Полу-реферат про немецкого дизайнера Луиджи Колани

One important aspect of Luigi Colani’s works which come 100 years later than they is that of science fiction in morphological design and is, per excellence, a critique of civilization through traditions of Verne, Villiers de L’isle-Adam and H.G. Wells. This may be this writer’s personal, unrefined view based on impressions, but it seems sensible enough to see e parallel between certain works of Colani and the landmarks of classical SF: between Super-Tanker 1 (1978) and Verne’s underground navigator, between “Megalodon”(1977) and Hermann Oberth and Fritz Lang's moon rocket (in the movie "Frau irn Mond", 1929), between the spherical experimental kitchen and Arthur Clarke and Snley Cublic's "Space Pod," between the superastrodome, living space secured in mushroom structures, etc. and bases on stars described in numerable works of science fiction. All these parallel pairs appear to overlap each other, or emulate each other in pan-focused settings. Only, it must be remarked that the SF message of Colani's works represents but one small portion of the huge Colani Universe, but one cross-section of it at 1980 A.D.

Gaudi's later works are known for mildly curving 3-dimensional forms in various combinations, which make up a unique world owing its forms to forms of nature. (This is one important ground on which some historians include Gaudi in the art nouveau school.) The same can be said of Colani's works. Both the legs of chairs designed by Gaudi and the landing gear of aircraft designed by Colani (for example, that of the mockup of the world speed record-maker type C-309) took more like the supple legs of an animal rather than the support of a mechanical device. In the personal view of this writer, the helmet-like windscreen in Colani's idea sketch for a motorcycle based on his Munch 1200 and the ceramic tiles Gaudi put on the roof of Casa Batllo are of a common origin in form sense.

But it is not at all that Colani's works and Gaudi's works “resemble each other”. The similarity in configuration between the above mentioned windscreen and roof tiles is exceptional. Going through the Luigi Colani collection put together by CAR STYLING, I was constantly aware that Colani's works were somehow reminiscent of Gaudi. I even imagined that Gaudi, if alive today, might very well come up with something pretty much like some of Colani's works.

Luigi Colani says there is no straight line in the universe. “Everything on the microcosmic” well as the macrocosmic plane is made up of curvet which are intrinsically alien to straight lines. The universe itself is made up of curves. I can only obey the rules and laws of nature, and, as far as I know, I am the only designer who does so.” (CAR STYLING Supplement: LUIGI COLANI—Designing Tomorrow, 1978).

I have already mentioned that Gaudf's later works, in architecture as wet! as furniture design, feature as the leitmotif the combination of curved surfaces with three dimensions, the likes of which had never been seen in his earlier works. Everything he designed, be it the facade of a building, railings in a park, breast wall, a ventilation duct, ewes, or a door knob, featured curves, swells and waves.

"Whenever I encounter some problem in design work," says Coiani, "I make it a rule to look into my microscope for an inspired breakthrough. It is because the earth has existed for millions of years and contains in it all the laws and methods of solving problems. Man is certainly making wonderful things, but couldn't possibly compete with nature." Speaking of flies, he said,

"Flies have been offering us all the answers to any question we may have about flying for millions of years. It is entirely up to us whether we choose to look into their answers or not. What I am after is not the kind of design that is meant to answer the needs of different times, but eternal design, something that never changes with time."

Among the most impressive works by Coiani who worked inspired by nature, the supreme designer, we may name:

* Poppyhead Stadium.
* Faucet (Grohe). Elegance reminiscent of a waterfowl's neck.
* Airplanes, hydrofoils and super-high-speed monorail cars equipped with supple limbs, reminding us of dolphins, seabirds, pond skaters and dragonflies. Concept for a mass-transport pipe AORTA.

These works are certain to transcend time and space to resonate with many of Gaudi’s works completed at the beginning of this century.

