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Architectural Utopias for the Machine Age

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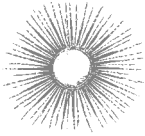
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The Revolutionary Mind of Walter Gropius: Architectural Utopias for the Machine Age

Felipe Loureiro

ABSTRACT

The founders of Modern architecture believed that they were creating a new tradition, instead of just another addition to the continuous flow of architectural history. This belief was largely based on their reaction toward the advent of industrial production, which seemed to demand a completely new conception of the role of the architect. This essay aims at discussing this new tradition through the analysis of the Bauhaus manifestos written by Walter Gropius in 1919 and 1926, highlighting, in both texts, the traces of what Brazilian philosopher Olavo de Carvalho calls “the revolutionary mentality.” This mentality encompasses not only the conception of an ideal, utopian future but also the perception of the present and the evaluation of the past. The study of this mind-set, which forged Modern architecture, can help us reevaluate the role of Utopias in architectural theory and practice, going beyond the superficial stigmas of rigidity, “inhumane” rationalism, or even totalitarianism that usually guide the critique of Modern architectural Utopias.

KEYWORDS: *Modern architecture, revolutionary mentality, Utopia, tradition, Walter Gropius, Bauhaus, Olavo de Carvalho*

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The fathers of the Modern movement have undoubtedly created a new tradition in architecture, as advertised by Siegfried Giedion in the classic book *Space, Time, and Architecture*, first published in 1941. As a practicing architect, I surely disagree with the “most reductive aspects of modern (twentieth-century) architecture,” as Nathaniel Coleman puts it,¹ which are inherent to what he calls—following the definition by architectural critic Kenneth Frampton—“orthodox modern architecture.” However, this new tradition is not limited by the rigid forms of orthodox modernism, including its many variations and the undeniable achievements of many architects who were able to create meaningful buildings for a postindustrial world. Thus, instead of focusing on the mistakes or shortcomings that can be identified in many Modern buildings, or defending their achievements against the attacks of “traditionalists,” I am much more interested in understanding what motivated the creation of these buildings. Which mind-set, or even which worldview, formed the ontological frame in which the modern masters operated?

We must keep in mind that what we call history—or, in this case, the history of architecture—may be registered in documents and buildings, but it is born in the minds of men. Thus, I have been trying to read through these documents and buildings, in an effort to analyze the psychological and even spiritual phenomena behind them. This is why, in order to analyze the manifestos written by Walter Gropius in 1919 and 1926, I will try not only to reconstruct the artistic or intellectual environment of his time but also to understand how it affected the author’s perception and expression of this environment.

In his classic book *Pioneers of Modern Design*, art historian Nikolaus Pevsner chose the following subtitle: *From William Morris to Walter Gropius*. William Morris (1834–1896) was an English artist and author and one of the key figures of the Arts and Crafts movement, which argued for a recovery of craftsmanship as a reaction to the poor quality of standardized, machine-made products. This reaction was not based merely in aesthetic appreciation—Morris actually blamed artists for having distanced themselves from everyday life, turning to “dreams of Greece and Italy . . . which only a very few people even pretend to understand or be moved by.”² Industry had replaced the work of the artisans, producing the utensils for everyday life, while artists focused on producing “fine art.” Morris sought to spread the scope of fine art to everyday objects—so that it could be enjoyed by all—and he believed that he could do this by re-creating the work structure of the medieval guilds.

Pevsner underlines that artists began to distance themselves from society during the Renaissance; thus, the Middle Ages provided the example of an era when one could still find a unity between art and everyday life. This is why, for Pevsner, Morris's socialism has "more in it of More than of Marx"—he looked "backward, not forward."³ However, in spite of his intentions to make art for all, Morris's "medieval techniques" made his products quite expensive, if compared with the competition of mass-produced items. Thus, they could only be bought by the very well-to-do, a sort of elitism that Morris frequently condemned, but which seemed inevitable. According to Pevsner, in his late speeches Morris changed his tone, from considering all production by machinery as evil to admitting the need for men to become "the masters of our machines."⁴ One of Morris's followers, C. R. Ashbee (1863–1942), would eventually conclude the process of accepting industrialization, arguing that "modern civilisation rests on machinery, and no system for the endowment, or the encouragement, or the teaching of art can be sound that does not recognise this."⁵

The "acceptance" of the machine, sketched by Morris and formalized by Ashbee, was developed by some European architects into a reverential enthusiasm not only for the machines themselves but also for their creators—the engineers. Austrian architect Adolf Loos (1870–1933), for instance, wrote that engineers were "our Greeks. We receive our culture from them,"⁶ a position shared by Belgian painter and architect Henry Van de Velde (1863–1957), who stated that the engineers were "the architects of our time."⁷ In America, Frank Lloyd Wright (1867–1959) would write that, in the Machine Age, "locomotive engines, engines of industry, engines of light or engines of war or steamships take the place works of Art took in previous history."⁸ However, in spite of the enthusiasm shown toward machines and engineering, these architects followed what Morris had preached in his final years: machines should be mastered by men, and not the other way around. They also believed, as Morris did, that architects were detached from everyday life, being thus replaced by engineers, who provided practical, rational solutions to the problems and demands of real life, while architects were occupied in developing ornaments. Thus, architects should recover their relevance, mastering the machines and expressing this dominance through new forms, adequate to the new spirit of the Machine Age.

