

Design Process Olivetti 1908-1983

DESIGN PROCESS

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1. I should not like to get into too analytical a discussion on the different meanings this expression may have, depending on whether we press the pedal, as it were, of one or the other of the two words that make it up. More simply I'd say that by "design process" I mean both an attitude and a method. By *attitude* I mean the consideration of a problem in planning or design as a whole, and an approach to every single choice, in form and expression, in technology and economics which does not contradict this concept of wholeness and thus the complementary components of the complex mosaic, the sensitive image of the flow of an enterprise in motion. By *method* I mean dealing with each problem according to procedures that are specific to design, without fanciful innovations, escaping into unthinking "spontaneity" or rootless experimentation, and without going in the other direction toward mechanical and lifeless repetition. Understood in this two-fold but convergent, and in the end homologous meaning, the expression "design process" we might say embraces on the one hand the ensemble of qualities and technics necessary in planning, and on the other the determination of their actual application. Some, more than others — or more strictly and explicitly - have believed that the ensemble of images through which a reality is perceived and grasped is not dredged up from time to time from the infinite congeries of possible signs and of achievable hypotheses. It is selected, rather, according to criteria of predetermination and indivisible identity - the expression and almost the testimony of a need to be that will be attained only at the end of the process, or at an advanced stage of its development, in which willpower and creativity, necessity and innovation, rule and fantasy all come together. The examples are numerous, in many fields, and are almost always docketed, perhaps inaccurately, under the common heading *of style*. Let us leave aside for a moment the results, whatever they may be, and put the emphasis more strongly on the approach to the problem. An industrial activity sets in motion an enormous amount of willpower, risk, work, building, changes in community

patterns, products, sales networks, trademarks, symbols, and technological innovations, with the changes that these bring about not only in ways of living but in ways of thinking. Is it legitimate to conceive of such an enterprise as pursuing goals beyond profit, power and prosperity, vocation or ambition, such as the construction of a code of meaningful forms? Or the promotion of the integration of natural and cultural factors, at least in the places where the enterprise has its roots and is most strongly concentrated, of environment and manufactured products, of the forms of the products and their technology and their uses, of graphic and emotional symbols in the complex of communications to be transmitted and the larger complex of symbols, words and images that characterize an epoch and that later on will be traced as its identifying signs? Let us admit that this is possible, at least as intention or inspiration. Let us accordingly call design process the working out of this requirement, leaving aside any more analytical definitions.

2. In the beginning a firm arises as pure entrepreneurial fact, as a vocation of the technological sort, a drive toward personal success or, perhaps more rarely, from ethical and social impulses. At what point in the confused process of forming an enterprise is the need felt for a coordination of forms and the assumption of a common language of communication in the choice of level and quality for activities that at first sight are so different and irreconcilable, but in the end - through a complex of actions, products, words, perceptible and explicit behavior with physical and social consequences — contribute to the formulation of an idea of the firm and almost create its physiognomy? There are some organizations for which the problem does not even exist. Vital, fortunate, confused, dedicated to business for business's sake, or beset by difficulties or made anonymous by lack of definition, they have not had the opportunity to do so. They move in a mass of signs in which the possibility of an overall shape or the trace of a pattern is hard to discern. For others the problem came up at a specific moment in their growth when a strong need for identity, image and impact on the public called for rethinking, simplifying and redefining their objectives. Finally, there are some that consciously chose at their creation a completely coherent program of signs and meanings, technology and formal values, in a total identification of product and trademark, image and symbol. There is a divinity in words, as the Romans said. The industrial history of the century, observed from this point of view, would show unusual byways, probably relegating to the shade enterprises that marked the period with the roaring rhythms of their growth, and giving the limelight to names no less brilliant but so much more exemplary and with more clean-cut features. Take for instance the history of the publishing industry, one of the most typical and most extensively documented activities in the course of its five centuries of life. Take the immense,

diversified, oriented in every direction, deliberately unselective colossal publishing houses as against the smaller, even minute houses, with a crystal clear cultural line and personality, turning out perfectly printed books, each distinct in its individuality but all reflecting their common origin. Behind this there is almost always a single act of will, more easily traceable in a small firm that is more readily launched and controlled by the inspiration of a man, though today many examples are to be found also on a large scale, in more complex and articulated initiatives. They are the result of collective thinking and commitments, found mainly in large industrial, commercial, banking and cultural complexes, where the name, the visible physical structure of the product or of the services offered, the general climate of prestige, confidence and reliability are the fundamentals of success or further developments. But perhaps it is not by chance that the origin of the phenomenon or its more complete and analytical consideration, its theory and example, should be found outside of industry: in the work of that great studio-school, a real laboratory of ideas, experimentation, comparative studies and integrated activity that was the Bauhaus at Weimar in its early years (1919 and immediately following). There, applied aesthetics had as its object not the single act of the artist but industrial mass production, the inmost value of form produced by the machine and the moral value of broad rather than privileged, elite distribution. The existing or possible correlations between the industrial applied arts were identified and revealed along with, and as a consequence of, production methods. The structural correspondences identifiable not only among the forms of a product, the language of its publicization and the prominence of the trademark that guaranteed it, but much more deeply and at the root, the correlation to be found or reestablished between product and mode of producing it, between object and organization of work, between organization and shape of the environment. Then there is the relationship between the functionalism, essential value and purity of the product and the functionalism, essentiality and consistency of the place where-it is to be enjoyed; between work experience and experience of life as a whole; between the order of objects and the moral order of existence, in a hierarchy of values, awareness, the will to simplify, rigorousness, modernity in relationships - all of which still represent after sixty years the last great

Utopia of form, the vindication of aesthetic over political responsibilities, an experience of quality serving to give substance and truth to the watchword of abundance of (at least) sufficiency for all. Further, there is the reaffirmation of the right to have things well made, solid, accurate, modern and functional, in a word to have quality in a period when technological development could finally provide goods in quantity for all.

