BRUNO MUNARI

DESIGN AS ART

Translated by Patrick Creagh

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CONTENTS

Graphic Design

Industrial Design

Research Design

Micro-Art

All the objects that surround us in the home or at our place of work are tending to become smaller and smaller without getting any less effective or functional. Apart from things which have contact with our bodies (chairs, beds, etc.), everything is on the way to becoming miniature. A radio set ten years ago was an affair as big as a sofa, but now thanks to transistors and printed circuits we can easily carry our radios about in our pockets. The archives in which documents are stored used to occupy vast halls with dusty shelves stretching from floor to ceiling. Today the whole lot are down on a microfilm that will fit into an ordinary desk drawer.

One of the smallest electronic computer cells is one made in Germany. It is square in shape and each side is two millimetres long. It contains 15 silicon transistors and 13 resistors with their relative connections. In a thousandth of a second it can store complex information running into several figures.

Automatic microfilm can be made as fast as a thousand frames a minute. Each photograph can then be enlarged again on to paper in a few seconds and at very little expense. The use of this system cuts down the space needed in archives by ninety per cent. The film is specially made so as to last for many years without deterioration.

Everything changes for reasons of economy: the less room

things take up, the smaller the expense. And for the same reason attempts are being made to build houses that are smaller than in the past, but just as comfortable. Those great houses with their sky-high ceilings and broad dark corridors, those huge villas in their private parks, are slowly disappearing. They are having a last flicker of life at the moment thanks to film stars and others who have made a lot of money very quickly and don't know how to spend it all.

The private house of the future (some are already lived in) will be as compact and comfortable as possible, easy to run and easy to keep clean without the trouble and expense of servants. A lot of single pieces of furniture will be replaced by built-in cupboards, and maybe we shall even achieve the simplicity, the truly human dimensions, of the traditional Japanese house, a tradition that is still alive.

The living-room of our new house will perhaps have one wall made completely of glass, another devoted to built-in cupboards, one blank movable wall and a fourth wall with the door in it. The floor will be carpeted, the ceiling low but luminous, and there will be chairs and surfaces for putting things on. In the old-fashioned house there were countless walls hung with pictures, and the corridors were wide enough in places to stand statues in. But in the new house there is no longer any room for this kind of art. A picture is already but a portable version of a frescoed wall. Does anyone nowadays have the walls of his house frescoed? Just about no one, I should think. This is not so much on account of any technical difficulty, but because we move house so often: at least we can take our pictures along with us. But how in the future is a collector going to find room for all his works of art? Will he keep them in a special storeroom? And when we come right down to it, are painting and sculpture as we know them

today the only ways of creating visual art? Can we not find other creative means?

What happened in music when people realized that the times had changed and that no one any longer summoned orchestras to their houses to play them concerts? Why, records and high-fidelity equipment. An orchestra in the drawing-room belongs to the age of frescoes. Today we have techniques whereby artists can make works to be projected, tiny compositions with colours that change by means of polarized light or fixed-colour slides made of plastic.

Once upon a time an artist's colours came in tubes. Now, for those who know how to use them, there are the new possibilities created by hundreds of different materials and colours that come in sheets. In the house of the future, reduced as it will be to minimum size but equipped with the most practical gadgets, we will be able to keep a thousand 'pictures' in a box as big as a dictionary and project them on our white wall with an ordinary projector just as often as we please. And I do not mean colour photographs, but original works of art.

With these techniques visual art will survive even if the old techniques disappear. Art is not technique, as everyone knows, and an artist can create with anything that comes to hand.

One day a man with nothing but a hammer in his hand presented himself to one of the great personages of the day and said: 'With this hammer I intend to make works of art, great works that the whole world will come flocking to see.' They ushered him, kindly but firmly, out of the palace. It was Michelangelo.

