

Operative criteria for stimulating imagination, fantasy and creativity*

Pino Parini

Preface

The title of my speech indicates a specific choice of approach insofar as by using the expression “operative criteria” I am referring first of all to the theoretical and methodological assumptions of the *Scuola Operativa Italiana*¹ and above all to the research that I have been able to carry out, starting in the seventies, together with experts from the Centre for Cybernetics and Linguistic Activities of Milan².

It is thanks to this collaboration along with studies aimed at the analysis of figurative processes that, over time, I have been able to develop a Visual Education teaching project based on the awareness of perceptive and mental processes. This teaching aid was initially tested in middle schools and later on at The Art Academy and I.S.I.A in Urbino².

The methodological examples and the illustrative material of operative criteria that will be presented here refer mainly to the results obtained during a two-year propaedeutic period at the I.S.I.A. which, having as its main objective professional training aimed at book design and illustration, gave me the most pertinent and favourable opportunity to tackle creative themes in terms of solid experimentation.

* This is the English translation of the speech given at the conference “Il pensiero visivo” held in Monza, March 2001. I wish to thank Prof. Nicholas White for his assistance in revising the English version.

¹ The *Scuola Operativa Italiana* began in 1945 in Milan thanks to the work of several scholars including Silvio Ceccato, Vittorio Somenzi, Giuseppe Vaccarino and Livio Gratton, and later became firmly established for its innovative research on mind which involved researchers and scientists from different countries. The most important publications include: the journal *Methodos* and *Pensiero e linguaggio* and more recently *Methodologia*. The main introductory texts are: S. Ceccato, *La mente vista da un cibernetico*, ERI, Torino, 1972; S. Ceccato and B. Zonta, *Linguaggio, consapevolezza pensiero*, Feltrinelli, Milano, 1980; S. Ceccato, *La fabbrica del Bello*, Rizzoli, Milano, 1987; G. Vaccarino, *La mente vista in operazioni*, D’Anna, Messina-Firenze, 1974; E. Von Glasersfeld, *Linguaggio e comunicazione nel costruttivismo radicale*, CLUP, Milano, 1989; F. Accame, *L’individuazione e la designazione dell’attività mentale*, Espansione, Roma, 1994; G. Marchetti, *La macchina estetica. Il percorso operativo nella costruzione dell’atteggiamento estetico*, Franco Angeli, Milano, 1997.

All of this exonerates me from having to deal with controversial theoretical discussions of a psychological nature, relating to different schools of thought, but even so it allows me to state firmly how important it is to discredit the prejudice which considers creativity to be the result of an unexpected flash of intuition, as if images and ideas spring out of nothing, or as if creativity itself is a sort of inborn gift, the domain of a privileged few, and therefore excluded from any form of teaching activity.

First of all, to consider fantasy, imagination and creativity as being three totally distinct abilities, may be spurious and limiting insofar as imagination tends to merge into the boldest and most extraordinary expressions of fantasy, while creativity certainly obtains support from imagination. Furthermore, if we consider that the imaginative function necessarily refers back to its product, that is, the “image”, it is precisely this term which offers us the opportunity to question the whole apparatus of knowledge that regards vision.

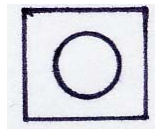
To begin with as far as images are concerned we must realise, first of all, the ambiguity of the term itself in that, if from a certain aspect we use it to refer to a mental image, that is, what comes to mind when we think or nominate something, from another aspect it refers however to the form of objects when they are observed directly.

If some valid contributions come from some authors, who deal widely with the phenomenology of mental images, when we try to deal with the subject as far as its perceptive implications are concerned rather obsolete concepts, that find no correspondence in the more recent developments in cognitive science and neurophysiology, tend to prevail, in particular the idea that many school books still propose with the improper and misleading notion of the “image that is reflected upside down on the retina”. Indeed, the deviant example of the eye like a camera is proposed again, all of which is based on the presumption that things have their own intrinsic properties offered up to our passive observation.

Analyses of the attentional mechanisms responsible for the constituting and shaping of forms, carried out by scholars of the *Scuola Operativa Italiana*, have contributed to overcoming this age-old conviction. The experiments they have done with “multi-value shapes”³ clearly exemplify the constitutive attentional mechanisms which are responsible for the structuring and shaping of things. A particularly effective shape is the following:

² Pino Parini e Maurizio Calvesi, *L'immagine*, Corso di Educazione Artistica, 3 voll., La Nuova Italia, Firenze, 1970; Pino Parini e Maurizio Calvesi, *Il linguaggio visivo*, La Nuova Italia, Firenze, 1980; Pino Parini, *I percorsi dello sguardo*, Artemisia, Jesi, 1996 (ristampa Marzo 2001).

³ Italian: “figure polivalenti”.



in that it can be seen alternatively as “a circle”, “a ring”, “a porthole”, “a sphere”, etc. Remaining unchanged from a physical point of view, the shape allows us to become aware of the role played by our attention in constituting the relationships between figure and ground, region and volume, etc., which change as our way of observing and nominating the figure mutates.

An equally useful contribution to the solution comes from researchers interested in the problem of visual functions at the neurophysiological level. Already Julian E. Hochberg, for example, has explicitly stated that we don’t see objects directly, nor do we “see” the retina image, nor do we “see” the excitation of the optical nerve: at the most what we can say is that what we “see” is the final effect on the area of projection of the cerebral cortex. He further points out that the analogy according to which the eye is exactly like a camera and our mind examines the image of objects upside down on the retina is only a little more refined, but equally wrong⁴.

A good clarification also comes from the “Laboratory of Educational Research” of the Faculty of Science at Florence University, in a note from Paolo Manzelli:

Even nowadays we can still see in physics textbooks the drawing of an “eye without a brain” which observes the surrounding environment. In order to modify this outdated concept which was useful for defining a classical scientific interpretive model, we need to remember that Newton’s explanation of ocular vision, from the point of view of contemporary science can no longer be considered valid; in particular because light is not made up of “rays” capable of drawing on the retina any kind of upside down depiction of the world (Italian: A tutt’oggi possiamo vedere nei libri di Fisica il disegno di un “occhio decerebrato” che osserva l’ambiente esterno. Per modificare questa concezione antiquata che è stata utile per definire un modello di interpretazione classico della scienza, bisogna ricordare che la spiegazione di Newton della visione oculare, dal punto di vista contemporaneo della scienza non è più possibile considerarla valida; in particolare perché la luce non è composta di “raggi” capaci di disegnare sulla retina alcuna raffigurazione rovesciata del mondo).

Other authors also agree in denouncing this inadmissible cognition⁵. Boncinelli, for example maintains that:

the smell of violets doesn’t exist in nature, in the same way that a chord in C doesn’t exist, or straw- yellow .. Each of these things is a segment of reality cut-out by our senses and elevated to the status of sensation. In the same way, a band of white light contains an infinity of luminous rays of different wave-lengths, as we can easily observe by passing

⁴ J. Hochberg, “La rappresentazione di cose e persone”, in Gombrich E., Hochberg J. and Black M., *Arte, percezione e realtà*, Einaudi, Torino, 1978.

⁵ John Z. Young, *I filosofi e il cervello*, Bollati Boringhieri, Torino, 1988; Gregory Bateson, *Mente e natura*, Adelphi, Milano; Fritjof Capra, *La rete della vita*, Sansoni, Milano.

it through a glass prism. But it does not contain or transport “colours”. It is our eye, connected to our brain, which detects, identifies and discerns the various colours. The world on its own is not populated by sensations and stimuli. It is in fact the sense organs of the different animal species which detect the potential stimuli and transform them into sensations (Italian: In natura l’odore di violette non esiste, come non esiste un accordo in Do o il giallo paglierino. Ciascuno di questi è un segmento di realtà ritagliato da uno dei nostri sensi e da essi elevato al rango di sensazione. Così, un fascio di luce bianca contiene in sé un’infinità di raggi luminosi di lunghezza d’onda diversa, come si può facilmente osservare facendolo passare attraverso un prisma di vetro. Ma non contiene né trasporta “colori”. È il nostro occhio, collegato con il nostro cervello, che vi individua, vi identifica e vi discerne i vari colori. Il mondo di per sé non è popolato né di sensazioni né di stimoli. Sono infatti gli organi di senso delle varie specie animali che individuano dei potenziali stimoli e li trasformano in sensazioni) (E. Boncinelli, *Il cervello, la mente e l’anima*, Mondadori, Milano, p. 118).

Even if no image is reflected on the retina, we can, all the same, talk about a zone of retinal stimulation in constant movement as a consequence of saccadic movements of the eye. This is the zone where radiation of differing intensity and wavelengths converge to be transformed into nervous impulses by the action of the receptors, while the subjective sensations of light, colour, and even the shape of things, are ascribable to the cerebral activities which experts in neuroscience now distinguish into “neurostates” and “psychostates”.

For this speech and to introduce the didactic experiment it will be particularly useful if we take into consideration the model (fig. 1) proposed by Roland A. Finke in his work “Imagination and the visual system” where he demonstrates how perceptive activity is more or less completely conditioned by the mental image (*Le Scienze*, 1986, n. 213).