What is important here is that the works of Colani and the forms of nature do not "resemble each other," as do not, as stated earlier, Colani's and Gaudi's works. If, for example, Colani said, "I am only copying the nature which I often observe through the microscope," he would only be voicing a murmur, or soliloquy, of his heart. An artist who is very strict with himself may at times misperceive his own works.

Strangely enough, but really naturally, when trying to feel Colani's works straightforwardly, not for the purpose of interpreting or criticizing them, one experiences the reception of a sense of life not from the "imitation," but from the form proper. In particular, a warm and unaffected sense of humor, which always accompanies the experience of contact with living things (and which also emanates from Henry Moore's sculpture and haniwa figurines), is transmitted making one feel beyond reason like rallying behind what life, man and the universe stand for.

This is no longer a province of design technique. The message is transmitted by the designer's human quality direct to the heart of the user.

Colani, already in his early twenties made a number of very novel proposals regarding motorcycle styling. One of the most interesting facts is that proposals made in the early 1950s called for streamlining integrating the motorcycle body/cowling with the rider.

This proposal presupposed a far more complete form than has been realized in the present 2-wheel racer I cowling (including the full cowling of the "dust bin" type of the 1950s, prior to FIM regulations change). To put it in plain terms, envisioned was a design form that would result if the shape of the rider were scooped out of a quasi-ideally streamlined motorcycle body, or a "mold" made by pressing the rider in his riding position into a streamlined clay model.

Colani's basic idea of rider-machine integration appears to have been developed further with specific improvements. Munch "Mammut 1100,” the prototype of which was made in 1971-72 and the futuristic bike “Frog,” proposed in 1973 in 1/1 conceptual model form, as well as other models are all offspring of the original basic idea and continue to retain their original impact and freshness of message.

Colani is well-versed in aerodynamics and incorporates the results of wind tests in automobile body design. The photograph showing Colani lying on the floor in tunnel studying smoke flow to observe a pocket of turbulence occurring at the body tail automatically reminded me of Gaudi's "bottom up hanging experiment." In designing the cathedral, Gaudi invented and actually used simple yet rational experiment method long years, completed a vault with curves of hitherto unknown configuration of theoretically valid structure.

Colani's works, which tend to be regarded as "heretical" today, do not represent a rare species due to mutation, but make up the very forefront of the subsurface water current which has been alive with exceptional vitality since the days of Gaudi' who, too, was regarded in his day as heretical; Colani's works, at this point, appear to be there to demand a breakthrough into future space.

Colani has produced small porcelain pieces which he calls "Japanese-style." Their plump trunks and overall taste show interesting interpretations, by the unique personality of their author, of Satsuma-yaki or perhaps goblets for awamori, the Okinawan sake. Colani, who says he sees the beauty of Japan in Japanese porcelain and cherry blossoms, may re-discover the Japanese form which Bruno Taut never saw—possibly in popular tools or nature. The passive curved lines and surfaces in them may at long last be brought to light as legitimate ingredients of Japan. He, too, must surely be an author in pursuit of the future, seeking encounters with alien cultures. A small circles of architects and designers appear preparing for parting from ''right angles” and approaching "curved lines.”