3. In many cases, however, the originality of that lesson was understood and applied in its most superficial and external meaning. It was channelized towards the narrower shores of "corporate identity", seen as a repertory of graphic forms in which the use of a trademark embraced stationery, vehicles, packaging and sales points. Or it was directed toward public relations, entrusted perhaps to some specialized agency, with the aim of organizing a network of information, signs and repeated slogans, so as to establish the identity of the company and its products in terms of a code of signals and familiar reminders. It is so easy to shift from morality to moralizing, from form to formalism and from identity to identification. Thus we have seen an explosion of graphic specialization that is undoubtedly interesting from the standpoint of the effort to condense in a sign or a coherency of signs, semantic values, morphological evidence and expressiveness of layout. What is typical, though, of this kind of solution is the undue limitation of the field, as if the problems of the image of any organization could be exhaustively presented in a series of external signs, guarantees stamped on a product whose contents, it has been agreed, will not be examined or evaluated. In other words, the image, and at this point we might say the global image, of an organization is something very different, less superficial and more highly articulated, than its graphic formulation. When Gogol, in 1836, submitted the manuscript of his play *The Inspector General* to the Czarist censor, the text was preceded by the famous epigraph, "Don't blame the mirror if your face is crooked". It was a plea to the censor not to act against a representation of customs and manners that were simply the reflected image of a reality that could certainly stand to be corrected. But beyond the censors it was addressed undoubtedly to the drama critics, the public and the audience for his own art, if not all art in general. By itself the graphic (or institutional) image of any undertaking (corporation; religious denomination; cultural, military or political institution) is not anything much in itself, and does not get beyond the first threshold. It may indeed serve to establish some external elements, mnemonic aids useful for commercial purposes, but can only offer surface satisfactions, and is almost always so self-sufficient and self-generating as to be interchangeable, often going little beyond the closed circuit of the people in the trade. There is no need to insist on this point. The construction of a *real image*, precisely because of its intrinsic character of mirroring, reflecting and concentrating elements that may represent a selection but are still real and actual, is something approaching a double of the object whose contours it projects and illuminates. We might take a further step forward and say that the image, in this broader sense, *is the same thing*, made evident and perceptible by publicizing and communication techniques, which remain supports, vehicles, language and instruments, and never an ersatz of something whose place it takes and whose features it assumes. In particular the image of a firm is given by the ability to concentrate attention on its real mode of

being, to reveal its substantial nature through what it produces, how it resolves the problem of its relations with its own public, with the territory and the community in which it operates. And the ability to make the cultural factors it expresses explicit, along with the values it assumes or conveys and the contribution it gives to human development. Outside of this it is pure fiction, a publicity device, a metaphor only half formulated that has lost its terms of reference and its objective. We might perhaps conclude that the image, taken in this sense, is then the object made more evident by emphasizing its most essential features.

4. What comes first it is hard to say. At the end of the 17th century La Fontaine inaugurated a new century that was to give pride of place to the image (or representation) over the word, by writing his famous lines of verse: "Words and colors are not similar/ Nor is an eye the same as an ear". In 1712 Joseph Addison wrote that vision was "the most perfect and grateful of all the senses" and that color was a universal language, "while words are understood only by one people or another". Du Bos some years later

held painting to be the expression "of natural signs" as against the "artificial signs" of poetry and words. It is not necessary to underscore the importance that d'Alembert gave the plates that illustrated the articles of the great *Encyclopedie*: "A glance at an object or a representation of it tells more than a page of discussion". Fielding meanwhile was praising the emotional efficacy of Hogarth's engravings, writing that they had done more for "the cause of Virtue and the Defence of Humanity than all the folios on Morality that had ever been written". We could go on for many pages of quotations giving the supremacy for persuasiveness and effectiveness of the visual over the written (or the oral). This comprehensibility and universality of the image has been I believe a major influence in the development of a language of signs, parallel to but almost independent of words, and in the creation of a corporate identity. The companies go beyond national boundaries, their products invade the world; sometimes they are concerned with people unfamiliar with written alphabets, or at least with certain alphabets, and often they must attract the attention of people traveling from one country to another, outside the protection of a familiar language. From this point of view the sign is not only more impressive (as all primitive art, loaded with symbolic images and meaningful signs, has shown) but offers universality and immediate perception. This is so to such an extent that it has sometimes led to the equivocal conclusion that the sign as trademark, as total symbol in all its applications, derivations and frequencies, can exhaust most of the problems of the image. We have already indicated in what sense that seems to us partial and inadequate. In reality, rather than sign it would be better to speak of system (or systems) of

signs, from the simplest and most immediate to the more complex, loaded with implications.

