

## Notes on Industrial Design

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### Introduction

Our initial intention was to make a didactic and methodical assessment of the relationship between art and technique. However, at a later stage, we opted for the current format as something more suited to our possibilities and to avoid sounding redundant, as there are already several works that properly deal with the subject. Those interested can refer to the works of Herbert Read, Nikolaus Pevsner, Pierre Francastel, Sigfried Giedion, Lewis Mumford, and Frederico Morais, among others. This text presents and discusses some ideas and facts related to the subject of industrial design. Our aim is to open the debate and to highlight an important problem faced by our country in the current stage of industrialization, rather than to provide definite conclusions.

We would not have ventured into this task if it were not for the urgency with which the issue must be confronted and the

feeling that if we had not done it ourselves it might have remained dormant. It is worth highlighting, from the beginning, that we are taking on a responsibility that if ignored would have made us accomplices to a mistake greater than all potential errors contained in these notes: that of silence.

Industrial design is the creation of forms for mass production. Unlike the creation of forms that are not destined for reproduction, such as the case of craft, items conceived through industrial design are not isolated and in fact cannot be understood as isolated, but rather as groups of existences, —that is, existences that, through their structure, materialize not only particular conditions but also serial features. In this sense, an industrial product is at the same time an existence and an idea, in the platonic sense of archetype. And, in principle, the execution of an idea should not result in impoverishment or degeneration. We can identify both idea and execution in the end product. In fact, the idea strives for execution, and we cannot understand one without the other; hence we might argue that in industrial design, quality and quantity are reciprocal functions.

In order to fully understand this point, we must move away from the opposition between original and reproduction. Such opposition originates from the fact that in its early stages the industry did not have its own repertoire of forms; therefore, it was based on manual production, in which the direct contact between creator and each object meant that the establishment of production norms was superfluous. As a result, the creator could interfere incessantly in the productive process, and was even allowed to modify or improve several objects in one single batch. This is not possible in industry, where the tendency is to consider that the original is the manual prototype and the reproduction the replica that the machine mechanically multiplies.

We insist on this point as we are convinced that the maintenance of the concept, or preconception, of the “original” functions as a self-defensive blockage for a culture founded on the artisan relationships of contents that historically should occupy their post.

Based on our concept of industrial design, we will not limit ourselves to the common notion that restricts it to projects for machines, objects of common use,

lamps, pens, etc. In this sense, both a singer who records an album and the creator of a soft drink recipe, are industrial designers. Here we give the example of designer Andrés Segovia, who at first refused to record albums, viewing them as “canned music,” but subsequently completely modified his instrumental technique in order to obtain a good recording.

Consequently, we move away from the general view that marks the year of 1851—when the Great Exhibition of the Works of Industry took place in London—as the official birth date of industrial design. Above all, we avoid dates and landmarks, by simply suggesting that it is possible to talk about industrial design as dating from the origins of the press. Is it not true that the movable type of the incunabula already held all the conditions of current industrial projects? Compare the difference between the calligrapher and the typographer and you will notice that, qualitatively, it is the same difference as between the artisan and the designer. The typographer must provide types for all usage requirements, enabling them to work independently from manual handling (font spacing and line spacing) and specific situations.

In other words, the types must foresee reproduction, while the calligrapher is able to adjust his/her style at each manuscript, even altering font design, spacing, and size. The fact that the first types copied the forms of calligraphy highlights the point we made above, that is, the impossibility of the industry having its own repertoire of forms. Typography moved towards models that would be more suited toward being printed in stone or metal.

Renaissance typography is also an example of a blockage in its attempt to marginalize the book through the use of illuminations, adornments, and handwritten capital letters, disqualifying the book as an industrial project. The condition of the book in the Renaissance is not very different from the condition of architecture in the last century, which applied cast iron to ornaments made manually on stone and wood. Obviously in the Renaissance we had not yet reached the Industrial Revolution per se, which, according to E. Souriau is manifested by the predominance of machine work, standardization, the abolition of personal initiative, and the massive influence of work, which becomes organized around the concrete means by which

it is produced. This happened between 1870 and 1920.

We therefore conclude that industrial design, which was incipient during the Renaissance, is par excellence the art form of the era after the Industrial Revolution, and that the different set of criteria brought forward by mechanization and its social consequences encompasses the whole of culture. In the sections below we shall consider some of these criteria, mainly the most apparent ones.

#### Immanence versus Transcendence

The main issue to consider is whether the question of aesthetics is immanent or transcendent in the works of industrial design. In other words, we must understand if the beauty of a glass lies in the apprehension of the glass, from its reality as a glass (immanence), or if in order to exist the glass must move beyond its contingency and connect to a superior reality that can be a symbol or a privileged structure (transcendence).

The reason for questioning whether it is a matter of immanence or transcendence is to indicate that this has been a fundamental question amongst

theoreticians. However, we believe it is important to avoid this opposition as it derives from a metaphysical approach, which tends to exaggerate and construct entities from multiple and fluid aspects of reality. We shall attempt to demonstrate that those who defend both immanence and transcendence are located in poles that can be dialectically overcome. With regards to the latter, art enters industrial production as a sacred and eternal category, whose values represent a sort of redemption: it is an attempt to humanize the offspring of the machine. However, the reality of the feudal man—prehistoric in relation to the industrial era—is embedded in the abstraction of the human. And the intention is to move on to the industrial era without giving up the obsolete contents encompassed by this abstraction. This is so in the sense that humanizing means making it manual, individualizing production, granting it some prestige that does not belong to it.