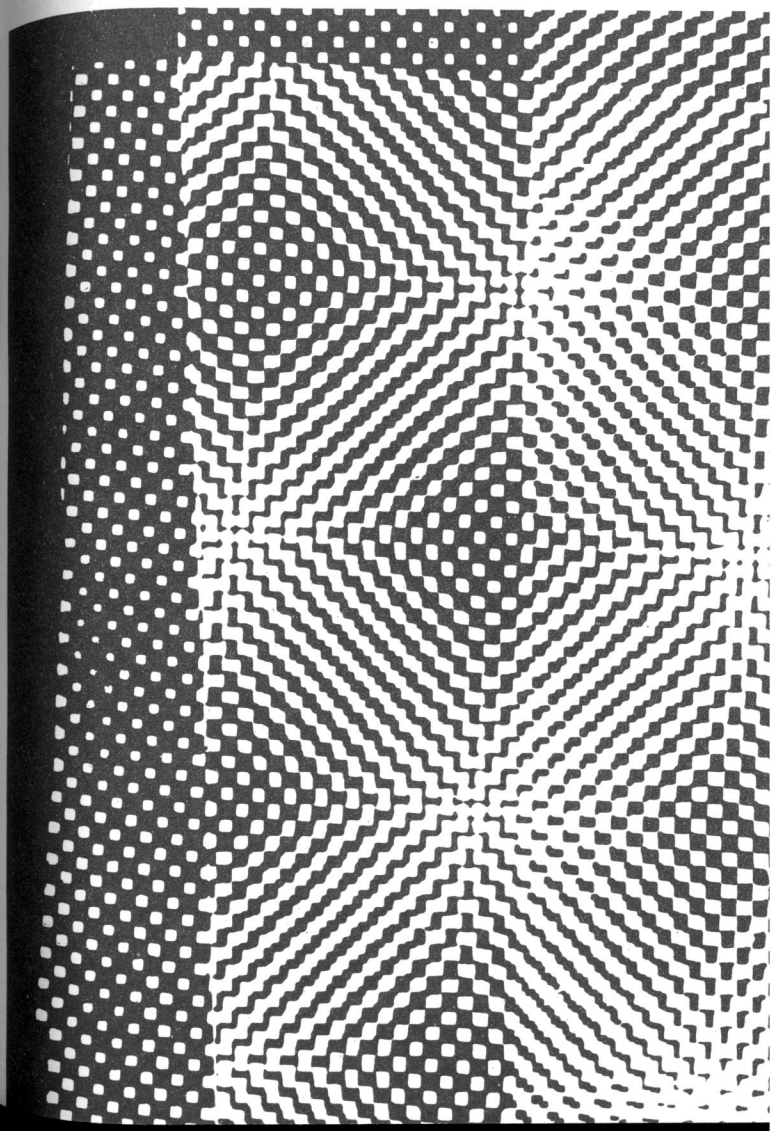
Millions of people, amazed by the glories of nature and stunned by the terrible havoc of natural calamities, recognize this definite and mobile symbol as the symbol of life itself.

We ourselves get tired, and rest in order to recover our equilibrium. If our eyes are struck by a sudden bright red light, we see a complementary green colour until our retina has returned to normal.

This rule about complementary colours, or the balance of opposites in general, must always be borne in mind in some kinds of work.

In his book *The Hidden Persuaders*, Vance Packard describes an experiment made by psychologists to determine the best colour for a detergent packet. Three trial packets were made up, one yellow, one blue, the third yellow and blue. Housewives chose the yellow and blue packet (complementary colours in equilibrium), saying that in their opinion the yellow packet contained a corrosive detergent, and the blue packet a detergent that was too mild. The yellow and blue packet contained a detergent that was just right. It goes without saying that the detergent in all three packets was one and the same product.

