

TACTILE IMAGE OF PRODUCTS

by Nilesh T. Desai

M.SR-2

I. D. C. Library

L. I. T. Bombay.

TACTILE IMAGE OF PRODUCTS

SPECIAL PROJECT

BY

NILESH T.DESAI

**MSR-2**

**I. D. C. Library**

**L. I. T. Bombay.**

GUIDE:

PROF. A.G. RAO

INDUSTRIAL DESIGN CENTRE

INDIAN INSTITUTE OF TECHNOLOGY

BOMBAY.

## ACKNOWLEDGEMENT

I wish to convey my gratitude to PROF.A.G.RAO for his kind guidance and invaluable advise during the course of this special project.

I also wish to thank all the members of the faculty for their comments and criticisms.

## INDEX

- (1) INTRODUCTION
- (2) WHAT IS A 'TACTILE IMAGE' ?
- (3) IMAGES OF PRODUCT
- (4) REPRESENTATION OF IMAGES.
- (5) SURREALIST ART
  - (a) SURREALIST IMAGE
  - (b) SURREALISTS
- (6) AN ATTEMPT TO REPRESENT TACTILE IMAGE OF PRODUCTS
- (7) TACTILE IMAGE OF TOOTH BRUSH
- (8) CONCLUSION
- (9) FURTHER SCOPE OF THE PROJECT
- (10) BIBLIOGRAPHY

Much of our knowledge of what is around us depends on touch as well as sight. Our fingers react to rough and smooth, hard and soft surfaces just as our eyes respond to form and colour.

It is accepted that all cutaneous (skin) experiences such as itch, burn, stickiness, vibration, wetness and dryness, roughness and smoothness are due to simultaneous arousal of two or more of the primary skin senses. Touch is one of them.

We are mostly dealing with the visual sense and the visual imagery of the products, gets quite emphasised in the 'design world'. But what kind of 'product-images' are formed in our minds due to our tactile sense is quite unknown. And the present project is an attempt to visualise and represent 'Tactile Image' of a product. Such tactile images can open up new formal possibilities for designers.

The sensation of touch usually results from mechanical distortion of various types of sensory receptors in the skin. There are more touch receptors on the tongue and

4  
fingertips than in other body areas. This as back-ground , I have chosen one of the personal products- a tooth brush and attempted to represent its tactile image as I could visualise. The reason for choosing a 'tooth brush ' is that it comes in contact with tongue and fingertips where more touch receptors are situated.

## 2 WHAT IS A 'TACTILE IMAGE' ?

The term 'tactile' means 'perception by; connection with; appealing to sense of touch.'

The term 'Image' refers to any thought representation that has a sensory quality.(Hearing, smell, taste, touch and kinesthetic)

Images which involve the sense of touch are called ''Tactile Images''.

A person can describe Tactile Image in many ways including informations about the surface quality of a prôduct, its vividness, clarity, shapes etc. Further more a person can tell how the tactile image entered his awareness, its duration, associated emotions,

the relationship with the object in the external world. The Tactile Images are built up in a person's mind as a result of his past experiences of touching products. These are not merely imitations but memory fragments, reconstructions, reinterpretations and symbols that stand for objects. They have certain dimension or quality of certainty or uncertainty, probability or improbability or vagueness.

### 3 IMAGES OF PRODUCT

This means what we see and what we perceive through our sense of touch.

Texture is one of the elements of visual design to describe the outer image of a product. In the appearance of things in nature texture is the most immediately perceived, revealing and identifying visual quality.

Texture is a highly complex physical and visual phenomenon. It exists in both the natural and man made worlds on two levels.

The first is the tactile level—that which is perceived by touch alone and does not depend on the sense of

sight.

The second level on which textures can be examined, the level that gives us most of our textural responses includes all the nontactile (visual) perceptions of surface quality. Thus, by association of visual experiences with tactile experiences, products are looked as well as felt.

When the objects are not physically present, they are represented indirectly by what we remember and know about them. Memory and knowledge deliver the needed facts in the shape of memory images. Experience deposit images and these images are handled as though they were the originals.