We have seen that the transcendentalists represent a hindrance to the superstructure of the Industrial Revolution. The typical example of this position is the report from the French representation for the Great

Exhibition of London, headed by the Count of Laborde, who defended the conciliation between art and industry. It is needless to say that in such conciliation industry should shift “artistically” hand made objects to the scale of mass production without adding the smallest alteration that, regardless of its nature, would be considered a corruption of quality. Laborde’s example was selected as it explains very clearly the meaning of so many theories that are still in vogue today regarding industrial design.

At the end of the nineteenth and beginning of the twentieth centuries, as an antithesis to Laborde and others, we see the rise of apologists of the immanent beauty of machines, which are compared to flowers, as if both grew in the same way, following the rationality of natural laws. Beauty becomes identifiable with technique and nature. Zurko sees ethical analogies in their aesthetic criteria. In fact, Van de Velde affirms the honesty of mechanical structures.

Paradoxically, the supporters of immanence exhaust the very immanent experience of forms by turning them into reflections of other realities. The aesthetic is subtracted from human measures in order to reach nature’s absolute objectivity.

It was a reaction, still immature, to the aristocratism that characterized the first stage of the relations between art and industry. In our view, every theory of industrial design takes turns in this dualist circuit. In the conclusion to these notes, we attempt to come up with a possible synthesis capable of overcoming the contradiction enunciated in the title of this section.

#### Use or Contemplation

The conflict between use and contemplation should not be confused with the opposition introduced in the section above. In the present case, there is no opposition between antithetic terms, but a comparison between a metaphysical attitude (contemplation) and one that, without excluding the former, goes beyond it. This is not about proposing attitudes or analyzing the virtues of use and contemplation, so we can promote one or the other. It is about use as a condition of experience in industrial design, as a counterpoint to the contemplative attitude that is commonly considered the relationship mode between man and art. From the beginning, our point of departure has been the belief in

industrial design as the key form of artistic creation in modern life. Therefore, we consider use as the only possible relationship with valid contemporary art forms.

We understand use as an operational contact between subject and object. Alternatively to operational contact, we could also say consuming relationship or even anthropophagic, borrowing the term coined by Oswald de Andrade. Such relationship or contact presupposes the object's needs and specificities. The consuming relationship is not idle or playful, but it is defined by being necessary and clear. Therefore we could say that the modality of industrial design is function. Nothing exists in it, either parts or materials; however, everything works, everything is a sign, giving rise to its reality in the interpretation that becomes its own use. Beyond this vital relationship, man is confronted with the inaccessibility or the inertia of things. Sartre calls such inertia obscenity. Hence we can conclude that beyond use, every relationship is obscene and situated on the level of absurdity. In fact, it was the intuition of use, as the only means of aesthetic communication, which led Malevich to the construction of architec-

tures and Lygia Clark to make her *Bichos*. However, in both cases the relationship failed because there was no need for the object; these were attempts to create use gratuitously, so the relationship remained at the level of absurdity. We have mentioned two examples of painters who survived painting—an art of contemplation—and transferred functionality to other objects.

It is true that use as the exclusive relationship is strongly connected to today's life conditions. However, in the leisure cultures of the upper classes prior to the Industrial Revolution, it was difficult to think of it. According to Van de Velde: "modern man wash, bathe and live differently from pre-modern man. They read, work, move and search for distractions in a different way. Pre-modern man bathed, ate and worked from a sentimental point of view, as they enjoyed reading hygiene advice on towels, happy stanzas printed on beer mugs, delightful rhymes on stoves, painted flowers on jugs and moral sentences on work desks."

"Pre-modern man also worked from a sentimental point of view because they considered work as penitence. They travelled sentimentally because the scarce and slow

means of transport that were available meant that they had hours of idleness, so their hearts could be devoted to lyric effusions." Van de Velde wrote this in 1907. He was clearly generalizing, imposing on the whole of society a certain behavior, which was perhaps only compatible with non-working classes. However, one should not overlook the profound changes that speed, for example, brought to man's way of living.

In the past, little was known that was extracted directly from sources of information. News reached people already with a touch of dream and order, so that it would not disturb their lives. It was the primacy of the fact's system of thinking. However, with the frightening rise in the amount of information in our current era, the systems of interpretation became secondary to the "real" itself, and philosophy was replaced by knowledge (we are talking exclusively about inclinations and perspectives). Contemplative reflection gave way to the act of being correctly positioned in history, as the only orientation capable of offering the conditions for handling today's quasi-accumulation of information. This is what Gebser calls the "aperspec-

tive” universe. And positioning oneself is only possible when one takes sides, that is, when one makes use of the world.