In 1907, a group of German architects, artists, and writers founded the *Deutscher Werkbund*, which aimed to "ennoble craftsmanship, selecting the best

representatives of art, industry, crafts and trades, combining all existing efforts towards quality in industrial work.”⁹ The spirit of the Werkbund was summarized by one of its leaders, architect Theodor Fischer (1862–1938), who argued that men should turn machines into “tools.” The main problem, for Fischer, was that “industry has lost sight of its aim of producing work of the highest quality, and does not feel itself to be a serving member of our community, but the *ruler of the age*.”¹⁰ However, during the annual assembly of 1914, it became clear that there was a clash in the organization. Hermann Muthesius (1861–1927), one of the founders of the Werkbund, argued in favor of standardization, which he believed to be the only way for architecture and all related activities to “recover that universal importance which they possessed in ages of harmonious civilisation.”¹¹ His position was sharply opposed by Van de Velde, who claimed, “As long as there are artists in the Werkbund . . . they will protest against any proposed canon and standardisation. The artist is essentially and intimately a passionate individualist, a spontaneous creator. Never will he, of his own free will, submit to a discipline forcing upon him a norm, a canon.”¹²

These opposing views would also be present in the first years of the Bauhaus, the highly influential design school founded by German architect Walter Gropius (1883–1969) in 1919. The Bauhaus manifestos, written by Gropius in 1919 and 1926, clearly express how he was at first inclined toward Van de Velde’s position, reviving the medieval work structure proposed by Morris, eventually being led, also like Morris, toward acceptance of standardization. However, before proceeding into the analysis of the manifestos, I will present the concept through which I intend to read them—the “revolutionary mentality,” as described by Brazilian philosopher Olavo de Carvalho (b. 1947):

The “revolutionary mentality” is the permanent or transitory state of spirit in which an individual or a group believes himself capable of remodeling the whole society—if not human nature in general—through political action. As an agent or bearer of a better future, he considers himself to be above all judgment by present or past humanity, being accountable only to the “court of History.” But the court of History is, by definition, the very future society that this individual or group claims to represent in the present. So, as future society is only able to bear witness or to judge through this same representative, it is clear that he thus becomes not only the sole sovereign judge of his own acts, but the judge of all past, present and future humanity.¹³

According to Carvalho, “The revolutionary mind is not essentially a political phenomenon, but a spiritual and psychological one, though its field of expression and its fundamental instrument is political action.”¹⁴ Carvalho identifies the germs of this phenomenon in the medieval gnostic groups described by British historian Norman Cohn (1915–2007) in his book *The Pursuit of the Millennium*, first published in 1957. At first, the influence of these groups remained limited to small circles of initiated members. However, in the beginning of the modern age, they began to provide the basis for powerful mass movements, inaugurating the “Age of Revolutions.”

Even though it might seem impossible to identify a common root for the numerous revolutionary movements that rose since the beginning of the modern age, we can actually find a basic similarity, not in the political discourse or in the political actions of the members of each movement but in the structure of their perception of reality. It is this perception that will lead to the creation of a utopian future, which will demand a political revolution that can turn it into a reality. Carvalho states that this mental process is caused by “a deep disorder in the perception of historic time, deceptively understood by the revolutionary mind as a possible scenario for an apocalyptic transformation that, in the original biblical conception, transcends all temporality and cannot even be envisioned as a chapter of History.”¹⁵

It is this distorted perception that is at the root of all revolutionary movements. The differences regarding the ultimate goal and the means to achieve this goal—political actions—are only variations sprouting from the same perception. This common root unites apparently opposing systems. Carvalho states, for instance, that “Socialism and Nazism are not revolutionary because they propose supremacy of a social class or of a race, but because they turn these goals into principles for a radical remodeling not only of the political order, but of all human life. The evil that they foreshadow becomes universally threatening because they do not present themselves as local answers to momentary situations, but as universal commandments instilled with the authority to remake the world according to the mold of a hypothetical future perfection.”¹⁶

This “hypothetical future perfection” becomes, then, the reference for all subsequent experiences or perceptions. Instead of judging the present by comparing it with past experiences, the revolutionary compares it with this idealized future. This is what Carvalho calls “the inversion of the causal and temporal order and of the subject–object relation,” which is the origin for “a variety of secondary inversions deriving therefrom.”¹⁷ We can easily identify

this procedure in the writings of many modern architects—especially the most preeminent “orthodox modernists.” The ideal of a perfect future, in which Modern architecture would have molded the perfect environment for the “new” lives of modern men, was the reference against which the past and the present were judged. Thus, a building was only regarded as being “good architecture” if it was considered as an adequate piece to fit into this hypothetical future. This not being the case, it was scorned as an impure, decadent anachronism—even if it should appear, to the common public or to nonmodern architects, as a perfectly reasonable (or even admirable) addition to the present. This attitude is, of course, imbued in the minds of the fathers of Modern architecture and can be identified in their reaction toward the “nonmodern” architecture being produced in their time. However, it was impossible for them to envision the perfect architecture of the future without resorting to any references. According to Nathaniel Coleman, “It is fair to say that there can be no utopia, and no exemplary architecture for that matter, without some golden age to draw upon for ideas about transfiguring the future.”¹⁸

