



Open Library of Humanities

Color and Architecture: Walter Gropius and the Bauhaus Wall-Painting Workshop in Collaboration, 1922 to 1926

Morgan Ridler, Independent art historian, US, morgan.ridler@gmail.com

The Bauhaus was rooted in the idea of collaboration between artist and craftsman and the visual arts and architecture. No medium was more dependent on this spirit of cooperation than painting. Instead of easel painting, Walter Gropius, an architect and the founding director, promoted wall painting. This essay examines four projects involving Gropius and Bauhaus wall painters from 1922 to 1926: the Municipal Theater and Haus Auerbach, both in Jena; Gropius's office in Weimar; and the Bauhaus building in Dessau. In these projects, the role of paint and color in architectural form emerged as a key issue and point of conflict between painter and architect. Wassily Kandinsky's 1924 memo on wall painting made it clear that color could emerge with form (*Entstehen*), accompany form (*Mitgehen*), or be in opposition to form (*Entgegengesetzte*) – a group of terms that might describe both the effects of wall painting and the nature of collaboration. Early on, painters such as Oskar Schlemmer and Alfred Arndt envisioned dynamic and colorful paintings in architecture. However, these transformative effects threatened to dematerialize the architecture itself, and as the 1920s progressed, Gropius increasingly rejected bold pictorial wall paintings or lively painting schemes, opting instead for restrained subordinate color. By 1926, Hinnerk Scheper, the leader of the Wall-Painting Workshop, used paint to subtly and functionally accentuate and enhance buildings. In their collaborations with Gropius, the Bauhaus wall painters transitioned from independent cooperators to subordinated collaborators, and ultimately they developed an approach in which color yielded to the demands of architecture.



Cooperative Efforts

Walter Gropius declared, in the opening lines of his April 1919 program for the Staatliches Bauhaus, that a central, and perhaps the most important, tenet for this new school was a belief in the unification of the arts through ‘cooperative efforts’ between the sculptor, painter, and architect and between craftsmen and artists (Gropius 1976: 31).¹ This utopian goal suggests both harmony and parity in working toward a unified or total work, ‘the complete building’, as Gropius phrased it, which was ‘the ultimate aim of all visual arts’ (1976: 31). In Gropius’s new paradigm, painting was no longer taught as a salon art or as easel painting — an art in isolation. Instead, its home was in the Decorative Painting course, which was implemented within the first months of the school’s founding and soon became known as the Wall-Painting Workshop.² In a memo from April 4, 1924, which included a defense of its place in the school, Wassily Kandinsky, the workshop’s Master of Form, explained that unlike the other workshops at the Bauhaus, wall painters and their medium, color, needed to work in conjunction with form, architecture, and space — ‘one cannot produce any objects with color alone’ (Kandinsky 1976: 80).³ The Wall-Painting Workshop had not been financially self-sufficient and, as of 1924, had yet to design marketable products, as it would with the development of Bauhaus wallpaper in 1929, leaving it slated for demotion to ‘experimental workshop’ at the cash-strapped school. This, Kandinsky argued, ‘would prove disastrous to the ultimate aim of the Bauhaus — the development of the idea of a synthesis in art’ (Kandinsky 1976: 80).

Wall painting cannot exist without a support — color needs to be applied to something, and because of this dependence, it is an ideal means by which to examine cooperation and the realization of unified works at the Bauhaus. Although Gropius championed collaboration and synthesis in art in his rhetoric, in practice he resisted the widespread use of color and pictorial wall painting in his buildings. Color and art were present nonetheless, and as is the case for much of the modernist architecture of the interwar years, his buildings are misleadingly remembered today for their absolute whiteness. This study explores Gropius’s call for the collaboration of the arts at the Bauhaus and his use of color in his early modernist buildings by examining four examples of the Bauhaus wall painters working with Gropius, their principal early collaborator from 1922 to 1926. These projects provide an overview of the development of Bauhaus wall painting and the shifting dynamics between painting and architecture.

The idea that painters and architects might work together toward the *Gesamtkunstwerk* was widespread in European modernist circles in the late 19th and early 20th centuries. Juliet Koss (2010) discusses how modernism and particularly the Bauhaus were indebted to the Wagnerian concept of the total work of art. Nancy Troy

demonstrates, in her groundbreaking study *The De Stijl Environment* (1983), that collaboration — difficult though it often proved to be — was a central tenet of De Stijl, as it was for other modernist painters and architects. Likewise, many individual artists and architects in the interwar years used murals and architectural color to expand the easel painting into the environment — scholarship by Romy Golan (2009) and recent exhibitions on Fernand Léger have considered some examples, particularly in France, though Bauhaus cases are less frequently discussed (Baudin 2016; Vallye 2013). For decades, the study of Bauhaus wall-painting projects has been hampered by the lack of extant paintings and limited documentation. Reconstructions in the last three decades have improved familiarity with many of these projects; however, the wall painters remain some of the most under-studied Bauhaus designers. This essay builds on the foundational work of Renate Scheper and others who have focused on specific projects and wall painters (R. Scheper 2005; U. Müller 2006; Markgraf 2006; Herzogenrath 1973; Happe and Fischer 2003). This earlier research is largely limited to individual projects or works on paper. In contrast, this paper examines the broader themes and developments of Bauhaus wall painting over the course of several projects. Using the limited available primary sources, I examine both the textual and visual evidence in order to explore the practical dynamics of how wall painting was implemented, how color and form came together, and how the painter and architect worked together in the collaborative vein that the Bauhaus sought.

In his 1924 memo, Kandinsky outlined two possibilities for how color could change a given form. His first option was the ‘emergence [*Entstehen*] of color with the given form’, whereby color and form organically develop together, and ‘the effects of the form are increased and a new form is created’ (Kandinsky 2001: 335). Gropius, however, edited Kandinsky’s original document and changed *Entstehen* to *Mitgehen*, ‘to accompany’ (Wahl 2001: 335). Therefore, in the final version the first option for the interaction of color and form is ‘color accompanying the given form’, slightly shifting Kandinsky’s original phrase (Kandinsky 2001: 335).⁴ In this new wording, color is not a necessary component of form but a complement, a secondary feature, increasing the effects of the new colored form. Kandinsky’s second possibility of the alliance of color and form is the reverse, ‘das entgegengesetzte Gehen der Farbe’, the ‘opposition of color and form whereby the given form is transformed’ by the powerful effect of color (2001: 335).⁵ In either case, Kandinsky was clear that the combination of color and form would result in something new, color either enhancing the effects of the form or altering and transforming the form.

The architect’s edits of Kandinsky’s memo expose the dynamics that Gropius envisioned for the relationship between painting, color, and architectural form. While

Kandinsky championed color as a powerful element of design and the equality of the arts, calling for the development of form and color together, contingent on each other, Gropius understood the arts as separate, developing alongside each other, as complements but sovereign, at least in the case of architecture. Similar tensions between architectural form and color and debates between painter and architect were taking place throughout European modernism, from Le Corbusier's polychromy to De Stijl environments. The style and extent of wall painting and color that should be included in new modernist buildings was an ongoing concern for those interested in a modern *Gesamtkunstwerk*, as were the logistics of how that cooperation should take place.

For Gropius, who included the Bauhaus workshops in many of his private architectural commissions, the architect was unquestionably the leader of any collaborative dynamic. This essay examines four examples that point to the varying interactions that the wall painters had with Gropius as the Bauhaus's principal architect, as well as the range of their experiments with both dynamic and subtle uses of color on the walls. Some projects were conflict free and yielded fruitful working relationships; others proved that collaboration involved complicated power dynamics. Realizing a complete building with architects, painters, and sculptors working together was hard. These experiences contributed to the development of a theory of wall painting, articulated by Hinnerk Scheper and Lou Scheper-Berkenkamp in 1930: 'If wall painting is directly subordinate to architecture, it imparts a greater outer expression; it enhances the built environment and thus has the potential to reorganize it, albeit indirectly' (Scheper and Scheper-Berkenkamp 2018: 93). Ultimately, wall painters developed approaches that prioritized architectonic structure over pictorial compositions and color and consigned the vision of the painter to the demands of the architect for clean bare walls (Pegioudis 2016). The collaboration was no longer between equals, as Kandinsky had dreamed, but a subordination of painting to architecture.