Metaphysical imagination moved away, giving way to praxis. Therefore, we can define aesthetical apprehension as praxis of forms. For this to materialize as theory, perhaps the traditional concept of aesthetic should be replaced by the concept of language. However, we do not want to suggest that the imaginary has lost its place in the world, but that it needs to be placed in a certain category so it can trigger the hunger for myths, which in man is analogous to the hunger for bread (or the same). We go to the cinema and use our gods, which are practical things, objects of daily use. Those who wish to find God in a specific divinity will find the pacific divinity; will find emptiness, and, in the same way, art is feeding from earth’s impurities. Art is the code through which existence is legitimated, through which man is freed from the chance of individuality and meets the plenitude of the social. It is the object of the most defined use. When its function is compromised, art reaches form—form is necessity.

Here we enter the relationship between use and space.

We shall start with Walter Gropius’s statement about architecture: “What is far more important than this structural economy and its functional emphasis is the intellectual achievement which has made possible a new spatial vision.” What is this new spatial vision? It is widely known that at the beginning of this century the concept of space, both in art and science, was of an unfinished and continuous space; an objective space independent from people who could get involved in it, who could analyze it, but never create it. It was a static view of space and its visual consequence was the idea of balance, an eternal space whose maximum expression was immobility. This notion presupposed a vision of man disconnected from doing, whose only science was analysis and observation—and the space was of impotence. In the twentieth century, the notion of space-time as human reality filled the void of that previous space. And the notion of balance was replaced by the notion of rhythm. This space reflects man’s greater power of action in the world, that is, his integration: systems disappear and methods appear (once again we draw attention to the fact that we will not be

describing the modern world, which is also blocked by a power system that prevents the industrial civilization from reaching its totality, but rather we attempt to signal its possibilities). Reality is no longer a possible certainty; it is now a possible adventure. Given-space acquires the meaning of conquered-space, whose knowledge is only reached by communion, or praxis, or use. Therefore, attempting to understand it through a static look is destroying it. Contemplation criteria are inefficient to the forms that are processed in space-time, space of use. Therefore, use, beyond the materialistic relation used by traditional aestheticists, constitutes a new gnosiology.

We define form as necessity. We believe that intentionally, and functionally, elements are grouped in a particular structure. And such intentionality is determined by the need that makes isolated elements leave inertia to acquire the grace of form. Perhaps we could say that the sense of need is the impulse of restoring balance after a rupture within a system. Taking into account that all relationships are systems, need is what moves all actions, from searching for food to searching for shelter or love. Need, with its typical clarity,

excludes gratuity. Perception also only exists when necessary. If a disinterested look were possible, it would never capture a structure. Real space also only exists when necessary, as it is a form determined by human action with time.

From the reasons explained above, we can reach the brief conclusion that without the concept of end as the measure of the object, art or tool, no criteria of appreciation is possible—if we do not define the need of something, of art or the other, we cannot accept its existence. However, it is fundamental that we do not forget the concept of end both to the object and the subject: an action without its “what for?” is only a gesture. It is possible that we have been excessive in our attempt to demonstrate that contemplation, the criterion established to evaluate art, is worthless. In sum, space, time, form, language, value, aesthetics only exist in the “dramatic commitment of making” (Giulio Carlo Argan).

Having analyzed some of the concepts related to the issue of industrial design, we will now summarize some theories, schools, or movements of industrial art from William Morris to the present day. We admit that our aim is controversial.

Like Descartes, we also believe in discussion and debate. We even dare to say that in some situations, raising the issue of art (even for those of us who are more like creators than judges) is more worthwhile than actually producing it.

The Great Exhibition of London was the first great explosion of bad taste in History. There are accounts of a child’s pram in the shape of a ship mounted on a base decorated with the figure of a winged goddess from whose arms dangled an ornament made of lace and garland forming a sort of umbel—a preview of Disneyland, of Hollywood of Lojas Brasileiras<sup>1</sup>. It was the materialization of ideas of conciliation between art and industry, promoted by Laborde and his associates. It must be added that the exhibition was only part of the horror, in the factories, where work shifts were longer than twelve hours; a multitude, including children, were rotting in darkness and filth. The snarl of the machine (the machine?) before which sensitive John Ruskin and William Morris looked like scared children looking for protection under the skirts of

<sup>1</sup> Translation note: Lojas Brasileiras was a traditional Brazilian department store.

the past. For them, redemption of man and art was to be found in the return to manual work of medieval craftsmen corporations (it is curious to note that the greatest evil of industry was born in these very corporations). Facing the snarl, in their sensibility, they understood the sterility of any debate restricted to the field of aesthetics, such as those amongst architects of the time, for whom the important thing was to know which style was the prettiest, neo-gothic or paladin. According to Morris, “it is not possible to dissociate art from its social system.” Unaware that any transformation should be processed via industry itself, he understood symptoms as causes, and opted for the imaginary, creating an arts-and-crafts corporation and having an experience through which he was no longer committed to the evils of the time. Morris, however, went beyond Ruskin, who remained paralyzed in the contemplation of gothic cathedrals. Through his utopianism, heavily informed by Thomas More, he took the route of political militancy, founding a socialist league. It is a shame that his romanticism, his hunger for beauty, led him to evasion. With the rise of the great mobilizations in London, when revolution seemed achievable, he

—now horrified with it—moved permanently away to his idyllic typography, abandoning “the empty struggles of this world.”