In 1919, Walter Gropius, Bruno Taut (1880–1938), and Adolf Behne (1885–1948) wrote the leaflet for the *Arbeitsrat für Kunst* exhibition for “Unknown Architects,” held in Berlin. Gropius begins his text with the following words: “What is architecture? The crystalline expression of man’s noblest thoughts, his ardour, his humanity, his faith, his religion! That is what it once *was*! But who of those living in our age that is cursed with practicality still comprehends its all-embracing, soul-giving nature? We walk our streets and cities and do not howl with shame at such deserts of ugliness! Let us be quite clear: these grey, hollow, spiritless mock-ups, in which we live and work, will be shameful evidence for posterity of the spiritual descent into hell of our generation, which forgot that great, *unique art: architecture.*”¹⁹

In this opening passage, it is quite clear that Gropius believes that the architecture of his era was devoid of true beauty; it was a merely practical response to practical needs. One may wonder to what extent the city where Gropius lived and worked, that is, late nineteenth-century/early twentieth-century Berlin, could really be called a “desert of ugliness”—but I do not intend to entertain this discussion in this essay. The main point here is that, according to Gropius, early twentieth-century architecture consisted in mere “structures created by practical requirements and necessity,” which “do not satisfy the longing for a world of beauty built anew from the bottom up, for the rebirth of that spiritual unity which ascended to the miracle of the

Gothic cathedrals.” He also seemed to believe that his generation could only conceive the idea—“an ardent, bold, forward-looking architectural idea”—that would, in the future, be “fulfilled by a happier age that must come.”²⁰

The traces of the revolutionary mentality are quite clear throughout Gropius’s manifesto: A utopian, ideal future is the reference through which the present is judged; the current architectural production does not fit into Gropius’s vision of the future—thus, it is seen as inadequate and devoid of all meaning. The perfect world, however, cannot be built in the present—it can only exist as an idea, to be fulfilled by the next generations. In a preview of the first Bauhaus manifesto—to be published in the same year—Gropius warns that “ideas die as soon as they become compromises. Hence there must be clear watersheds between dream and reality, between longing for the stars and everyday labour. Architects, sculptors, painters, we must all return to the crafts!” Thus, the “return to the crafts” is the germ of the idea that shall be fulfilled in the future—which is quite clear in Gropius’s closing words, undeniably imbued with a utopian flair: “There *are* no architects today, we are all of us merely preparing the way for him who will once again deserve the name of architect, for that means: *lord of art*, who will build gardens out of deserts and pile up wonders to the sky.”²¹

In April 1919, Gropius moved to Weimar to replace Van de Velde as director of the Grand Ducal Saxonian School of Arts and Crafts—Van de Velde was a Belgian citizen and had to resign when the war broke out in 1914; he then appointed Gropius as his successor. Gropius merged the school with the Grand Ducal Saxonian School of Arts, founding the Staatliches Bauhaus. The call for a “return to the crafts” is the central argument in the founding manifesto of the Bauhaus, published in April 1919 along with the school’s program. Here, Gropius underlines how the different artistic expressions were, at his time, understood as independent disciplines, being thus reduced to mere *salon art*. All arts—painting, sculpture, architecture—should be unified once again in architecture—“The ultimate aim of all visual arts is the complete building!” The proposal seems quite straightforward, and his model is clearly identified: “Let us then create a new guild of craftsmen without the class distinctions that raise an arrogant barrier between craftsman and artist!”²² In his text for the *Arbeitsrat für Kunst* exhibition, Gropius had already showed his admiration for the Gothic cathedrals, and now he tries to imitate or re-create the work structure that produced these buildings, imagining that a similar creative and productive process would be able to create work of

similar relevance. This attitude—clearly inspired in previous experiences by Morris and Ashbee—is quite clear in the Bauhaus program, in which the discipline of art history is described to be “not presented in the sense of a history of styles, but rather to further active understanding of historical working methods and techniques.”²³

However, at the closing words of his manifesto, Gropius once again extrapolates his proposal toward an ideal future—“Together let us desire, conceive, and create the new structure of the future, which will embrace architecture and sculpture and painting in one unity and which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith.”²⁴ Thus, if the proposal of re-creating the medieval guilds might seem to reveal a rather conservative, or even traditionalist, attitude, these final words remind us that the guilds and the cathedrals were the golden age in which Gropius identified “ideas about transfiguring the future.” Thus, they were just a historical reference with which he identified some of the elements of the ideal future he had already envisioned. It is clear how, in this example, the past is actually judged by a vision of the future.