#### 4 REPRESENTATION OF IMAGES

The representation of these images visually is one of the problems encountered by most artists and designers. During the first decades of the twentieth century, it was considered important for artists, designers and craftsman to be able to imitate various surface qualities and various techniques were used.

The techniques like graining, marbling and gilding were used for surface ornamentation; machine art for surface integrity; paint and varnishes for decorative purposes were used.

But it is very difficult to represent image of a product. Actually all images are experienced as literally ''being''-to some extent-the thing they represent. Instead of foolishly assuming that the child who uses a stick for a doll is the victim of an illusion, we ought to realise that there is nothing unusual in an object being a piece of a wood and a baby at the same time.

## 5 SURREALIST ART

One can look at Surrealist art for inspiration and techniques to represent image of a product.

Surrealist art was intended to shock the spectators into a new awareness of reality, to reveal the inner workings of mind, and to celebrate the marvelous, the fortuitous and love itself.

Metaphors and subconscious associations were the main concepts used by Surrealists.

André Breton and other Surrealist artists welcomed the

element of chance and cultivated the possibilities of automatic response to unconscious feelings.

Surrealists had attempted to take away the particular image acquired by existing objects in their regular daily use.

They had tried to view the objects in a new light by denying its function, twisting the axis of objects, destroying the symmetrical correspondance of parts, changing proportions and rearranging the relative location of things.

In other words, they took away their (products) reality broke the logical rules, so that absurd appeared. In this way the encounters became evocative or contemplative.

a SURREALIST IMAGE

According to Surrealists, images are due to primary psychic forces. These are due to childhood experiences stored in subconscious mind.

The surrealist image brought the fact of interchangeability out of the dream and projected it on to reality.

And the image could assume either a verbal or a visual form. They have also considered that the images have capacity to express latent order of things.

## b SURREALISTS

Surrealists like Man Ray, Salvador Dali, René Magritte, had tried to represent their inner image of a particular object on paper.

Man Ray tried to represent his inner image of violin with the help of human form as shown in fig.