The Architect as Conductor

Gropius was an architect who famously could not draw, and his desire and need for collaborative working relationships with draftsmen, other architects, and artists originated before the founding of the school in 1919 and continued after his move to the United States with the work of The Architects Collaborative, starting in 1945. Central to the collaborative approach were debates about the relationships between the arts and the dominance of one discipline over the other. In 1919, Gropius described this with the metaphor of an orchestra:

For only with sincere cooperation and collaboration among all artistic disciplines can an era produce the multi-voiced orchestra which alone deserves the name art ... From ancient times, the architect has been called upon to conduct this orchestra. (W. Gropius 1993: 198–199)

In 1937, almost ten years after leaving the school, he wrote about the training of a new generation at the Bauhaus, and he amended his earlier metaphor:

I ... require a whole staff of collaborators and assistants, men who would work, not as an orchestra obeying the conductor's baton, but independently, although in close co-operation to further a common cause. Consequently, I tried to put the emphasis of my work on integration and co-ordination, inclusiveness, not exclusiveness, for I felt that the art of building is contingent upon the co-ordinated teamwork of a band of active collaborators whose co-operation symbolizes the co-operative organism of what we call society. (W. Gropius 1955: 7)

Gropius described two different approaches to collaboration, produced 20 years apart and after numerous collaborative projects, including those discussed in this essay. First, a singular leader orchestrates the individual arts, and second, a unified idea gives the contributors a common cause, for which the architect works as a coordinator, not a dictator.

Using the framework of psychologist Vera John-Steiner from her book *Creative Collaboration*, the first could be classified as 'complementary' collaboration, based on a division of labor (John-Steiner 2000: 70) and the second as 'integrative' collaboration, founded on a common ideology or vision (John-Steiner 2000: 203). The projects discussed in this essay further illustrate these distinctions. Those with a clear common cause and shared vision, 'integrative' collaborations, have the potential to transform an art form even as the architect relinquishes the centrality of being a 'conductor'. 'They thrive on dialogue, risk taking, and a shared vision', John-Steiner explains:

In some cases, the participants construct a common set of beliefs, or ideology, which sustains them in periods of opposition in insecurity. Integrative partnerships are motivated by the desire to transform existing knowledge, thought styles, or artistic approaches into new visions. (John-Steiner: 203)

Gropius and his colleagues experienced both the discord of failed 'complementary' collaborations and the harmony of 'integrative' ones. By the postwar period, as Anne

Vallye (2011) has discussed, Gropius, now working in the US, saw the architect as a technocratic coordinator of 'knowledge production'. Whether in Germany or the US, however, Gropius always considered the architect the leader and final arbitrator in the implementation of the unified work, and this was particularly true for paint and color in and on his buildings. He emphasized this point in his 1919 essay, 'Architecture in a Free Republic', when he said, 'Architect, that means: leader of art' (W. Gropius 1993: 199).

Despite his emphasis on the supervisory role of the architect (or, perhaps, because of it), Gropius first hired painters for his new school and to head the Wall-Painting Workshop (Long 2006). Johannes Itten and Oskar Schlemmer were both early teachers in wall painting, and from 1922 to 1925, Kandinsky served as Master of Form, with first Carl Schlemmer and then Heinrich Bebernis acting as Masters of Craft. In 1925, with the school's move to Dessau, Scheper, a wall-painting alumnus, took over exclusive leadership, and by 1930 the workshop was absorbed into the *Ausbau* (Interior Finishing) Department upon Ludwig Mies van der Rohe's appointment as director (see Ridler 2016; Scheper 2005). Not surprisingly, the painters often envisioned an egalitarian role for color and painting in collaboration with the architect. For Kandinsky, the domination of one discipline over the other was a problem for a synthesis in the arts. In his program for the Soviet Institute of Artistic Culture (INKhUK), written in 1920 (two years before he arrived at the Bauhaus), Kandinsky explains:

This dead architecture of ours has the habit of dominating painting and sculpture (which, in their subservience, play a pathetic role), even though it has no prerogative to do so. But when the renaissance occurs, architecture will become an equal member of the three arts in monumental creation. (Kandinsky 1920: 463)

Conversely, Kandinsky also described the opposite case whereby the artist created his or her vision regardless of the architecture. 'The artist covered' the few walls, ceilings, and staircases allotted to them 'with whatever entered his head', without an organic connection to the architecture (Kandinsky 1920: 462).

As Rose-Carol Washton Long and others have discussed, Kandinsky had been interested in the arts coming together in a synthesis since his earliest days in Munich (Long 2013; Poling 1983). Peg Weiss (1995) has traced this interest back to his days as a student at the University of Moscow and an ethnographic trip he took in summer 1889 to a remote area of Russia and the colorful houses he saw there. His earliest Bauhaus-related works were a set of temporary, and now lost, wall paintings for the Jury-Free Art Show in Berlin in 1922 (Mehring 2009; Derouet 2013). However, other than the bold colors in his Master House in 1926, which included a black wall in the dining room,

Kandinsky never personally collaborated directly with an architect or developed an architectural wall-painting scheme.

Unlike Kandinsky, Oskar Schlemmer painted many wall and mural paintings throughout his career, advocating for the artist's autonomy. 'Painting should remain what it is, perfect itself within its own limits', he wrote in 1922. 'I firmly believe that the laws of painting have not changed now and never will' (Schlemmer 1972: 118). However, he did concede that 'the laws of architecture differ from those of painting. When painting serves a function within architecture, it must, of course obey its laws' (1972: 118). What is the function of painting in architecture? Itten, an easel painter and pedagogue, was wary of these relationships, and on May 26, 1916, he wrote in his diary, insisting that architecture must turn into art for a successful collaboration: 'Wall painting — architecture. Only in one tiny aspect do the two come in harmonious contact; namely, where architecture becomes an end in itself, as pure art. Only then is the fundamental attitude a pure one. Everything else is a compromise' (Wick 2000: 121).

Although the goal of bringing painting and architecture together was widespread at the Bauhaus — 'one of the most difficult artistic problems of our time', as the Bauhaus master Lothar Schreyer put it (Schreyer 1956: 174) — the exact dynamics of these relationships were up for debate. The examples that follow demonstrate that paint and color could transform architectural form, either destabilizing or supporting the solidity of the wall surface and the architectural design. Obligated to move beyond rhetorical and theoretical positions into practice, Gropius, his esteemed painting faculty, and the young Bauhaus students learned the complexities of compromise involved in collaboration. However, as Schreyer recalled of the early 1920s, 'in the architecture that Gropius creates today, there is no painterly work, no "picture" space, only the *Anstrich* [painting] or the given coloring of the materials' (1956: 175).⁶ The wall painter, working within the Bauhaus founder's buildings at least, was not the architect's equal partner, and wall painting had to yield to architectural concerns.

Jena Municipal Theater

The first large-scale public project of the Wall-Painting Workshop was the Jena Municipal Theater, which was refurbished by Gropius and Adolf Meyer from 1921 to 1922.⁷ The 19th-century building was modernized by cladding the existing ornament and structure on the exterior with a new clean surface and creating boxy, smooth walls in the interior (**Fig. 1**). Gropius hired the Wall-Painting Workshop to paint the interior in the fall of 1921, and during the 1921-22 winter semester, Oskar Schlemmer, the part-time Master of Form, along with his students, developed several plans for painting the



Figure 1: Walter Gropius, renovation of the Municipal Theater, Jena, 1921–1922: Angled view toward the stage. This photograph hints at the different colors used on the walls and soffits of the space, but because it is black and white, it is inconclusive. Gelatin silver print, 27.1 × 19.8 cm. Harvard Art Museums/Busch-Reisinger Museum, Gift of Ise Gropius, Photo © President and Fellows of Harvard College, BRGA.16.32. © 2021 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.

walls. Disagreements quickly plagued the project (U. Müller 2006: 32). Little is known about the specifics of the different plans, though a second draft plan by Schlemmer survives as a sketch.⁸ It shows a cropped view of the side wall in the auditorium, with shades of brown and beige delineating the long horizontal boxy soffits high on the wall. Pink outlines the doorway and gray squares mimic the cubic wall sconces. In March 1922, Schlemmer reported feeling very pessimistic, even depressed about the project. He wrote to his friend Otto Meyer-Amden about the difficulty of working with Gropius, complaining that Gropius believed that his design dematerialized the architecture

(U. Müller 2006: 32). In regards to these concerns, Schlemmer defiantly responded by stating, 'So I lead a fight' (Müller 2006: 32; Herzogenrath 1973: 29). In the end, Schlemmer was displeased with the final design, which included some color and sometimes 'too much detailing', which he described as 'colored and not colored, broken' (U. Müller 2006: 32). He placed the blame on Gropius's rejection of his earlier second plan.