The importance of William Morris resides in the totalizing trend in the conception of his art; in the fact that he relates it to other aspects of society, from production modes to underlying world visions. He identified industry with evil; therefore he could not base his art on it, which led his work to the contradiction of being handcrafted with aesthetic refinement while being beyond the art of the people, for whom, in his view, art should be made.

#### Art nouveau

Some of the elements that we could call twentieth-century style were already being developed beginning in the sixteenth century—for instance, the tendency to rationalize font shapes adopted by the Jaugéon Commission at the end of the seventeenth century; or the constructions built by eighteenth-century engineers. The French Revolution introduced the notion of rational beauty. Napoleon viewed the work by building technicians as art pieces. The first sans-serif type,

which is so common nowadays, was designed for the first time in 1803.

There seemed to be a harmony between the development of techniques and forms. By the onset of the Industrial Revolution, the pace of growth was building devastating momentum, creating a situation of cultural imbalance that led artists to irrationalism. It was like a frightening process of de-provincializing the world. In order to face it, artists reached for fantasy. It was the time of orientalism, mysticism, etc. This imbalance was particularly felt at a societal level. At a time of the greatest poverty amongst workers, while the bourgeoisie was peaking, very few, among them Marx, were able to give a clear perspective on the meaning of industry. In the second half of the nineteenth and beginning of the twentieth centuries, the situation was aggravated. Artists, excluded from the context of production, clung on to the fight against what they thought was their greatest enemy: industry. In the design of consumer objects we see the return to the previous phase of Renaissance rationalism. The Pre-Raphaelite group is a great example of this attitude. However, the process of industrialization was irreversible and

those who wanted to combat it in the name of saving culture were increasingly marginalized within the scope of academic debate. However, 1900s artists were aware that integration into industrial society was the only path to survival. They invaded the world of objects but with such an expressionist fanaticism that they became subjective representations regardless of their real conditions. They turned everyday life into a dream where forms were nothing but rectified feelings. We dare to say that 1900s artists seized the world of objects in order to camouflage it, making it lose its significance. The “diaphanous cloak of fantasy” covered the face of the real. In a poster by Grasset, advertising bicycles, we see a winged nymph surrounded by herbs, but we don’t see the actual bike. It is a conspiracy of old symbols to neutralize the novelty of the object, its destructive nudity. We are in full transcendence. It is therefore not a coincidence that the beautiful-technical-immanent theory emerged at this point and that Van de Velde, proponent of the 100 movement (art nouveau), was one of its first voices.

In the beginning of this section we mentioned that the typical forms that culminated in the style of the twentieth century were already underway before the last century, when the fear of industry made artists go back to a previous past, to the start of the culture that became redundant with the Industrial Revolution. For instance, we see that the reflections in Didot's Cartesian visual arts are concerned with decorations and calligraphies of the fifteenth century.

The spirit that led to the medievalism of Burne-Jones is the same that supported art nouveau. The alienated artist became over-individualized and later searched for social reintegration, but without wishing to lose the experiences of their marginal conditions. Van de Velde bore this exacerbated individualism and the rationalist tradition at the same time. He identified simultaneously with feeling and reason, isolated from one another in static cells. And for being these two things, he reached the extreme of each one of them—from over-individualism to the rationalist extremism that led to mechanic-art identity. Van de Velde suffered from the childish double disease of subjectivism-positivism, without being cured

of any of them. When in 1914 Hermann Muthesius, in line with Van de Velde's reasoning and the spirit of the 1900s, defended standardization in a lecture at the Deutsch Werkbund, Van de Velde replied that the artist, as a passionate individualist, should never be subject to canons.

Therefore, we see how art nouveau encompassed the metaphysical distinction between immanence and transcendence. This was the result of the deadlock in which the conceptions of art at the time were founded. They could have either accepted juxtaposed art, a sort of cutaneous disease of reality, or would have had to completely deny figuration as a determining factor of forms.

Our observations are not intended to be an overview of what the art nouveau movement was. We have simply extracted some useful data to elucidate our point of view on industrial design. Therefore, we have refrained from mentioning facts that, albeit important in other contexts, would not have contributed significantly to the text.

## Bauhaus

We will not provide a description of the Bauhaus, in the same way that we have not described the arts-and-crafts and artnouveau movements. Furthermore, it does not make sense in the context of these notes to analyze Bauhaus's theater and painting experiences, as it is not possible to talk about a Bauhaus version of every cultural manifestation. In fact, one can say that Bauhaus was a grouping of all contemporary trends with the objective of construction, without constituting an "ism." It can only be distinguished from other artistic movements for its distinctive sense of order that, in principle, rejected all irrationalism. It sought to extract from its sources—Expressionism, Constructivism, Dadaism, Functionalism (*Sachlichkeit*), and the Arts-and-Crafts movement, the virtues that would form a new vision of the arts, but it moved away from all limitations produced by each of these movements. For instance, accepting Dadaism's freedom did not imply the adoption of its childish attitude towards language. Morris's contribution was welcome, but without going back to the Middle Ages. The same can be said about other artistic trends

absorbed by the Bauhaus. It is fair to say that Bauhaus did not seek to take only the formal aspects of these movements, their empty shells without any content. What it sought was to absorb all progressive thinking as contributions to the formulation of arts as integrated into an industrial society.