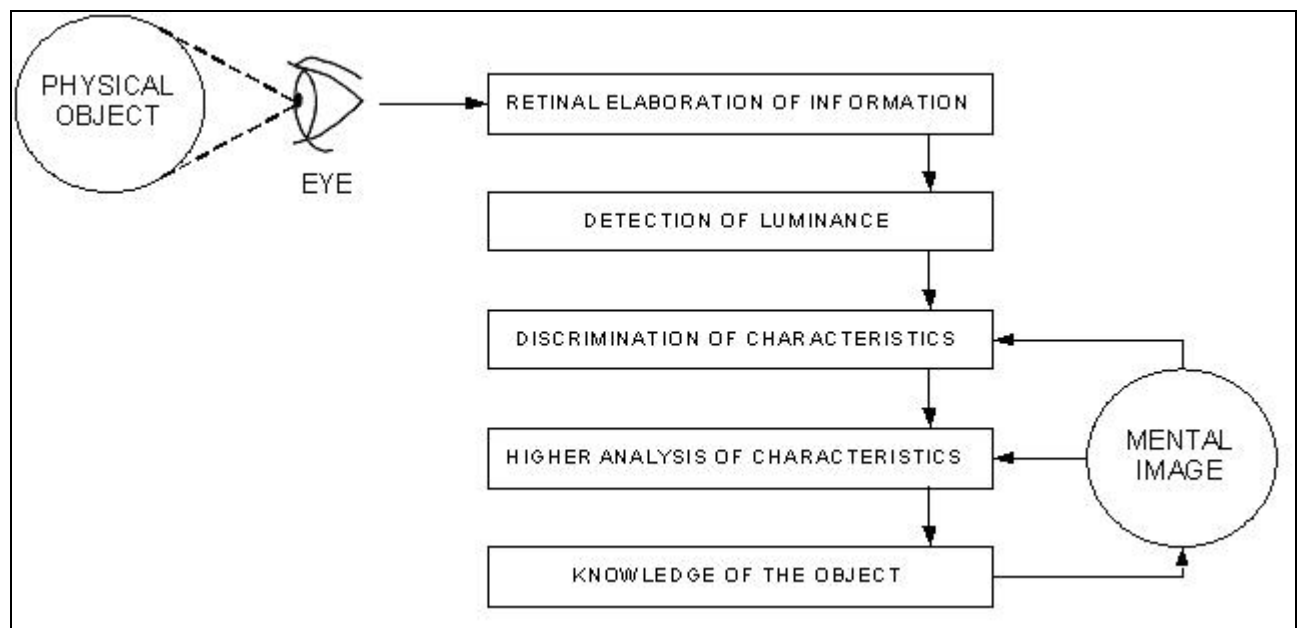


Figure 1 (adapted from R. A. Finke, 1986)

The constitutive structure – mental representation

A mental image, as other authors state⁶, is formed based on a process of generalisation or categorization, as an elementary and invariable archetype of the form of the object which the image refers to.

Because of the dynamism implied in the process, a dynamism which is primarily due to attentional activity, the *Scuola Operativa Italiana* prefers to use the expression “mental representation”.

Introspective analysis (or operative awareness) allows us to be more precise about this dynamism, identifying a generative nucleus or “constitutive structure” which tends to be further enriched finishing up in a form which can be considered the true mental representation.

Taking the “face” as an example the two moments can be thus visualised (fig. 2):

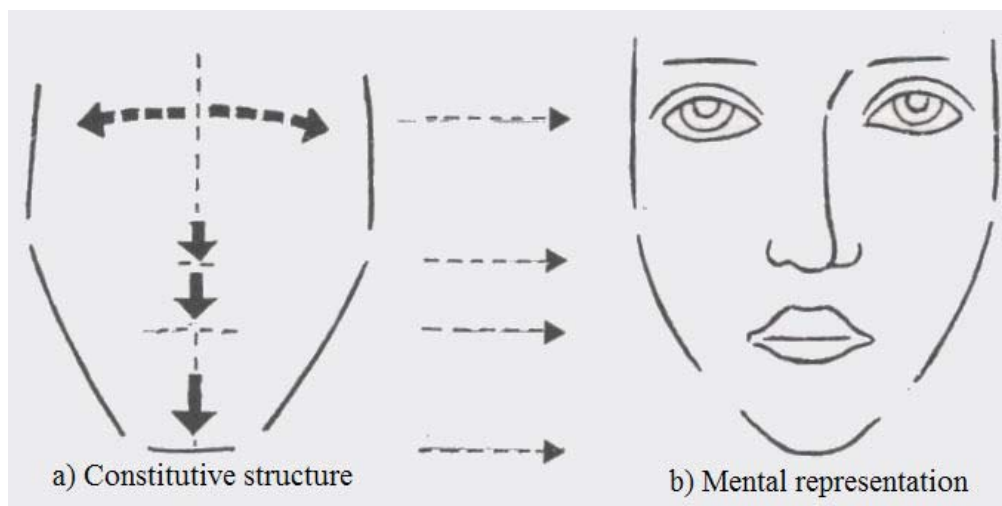


Figure 2

The constitutive structure is represented by the arrows in so far as their potential dynamism allows us to define, on the basis of relationships of symmetry, the invariance of the respective positions of the eye, the nose and the mouth, leaving their form undetermined (fig. 2a) while the successive integration of the lines of the face, excluding every phenomenal influence, such as the play of light and shadows and every other expressive connotation, is configured in the schematic essentiality of the invariable and conventional forms, defined by the simple outline (fig 2b).

⁶ Arnheim, *Il pensiero visivo*, Einaudi, Torino, 1974; Stephen M. Kosslyn, *Le immagini nella mente*, Giunti, Firenze, 1989.

Arnheim would say that we must thank the essentiality and invariance of the mental representation, if this takes an active role in linguistic communication as a “visual concept”, that is, what is solicited by the name of the things that are mentally represented.

On the other hand, as Finke has shown, the mental representation (or image), in conditioning visual perception, can plausibly be considered the determining factor of stereotypy which we find in young children’s figurative expressions, but which also persists in that of adults: for this reason the problem of overcoming stereotypes can be considered of overriding importance to such a point as to interest every type of school, from primary school to high school.

Considering this let’s now introduce a summary of the teaching experiences undertaken in order to check and analyse the graphic-figurative stereotypes, using the test of the face as an example. The testing was carried out in a middle-school, a scientific high-school and an art college respectively.

The reproduction of a high contrast photograph was proposed to the middle-school students (fig. 3a). The three tests, chosen from amongst those of a whole class, show how the outline, as a means of representation, becomes a graphic convention which leads to ignoring the shadows, whilst the most conventional stereotypy can be recognised above all in the shape of the mouth and the eyes where the iris and the pupil are shown, with disturbing insistence (figs. 3b, 3c and 3d).

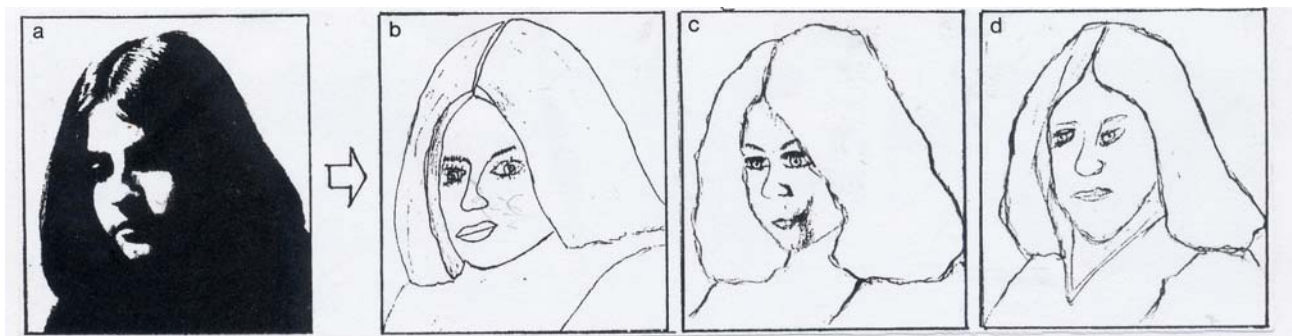


Figure 3

The reproduction of a self-portrait by Francesco Cairo (17th cent. Lombard painter) was proposed to the students of the scientific high-school. (fig 4a). Even if in this test there is clearly more attention paid to effects of light and shade all the same we can still notice the persistence of the rigid layout of the outline which does not correspond to the model. They tend to dismember and enclose the shadows, in such a way as to compromise the plastic-volumetric perception which in the original is based exclusively on the relationship between the parts in the shade counter-posed to those in the light. (figs. 4b, 4c and 4d).

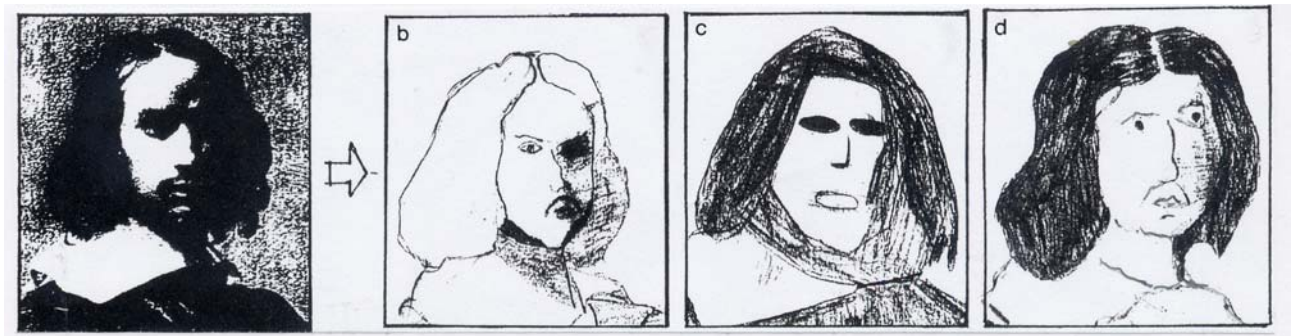


Figure 4

The students of the State College of Art in Urbino, who were given the head of Golia to copy (a detail from a painting by Caravaggio), being generally more gifted, as the choice of school suggests, demonstrate in their work a more refined copying ability; even so their tests still maintain, to varying degrees, the stereotypy evident in certain oversimplifications of the features (fig. 5). It is particularly interesting to note how a more naturalistic interpretation of the artistic subject tends to impose itself and this demonstrates how vision, when conditioned by mental schemes, precludes the possibility of perceiving the work itself based on the characteristics that stylistically distinguish it. This leads us to sustain that a visual education, capable of developing the abilities of aesthetic enjoyment, must start of by overcoming stereotypes, on which the common way of viewing things is based.