The tensions in this project contrasted with Schlemmer's previous positive collaborations in Stuttgart with Adolf Hölzel, a professor at the art academy. Schlemmer was a student of Hölzel and, under the supervision of his teacher, contributed four paintings located under the colonnade of Theodor Fischer's main building for the 1914 Werkbund Exhibition in Cologne (Herzogenrath 1973: 19). Hölzel and Fischer, a fellow professor in Stuttgart, had been working together on a variety of projects before World War I.⁹ Hölzel considered the special problems of painting in architecture in the article 'Über Bildliche Kunstwerke im Architektonischen Raum' [Concerning Pictorial Artwork in Architectonic Space], in which he argued that wall painting had to take into account a wall's position in the building and the final space as a whole; the painting would be only one part (Hölzel 1909). He discussed respecting the relationship between the surface of the two-dimensional wall and the three-dimensional space. Echoing Kandinsky's later writing, Hölzel explained that either the space had to change for the painting or the painting had to be subordinate to the needs of the space.¹⁰ He emphasized the formal flatness of the painting, reducing any sense of depth or painterly perspective that would break the plane of the wall. Later, in his 1920 book, Schlemmer's friend, Hans Hildebrandt, a Stuttgart-based art historian, echoed many of Hölzel's ideas about the nature of wall painting and the risk of creating a 'Loch in der Wand' (hole in the wall), as he put it — meaning that the walls would lose solidity and the architecture could be weakened by wall painting (Hildebrandt 1920: 197; Pogacnik 2009: 102). Schlemmer was clearly aware of these concerns, and he faced them directly in Jena.

In May or June 1922, after months of planning, Schlemmer executed a multicolored checkerboard design on the ceiling of the auditorium in Jena with the help of his nephew Hermann Müller, an apprentice of the workshop (Herzogenrath 1973: 29–30; Müller 2006: 34). In developing the design, Schlemmer told Müller to experiment with 'small regular squares of different colors', which would be uniform at a distance but would create different moods (Fig. 2).¹¹ The squares of Schlemmer's ceiling design mimicked the cubic quality of the architecture and added a bright colorful effect to the interior. A wall-painting student, Andor Weininger, saw the painting in progress, which he described as 'a beautiful checkerboard design with colors' (Michaelson 1991: 33). Weininger also described De Stijl impresario Theo van Doesburg's negative reaction



Figure 2: Oskar Schlemmer, 'Eine Aufgabe, Die Für Wandgestaltung oder auch Applizierten Vorhang in Frage Kommt', handwritten note with drawing, pen on paper, 1922 (29.7 × 21cm). Staatsgalerie Stuttgart, Archiv Oskar Schlemmer, Schenkung 1974. Photo © Staatsgalerie Stuttgart.

to the painting: '[Van] Doesburg took one look and said: Why are they destroying the architecture with this painting?' (Michaelson 1991: 33). To van Doesburg, the colorful checkerboard ceiling confused the sculptural effect of the architecture, adding a busy pattern to the clean lines and flat surfaces of the renovations, undermining the tectonics of the space and the solidity of the wall.

Months earlier, Schlemmer had criticized van Doesburg as 'the Dutchman who advocates architecture so radically that for him painting does not exist, except insofar as it mirrors architecture' (1972: 117). The De Stijl leader was a critic of the Bauhaus and courted many Bauhäusler, especially those who wanted to study architecture, which

was not yet taught (Droste 2002: 54–57).¹² As Schlemmer specifically described, many students quickly came under the ‘spell’ of van Doesburg when he arrived in Weimar in April 1921, looking for employment at the school (1972: 118). For years, van Doesburg had been developing an approach to paint, color, and architecture in his floor and window designs and exterior color schemes. He also encountered issues with implementing his bold De Stijl color treatments in architecture, specifically for J.J.P. Oud’s Spangen Housing Block in Rotterdam. In November 1921, Oud rejected van Doesburg’s designs because of their disunity and contrast with the architectural designs (Troy 1983: 83–91). He evolved his approach and, in 1923 at the Leónce Rosenberg Gallery in Paris, he and architect Cornelis van Eesteren exhibited their axonometric counter-construction drawings, in which each plane is a single color, floating and shifting in time and space, but without surface ornament. Unlike van Doesburg’s later planes of color, Schlemmer’s busy checkerboard of 1922 broke apart the solidity of the ceiling surface. Despite his emphasis on mimicking the cubic qualities of Gropius’s boxy renovation, perhaps the painting was a distraction, although without better documentation this is difficult to determine.¹³

The conflict continued into summer at the home of Walter Dexel, a painter who was the director of the Jena Art Union in the 1920s, as well as a friend of the Bauhaus and a champion of De Stijl. In his later collection of essays, *Der Bauhausstil: ein Mythos, Texte 1921–1965*, he described a gathering of Schlemmer, Gropius, and van Doesburg in which the latter again harshly attacked Schlemmer’s paintings in the theater (U. Müller 2006: 34). It seems neither Gropius nor Schlemmer provided much of a response, and overall, according to Dexel, the confrontation was uncomfortable. For Gropius, it seemed that the opinions of the De Stijl envoy mattered, and the criticism of this rival must have rung true. Weininger reported that due to van Doesburg’s criticism, ‘Gropius went to Jena to take another look and had the ceiling painted over in gray’ (Michaelson 1991: 33). On July 15, 1922, Gropius explained to a member of the Jena City Council that he would pay for the extra expense of repainting the ceiling (U. Müller 2006: 35). Although Gropius’s rhetoric on collaboration was verbose, it had failed in practice. Alfred Arndt, at that time a young wall-painting apprentice, later recalled that in this project, ‘Art [as] heightened craft was not demonstrated here’ (1968: 74).

Unsurprisingly, Schlemmer was crushed by the destruction of his wall paintings. Lothar Schreyer, a fellow Bauhaus master, wrote, ‘I found Oskar Schlemmer sitting in his sculpture workshop on a sculpture stool, a wrecked man ... The expression of the face was of a chastised child, who does not comprehend why he is being chastised’ (Schreyer 1956: 174). The destruction of part of his wall-painting scheme for the theater was certainly a blow to Schlemmer’s confidence, but it also highlights more fundamental

questions for the Wall-Painting Workshop. Could and should the architect unilaterally remove a wall painting? What was the role of color and paint in the building? How much could wall painting destabilize the architecture or complicate the solidity of the wall surface? Should color transform or accompany architectural form? Ultimately, how would the wall painter and the architect work together?

The autonomy of wall painting had emerged as a crucial issue for the workshop, and painted color was exposed as a possible threat to the building, a destabilizing and disorientating force beyond the architect's control. Accordingly, this unsuccessful complementary collaboration marked a shift in the direction of wall painting and the school at large. Despite Schlemmer's continued pictorial and figurative wall-painting practice, such as his well-known works for the 1923 Bauhaus exhibition, the Wall-Painting Workshop shifted away from mural-like designs to the development of color schemes for walls. In addition, Gropius no longer included large-scale decorative and patterned wall paintings in his own architecture; instead, for the most part, he would allow some colored surfaces and small accent details.¹⁴ In Jena, Schlemmer learned the hard way that Gropius was completely in charge of his building. According to Gropius in the early 1920s, the conductor/architect should not change the song to accommodate one player; color should accompany the architecture and never change or destroy it. But as future projects would reveal, color could also be a positive force that could enliven, aid, and help to articulate the architecture. The dynamic between these two possibilities was in the balance.