Again we return to our point of departure. To its other values, already mentioned, design process can add that of being the itinerary along which the history of an organization in movement may be followed. Besides words and the narration of the facts, there is the universe of its system of signs, of visual expressions, forms and images, from the most elementary to the most complex, up to that hypothetical sign of signs that may define the totality of the life of the organization in question, seen both as a historic process and as the sum of all its activities and manifestations.

5. We are dealing with a company directly concerned with the circulation of words, which produces machines and equipment for handling information at all levels, from manual and electric typewriters to the most sophisticated electronic processing of words and numbers, from calculators for scientific and technical computations and complex business administration systems, to copying machines, communications terminals, pocket calculators and teleprinters. When writing, words and numbers, information and its handling are the very object of an industrial activity, and when characters and alphabets - from the Latin, to the Cyrillic, Arabic, Hebrew, Greek and Aramaic to mention just a few - are the

necessary vectors for written expression, communications that are not in words, language that is not language, are unimaginable. Naturally there will be a strong presence in the firm's image of lettering and a structural use of characters (from the point of view of form and technology; for type-bar, spherical print head and daisy wheel; characters made up of dots; characters that print magnetically, with ink, toner, spray, heat: and characters with constant and proportional spacing). Emphasis on the quality of the printing amounts almost to a reversal of the normal use of letters and words: from sign as meaning to meaning as sign. And from this there is also the utilization of history and its projection on to the present. The long tradition of printing is an example, with its two most important and creative moments. First in the 15th and 16th centuries when printing is institutionalized and in Germany, Italy and France, alphabets with movable characters - distinct in size, spacing, thickness, as well as grace, readability and harmony - take on canonical form. Then in the 18th century a radical renewal takes place, and families of characters are perfected that with slight variations have remained in use till today. Another feature of an industry of this kind is that its specific objective is human occupations, office work and intellectual work in its various applications. Others produce for entertainment or to supply food, clothing, aids for health, vacations, transportation, to make homes more agreeable, to satisfy vanity, increase social prestige or glamor. In pursuing their objectives they may assume various attitudes

and become more conservative, more innovative, more frivolous, more neutral, more elitist, more popular, more social or more competitive. Those who produce for work and people the world with machines, systems and equipment that do work, administer, transmit information, transform and multiply data, organize and produce other work, do not have as much freedom of choice, nor can they assume various attitudes. They cannot escape from a professional and ethical idea of work, its exigencies and its weight; they cannot be slack when it comes to analyzing ergonomic values, nor can they fool around with forms, which must offer the optimum in the relationship between man and machine that goes on for many hours a day and may last a lifetime. Their products and their whole image cannot fail to express that solid respect for work that is their very reason for being. And they will be convincing not through any surface appearance or linguistic sophisms, but in their way of suiting human physiology, without straining it by ignoring its nature and limitations, but meeting it halfway by clarity of layout, forms that are not tense, in colors and signals that the eye can rest on without effort. A last feature. This field of production has been marked by a long period - some seventy years from the last quarter of the 19th century — of very slow technological advance, and then unexpectedly, in the thirty years now ending, a wild race toward innovation. For instance, before the irruption of electronics into the field, the history of mechanical writing showed only one phase of improvement: the development of the electric typewriter (to which may be added, if one likes, the replacement of typebars by the spherical print head). The application of electronics to information, first in the big computers, then in the simpler calculators, the accounting machines, the writing systems and typewriters, inaugurated a period of radical and continual technological changes, with revolutionary transformations in the working systems and progressive reduction of prices.

Factors produced by the relatively short and sometimes very short life of the machines due to the continual improvement of the electronic components, and thus the need to cut down on the timing of planning, selling and return on investment, changes in location of production plants, entry into the market of new firms with highly specialized designs and the companies low labor costs impelled the companies toward sweeping reforms in their sales organizations. All of this has had a direct effect on product design, in the study of forms suited to the new technologies and in the need - where the flow of products is unceasing - for the machines to live alongside those of previous and future generations. Flexible, modular, interchangeable schemes were called for that would still meet the indispensable requirement of having a distinct character and being immediately recognizable.

We may stop at this somewhat elementary level of indications. For firms operating in other sectors the problems of their image, that is the projection on the outside of the necessary correspondence between

the basic reasons for their activity, the reality of the product, and the ensemble of features making up that more general individuality which is the firm, can be faced with a broad margin of movement and freedom of direction (and in some cases dealt with from outside, through models of behavior and techniques of exposition derived from experiences before the existence of the firm). For those working in the sector that we have indicated, the problems of correspondence between internal and external; technology and form; being, doing and appearing; reality and image - in a permanent tension brought about by the structural, irremovable coexistence of continuity and innovation, identity and change - are a point of departure and a condition. We might say then that for a firm of this type "design process" is the continual analysis, awareness and constant rediscovery of the ever new, more advanced equilibria which the unarrestably changing reality of the firm imposes on its visible forms. And it is as well the continual equalizing - within the flux of continuity and history - of the present, past and future, of the advancing new, and the future being planned, with what is coming to an end and becoming remote. Innovation as tradition. Image as movement.

