constructions. In turn, she taught these techniques to her students at Black Mountain College.  

Two such constructions Albers learned on her travels in Latin America were supplementary weft and leno weaves. The supplementary weft (also called floating weft) involves weaving nonstructural threads into the textile as one is working, so as to create the effect of a drawn line. This line may be more organic as opposed to geometrical because it need not follow right angles. With supplementary weft one can include freeform linear elements into a design. A leno weave (also called open weave) is created by pulling apart some of the vertical (warp) threads. As altering the warp affects the structure, gaps are created in the weaving. With this technique, the textile is not a solid plane. Leno weave is not readily possible on a machine, and the use of handwork on a loom is very evident with this weave. Ancient pre-Columbian weavers used both of these techniques, and Albers owned examples of each.

Common motifs in pre-Columbian weavings include stripes, checkerboards, meanders, and repeating pictographic figures. These abstract patterns of hard-edged forms maintain the geometry innate in the weaving process. Amy Rodman and Vicki Cassman in their study "Andean Tapestry: Structure Informs the Surface" (1995) describe the structure of textiles unique to four cultures of the Peruvian highlands: Recuay (200 B.C.-A.D. 500), Wari (A.D. 500-900), Tiwanaku (A.D. 400-1000), and Inca (A.D. 1440-1532). Bold color and designs characterize these Andean weavings, which are understood to have carried societal value, particularly by signifying the elite who wore elaborate tunics to symbolize their power.

Scholars do not provide a time span for the ancient Peruvian cultures that Albers preferred. Broadly speaking, weaving technology developed in the Andean region around 7000 B.C. The last textiles of the pre-contact era belong to the Inca Empire, which was claimed by the Spanish in 1532. While Albers studied the different groups from this area and occasionally distinguished them, she often wrote about the "ancient Peruvians" as a collective group from the Andean region before conquest, thus spanning over 8000 years. She also collected some contemporary weaving examples, further extending her period of interest.

Albers's collection of Andean textiles is not publically documented, and only 28 are reproduced in the literature on Albers or in her On Weaving (Figure 6). It is unclear if these 28
textiles and fragments are representative of Albers's larger collection of 113 pieces. Of the textiles that are published, she owned two Nasca fragments (Early Intermediate period, A.D. 200-600) and two fragments from the Middle Horizon period (A.D. 600-1000), one of which is specifically designated as Wari. Rebecca Stone-Miller and Gordon F. McEwan describe such weavings in their essay "The Reproduction of the Wari State in Stone and Thread" (1990). Wari textiles tend to alternate plain and patterned areas. Their compositions are typically organized according to an underlying grid and four to eight columns. Motifs are repeated but with variation. In Albers's Wari piece, one half depicts a stylized human head from the front, and the other half is a series of diamonds that alternate color and are marked with cross-shapes. Neither of these features specifically appears in Albers's work beyond the general notion of geometric and repeating shapes, although that is a critical aspect of her weavings.

Three textiles published from her collection are Incan or from the Late Horizon period (A.D. 1440-1534). Joanne Pillsbury describes such characteristics in her study of Inca tunics. She identifies a strict sense of geometry, blocks repeating a small number of motifs, abstracted animal and human imagery, and four major designs: key style, diamond waistband, checkerboard, and tokapu (rectangles inclosing other geometric shapes). Albers's three pieces include motifs that could be read as animals, perhaps birds or snakes, or geometric patterns. Decorating the borders are wave, meander, and stepped patterns. One piece is identified as a garment fragment, one a band fragment, and the other is unidentified. Two are primarily red and yellow, while the other unusually incorporates blue. Albers's three examples do not appear to come from the elite Inca tunics, and therefore, do not represent any of the four design patterns identified by Pillsbury.

The majority in her collection that has been published, however, is from the Late Intermediate period (A.D. 1000-1476), numbering eleven fragments mostly from the Chimu and Chancay cultures and focusing her interests on several hundred years. Although important weaving cultures, they are not discussed in Rodman and Cassman's study, which may or may not carry significance. Albers may have collected these examples because of availability or personal preference. All share similar colors of reds, yellows, creams, and black. Many are highly patterned with small motifs repeating with some variation. Motifs tend to be stylized birds and human figures. A few of the pieces come from tunics and one is a net fragment, but most are unidentified with regard to their original function. One is a painted textile.
Six lesser-related pieces reproduced from her collection include a lace work from an unidentified culture in ancient Peru, several undated lace works from Mexico, and an ancient looped bag from Salta, Argentina. Another is a poncho of unknown date from Cuzco, Peru. It appears to be of a much later date than the other samples because of its complete condition and atypical color. The poncho likely reflects the contemporary weavings Albers also collected.

In relation to Albers's own woven work, she borrowed aspects from these ancient textiles that applied to her existing idea of art. Some of the patterns found in her collection of Late Intermediate pieces, for example, stripes, bands, dots, zigzags, meanders, checks, and an underlying grid, reappear in her works like *Pictographic* (1953) (Figure 8, left). Several fragments in her collection are composed of two colors, creating a tension between foreground and background, a technique Albers also used in her work, such as in *Two* (1952) (Figure 10). Interestingly, in Stone-Miller and McEwan's study of Wari textiles, the authors suggest grid-like compositions were a way to signify the organization of chaos. This recalls the need to order chaos described by both Albers and Worringer in their writings.

Albers did not try to replicate ancient American textiles but integrate some of their formal and structural features. She tends to deviate from the ancient models in her use of color. Pillsbury describes the Inca palette, which is applicable to other pre-Columbian groups, as primarily red, yellow, ocher, brown, and black. Green, white, blue, and purple are rare in Andean textiles, but they appear frequently in Albers's American work.

The ways that Albers relied on ancient textiles were partly derived from formal characteristics and weaving techniques, but also from what Albers perceived to be the ancient way of working, where one artisan created a weaving from the beginning to end instead of the piecemeal method used in modern industry. She tried to replicate this in her work by directly manipulating the raw materials on the handloom and by considering the seamless integration of supplies, design, and final product before beginning a textile. The compositional elements in her American weavings became more tactile and organic because of her use of the handloom and ancient construction techniques, both of which allowed her to emphasize the hand of the weaver. Borrowing formal characteristics, working methods, and types of constructions from ancient weavings are three ways Albers depended on earlier textiles to create her own work.

The wall hanging *Monte Alban* (1936) was created a few months after her first trip to Mexico, which included a visit to the eponymous pre-Columbian archaeological site in Oaxaca.
In *Monte Alban*, Albers employed the supplementary weft to create the mountainous shapes. She inserted individual threads by hand among the other more repetitious construction of the weaving's structure. These freeform linear elements, unique to her work at this time, pull the viewer's eyes across and down the textile. Albers used the supplementary weft more frequently in her later works, particularly those related to the theme of language.

Around this time, Albers began to give her weavings titles. Here, the title provides an entrance to interpreting the work. The earth tones and suggestive lines further indicate the landscape or the layers of ruins at the archaeological site. Referencing the pre-Columbian world through construction technique, title, and, presumably, subject matter likely appealed to her contemporaries through the concept of primitivism.

Unlike her Bauhaus work, *Monte Alban* is more organic in its handling (compare Figure 4). This is most noticeable with the inclusion of the supplementary weft, but true of the geometric forms, which seem handmade as opposed to machine-made. If one were to imagine this work without the supplementary weft design, the continuation of her Bauhaus format would be clearer. It is still essentially composed of columns and rows: a vertical dark rectangle between two lighter ones, crossed by faint horizontal bands. Her interest in geometry is maintained through the border and registers. The border in *Monte Alban* is an unusual feature for Albers's work, and here it functions like margins on a page.

This last visual semblance is not accidental. According to Troy, Albers appreciated the visual languages of the pre-Columbian cultures. She likewise desired her works to be read visually. Albers's later works, like *Pictographic* (1953) and *Code* (1962), continue to suggest the idea of language through mark-making and titles.

The title of *Pictographic* (1953) implies a language, but it is obviously one invented by Albers (Figure 8, left). It could relate to a number of world languages, including pre-Columbian cultures of Mexico such as the Maya who used pictorial glyphs. Albers made this weaving the same year as her only trip to Peru, perhaps suggesting her consideration of that culture's language, which was woven into textiles as motifs, as opposed to a conventional written language. In this work, it is as if Albers used the dark squares to stand for letters or syllables, combined them to make words, and indicated their syntax by their organization and x's that draw connections between the shapes. Each shape seems to repeat and create a visual pattern, but
upon closer inspection, one realizes that no two shapes are alike. She placed these shapes on a flat ground made of faint squares the same size as the "letters" to create a unifying grid.

Similarly, the title of *Code* (1962) clues viewers in to the language aspect of the work (Figure 8, right). This weaving is typical of her later weavings that use a supplementary weft to indicate words or script. The linear and dotted elements, along with the title, bring to mind Morse code or some other abbreviated language. Like *Pictographic*, it is a language of Albers's invention.