The Cube within the Cube

By the fall of 1922, Kandinsky had taken over leadership of the Wall-Painting Workshop. As part of the important Bauhaus exhibition in 1923, the wall-painting students contributed to the Haus am Horn, demonstrating their skills through a variety of techniques, such as frescos and distemper, on the walls of the school. Some of these works were pictorial murals, such as Herbert Bayer's geometric paintings on the back staircase of the main Weimar building. A particularly important project was the design of Gropius's office, which today is understood as a manifesto of the new direction of the Bauhaus toward a constructivist aesthetic (Winkler and Oschmann 2008).¹⁵ Like the exhibition spaces of El Lissitzky, such as his famous *Proun Room*, also of 1923, Gropius's office demonstrated a new approach to form, color, and space. The room is organized around a unifying theory, a cube within a cube, all the elements working together towards this goal. This could be categorized as an 'integrative' collaboration, in John-Steiner's terms. Gropius is usually given full credit for the design of the entire room, including the wall paintings; however, because the architect was neither a colorist nor

an expert painter, the wall painters participated in some capacity in developing and implementing the color design (P. Müller 2009). The only known procedural detail is from July 23, 1923, when Master of Craft Heinrich Beberniss reported to the Masters Council that the painting of Gropius's office was completed on time, although the other furnishings were not finished until 1924, well after the close of the exhibition (Beberniss 1923).

The basic design of the space involves the creation of a five-cubic-meter space within a larger rectangular room. A partition wall squares off the space, and inside the large cube is a smaller cube, defined on the two walls by a framed bast-fiber wall covering and a silk curtain and on the floor with a colorful geometric carpet by Gertrud Arndt. On the ceiling, a yellow square and complex tubular light fixture optically delineate the interior cube (Fig. 3). The ceiling of the room is painted three different colors in relation to the organization of the space: beige for the entry, yellow for the seating area, and gray for the workspace. The ceiling effects also extend onto the walls in two yellow bands, expanding the interior cube outward. The yellow bands also give the room an asymmetrical balance, a counterpoint to the yellow furniture in the interior



Figure 3: Walls and ceiling of Walter Gropius's office, 1924. The yellow, beige, and gray subtly defined the spaces within the room. Bauhaus-Universität Weimar. Reconstruction by Gerhard Oschmann, 1999. Photograph by the author.

cube. Overall, the wall and ceiling color is subtle; however, it is also a seamless and supporting element to the design of the office, a successful integrative collaboration.

All the workshops coordinated their production to enact the architect's vision, and Gropius might have described this as a multi-voiced orchestra with a singular conductor. After the experience of Jena, both Gropius and Schlemmer began to understand how they would use wall painting in the future. For Schlemmer, this meant not yielding much to the laws of architecture. Schreyer might describe Schlemmer's paintings as 'picture spaces'. However, the office demonstrated that paint (*Anstrich*) could effectively define spaces and support the architect's formal goals. This project and many others at the 1923 Bauhaus exhibition provided examples of wall-painting outcomes, and they immediately preceded and informed Kandinsky's 1924 memo (discussed above). In Gropius's small office, the wall painting accompanied the form of the space rather than truly developing together with it, as Kandinsky would have originally conceived, although certainly the design did not create an opposition of color with form.

Transformative Color

Within months of Kandinsky's 1924 memo, Alfred Arndt, by this time a journeyman wall painter, also explored the cube within a cube leitmotif and tested the transformative effects of color at the Gropius-designed Haus Auerbach, in Jena.¹⁶ In this project, Arndt worked on Gropius's commission for a small private home for Felix Auerbach, a physics professor at the university in Jena, and his wife, Anna (Happe and Fischer 2003). Largely forgotten for decades after its completion, the interlocking cubic building was an important follow-up to the Gropius firm's renovation of the Jena Municipal Theater and a precursor to the Dessau Bauhaus buildings. At Haus Auerbach, Arndt used color as an active, constructive element with the power to emphasize architectural features, but the colors also created their own effects, sometimes defying and sometimes complicating the architectural surfaces. Haus Auerbach became the exception that proved the rule, a continuation of the experiments of Gropius's office, but also a final outlier before a more subdued, functional, and subordinate wall-painting approach took hold at the Bauhaus.

Years later, Arndt recalled his work on this project:

When I received the contract to paint Haus Auerbach from Grop [sic], Neufert was the construction director at the time. So we drove over, I with my picture folder, and showed it to the wife and the prof., they found them very pretty, Grop [sic] did not take a position.¹⁷ (1968: 74)

From this short comment, it seems as if Gropius was either uninterested in the color scheme or perhaps had already approved it. Arndt adds that Gropius did have input on the exterior plan. Additional beams were needed beneath the winter garden on the east side of the house, and Gropius wanted to camouflage these supports. Arndt recalled Gropius saying, ‘They must be treated with color so that they are not seen’ (1968: 74).¹⁸ The general sense of this interaction is that Gropius was more concerned with the way color and paint could correct the building’s external appearance than with the interior wall paintings (U. Müller 2004: 154). In the end, the exterior was primarily off-white stucco, while in the interior, almost every room was boldly colored. The renovated building and Arndt’s extant plans in the Bauhaus-Archiv document these features.

The colors of each room were designed for the specific function and architectural features, with niches, windows, and stairways getting pops of color (Fig. 4). The music room, the heart of the home, offers a useful example of Arndt’s approach. In both the plan and the extensive reconstruction of the wall colors, most of the walls and ceiling are painted turquoise (Fig. 5). Breaking up the turquoise is a one-meter-wide

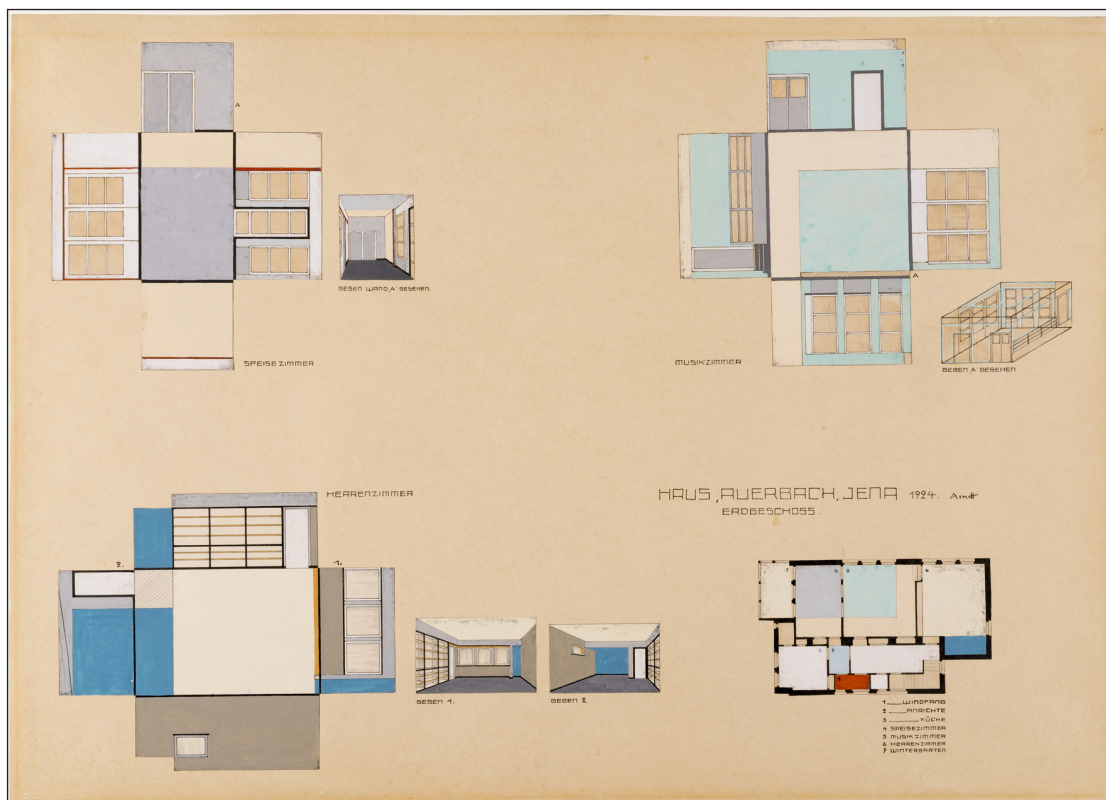


Figure 4: Alfred Arndt, *Color Plan for Haus Auerbach, First Floor, 1924*. The plan for the music room is in the upper right. Tempera and India ink on paper, 56.5 × 79 cm. Bauhaus-Archiv Berlin. © 2021 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.