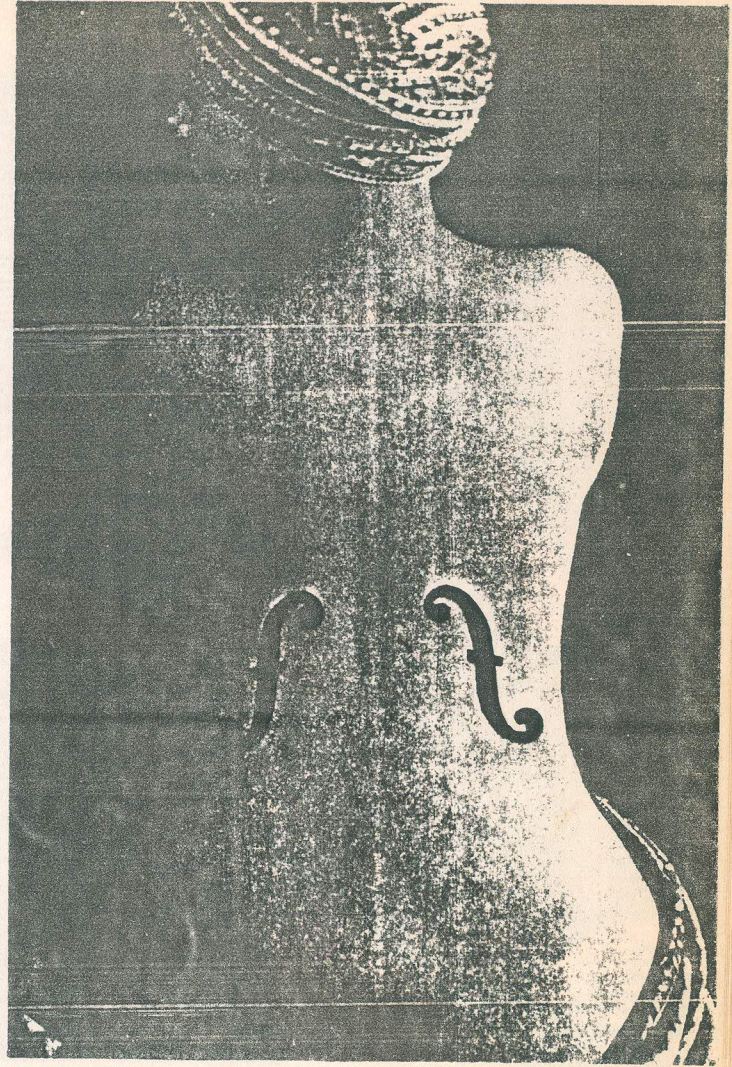
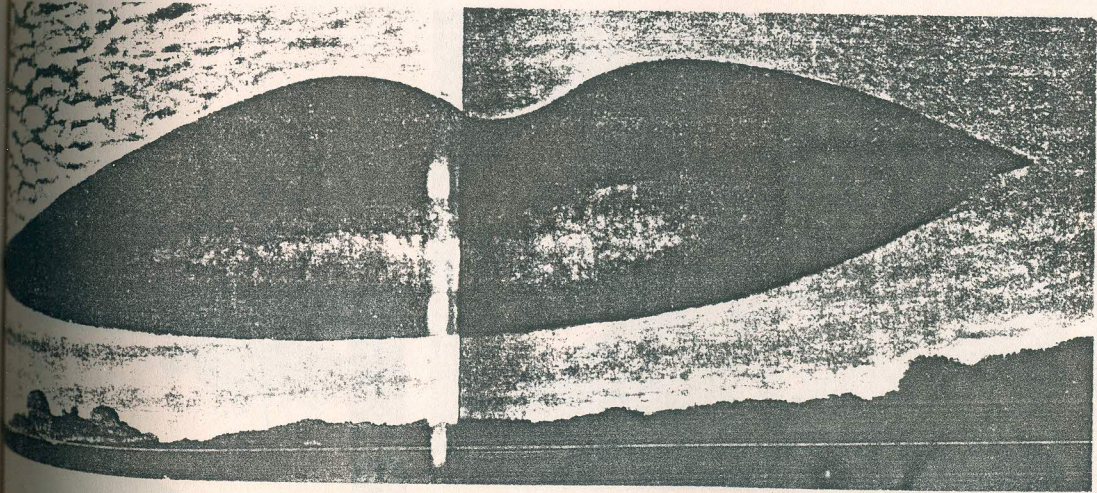
He showed 'The Lovers' by his own experience.

Salvador Dali was able to introduce metaphors into painting both organically and inorganically. His conduct and the way he played with his own image were an aesthetic fantasy and a psychological need to challenge and inflict pain. (see figs. 'Enigma of Desire' and 'The Sleep'.)

René magritte was another Surrealist who tried to represent his image of the object.

In his own way , Magritte used Max Earnst's techniques of collage and frottage as a special