Born August 2, 7928. His father, originally from the Italian-speaking part of Switzerland, was a movie set designer, and his mother, an actress from Poland. He was raised in Berlin. There were four children in the family, and they were never given toys, but were instead taught to make toys with wood blocks, paper and carton paper. Thus, little Luigi naturally absorbed the art and technique of using his hands, tools and imagination. Later he studied painting and sculpture at an art school for four years, whereupon he went to France to study car design. He took part in racing car development projects. He learned how to go about fiberglass body manufacture there. Simultaneously, he was enrolled in the University of Paris to study aerodynamics. He never completed his studies there and went back to Berlin, where he was employed by the coachbuilder Rometsch. At the 7954 Geneva show, he presented a sports coupe based on Fiat 1 700, for which he won the Golden Rose prize. It was about this time that he began designing shoes for a famous French fashion house, and in 1960 he was chosen recipient of the much coveted Golden Shoe prize. Colani was becoming rather self-assertive in his call for a design revolution for all tools and instruments and began to gather sympathizers and followers. At one time, the group counted some 30 members, but this plan did not come to fruition. In an effort for securing footing for a higher jump, Colani established a design firm at Rheda, catering to German furniture makers for whom he designed tremendous quantities of mass-produced furniture items. He could not turn his back on his original call for a design revolution, and he continued to announce products of fresh design and concept one after another, secretary s chair, super-stockings, chairs, spherical kitchen unit and many more. He became increasingly noted by the industrial designers' circles worldwide. A toilet seat design he submitted to a show was purchased in to by Villeroy & Boch. This firm could rise to the top in its field thanks to its encounter with Colani, who, too, profited greatly from this cooperation. From this point on, Colani decided to invest the next 10 years of his life in creative activity for the purpose of practicing the design philosophy he had formulated by then. He purchased a medieval castle at Muensterland and launched his plan there, aided by several choice assistants. His basic philosophy is inspired by contact with nature which he regards reveringly as his teacher. He turns to the great universe for answers to many of the questions mankind has held unanswered. For reform, he refers methodically to nature. The period of his 10 years of creative work is over now, and the fruit of it is coming to maturity.

Massage the best they know how. West Germany’s giant steelmaker Thyssen now works with Colani who is their consultant. It is likely that in some countries Colani design will be incorporated in industrial products soon. It is also reported that the Soviet Union has invited Colani to Moscow. Colani is a designer with a pronounced artistic tendency, but is known for his all-aroundness, too. He is vitally interested in all types of means of transportation, whether they run on land, navigate on the ocean or fly in the air. But simultaneously he design ladies' underwears, tooth brushes, and so on. Every item created by him carries a distinct personality trait of its author. Colani has committed himself to pushing ahead a complete design revolution in all domains, literally "from alpha to omega," as he himself said in speaking for himself. The weekly magazine "Stern" called him the "Leonardo da Vinci of the 20th century."

At 52 this year, he is impressively energetic and yet, as of 1981, unmarried.

Car Styling Supplement “Luigi Colani-Designing Tomorrow,” which we classify as Colani Collection Vol.1 was intended as a crystallization of 10 years of creative activity by this designer. Needless to say, Colani’s design activities dated from much earlier days, but the above-named collection regarded as a unit period the 10 years of high-density activity by Colani to which he committed the whole of his being in the name of design revolution. This definition of his activity period corresponded to his recognition. Since the first volume appeared, more than two years and a half have passed. In the meanwhile, Colani has been working with all his essence and vitality and the 70 categories or so of 110 items presented in this volume will attest to his application. Within the short period of only two years and a half, Colani, as always, has been active in an amazing number of different fields. From space shuttle to ball-point pens and wine glasses; in short, from alpha to omega, as he himself would put it. The all-aroundness of this designer has not changed a bit. More and more of his proposals are materializing in product form. He has been developing wonderful bathroom chinaware for Villeroy & Boch. Gorgeous skiwear, bathrobes, Pelikan ball-point pen carrying his name are now available on the market. But we will shed special light in this volume on the aircraft proposed by this designer. All of his proposals, including those for NASA, those for redesigning BAe Harrier/VTOL, Rockwell business jet and others, are filled with unique forms and ideas and above all with energetic messages. Colani photography, into the bargain, envelops us in a comfortable realm of visual shock, giving us the illusions of a trip into Futureland, into the world of Jules Verne... In all likelihood, no one will be able to respond promptly enough to the shock provided by the reality of his proposals and validity of his ideas. It will take time and space to truly appreciate the intention of this rare designer.

Aircraft Design with a Message for the Future

Luigi Colani's aircraft designs perplex those who encounter them for the first time. His works in other areas come with similar stimuli, but his aircraft are particularly “unconventional”.