Figure 5: Reconstruction of Alfred Arndt's wall paintings in the Music Room of Haus Auerbach, Walter Gropius and Adolf Meyer, Jena, 1924. Restoration, 1994/1995. Photograph by the author.

band of light yellow between the edge of windows on the south wall and the corner of the west wall. The yellow band extends up from the south wall and onto the ceiling, where it skirts the edge of the room and creates a frame for an almost perfect square of turquoise in the middle (which actually measures 4 by 3.8 meters) (Happe and Fischer 2003: 133). The square of turquoise corresponds to the length of the exterior windows and the interior glass doors that open into the dining area. The turquoise also extends down onto the wall over the windows and doors and in between the panes of glass. The interior doors and exterior windows establish a cube within a cube effect and the yellow ceiling frame and the turquoise square enhanced it. The colors also slightly correct the inexact dimensions of the room; the windows and doors are not the same length, although this discrepancy is impossible to notice in the painted space.

However, Arndt's design not only accentuates the dimensions of the room and the windows but also produces its own visual emphasis, distracting from the architectural elements of the design. When one looks up in the space, the strip of yellow seems to move, like a later Josef Albers painting, pushing and pulling. The yellow extends out

towards us, the turquoise pushes back. It gives the illusion of a soffit, like in the Jena Municipal Theater, or a recess in the ceiling — some kind of architectural feature, where there is none. The flat ceiling is distorted by the color and the solidity of the surface is fragmented. Therefore, Arndt's color scheme acts in two ways, accompanying the architecture as well as transforming it. The bold scheme in soft pastel colors invites comparison with the red, yellow, and blue De Stijl Schröder House in Utrecht, also built in 1924. This building by Gerrit Rietveld, with significant collaboration with the owner, Truus Schröder, is a colorful, flexible space, where walls can be moved and furniture folded up and rearranged to transform a small second floor into living room, bedrooms, and dining room. Although using different palettes, both of these buildings include color as an active element in the design, working in tandem with the architectural form.

At Haus Auerbach, the colors dematerialize the architecture, just as van Doesburg had argued two years earlier at the nearby theater. If one takes Arndt at his word, how could Gropius have had no opinion on this bright and daring interior color scheme? The reasons for the architect's disinterest or his implicit consent to this bold design were twofold. First was the client; Felix Auerbach was a physics professor with a strong interest in music and the arts. He and his wife, Anna, were involved in many cultural and social organizations, including women's suffrage (Happe and Fischer 2003). Perhaps these cultured clients asked for extensive color and at least approved of Arndt's 'pretty' plan, and therefore Gropius had no problem with it. Second, Haus Auerbach was a small private commission, where Gropius was able to experiment further with spatial ideas of dematerialized walls and cubic forms. Unlike large public buildings, such as the Jena Municipal Theater or the new buildings in Dessau, which would define Gropius's reputation, at Haus Auerbach the young Arndt could freely collaborate with the established architect and his partner Adolf Meyer, and his colors could both accompany and diverge from the architecture. During this time, the Wall-Painting Workshop played with color, as Andor Weininger said: 'Whenever we got a job we'd experiment with color. Our clients were the victims, the guinea pigs. We were relieved when they were satisfied' (Michaelson 1991: 31). He further explained that they were focused on 'Raumgestaltung i.e., forming or creating space with colors. ... We tried to "gestalten" (design), not just paint. If you use them right, colors have great magic' (1991: 31).¹⁹ The power of paint and color was therefore freely used in this low-stakes private commission.

In the years following this project, Gropius continued to turn away from such bold and colorful wall-painting schemes. White was becoming a more and more important element of modernist architecture, as Le Corbusier declared in his hyperbolic Law of

Ripolin: ‘every citizen is required to replace his hangings, his damasks, his wallpapers, his stencils, with a plain coat of white ripolin’ (Le Corbusier 1987: 188). However, like Le Corbusier, who developed his own color palette and used significant polychromy in his architecture, Gropius continued to use color in his buildings. He soon built larger, more public projects where control over color was tightened and the power dynamics of the collaboration would change, as would the leadership and direction of the Wall-Painting Workshop. Referring to many of the wall-color designs in the new masters’ houses in Dessau, and probably echoing the ideas of her husband, Ise Gropius wrote in her diary on April 26, 1926, ‘Our painters go too far sometimes’ (see I. Gropius 1926). In the 1925 move of the Bauhaus to Dessau, Kandinsky withdrew from the workshop to focus on his teaching of color, form, and analytical drawing, and Hinnerk Scheper became the new Master of Wall Painting. Scheper and his wife, Lou Scheper-Berkenkamp, a fellow Bauhaus artist, wrote that instead of transforming architecture with color, ‘in no circumstance can wall-painting displace the architectural form and lose a connection with it’ (Scheper and Scheper-Berkenkamp 2018: 93). His color designs for the new Bauhaus buildings in Dessau reflected this shift and the maturation of wall-painting philosophy.

Color and the Bauhaus Building in Dessau

Scheper, the new ‘Young Master’ of the Wall-Painting Workshop, as he was called, was a graduate of the Bauhaus, having completed his master’s examination in Weimar in 1922. He returned to the school in 1925 after a freelance career and, in addition to his teaching duties, he worked with Gropius on the crown jewel of the Bauhaus, the instantly famous building in Dessau. The new building officially opened on December 4, 1926, and Scheper oversaw its painting and designed a number of the spaces.²⁰ In contrast to Arndt’s bold color-forward scheme, Scheper’s designs were subtle and deferred to Gropius and his architecture. This collaboration solidified the subordinate position of painting to architecture; the architect was decisively the leader of the arts and color was to accompany architectural form.

Scheper is often given exclusive credit for the color scheme in Dessau, although the process of painting the large building complex was collaborative within the workshop; students designed and painted many spaces. The student Werner Isaacsohn may have been the primary designer of the wall spaces for the administrative offices and the entry to the studio building, and Heinrich Koch may have developed the design for the walls of the canteen and auditorium (R. Scheper 2005: 157). Ise Gropius wrote in her diary, on April 19, 1926, about Scheper’s control of the workshop and the collaborative process:

Scheper dominates the wall-painting workshop too much so that the others feel slighted. Every job goes under his name, while it would be necessary that also the others, like Arndt and Koch, should get in line to head some work independently.

Scheper may have monopolized authorship of the wall paintings, but he also supervised the overall project and had the most access to Gropius. In addition, Scheper drafted a number of large colorful architectural plans, including floor plans and elevations. The personal dynamics between Gropius and Scheper are largely unknown, although Ise mentions Scheper and his wife with fondness numerous times in her diary. In addition, Gropius had written a positive letter of recommendation in 1922 (R. Scheper 2007: 14). A hint at the working relationship between the two appears in a letter Scheper wrote to his wife on August 18, 1926, in which he explains that Gropius had agreed to a more restrained color plan for the exterior of the school (R. Scheper 2007: 36). This comment demonstrates that Scheper and Gropius were negotiating the color design, the architect approving and disapproving certain features. It also prompts the question, more restrained than what? Ise Gropius mentions what may be this same encounter in a diary entry on May 2, 1926: 'Spent time on the building site. The paint problems begin. The Wall-Painting Workshop has delivered very beautiful plans for it; the apportionment becomes more and more difficult'. The plans to which Ise Gropius and Scheper might have referred are his elaborate color elevations and perspective drawings preserved in the Bauhaus Archiv in Berlin (Fig. 6). The divergence between the extant plans and the finished coloration, confirmed by the 2005 restoration of the building, which examined extant paint fragments, period documents, and photographs, suggests that Gropius and his team amended Scheper's and the Wall-Painting Workshop's original designs and approved only some aspects. Unlike in Jena, at the Haus Auerbach and the Municipal Theater, it appears that Gropius provided significant feedback and criticism on the color plans before painting began; however, as with the theater, the allocation of color and wall painting seems to have been a concern.