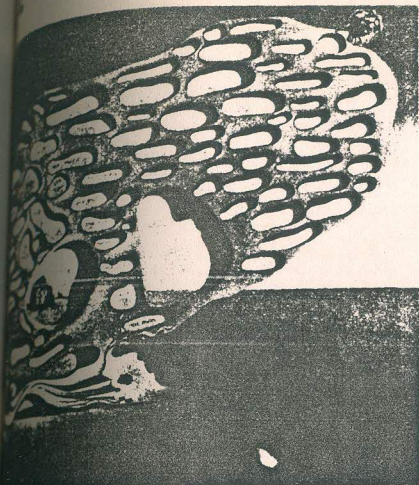
RAY



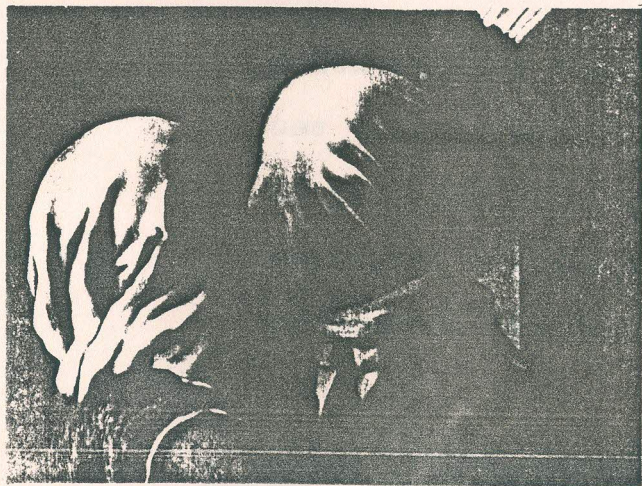
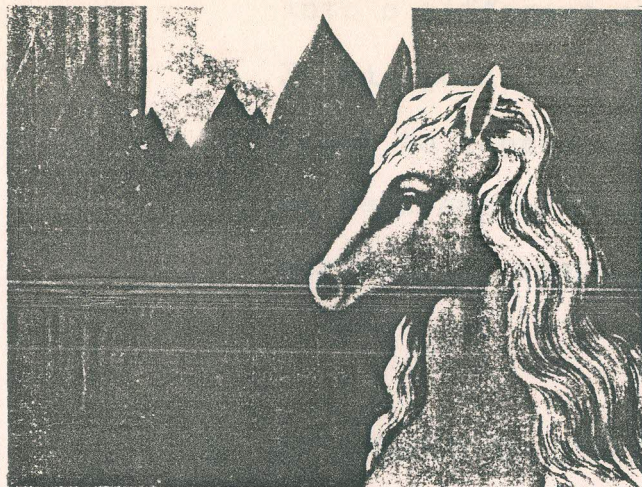
VIOLIN OF INGRES

ERS

# MAGRITTE



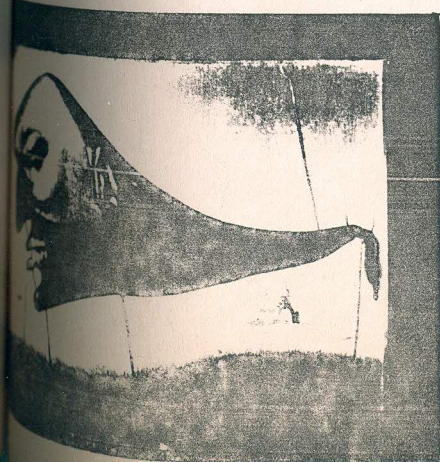
OF DESIRE



PURE REASON



DISCOVERY



LOVERS

effect in painting. He used combined objects or made an object's position mysterious until he imagined the gradual change in an object into something else, even into a different material.

In his painting "The Discovery" (see fig. ), he tried to represent his tactile image of a woman. He represented his image of touching a smooth wood surface. He combined both the images in one painting.

6 AN ATTEMPT TO REPRESENT TACTILE IMAGE OF PRODUCTS.

After knowing Surrealist art, I was inspired to use this technique to represent my 'Tactile Image' of products. For this purpose, initially I tried to represent tactile image of various products.(mostly personal). The results are as follows (see fig. )

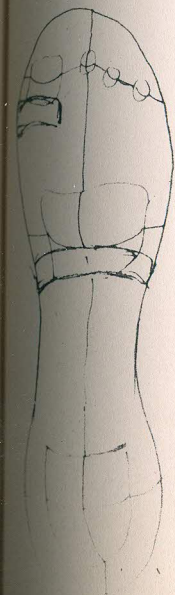
7 TACTILE IMAGE OF TOOTH BRUSH

After making an attempt to represent tactile image of personal products, I focussed my attention to the tactile image of tooth brush and tried the same technique. The results are: (see figs. )