Her interest in semiotics resulted from a combination of the teachings of Klee at the Bauhaus, who emphasized the pictograph and ideograph, and her knowledge of pre-Columbian cultures, being familiar with artifacts like the *quipu*—knotted strands of thread used by the ancient Andeans to record information. While not decipherable, many of her weavings suggest symbols related to language, often an ancient language. Hers are invented and do not reference a specific time or place.

Several factors, including her knowledge of ancient construction techniques and continuing interest in playing with materials, led to Albers's more organic style in her American work. Works like *Development in Rose I* (1952) fully display this quality and severely contrast with her earlier Bauhaus wall hangings (Figure 9). *Development in Rose I* is a complex leno weave, which, as described above, creates a textile plane that is not solid. This weave is one Albers learned from ancient American examples. The geometry is very subtle in this work; an underlying pattern of horizontal and vertical stripes is overlaid with a lyrical variation on top. Here, she is experimenting with loosening the grid and the weaving process's tendency to create geometric shapes, although both aspects quietly remain as in *Monte Alban* (Figure 7). In the method of a painter's study, particularly evocative of the color analyses in her husband's *Homage to the Square* series, begun in 1949, she explores the shades of a single color. In this case, she completed two variations in rose, its companion piece being *Development in Rose II* (1952).

Like the ancient Latin American weaving constructions, many common motifs in the ancient examples Albers owned appear in her work, most notably the meander and the checkerboard pattern. Her wall hanging *Two* (1952) utilizes both of these elements (Figure 10). In this weaving, as the title indicates, two groups of meanders spread across the surface. These meanders, however, are a variation on those typical in pre-Columbian art, which are more regular. The meanders here do not create a pattern, only the sensation of repetition.
Additionally, where ancient examples used checkerboard patterns with high contrast, Albers's checks that form the structure of the weaving are muted and subtle. Two is geometrical like the majority of her work, but there is still a noticeable tactile quality present in her American weavings that is absent from her earlier Bauhaus textiles.

Through color and pattern, Albers played with figure-ground relationships in Two. The surface design suggests an exploded view of the weaving structure itself, the meanders mimicking the interlacing of threads. Troy suggests two source materials for this weaving, namely de Stijl aesthetics lingering from her time at the Bauhaus and a specific Wari textile from the Yale University Art Gallery Collection that Kubler introduced to Albers. In Troy's way of thinking, de Stijl paintings and Wari textiles share a design aesthetic of intricate geometry that appears in Albers's work. If Troy's idea is correct, Albers may have consciously linked Peruvian and Bauhaus textiles, and ancient and modern art, in Two.

Albers's distinct understanding of pre-Columbian cultures extended to her writings. Her American essays frequently mentioned the ancient Peruvians, and she dedicated her book On Weaving to "my great teachers, the weavers of Peru." Constructing Textiles (1946) presents her most lively comparison between ancient and modern weavers. In the essay, she speculates what an ancient Peruvian weaver would say about weavings today. First Albers offers that he (she always used masculine pronouns, even though it is speculated by Troy that most ancient weavers would have been female) would be amazed at the mechanized process that can create textiles with rapid speed and great accuracy. He would be intrigued by bright chemical dyes and the capabilities of synthetic fibers. She offers, "The wonder of this new world of textiles may make our ancient expert feel very humble and may even induce him to consider changing his craft and taking up chemistry or mechanical engineering." Yet, she follows this by saying that the ancient weaver would realize the monotony of our fabrics and the simplicity of our industrial weaves. He would also criticize the division of labor between designer, materials, and machine. Then, she posits, "He would have a good chance of regaining his self-confidence. . . He himself would feel that he had many suggestions to offer." She ends her essay by suggesting that art and industry can work together by bringing the designer back in contact with the raw materials.

Albers always included ancient Peruvian weavers in her historical writings, for example "The Loom" (1965), on the history of weaving equipment, and "Tapestry" (1965), on the history
of a specific method of working. In "Early Techniques of Thread Interlacing" (1965), she
discusses the types of fabric made by ancient weavers from the Americas and passing this
knowledge on to her students. In this essay, she writes, "I find it intriguing to look at early
attempts in history, not for the sake of historical interest, that is, of looking back, but for the sake
of looking forward from a point way back in time in order to experience vicariously the
exhilaration of accomplishment reached step by step. . . . I try to take my students also on this
journey back into early time, to the beginnings of textiles." This hypothetical return to earlier
times was essential to her Black Mountain College pedagogy.

Starting at the beginning involved experimentation, which was exactly how the
Bauhausers went about their work. They tested the capabilities of their materials; however, this
did not mean that they simply used materials in unusual ways. By working within the limitations
of the materials, the artist has the necessary boundaries to create organized and harmonious
compositions. Albers's method of teaching at Black Mountain College continued this element of
Bauhaus pedagogy, and she described it in her writings, for example "Work With Material"
(1937), which was the first essay she wrote in America and which was published in the Black
Mountain College Bulletin. Material exploration is a common theme in her writings, from the
first ones at the Bauhaus (1924) to her last published works in On Weaving (1965), and it is one
way that she associated her work with that of ancient Peruvian weavers.

Both Bauhaus and Black Mountain pedagogy emphasized the haptic nature of materials.
At the Bauhaus especially, ancient cultures were aligned with haptic perception. Worringer, for
instance, believed that ancient people depended on their sense of touch to reassure their
understanding of the world. Moreover, because the ancients favored abstraction, one surmises
that Worringer equated the haptic and the abstract. Albers felt that modern artists and industrial
designers would benefit from exploring the haptic qualities of weaving materials. She stated in
the essay "Art–A Constant," "Work with material, a material of our tangible surroundings, will
give us some insight into those principles of nature to which we all are subjected." This
suggests that she believed modern people could better understand the external world through
close contact with raw materials.

She writes that she fears modern society is losing the sense of perceiving textures, that
our ability is "degenerating" because we do not have to work with raw materials. This is a
result of mass production, which makes everything for us. In her essay "Tactile Sensibility"
(1965), Albers recalls some of the experiments she made at Black Mountain with her students. With these studies, students organized natural elements (seeds, grasses, twigs, leaves, etc.) into "textile orders" or patterns that suggested a weaving. These studies also imply the human tendency to apply order on nature as a way to control chaos.

In the same essay, she defines matière as a perceptual sensibility of the surface of the material, and she distinguishes it from structure and function, although weaving ultimately depends on both (material and matière) for the structure may also be the surface. This use of the term matière and her interest in the haptic derives from the Bauhaus, and here it is applied in the context of her American work. She tells readers that these experiments with materials and tactility are not ends in themselves but are intended to generate a new vocabulary that can be applied to true weaving. The results of studies in heavy texture and underlying order appear in works like Development in Rose I (Figure 9). For Albers, this move toward tactility in her American weavings resulted from contact with handmade pre-Columbian artifacts and a developing appreciation for play with materials attributable both to ancient artisans and the Bauhaus mode of working.

This concern over materials and process of working was the same for both art and craft, Albers asserted. She desired to make "no distinction between the craftsman designer, the industrial designer, and the artist–because the fundamental, if not the specific, considerations are the same." Instead, she stressed that the difference was the final product. Art presented a "vision," something beyond the material object, and offered "resting places" for the contemplative mind. Crafts resulted in objects that were primarily useful, but with the rise of industry, she claimed that the contemporary Western world had little use for craft products. With this distinction, Albers was firstly concerned that visual works avoid the "twilight zone" between craft and art. This was a challenge Albers faced throughout her life, struggling to identify herself as an artist using craft materials and techniques. For Albers, the ancient craftspeople were undeniably artists, and their work served as a touchstone for her weavings and her belief that art, craft, and design were equal. What was most important about ancient craft was applying this working process to art and industry.

Like Albers, Semper was interested in early craftwork for its direct connection to materials. Semper was primarily concerned with how materials and technique influenced the construction of artworks. Neither Albers nor Semper sought to return to earlier times, but they
suggested modern artists and designers could expand their artistic language by applying ancient methods of working to contemporary products. For both Albers and Semper, craft and the machine could work together to convey clear constructions.

In *Abstraction and Empathy*, Worringer claims, in opposition to the Semperians, that materials have little impact on the final work.\(^\text{111}\) For Worringer, the driving force of art is the maker's "will," not the materials. This is something that Albers challenged in her writings. For example, in the essay "Designing as Visual Organization" (1965) she begins by identifying geometric order as characteristic of humankind, but she then turns to the specific case of designing a wall-covering material for a museum. In doing so, she describes the process of selecting a certain type of thread because of its unique qualities that would assist the function of the final product, here, one that will not fade or collect dust. Similarly, she factors in the technique best suited for creating a wall covering, which she concludes is a plain weave because of its simple construction and durability. Thus, it is not simply about what an artist or designer wishes to create but what the materials can do best. In the same way, the limitations imposed by craft techniques prevented one from creating a work that was overly subjective. She abandoned Worringer on the point of artistic volition to assert her own claims about her medium and materialism, taking up Semper's viewpoint instead and using Peruvian examples as her prime model.