Figure 5

Overcoming stereotypes

If the first step to overcoming stereotypes is the knowledge that the student must have of their mental origin and of the behaviour which depends on them, he or she can only become aware of this by means of an analysis and control of his or her drawings, both those of imaginary subjects as well as those based on “real life” or models given to be reproduced in that, as we have already mentioned, in every case observation is conditioned by mental representations⁷.

An indirect demonstration is given by a test undertaken at the Middle School in which a photograph of the historic centre of Bologna was copied (figs. 6a, 6b, 6c and 6d).

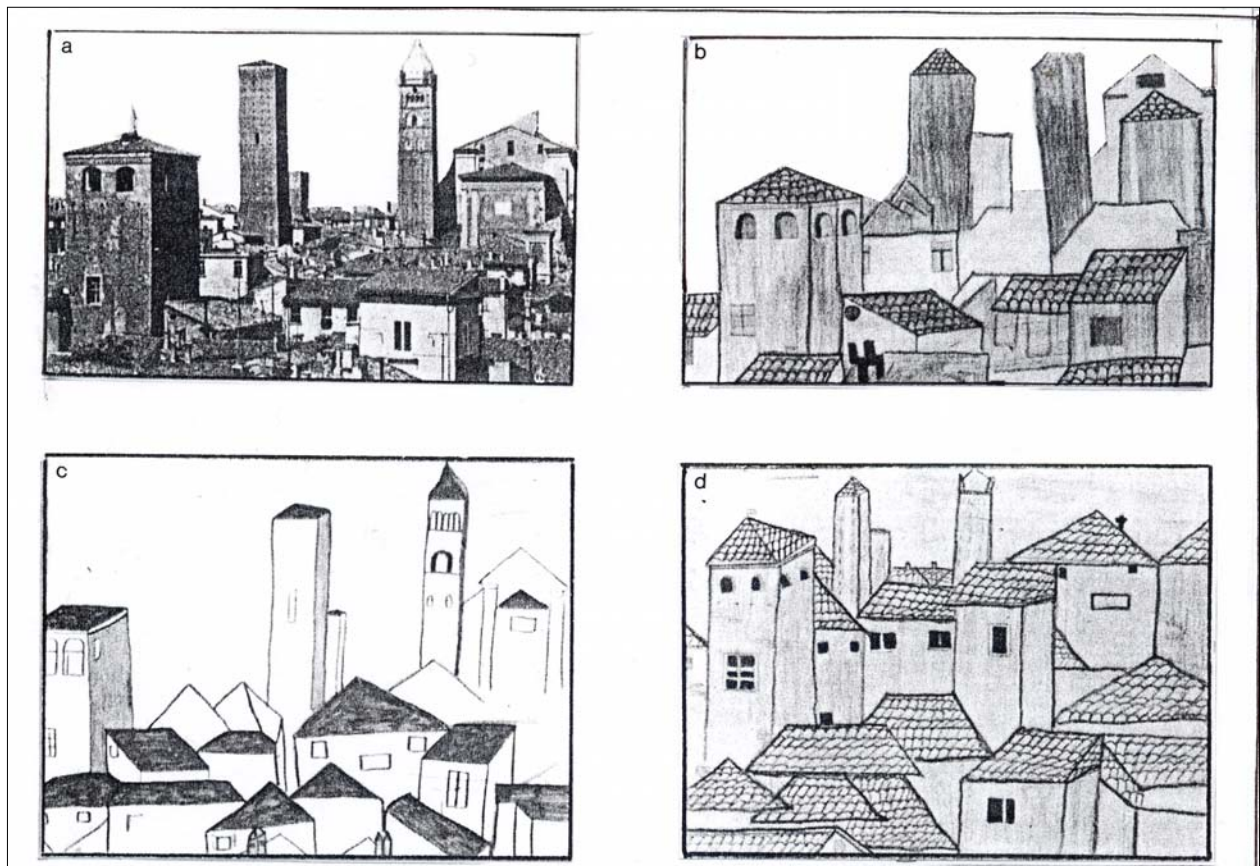


Figure 6

⁷ It is worthwhile remembering that the interactive relationship between perception and language is always at work whilst we observe. Indeed names prompt the constitutive operations of things, which, fixed in the exclusive repertoire of mental schemes, inevitably re-emerge in graphic representations.

Now we need to decide the best and most adequate strategies and learning techniques to be used at different school ages in order to free oneself from stereotypy. This is a necessary condition to set free imagination and creativity.

The most radical method to contrast linear oversimplification with its graphical conventions, institutionalised by traditional drawing practice, is that of the “blot”. Once everyone has freed themselves from the constraints of the “outline”, they will be able, by using the blot, to capture the relationship between light and shade in its entirety, so that the more amorphous blots, with their multiple and articulated configurations, will give life to more concrete shapes, where the image will be formed with great effectiveness in its plastic-volumetric fullness (figs. 7a and 7b.). You will notice how the blots, if placed randomly, are seen as ordinary simple blots, but if however they are placed according to the constitutive structure of the face then three young girls’ faces appear.

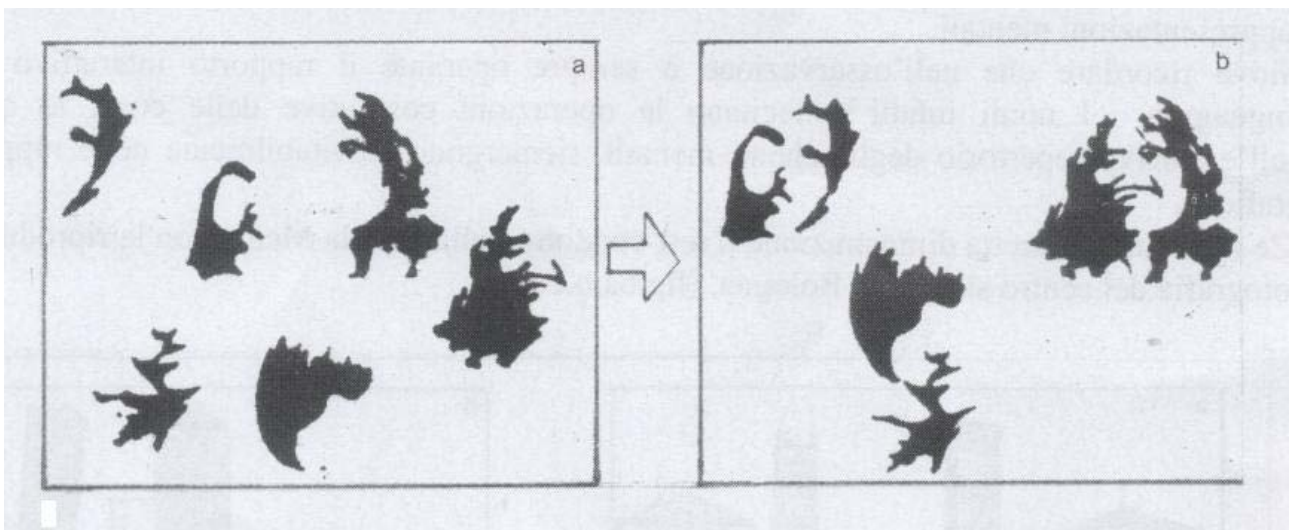
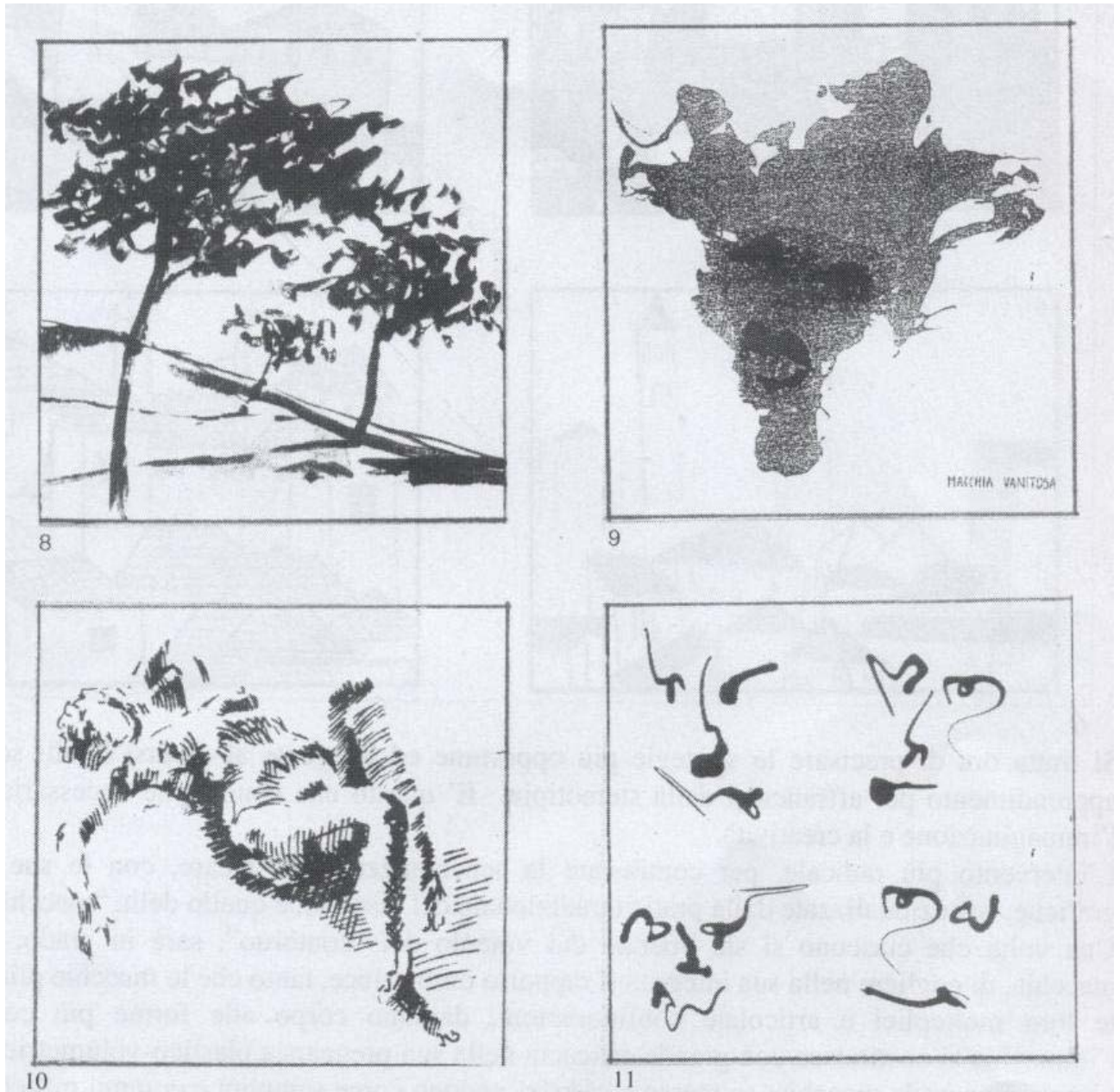