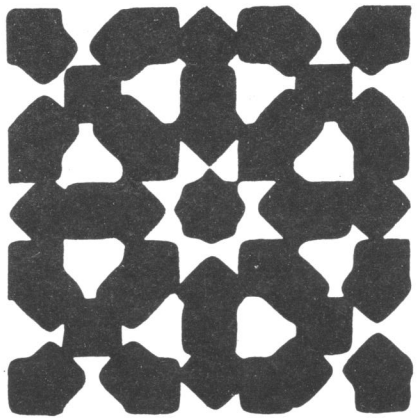
Moiré

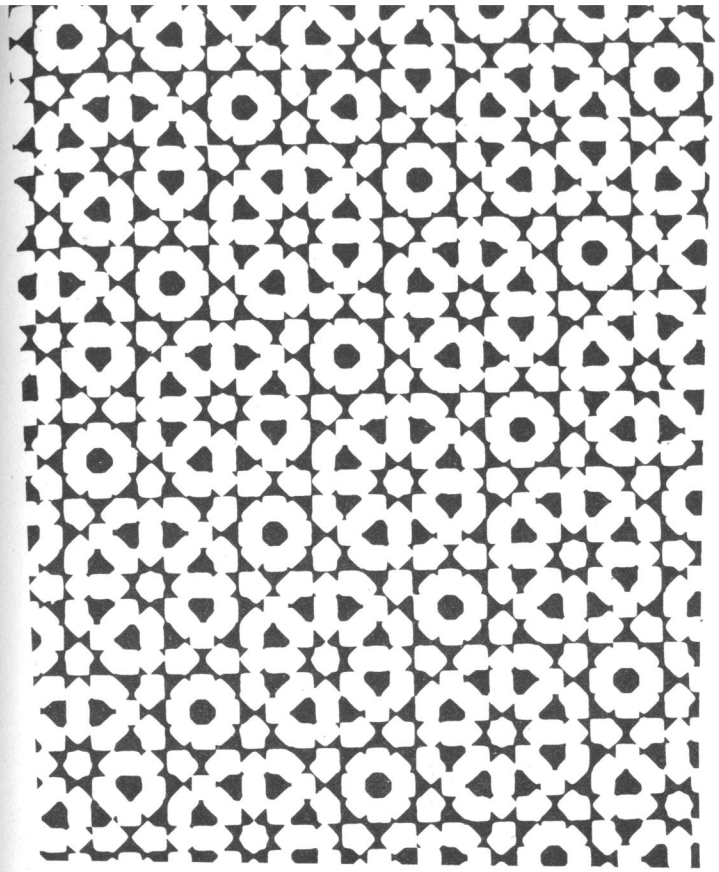


Printers use various kinds of screens. Some have round dots, others square, and the distance between the dots also varies. Take two screens with square dots which do not quite touch (not as on a chessboard, where the squares touch at the corners), printed in black on a sheet of transparent paper. Place one sheet on top of the other so that the patterns are superimposed and then shift the top sheet very slightly round. This will produce images that were not there before, symmetrical patterns like flowers, or like Arab decorative motifs.

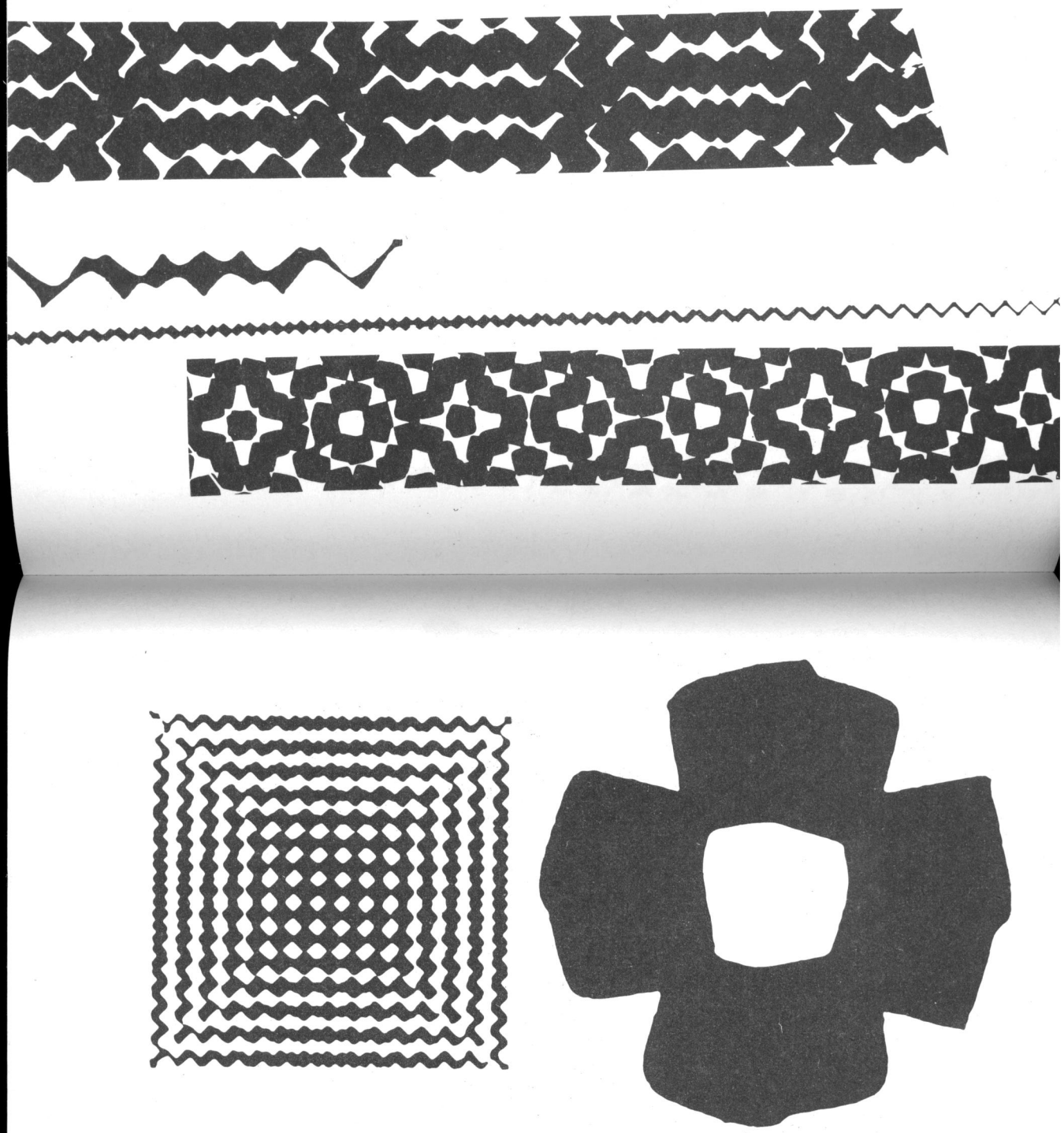
The images change according to the angle at which the sheets are placed to one another. Not only does one image change into another, but it is interesting to watch the actual process of transformation taking place.