Not only did Albers reject Worringer's argument for the overriding factor of an artist's "will," she also believed that craft could be art, or that craft techniques were applicable to fine art. Worringer did not address craft in *Abstraction and Empathy*, choosing instead to focus on the plastic arts. When Worringer discussed an object that might be considered craft, for example an ancient clay figurine, he connected it with imitative naturalism as opposed to abstraction.\(^\text{112}\) Thus, one concludes that Worringer considers ancient *craft* to be more empathic or optic, while ancient *art* is more abstract, material based, and haptic. Similarly, he believed craftspeople did not respond like artists (to a sense of "will") because they adhered to craft traditions. Curiously, Albers confirms this through her interests in universalism and applying ancient working methods to modern art and design. Ironic as well, Worringer thought that ornament was the clearest display of style, but ornament seems to be more conventionally associated with craft than the plastic arts.\(^\text{113}\)
Albers, like Semper, did not make a distinction between art and craft. She directly takes on this traditional split between craft and art in "Work with Material," where she asserts that weaving "may end in producing useful objects, or it may rise to the level of art." As she distinguishes it, craft first serves a practical need, while art primarily serves a spiritual need (although it may be a utilitarian object as well). Where Worringer addresses the haptic nature of early art, ignoring craft almost entirely, Albers extends the notion of tactility, perhaps still paired with abstraction, as does Worringer, to include both the ancient and modern craft of weaving.

Through her interest in early art, raw materials, the weaving methods of Peru, and playful experimentation with materials, Albers linked Worringer's theory of psychology, Semper's materialistic determination, ancient textiles, and modern art. These connections became possible after Albers moved to America and became more involved with ancient American textiles as source material. Her collection of ancient art reaffirmed her admiration for working truthfully with raw materials. Her work in the U.S. incorporated ancient constructions in ways that depended upon her prior knowledge of geometric abstraction and a haptic interest in materials. By regaining direct contact with the possibilities of material through ancient techniques of handweaving, Albers returned to the elemental nature of working with threads, and, in her mind, escaped the bewilderment of the modern world. In her writings, she spoke of returning to the beginning of the working process and understanding it from a primal mindset so as to improve the art and industrial designs produced in contemporary times. It was only after her Bauhaus education and experiencing firsthand the artifacts of Latin America that Albers united this into her personal philosophy. Albers was able to legitimize her medium in America because of her Bauhaus education, which equated craft, design, and fine art, but she also depended on her writings and rooted her work in the traditions of the ancient Peruvians to make her work relevant.

Albers's use of order in the form of the grid relates again to her emphasis on truthful constructions in weaving. In the case of weaving, working honestly with the materials meant to show the process of forming: the crossing of threads at right angles. In doing so, she calls for truth to materials comparable to other fine art forms, claiming in "Fundamental Constructions" (1965) for example, "Just as a sculpture of stone that contents itself to live within the limits of its stone nature is superior in formal quality to one that transgresses these limits, so also a weaving that exhibits the origin of its rectangular thread-interlacing will be better than one which conceals
its structure and tries, for instance to resemble a painting. Adhering to the inherent quality of the medium and materials resulted in a truthful work. Albers's use of the grid was associated with avant-garde trends in geometric abstraction in Europe and the Americas; however, the grid also had direct ties to the ancient crafts. Through the grid, Albers expanded her concept of universalism that linked ancient and modern art, a topic that is central to the next chapter.
CHAPTER THREE

PAN-AMERICAN SOURCES OF UNIVERSALISM

Albers and other modernists of her time depended on a preexisting principle of universality as a rationalization for their abstractions. Both Albers and Worringer relied on a universalist justifications to make ancient artifacts applicable to modern art. Universalism firstly implies an understanding across geographical regions; however, for many artists the term implies timelessness as well, meaning that cultures across time and space can understand and appreciate the same work. Like universalism, timelessness emphasizes a lasting aesthetic as distinguished from popular taste. Albers allowed that all art carried the stamp of the time in which it was created, but the strength of a work was in its ability to span centuries or millennia.

Albers's understanding of universalism was rooted in her Bauhaus education and the intellectual atmosphere in early-twentieth-century Germany. At the Bauhaus, universalism was manifested as good design based on objective forms as opposed to personal taste. Universalist principles were particularly associated with de Stijl, neoplasticism, concretism, and constructivism, constructivism being the broadest term with the greatest global impact. Constructivism spread across the West as European artists migrated to America and American artists studied and fought in Europe. In America Albers continued the dialogue with many of her Bauhaus peers through Black Mountain College and her husband's work at Yale University, but there was also a strain of pan-American constructivism at midcentury. This pan-American style combined universalist theories with ancient American art in a way that likely appealed to Albers and that, I argue, are paralleled in her weavings and writings.

In the previous chapter, I discussed the ways in which Albers turned away from Worringer's concept of art later in her life to assert her own philosophy applicable specifically to her medium, which incorporated textile constructions originated by ancient Peruvians. In this chapter, I build on that argument, asserting possible contemporary pan-American sources for Albers's interest in the universal. First, I outline the principles of universalism available to Albers primarily through constructivism. I establish the context in which modern art developed in Latin America just prior to midcentury, turning my attention to the work of Torres-García, an
Uruguayan artist who founded a style known as Constructive Universalism. Next, I discuss the grid as a way of organizing space that is both avant-garde and linked to ancient craft and architecture. As examples, I look at the work of Torres-García as well as the North American artists Adolph Gottlieb (1903-1974) and Sheila Hicks (1934-) to show the artistic exchange occurring between the Americas. Finally, I contextualize Albers's interest in universalism and the grid with modernist trends in Latin America by discussing her contacts with modern artists, her travels, and the Alberses' dialogue with Latin American art through their exhibitions and teaching. A look at her weavings and writings provides further proof of this exchange. By situating Albers within the discourse of the constructivist style present in both North and South America, I argue pan-American sources of universalism afforded her another way to make her weavings relevant to her modernist audience and that these sources shaped her work from the 1940s through the 1960s.


Many artists in Latin America during the early- and mid-century worked in a constructivist style and desired to convey universal aspects in their art. Major movements toward avant-garde trends in Latin America began around Modern Art Week in São Paulo in 1922, which showed art by Brazilian modernists. The implication during the 1930s and 1940s of the exhibitions in São Paulo was a general break away from figurative traditions. In 1935 the Asociación de Arte Constructivo was founded by Torres-García, who sought to combine European modernism and pre-Columbian symbols. In 1944, the single issue of Arturo, revista des artes, a literary journal that included art by some Latin American artists, such as Torres-García, but also the European modernists Kandinsky and Mondrian, was published. This resulted in the formation of several art groups by the following year, notably Madi and Art Concreto-Invención, both of which remained influential through the mid-1950s. The Madi, based in Argentina and Uruguay, were more experimental in their work, drawing comparisons to
Dada. Arte Concreto-Invención generated constructivist-based art primarily in Argentina and brought together many artists in South America who worked in a concrete or constructivist style. The artists from these different groups sought international relevance with their work by adopting a European language of avant-gardism and fusing it with local elements.119

The trend toward European abstraction in the Americas was shaped in part by artists escaping their homeland during the World Wars. Mondrian, Moholy-Nagy, Gropius, Marcel Breuer (1902-1981), Mies van der Rohe (1886-1969), and others fled Europe for the U.S.; however, some, such as the German-born sculptor Gego (Gertrude Goldschmidt, 1912-1994), settled in Latin America. The Alberses fled to the U.S. in 1933, but a few years later, in 1939, Anni's parents moved to Mexico to escape Nazi Germany.120

Several museums of modern art were established in Latin America in the 1940s and 1950s, including those in São Paulo (1946), Rio de Janeiro (1948), and Buenos Aires (1948), for example.121 These museums were particularly interested in showcasing local examples of modernism and drawing attention from North America and the global art world at large. Latin American art, both ancient and modern, was increasingly shown in the U.S. "American Sources of Modern Art" (1933), organized by Holger Cahill at the Museum of Modern Art, was just one important survey that attempted to bridge the two continents by looking at how ancient art of the Americas influenced modern artists, primarily from Europe and Latin America.122

With the construction of modern art museums in Latin America, there were also more exhibitions of work by European modernists, such as the important exhibition of Max Bill's work in 1951 at the Museu de Arte de São Paulo Assis Chateaubriand. Bill (1908-1994) was a Swiss artist and designer and the founder of the Ulm School of Design. His Tripartite Unity (1948-49) was subsequently shown at the first Bienal de São Paulo (1951), and it won the highest prize for an international sculpture.123 This work became a popular example of the concrete style in Latin America. Earlier in the art review Art Concret (1930), van Doesburg set out his manifesto of concrete art, declaring first that "art is universal," but that it is also constructed of purely objective forms and is not derivative of nature.124 One distinction drawn between the European and Latin American constructivists is that the Europeans tended to infuse their theories with a social interest, usually through the concept of utopia, while Latin American constructivism focused primarily on formal aspects.125
Many of the Latin American artists who worked in a geometric abstract style desired to include aspects of ancient art as an attempt to connect to their cultural heritage. Comparable to Albers, they combined ancient sources with constructivist aesthetics by using the reductive shapes and patterns of ancient crafts as applicable to art of the present day. As discussed throughout Constructive Spirit, Latin American artists, like Torres-García, often juxtaposed local aspects unique to Latin American urbanism or pre-Columbian roots with the universal. Albers differs in this regard, as she did not use local features in her work. Her use of pre-Columbian source material is not her local, that is, it does not relate to her cultural heritage, place of origin, or later U.S. citizenship.