Figure 7

The exercise with the blots is always stimulating and engrossing, and every type of technique can be used in these experiments, as long as the relationship between the surfaces is taken into account, that is, keeping in mind at the same time the areas that will become the parts in the light and in the shade. Here are some exercises carried out using tempera, collage and various hatching techniques (I.S.I.A.) (figs. 8, 9, 10 and 11).



Figures 8-11

Nevertheless we do not have to give up the expressive possibilities of lines. On the contrary these will be made much stronger if the hand is freed from automatic gestures which are often associated with the repetitiveness of certain shapes, as we can see in the shape of the mountains, the treetops, the outline of the clouds etc. in so many infantile drawings (fig. 12) but also in lines that anyone can improvise with a free and spontaneous gesture (fig. 13).

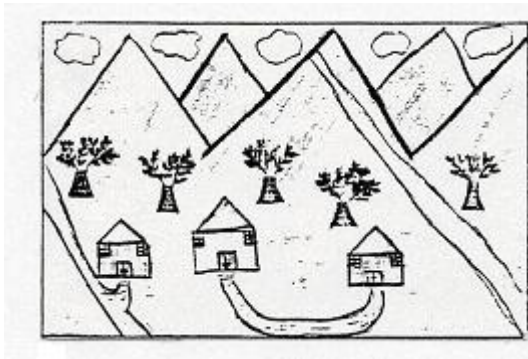


Figure 12

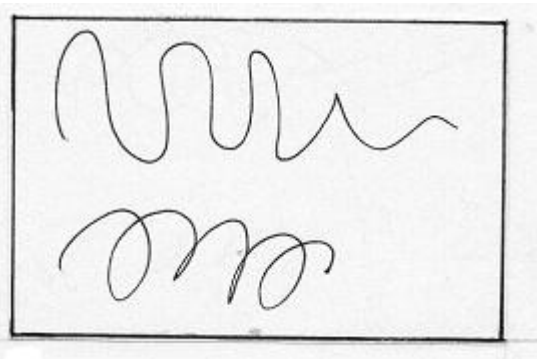


Figure 13

Everyone on the other hand, can check how much easier it is to draw lines that are uniform and repetitive, rather than lines that are constantly and unpredictably varied in their articulation as we get for example by alternating straight lines with curves.

To overcome the bonds of automatism we must commit ourselves to mentally prefiguring the most unpredictable and contrasting movements, forcing our hand to move with quick and sure movements, capable of following a soft sinuous linear progression, or instead with more frenetic and excited movements with which we can produce the smallest of articulations following varied and uneven tracks (fig. 14).

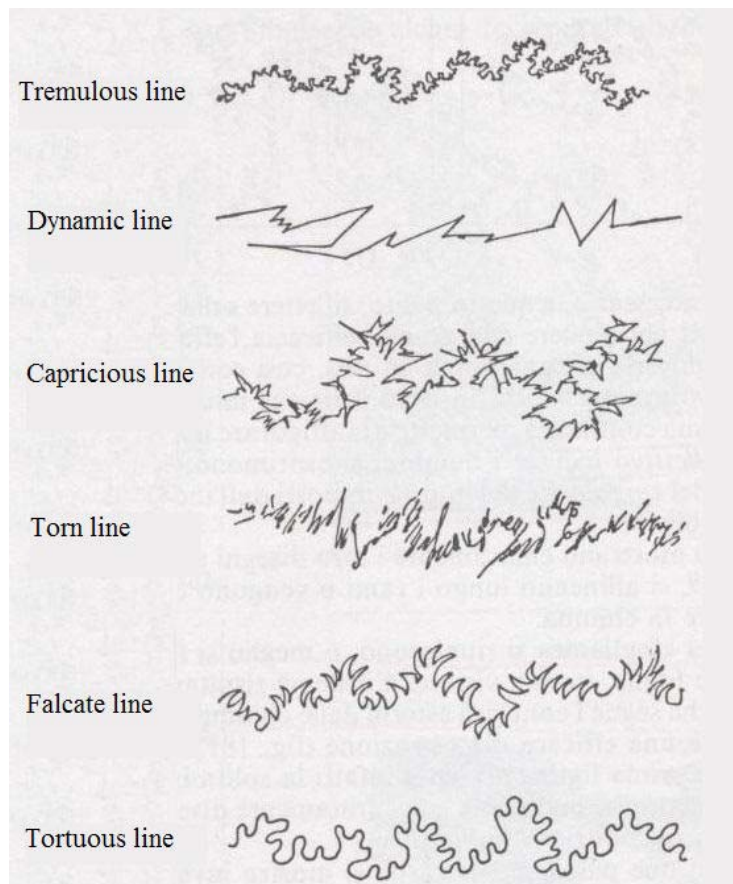
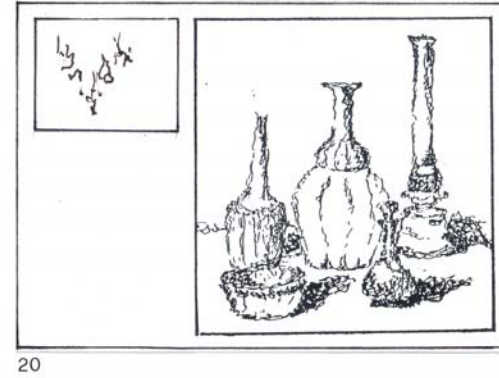
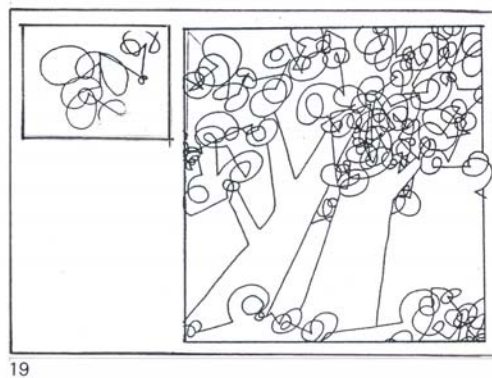
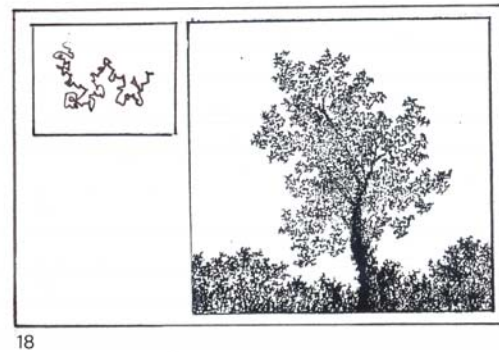
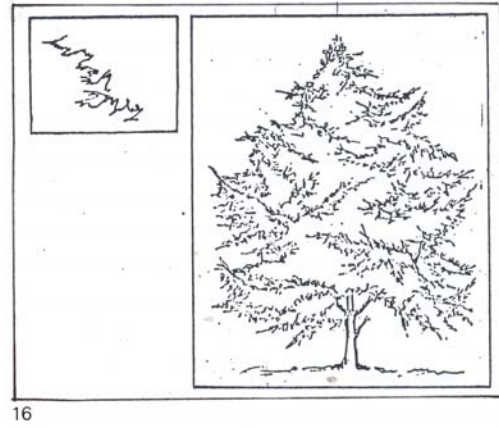
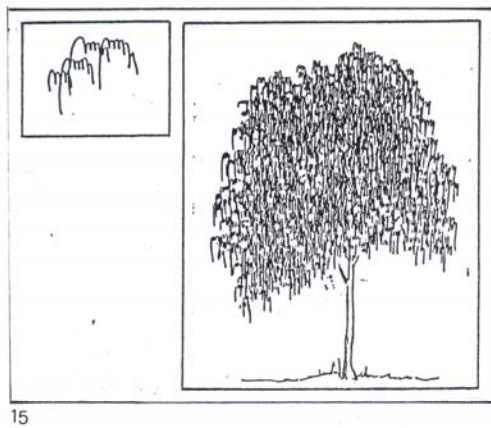


Figure 14

These are rather stimulating exercises which prove to be efficient at any school level as a teaching aid to figurative expression.

The test carried out with the art college students of I.S.I.A. consisted in preparing a rich and diversified repertoire of drawing styles and variously articulated line forms which were then called “movement patterns” because of their ability to characterise the dynamic movements of the hand together with particular graphic inventions made up of more or less casual signs, such as tremulous and dynamic lines, but also scribbles, dashed lines, doodles etc.

Each student, whilst freely producing whatever subject, from landscapes to human figures, had to strictly respect the predetermined movement pattern, indicated in the small square at the side of each test (figs. 15-20).



