

• Children
Colour & Response To
Form



• Kiran K. Bidwai
Anubir Singh

CHILDREN S RESPONSE TO COLOUR AND FORM

SPECIAL PROJECT

BY

Ms. KIRAN K. BIDWAI.

ANUBIRSINGH

GUIDE

PROF. MOHAN BHANDARI.

I. D. C. Library
L. I. T. Bombay.

INDUSTRIAL DESIGN CENTRE
INDIAN INSTITUTE OF TECHNOLOGY
POWAI, BOMBAY 400 076

APPROVAL SHEET

This special project entitled Children s response to
Form and Colour undertaken by Ms. KIRAN K. BIDWAI Roll No 856101
and Mr. Anubirsingh Roll No 856128 is approved for the partial ful
partial fulfillment of the requirements for the
postgraduate degree in Industrial Design

M. Shandani AUG 4th '87

Art has a potentially vital role in the learning process of children. The process of drawing, painting or constructing is a complex one in which the child brings together diverse elements of his experience to make a new and meaningful whole. FOR THE CHILD ART IS A DYNAMIC AND UNIFYING ACTIVITY.

In our present educational system most emphasis has been put upon the learning of factual information. More and more people are recognizing that the ability to learn differs from age to age and from individual to individual and that this ability to learn involves not only intellectual capacity but also SOCIAL, EMOTIONAL, PERCEPTUAL, PHYSICAL and PSYCHOLOGICAL FACTORS.

What a person knows or does not know may bear no relationship to creative action.

One of the basic ingredients of a creative art experience is the relationship between the artist and his environment. Painting, drawing, or constructing is a constant process of assimilation and projection taking in through the senses a vast amount of information, mixing it up with the psychological self, and putting into a new form the elements that seem to suit the aesthetic needs of the artist at the time.

Man learns through his senses. The ability to see, hear, smell and taste provides the means by which an interaction between man and his environment takes place. The greater the opportunity to develop an increased sensitivity and the greater the awareness of all the senses, the greater will be the opportunity for learning.

One of the outstanding characteristics of this age of development is the child's discovery that he is a member of society, a society of his peers. It is during this time that children lay the groundwork for the ability to work in groups and to cooperate in adult life. The discoveries of having similar interests, of sharing secrets, of the pleasure of doing things together, are all fundamental. There is a growing awareness that one can do more in a group than alone, and that the group is more powerful than a single person. This age is the time for group friendships and peer groups or gangs. The word gang has taken on some negative connotations within today's society, but we as adults may have some very happy memories of the gang of kids we went around with when young. This age shows an increasing development of social independence from adult domination, a learning about social structures in a personal way. This is a fundamental part of the developmental process and an important step in social interaction.

A work of art is not the representation of an object itself; rather, it is the representation of the experience we have with the particular object. A mere photographic imitation of his environment is not expressive of a child's individual relationship to what he perceives. The question is not whether the child should draw in a photographic way or be forced to rely upon imaginative patterns, but whether the art experience provides the opportunity for a child to identify with his own experience and encourages him in his own personal, sensitive artistic creation.

Art for the child is something quite different. For a child art is primarily a means of expression. No two children are alike, and in fact, each child differs even from his earlier self as he constantly grows, perceives, understands and interprets his environment. A child is a dynamic being, art becomes for him a language of thought. A child sees the world differently from the way he represents it, and as he grows his expression changes.

A child expresses his thoughts, feelings and interests in his drawings and paintings and shows his knowledge of his environment in his creative expressions. His individual expression is just as important to him as the artists creation is to the adult.

For the child this age may be the most dramatic and healthy period of discoveries, as can be clearly seen in his creative work. The schema is no longer adequate to represent the human figure during the gang age. The concept of the human figure as expressed during the earlier schematic stage was a generalized expression of man. Now the child is eager to express characteristics of sex, to show boys with trousers and girls with dresses; the schematic generalization cannot suffice. Greater awareness develops at this age; the modes of expression of the preceding stage are no longer suitable to express this increasing awareness.