Formal and theoretical similarities exist between the work of Albers and Torres-García. Torres-García was born in Montevideo, Uruguay, but he studied art in Spain. He was a part of the New York art scene in the early 1920s. In 1926, he moved to Paris and he began to develop his constructivist style. He formed his doctrine of Constructive Universalism after coming into contact with neoplasticism (meeting Mondrian in 1927 and van Doesburg in 1928) and the geometry of cubism. In the early 1930s he formed the Constructivist Art Group in Madrid, based on neoplastivist principles. Leaving an impact on gallery owners from his time in New York, Torres-García's work appeared in several American exhibitions: a group show at the Museum of Living Art in 1933 (on display at New York University until 1943), "The Latin American Collection" in 1943 at the Museum of Modern Art, and a show at Sidney Janis Gallery in 1950 following his death. After returning home to Montevideo in 1934, he established a school of fine and applied art based in utopic unity. The school, the Taller Torres-García, was intended to function like a guild and incorporate what he perceived to be the pre-Columbian way of working, striving for anonymity, unlike the academies of Europe.

During World War II, Torres-García put a good deal of his energy into lectures and writing about art in the Americas. He wanted to create a style that linked the Americas, one that alluded to the area's unique past but still carried international relevance in the world of modern art. He outlined his direction in his essay "The New Art of America" (1942), published in Apex. Given his travels, art historian Cecilia de Torres writes, "Solidly rooted in Europe as well as in the Americas, Torres-García was uniquely positioned to offer a broader perspective, a frontierless, more universal viewpoint in the give and take of international modernism."
In 1944 Torres-García published his manifesto for Constructive Universalism, a concept of art that combined modern geometric forms and pre-Columbian sources. This style of art was intended to show the "real" and the "primitive." What he called real did not refer to naturalism, but to an underlying truth. As for the primitive aspect of Constructive Universalism, he was following what he called the "tradition of Abstract Man." Like Albers and others, Torres-García thought of himself as psychologically and historically connected to the geometric patterns and abstracted shapes of the ancient past. Important aspects of his constructivist style include geometric shapes, ordered compositions, and a synthesis of the parts into a whole.

Works such as his Constructivist Composition (1943) embody these characteristics (Figure 11). The painting is divided into numerous rectangles, creating a complex grid; however, the pieces are unified by a regular treatment of the surface, a repetitive design, and a limited palette. Like Albers's work, he uses repeating but varied shapes that only perceptually suggest a pattern. True to a constructivist style, Torres-García emphasizes linear elements and distinct shapes. Symbols, some readable as a sun, train, person, and fish, appear in boxes. Reading from the top, the small squares seem to create a track for the train, suggesting a flattening of real space, but at the bottom of the painting, this reading falls apart with more abstract symbols and letters. His use of letters here is similar to Albers's interest in language. Some of the shapes, such as the arrow, sun, or cross indicating the cardinal directions, could belong to a number of ancient cultural groups. The symbols are intended to be objective and are not meant to appeal to an emotional sense.

Torres-García's style is different from that of Albers, yet he still maintains similar elements of a gridded pattern and constructivist shapes. Comparing Constructivist Composition with Albers's Pictographic or Two reveals how both artists sought to unite ancient and modern art in a way that was relevant to their time, not simply return to the past (Figures 8, left, and 10). Torres-García, like Albers, associated geometry with the art of ancient cultures. Utilizing geometric abstraction in this way bolstered his art by establishing a heritage for it, notably one that was rooted in the Americas.

Yet, Torres-García's ideas about constructivism are not only traced to his interest in abstraction in early American art, but also to his interaction with European artists, namely Mondrian and van Doesburg, in the 1920s. In theory, using geometric abstraction derived from both an American tradition and his European contemporaries gave his paintings a universal
appeal. Florencia Bazzano-Nelson, a historian of Latin American art, summarizes this connection as "the universalist notion that an artistic tradition has existed since remote times that expresses essential truths through geometrically determined archetypes." For Torres-García, abstraction began in ancient times and was still useful in the present for communicating a similar, ultimate truth.

The grid was one formal element Torres-García used in his paintings as a way to participate in modernism and reference ancient constructions. Rosalind Krauss discusses the modernist aspect of this ordering system in her essay "Grids" (1979), first published in October magazine. She asserts that the grid is an emblem of both modernist aesthetics and the period. By approaching the topic from a postmodern viewpoint, she establishes two ways to read the grid: the grid appears to be based in materialism or logic, but it can also be a disguise for the spiritual in art. While the grid is most often discussed in terms of materialist principles, Krauss writes that artists such as Mondrian and Malevich were primarily interested in communicating a spiritual aspect. She writes, "They [Mondrian and Malevich] are talking about Being or Mind or Spirit. From their point of view, the grid is a staircase to the Universal, and they are not interested in what happens below in the Concrete." In this sense, Krauss relates access to the spiritual as a way to communicate a universal truth. Here, I would qualify Krauss's claims with Albers and other Bauhauslers, who were interested in both universal and material aspects. Krauss continues in her essay, saying, "We have discovered that one of the most modernist things about [the grid] is its capacity to serve as a paradigm or model for the antidevelopmental, the antinarrative, the antihistorical." This statement further situates the grid as a structure capable of communicating the universal, as it is not bound by time or evolutionary progress. Likewise, the grid is most closely associated with constructivism, de Stijl, and neoplasticism, all interested in universalism.

Albers, like Torres-García, saw the grid as both modern and universal. In her essay "The Fundamental Constructions," Albers makes clear connections between the innately gridded nature of weaving, its strength in artistic design, and its universal character. She begins by describing the nature of her medium as naturally geometric through the definition of weaving, that is, "the interlacing of two distinct groups of threads at right angles." She continues on to explain that this crossing at right angles creates both the structure and surface of the weaving. She writes, "The horizontal-vertical intersecting of the two separate systems of thread is of great
consequence for the formative side of weaving. The more clearly this original formation is preserved or stressed in the design, the stronger the weaving will be in those characteristics that set it apart from other techniques."\(^{143}\) That is, for a weaving to be strong in formal qualities and direct in message, the artist must maintain the natural geometry of the process. Linking the woven grid with strong design, Albers goes on to attribute these characteristics with universally understood and appreciated works. Relating ancient and contemporary weavings, she claims, "The fundamental constructions, in common with all fundamental processes, have a universal character and are used today, as they were in our early history, here and everywhere."\(^{144}\) Through her weavings and writings, Albers equates the nature of her medium with the avant-garde concept of universalism to make her work applicable to her modern audience.

The modernist grid can be further understood as universal through Albers's and other modernists' connection of gridded pattern with ancient construction techniques and designs. In looking to earlier examples of art, many discovered ancient gridded designs could be easily integrated with the modernist grid. As the Latin American artist Lygia Pape noted, "Constructivists searched for a return to the beginning of things, and therefore the use of geometric forms."\(^{145}\) In this way, they could approach art in an avant-garde way, maintaining international relevancy while still making use of ancient, primitive, or local stylistic devices. Several scholars concerned with primitivism, in particular Tricia Laughlin Bloom and César Paternosto, have looked at early precedents for the modernist grid in the arts of ancient America.

Discussions of the ancient roots of abstraction and the grid appear throughout *Constructive Spirit*, but they are most specifically addressed by Bloom in her chapter "Origin Stories: Native Paradigms in American Abstract Art." Bloom begins, "Faced with the apparent failure of modern civilization and the chaos of world war, abstract artists in the Americas began to look in earnest for a new pictorial tradition."\(^{146}\) She asserts that there was an interest in cubist, concrete, and constructivist art, but a general trend of avoiding the mechanical aesthetic popular in European art for the handmade.\(^{147}\) This broader aesthetic choice, typical of the 1930s, corresponds to Albers's move away from the European tendencies to more American forms of abstraction, further paralleled by her physical move to the U.S.