The first years of the Bauhaus were guided not only by the ideas expressed in the manifesto of 1919, which were highly influenced by Van de Velde and Morris. There was yet another strong influence: the teaching of Swiss painter Johannes Itten (1888–1967), which was based on an idea of “subjective experience and objective recognition.”²⁵ Itten maintained a cult-like relationship with his students, and this became stronger in 1921, after he had spent considerable time on a spiritual retreat in Switzerland, where he was initiated in the Mazdaznan doctrine—an “updated version of an archaic Persian religion,”²⁶ which demanded a vegetarian diet, periods of fasting, and breathing exercises. Itten would then write of his *awakening*: “I reached the conclusion that we must counter-balance our externally-oriented scientific research and technological speculation with inner-directed thought and practice. I searched for something, for myself and my work, on which to base a new way of life.”²⁷

However, Gropius was increasingly distancing himself from Itten, who eventually created something like a Mazdaznan group inside the Bauhaus. While Itten was focusing on “inner-directed thought and practice,” Gropius was interested in getting commissions—not only to solve the school’s financial difficulties but also because he saw this practical application of the teachings of the Bauhaus as central to the overall role he envisioned for the school. Itten disagreed, refusing to take any commissions and arguing for the integrity of the

individual experiences and expressions of the artist. Thus, the Muthesius–Van de Velde debate, which divided the Werkbund, was somehow repeated in the Bauhaus. In 1923, the first Bauhaus exhibition was held in Weimar, and Gropius wrote an essay in which he stated, “The teaching of craft is meant to prepare for designing for mass production.”²⁸ Itten immediately resigned and left the Bauhaus in April 1923.

We can thus say that Gropius actually changed sides in only a few years. The shift was formalized in 1926, when he published the paper “Bauhaus Dessau—Principles of Bauhaus Production.” Gropius begins by delimiting the new scope of the Bauhaus: “to serve the development of present-day housing, from the simplest household appliances to the finished dwelling.”²⁹ The reference to “present-day housing” seems to illustrate a distancing from the idea of a utopian future, which was quite clear in the 1919 manifesto. The following argument, that “the Bauhaus is seeking . . . to derive the design of an object from its natural functions and relationships,” points toward a rational approach to design that aims at identifying, through an objective process, the true and pure nature of objects. In this context, *true* and *pure* mean without any influence of history or tradition—without any references from the past. This ahistorical attitude is quite clear in the following phrase: “Modern man, who no longer dresses in historical garments but wears modern clothes, also needs a modern home appropriate for him and his time, equipped with all the devices of daily use.”³⁰ We should underline Gropius’s choice of words: modern man has abandoned “*historical* garments,” that is, for the first time man has positioned himself outside, or above, history. The *modern* is not part of the historical but, rather, its culmination—it transcends or surpasses it.

According to Gropius, the research into the nature of objects would lead to forms “that are often unusual and surprising, since they deviate from the conventional.” Although proposing a “living relationship with tradition,” Gropius seems to believe that the rational approach toward design would inevitably lead to originality;³¹ thus, we can infer that he probably thought that the previous generations, who forged the tradition to which he refers, were not rational at all, their works being contaminated by external influences that were not part of their nature. However, when describing this new attitude toward design, Gropius defends the following points:

A resolute affirmation of the living environment of machines and vehicles

The organic design of things based on their present-day laws, without romantic gloss and wasteful frivolity³²

Again, Gropius mentions a design approach based on “present-day” laws. Thus, he advocates for a design that is adequate to the real world of the present, which is quite reasonable. However, why should we believe that his “non-rational” predecessors did not work in the same way? It was precisely because they did try to respond to the current environment and its demands that they created objects that may seem, to us, as loaded with historical references. These references, which Gropius believed to be external to the nature of the object, would obviously also be present in the objects designed by the Bauhaus. A Chippendale-style chair expresses a certain moment in the history of design, as much as a Bauhaus chair expresses another one. The objectivity defended by Gropius tries to place itself outside of history, not being subject to it. Thus, the ahistorical attitude goes way beyond a mere urge for originality, freed from past references; it actually aims at transcending time, creating pure objects that would seem to have been created by nature itself, with almost no human influence. The following words summarize this attitude: “The creation of standard types for all practical commodities of everyday use is a social necessity.”³³ A real rational standard would not only deny the past but also eliminate the future. After all, how could a perfectly pure object evolve? Even the slightest adaptation or the smallest addition would pervert its purity.

However, if the following generations keep addressing the present-day laws, they will be obliged to adapt these perfect objects to new materials and techniques. Thus, Gropius is actually really aiming at the establishment of a new tradition, in which the role of the designer—and not of the artist, who seems to have become obsolete—is to adapt the eternal and universal nature of objects to current technology—that is, to the materials, production processes, and techniques of the present day. Thus, this ideal, pure form can never be achieved—it can only be “translated” through the technical possibilities of the day.