Figures 15-20

This binding limitation is the reason behind the strong expressive feeling and the coherence which also distinguishes and guarantees the aesthetic value, in particular that which can be seen in the way the shapes appear transformed, or alluded to or even transposed in an ornamental or abstract way.

A further development of this procedure, which is certainly harder to carry out, is that of “rhythmic patterns” (fig. 21). As the arrows indicate, every pattern is designed to fill the whole frame with a set course which while allowing for the free play of movements must maintain the basic rhythmic articulation, as happens for example in dance steps.

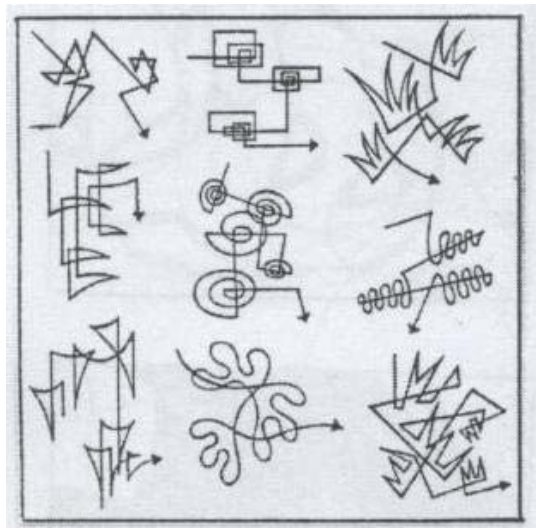


Figure 21

Therefore the outcome is a matrix on which we can freely intervene with colour thus obtaining original ideas with decorative and abstract characteristics (figs. 22a and 22b).

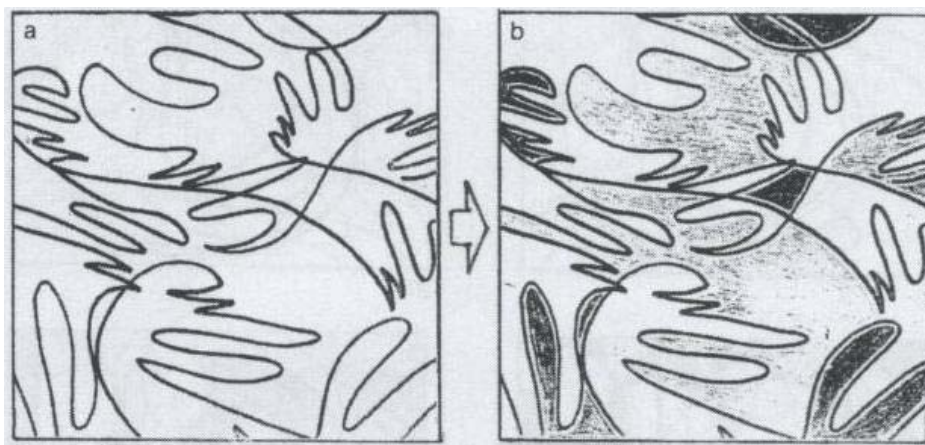


Figure 22

By means of these exercises we reach an understanding that any product of the imagination or fantasy, as long as it is not a copy or imitation, requires in every case an execution which is articulated according to the timing and phases of a rigorous procedure, which itself is going to be more creative the greater the number of alternatives it offers. This procedure, with its peculiar characteristics, can be exemplified by the “multi-value pattern”.

Multi-value patterns

What we are talking about is freely drawing, within the frame, every type of linear progression, with repeated tracts superimposed and crossing over in such a way as to form a matrix, which reproduced several times, can be used in many alternative ways.

Taking advantage of the expressive potential of the gesture, multi-value patterns can be manually produced (fig. 23), however, we can also use specially prepared stencils (fig. 24).

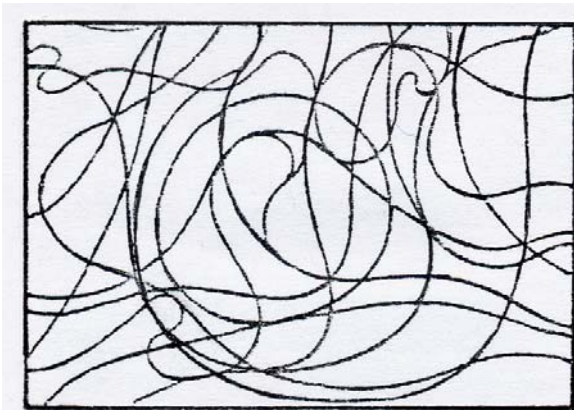


Figure 23

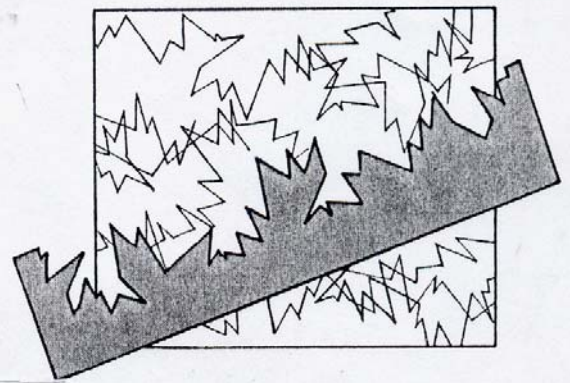
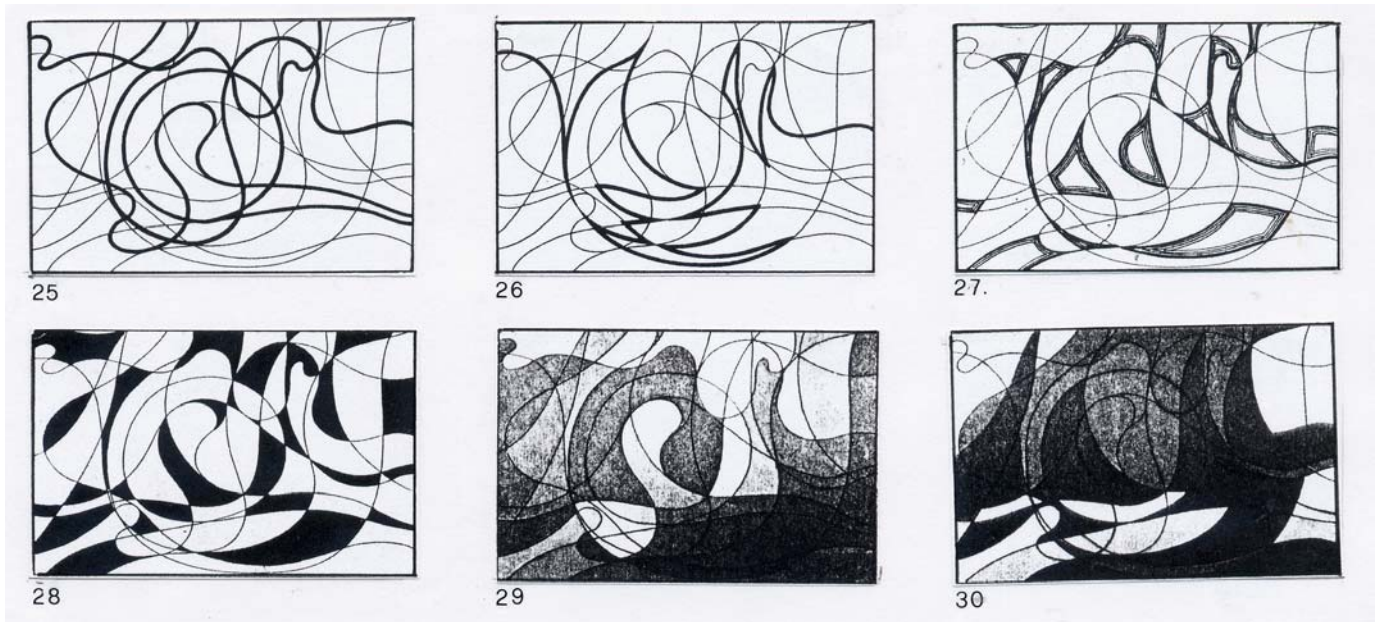


Figure 24

On the network of lines we are free to follow, for example, a route which jumping over the intersections connects lines characterised by the fluidity of the movement (fig. 25), but we can also continuously change direction in such a way that routes appear more uneven and contrasting (fig. 26).

Making use of different techniques we can go on to create more complex and articulated chromatic effects and by means of these varied alternatives we can produce real abstract compositions (figs. 27, 28, 29 and 30).



Figures 25-30

One particular procedure, pertinent to the rigour required for drawing, is that of carefully cancelling all of the lines which become superfluous during the phase of composition in such a way that the resulting figure stands out clearly from the background. It is thanks to the Gestaltic principle of “good continuation” that we conserve the rhythmic confluence of the outlines achieving a harmonious correspondence between the different parts which is difficult to obtain in the case of an improvised composition (figs. 31a, 31b and 31c).