Bloom establishes the combination of the ancient and modern grid with Torres-Garcia first and then expands her discussion to the Latin American artists Francisco Matta and Lygia Pape and to artists working in North America, such as Adolph Gottlieb, Louise Nevelson, and
the Alberses. For all of these artists, the ancient grid was comparable to the modernist one through its geometric, tectonic, and constructivist appearance. In the case of Torres-García, his grids suggest both de Stijl compositions and Incan stonework.\textsuperscript{148} According to Bloom, Torres-García referenced ancient architecture and textile design in his paintings.\textsuperscript{149} The geometry is ordered yet handmade, which imparts an organic quality akin to the brickwork of ancient buildings and the patterns of ancient weavings.

Similarly, Paternosto, an artist and a scholar of ancient and modern art, in *The Stone and the Thread: Andean Roots of Abstract Art* (1996), directly compares pre-Columbian architecture with the geometric abstractions of Josef Albers. Paternosto is particularly concerned with two of this artist's little-known architectural works, *America* (1950) at Harvard University and *RIT Loggia Wall* (1967) at Rochester Institute of Technology, each of which mimic pre-Columbian patterns of brickwork from the Zapotecan friezes at the Palace Group in Mitla (Oaxaca). Interestingly, Paternosto reads Josef's earlier Bauhaus glasswork as this same interest in early American brickwork and also to "the structural geometry of textiles" (his emphasis).\textsuperscript{150} In terms of the ongoing debate of who influenced whom (Josef or Anni), he suggests that Anni may have influenced Josef through weaving constructions. Thus, Paternosto links Josef's Bauhaus glasswork and later architectural wall pieces both to pre-Columbian brickwork and textile constructions.\textsuperscript{151} This is an important connection to note, as it links ancient architectonic structures and the building of a textile. Paternosto argues, among others contributing to this discourse, Semper being an early example, that ancient stonework reflected the construction and patterns of ancient textiles.\textsuperscript{152} He also looks at etymology to support his case that textile structure influenced other types of construction, the Indo-European root of *tectonic* (*teks*) referring to *texere*, meaning weaving or fabrication.\textsuperscript{153} Anni made similar connections by discussing weaving as primarily a constructed form and by comparing the medium most closely to architecture.

Looking at the work of Josef Albers, Torres-García, and others, Paternosto connects ancient and modern art through the use of gridded structures. Paternosto summarizes, "The symbiotic relation between [Andean] sculpture and construction technology gives rise to an almost inevitable comparison with a certain artistic movement of the twentieth-century that was also the direct result of the application of constructive techniques and the use of the industrial materials of its time: Constructivism."\textsuperscript{154} He specifies that Albers (here he is talking about Josef,
but what he says is also applicable to Anni) and Torres-García first encountered the cubist grid and applied pre-Columbian source material later.\textsuperscript{155}

Most of Albers's weavings are clearly organized by a grid, but she often violated the consistency of the grid to include variations. Such modified patterns create visual interest but also draw parallels to semiotics and the structure of language. Comparisons could also be made between her interest in variations on the grid and her husband's studies of variations of color in his \textit{Homage to the Square} series. The grid is most structured in her Bauhaus weavings, ultimately owing to the cubist grid, but she developed a more organic sense of pattern and repetition after her move to the U.S., travels to Latin America, and careful study of Peruvian textiles.

As the term \textit{pan-American} implies, the reductive aesthetics of constructivism appeared in both Latin American and U.S. vanguardism. Looking at the work of Adolph Gottlieb, an American painter influenced by Torres-García and associated with abstract expressionism, and the weavings of Sheila Hicks, a fiber artist and acquaintance of Albers, demonstrates the widespread application of ancient grid systems in modern art in ways that span the two continents. The works of these artists help establish the U.S. context of gridded abstraction and show the exchange between the north and south continents.

According to Barbara Braun, Torres-García influenced Gottlieb. Braun notes the similarities between the two artists' work in Gottlieb's series from 1941 to 1952, which used the same format as Torres-García's constructive paintings with grids filled with abstract symbols; however, Gottlieb used the art of indigenous North Americans as opposed to Latin Americans.\textsuperscript{156} Still, Gottlieb sought a similar artistic heritage rooted in the Americas from which he could borrow ancient motifs for his modern work.

His \textit{Augury} (1945) is a characteristic example (Figure 12). Distinct shapes appear in a grid-organized space that is reminiscent of an ancient textile. Predominant symbols, such as faces, bodies, and eyes, appear figural. A few letters are included, suggesting language. Like some of Albers's works, the title is essential to gaining insight about the work. In this case, the title hints at the idea of an ancient or primitive culture through the reading of omens as a way to comprehend the chaos and uncertainty of the external world. Gottlieb and Albers relate primarily as contemporaries. They were interested in different ancient American cultures, but
their works share a similar underlying grid and use of geometric abstraction from indigenous cultures.

Gottlieb thought of the symbols that he used in his paintings as a part of a universal language that existed in the subconscious. His use of these symbols as a kind of escape, what Braun calls a "psychic liberation," aligns him with the broader European notion of needing order and simple shapes to counteract the chaos of the modern world. This is somewhat unlike Torres-Garcia who was primarily concerned with establishing a unified American identity.

Sheila Hicks is an American weaver who spent many years living and working in Latin America. Hicks studied with Josef at Yale University where she was majoring in art, and she met Anni through him. Like Albers, Hicks sought to unite pre-Columbian artifacts with modern art, using Peruvian textiles as source material for weaving techniques and constructions. This combination of ancient and modern establishes her similar interest in universalism. In ways similar to Albers, she emphasized the gridded nature of her work's construction, used marks suggestive of language, and challenged modern art. Her study of pre-Columbian weavers was equally deep, with her having worked with Kubler and Bird as well. Hicks was more experimental in color and construction than Albers, in part due to her belonging to a later generation in art known as the Fiber Artists, who emerged in the 1960s.

With works like Zapallar (1957-58), her deviation from Albers's style is clear (Figure 13). Colors are more vibrant and the structure of the textile is compromised for tactile effect, although the construction does suggest the pre-Columbian leno weave. Weft (horizontal) threads were beaten unevenly, making the sides of the weaving pull in and gather and causing the design to undulate. Hicks challenged the innate characteristics of weaving by emphasizing what the weaver must work against, such as the tendency for textiles to collapse in the middle and the distortions caused by not beating the threads down evenly and tightly. The warps (vertical threads) in the bottom portion of the textile were separated, knotted, and tied to create long gaps, but they nonetheless continue to emphasize their innate verticality. Her sense of the grid is much looser than that of Albers, yet the basic construction of horizontal and vertical remains. Unlike Albers's work, pattern is not generated by shapes, but solely by repetition within the textile's structure. The title of this weaving is a reference to the town in central Chile, not unlike some of Albers's works named for the places she visited in Mexico, as in the case of Monte Alban (Figure 7). Yet, Hicks's use of this convention is more personal. Whereas Monte Alban seems to make a
clear reference to the site's natural and constructed landscape, it is unclear how Zapallar relates to Hicks's experience in Chile.

*Constructive Spirit* and *Pre-Columbian Art and the Post-Columbian World* (1993) outline the pan-American artistic trends of constructivism, universalism, and gridded compositions occurring simultaneously with Albers's work in the U.S. In both, Albers is cited as participating in these trends, but mainly within a North American context. Turning my attention to Albers's travels to Latin America, I consider her more direct contact with pan-American sources of universalism, primarily through Latin American examples of constructivism. As evidence, I offer examples of Latin American modern artists and exhibitions that Albers may have encountered in this region and absorbed because of her Bauhaus education and her preexisting interest in pre-Columbian artifacts. I then consider her weavings and writings from the period during which she visited Latin America most frequently, from the 1940s to the 1960s, to further assert her interest in pan-American universalism. The Alberses' travels have been most thoroughly documented in *Latin American Journeys* (2007). This exhibition catalogue is comprised of essays about how the Alberses' work was influenced by their travels; however, their direct connections with modernist trends in Latin America is not fully developed here.

The Alberses had access to the trends of abstraction in Latin America in at least three ways. First, they encountered some of these artists through their connections at Black Mountain College and through later personal connections. Second, their visits to Mexico and South America afforded them the opportunity to see the contemporary art scene as well as ancient artifacts. Finally, their American work can be placed in a dialogue with the constructivist trends in the southern hemisphere through Josef's exhibitions and teaching in Latin America. These three means provide constructivist trends to pair with their own, creating a direct pan-American exchange.

Josef appreciated the work of the Guatemalan artist Carlos Mérida (1891-1984), whose later work infused constructivism with Mexican myth and symbols. Josef asked Mérida to teach at Black Mountain College, although he was only a guest lecturer there and not a full time professor. Latin American art critic Marta Traba asserts that Mérida also knew Gropius and Moholy-Nagy. Another guest artist brought to Black Mountain by Josef was Jean Charlot (1898-1979), a French painter who worked in the Americas. Both Mérida and Charlot visited the college in the 1940s. The Latin American architects Luis Barragán (1902-1988) and Ricardo
Legorreta (1931-2011) along with the artist Mathias Goeritz (1915-1990) visited the Alberses' home in 1967.\textsuperscript{165} Josef left an impact on modern Latin American architecture after his lectures and exhibitions there. These instances show Latin American artists in a dialogue with the Alberses in a North American context.