One of Colani’s aircrafts is the so-called Lippisch high-lift wing theme which comes up very frequently. Prof. Alexander Lippisch, known for his development of a delta-winged, tail-wing-less aircraft, developed this concept of his into delta wing reversal after the war. The basic configuration he applied to Collins X112 and RFB (Lippisch) XII3/114 was of the reversed gullwing type with an anthedral angle for most of the wing surfaces and a sharp dihedral swing at wing-ends; on the horizontal plane, the wings are forward-swept. The overall design may be considered a type of the reversed delta wing. This linear configuration has been developed by Colani's unique art sense into a continuity of lines a for VFW-Fokker/Colani 114 (1977) and the "Flying Container of Tomorrow" (1978) (both introduced in "Designing Tomorrow"). In the same vein comes the ground-effect whole-wing aerofoil, introduced in this volume.

This principle was put to work by Colani in his "Flying Container of Tomorrow, which almost entirely consists of wings only. With a whole-wing (tail-wing-less) plane it is possible to reduce to zero the air resistance of the fuselage and tail wings, and this, too, will allow us to expect some improvement in lift/drag ratio.

It must be noted, on the other hand, that this structure requires thick wings that can accommodate the given payload, which pretty much determines the character of planes of this type as jumbo aircraft. As we have seen in the example of jumbo jets, larger-dimensioned aircraft promise the economic merit of bulk transportation. The overall wing width of 300 meters Colani gave his flying container must represent the least common multiple of all these conditions.

Thick wings are, naturally, unfit for supersonic flight, and this fact determines the role of aircraft of this type as cargo transports utilizing the ground effect at low altitudes (for example, 20 meters above the ocean surface.). The drive formula used for the flying container introduced in Designing Tomorrow, with 10 fan jets accommodated in subalar cutback-type pylons, is replaced in the developed version introduced in this volume by a system incorporating intra-alar engines, extension shafts and contra-propellers, which will guarantee an even greater economic merit in flight.

In connection with this idea, Colani proposes to make an open-air platform on the back of the whole-wing aircraft for the transportation of super-bulky cargo. This method should make it possible to carry enormous volumes of cargo without the need to make the wings thicker. With this model, however, tail loading lights must be fitted, which makes it difficult to use the Lippisch wings, which are replaced by the delta type used with Northrop B-49 and others.

Trials by Colani, who persistently pursues the compatibility of speed and economic merits of mass transports, do not end here. In a proposal for what appears to be the most up-to-date in aircraft design sent to this magazine's editor for inclusion in this volume, Colani has a new solution to offer. This aircraft does not adopt the whole-wing formula, but is composed of the combination of a large fuselage that can accommodate super-sized cargo, blended wings, and special thrust/lift (contra-

rotating) propellers. Air resistance will be lowered than in the case of the combination of whole wing-and open-air loading. Adoption of the turbo prop system should make this even more economically attractive than the jet-engined Megalodon.

Other characteristics of Colani's pursuit of aircraft design include a thorough study of the blended wing/body method and the overall form resulting from it. This method, which "blends" the wings and body in an integrated system using smooth curves rather than dealing with them separately, is already use with such supersonic planes as Lockheed SR71 and Rockwell B-1. Colani has asked himself what form possibilities will develop if this concept is pursued further, and has come up with a number of conclusions. His proposals inspired from this line of thought include the giant passenger carrier Megalodon with a capacity of accommodating 1,000 passengers VTOL and a concept for a reconnaissance plane of the order of mach 3.

It is clear that Colani's proposals, which at first sight appear rather unprincipled and fantastic, are in fact solidly based on sound aerodynamics. This, of course applies also to "Polymorph," which, as it awaits the moment of departure on the launching gantry, is quite architectural (like a temple), like a bird as it flies, and like a sting ray as it comes back to land the name it received being quite appropriate in that sense.

Colani s proposal for wing-body integration does not restrict itself to wings and body, but includes the integration of the landing gear, which results in the simplification of the gear retraction mechanism which, though used only at the time of take-off and landing, necessitates a complicated system and augments ineffective weight.