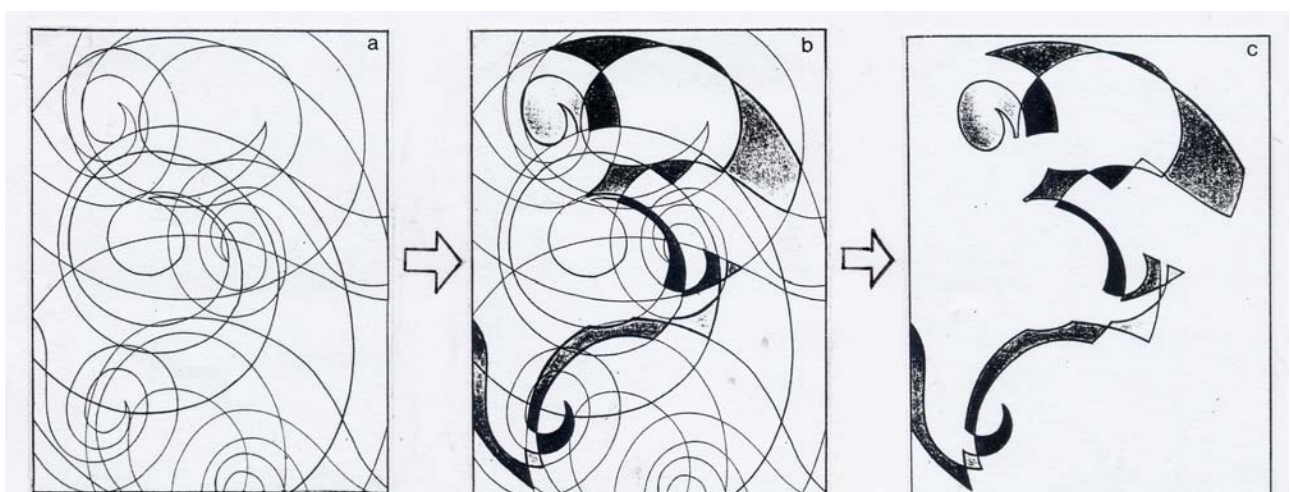


Figure 31

The material produced using these various techniques is certainly useful as a surprising and imaginative demonstration which, in order to further stimulate the interest and curiosity of any student, can be presented with the fetching title of “how to create a hundred-thousand decorative motifs”.

We must say beforehand that if we set a task to invent a decorative motif we usually notice that more often than not the result is of a frightening banality, so much so that what may happen is, even allowing for absolute freedom, that we end up by causing a complete state of impotence which blocks any kind of idea.

The expedient that we can use in this case offers the unpredictable possibility of obtaining, in a flash, an unlimited variety of compositional ideas useful for any application: from fashion, to ceramics, to furnishing, and design in general.

Let's imagine now that we have to decorate several vases. First of all what we must do is not think of any solution in particular. It's quite enough to group together several of the compositions that we have prepared beforehand, for example by means of a multi-value pattern, and assemble them on a panel (fig. 32).

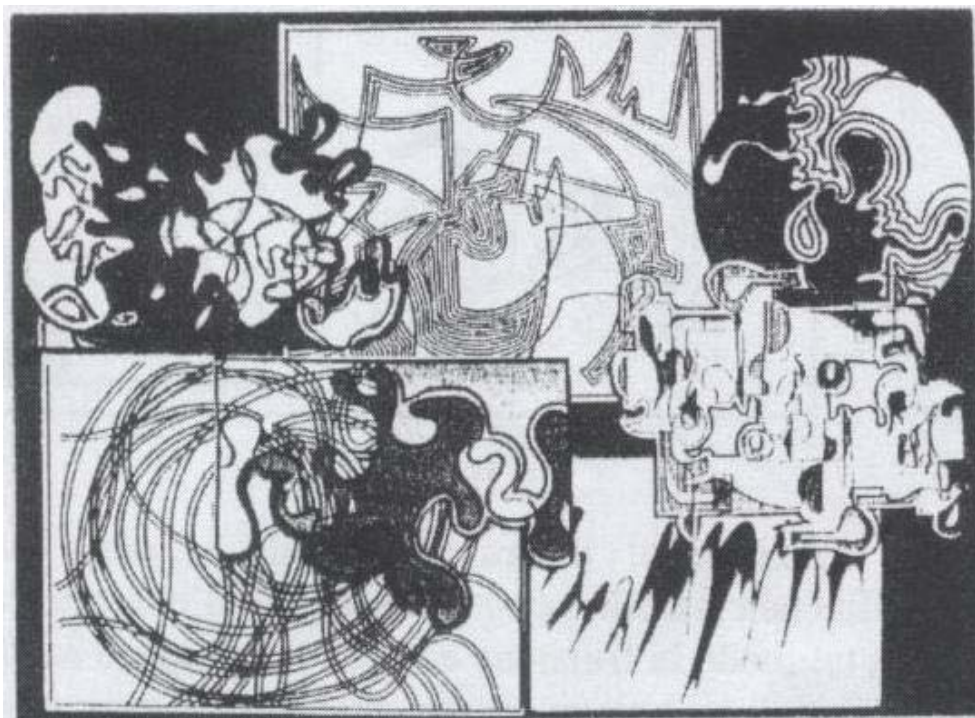


Figure 32

On the other hand, any type of collage put together using different materials chosen from posters and designs of every type etc. will do the job just as well. What we need to prepare carefully is the “counter- template” of the vases, that is, the support from which the shape of every vase, defined by its outline, has to be removed (fig. 33).

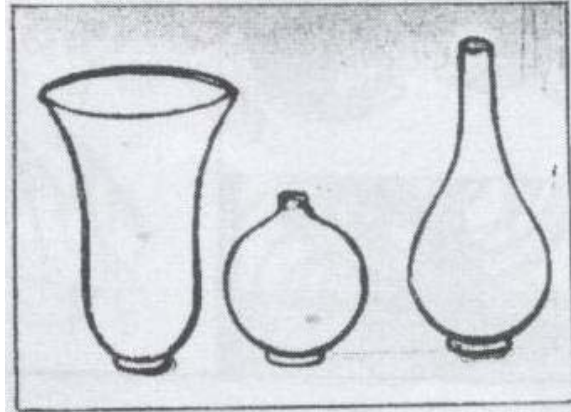


Figure 33

And here's the surprise, all we have to do is move the template more or less casually across the panel in order to see the underlying motif appear through the cut-out silhouette, thereby becoming an unpredictable decoration, which changes with each small movement (figs. 34 and 35).

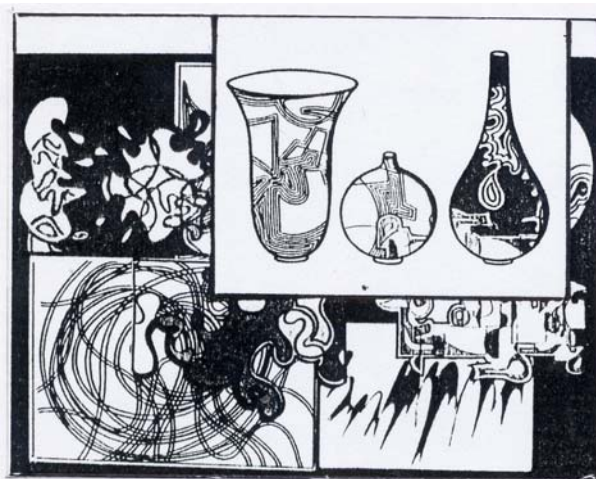


Figure 34



Figure 35

The same surprise can be obtained using fashion garments: blouses, skirts, evening dresses, hats etc. but also decorative motifs for ceramics and furnishing (figs. 36 and 37).

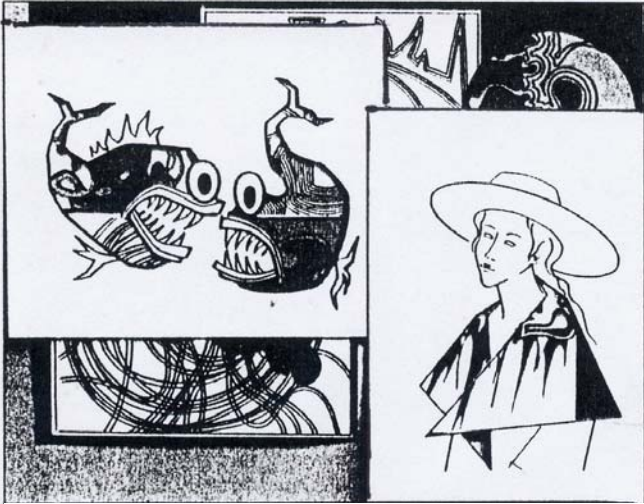


Figure 36



Figure 37

All we need to do now is place a frame against the panel in order to frame any part of the base composition and then move it freely so that everyone can choose an abstract work that they prefer (fig. 38).

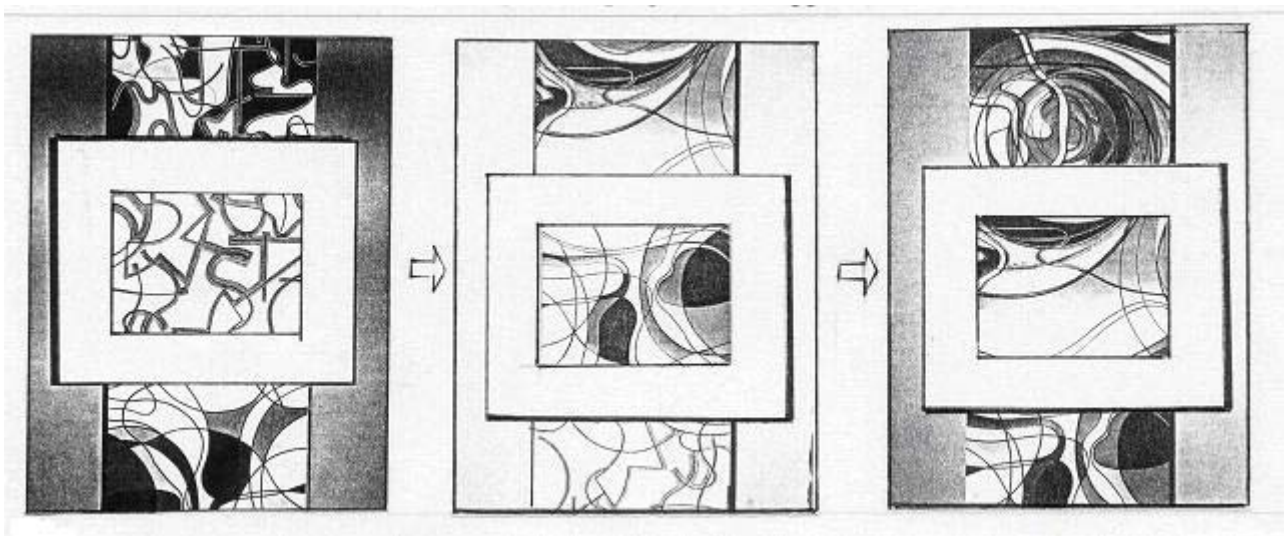


Figure 38

In this way we stimulate an aesthetic use about which it would be necessary to prepare a whole new discussion. However, it's useful to give a few indications in order to hint at the creative activity of a designer in designing an object.