6. I have tried till now to establish some points of reference, in an attempt to suggest a key to the reading of this catalogue. The years behind us have often seen, in most countries but perhaps most acutely in Europe, a sometimes total condemnation of the industrial phenomenon - condemned as a thing in itself, overriding the forms of capitalism in which it appeared. A generation of youth raised in prosperity, dissatisfied, frustrated in its idealism by the facile and the mediocre, accustomed to the unthinking use of an unprecedented abundance of goods, tended to forget what was at the bottom of that abundance. Rejecting the snares of the conformism that industrial civilization seemed to impose as a necessary condition of its survival, the young ended by rejecting everything, dropping out and sheltering or dreaming of taking shelter (and living the dream of that shelter) in a *natural* life, away from the cities, social restrictions, institutions, and relationships compromised and corrupted by inequalities of wealth and power. Their thirst for innocence may have been as ambiguous and perhaps as immature as the drive in more distant years toward unbridled competitiveness. Some think that we are now beginning or on the verge of a period of backwash, of recovery of private values — not as a rejection of social values but as renouncing the idea of humanizing them. In the one position as the other it is probably possible to recognize an equal, if opposite, mythologizing of the industrial phenomenon and its meaning: for good and for evil it is the modern world, our way of thinking, the quality of our relationships, our new needs, our culture. Perhaps it is worth looking into without prejudice, to understand that like all complex phenomena it has many faces and that it is just the tough

conditions, the difficulties and risks in its functioning which show it in its dynamic flow, its many values, the multiplicity of its individualities that do not identify anyone with anyone else and can reveal a story about each one that is his alone. What we are showing here is one of these stories, seen - in its history - from the angle of the meaning of its unitary mode (stemming from a certain idea of industrial culture and responsibility) of determining its own identity in the installations in which it is articulated, in the form of its products, in communications, in the complex of its social activities and in its relations with militant culture (that is a culture for change, not just for knowledge) of which it has always felt itself to be a part. We are certainly not presenting it as an exemplary case, an ambition remote from our thinking and anyway ridiculous coming from us, but as one example, conditioned by many circumstances, the most important of which in our opinion has been a special and constant attention to problems of form and the need — certainly not free of error but we think we may say that it has always been supported -to have the firm's operational decisions come out of a real evaluation of a company's responsibilities in the contemporary world, and of the consequences, for a long time, perhaps for all time, of wrong decisions, on the environment in which it functions. Its duty is thus to make enlightened choices, from the intention to cooperate in improving working and living conditions to the proper use of goods and things, upholding modernity, utility - and if we may be permitted the expressions - creativity and beauty.

And the firm may be seen as an example since in its seventy years it has never, we believe, broken its continuity, through changing times, in dealing with problems or in the men who tackled them. Its intention has been never to separate the industrial phenomenon from a broadly humanistic view of life, from the concept that the company must generate an enrichment of life that is not merely material, and from the hope of producing an overplus of human riches along with the profit a company cannot renounce, as it is a condition of its existence. To what extent (and if) this endeavor may offer some spur to discussion of a problem that seems increasingly present in the industrial context of recent years, it is not for us to say. What seems legitimate to us to affirm is the constant good faith with which it has been accomplished: the course followed, which is illustrated in this catalogue, will perhaps be a confirmation. And this is the final meaning in which we assume our definition of design process: the attempt to provide *historic* confirmation or fidelity to a purpose and a vocation for design.

7. As will be seen in going through these pages, the phases and developments of this work are not homogeneous. In part they are linked, as we have said, with technological developments, in part with the growth rhythms of the company. There are moments in "which product design takes first place,

others in which architecture is prominent, and still others when communication graphics, sometimes the expression of a single artist, characterizes most strongly the contacts between the firm and the public. There are the times when method is dominant (all the work of codifying and regulating the application of the trademark), and other times of inspiration (the freer activities, collaboration with artists, exhibitions, books). But no vein is ever abandoned: the themes present from the beginning are joined progressively by others. The disproportion between the conciseness of the early pages and the successive expansion of the documentation up to the most recent years, is not due to a lack of feeling for history or indulgence for tin-things closer to us in time. It reflects the rhythm of development in this branch of company activities that accompany the more general rhythms of development of an increasingly strong industrial presence. A last observation concerning the pages devoted to cultural events promoted by tin-firm, the international traveling exhibitions, the art films produced since the 1950's, the numerous books published, tin-diaries, calendars and the art prints brought out in limited editions and not for sale. All of this field of activity, partially documented here to give an idea, is not strictly speaking a directly functional part of a company. But to some extent it helps convey a sense of the individuality of the firm, defining the contours of the intellectual interests expressed by it and proper to it (in the end the various arts, pure or applied, separate in technique, expression and purpose, are linked and interact by bonds much deeper than immediate intuition would lead an imagine, constructing all together an image of the time in its entirety). It also takes on a function through the use made of it by those who promote that activity. A firm of the type we have described does not have direct contact with the undifferentiated public at large (if not in a narrow circuit of products for more universal use). It produces goods for use by large organizations, businesses, Banks, industrial and commercial enterprises, government and local administrative offices. With all these organizations it maintains long term relationships. Many of the objects produced and illustrated in this sector of activity are intended for these organizations and appear along with the machines that are supplied. Reaching a clientele that is not anonymous and fortuitous, their message aims to recall the company with something exclusive and useful (or even just pleasing) that has permanent value and will not end up with the discarded junk.