Car Design

Automotive aerodynamics is basically supported by the two factors, reduction of air resistance and improvement of aerodynamic stability. Luigi Colani's body design, too, represents a constant pursuit of refinement of these two factors. With actual cars, however, added to these two are such conditions as livability for the passengers and body structure, which make the formula of problem solution extremely complicated.

As a method of intensifying ground contact, Colani proposes to turn the entire body of the automobile into elements with wing effects, and this theme comes up in a number of variations in Colani's design. His is undoubtedly a very effective method in reducing air resistance and increasing negative life, and obviously the same design intent as behind the economical whole-wing ground effect transport operates here.

Colani's basic aero dynamic body is characterized by a smooth body bottom which is suddenly turned up at the tail-end. The critical parts on both sides of the rear air flow outlet are walled in by the rear fenders which extend backward.

Some models are equipped with additional wings on top of these basic characteristics. In one proposal, Colani has the small front wing of the body function as a slotted wing, a method which is fairly commonly used with aircraft wings. Some models have a flap at their rear-ends, others feature variable wings to control blowoff flow.

The two additional conditions mentioned above, viz. livability and body structure, entail a whole line of related topics—easy or difficulty of access, visibility (field of vision), cleanliness of windows, etc., etc. This is precisely why the world looks to Luigi Colani for fresh, surprise-laden proposals which integrate the scientific forms obtained in wind tunnel tests with free, even whimsical ideas, a futuristic-cosmic standpoint and sculptural sense. According to him "imagination first, then calculation" is the correct\* order of development.

Wind tunnel tests are indeed effective in evaluating the final configuration, but are not as effective in the creation of totally new forms (cause of the headache of computers today). It is only a few specially made record-makers that can boast aerodynamically ideal body configurations.

Colani's method of planting imagination in products of innumerable genres appear certain to contain a razor's edge in combating these difficult problems.

The Vest German weekly magazine “Stern” reports that over 100 products in circulation today carry the brand "Design Luigi Colani." The variety of products he designs is extraordinarily rich, ranging from kitchen utensils, toilet articles, tooth brushes and eyeglasses to divans and, even, bras. But how many of his ideas have seen the light of day in product form appears to occupy but an insignificant place in Colani's mind. It is as though he never designed with a view to commercial production. Any idea that flashes across his mind, he proceeds to develop into an experimental product. Interested makers come and buy them up. Under this heading we present about 100 items, including many still in their proposal stage, which Colani himself selected for this collection. The toilet seat and washstand found in the famous "Colani Collection of Villeroy & Boch and his garden chairs, which will not disappoint students of architecture, make up the highlights of this section.

Secretary's seat. The secretary, comfortably seated in the reclining seat, listens to the voice of her superior through the wireless earphone while typing the message. The secretary using this device may no longer be able to get up as casually as she used to. After it was announced in 1970, it was displayed at a number of exhibitions around the world, and in Japan, too, it caused a little sensation. But it was never commercially produced, and the prototype is kept in Colani's office. At Houston Museum of Modern Art, photographs of it are on permanent display.

Faucet. Designed with parabolical curves, which reduces resistance to water flow and miraculously suppresses water flow noise. Scheduled to be marketed by Grohe (ITT) in the spring of 1979 as a history-making international product.

Sanitary ware designed for Villeroy St Boch. This company has maintained since 1973 a relationship of cooperation with Colani and its "Colani Collection" is today one of the best-known series of sanitary articles in the whole world Shapes unique to Colani's world come to life with a surprising freshness in the mature of porcelain, and all sensible magazines of the world specializing in interior design introduce them as a proof of their quality – consciousness.

Since his days at the art school, Colani has shown pronounced interest in porcelain design. The work shown above in the page on the right uses a candle to heat a pot with a revolving axis and pours hot sake from the ends of the pair of "sticks" protruding to the right and left at the top.