My friend Marcello Piccardo and I once made a short film of this. We called it *Moiré.*





The equipment for filming and projection was set up on the basis of objective calculations, starting from basic elements and then developing according to the nature of the theme. The music was contrived by Pietro Grossi in his sound-research laboratory in Florence; it has the same structure as the images themselves. The film only lasts three minutes, because by then we had run through all possible variations of image.



Techne – art
Asobi – art, but also game (in ancient Japanese)

Direct Projections

Direct projections of what? Well, of a dragonfly's wing for example. Take the ordinary frame that you use for colour slides, get two squares of thin glass of the right size and sandwich the dragonfly's wing between them. Needless to say, you should take a wing from a dead dragonfly and not kill one specially to make an amusing experiment. You then project the wing with the ordinary projector that you use for photographs of your summer holidays, enlarged to six feet high for the greater delight of your guests. And *voilà*, you see everything. You see its design and how it is made. Then when you get bored with that (and I know just how quickly you do get bored) get a feather, just one of the tiny feathers from your grandmother's softest cushion. And there is the feather six feet long, absolutely beautiful, with its hundreds of filaments that you now notice for the first time are themselves long feathers.

If you can't find your grandmother's feather cushion, take a foam rubber one and cut a slice off it as thin as a Communion wafer (sorry Vicar). You will see the structure of the foam rubber, and it really is like a drawing of foam.

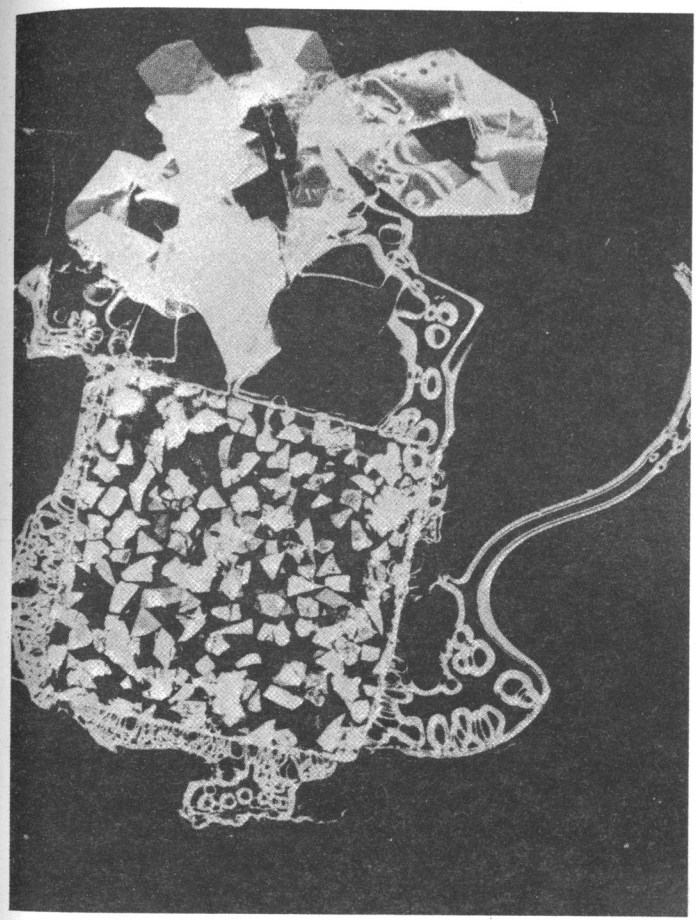
But seriously, how can we make full use of a slide-projector in this day and age?