The Wall-Painting Workshop and its leader planned to use colors to emphasize Gropius's structure, make it more comprehensible, and help in the navigation of the large complex. In the 1926 issue of *Offset* magazine, in text accompanying his *Color Orientation Plan of the Bauhaus Dessau*, Scheper expressed a concern for function and architectonics (1926: 365).²¹ He explained that color could be used to aid in orientation in the large building by associating each workshop and its location with a color. He wanted to use color to articulate structures like beams and to emphasize the materiality of the wall surface. In Scheper's plan, bright red, for example, highlighted the large

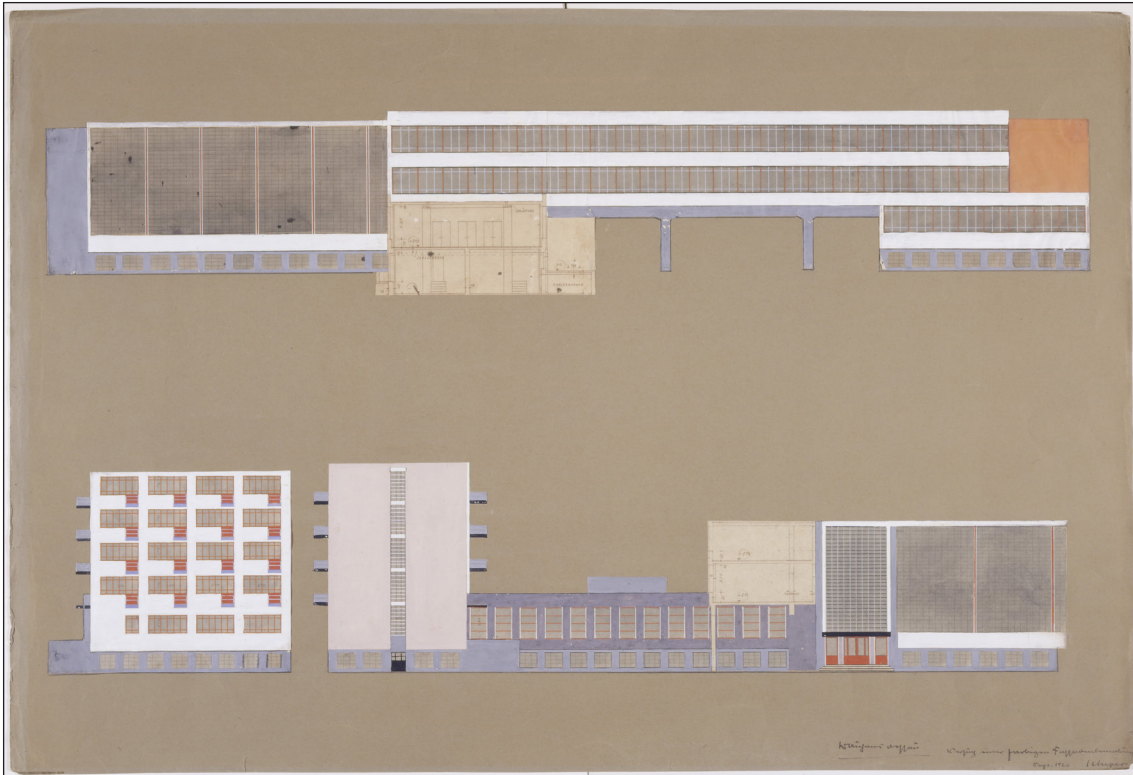


Figure 6: Hinnerk Scheper, *Exterior Color Plan, Elevations*, for the Bauhaus Building, Dessau, 1926. The color plan shows significant use of color on the exterior, including the orange square on the east façade. Tempera over blueprint, cut-and-pasted on gray-green paper, 68 × 100 cm. Bauhaus-Archiv Berlin. © Bauhaus-Archiv Berlin.

glass curtain wall and coordinated with the red of the doors all around the exterior of the building (Ridler 2019). However, in the restoration, the exterior of the building was found to be primarily white and gray and without every small burst of color that was depicted in Scheper's perspective drawings and elevations. The most noticeable example is in the east elevation drawing, in which Scheper indicated that he intended to paint a corner of the exterior wall orange. It would have stood out dramatically against the white walls, but it also would have accentuated a blank wall surface created by the abrupt end of two rows of windows and a drop in the roofline. This orange square would have been a bright and noticeable signature, demonstrating the power of color on architectural form, and making a striking color impression for guests who would see it as they arrive from the train station. However, the bold orange square was never painted (Fig. 7) (Markgraf 2006: 151). Gropius did not risk these colors distracting from or transforming his iconic white building, unlike his German colleague Bruno Taut, who used bold punches of color such as bright blue on recessed exterior walls in projects like the Horseshoe Housing Estate in Berlin in 1925.



Figure 7: Lucia Moholy, Walter Gropius's Bauhaus Building, Dessau, 1925–1926; View from the northeast, 1926. This black-and-white photograph, like most period images of the Bauhaus building, provides little hint at the color and has sustained the sense that Gropius's buildings are purely white. This photograph also proves that the orange square of Scheper's design was not executed. Gelatin silver print. Harvard Art Museum/Busch-Reisinger Museum, Gift of Ise Gropius. Photo © President and Fellows of Harvard College, BRGA.20.251 © 2021 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.

Despite the toned-down color design and the many white surfaces, significant pops of color were implemented, primarily in the interior, such as in the stairwells and canteen. In the small landings of the main staircase, color is used to help clarify the architectural space. As seen in the current renovation, the ceiling is a pale yellow, a light reflective color, which draws the eye upward and the viewer up the stairs. The sidewalls are white and the narrow strip of the wall to the left and right of the massive window is black. Black does not reflect or distract from the light pouring into the space and seems to disappear against the brightness of the window. Opposite, a combination of grays and black transforms the underside of the stairs leading to the upper floors into a sculptural presence that is better perceived by the viewer than if the staircase were painted all white.

After the experience of painting the Dessau buildings, including the Masters' Houses, Dessau Törten Housing Estate, and many other outside commissions, Scheper and Scheper-Berkenkamp articulated their crystalized wall-painting approach in 1930. Both were working in Moscow as foreign specialists and exporters of Bauhaus ideas when they wrote the essay 'Архитектура И Цвет' [Architecture and Color] for the Soviet wall-painting trade journal, *Maliarnoe Delo* (published by Scheper and Scheper-Berkenkamp in 1930; see introduction by M. Ridler in Scheper and

Scheper-Berkenkamp 2018: 79–89). They said that paint protected the surfaces of a building and could highlight specific features and formal elements and aid in the light effects and orientation in a large building project, such as the Narkomfin building in Moscow, which Scheper worked on with architect Moisei Ginsburg. After years of wall-painting practice and teaching, both at the Bauhaus and in the outside world, and in collaboration with Gropius, Scheper and Scheper-Berkenkamp concluded that ‘color in architecture should not be a matter of personal, individual taste, but on the contrary, it should be aesthetically tied to the formal and technical laws of a given building’. For the Schepers, color and architecture must work together, because ‘a false relationship between one or the other destroys the static balance of the building. A correct relationship creates a new, clear expression of space perceived as a deliberate architectonic structure’ (Scheper and Scheper-Berkenkamp 2018: 93). Color could improve and accompany spaces, but for the Schepers it must not transform or displace the architectural form. In continuation with the orchestra metaphor, the color melody had to be in time with the conductor’s beat.

Conclusion

These examples of collaboration between Gropius and Bauhaus wall painters demonstrate that the actual implementation of painting in architecture was far from straightforward. The working relationships and power dynamics between the wall painters and the architect were crucial to the success of the projects. By the mid-1920s, Gropius, as a collaborator with the Wall-Painting Workshop, insisted that architecture be given priority and color be used only as a support. His role was as conductor and leader of the project, not as a rank and file player. He had stymied many attempts to add colored elements and his buildings became increasingly white. Years later, Weininger wrote that in Dessau there was a discovery of white, which was never really white but rather a reflection of the colors of the surroundings: ‘Previously we had used colors to improve a room. If the ceiling was too high, for instance, we’d take a heavy color to lower it’ (Michaelson 1991: 44). Color could visually modify existing spaces, like in Gropius’s office. In the new Dessau Bauhaus building, Weininger explained that ‘there was no need to improve anything’ (1991: 44). Perhaps color, which the wall painters used to highlight, dematerialize, and enhance the architectural structure, was not needed in the perfectly proportioned Gropius building, just as the architect desired (or dreamed). However, as this paper has also shown, Gropius and the Bauhaus wall painters echoed analogous debates about architectural polychromy and color and form in interwar modernism, for example, in direct confrontations with van Doesburg or in contrast to De Stijl color design.