Walter Gropius, the school's founder, continued the movement initiated in Germany by Muthesius and Van de Velde. However, one should not confuse Gropius's theories with Van de Velde's naïve positions. Although Gropius (like Muthesius) went beyond the issue of integration between art and industry, to the point of considering standardization as one of his basic programs, he did not restrict his aesthetics to the simple abolition of ornaments. To him, the important thing was not to replace ornament with *maschinenstil*, but simply to destroy the traditional concept of style, taking work method as the only determining feature in the objects' formal outcomes. For Gropius—who was very close to Marx in this respect—the criterion of truth in design was praxis. Gropius not only considered standardization as the only response to making, but he also believed that

individuality had come to an end in artistic production. He knew that the division of labour could only be damaging to art as long as it was connected to the individual. He proposed that the artist be replaced by the programmer, that is, the creator of forms based on the principle of teamwork, who is a mediator between the various stages of production. Against specialization, he proposed that team members were conscious of all stages of the production process, which would turn them all into interpreters of the object. He wanted the industry to fully realize its contents from the production of forms. He wanted to de-alienate art through industrial work and through creative awareness. Style should abstain from the task of transforming objects into class fetish. Gropius wanted stylish objects for a society without a class structure (without transforming infrastructure, of course). But he believed that the truth of objects should ideally emerge from the efforts of a reasonable elite. Here Gropius's utopian views meet those of Morris'. Both wished to realize a socialism by analogy in the production of consumer goods—socialist objects in a capitalist world. From the contradiction between theory and

economic situation emerged not only Bauhaus's impasse, but also the impossibility until today of formulating and applying a correct theory of industrial design.

The accusations made against Gropius, of reducing art to a cold technicism, reveal his detractors' lack of a global understanding of the problem: firstly, these allegations detach Gropius from his context; secondly, they demand that his work to have the aesthetic qualities of an approach against which he fought his greatest battle. In a society unjustified by other reasons, one expects the object from which we are detached, due to an impossibility of integrated action, to bear the symbolic weight of a totem. There resides Bauhaus's incomprehension, and the reason behind most of the heresies that followed it.

We can criticize Gropius's utopian views, but we can never accept the judgement of his work based on criteria that had been invalidated by the work itself: contemplation or simplicity in fetishism. Furthermore, the use that allows us the full experience of objects is almost a distant ideal—if we understand that use is not merely the physical participation of the object by

the subject but the communion between both.

We have talked, in relation to Lygia Clark's *Bichos*, about contact on the level of absurdity. Nonetheless, is it not true that this absurdity carries on in the way we deal with consumer objects? If not, we need a clear theology to give meaning to everyday life.

It is within the "spirit of spiritless times" (Marx) that we intend to analyse Gropius.

What we should criticize in Bauhaus, aside from its utopianism, is precisely the works that deny its postulates. Bauhaus intended to completely destroy the concept of style and ended up constrained by mannerism. Much of what was supposed to be the outcome of objective needs was in fact the fruit of sin and stereotypes.

Another criticism is that Bauhaus, in spite of aiming towards an entirely industrial art, gave rise to forms that emerge from handicraft experiences. The primacy of materials—their effect upon the figure—was different depending on its approach by hand or machine. Could the work in the iron or wood workshop, in search of direct contact with these materials, reveal their nature, even if this nature would have been

completely different if shaped by a machine? In Bauhaus, it is only with Marcel Breuer that we have a more appropriate view of forms and industrial production. In his chairs we no longer see that material produces form, for material itself is form (I refer to his tubular chairs).

Another feature of Bauhaus's mannerism was the Constructivist movement. It is true that Gropius acknowledged it, having been quite vocal against Doesburg. With Constructivism, functionality was mistaken by the construction process (this distorted view reminds us of the art-technique identification at the end of the century). This can be felt both in architecture and particularly in visual communication: the fonts designed by Herbert Bayer, Paul Renner's Futura designed according to Bauhaus principles, or Albers's Chamblon types, have a simplicity that cannot even be found in Albrecht Dürer. These fonts were not designed from a theory of perception and legibility, but rather according to the formal possibilities offered by the ruler and the compass. We affirm that Dürer would not concur with such simplicity because, during the Renaissance, when he created his method of constructing letters, he only em-

ployed geometric instruments to normalize structure, leaving the final tracing to the malleability of the hand. We find it quite strange that a wise theoretician such as Argan committed the oversight of affirming that Bauhaus was the first to design letters for legibility, and that in the whole history of the form of letters, type is no more than an epigraphic complement to the text. Did Argan ignore the theories of legibility, the most subtle since Charles the Great, who asked Alcuino to design a letter that would rationalize all previous writing?

But Bauhausian style is revealed as style in its most traditional sense, when later it becomes a superficial attraction to low-quality goods. Gropius could repeat Valéry's words: "Ci-gît moi, tué par les autres."