As for the couple's travels, they mostly visited Mexico (thirteen times between 1935 and 1967). Their first trip to Mexico was Anni's decision, and this is when they began collecting pre-Columbian artifacts.\textsuperscript{166} They also made a trip to South America in 1953, staying in Chile for two months and in Peru for one month. They met Max Bill in Lima, leading to Josef's later stints at the Ulm School of Design. While traveling, the couple frequented archaeological sites, anthropology museums, and galleries of pre-Columbian and modern art. They were personally familiar with Diego Rivera, visiting his museum, Anahuacalli, in 1949. They were also close friends with the Mexican artist Xavier Guerrero who introduced them to much of the Mexican art they saw.\textsuperscript{167} Josef connected the ancient and modern art of Mexico, saying, "Mexico is truly the promised land of abstract art, which here is thousands of years old."\textsuperscript{168}

Josef's work circulated quite a bit in Latin America. He first exhibited in the lobby of the left-wing newspaper \textit{El Nacional} in 1936. In the newspaper, he was recognized as "one of the founders of abstract art."\textsuperscript{169} He was featured in the September/October issue of the architecture magazine \textit{El Arquitecto Peruano} in 1953. Josef included works at the IV. Bienal de São Paulo at the Museu de Arte Moderna (1957) and the Primera Bienal Interamericana de Pintura y Grabado at the Instituto Nacional de Bellas Artes, Mexico City (1958). He had a large exhibition of his \textit{Homage to the Square} paintings at the Museum of Modern Art in Caracas, Venezuela, in 1964. From this he received enthusiastic letters from the sculptor Gego and Inés Amor, the director of the Galería de Arte Mexicano, after seeing his work. This exhibition traveled to Montevideo, Buenos Aires, Lima, Rio de Janeiro, Guayaquil, Bogota, Santiago, and Mexico City before touring the U.S. The Alberses remained in contact with Amor. Josef showed his work in Amor's gallery in 1967, and he was again featured in 1976 after his death. Josef also exhibited his square paintings with Mérida at the University Museum of Science and Arts, National University of Mexico in 1969. Overall, Josef received positive reactions to his art in Latin America.\textsuperscript{170}

Anni did not exhibit her work in Latin America, except for one commissioned work in 1968 for the Hotel Camino Real in Mexico City. The patron was Ricardo Legorreta, one of the
Latin American architects who had previously visited the Alberses' home. The work was a large wall hanging that featured rows of triangles and was constructivist in style.

Josef also taught several courses in Latin America that were loosely based on Bauhaus design curriculum. He taught at Gobert College in Tlalpan (1939), the University of Mexico in Mexico City (1949), the Universidad Católica Architecture Department in Santiago (1953), and the Escula Nacional de Ingeniores del Peru in Lima (1953). In the 1930s and 1940s, the University of Chile and the Pontificia Universidad Católica (PUC) Art and Design Schools were based on the Bauhaus model. Josef further shaped these programs in 1953, when he offered a version of his preliminary course. Hugo Palmarola Sagredo writes in his essay on Josef's course in Chile that the artist fused "European idealism with American pragmatism." In the early 1950s, in part because of Josef's lectures, Chile's avant-garde artists abandoned figurative work and formed the Grupo Rectángulo (1953).

Through these various means, the Alberses had access to modern works of art in Latin America, and they were able to participate in a widespread dialogue of abstraction in the Americas. Latin American artists, such as Mérida, were working within the same circle as the Alberses. They saw collections of modern art on their trips to Mexico, and Josef had a particular impact on modern art in Latin America through exhibitions of his geometric abstractions and his teaching. Anni was commissioned for one work in Mexico City, and her weavings and writings from the time also suggest the influence of pan-American abstraction on a broad scale.

Braun writes that the Alberses' interests in constructivism and pre-Columbian artifacts were "paralleled but [were] entirely independent of that of Torres-Garcia," but I challenge this given the Alberses' travels and their dialogue with Latin American artists. Moreover, a formal comparison of Albers's weavings reveals similarities to the constructivist paintings of Torres-García. Like Torres-García, she is drawing upon a connection between ancient patterns and modern aesthetics and utilizing a grid to organize her compositions. In these ways, her weaving *Thickly Settled* (1957) (Figure 14) is formally similar to his *Constructivist Composition* (Figure 11).

*Thickly Settled* is divided into roughly square shapes. Being handmade, the regular squares become more organic. The same shapes repeat with different fill, again creating a tension between repetition and variation. The combination of shapes in this weaving recalls the semiotic patterns in *Pictographic* (Figure 8, left) and the glyphic symbols in Torres-García's
work. None of the motifs are recognizable symbols; they consist only of linear elements that call attention to a single thread moving across the textile. As such, the underlying structure of the weaving, as well as its surface pattern, is emphasized. Three vertical panels, bound by borders on the top and bottom, organize *Thickly Settled*. Albers has given this weaving a more poetic title than some of her works, making it difficult to read literally. *Thickly Settled* also shares a similar composition to her *Black-White-Red* from 1927, although in the later work, there is more variation, more linear motifs, and an organic sense of geometry (compare Figure 5). Nonetheless, they seem to be built on the same principles of pattern and variation, and they are organized by columns and rows divided into numerous smaller units.

Where *Thickly Settled* appears similar to the constructivist works of Torres-García that are based theoretically in the ancient arts of America, weavings like *Tikal* (1958) make a direct reference to Latin American places and cultures (Figure 15). Tikal was originally a major Mayan city in Guatemala during the Classic Period (A.D. 200-900) and is now an important archeological site. The Alberses likely visited Tikal in 1952 during their travels in the region of the Yucatán Maya. Albers combined plain and leno weaves in this work, the leno weave being one she learned in Mexico. With this textile, turquoise squares are arranged in a grid-like fashion that suggests the checkerboard patterns found in pre-Columbian weavings or perhaps even the meander design. The composition is similar to *Thickly Settled*, but it also suggests a subtle reworking of *Two* (Figures 14 and 10). The color and pattern of this work seem to mimic the jade and turquoise inlay technique used on elite and ritual objects throughout the Mesoamerican region. This could relate to Albers's interest in weaving's ties to other craft forms. Bloom reads the design of this work as a reference both to the stepped pyramid architecture at the site and to "bands of text, reflecting Anni's belief in the power of textiles to communicate." While I focus mostly on Albers's work that relates directly to pre-Columbian sources, Bloom brings up the other main direction in Albers's weaving in the 1950s and 1960s, her concern with language.

In her weavings, Albers used the grid to create objective works of art that avoid the personal, emotional, and subjective. Her writings further suggest her interest in pan-American universalism by emphasizing reductive aesthetics as a way to create broad appeal and to link this style to cross-cultural principles. "Art—A Constant" most clearly establishes Albers's approach to the universality of art. Here she outlines three ways to achieve this universalism. The universal
firstly represents more than the personal choices of the artist. Albers begins by addressing the individual creator, writing, "Art directs itself to our lasting fundamental spiritual, emotional, and sensuous needs. . . . It transcends the merely personal in our desires." Reducing the subjective emotions in art eliminated the personal and allowed a work of art to maintain its relevance into the future.

Second, universal art is not limited to the time when it was created. She continues in her essay to expand the anonymity of the artist by deemphasizing the context of a work's creation, stating, "And though most art can be classified as belonging to a specific time and place and though it often has the stamp of a definite author, still, great art is in essence unaffected by subjectiveness, by period and location, and does not pass through the cycle of rise and fall. Art is always new and radiates through any sediment of contemporary meaning." By eliminating these identifying aspects of artist, location, and period, she opens up the possibility that art may be equally appreciated by any culture if not tied to popular taste.

A final characteristic of universal art Albers discusses is that it communicates a lasting truth. Albers writes, "Obscuring to some degree the direct experience of art are modes of taste, i.e., inclinations of periods toward specific forms, overlaying the general and lasting assertions of art. Tastes are expressions of transitory demands and are of powerful and often devastating effect. They exalt that which answers a momentary inclination to prominent position and condemn what does not appeal to them." This brings to mind how Worringer challenged Lipps' notion of empathy, which valued art that shared the aesthetics of one's own time. Albers, like Worringer, sought for a way to appreciate art of another time and culture. She chose to do this through the concept of universalism.