While in 1919 Gropius aimed at creating workshops for artists and artisans, in 1926 he mentions laboratories focused on the creation of “prototypes of products suitable for mass production and typical of our time.” In a reference to the attitude that permeated the first years of the Bauhaus, Gropius argues that “the contrast between industry and the crafts is much less marked by the difference in the tools they use than by the division of labour in industry and the unit of the work in the crafts. But the two are constantly getting closer to each other.”³⁴ Thus, the designer should integrate, in his prototype,

all the processes that will be divided during production. Then, the outcome would possess the same unity found in handcrafted works. With this proposal, Gropius seems to go beyond a unity between art and craft, incorporating technology in the unified—and unifying—practice of design.

The utopian flair of the first manifesto was replaced by a less passionate tone, which refers to the present day and not to a utopian future. However, the proposed *tabula rasa* is actually “an apocalyptic transformation.” Gropius is arguing for the destruction of the past and the creation of a new world—the Modern World of Modern Men—to be built through dispassionate, impersonal buildings and objects created through a rational, objective approach toward design. Thus, the overall tone of the paper itself is perfectly in tune with its proposal. As we can see in many examples of Modern art and architecture, a personal belief or individual expression is advertised as a rational, unbiased response to undeniable, concrete facts. However, the very notion of an independent, unbiased observer is completely inhuman; such an observer should necessarily be placed outside of space and time—and many modern thinkers have tried to place themselves in this unattainable position. All utopian systems that argue for replacing the present world with an ideal future are examples of such an attempt, since they envision the actual realization of a process “that, in the original biblical conception, transcends all temporality and cannot even be envisioned as a chapter of History.”³⁵

This “illusory” objectivity can be exemplified by the following passage from Eva Forgács’s book *The Bauhaus Idea and Bauhaus Politics*: “In his photo collection . . . Gropius cherished an image of American wheat silos, constructed along perfectly functionalist lines. This was progress indeed: architectural design of a high quality, perfectly rational, free of ‘artistic’ frills, and therefore aesthetically appealing. Such design, moreover, stood for ethical values, since it served a functional purpose for the benefit of the community.”³⁶ The aesthetic and ethical virtues that Gropius saw in these industrial/vernacular buildings were probably rooted in the idea that to dwell was a function, as much as to store grain—thus, a silo was beautiful because it served its function, just as a house should. However, where was the hand of the artist in the form of this silo? Who—to use an expression from an essay written by Gropius in 1916³⁷—“breathed its soul” into it? For Gropius, these silos were an ethical and aesthetic model for art and architecture—however, there were probably no artists or architects involved in their design and construction. Thus, his artistic appreciation of such an object is quite curious, since the object seems to show that artists and architects are not really necessary.

The *art* that Gropius saw in this silo was actually present in his perception of it, and not in its creation. This perception was obviously biased, influenced by personal convictions, and it was these convictions that gave *artistic flair* to the silos. We can even wonder how the people who have actually directly experienced these buildings reacted to them—maybe some of them were not impressed at all, and some might have even scorned at their simplicity. Gropius's feelings toward these wheat silos can serve as an example of the perception of a “revolutionary mind”—the experience of an object is not judged by the experience itself but, rather, by the projection of this object into a utopian future. If the object is considered to be adequate to this future, than it is valuable—it does not need to be adequate to the present; in fact, it is probably desirable for it to be inadequate to a certain point.

I would now like to endeavor into a digression, which I believe to be necessary for investigating why the revolutionary mentality captivated so many modern architects, becoming widespread throughout the Western world. A few decades before early modern architects began to develop visions of a utopian future, biologists, naturalists, and philosophers speculated about the past, discussing the origins and role of the human hand, as described by French philosopher Jean Brun (1919–1994) in his 1963 book *La Main et L'esprit*. In the introduction for his book, Brun asks: “The hand is the measure of man; but is it his measure because it stretches out of him, giving him a prehension of the world, or is it because it defines and limits him, making him feel the experience of being deeply and painfully imprisoned in the world?”³⁸ This question can send us back to the debates between Van de Velde and Muthesius, Itten, and Gropius. The artist can, through the unity of his craft, have a *prehension* of the world and express his particular *apprehension* through the work of art. On the other hand, machine production surpasses the reach and strength of the hand, breaking the limits of man's actions in the world—that is, allowing him to scape his “prison.”

Brun quotes Kant (1724–1804), according to whom “the structure of reason and the organization of the hand define the limits of the ontic region that Nature has destined to man; man can, and should, remove everything from himself, except precisely his hand and his reason.”³⁹ The projection of the hand through the machine finally allowed man to break away from any natural physical limitations to his action over the world. Thus, according to Brun, evolutionism—which turns the *creation* of man into a historical process—“tries to show that man obtained everything from his past, even his hand, and

then, we will add, his reason, since the act of comprehending will be reduced to a mere annex of the faculty of prehending.”⁴⁰ The “new approach toward design,” as preached by Gropius in 1926, is perfectly in tune with this notion. Why resort to examples of the past, to history and tradition? You can only truly understand the nature of an object through the actual, present prehension of this object, which will then lead to a comprehension of it.