## American Styling

Bauhaus, with all its ideals of transforming man through art, ended up becoming something that Gropius never wished for: a style, a trend. In the United States, the concern with product form became an extension of advertisement: "Aesthetic is what makes the cash register ring" is, in spite of its crudeness,

the slogan that encompasses the ideals of American industrial design. Raymond Loewy, who arrived in the United States in 1919, set up his business in a skyscraper on the Fifth Avenue and set off to work. He even wrote a book in which he tried to prove that there was an absolute correspondence between beauty and sales. The designer, a new version of the enlightened artist, mysteriously intuits the remote aspirations of consumers. He is not a man of genius but of flair. Everything happens as if in a fairy tale, in typically American style. Things are born out of nothing, the shoe shiner becomes the head of industry, and an unmarketable good becomes a bestseller, all thanks to the designer, who turns the product into the most desirable thing in the planet by simply modifying its presentation. And this really happens. The cases of Lucky Strike cigarettes or Gestetner copiers are one in a million. Is this all the result of good sensible design? If yes, we would be facing the triumph of truth and beauty. But there is something behind all this: overproduction.

We spoke of the problem of use as rationality and gave the example of Clark's Bichos, where, by seeking to create

use superficially, the relationship was kept on the level of absurdity. Apparently the solution would be to immediately abandon sculpture and move towards consumer objects. But this was only in theory, since an integrated relationship is only more absurd, with Bichos, than the relationship between man and consumer objects, in a culturally failed context, where the everyday serves only to overwhelm the perception of the void. In a dream world, a realistic relationship is impossible. It is impossible in a civilization such as the American one, in which the necessity of capitalist production to create artificial consumption in order to dispose of overproduction corrupts the relationship with the consumer. Use becomes a pretext for a fetishist liturgy. Among advertising professionals, the case of the washing machine is widely known, where the text makes an appeal to reason (buy machine X, because it saves energy and time), and the image appeals to feeling (a happy family admires the machine's work while the neighbor's family, equally formed by a husband, a wife, a son, and a daughter, spies on them enviously through the window). The slogan is only not "Buy machine X and be better

than your neighbour" because the words are absorbed by consciousness while the images, divested of the legal aspects that only conventional language would bear, are directed to inadmissible feelings. There resides the principle of the great success of Loewy, Teague, Dreyfus, Earl, etc. What they did was not merely solve the technical and formal problems of industry or simply adorn structures. They created objects of imaginary consumption—they are the sculptors, the interpreters of American frustration.

We conclude that the function of the designer in the United States is to keep the consumers within the sphere of dream in order to avoid an awakening contact with reality in its bare state that could lead them to become aware of themselves and of their absurdity, turning them into dangerously subversive individuals. The Bauhaus hype was used because reason is also welcome in the American Olympus. This Olympus is as diverse as the Greek version; the only difference is that Mercury is in Jupiter's place.

## L'Esthétique Industrielle

Jacques Viénot mixed Morris, Souriau, Gropius, Loewy and Max Bill in order to put France in the industrial design race. He believed, like his sources of inspiration, in the redemption through objects (a convenient belief for the industry's interests). The difficulty was in creating a tradition of good taste. Viénot, different from Loewy, did not believe that ugliness was not sellable. In his ethics, he did not go as far as abolishing social structures but proposed education as the only way to refine taste. This was the general position of humanists who took capitalism for granted, such as Herbert Read. Viénot, facing the impossibility of a totalizing view, assumed a transcendentalist position like Léon de Laborde did 100 years before him: the arranged marriage between art and industry is necessary for the salvation of man. One only needs to educate an elite of esthéticiens industriels in order to humanize the industrial era. Even worse, Viénot did not trust industrial design's praxis as a determining factor in the creation of forms. The artist must receive the gift of superior art, cabinet art, to later create mass produced goods. It is of little

value to criticize the “decorativism” already dismissed since Adolf Loos and Van de Velde.

What happened with Viénot is the same as what happened with other theoreticians of industrial design. He missed the fundamental issue—it is not possible to have art that is coherent with the industry if it is not coherent in itself, if its social nature is blocked.

Ultimately the ethical issue in industrial design is a political issue. For the time being, what we can discuss is whether absurd objects are well or badly designed. To have an idea of Viénot's lack of meaning, it is enough to cite what he thought was the reason behind the good taste of handicraft objects. He believed that it was because standard models produced by artists were blindly reproduced by artisans, thus preventing the bad taste of the multitudes from polluting the purity of archetypes. Therefore, people consumed objects of very refined taste without even knowing it—another case of consumerism on the level of absurdity. Viénot referred to this situation as an ideal to be achieved. Why not say that for him the important thing was to maintain the standards of the dominating class?

## The Ulm School

Founded by former Bauhaus member Max Bill, the Ulm School is currently directed by Argentinian Tomas Maldonado. There was an argument between the two, and Bill, like Van de Velde, reacted against Maldonado's radical individualism. He believed that the artist should continue to be an artist, paint his oil paintings and contemplate disinteresting beauty at times, and this should not invalidate him as a designer.

Maldonado, in turn, taking into account the increasing complexity of industrial production, feared that there would be a gap between industry and the producer of forms. In order to avoid this, any interference from expressionism in industrial production should be condemned. From the outset, the industrial designer had to equip himself technologically in order to efficiently interfere in the modern process of fabrication, characterized above all by automation. According to Maldonado, we have reached an era of such complexity that any wrong decision in the product design process can be disastrous.