Part of the notion of the universal depends on communicating the same message to all who encounter it. As Albers saw it, communication at midcentury was about the temporary; therefore, people were in need of a constant. On this she writes, "Today we find ourselves again in search of a lasting truth. Our world changes rapidly and often we feel perplexed and filled with doubt." Describing other fields that were once thought to be a constant, such as philosophy, science, and religion, she claims that only art objects are truly stable and ageless in their message as "only art is left to us in unchanging absoluteness." She concludes, "to comprehend art means to confide again in a constant."
Albers takes up the topic of communication again in a later essay, "Tapestry" (1965). Here she is argues her medium can communicate a powerful message like other art forms. She writes, "A fabric can be great art if it retains directness of communication in its specific medium." Much of this essay pertains to the weavings of ancient Peru, suggesting that theirs was a universal language, or at least applicable to modern times, as Albers continuously argues. Albers's reinforces this idea in her introductory essay to *Pre-Columbian Mexican Miniatures*, stating, "[Art] has a restorative power that we need again and again. It assures us of a timeless meaning across epochs and regions. . . . Perhaps it was this timeless quality in pre-Columbian art that first spoke to us, regardless of our ignorance of the special significance it must have had to a contemporary community." Albers's knowledge of universalism certainly originated at the Bauhaus where she was exposed to neoplasticism and constructivism, both of which were based heavily in utopic ideals and aesthetics thought to convey cross-cultural messages; however, there were other factors that contributed to Albers's use of the notion in America. Universalism extended beyond Europe with figures like Max Bill and Torres-García. As Albers moved away from Europe herself, she encountered pan-American concepts of universalism. Her travels and interest in pre-Columbian textiles led her to connections with avant-garde Latin American artists at midcentury who embraced a similar concern with uniting the modern and the pre-Columbian. At this time, a type of universalism unique to the Americas developed and took on a form that joined ancient traditions with modern aesthetics, especially the visual structure of the grid. As an art form with wide appeal, spanning time and location, Latin American artist Francisco Matta wrote of geometric abstraction, "There is neither an ancient art nor a modern one, only art exists. Universal Art. It is the greatest harmony a human being can attain." In the Americas, Albers found others who shared many of her ideas, setting up the possibility for influence and placing her work in a new context.
CONCLUSION

Building on her Bauhaus education after her move to America, Albers increasingly turned to American sources, specifically Peruvian examples, to frame her own modernist work. Making this connection allowed her to draw parallels between ancient working methods and modern art, not only giving her medium a lengthy history through early roots, but also linking ancient and modern peoples on an essential psychological level, one enhanced, in her thinking, by a reinvigoration of haptic senses atrophied by modern manufacturing. By linking ancient and modern weaving, Albers argued that the traditional craft of weaving could be art by using pure abstraction, objectivity, and straightforward work with materials. For her, adapting elements of ancient textiles created art that was universal or timelessness. This art could be understood across time and culture by communicating a lasting truth, a sense of stability, and a feeling of order from the chaos of the world.

My study has carefully considered Albers's philosophy in her writings and placed her written work within the context of her weavings, the intellectual atmosphere of the Bauhaus, and a North American search for indigenous roots and solidarity across the Americas. Looking in depth at Worringer's *Abstraction and Empathy* showed how Albers, along with other European modernists, worked within the framework presented in this text, but also showed that she was selective in the aspects she emphasized. As with her Bauhaus education, features of Worringer's theory remained with her throughout her life, but she found other ways to link ancient and modern weaving through construction techniques, the grid, and the impact of philosophies of other writers, like Semper.

Albers noticeably differed from Worringer's claims in her interest in timelessness. For Worringer, art continually alternated between abstraction and naturalism. Thus, Worringer's sense of the universal was not a linear notion, but one that changed with psychic states. Albers linked ancient and modern art through an abstract style, and she presented this as the endless direction into the future. Likewise, Torres-Garcia did not see his style of art as an episode in art history but as "the continuation of an ancient utopian quest for universal values."
Albers generally ignored all aspects of naturalism. For many artists of her time, their notion of universalism was selective, of course, making universalism a flawed concept—particularly so in her case, as she also chose to emphasize the art of one culture, the ancient Peruvians. As Albers explains in her essays, the modernist aesthetics indebted to ancient ones were here to stay. The style she favored was one used by the ancient artisans and one she thought would soothe modern anxiety as it supposedly did for our predecessors. She generally rejected the temporal aspect of Worringer's thesis, that art changes over time, relying instead on pan-American sources of universalism and principles relating to anonymity and timelessness, to extend the relevance of her work.

The Peruvian weavings were her prime model of art that had already stood the test of time, although she also thought of Klee's work as a modern example of lasting art. She differentiated Klee from the contemporary New York School, for instance, which she criticized for incorporating personal elements. For Albers, not all modernism was here to stay, only work based in geometric objectivity. In On Weaving, she reproduced examples of modern weavings by Sophie Täuber-Arp, Jean Arp (1886-1966), and Michel Seuphor (1901-1999) as examples of the latter, while reserving space for reproductions of some of her own work as well. The way to achieve this eternal quality was through clear, geometrical construction and design and by abandoning overtly personal expressions.

For Albers, the themes of universalism, timelessness, and anonymity developed from Bauhaus pedagogy of design, but they also paralleled the nature of Peruvian weavings, where the artist and context was unknown. She used pre-Columbian examples as models for modern art as a way to challenge the typical distinctions of high and low art, fine art and craft, and the individual and the anonymous worker. Much of this has to do with Albers's approach from a design background, where her ideas intersected with those of people like Semper who sought to elevate the applied arts through schools and museums.

The contributions of Albers's weavings and writings to these larger discourses on modernism have been the focus of this thesis. Where other scholars have failed to connect her weavings with the ideas drawn from her thirty-six individual texts, themselves largely unaddressed in the literature, I teased out the concepts that unite her woven geometries with intellectual discourses attempting to promote and address geometric abstraction in vanguard painting and design. I placed her work within the discourses on primitivism and universalism,
while also connecting her interest in Latin American textiles and figurines to a broader interest on the part of some North American artists and arts professionals of finding indigenous sources for modern art separate from those for European modernism. More significantly, I placed her perception of the craft of weaving within a discourse of modernism, shaped in part by Worringer's social psychology, and within her intellectual contexts at the Bauhaus and in the Americas. My nuanced reading of the areas of overlap between her thinking and Worringer's—particularly as hers evolved after her move to the U.S.—allows us to understand more fully the extent, as well as the limits, of his impact on a variety of artists during the anxiety-filled years during the first half of the twentieth century.

There remain other directions to explore with Albers's work. More is still to be considered about how she perceived weaving in comparison to other media, particularly architecture. A focused look at her designs for industry and how she understood craft's contribution to industry is similarly in order. This would benefit from a more thorough study of Semper and the German workshops preceding the Bauhaus than currently exists. Another avenue would be to continue looking at the ways in which Albers sought to elevate her medium through the avant-garde concept of geometric abstraction, her exhibitions at modern art museums and their reception, and how she related weaving to painting and to printmaking. As this study shows, scholars need to take another look at how weavers participating in modernism have been discussed in the literature, as there lacks a thorough effort to acknowledge weavers' use of modernist ideals, theories, and writings to operate within the same intellectual spheres as avant-garde painters and sculptors. Perhaps this thesis may serve to inspire some of this more insightful investigation into Albers's body of work and expand our understanding of her and other artists like her who sought to dissolve the boundaries artificially drawn between craft and art.
"Primitive" is a Eurocentric term that has been used to describe a variety of cultures considered by some to be less evolved or civilized. The term generally includes both ancient cultures and "tribal" (another word suggesting lower social evolution) cultures of the present day. Using the word primitive denies modern indigenous cultures their own autonomy by comparing them to what the Western world has defined, in its own image, as civilized. Although a problematic term, I use it to refer to the ideas of early-twentieth century intellectuals, particularly Worringer, who discussed "primitives" in their work.


This term is attributed to the American architect Louis O'Sullivan, although it is also associated with his assistant Frank Lloyd Wright. O'Sullivan coined the phrase in his essay "The Tall Office Building Artistically Considered" (1896).


12 Ibid.


14 Ibid.

15 Ibid., 4.

16 Ibid., 15. Worringer follows up this statement a few pages later with: "The simple line and its development in purely geometrical regularity was bound to offer the greatest possibility of happiness to the man disquieted by the obscurity and entanglement of phenomena," ibid., 20. Here he specifically defines geometrical abstraction as an escape from the chaos of the external world.

17 Ibid., 4 and 6.


20 Ibid., 9.

21 Another possibility is that Worringer's interest in non-western cultures may be linked to German colonial expansion and German archaeological expeditions at the turn of the century, particularly in Asia, Latin America, and the Pacific. See Virginia Gardner Troy, *Anni Albers and Ancient American Textiles: From Bauhaus to Black Mountain* (Burlington, VT: Ashgate, 2002), 25.


24 Ibid., 39-41.

25 Ibid., 41.

26 Ibid., 21.
27 Wick, *Teaching at the Bauhaus*, 177.

28 Ibid., 178.

29 Ibid., 142 and 149.


32 Ibid., 11-12.

33 Gottfried Semper, with an introduction by Harry Francis Mallgrave, *Style in the Technical and Tectonic Arts; or, Practical Aesthetics* (Los Angeles: Getty Research Institute, 2004), 171.