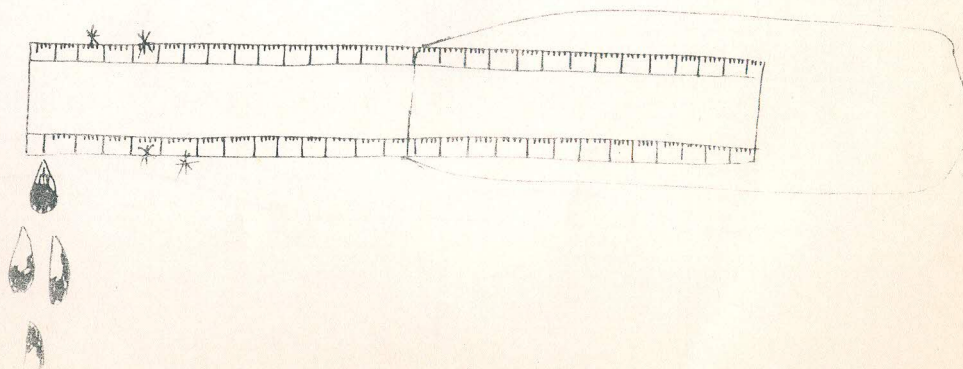
BALL PEN



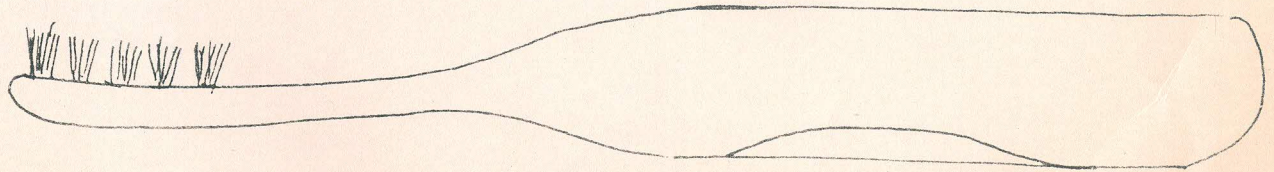
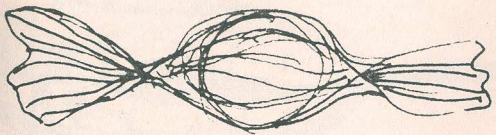
HAPPAL

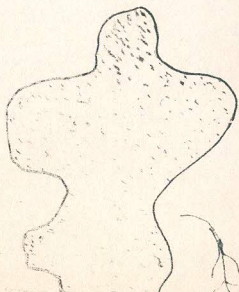
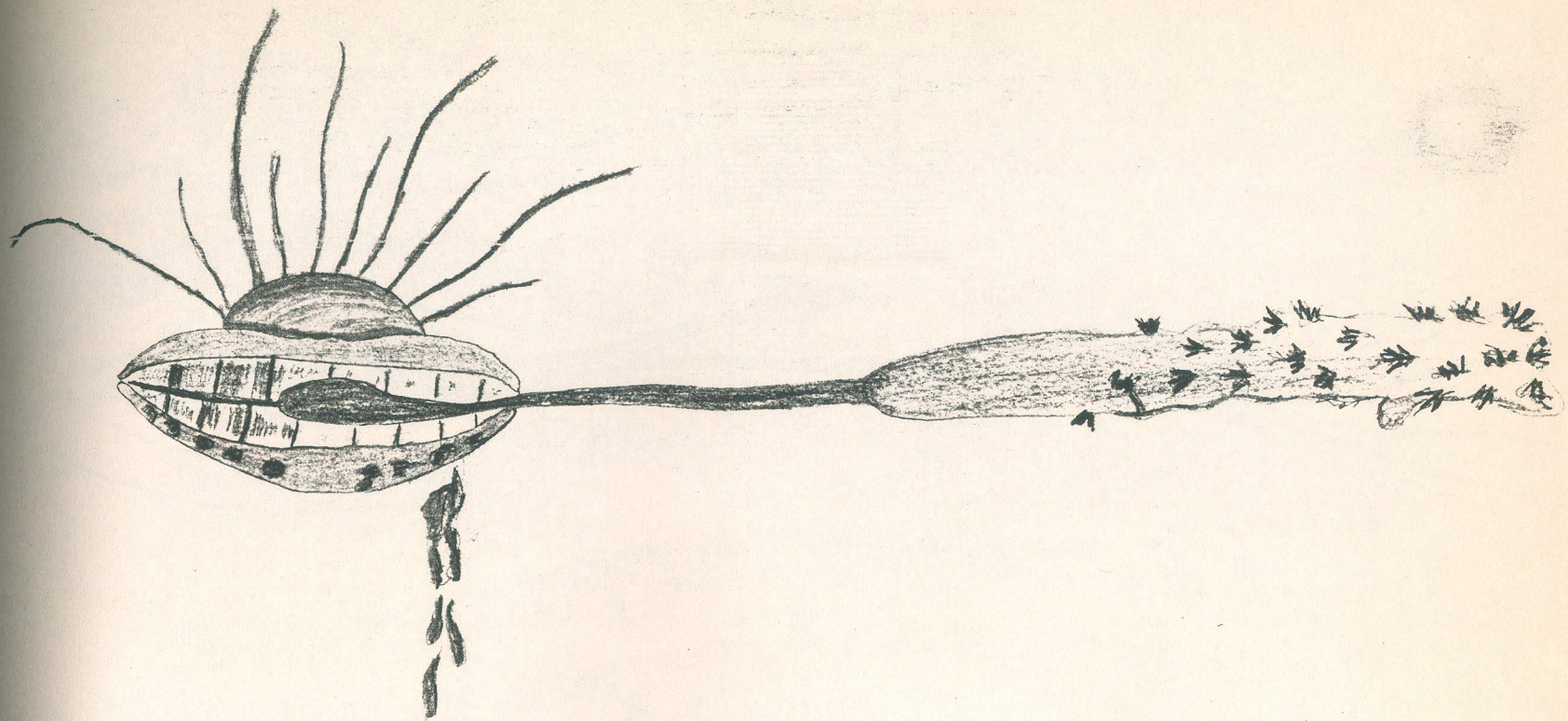