In order to introduce this idea it is useful to think again about the functions of the “constitutive structure” in that it allows us to consider the shape of an object from the point of view of its genesis. What we are referring to therefore is that essential pattern in which the relationships between the different parts that articulate the object are established.

Nevertheless it is necessary to realise that the “parts” which are considered as belonging to objects in terms of properties which are innate in them, are, in any case, the result of our mental operations. It is attention which operates these articulations and establishes their limits: articulations which change if from a normal way of observing, intended to evaluate the object from a practical point of view, we shift to an aesthetically based observation.

Taking “a seat” as the subject of our test, often an excuse for boldest of design statements, we can easily realise how with a practical or simply descriptive observation our gaze breaks the object up into those parts which have been given a name based on the use or function that they commonly carry out and so we speak of “the back”, “the seat”, “the legs”, verifying yet again the interactive relationship between perception and language which always finds its base in the constitutive structure (figs. 39a and 39b).

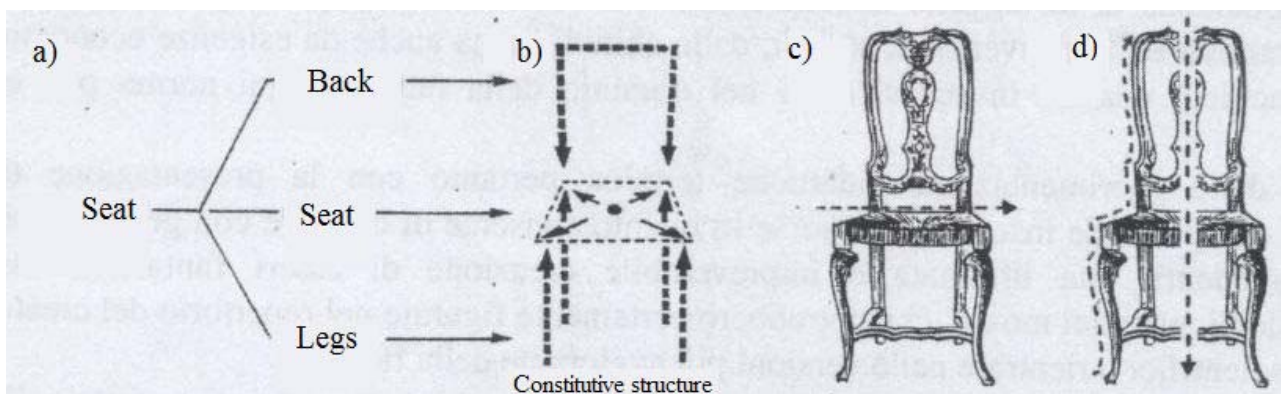


Figure 39

Aesthetic observation however imposes a richer perceptive game. Among the constitutive operations of aesthetics the coexistence established between the elements which articulate the shape of the object is of fundamental importance⁸. There will be the symmetrical relationship which

⁸ G. Marchetti, *La macchina estetica. Il percorso operativo nella costruzione dell'atteggiamento estetico*, Franco Angeli, Milano, 1997.

counterposes the left and right sides, allowing us to appreciate the elegance and harmony of the lines which from the legs wind up to the top of the chair back, but also the proportional relationships, if we consider the relationship between the upper and the lower parts (figs. 39c and 39d).

The designer who wishes to create an original form is faced with the problem of violating the rules, as far as this is possible, of the patterns imposed by the constitutive structure in its more conventional and standardised forms, but in bending these rules he must still safeguard the functionality and above all the aesthetic requirements of the object.

Here are three somewhat significant examples which show how the violation of traditional seat patterns has been resolved fusing together, in an essential and harmonic shape, both aesthetic and functional aspects (figs. 40, 41 and 42).

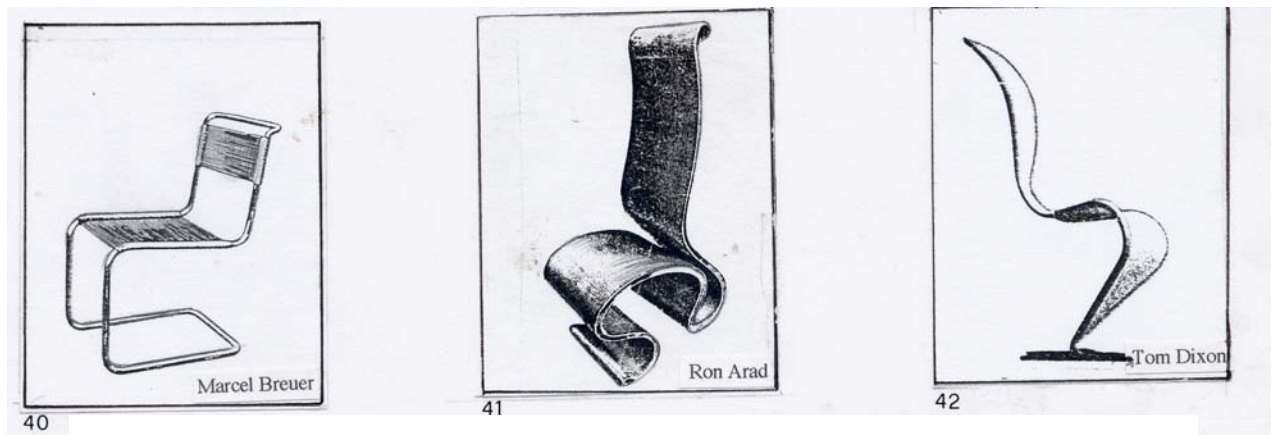


Figure 40 - 42

We can see how in the model created by M. Breuer the constitutive structure has been violated by eliminating the back legs while the articulations which are usually distinguished by the angularity of the joints are overcome by the continuity of a single tubular element which is perceived both as a simple linear route as well as a structure which articulates and unfolds in the three spatial dimensions.

Ron Arad models his strip of steel as though it were a sculpture. The progression of the curves and counter-curves encourages our gaze to capture the upward impetus, but also the opposite movement of the falling wave. The static element which forms the base of the chair designed by Tom Dixon imposes a focalising point from which attention moves to capture the vitality of a shape which waves with the levity of a petal or leaf.

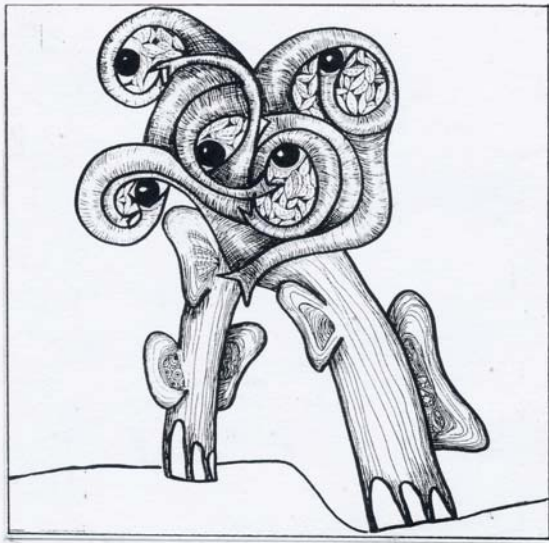
Procedures for stimulating imagination

If in designing an object we must in every case respect its functionality as well as certain rules imposed by social conventions, by habits, but also by economic needs and technical characteristic, when it comes to imagination every rule can be broken. This review of experimental teaching methods can be concluded with the presentation of a procedure which possesses unsuspected resources insofar as it allows us to obtain with great ease and surprising results, an unlimited and unpredictable creation of fantastic, absurd and unlikely beings: real monsters, which could certainly be part of the repertoire of a creator of science fiction subjects or become part of the most recent versions of fiction.

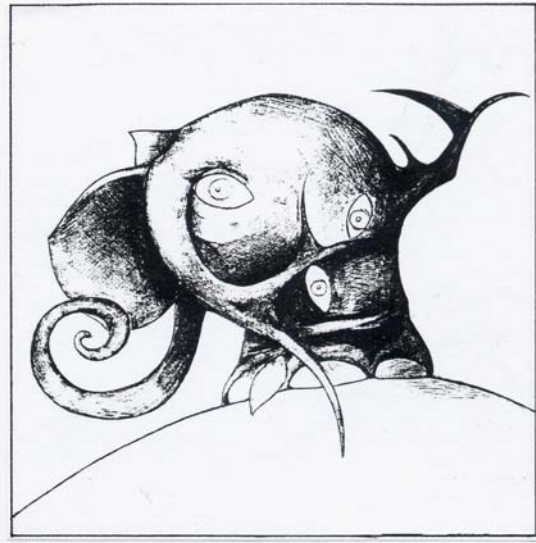
The procedure is simply made up of the breaking down of an image of any object into its functional parts, to then recombine them with those of a completely different object, after having modified them, multiplied them and subverting them in various ways.

For this experiment carried out by the art college students of I.S.I.A., a tree and an elephant were selected as the subjects so everyone was able to create their own “monster” (figs. 43, 44, 45 and 46) following the “three combination rules” which were thus defined:

1. *Inversion of dimension*: The parts that appear as organs or internal or external elements will be combined together altering at pleasure the dimensional relationships through the use of enlargements and reductions. Example, “tree-elephant”: Cells of vegetable matter which are combined with details of the elephant; leaves that become enormous ears, trunks that take on the appearance of vegetation etc.
2. *Inversion of number*: The parts which are in a smaller number in one of the objects of the pair, in the combination will be inverted in quantity. Example, “tree-elephant”: If in the tree there are lots of leaves whilst in the elephant single or double elements prevail such as the trunk, the eyes, the tusks etc. the inversion will result in a creature with a myriad of eyes or trunks and very few branch-like elements.
3. *Inversion of inside and outside*: The external parts of one of the subjects will become the internal organs of the imaginary being and vice-versa. Example, “tree-elephant”: The lungs of the elephant can become enormous leaves, structures of the nervous system or circulatory system could seem like branches with fruit or flowers.