37 Donahue, *Forms of Disruption*, 16-17.

38 Bushart, "Changing Times, Changing Styles," 80, in speaking of members of *Der Blaue Reiter* writes that, "[Worringer's] scholarly findings gave their own theoretical efforts much greater weight." Jenny Anger, *Paul Klee and the Decorative in Modern Art* (Cambridge: Cambridge University Press, 2004), 26-27, points out that Worringer's book contained no images, which made it all the easier for artists to interpret his claims in various ways.


40 Peter Howard Selz, *German Expressionist Painting* (Berkeley: University of California Press, 1957), 9, 13, and 184, for connections between Worringer and Kandinsky. Franz Marc also read *Abstraction and Empathy*. 


44 Troy, *Anni Albers*, 120.

45 Ibid., 84.

46 Ibid., 119.


49 Frank Whitford, *Bauhaus* (London: Thames and Hudson, 1984), 120, for one who asserts van Doesburg as a driving force at the Bauhaus. Michael White, "Mechano-Facture: Dada/Constructivism and the Bauhaus," in *Albers and Moholy-Nagy: From the Bauhaus to the New World*, edited by Achim Borchardt-Hume, (London: Tate Publishing, 2006), 83-84, offers a challenge to this assumption. White believes that van Doesburg may have had less to do with the Bauhaus aesthetic than previously thought. He argues that Bauhaus students were already on this trajectory toward pure abstraction; however, their work always retained a tactile nature, even with the use of machines.


52 Ibid., 46 and 97-98.


55 Ibid., 271.


58 Ibid., 20.


60 Troy writes that Albers likely saw a copy of van Doesburg's *De Stijl* at the Bauhaus and that the Alberses owned the Bauhaus Book series. See Troy, *Anni Albers*, 149.


64 Albers, "Weaving at the Bauhaus," 141.


Ibid., 19.


Troy, *Anni Albers*, 41. According to Troy, a general trend at the Bauhaus began with a superficial understanding of design in Andean textiles (early 1920s) and moved to a complex understanding of construction techniques (mid-late 1920s). Troy places Albers within this context without discussing her work.


Ibid., 26, suggests that Albers visited this museum as a child. It may have been her first encounter with pre-Columbian artifacts. The museum housed almost 45,000 pre-Columbian items at the time.

She did continue to make fabric samples for industry that were mass-produced in factories. Ultimately, these were made mechanically; however, it was Albers's goal to unite handwork and machine work, so she strove for a tactile quality in her American sample pieces as well.


Worringer, *Abstraction and Empathy*, 16 and 129. Robert Goldwater in *Primitivism in Modern Art* (1966) contextualizes Worringer's view on "primitives" and more broadly describes a general interest in ancient Peruvian art as a means for affecting the direction of modern culture, helpful to understanding Albers.


For example, Albers received mailings and exhibition catalogues from the Stolper Gallery (Los Angeles), Aaron Furman Gallery (New York), Andre Emmerich Gallery (New York), and Museum of Primitive Art (New York), see The Josef and Anni Albers Foundation, Archive. V. AA, 34.4-7. See also The Josef and Anni Albers Foundation, Archive. V. AA, 34.3 for other pre-Columbian gallery listings and catalogues. Albers also kept photographs of pre-Columbian weavings in museum collections, see The Josef and Anni Albers Foundation, Archive. V. AA, 33.1. For some of the articles Albers saved on pre-Columbian weaving and archaeology, see The Josef and Anni Albers Foundation, Archive. V. AA, 33.7 and 32.2.


Albers's collection is housed at The Josef and Anni Albers Foundation in Bethany, Connecticut. Albers also organized the Harriett Englehardt Memorial Collection of Textiles, acquired by the Yale University Art Gallery in 1958. Ibid., 143-146, discusses both collections.


See Albers's introductory essay to *Pre-Columbian Mexican Miniatures*, unpaginated. Albers's issue with scale seems to be derived in part from her dislike of large abstract paintings, also popular in the art market in the 1960s. She continued in her essay, "Today, when large size in art is carried to an absurdity, the smallness found here [in her miniatures collection] seems to be a special virtue, when contrasted with the arrogance of exaggerated scale." In her essay, she also described seeing Diego Rivera's artifact collection and the displays at the Museum of Anthropology in Mexico City (now the Museo Nacional de Antropología).


95 Pillsbury, "Inka Unku," 71.


98 Ibid., 28 and 32.


109 Albers, "We Need the Crafts," 22.


112 Ibid., 11-12.

113 Ibid., 51.

114 Anni Albers, "Work with Material," unpaginated.


121 Perazzo, "Constructivism and Geometric Abstraction," 120.


127 Traba, *Art of Latin America*, 77.


133 Traba, *Art of Latin America*, 75.


135 Traba, *Art of Latin America*, 77.


138 Krauss, "Grids," *October* 9 (Summer 1979), 50 and 52.

139 Ibid., 54 and 63.

140 Ibid., 52.

141 Ibid., 64.

143 Ibid.
144 Ibid.
146 Ibid., 60.
147 Ibid.
148 Ibid., 64.
149 Ibid.
151 Chronologically, this is a little problematic. According to Troy, there were some Latin American items at the Bauhaus, but the Alberses' interest fully developed after they moved to America. Paternosto goes on to say this, but nonetheless correlates Josef's, and by extension Anni's, Bauhaus work to Latin American examples. See Troy, *Anni Albers*, 39-71.
153 Ibid., 211. *Teks* also refers to art, skill, or craft.
154 Ibid., 199.
155 Ibid., 200.
156 Braun, *Pre-Columbian Art*, 304.
157 Ibid.
158 Ibid.
The chronology I use in describing the Alberses' movements in Latin America comes from the timeline compiled by Jessica Csoma in Danilowitz and Liesbrock, *Latin American Journeys*, 207-224.


Ibid.


Danilowitz, "We are not alone," 20. See Csoma, "A Chronology," 221 for a list of galleries and collections they saw in 1967. They also made trips to New Mexico in 1940-41 and 1946-47. Josef was friends with Raymond Johnson, an abstractionist from Santa Fe who incorporated Pueblo pottery designs and Native American symbols into his art.

Danilowitz, "We are not alone," 22.

Ibid., 20.

Ibid.


Ibid., 175.

Ibid., 176.

Ibid., 180.

Braun, *Pre-Columbian Art*, 303.


Bloom, "Origin Stories," 78.
Albers, "Art–A Constant," 43. See also "Design: Anonymous and Timeless" (1947), in which she de-emphasizes the identity of the designer. She writes, "The more we avoid standing in the way of the material and in the way of tools and machines, the better chance there is that our work will not be dated, will not bear the stamp of too limited a period of time and be old-fashioned someday instead of antique," 53.

Ibid.

Ibid., 44.

Ibid.

Ibid., 45.

Ibid., 47.


Albers, Pre-Columbian Mexican Miniatures, unpaginated.


Anni Albers, interview by Richard Polsky; Anni Albers, interview by Sevim Fesci, July 5, 1968, Archives of American Art, Smithsonian Institution.
Figure 1. Paul Klee, *Zwei Kräfte (Two Forces)*, 1922. Watercolor and ink on paper. 28.4 x 19.2 cm. Formerly in the collection of Anni Albers, now in Die Sammlung Berggruen, Staatlichen Museen, Berlin. ©Artists Rights Society (ARS), New York.
Figure 6. Three examples of Pre-Columbian textile fragments from Anni Albers's personal collection. Top left: Nasca period (100 B.C.-A.D. 700). Bottom left: Late Intermediate period (A.D. 1100-1400). Right: Middle Horizon period (A.D. 500-900).
Figure 9. Anni Albers, *Development in Rose I*, 1952. Cotton and hemp complex leno weave. 55.9 x 43.2 cm. ©2007 The Josef and Anni Albers Foundation/Artists Rights Society (ARS), New York.

Figure 10. Anni Albers, *Two*, 1952. Linen, cotton, rayon. 45.7 x 104.1 cm. ©2007 The Josef and Anni Albers Foundation/Artists Rights Society (ARS), New York.
Figure 11. Joaquin Torres-García, *Constructivist Composition*, 1943. Tempera on board. 80 x 90.2 cm. ©2007 Artists Rights Society (ARS), New York.
Figure 13. Sheila Hicks, *Zapallar*, 1957-58. Wool. 23.5 x 12.1 cm. Private collection. Photograph by Bastiaan van den Berg.
BIBLIOGRAPHY

Books by Anni Albers


*Includes the following essays*: Weaving, Hand; The Loom; The Fundamental Constructions; Draft Notion; Modified and Composite Weaves; Early Techniques of Thread Interlacing; Interrelation of Fiber and Construction; Tactile Sensibility; Tapestry; Designing as Visual Organization.

Only "Weaving, Hand" was individually published (in *Encyclopedia Britannica*, 1963) prior to Albers's book *On Weaving*. The other nine essays originated with *On Weaving*.


Essays, Originally Published Individually, by Anni Albers; Arranged Chronologically


**Other Sources**


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