In earlier stages of drawing the separate parts of these drawings were not self-explanatory, but were composed of geometric shapes and geometric lines. A part removed from the whole lost its meaning. Now, however, geometric lines no longer suffice as the child moves to a form of expression more closely related to nature. But the child is still far from a visual representation. For example, girls in their drawings do not yet draw their dresses with folds or wrinkles. The hemline itself is usually drawn straight across. The drawing is not an outcome of the child's visual observation, but rather his characterization of girls as girls or boys as boys. We find that the child gains a feeling for details, but often loses a feeling for action. Often a greater stiffness can be seen in the representations of the human figure in drawings by children of this age. Every body part has its meaning and retains this meaning even when separated from the whole.

Now that the child is developing greater visual awareness, he no longer uses exaggerations, omissions, or other deviations in expressing his emotions. Although at the age of nine most children still exaggerate the size of the human figure, studies have shown that this exaggeration tends to disappear during this stage of development (Lowenfeld, 1952). The child begins to substitute other means of expression to show emphasis, such as an accumulation of details on those parts that are emotionally significant to him.

The greater wareness and concern for detail at this stage of development can even extend to making a left hand quite different from the right. This concern for proper detail can occasionally make the total look distorted. Sometimes this exaggerated concern will even make a child exclaim that he has "goofed" if he has not drawn the proper number of buttons on his shirt. This dawning awareness of the visual appearance of objects has little to do with true naturalistic tendencies, as can be readily seen in these drawings and paintings, where there is no attempt at showing the light or shade, the effect of motion, or any folds or wrinkles. Rather, the child is characterizing his environment. His drawings have taken on a certain stiffness and formality.

Just as his greater awareness of the self and of the environment leads a child to realize that geometric lines and forms are inadequate expression for the human figure, his representation of space reveals a change from the symbolic expression of the base-line concept to a more naturalistic representation. As a result of this growing visual

awareness the child discovers that the space between base lines becomes meaningful, and the plane is discovered.

The change from a single base line to the discovery of the plane is usually a fairly rapid one. The stage of transition can be seen in drawings that include several base lines; we find the space between these base lines being filled in. An example of this appears in Figure. We can only speculate on how the child himself physically activity and developing curiosity. One can picture a first grader walking to school, carefully following his prescribed route. Compare this with a fourth grader who acts as if the sidewalk were there to ignore; he is much more interested in walking on the wrong side of the hedge, kicking a can in the gutter, or going around in back of some of the houses to see if something interesting is happening. At any rate, the base line begins to disappear, the trees and houses no longer stand only on the edge of this line. Although for some children the base line representation remains in frequent use, the space below the base line now takes on the meaning of ground.

We also find that the sky line is no longer drawn across the top of the page. It now extends all the way down to what at the beginning may be a base line but which gradually assumes the significance of the horizon. The child has not yet become aware, however, of the meaning of the horizon. He has not yet developed conscious visual perception of depth, although he has taken the first steps toward such

an awareness. With the sky all the way down, the child soon realizes that a tree growing from the ground will partially cover the sky. Hence he becomes conscious of overlapping, and another step toward a more naturalistic representation has been perceived.

As children now discover the meaningfulness of their environment and begin to relate this to themselves, it becomes most important for education to give them a feeling for what is sincere in our environment and what is insincere. One of the main functions of design can be the establishment of harmonious relationships. At this age it is vital that we stimulate children's thinking and provide them with opportunities for discoveries relating to the natural beauty of materials that are found unspoiled within our environment. This means developing a feeling for differences in rocks, pebbles, shells, barks, moss--all the wealth we can find in nature. Children of this age are normally collecting a variety of objects anyway, from bits of string to toads, as any mother of a nine year old can testify.

Collecting a pile of pebbles can be very exciting. Discussing the different shapes and different colours, noticing how the water has worn down some edges, or seeing how the light tries to shine through some varieties but not others--all of this can be real discovery and can awaken perceptual sensitivity. Such explorations require a relaxed atmosphere, for such learning cannot be rushed.

We need not be limited to discovering the beauty of natural materials in woods and streams alone. Even scrap material can have beauty hidden in it. Rusty iron, or wrinkled paper, or even mold and mildew

can be pleasing to look at if we are able to redefine our values and not think of them as discarded and rejected parts of our sometimes over sterile environment.

