What were your relations with Milanese abstract art and, most significantly, the exhibitions held at Il Milione?
I have always worked on graphic design and visual research. When I come to Milan in the 1930s I first met the Futurists (Marinetti, Prampolini, Fillia, Depero, Dottori and the others from the second wave of Futurism) then, later, I got to know the abstract artists at Milione Gallery (Fontana, Melotti, Veronesi, Licini, Soldati, Reggiani, Ghiringhelli...) with whom I never lost contact and even exhibited together at some modern art shows held at the gallery, actually designing a display format which was a novelty back then. Back then I also had lots of architect friends (Albini, Figini, Pollini, Pagano, Gardella, Rogers...) who, when they were putting on a show, usually built a nice brick wall and then hung a sheet of paper with a drawing on it on the wall. I, on the other hand, displayed my sheets of graphic designs the same way housewives hang out their sheets to dry: I stretched a horizontal thread along each wall about twenty centimetres from the wall at a height of two meters above the floor and then hung lots of white Bristol boards with graphics on them at regular intervals along the thread. This kind of installation costs less, was quicker to assemble and did not take up too much space; in fact the shadow cast by the identical boards on the wall created a pleasantly architectural image (circa 1935)

What were your relations with Kandinsky? And with Braque, Picabia and, most significantly, with Magritte?
No personal relations, I just knew about and studied their experimentation, which I then experimented with to get to know them better. The same applies to Man Ray, Duchamp and a number of others.

What were your relations with Vantongerloo and De Stijl and how did you get to know them?
I got to know all this working at Milione Gallery or through friends who had been to Paris, particularly Prampolini.

What is historical context in which, the irony of meta-historical discourse aside, you would set your “useless machines”, who in your opinion were the key figures in the rejection of narrative function in art in 20th century Italy and, lastly, in what ideological framework would you read your experience? Do you think the ideological framework is Crocian and, if so, why?
The non-narrative aspect of the visual arts was already present back then. Kandinsky's painting, who I considered to be my maestro at the time, was already abstract and not narrative. I designed my “useless machines” after reflecting on these paintings. I realised that the abstract art of that period was actually a veristic representation of object. Still life paintings of invented objects: triangles, squares, lines, planes... instead of bottles and pears. Of course the background colour of abstract paintings still had the same feel as that of verist paintings. And there was still a kind of “composition” in which there was a background with geometric or otherwise object on it. Noting this fact encouraged me to extract the forms from a painting and construct them in real space. After attaching these forms to the ceiling of my studio, I realised that they rotated, so I painted the back of them too. I just needed to join two or more forms together by means of little wooden sticks and, hey presto, I had my useless machines.

Where did you first become familiar with Calder's experiments ( If you ever did ), which we feel may be directly related to the projects for certain useless machines from the 1930s?
I found out about Calder's mobiles from Prampolini, who travelled between Paris, Rome and Milan
back then. Prampolini also showed me some works by Mondrian and I was struck by their simplicity and the way he filled space. I never forgot about this experience and it certainly influenced lots of the procedures I used on my work in two or more dimensions.

I thought Calder's *mobiles* were inspired by vegetable forms and forms invented by Mirò. For me Calder was the first sculptor of trees. Back then I constructed my useless machines with great geometric precision and each part fitted in harmoniously with all the others. Sometimes I even constructed my own Calder-style *mobiles*, just as an experiment.

*Have you ever thought there may be some sort of relation between the Futurist project of relating art and music, Kandinsky's own theory (The sound of yellow) and your useless machines?*

No. I have never been interested in these relations between painting and sound, sculpture and cuisine, dance and xylography, poetry and architecture etc. I think every art form is an independent realm, indeed I try to avoid making a three-dimensional project in two dimensions.

*You seemed to have taken an interest in post-Cubist experimentation (Braque) between 1940-1941, how and why did that happen?*

It was a matter of “trying things out”, of wanting to know as much as possible.