Or perhaps it is not even like this. Or at least not entirely so. Films, exhibitions, books, prints, objects are means of contact, promotion, communication. But they are not exclusive means. Why were these specific choices made among the thousand other possibilities? Why commission the creation of works of art, with all the risks involved, instead of choosing among what has already been produced? Why look for illustrators, sometimes still almost unknown, to execute plates for books and diaries to send, i round

the world? Why this work of exploration or invention, in which it often takes years to gain as much recognition as the fame or notoriety that only the mass media can assure today? We come back again by another path to the constant theme of this note: vocation, meaning, the nature of the industrial phenomenon in the modern world. Industry is one of the constituent and determinant values of contemporary society. Its decisions profoundly affect the social, physical, economic and cultural fabric of the territory in which it operates. They modify the human community around it, create wealth, change the urban, sociological and intellectual context, spread consumer goods, intensify life, experience and opportunity; but also pollute the environment, make mistakes that can be catastrophic, with the danger, or the fact of, oppression, restrictions and impetus toward deterioration. All the more important that it should be guided by a great sense of social responsibility, and be creative in every one of its acts, as if by second nature. It should know how to take on the values of culture, intelligence and science as its own values, to be linked — not as servile, marginal, screen elements but with equal weight and dignity — to the other values by which it exists and operates. It should also move on the terrain of the spirit, with which it must in any case be in touch, with the same passion, the same intellectual generosity, and the same respect with which it deals with the problems of its own development, profits and the most complicated managerial decisions. (From this point of view a brief glance at these summary pages will perhaps confirm the idea that life is one whole, that everything is linked to everything, and that clarity of aims and rigor in pursuing them are not separable from creativity and invention, in whatever field they are called upon to act.)

1930-1945

Adriano Olivetti, industry as responsibility

Recalling in later years the beginning of his career in the company, Adriano sketched the character of Camillo Olivetti in the following words: « Possessing brilliant talents, my father might have been an outstanding economic planner, but he so distrusted the economic system of his times that despite his broader vocation he became an engineer. Intelligent and tenacious, he was a good engineer. He was of the type whose courageous initiative, self-sufficiency and dominating personality set the pace for the progress of modern Italian industry. His greatest ideal was independence, not being indebted to anyone, and not being subject to restrictions of any sort. Although he had powerful initiative, he was not reckless; he was extremely prudent, keeping the development of the firm in proportion to his own financial resources and organizational ability. »

A different approach to company management is seen in the firm early in the 1930's as Adriano Olivetti takes on greater responsibilities. « The basic idea guiding the reorganization of production was to bring in men with good technical training throughout the plant. The old heads who had come up from the benches, to whom the factory owed its beginning, its development and all the sacrifices of the difficult years, would have to make way in the machine shops for the honor graduates of the polytechnics. I had been obliged to judge men and things from a rational point of view, according to their usefulness in the reorganization that I considered indispensable. »

The phases of this basic reorganization move rapidly even if the outbreak of World War II and then the long years of the conflict, the closing of important markets and increasing difficulties make it necessary to revise and defer development plans. In 1930 the new M 40 typewriter is brought out and the first Synthesis card files open the company's activity in the office furniture field. The firm becomes a joint-stock company in 1932, capitalized at 13,000,000 lire. Its production a year later amounts to 15,000,000 office machines and 9,000 portable typewriters; and Olivetti products are distributed in 22 countries. In 1934 production is begun on adding machines. The Studio 42, semistandard typewriter, produced in 1935, is the first example among Olivetti products of conscious, planned industrial design. In 1936 work starts on the expansion of the Ivrea factory, and Adriano Olivetti initiates the territorial planning study that will result in the volume *Piano Regolatore della Valle d'Aosta* ('Master Plan for the Valle d'Aosta'). The first teleprinter is planned, and social benefits are expanded (extension of holidays, cafeterias, child care centers, etc.). In 1937 21,575 office machines and 15,694 portable typewriters are produced, while employees number more than 2,000. New workers' housing is designed (by the

architects Figini and Pollini), and a new factory for office furniture, in Tuscany, is planned. Employees number 1,673 in 1942, and production has risen to more than 37,000 office machines, 26,000 portables and 2500 calculating and book-keeping machines. Capital is increased to 33,000,000 lire. But we are already in the midst of the war years, and the events, especially of the final period (the Nazi occupation of Italy), involve the company along with the rest of the country. Adriano Olivetti, who had become president in 1938, is obliged to take refuge in Switzerland until April 1945, when with the end of the conflict and the resumption of production, a new period of expansion and reorganization, opens up.

Concerning industrial design, communications, architecture and relations with the arts, these years mark the passage from the pioneering instinct of the father to a conscious coherent direction in the son: the passage from nature to culture, as it were. First of all, Adriano's intellectual and scholarly vocation is revealed. The factory is seen as a force closely concerned with its environment. He creates the magazine *Tecnica ed Organizzazione* to bring Italy the production and organizational methods he had observed during his travels in the United States. Then his town planning studies and experiments aim at placing the factory within its proper urban and social context, avoiding an unthinking imposition of this social force and adopting the best standards of the new architecture, town planning and sociology. His plan for the Valle d'Aosta is the first comprehensive study of its kind in Italy (the young architects who worked with him have since become leaders in the field). For a territory in the process of industrialization it establishes lines of development in which industry is seen as a dynamic center that need not disrupt the social fabric of the area. The consequences of industrialization - workers' settlements, social services, road networks, changes in community patterns - are anticipated and channeled so as to avoid destructive reactions like real estate speculation. A careful study of positive town-planning experience abroad, especially in Europe and England, provided the background for the achievements at Ivrea. The architecture of the factories and the housing projects are a new page for Italy, and still retain today their dignity and vitality, making Ivrea unique in the history of Italian industrialization. The influence of the Bauhaus and Functionalism is apparent in the young architects commissioned by Olivetti. In an Italy dominated by Fascism and a provincial, bombastic and academic architecture, they are a point of departure for links with international architecture. And they reflect the need to express, in the new structures made possible by reinforced concrete and glass, a 'moral' conception of the factory as the place where men carry out their most important social activity, and thus as an embodiment in form, material and space of that dignity. In industrial design, Olivetti during this period approaches the problem also in terms of Bauhaus experience. As there are no specialists in Italy,