The sincerity of beauty as found in nature should be stressed, because this is a natural extension of the child's own direction at this age. Occasionally children will enjoy putting these collections into some form, such as putting the pebbles into a little sand in a box and pouring plaster over the back of them to make a mosaic, or arranging scrap material in a collage. Becoming sensitive to the qualities of a material is of great importance, and children improvise on their own account combinations of materials that need not necessarily serve a useful purpose. Getting acquainted with the different functions and qualities of materials is the main aim.

One of the outstanding characteristics of this age is the child's discovery of his social independence. He has learned that he can have actions and thoughts that are quite independent of adults. He has developed a feeling for himself as a member of a group. He has also become more aware of the details of his environment. His drawings no longer contain a schema for people, because his concept of people has altered so that the schema is no longer adequate. How much he has departed from schematic representation and how much he feels the need to characterize particular objects, figures, and his environment is indicative of his intellectual growth. It can be easily understood that a child of low mentality neither becomes aware of his changing environment nor discovers those characteristics that will allow him to individualize objects or figures.

The ability to break away from the schema and to recognize particular details connected with the self and with the environment is one of the characteristics of this age. We have also seen that children between the ages of nine and twelve are much more observant of their environment, and that their interest in discovering the details of nature can be seen in the variety of collections made by boys and girls. To a great extent, however, these children do not remove themselves from their own observations. That is, their drawings and paintings show quite clearly that they see things through their own experiences, and assume that this "reality" is the way things really are. Children can sometimes be critical of the drawings of others and even of their own drawings if these do not live up to their own interpretation of what is real. We can see that naturalism is not the ultimate goal at this age, because there is usually no attempt at showing light and shade, atmospheric effects, or even color reflections or folds in cloth. The child, then, has left behind him the stage of schemata and laws for behavior; instead he has developed a curiosity about himself and those things around him, but he has not yet achieved an objective, naturalistic viewpoint. It should be emphasized at this point that there is no value judgement implied in discussing the various stages of children's development. Our concern here is simply to understand these differences and to become more sensitive to the great variety of artistic expression.

Children at this stage usually refrain from using as much exaggeration as they did earlier. We find that there is a more naturalistic proportion. One of the characteristics of emotional interest in a particular part of a drawing or a painting, as we have seen, is the

accumulation of details in this particular part. This fact can be easily understood, for the child naturally uses more affection and spends more time to characterize a part that is of emotional significance to him.

The ability of children to participate in group activities can readily be seen when children work together on murals of such topics as "A Dairy Farm". Children of this age usually have the urge to work in group activities, but it may be the child who withdraws from such activities who needs this social experience most. To a great extent democracy is based upon social action. A child who avoids the group and who is unable to relate to his own experiences in his drawings may need some support from the teacher in order to develop greater social growth. Experiences such as being in charge of a section of a mural may be of value. Certainly the individual's contribution to the group should be recognized, and a sensitive teacher can insure that each child is able to participate.

One of the most important areas of growth to which art can contribute is that of creative growth. During this stage of development there is a great deal of pressure put upon children to conform not only to the wishes of adults, but also to the demands of the group. To function creatively, however, one must first be able to function as an individual. This means that imitation and conformity to patterns outside the self must be discouraged. The encouragement of the individual child's own approach to working out problems is vital in this

area. To what extent a child is creative at this age can be seen by the desire he shows for experimentation, exploration, and invention. A child who is rigid or does not utilize material in new ways needs to be encouraged in his flexibility. Encouraging new and different ways to use materials and rewarding the interesting stipple or the effect of one color being placed over another will be positive steps in the direction of supporting creative growth.

Colour: Colour is a sensation. The sense of sight functions only when light reaches the eye colour is information.

Colour influences mood and feelings. These are some evidences to suggest that light of different colours entering to eye can indirectly affect the centre of emotions in the hypothalamus which in turn affects in pituitary gland. This master gland controls the entire endocrine system, including the thyroid and sex glands and so controls the hormone levels of this system and the moods consequent upon them.

Children with strong emotional drive had preference for certain colours like red, yellow, orange.