*Around '45 you studied (non-Italian) advertising posters coming from Paris, somewhere between Sepo and Cassandre, developing this discourse through a set of covers for children's books; where did your information come from?*

I have always worked on graphics and visual experimentation, so I was interested in those key figures carrying out new research to improve the standard of visual communication. At the time I was focusing on an experimenting with the work of Arp, Bill, Schwitters, Cassandre (on alphabets), Erbert Bayer, and the other Bauhaus people.

*You explicitly make references to Surrealism and De Chirico in two collages from 1948; how do you fit these two lines of research into the discourse on useless machines?*

I do not. For me they are different kinds of experimentation, but sometimes in the field of graphichs you need surrealist-type images to convey a message more affectively. For me there is no single rule that always applies (or, if there is, it is the quest for simplicity), so every issue in visual communication of object design merely has optimum solutions.

*In 1948 you created a hanging structure calling to mind something between Brancusi and Arp; what, at that time, were the extremes of your cultural experience and what was this portable sculpture designed for?*

These hanging structures, which can actually serve various purposes, were designed to find ways of constructing tensile and compressed structures. Having found the right structure it can be used to create, say, support surfaces for a window or a long lamp to light up the stairwell and landing of a house or... There is also an economic side to this line of research or, in other words, it complies with the rule according to which: hanging things costs less than standing things.

*In a set of design entitled concave-convex from 1950 you returned to Max Bill's themes, already analysed through debate on topology; can you clarify what this research was about?*

Alongside artistic experimentation I have always been attracted by scientific-technical research (i.e. Experimenting with polarised light, photocopiers and how to use new materials etc.); during that period I was also concerned with topological issues, which both Bill and Arp were also interested in.

*Back in the 1930s you began working with Moholy Nagy on photograms; do you think your Negatives-Positives from the 1950s onwards are in some way connected with these experiments and...*
if so, how?
The photograms I experimented with in ’35 tested out a new photographic technique started by Man Ray and Moholy Nagy. In this case the negative became a positive when it was printed. My Negative-Positive paintings, on the other hand, were developed out of experiments in perceptology and possible movements of coloured planes through the optical space between the onlooker and painting. In traditional paintings, even abstract ones, there is always a background with coloured forms in front: the background colour can never be perceived as the foreground. In the Negatives-Positives, on the other hand, each form composing the painting may be perceived in alternate ways and has no fixed spatial position.

In your opinion, what is research into sequences about and how does It relate to Albers's investigations at Bauhaus?
Sequences of images are to be linked with what was to be know as kinetic art. It is actually of visualising in a design the movements of certain forms and certain colours connected together.

What is the connection between the great motor car designers of the 1950s and your studies into a motorbike frame?
The designs for motorbike frames derived from my desire to get artists working on pure art involved in design. A similar experiment was then carried out on colour schemes for motorcar.

In your opinion, what is the right way to set about designing a toy in relation to your 1952 sketches for a bendy cat?
The proper way to tackle the problem of designing a toy is to try and identify with being a children. Think about what a child's likely to expect from a toy. And since children face the world in total terms, you cannot design a toy which is just nice to look at, with no concern about whether it is pleasant to touch, the right weight, adjustable, trasformable, capable of being dismantled and modular. You must also take care that the material used is not toxic, that it has no sharp points or edges, and that it costs as little as possible. Teaching children to create their own toys is even better still.

Your refusal to write except through transcriptions in your own graphic code means your books are virtually illegible. So how do you think communication can be handled and what traditions (e.g. Constructivism through to El Lissitzky) do you think your work is connected to?
I did not refuse to communicate in writing, I just wanted to experiment to see just to what extent the usual means of publications (printing, punching, binding) can be transformed into visual communication. This line of research, which links up with the experimentation carried out by El Lissitzky and constructivism, is not intended to replace literature but, on the contrary, just to help it communicate more effectively and more quickly through images instead of descriptions.

Is the sketch for the poster for the Cantù exhibition connected to Picabia, and if so, in what way?
The sketch for the Cantù exhibition is linked with the message to be conveyed: a clamp is used because it immediately communicates the idea of crafsmanship in wood, and it is also the “C” in Cantù.
Being a clamp, it will obviosly have a firm grip on the writing. This is the right way to convey that message.