He saw the risk that any discussion of aesthetic principles could become academic;

that these principles could not be translated into action upon the machine, as well as the consequent risk of trusting the artist's individual gratuity. Another harmful consequence of aestheticism according to Maldonado lies in the fact that industry formed designers in a pragmatic way in order to fulfil its real demands, precluding them from becoming interpreters of culture. Ulm's objective is to form technical-visual programmers specialized in acting upon the core of production. Courses include disciplines such as general theory of signs, linear programming, group theory, topology, contemporary culture, and other even more complex subjects. At Ulm, the mystic character of Bauhaus is criticized. The very idea of reformulating man is strongly criticized, as Maldonado's realist program does not imply that good design can make a good man, nor does it intend to replace all previous cultural manifestations with the design of objects. On the other hand, Maldonado strongly opposes style as a means of artificially placing merchandise. As opposed to an industrial aesthetician, the industrial designer is a technician who operates in the production areas of greater responsibility. Forms are studied

from the ergonomic viewpoint of the operation to be carried out and not simply from the viewpoint of figuration. Professional ethics implies sticking to technical considerations and not to market or aesthetic demands. Here we see that, according to Ulm's philosophy, the answer to the problem of production of forms lies in the designer assuming a position within an increasingly technical context in order to avoid being swallowed up by it.

We will refrain from naively protesting against Ulm's technocratic views. We will only maintain our reservations in relation to the practical feasibility of its viewpoints, firstly by drawing attention to the fact that, no matter how cybernetic a designer is; his specialized work cannot modify the industry's orientation. What can all the scientific operationalism in the world do against planned obsolescence? And, secondly, because we believe that, deeply, Ulm is still tied to a Bauhausian cubist figuration that refers only to a style in the most formal sense of the word. Who knows whether Ulm's vision of a super-technical world does not spring from the need to justify its formalism? Think of Otl Aicher's work in the field of visual communication, where

everything is neat and precise, as if shifting any visual element one millimeter to one side could ruin Europe. Max Bill stated that Mondrian's style was purely emotional. Could not Ulm's figuration also be a self-defensive geometrism, like the paintings of schizophrenics? Maybe we are wrong, but we can risk making these notes based on what we were able to closely observe as the results of the Hochschule für Gestaltung in Brazil.

## Brazil

The Great Exhibition of 1851 also had an impact in Brazil. Manuel de Araújo Porto Alegre was to us what Léon de Laborde was to France. He was a painter and poet, a member of the Romantic movement, and a great friend of Gonçalves Dias. Nominated by Pedro II of Brazil as director of the School of Fine Arts, he reformulated its teaching methods, giving special attention to art design applied to the industry. He sought to transform the Fine Arts School into a more objective institution, geared toward training useful professionals, rather than idle individuals making art for which there was not yet even a market in Brazil. Of course, he did not

find the conditions to realize his ideas among the institution's academics (it is unknown if they are still managing the school today).

From Porto Alegre until 1930, nothing significant on the subject was reported, when Lúcio Costa, influenced by Le Corbusier, re-ignited the reflections of the most recent European cultural concerns. It is unusual that the 1922 movement<sup>2</sup> did not introduce the concepts of industrial design of the time. Despite being a typical movement of modern life discovery, it was restricted to traditional artistic manifestations. The term Futurist coined the 1922 movement, and Marinetti was even considered one of its main influences. However, Antonio de Sant'Elia's name—an extraordinary architect and visionary of the relationship between art and industry, who was also deeply connected to the Italian Futurist movement—was not even mentioned. Brazil woke up too late: what triggered the commotion in São Paulo during the Modernist movement was nothing more than the delayed

discovery, thirty years later, of Impressionism, Symbolism, and other manifestations from the previous century in Europe.

Maybe this is not entirely precise. One could counter-argue that Futurism and Cubism were not movements of the previous century and we would gladly agree. However, we would draw attention to the fact that, if the surge of 1922 introduced the most recent European trends, the movement remained Impressionist in qualitative terms.

A sad fact that must be mentioned is that almost everything that emerged in Brazil in terms of the avant-garde derived from foreign movements. Even the waves of nationalism of Romanticism or 1922 are adapted tupiniquim versions of foreign movements. Europe cries out: it is time to love the nation and we feel authorized to love our own nation. Running the risk of antagonizing national glory, we must admit that this is very natural as far as underdeveloped countries are concerned.

After Lúcio Costa, Loewy took our center stage with the foundation of Raymond Loewy & Associates in São Paulo. We began to use designs based on the American approach that, as we have seen above, is the re-

sult of an attempt to superficially solve the problem of the sale. As an under-producing country, Brazil ends up consuming the forms of American overproduction, and even pays high royalties for them.