he calls in young artists, painters and architects who create forms related to abstract art and functional architecture.

More important, Olivetti graphics at this time are comparable to the company's architecture. Adriano Olivetti, who is in direct charge of advertising, creates a new style in communications with the aid of associates from the vanguard of contemporary arts and letters. A new logotype is designed reflecting the forms of typewriter characters, and this is the period in which alphabets and numerals are created by the staff. Leonardo Sinigalli, Giovanni Pintori and Renato Zveteremich produce a new form of expression, in collaboration with painters, architects and graphic artists like Xanti Schawinsky, Persico (editor of *Casabella*, the most important cultural review of the time), Nizzoli, Munari, Veronesi and others.

When Adriano Olivetti becomes general manager and then president in 1933, he impresses a unitary spirit on all the company's initiatives. In Italy and abroad the Olivetti image evokes the modern, the functional and the imaginative. Its impact will be impressive just after the War.

1945-1964

Expansion into world markets

With the end of the War and the resumption of economic activity all over the world, the growth of the Olivetti company is accelerated. At the time of Adriano Olivetti's sudden death in 1960, the sales network covers the entire industrialized world, in the United States the Underwood company has been acquired by Olivetti, and production plants are operating in southern Italy (at Pozzuoli), Spain, Brazil, Argentina, Mexico and the United States. In addition to its typewriters, calculating and accounting machines, and office furniture, Olivetti brings out in 1959 the Elea 9000, the first electronic computer designed entirely in Italy. Employees now number more than 40,000, of which almost half work in Italy. Capital, after successive increases, is 40 billion lire. The years immediately following are a time of adjustment. As the company continues to grow, the Olivetti family cannot by itself handle the business, though active in the management — in which Roberto Olivetti, Adriano's son, has a prominent part. In 1964 a group of large Italian companies and banks acquires shares in Olivetti, and the presidency of the company is assumed by Bruno Visentini, a well known jurist and political figure who since 1949 had been vice president of I.R.I.

L'Istituto Ricostruzione Industriale, the state industrial holding company controlling a large proportion of Italian industry). While the company forged ahead in the fields of business machines and teleprinters, it withdrew from production of large computers, as requiring an onerous burden of investment and a level of technological and scientific know-how that Italy at the time could not offer.

The importance of the company in architecture, industrial design, graphics and cultural activities, in these two decades receives world recognition. Adriano Olivetti steps up the pace of his managerial and industrial, as well as his cultural and social, activity with indefatigable energy, as if beset by a sense of the short time before him. In Italy and abroad new factories are planned, along with housing, day nurseries, libraries, and community centers. The industrial designer Marcello Nizzoli, associated for years with Adriano Olivetti, is responsible for the design of all the products, except for the electronic computers assigned to the young artist Ettore Sottsass Jr. who will subsequently shape the next generation of the company's production. Graphics come under Giovanni Pintori, an artist of many interests ranging from painting to sculpture, the creation of alphabets and advertising communications. But what distinguishes this period is primarily the personality and intellect of Adriano Olivetti. A political thinker, he formulated an original plan for a state structure centered on three interacting models of social organization: the federal principle and the autonomy of local communities; 'integrated

democracy', or the creation of political cadres, democratically selected through political machinery that also guarantees their competency; pluralist economy, in the public interest but not state-run. In the pursuit of his ideals, he creates a vast network of institutions and activities that have a marked influence on Italian cultural life. He establishes the Edizioni di Comunità publishing house, and the National Institute of Town Planning; launches periodicals on architecture, the arts and the social sciences; promotes research and conferences: offers prizes in architecture; and sponsors town planning projects not only in Ivrea but also in southern Italy. He is in touch with outstanding intellectuals in many countries. His death is a great loss but his accomplishments live on. He has defined an industrial enterprise's duties and functions as a social vocation going beyond the sole aim of profits, indispensable as these remain in the interest of independence and development. The moral value of solutions in harmony with scientific progress and high esthetic standards, receives widespread recognition, ranging from the Tiffany Prize to the New York Museum of Modern Art's exhibition of Olivetti design. In Le Corbusier's words: «The products... seem almost illuminated by their exact proportions and the love with which an object should be constructed, the love with which one does his duty, the love for one's own work ». Olivetti architecture is fully discussed in Henry-Russell Hitchcock's fundamental work, *Architecture: Nineteenth and Twentieth Centuries*, 1958. But for the impact that Adriano Olivetti and the company had on industry, Thomas J. Watson Jr., of IBM, is eloquent in his paper *Good Design is Good Business* from the collection of essays by various authors published in one volume under the title *The Art of Design Management* (University of Pennsylvania Press, Philadelphia, 1975): « After entering a business which, fortunately for me, was headed by my father, I eventually came to see design become one of the major reasons for the success of the IBM Company over the past eighteen or nineteen years. We had relatively good design in the days before I ever got there, but one night in the early 1950's, as I was wandering along Fifth Avenue, I found myself attracted to typewriters sitting in front of a shop window. They were on stands with rolls of paper in them for anybody's use. They were in different colors and very attractively designed. (In those days you could have an IBM typewriter in any color as long as it was black, as Henry Ford said about his "Tin Lizzie".) I went into the shop and also found attractive modern furniture in striking colors with a kind of collectiveness. The name plate over the door was Olivetti. Subsequently, I went to Italy and met Mr. Adriano Olivetti, one of the great industrial leaders of Italy. He had completely organized design program that included company building for employee housing - which was popular in Italy at that time - as well as Olivetti offices, products, colors, brochures and advertisements. Shortly after this, in 1955, a close IBM friend of mine, manager of our IBM business in Holland, sent me a very thick letter in which he said: 'Tom, we're