Despite the urge of some scholars to see Gropius's future projects and modernism in general as unremittingly white or to simply ignore the use of color (Wigley 1995; McLeod 1994; Overy 2007), the architect continued to collaborate with painters, and he did use color subtly in his later buildings. For example, after his immigration to the US, in his new home in Lincoln, Massachusetts, Gropius painted an exterior wall on the rooftop deck pale pink, which absorbs the harsh southerly sunlight.²² He also continued to commission art for his buildings, including works by Herbert Bayer and Josef Albers for Harkness Commons in the Harvard Graduate Center. In 1966 Gropius wrote about how his American firm, The Architects Collaborative, worked with artists, still envisioning an 'integrative' collaboration:

We have found that integration of architecture with paintings and sculptures succeeds best when painters and sculptors have taken direct part in the conceptual phase of the design process right from the start. Added on as an afterthought, even the best art work has little chance to become an organic part of the whole. (W. Gropius 1966: 20)

The goal of the organic whole, the complete building, prevailed in Gropius's approach. However, the postwar artworks in Gropius's buildings remained distinct objects. They were integrated into the architecture but did not involve transformation and dematerialization through colored walls or boldly patterned ceilings; they yielded to their place in Gropius's buildings. As the four projects discussed in this essay demonstrate, over the course of the 1920s, Bauhaus wall painters evolved from independent cooperators to subordinate collaborators. Paint and the constructive and destabilizing properties of color proved dangerous to Gropius's white cubes; therefore, by the heroic Dessau period of the school, the architect maintained firm control over all aspects of the collaborative building project. Wall painting was never equal to architecture, as Kandinsky dreamed, but subservient and contingent.

Notes

- ¹ The original German, 'durch bewußtes Mit- und Ineinanderwirken aller Werkleute,' implies a collaboration and integration of the work.
- ² Throughout the first year, the workshop was identified as the *Dekorationsmalerkursus* (painter-and-decorator course) before changing to wall painting in the 1921 curriculum.
- ³ I revised Wingler's translation based on the original German publication (Kandinsky 2001: 335).
- ⁴ 'Das Mitgehen der Farbe mit der gegebenen Form, wodurch diese Form in ihrer Wirkung gesteigert wird und sich dadurch eine neue Form bildet.'
- ⁵ 'Das entgegengesetzte Gehen der Farbe, wodurch die gegebene Form umgestaltet wird.'
- ⁶ 'In der Baukunst, wie sie Gropius heute schafft, hat kein malerisches Werk, kein 'Bild' Platz, sondern nur der Anstrich oder die gegebene Färbung des Materials.' The German word *Anstrich* refers to house painting and not artistic painting, which would use the words *Malerei* or *Gemälde*.
- ⁷ The building was significantly renovated and changed in the postwar period and demolished in the late 1980s.
- ⁸ Although this sketch has been published, its current location is unverified.
- ⁹ Their students shared this interest and often worked on these collaborations, including most notably Oskar Schlemmer, Willi Baumeister, and Fischer's earlier apprentice, Bruno Taut. By the summer of 1921, the three masters of the Bauhaus Wall-Painting Workshop, Johannes Itten, Oskar Schlemmer, and his brother Carl Schlemmer, as Master of Craft, had received at least part of their previous training and experience with Hölzel.
- ¹⁰ Specifically, he discussed the Pfullinger Hallen, the collaborative project of Fischer and Hölzel with paintings by students.
- ¹¹ 'Kleine regelmäßige Quadrate verschiedenfarbig so zu reihen und zu ordnen, daß es auf Entfernung gleichmäßig und ruhig wirkt.'
- ¹² Van Doesburg moved to Weimar in April 1921, hoping to join the Bauhaus faculty, but Gropius never hired him. In February 1922, Van Doesburg announced that he would be teaching a competing De Stijl course, held in the studio of the wall-painting student Karl Peter Röhl.
- ¹³ More cynically perhaps, van Doesburg's difficult personality and the competition and general antagonism he employed toward Gropius, and the Bauhaus more generally, motivated his critique of Schlemmer design.
- ¹⁴ Although Schlemmer's wall paintings were painted over, Adolf Meyer still credited Schlemmer for the management of the artistic paintwork in the official announcement, September 1922, of the Jena Municipal Theater completion, which provided a listing of the architects, craftsmen, and businesses involved in the renovation (U. Müller 2006: 32).
- ¹⁵ The space was restored close to its original appearance in 1999.
- ¹⁶ The building underwent extensive renovations between 1994 and 1995, when the original color scheme was closely restored.
- ¹⁷ 'Als ich das haus auerbach in auftrag bekam von grop anzumalen, neufert war damals bauführer. wir sind also hingefahren, ich mit meinen bilderbogen, den haben wir der frau und dem herrn prof gezeigt. die fanden das sehr schön, grop bezog gar kein feld.'
- ¹⁸ 'Diesen balkon da vorn mit den stützen, die wir leider machen mussten, das müssen sie farbig so behandeln, dass sie nicht zu sehen sind.'
- ¹⁹ *Gestalten* or *Gestaltung* today is usually translated as design, but in the 1920s it was a charged word, meaning 'form creation.' The term was used by the avant-garde, specifically in the journal *G: Materials for Elemental Form-Creation*, to describe a post-representational form and the process of its creation (Mertins and Jennings 2010).
- ²⁰ The exception is the design of the main vestibule of the building. According to Ise Gropius's diary, this space was not under the Wall-Painting Workshop's sphere of influence but was designed by László Moholy-Nagy, much to the chagrin of Schepher.
- ²¹ This plan and short statement were published alongside Gropius's essay on the school.
- ²² The pink was still in place at the Gropius house in Lincoln, Massachusetts, and was seen by the author in June 2019.

Acknowledgements

The author thanks Barbara Happe, Martin S. Fischer, Monika Markgraf, and Renate Scheper for their help in the research of this article and the anonymous reviewers and editorial team at *Architectural Histories* for their comments and suggestions.

Competing Interests

The author has no competing interests to declare.

References

Unpublished Sources

- Beberrniss, H.** 1923. Monatsberichts Der Wandmalereiwerkstatt July 23, 1923. Folder 177, p. 10. Staatliches Bauhaus Weimar Papers, Thüringisches Hauptstaatsarchiv, Weimar.
- Gropius, I.** 1926. Diary, Walter and Ise Gropius Papers, 1883–1981. Archives of American Art, Smithsonian Institution.
- Ridler, M.** 2016. The Bauhaus Wall Painting Workshop: Mural Painting to Wallpapering, Art to Product. Unpublished thesis (PhD), City University of New York.
- Vallye, A.** 2011. Design and the Politics of Knowledge in America, 1937–1967: Walter Gropius, Gyorgy Kepes. Unpublished thesis (PhD), Columbia University.

Published Sources

- Arndt, A.** 1968. Erinnerungen an das Bauhaus. In: Wolsdorff, C (ed.), *In der Vollendung liegt die Schönheit: der Bauhaus-Meister Alfred Arndt, 1898–1976*. Berlin: Bauhaus-Archiv, 1999. pp. 72–75.
- Baudin, K** (ed.). 2016. *Fernand Léger: Painting in Space*. Cologne: Hirmer.
- Derouet, C.** 2013. The Juryfreie Murals. In: Lloyd, J (ed.), *Vasily Kandinsky: From Blaue Reiter to the Bauhaus, 1910–1925*. Ostfildern: Hatje Cantz. pp. 105–118.
- Droste, M.** 2002. *Bauhaus, 1919–1933*. Cologne: Taschen.
- Golan, R.** 2009. *Muralnomad: The Paradox of Wall Painting, Europe 1927–1957*. New Haven: Yale University Press.
- Gropius, W.** 1955. My Conception of the Bauhaus Idea [1937]. In: *Scope of Total Architecture*. New York: Harper. pp. 19–29.
- Gropius, W.** 1966. TAC's Objectives. In: Gropius, W (ed.), *The Architects Collaborative, 1945–1965*. New York: Architectural Book Pub. Co. p. 20.
- Gropius, W.** 1976. Program of the Staatliche Bauhaus in Weimar [1919]. In: Wingler, H, and Stein, J (eds.), *The Bauhaus: Weimar, Dessau, Berlin, Chicago*. Trans. W. Jabs and B. Gilbert. Cambridge, MA: MIT Press. p. 31.
- Gropius, W.** 1993. Architecture in a Free Republic [1919]. In: Long, R. (ed.) *German Expressionism: Documents from the End of the Wilhelmine Empire to the Rise of National Socialism*. Trans. N. Roth. Berkeley: University of California Press. pp. 198–199.