We can use it as a means of expression, just like any other artistic technique. Just as one can buy tubes of paint for painting pictures, so one can obtain sheets of coloured Cellophane and other substances that can be used for projecting. They are very thin sheets and come in a wide range of colours, so that you have no lack of choice, from the lightest colours to the darkest. You can put two or three thicknesses of one colour to darken it, or you can superimpose different colours to get any mixture you like.

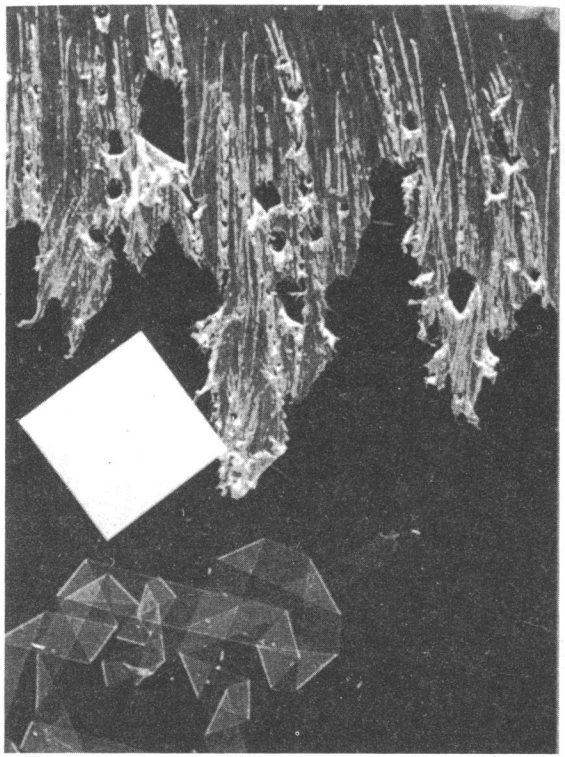
You can also find sheets of transparent coloured plastic, as thick as a visiting card. These can be scratched, engraved, burnt or dipped in solvents to obtain many different effects.

Apart from these there are materials which have a particular structure and therefore (when projected) a particular design, such as the nervation of leaves, some nylons and other artificial fabrics, mica, threads as fine as hairs, crystalline powders, and so on.

All these things should be used with the utmost freedom. It is no good trying to make a portrait of Aunt Mary or a view of Loch Lomond. At least, one *could* do it, but it would be a lot of trouble to get a rather poor result. The best thing is to use small pieces of these materials and put them together as the mood takes you, without any pretence at creating a masterpiece, working by trial and error. Simply by trying things out you will become involved in an absorbing game (the ancient Japanese word for art was *asobi*, which also means game). You will find that this game gives the chance of self expression, that certain colours and forms which come into being by chance provoke certain sensations, and that certain strange colours remind you of something. You will find out that these images evoke feelings and memories from the distant past: the colours of a terrace where one played



'To understand means to be capable of doing.' (*Goethe*)



as a child, the waters of a river full of rapids and whirlpools, a square in the shadow of a great looming castle (I mention things at random). Then you can ask the other viewers to talk about their reactions. It will be an interesting experiment.

When the experiment is over you will still have a collection of little slides to keep in a cigar box (one of those wonderful cigar boxes that smell of wood and good tobacco).

When man ceases to create he ceases to live.' (*Lewis Mumford*)

Hyposulphite crystals in a lantern slide. The slide is used just like a normal negative, put in the enlarger and printed on normal paper.