going into the electronic era and I think IBM designs and architecture are really lousy. I've collected a lot of Olivetti brochures and pictures of their buildings, as well as brochures and pictures of IBM. Put them all out on the floor and have a look down each column and see if you don't think we ought to do something'. The Olivetti material fitted together like a beautiful picture puzzle. At that time we didn't have a design theme or any consistent color program. All we had were some very efficient machines, not too well packaged, and some competence in the new field of computers. In fact, we were building our first family of computers - the 700 series. They worked on vacuum tubes which seemed from the inside design to be the very epitome of modern technology. We thought it was time for the outside to match the inside. That was a design problem. We took all of the top-level people in the IBM Company to a hotel in the Pocono Mountains where we considered IBM design in contrast with that of Olivetti and a number of other companies. We wanted to improve IBM design, not only in architecture and typography, but color, interiors— the whole spectrum. »

1948

>INDUSTRIAL DESIGN

>MARCELLO NIZZOLI

>LEXIKON 80

>GRAPHIC DESIGN & ADVERTISING

>MARCELLO NIZZOLI

« The Lexikon 80 Office Typewriter is the most beautiful of the Olivetti machines. The blank metal envelope in the hands of a sensitive designer has become a piece of sculpture. There is a precision in the balance of planes, in the relationship of curved to flat surfaces, and in the modeling and bold jutting-out of the large handle which moves the carriage. The dip and rise of the hood, tightly fitting over the mechanical parts, enlivens the front plane without interrupting its smooth descent to the keys. The carriage, when moved into central position, fits precisely into the side profiles of the stationary back-bar like jig-saw puzzle falling into place. Many of the little levers and handles which one finds grouped at both ends of the carriage as an essential part of any typewriter and which are responsible for the bristling look of most models, are thus ingeniously bound up with the larger body. By this means a look of order and simplicity is achieved. The name Olivetti is carefully located for balance and visibility, being placed adjacent to the knob one turns when putting a piece of paper into the carriage. The color of the typewriter, a soft putty-beige uniformly used for all machines, gives it a trademark of distinction. (*Olivetti: Design in Industry*, Museum of Modern Art Bulletin, New York, 1952)

1937-1967

GRAPHIC DESIGNS ADVERTISING GIOVANNI PINTORI

« There is an entire chapter still to be written on modern Italian Art during the period between 1928 and 1935 when, centred on Milan, it was becoming an integral part of Italian culture and tradition, after the wave of 'Novecentismo'. For it was in this city that Edoardo Persico, the architect Giuseppe Pagano, the Milione Gallery — with its exhibitions of abstract art — and later various painters, architects, poets and writers, set in motion the process of refining and purifying the rather confused and stagnant cultural life of the time. »

« In this same period — in 1931 to be precise -when in the Persico circle in particular there were so many urgent things to be said and done, and when so many brilliant ideas sprang from the 'Clerici Loquentes', the 19-year old Giovanni Pintori, short in stature, olive-skinned and quick, arrived from Sardinia for enrollment in the Monza school where Persico, Pagano and Nizzoli were part of the teaching staff. » « It can well be imagined what a wealth of inspiration and enthusiasm the teachings of these three kindly artists showered upon the wide-eyed novice, Pintori, who had expected nothing more than a normal apprenticeship, but who found instead his own destiny, shaped by the magic hands of these master craftsmen. » « From this same tradition of poetry translated into dazzling unforgettable terms, Pintori drew his ideas for publicity material, portraying them in graphic designs with multi-colored patterns, machines captured in collages, symbolic splashes, cabalistic numbers, or objects brought together on the basis of some functional resemblance. At times it is simply the writing of a letter or the curve of one hundred and one flourishes emerging from a delicately tinted page. At others, the general effect comes from a script so spaced and so laid out that the message stands out as a thing of substance — a case of clarity of composition emphasizing a point. There is a remarkable lightness of touch in his publicity displays that rise, suddenly, from a point in the landscape, their whirls of narrow lines like arabesques, alone or intertwined and ending perhaps in a curve of ribbon, conveying their gay message against Nature's own background. » « His name now has a permanent place amongst those of the world's outstanding graphic artists -this new generation of painters who, by the very forcefulness of their style, have made a very real place for themselves in the history of modern civilization. » (Liberio De Libero, *Giovanni Pintori*, op. cit.)