- Happe, B, and Fischer, M.** 2003. *Haus Auerbach of Walter Gropius with Adolf Meyer*. Tübingen: Wasmuth.
- Herzogenrath, W.** 1973. *Oskar Schlemmer: Die Wandgestaltung der neuen Architektur*. Munich: Prestel.
- Hildebrandt, H.** 1920. *Wandmalerei: Ihr Wesen und ihre Gesetze*. Stuttgart: Deutsche Verlags-Anstalt.
- Hölzel, A.** 1909. Über Bildliche Kunstwerke im Architektonischen Raum. *Der Architekt*, 15: 34–37, 41–46, 73–80.
- John-Steiner, V.** 2000. *Creative Collaboration*. Oxford: Oxford University Press.
- Kandinsky, W.** 1920. Program for the Institute of Artistic Culture. In: Lindsay, K, and Vergo, P (eds.), *Kandinsky: Complete Writings on Art*. New York: Da Capo Press. p. 463.
- Kandinsky, W.** 1976. The Work of the Wall-Painting Workshop of the Staatliche Bauhaus [1924]. In: Wingler, H, and Stein, J (eds.), *The Bauhaus: Weimar, Dessau, Berlin, Chicago*. Trans. W. Jabs and B. Gilbert. Cambridge, MA: MIT Press, 1976. p. 80.
- Kandinsky, W.** 2001. Die Arbeit in der Wandmalerei des Staatlichen Bauhauses, Weimar, den 4. April 1924, 335–336. In: Wahl, V (ed.), *Die Meisterratsprotokolle des Staatlichen Bauhauses Weimar*. Weimar: Böhlau, 2001.
- Koss, J.** 2010. *Modernism after Wagner*. Minneapolis: University of Minnesota Press.
- Le Corbusier.** 1987. *The Decorative Art of Today [1925]*. Cambridge, MA: MIT Press.
- Long, R.** 2006. From Metaphysics to Material Culture: Painting and Photography at the Bauhaus. In: James-Chakraborty, K (ed.), *Bauhaus Culture: From Weimar to the Cold War*. Minneapolis: University of Minnesota Press. pp. 43–62.
- Long, R.** 2013. Constructing the Total Work of Art: Painting and the Public. In: Lloyd, J (ed.), *Vasily Kandinsky: From Blaue Reiter to the Bauhaus, 1910–1925*. Ostfildern: Hatke Cantz. pp. 33–47.
- Markgraf, M.** 2006. *Archaeology of Modernism: Renovation Bauhaus Dessau*. Berlin: Jovis.
- McLeod, M.** 1994. Undressing Architecture: Fashion, Gender and Modernity. In: Fausch, D (ed.), *Architecture: In Fashion*. New York: Princeton Architectural Press. pp. 38–123.
- Mehring, C.** 2009. Vasily Kandinsky, Designs for Wall Paintings [1922]. In: Bergdoll, B, and Dickerman, L, *Bauhaus 1919–1933: Workshops for Modernity*. New York: The Museum of Modern Art. p. 127.
- Mertins, D, and Jennings, M.** 2010. Introduction: The G-Group and the European Avant-Garde. In: *G: An Avant-garde Journal of Art, Architecture, Design, and Film, 1923–1926*. Los Angeles: Getty Research Institute.
- Michaelson, K.** 1991. Weininger Talks about the Bauhaus. In: Svestka, J, and Michaelson, K (eds.) *Andor Weininger: From Bauhaus to Conceptual Art*. Düsseldorf: Kunstverein für die Rheinlande und Westfalen. pp. 25–47.
- Müller, P.** 2009. Mental Space in a Material World: Ideal and Reality in the Weimar Director's Office. In: *Bauhaus: A Conceptual Model*. Ostfildern: Hatje Cantz. pp. 153–156.
- Müller, U.** 2004. *Raum, Bewegung und Zeit im Werk von Walter Gropius und Ludwig Mies van der Rohe*. Berlin: Akademie Verlag.

- Müller, U.** 2006. *Walter Gropius: Das Jenaer Theater*. Cologne: König.
- Overy, P.** 2007. *Light, Air and Openness: Modern Architecture Between the Wars*. London: Thames and Hudson.
- Pegioudis, N.** 2016. The 'Bare Wall': Interior Design, Painting, and Professional Politics in Late Weimar Germany. *Oxford Art Journal*, 39(1): 87–106. DOI: <https://doi.org/10.1093/oxartj/kcv033>
- Pogacnik, M.** 2009. Gebaute Bilder Adolf Hölzel und die Wandmalerei. In: Ackermann, M, Leistner, G and Spanke, D (eds.) *Kaleidoskop: Hoelzel in der Avantgarde*. Heidelberg: Kehrer. pp. 100–108.
- Poling, C.** 1983. *Kandinsky: Russian and Bauhaus Years, 1915–1933*. New York: Solomon R. Guggenheim Museum.
- Ridler, M.** 2019. Paint It Red: The Squares, Cubes, and Doors of the Bauhaus. *Source: Notes in the History of Art*, 38(3): 168–78. DOI: <https://doi.org/10.1086/703429>
- Scheper, H.** 1926. Farbiger Orientierungsplan des Bauhauses Dessau. *Offset: Buch und Werbekunst*, 7: 365.
- Scheper, H, and Scheper-Berkenkamp, L.** 2018. Architecture and Color. Trans. M. Ridler and N. Kurchanova. Introduction by M. Ridler. *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 25(1): 78–96. Originally published in Russian as H. and L. Scheper, Архитектура И Цвет, *Maliarnoe Delo*, 1–2, 1930, 12–15. DOI: <https://doi.org/10.1086/699499>
- Scheper, R.** 2005. *Colourful! The Wallpainting Workshop at the Bauhaus*. Berlin: Bauhaus-Archiv.
- Scheper, R.** 2007. *Hinnerk Scheper: Farbgestalter, Fotograf, Denkmalpfleger; vom Bauhaus geprägt*. Rasch: Bramsche.
- Schlemmer, O.** 1972. *The Letters and Diaries of Oskar Schlemmer*. Ed. T. Schlemmer. Trans. K. Winston. Middletown: Wesleyan University Press.
- Schreyer, L.** 1956. Die Kunstfigur, In: *Erinnerungen an Sturm und Bauhaus Was ist des Menschen Bild?* Munich: Langen Müller. pp. 174–184.
- Troy, N.** 1983. *The De Stijl Environment*. Cambridge, MA: The MIT Press.
- Vallye, A.** 2013. *Léger: Modern Art and the Metropolis*. Philadelphia: Philadelphia Museum of Art.
- Wahl, V.** 2001. *Die Meisterratsprotokolle des Staatlichen Bauhauses Weimar 1919 bis 1925*. Weimar: Böhlau. DOI: <https://doi.org/10.1007/978-3-476-03186-0>
- Weiss, P.** 1995. *Kandinsky and Old Russia: The Artist as Ethnographer and Shaman*. New Haven: Yale University Press.
- Wick, R.** 2000. *Teaching at the Bauhaus*. Trans. S. Mason. Ostfildern-Ruit, Germany: Hatje Cantz.
- Wigley, M.** 1995. *White Walls, Designer Dresses: The Fashioning of Modern Architecture*. Cambridge, MA: MIT Press.
- Winkler, K, and Oschmann, G.** 2008. *Das Gropius-Zimmer: Geschichte und Rekonstruktion des Direktorenraumes am Staatlichen Bauhaus in Weimar 1923/24*. Weimar: Verlag der Bauhaus-Universität.