STEEL RULER

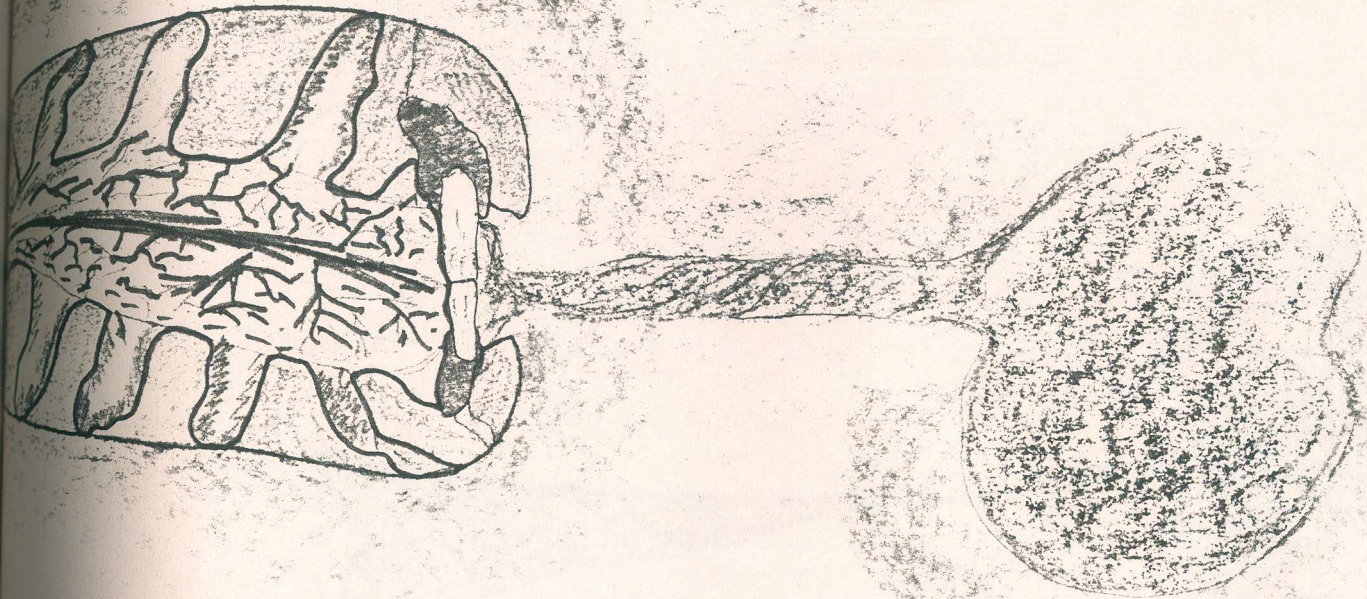


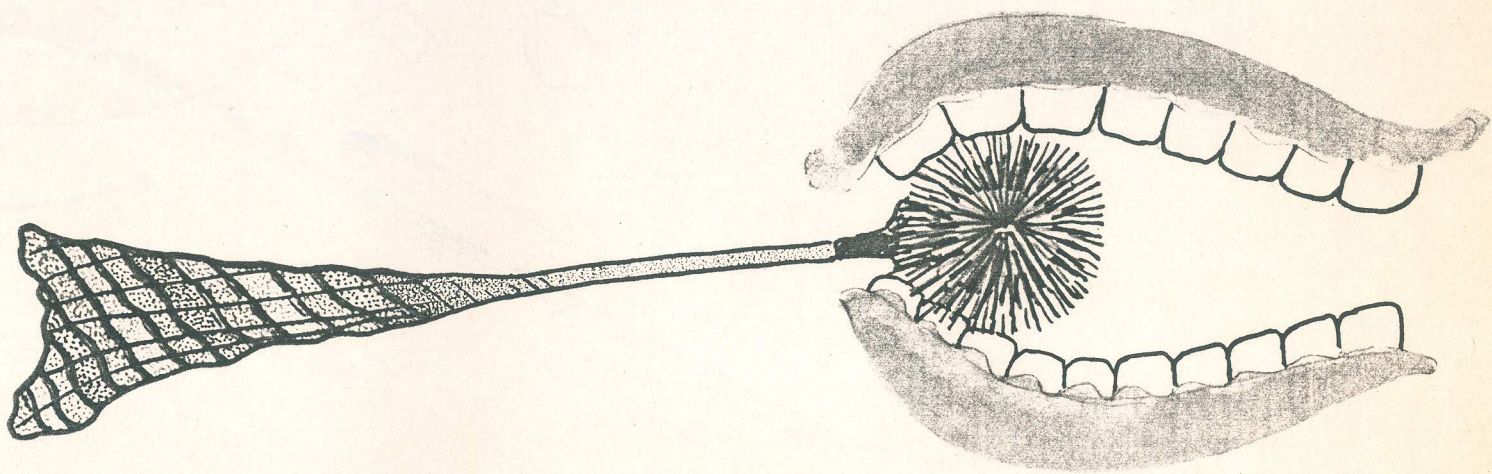
TOOTH BRUSH

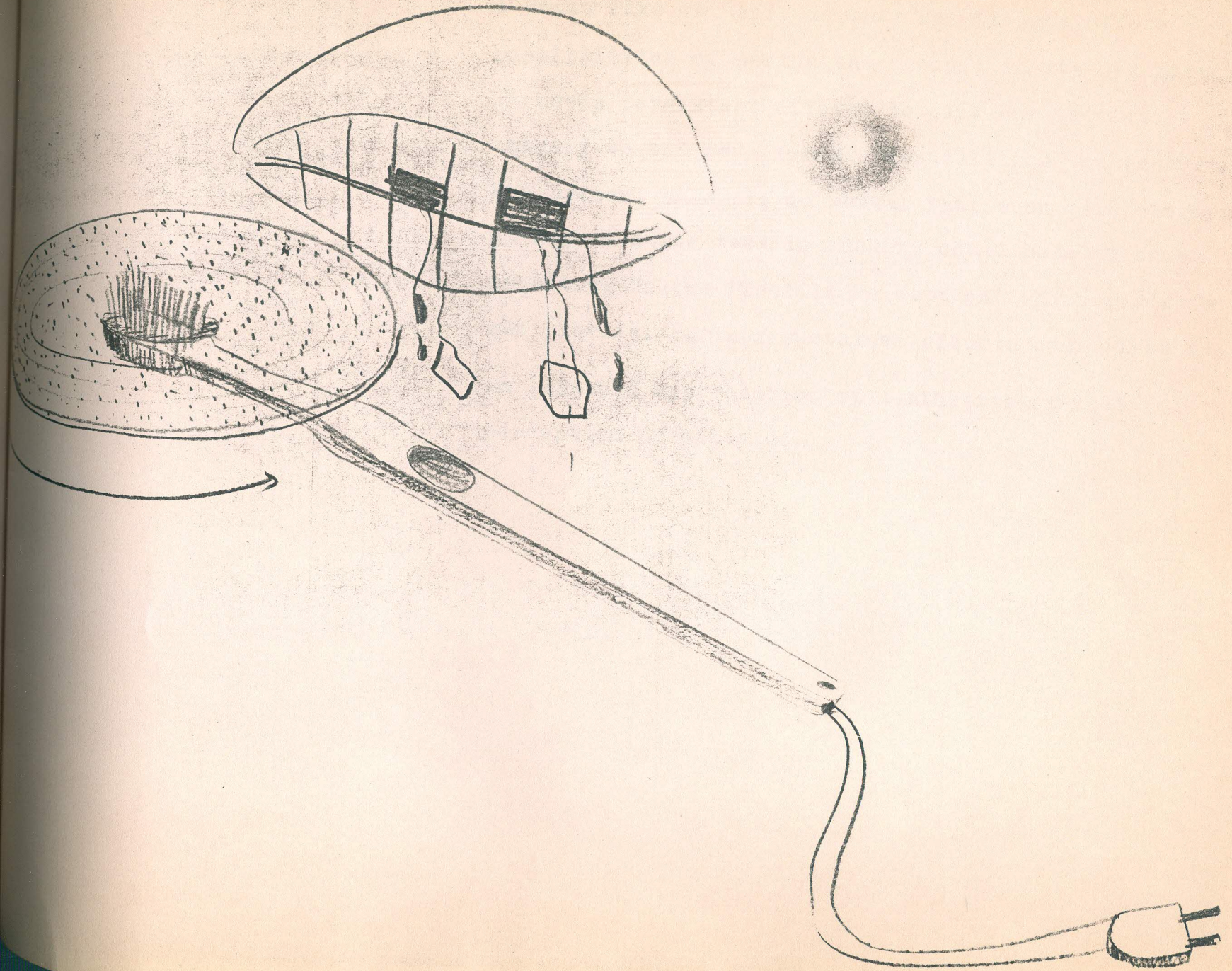












I would like to conclude that the project offers possibilities of seeing the product in its new birth. It needs persistent efforts to link our tactile imagery to the new 'formal possibilities' in products. The present attempts do reveal that even mere attempts at representing tactile imagery could make us more sensitive to the 'Tactile Perception' which products can provide. Further sustained efforts could lead to an enhanced appreciation of aesthetics of tactile perception of a product.

Represented images may be used in further development of tooth brush.

It can give a new basis for generating product forms. Parts of a product which are touched can be given more importance and can be used in designing new product forms. In those parts, different textures can be used giving appealing look to the product.

Tactile image representation may be used in designing tactual maps and other graphics which are very useful for the blind.

It can be used for designing tactile displays for blind.

10 BIBLIOGRAPHY

- (1) Arnheim Rudolf; Art and Visual perception, University of California pres,Berkeley,Los Angeles,London,L971.
- (2) Boulding kenneth; The Image; The University of Michigan press ,U.S.A, 1977.
- (3) Hammacher A.M. ; Phantoms of Imagination;Harry abrams, publishers,Inc.,New York.,1981.
- (4) Horowitz Mardi J. ; Image formation and cognition; Appleton-Century-Crofts/ New YOrk.
- (5) Selz Peter; Art in our times ; Thames and Hudson ,1982.
- (6) Short Robert; Dada and SURREALISM £ Octopus books ltd; London,1980.

**MSR-2**  
I. D. C. Library  
 U. L. T. Bombay.