In 1948, Lina Bo Bardi and Giancarlo Piretti opened Palma Studio in São Paulo, designing the first pieces of modern furniture in the country. But production was still on a small scale and did not take into account the Brazilian reality. The workers who built the furniture were Italian, as were the designers. Palma Studio's activities lasted for two years. Later, Lina Bo Bardi founded an industrial design course at the Institute of Contemporary Art (IAC) in São Paulo, also the first in Brazil, which also lasted for two years. Subsequently, Bo Bardi taught industrial design for three years at the University of São Paulo. From her first experiences, she progressed to an in-depth research of Brazilian reality, including its physical and anthropological aspects, mapping popular objects of everyday use and finding in their form and content, and in their authenticity, the true roots of Brazilian industrial design. Lina Bo Bardi is an example of the increasing awareness that

2 Translation note: The 1922 movement refers to the Week of Modern Art, an arts festival held in São Paulo in February 1922, considered a landmark in the history of Brazilian modernism.

artistic problems are only one face of social problems. She shifted from an over-intellectual European view to Brazilian “intuitive” art.

The School of Industrial Design (ESDI) is the most recent initiative of this kind in Brazil. It is still too early to assess its outcomes, as the school has not yet its first graduates. However, based on the knowledge we have about its program and lecturers, we can risk some opinions about its potential. We are somewhat weary of the fact that it is a higher education institution. In an underdeveloped country such as ours, Ulm’s scientific operational views can seem absurd. We are concerned that the ESDI will follow a path that does not fulfil our needs (a school of industrial design should at least be connected to or take into account an industrialization plan such as Celso Furtado’s SUDENE<sup>3</sup>). Furthermore, although Ulm’s approach would not be detrimental to us, we do not believe that the ESDI could keep up with its standard. Brazil does not have the infrastructure or

<sup>3</sup> Translation note: SUDENE (Superintendence for the Development of the Northeast) is a Brazilian government agency, created in 1959, with the aim of fostering economic growth in the northeast region of Brazil.

superstructure necessary to sustain such a standard; therefore, this could turn the ESDI into a poor imitation. But these fears are only partly justified, as our contact with the school and its students at least makes us aware of what can emerge from there. We trust our power to assimilate and transform influences; we trust our anthropophagy.

### Conclusion

In these notes we have sought to focus on and discuss only some aspects of the relationship between art and industry. Despite the broad scope of our initial definition we have dwelled almost exclusively on the artistic movements that are directly linked to the making of everyday objects. This is because we do not consider these objects essentially different from objects of cultural consumption. Moreover, the driving force of our questioning lies precisely in the specificity of the analogy between the two. Now we will try to draw some general conclusions from these notes about the meaning and situation of art in the society of our time. From the outset we will avoid the duality presented in the section on immanence

versus transcendence. Our aim is to extend our concept of industrial design to the full range of modern cultural manifestations, sociologically opposing them to artisanal practices, even those that are commonly seen as disinterested. The ideation process replaces manufacture. The relationship of dependency between art and individuality is also obsolete: conceptions can be perfectly executed by a team, such as in factories. Is that not what happens in cinema? The division of labour in cinema takes place in the core of the creative process itself without compromising the unity of the work, for the creative process is interactive, forming a unity at each stage of making: the script-writer interprets an argument, the script is interpreted by the director and presented to the audience, whose interpretation is also creative.

Let us not be enslaved by Bense’s categories of contingent and necessary beauty to understand the differences between art and consumer goods. There is no clear difference between the two, as there is no internal identity to what Bense considers a category. In fact there can even be as large a difference between two consumer objects and two artworks. Objects

should be analyzed, whether they are consumer objects or not, according to the complexities of their natures and their degrees of determination, and from this we would be able to classify cultural forms, from the most rudimentary everyday object to the most enlightened artistic expression. For instance, there is a qualitative difference between a celebratory monument and a residential building (both are architectural projects), which is equal to the difference between a poem and a news article, a difference only in degree of determination. It is not possible to apply the difference between film and theater or painting and poster to the terms design and art. Poster and film are industrial design. When the criteria of communication theory are applied to art theory the difference between a fictional and a didactic work lies purely in objectives. The instrumental, in order to be instrumental, must contain consuming elements, and vice versa. We must end categorizations, especially when they imply an aristocratic hierarchy. There is a topological continuity between what the so-called aesthetes indiscriminately call low and high art.

In Brazil, a country devoid of an artisanal tradition—we

jumped from the Neolithic period to the atomic era—we witness a lack of penetration of traditional art forms. People consume the radio, press, TV, and cinema (the fraction of Brazilian people that consume anything at all). Comics and our *fotonovela* are the most significant expressions of visual communication today. It is no coincidence that Chris Marker or Resnais would go for this form of communication. Clearly this path would not lead to Pop Art, the frustrated attempt to penetrate mass communication from a lumpen view of reality. Nor would it lead to Op formalism, or the paulista alienation, which is a mixture of the two and is called Opop or Popcreto (ridiculous). It is useless to try to use mass media without compromising content, which is the real collective epic, where there is no place for the intellectualized decadence of the aesthetically interesting (Lukács).

As for the theories of consumer object production, it is absurd to talk about elitism in our current cultural stage. The form of our products will be born out of their very urgency—and it will be good if it is true. It would be ridiculous to transpose “isms” from other countries where infrastructure problems have already

been “solved,” and where one can think of idle refinement. Our industrial art must be one of good solutions—one that provides precise answers to our demands, either coming from our bodies or from our souls.

Rio de Janeiro, April 1965