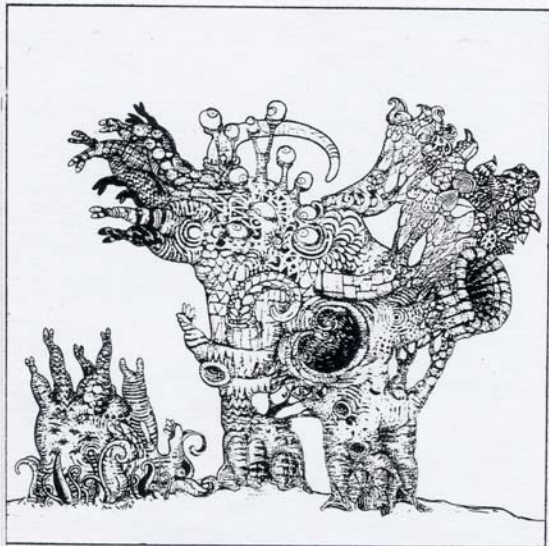


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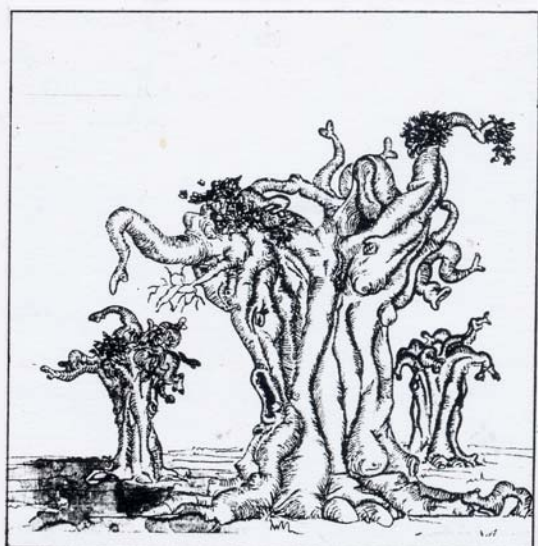


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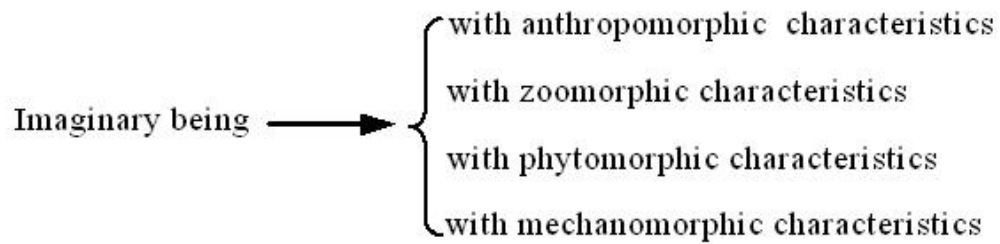
Figures 43-46

We must take into account that the criteria of variation, multiplication, deformation, transformation etc of the parts, expropriate them from their original function favouring their fusion in a uniform depiction that will be all the more original, the more the creative inspiration manages to materialise it in a coherent synthesis.

Nevertheless the procedure as it has been set up, lends itself to any sort of development and each of us can invent other rules and other criteria.

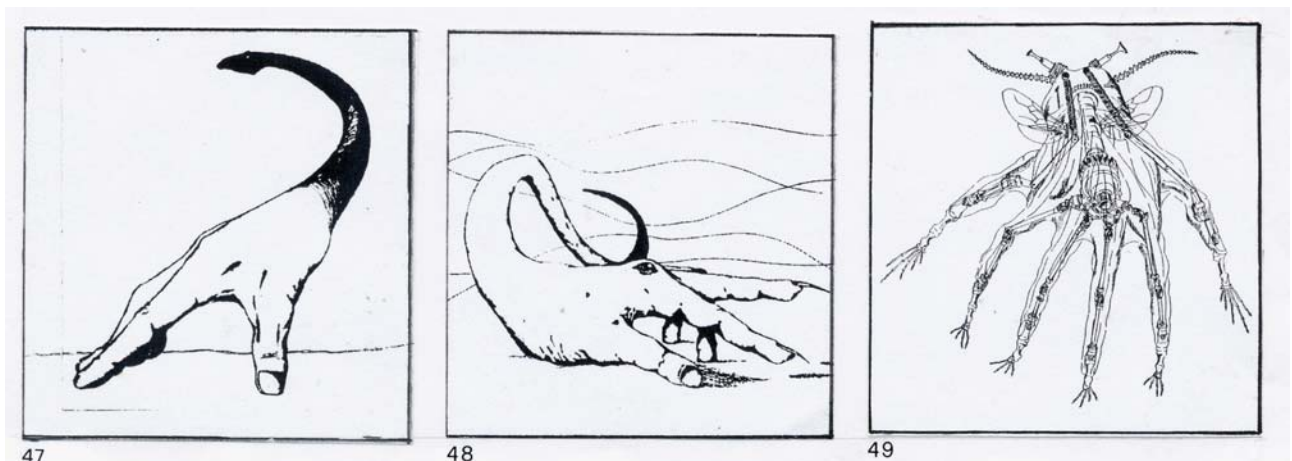
In certain cases for example it is worthwhile establishing beforehand the characteristics of the imaginary being particularly if we are dealing with illustrations for a story or fable, or when putting together a screenplay.

It will be useful anyway to make use of four fundamental classifications:



With this intention the combinations of hand and dinosaur and octopus and mechanical device were carried out (figs. 47, 48 and 49); whilst a combination of telephone and human being led a student to create a humorous advert for the telephone (figs. 50a and 50b).

Since we are dealing with creativity the procedures used as examples are only some of those that could be offered if we put ourselves in a “creative mood”.



Figures 47-49

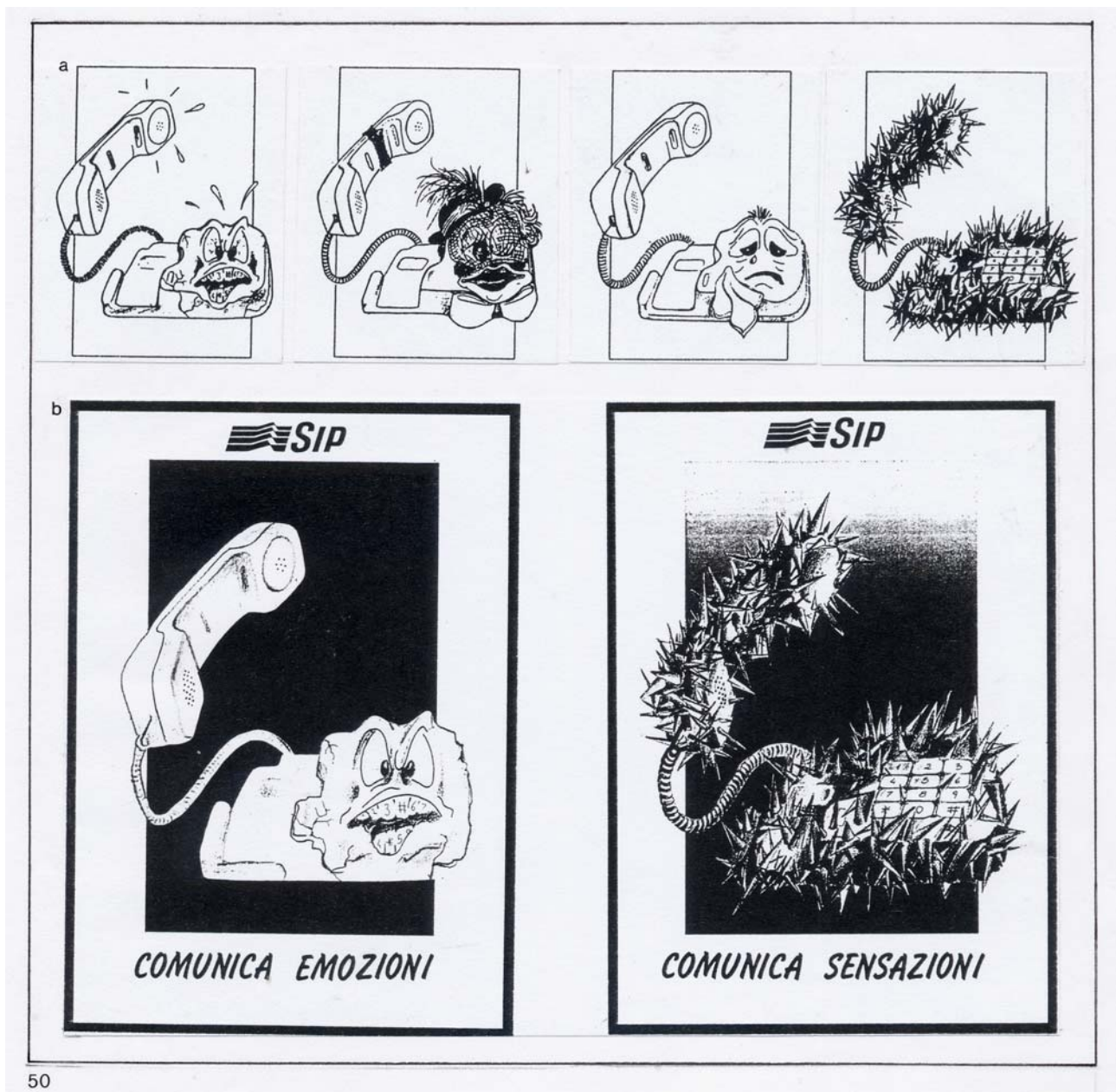


Figure 50