Are the travel sketches from 1958 perhaps based on Bauhaus idea? Or the rereading of psychoanalytical texts such as the Roshach test, or perhaps you were deliberately evoking the iconology of child's play?
The travel sculptures were thus named to demythologise bronze or marble sculpures. In actual fact a sculpture may be defined as naything that takes up a three-dimensional space through planes or
forms that fit together. There is clearly a sense of irony, which, as in judo, takes down your opponent by increasing their strengh. After all, is a sculpture made of bronze more important than the same sculpture made of plaster? Is a silk painting worth more than a painting on hemp? And who actually created it?

*Can the sketches of lamp frames from 1958 be connected with the modular tradition in architecture or was it constructed around the legendary hexagon shape of Arnia?*

The studies for lamp frames were made to find out just how little rigid support is required for a soft frame. The support for the cubic lamp made of a brass thread marking the outline of the two planes diagonal to the cube is the minimum support required to keep the form open.

It cannot be any simpler than that. Even the rounded edges serve a functional purpose (which becomes aesthetic too, due to its coherence), because they prevent the sculptural form from moving.

*What was the cultural context in which the ashtray and waste paper basket were designed in 1960 – by which I mean the other alternative designers – and what made you design them the way you did?*

I have never thought about relations like this. I have always focused my thoughts on providing the consumer with a proper service and not on speculating. The object I have designed are often inexpensive, but perfectly functional: a lamp must produce good quality light, it must not just be very expensive.

Nevertheless the general public is way of any objects which do not cost much, “spending more means spending less”, so they say. And this is how they lapse into consumerism. I hope that as time goes by people will learn how to by the right objects for their real needs.

*How do your children's drawings relate to Klee's theories for Bauhaus Bücher etc.? Coming to the Libro della Natura (Nature Book), can you describe how you draw pictures for books? How does Rodari's writing relate to your drawing for the books Il pianeta degli alberi di Natale and La torta in cielo?*

The problem with illustrations for children's books is similar to that with toys, because of the code employed by the people they are designed for. Children do not like illustrations created coldly, no matter how artistically beautiful they might be. Children can tell when an illustration plays with them. For example: the publisher Einaudi asked me to illustrate some books by Rodari, once of which is called *Favole al telefono* (Telephone Tales), so for this book I drew pictures in the same spirit as a story told over the phone, they are like those drawings you make when you are on the phone. To some extent they refer to the contents but to some extent they are subconscious drawings.

*What is your view on the issue of multiplication and reproducibility, particularly bearing in mind your Xerographies?*

As regards multiples, my thoughts are set down on pages 89-90 of the book *Codice ovvio.*

For the original Xerographies though the issue is always connected with experimentation: is it possible to use a photocopier (specially designed to print copies) creatively or, in other words, use it as a means of producing originals? This experimentation resulted in the Original Xerographies and ever since 1964 lots of graphic designers and artists around the world use copiers to do some of their work. As in the case of experiments carried out on polarised light or experimentations on directly projecting materials produced on a slide projector.

They are actually two different thing.

*How does your work relate to the experiments carried out by the Futurists and earlier investigations into movement, which underscores some of your films; what do you think of the experimental films made between the wars?*

Futurism gave me a sense of dynamism and experimentation. For me dynamism should be studied
through forms in motion and not frozen through static techniques. For example, painting is static and can at most provide a feeling of dynamism or it can visually represent a dynamic fraction of an object in motion. Or even lyrically represent movement.

Film, on the other hand, is a technique allowing movement to be studied, all the more so since this technique may be used to alter the dimension of time. For example: in the film *Tempo nel tempo*, which I shot with some friends and assistants at Monte Olimpino in the 1960s, you can see an acrobat doing a somersault and it takes him three minutes to perform it. The somersault was chosen because it provides a very precise time reference: everybody knows that it takes a second to perform, it cannot be done any more slowly. Well, using a film camera called a temporal microscope and shooting at 3000 frames per second, we were able to clearly view the gesture over a period of three minutes.