This notion can be traced back to Lamarck (1744–1829), who argued that, if a species started using a part of its body in a different way, the form of this part could progressively change in accordance with the new usage or function: hence the idea that, by shaping the environment—cities, buildings, gardens, everyday objects—one could actually “reshape” man. On the other hand, realizing that man, as exists today, was shaped by the structures and objects created by the previous generations, one can conclude that there are no universal or everlasting aspects of human existence—all of these aspects were somehow created by man. Thus, it is perfectly possible to abandon the old shapes and replace them with new, original forms. The apocalyptic renovation pursued by the revolutionary mind is then seen as a possibility, and the rejection of current architecture turns it into the only valid goal.

This is pretty much what Gropius argued for in 1926—to replace “historical garments” with “modern clothes.” According to Brun, Darwin (1809–1882) considered that “the conquest of verticality” configures “the liberation of the hand and the first human form. From this moment on, the man who manipulates things will have for his mission to conquer space and to give shape to the world that he rules.”⁴¹ This ruling power given to man by his hands explains why artists such as Morris and Van de Velde saw standardization as a threat—it would create a distance between man and his dominion, putting it at risk and delegating this power to the machines. Gropius, however, apparently understood that “the evolutionisms of the hand lead, then, to the prometheisms of the utensil, to which . . . the essential is to work in the development of a new body: the social Hyperorganism truly born out of the hands of man.”⁴² The utopian character of Modern architecture is based on the idea of creating a “social Hyperorganism,” a new, modern society, formed by modern men and shaped by Modern architecture.

This notion extends the ruling power of the hand from the artifact to the whole of society. Since the hand had been liberated from the creation of artifacts, delegating it to machines, it could now be fully used by reason, endeavoring into the design of the future. In 1935, Gropius would state that

the machine should be understood as “an instrument which is to relieve man of the most oppressive physical labour and serve to strengthen his hand so as to enable him to give form to his creative impulse.”⁴³ This impulse could be used in the design of the social Hyperorganism, to be built by—or *through*—machines. This notion is grounded on the idea, defended by Marx (1818–1883), that “technology reveals the active relation of man to nature, the direct process of the production of his life, and thereby it also lays bare the process of the production of social relations of his life, and of the mental conceptions that flow from those relations.”⁴⁴ Technology is thus seen as the origin of social relations, which are then the source of mental conceptions.

According to Carvalho, “While the impact of technology on society increases, there is a tendency for culture to interpret everything under the category of technology. . . . Everything that is outside the possibility of technological action ends up being outside of imagination as well.” Thus, we can understand why modern architects aimed at changing society as a whole through the use of technology, incorporating not only technological products or devices but a “technological logic” into the built environment. The overwhelming pace of technological progress inspired utopian views of a future in which technology would have solved most (if not all) of our problems—“If technology is the great key, then we will only think about things that are within the reach of technology—or that we believe to be in the future.”⁴⁵

The “unity of art and technology,” as defended by Gropius, lies in the desire to reshape society through the combination of the hands of the designer and the projection of these hands in the machines, creating new productive technologies that would then shape social relations and mental conceptions. However, for certifying the unity of the outcome product, the designer must predict all imaginable aspects of the object, since machines can only repeat a process or movement that was also designed. Machines cannot be operated by the designer himself; thus, they cannot really be used like “tools,” as observed by philosopher Vilém Flusser (1920–1991): “In the case of the tool, the human being is the constant and the tool is the variable: the shoemaker is seated in the middle of the workshop, and when he breaks a needle he replaces it with another. In the case of the machine, it is the constant and the human being is the variable: the machine is situated in the middle of the workshop, and when the human being becomes old or ill, the owner of the machine replaces him with another.” The relation between man and tool—which is actually at the base of the discussions regarding the

incorporation of machine production into art and architecture—is, according to Flusser, an “architectural question.” For the primitive man, working only with his hands, there was no need to create or separate spaces for fabrication. When machines are introduced, since they are “more durable and more valuable in the manufacturing process” than man, “human architecture has to be subordinated to that of the machines.”⁴⁶

The newfound distance between man and the production of the artifacts of everyday life had a huge impact on those involved in the creation of these objects. According to Flusser, “A shoemaker not only makes leather shoes; he also makes a shoemaker out of himself.”⁴⁷ It is one thing to be a shoemaker, but what does it mean to be a worker responsible for just one small procedure in an assembly line? The detachment between man and the final product affects not only the craftsman’s relation with his craft but also his notion of identity—he is no longer someone who has inherited an established, continuous tradition. According to Polish sociologist Zygmunt Bauman (b. 1925): “The modern project promised to free the individual from inherited identity,” but “it only transformed the identity from a matter of ascription into one of achievement, thus making it an individual task.”⁴⁸

This notion that each individual should create his own identity—apart from inherited values and structures—is fundamental to the new tradition of Modern architecture. The modern architect should shape his own identity and then shape the world around him. At the Bauhaus, the preliminary course aimed at fostering direct contact between students and the raw, primitive elements of design, such as color, rhythm, light, and so on. Gropius—and the other Bauhaus masters—believed that in this direct, unbiased contact—stripped from any historical references and “prejudices”—human *reason* would operate freely, unbounded by canons, allowing the student to have an objective knowledge of these elements. Thus, the student would develop his skills according to his inclinations and would eventually join one of the Bauhaus workshops.