1950

> INDUSTRIAL DESIGN

> MARCELLO NIZZOLI

> LETTERA 22

« In the Lettera 22 Portable Typewriter, which is light in weight and compact in shape for ease of transportation and storage, the designer has preserved more clearly the appearance of a box. This appearance is enhanced by a subtle integration of parts. Here the uniform putty-beige color is punctuated by a most effective accent - one single tabulator key of brightest red. The keys themselves are modeled like shallow bowls, a shape inviting both to the eye and to the finger. » (*Olivetti: Design in Industry*, Museum of Modern Art Bulletin, New York, 1952)

« All levers, of which the handle is a very common example, are fairly simple cases, where the form may grow out of a special study of the direct action of the hand, and where the choice of ways in which the hand can grasp them and the details of body and outline leave considerable freedom to the imagination.

» (Nizzoli)

The Lettera 22 was awarded the Compasso d'Oro in 1954.

>INDUSTRIAL DESIGN

>MARCELLO NIZZOLI

>AUDIT 301

In the three models of the Audit bookkeeping machine produced between 1940 and 1956, there is an evident development of an initial theme leading to completely new and far reaching results. In this respect another passage from Labò's essay is appropriate. « The analogies that connect the Olivetti products... are not based on repetition, on the transposition of details. There is rather a true harmony of discourse. As Morel-lo rightly said, it grows out of a superior "syntax of form that succeeds in giving... definition to machines of highly diversified technical structure, and this definition does not come from a superficial resemblance in appearances but from a conception of the essential" that never fails. Nizzoli finds incomparable assistance in the technicians, who listen to him without flagging, and in Adriano Olivetti, who puts every means of experimentation at his disposal. At the same time the phases of the work always allow the time necessary for elaborating his ideas on a rather long term basis. Since the study of the bodywork, from the very beginning, is part of the preparatory work for a new machine, and such preparations are never brief Of course it was not easy for Adriano Olivetti to find an artist who could second him so faithfully in his ideas as Nizzoli. But it would be even rarer to find another industrialist in Italy who would put the esthetic factor on the same plane as the technical, with such rigorous requirements. » (M. Labò, op. cit., p. 15)

1959

>INDUSTRIAL DESIGN

>ETTORE SOTTASS JR. with H. VON KLIER and A. VAN ONCK

>ELEA 9003

The first Italian electronic computer, brought out in 1959, had a considerable success on the market. It was given the name of a famous ancient school of philosophy that flourished when southern Italy "was Greater Greece. The first Elea model worked on tubes. Soon a new machine was produced in which the tubes were replaced by much smaller elements - transistors - that did not require an air-cooling system. At the time the innovation seemed revolutionary, but during 1960 an even more advanced model, new technically and in design, was produced. The new electronic devices, designed by the engineers at the Borgolombardo research laboratories under Mario Tchou, were housed in light, compact structures that were easy to move and set up. At the same time the laboratory aimed to develop modular units offering various combinations and the possibility of future expansion. « The problem was resolved by designing a minimum initial unit, called a 'wing' that can hold 14 stacks of boards arranged in two 'piles' of standard rack width (50.4 cm). The wings are grouped three by three in elements called 'threes'. Each 'three' is connected with the next by a 'spacer' box that when necessary can support the cable channels that go from the computer to the auxiliary equipment. To get at the boards and the cables the two external wings are rotated around the hinges connecting the three wings.

A structure has thus been created out of easily manageable and movable elements - the wings -that is infinitely expansible, and made up of components that can be replaced, added or removed with relative facility. The control group of the complex, known in electronics as a 'console' , is placed at one end of the complex. This in short is the structure of the new version of the Olivetti computer, which is the central mechanism for processing data collected and arranged by a series of peripheral equipment. »
(*Stile Industria*, n. 31, op. cit.)

« Today the function of a machine is no longer limited to the machine itself. It does not end in or complete itself in the machine, but is part of— as a complementary function - a higher functionality that is provided by whole organisms of highly complex machines in which the individual machine is merely an intermediate cog ...So it seems to me that the design problem is no longer that of designing machines, huge or small, each seen as an entity in itself capable of communicating something whole, in some way. The problem is rather that of designing complexes of machines, that is to create 'landscapes'

with their own significance as landscapes; or -if you like- interiors, or -if you like- architecture, or -if you like- atmospheres.

The problem is thus to see whether it is possible to create reproducible, standardized elements combinable in all ways — combinable physically and in line form. The problem is to see whether it is possible to find elementary concepts or elementary forms, dimensions or grids, of a kind that make it possible at any time and in any direction to develop unexpected, unprogrammed organisms, in a way so that in the end the whole thing doesn't fall to pieces. Even if it is not possible to know what types of machines should be added to the existing machines, it is still true that certain elements recur to a certain extent: keyboards, supports, covers that tilt back, etc. And other basic elements may be added, such as color, or connections between machine and machine, and finally a basic element of an enormous vital potency, the measure and movement of man. » (E. Sottsass jr., « Automatizzazione e design », in *Stile Industria*, n. 37, op. cit.)

The Elea 9003 was awarded the Compasso d'Oro in 1959.