During this period in time, working with the same team, we shot a small number of short films experimenting with the language of film.

*Flexy and Calder: How did you operate: the American at his surrealist origins and working in 1967, in such a different cultural context?*

Flexy is an object which was constructed with various points in mind: the fact of designing a genuine unlimited multiple and hence not numbered, and at low cost. The object produced is not the reproduction of a masterpiece from a Museum, but is actually specially designed for mass production (not reproduction), so that in actual fact the model is inferior, in terms of quality, to all the specimens, because the model was handmade whereas the specimens are manufactured industrially.

The artistic aim is to give as many people as possible the same object, which conveys, by being manipulated, as much aesthetic information as possible. It is actually a tetrahedron designed in space out of six smooth steel threads welded, three ends at a time, to the four tips of the tetrahedron. By moving the four tips into other spatial positions, the user can compose a large number of drawings in space, as desired. In this way anybody can see the aesthetic values of a topological geometric form.

This design principle is, therefore, in no way related to Calder's *mobiles*.

*What relations are there between the post-Rauschenberg tradition, Warhol and, here in Italy, Schifano and his lively Xerographies from around 1977?*

Certain works by Rauschenberg, Warhol and others, have for some time now been rather obvious for lots of graphic artists. The latter have always collected starter in their printing works, due to their characteristic random combinations. These combinations would then be studied to find their graphic applications.

The aforementioned artists had the idea of displaying these pieces in art galleries and charging a fortune for them (seeing as they are, indeed, *one-offs*), but any graphic artist will show you hundreds of them if you go and visit his studio.

*For you is the issue of texture a question of setting in code or is it connected with what you call an analysis of the “natural”?*

Textures are actually both natural, something not previously taken into account, and artificial. A designer can discover them in nature and also manufacture them with right industrial techniques. Here again there is room for creativity in the way surfaces are treated.

*Is Disegnare un albero a tribute to Hokusai or a study into the “natural”?*

Both. It would be a good thing if Westerners got to know Oriental better and started loving nature. The difference lies in wanting to gain dominion over nature (on the part of Weaterners) and all that entails, compared to Oriental's desire to be part of nature.
How does your latest research relate to Zen thinking and Far Eastern culture in general?
I have been profoundly influenced by the importance Zen spirituality gives to the human being in its entirety and simplicity, as well as everything else in nature. When a Western designer creates something, they try to make something practical that is also nice to look at, without worrying too much about the psychological side of the issue, without bothering about the sensory input on the receptors of the person using it. In other words, a traditional Japanese house is simple but as warm, welcoming and functional as possible, there is no wastage, maintenance is reduced to a minimum, and just the right, authentic materials are used. Our council houses cost more and look miserable.

What are your historical thoughts on Gestalt psychology, particularly in relation to your own work?
A knowledge of Gestalt psychology is required to work as either a visual designer or industrial designer.

What is the historical significance of icons like the triangle, square and circle?
The equilateral triangle (not just any triangle), square and circle are primary forms, engraved in everybody’s memory since very distant times, we find them in old rock drawings and in the rules governing computers. They create structures, fields and structural spaces, which make designing easier. They create modular grids and help designers by simplifying their work. They are spatial modules, each with its own distinctive traits. See the Zanichelli and Scheiwiller editions on the square, circle and triangle.

What do you think is the role of the designer today, and how do the various ideologies relate to intellectual figures like the graphic artist, designer or architect?
Designers do not just design furniture, lamps and other objects. Designing also means, for example (as in my case), a children’s workshop in a museum. Design as it relates to important social issues, affect the society of the future which is already here today, plans to try and improve society and produce creative, non-repetitive individuals. The designer must always have the cultural growth of the community in mind, because this is the way to provide everybody with the means to protect themselves from all kinds of worrier.

What is your position in the ideological debate on design? Are you with those who support relations between form and function, those who connect design with consumerism or, finally, those who consider the system of objects as a project to create meaning?
I have already answered that.

As a designer with your own individual discourse, do you think you can transform the “langue” or, in other words, the entire system of communication, and if not, what do you think your job is?
Yes, of course, but all in due time.