This process is clearly based on the idea that each man is a rational being whose reason can be numbed or even blinded by the overwhelming presence of the works and ideas he has encountered in the past. According to Gropius himself, the preliminary course “was intended to develop and ripen intelligence, feeling and ideas, with the general object of evolving the ‘complete being’ who, from his biological centre, could approach all things of life with instinctive certainty, and would no longer be taken unawares by the rush and convulsion of our ‘Mechanical Age.’”⁴⁹ Thus, we can say that the real

intention behind this formative process was to allow each student to start from scratch, developing his artistic abilities from the primitive perception of raw materials all the way to the design of industrial products, thus re-creating the *evolution* from prehistoric times up to the “Mechanical Age.”

Analyzing the manifestos written by Gropius in 1919 and 1926, we can see how the same man understood the two sides of the debate that gave birth to Modern architecture and how he sought to build his identity while moving between these poles. Referring to Gropius’s prewar writings, Forgács states that “he persisted in his belief that the design of factory-made products and the creative work of the individuated, independent artist can be brought to a common denominator.”⁵⁰ Through this belief in the achievement of a unity between art and industrial production, Gropius was, just like many of his colleagues, trying to grasp the changes around him, positioning himself in this changing environment.

In his book *Space and Place*, Chinese American geographer Yi-Fu Tuan (b. 1930) states: “An architect has an intuitive grasp, a tacit understanding, of the rhythms of a culture, and he seeks to give them symbolic form.”⁵¹ I am very fond of this statement, since I think it offers a great insight into the nature of the craft of the architect. Considering the widely discussed impacts of the Industrial Revolution, it is undeniable that one of the major transformations caused by this phenomenon was a dramatic change in the rhythms of everyday life. Machines increased the rhythm of production like never before; the development of new means of transportation changed the pace of our daily routines, and communication technologies allowed people to interact in real time, regardless of distance. The very rhythm of these changes was also unprecedented—thus, we can imagine how difficult it was just to grasp these rhythms. On top of that, the means of expression were also changing; thus, the phenomenon made itself almost ungraspable, since it affected the mechanisms of both perception and expression—hence the parallel that can be traced with Carvalho’s notion of the “revolutionary mentality.”

In 1953, Gropius gave a speech—in celebration of his seventieth birthday—in which he complained about the fact that he was constantly associated with *labels* such as Bauhaus Style, International Style, and Functional Style. He argued that “the strong desire to include every vital component of life instead of excluding part of them for the sake of too narrow and dogmatic an approach has characterized my whole life.”

We must agree that the radical shift made by Gropius between 1919 and 1926 shows that he was open to the possibility of changing some of his core beliefs. However, almost thirty-five years after the first Bauhaus manifesto, he kept addressing the same main concern, which he described as “our common plight of losing control over the vehicle of progress that our time has created and that is beginning to ride roughshod over our lives.”⁵²

At this stage in his life, Gropius seemed especially upset with the proliferation of the so-called International Style, which produced very similar buildings throughout the world—“Steel or concrete skeletons, ribbon windows, slabs cantilevered or wings hovering on stilts.” He argued that these elements were only the raw material, which should be used for the creation of local expressions of “certain universal technical achievements in our period which belong to the intellectual equipment of every civilized nation.” In order to justify and exemplify this argument, Gropius turns once again to the Gothic cathedrals: “The constructive achievements of the Gothic period—its vaults, arches, buttresses and pinnacles similarly became a common international experience. Yet, what a great regional variety of architectural expression has resulted from it in the different countries!”⁵³

Toward the end of his speech, Gropius sums up an overall attitude that seems to aim for a balance between the opposing approaches presented in the manifestos—“Our present responsibility seems to be to determine which features of our vast industrial civilization represent the best and lasting values and should therefore be cultivated to form the nucleus for a new tradition.” This process “should give many individuals a chance to contribute their own individual variation of a common theme and so help to evolve again the integrated pattern for living that we abandoned with the advent of the machine age. The two opposites—individual variety and a common denominator for all—will then once more be reconciled to each other.”⁵⁴

We can see how the same problem still puzzled the mind of the old master and how he still aimed at the same solution: We cannot grasp or even keep up with the rhythm of our technological age, and so we must create a new approach, which will consist in teaching ourselves to master technology and express our artistic sensibility through the design and use of standardized products. However, while still evoking the golden age of the cathedrals, Gropius seems quite distant from the utopian visions expressed in the Bauhaus manifestos. One can even say that his balanced approach sounds rather “traditional,” but we must underline a very important distinction: This

approach works within the boundaries of “our vast industrial civilization”—it is, to a certain extent, already the “new tradition.”