The word child covers the gamut between infant to adolsente. Therefore it is essential to decide what age children should be experimented . Project starts by getting aquanted with children and their parents, it was found that small children age between 1 to 3 does not seem to bother about colours but they get attracted to bright colours. Most of the children call red colour to any colour. After 2 years when they are taught to recognise colours. Some respond fast but some show reluctance. So the age group selected was from 5th to 8th standard. Upto 5th standard children get well aquanted with colours and pictures. The age group from 5th to 8th standard was selected for carrying out the experiments.

Hypothesis, experiments were conducted to get concrete results on these statements.

- (1) Moods/feelings influence selection of colour.
- (2) Age group/sex influences selection of colour.

List of moods and feelings of children.

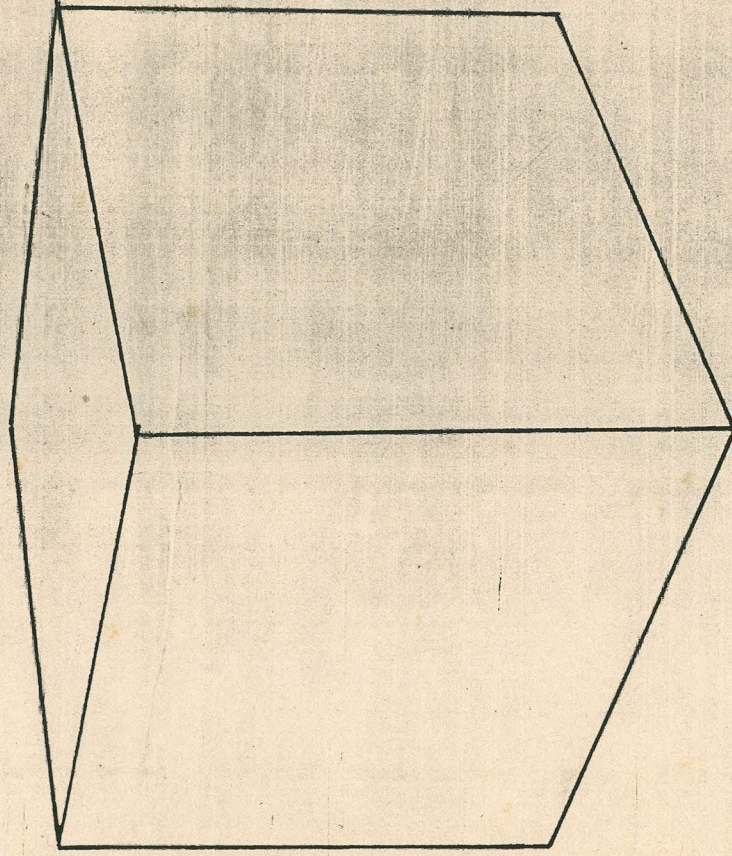
- (1) Happiness
- (2) Sadness
- (3) Anger
- (4) Love/affection
- (5) Cold
- (6) Warm
- (7) Soft
- (8) Pain
- (9) Jealously
- (10) possiveness
- (11) Freedom.

Out of these happiness and sadness were selected for experimentation.

Experiment No. 1:- Children were asked to make picture to depict happiness and sadness.

Conclusion drawn from these picture

- (1) For sadness most the student showed somebody is dying or dead body and relatives are crying.
- (2) For happiness most of the children drawn Birthday parties.
- (3) It was found that they have spent maximum time in sketching and therefore, they did not have patience to paint properly.
- (4) Accept two or three student all others painted their drawings. But the colours they selected were at random.



fill up the cube with colours of
your choice to show
your happy mood / sad mood.

Happiness and sadness were too abstract for these children.

The next experiment was to show them a picture of a jester painted in primary and neutral colours and ask them which jester looks happier than the other.

The ^{other} fourth experiment was to describe a happy/sad situation from a story and give them that situation to paint.

But because of time limitation these experiments were not conducted.

Experiment No. 2 :- It was seen in the first experiment that they give more importance to drawing than painting therefore, it became essential to stop them from drawing.

Second experiment sheet is attached with report in which they are asked to paint a cube (which is a neutral form having six faces).

This experiment was again a failure.

Conclusion of this experiment was that the concepts.

It is very difficult to conclude anything from the above experiments. One has to keep doing them and modifying them to get concrete results. Because children's response depends on their culture, background, age, sex, environment, personal development, perceptive ability and many other things.