Throughout the twentieth century, the founding theories of Modern architecture were extensively revised and criticized, but the overall mindset behind them is still quite present in the architectural debate. The ever-increasing development of sustainable technologies is usually celebrated as the pathway to a better future, and, for many, this process is actually a matter of survival—we *must* change the way we produce and consume, or else we might simply disappear. This “faith” in technology is also present in more theoretical speculations, such as Patrik Schumacher’s defense of *Parametricism*, which “offers a new approach to architecture on the basis of advanced computational design tools and techniques.”⁵⁵

We should not be surprised, then, by the fact that, in most architecture schools, the curriculum is dominated by the new tradition created by Modern architecture. Premodern production is usually relegated to the disciplines regarding the history of architecture, very rarely being considered as a valid reference in the design disciplines. Architectural education, thus, accepts the apocalyptic transformation pursued by the “orthodox modernists,” agreeing that the advent of industrial production has changed humanity to such a broad and deep extent that we should think of history in terms of *before* and *after* this revolution. However, these prometheisms of technology can be our “historical garments,” blinding us to the nontechnological aspects of architecture. In 1965, Christopher Alexander (b. 1936) already warned that “the effort to state a problem in such a way that a computer can be used to solve it will distort your view of the problem. It will allow you to consider only those aspects of the problem which can be encoded—and in many cases these are the most trivial and the least relevant aspects.”⁵⁶

We may find ourselves inserted into the tradition of Modern architecture, but this does not mean that we should feel obliged to stay within its limits. We can—and I believe we should—reconsider the relation between architecture and technology, including, in this research, the experiences of premodern architects. By doing so, we can broaden our vision, avoiding the inversions and reductionisms of the revolutionary mentality and addressing the new tradition as another chapter in the *continuum* of our architectural heritage. Remembering the words of Joseph de Maistre, we might just need “not a *contrary revolution*, but the *contrary of revolution*.”⁵⁷

Notes

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5. *Ibid.*, 18.
6. *Ibid.*
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8. Frank Lloyd Wright, *Modern Architecture: Being the Kahn Lectures for 1930* (Princeton: Princeton University Press, 2008), xxxii.
9. Leonardo Benevolo, *History of Modern Architecture*, vol. 2 (Cambridge: MIT Press, 1977), 381.
10. Éva Forgács, *The Bauhaus Idea and Bauhaus Politics* (New York: Central European University Press, 1995), 9.
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13. Olavo de Carvalho, “The Revolutionary Mentality,” trans. Tiago Tondineli from “A mentalidade revolucionária,” *Diário do Comércio*, August 13, 2007, accessed April 27, 2013, http://www.olavodecarvalho.org/english/articles/070813dc_en.html.
14. *Ibid.*
15. Olavo de Carvalho, “Ideal insano,” *Jornal do Brasil*, November 29, 2007, accessed April 28, 2013, <http://www.olavodecarvalho.org/semana/071129jb.html>. Here and below, all translations into English are mine.
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18. Coleman, *Utopias and Architecture*, 11.
19. Ulrich Conrads, *Programs and Manifestoes on Twentieth Century Architecture* (Cambridge: MIT Press, 1970), 46.
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23. *Ibid.*, 52.
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27. *Ibid.*
28. *Ibid.*, 126.
29. Hans M. Wingler, *The Bauhaus: Weimar, Dessau, Berlin, Chicago* (Cambridge: MIT Press, 1969), 109.

30. Ibid.
31. Ibid.
32. Ibid., 110.
33. Ibid.
34. Ibid.
35. Carvalho, “Ideal insano.”
36. Forgács, *Bauhaus Idea and Bauhaus Politics*, 13.
37. Ibid., 10–11.
38. Jean Brun, *A Mão e o Espírito*, trans. Felipe Loureiro (Lisbon: Edições 70, 1991), 13.
39. Ibid., 34.
40. Ibid., 39.
41. Ibid., 46.
42. Ibid., 53.
43. Walter Gropius, *Scope of Total Architecture* (New York: Collier Books, 1962), 22.
44. Karl Marx, *Capital: A Critique of Political Economy*, vol. 1 (New York: Penguin Books, 1976), 493.
45. “Olavo de Carvalho—Introducao Seminário de Filosofia,” YouTube video, 1:45:54, posted by “Conservadorismo Brasil,” February 15, 2012, <http://www.youtube.com/watch?v=zW-H-VcHcPXE>.
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47. Ibid., 44.
48. Zygmunt Bauman, *O Mal-Estar da Pós-Modernidade*, trans. Felipe Loureiro (Rio de Janeiro: Jorge Zahar Editor, 1998), 30.
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51. Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 164.
52. Gropius, *Scope of Total Architecture*, 11.
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