

Special Project

Form and emotion

V P B CHAKRAVARTHI . K

0 2 6 1 3 0 0 9

Guide : Prof. **B.K.CHAKRAVARTHI**

Introduction

Humans rarely reach to state of complete satisfaction

On the basis of hierarchy of user needs

- **Functionality** and **Usability** of the products are no longer enough to satisfy the user needs.
- The next step exists in users **Emotional Experience** towards the product.
- **Today's Companies Concern** : user's emotional response towards products with a structured approach.
- **Difficult to handle this aspect** : as the individual's emotional experience seems to be as intangible as it is appealing.
- **Numerous Methods and Models** : to understand the emotional experience of the user.

Limitation : they rely strongly on the subjective interpretation of the designer

About research project :

Understanding the meaning of the emotional experiences in human-product interaction

Develop user study and design methods to support development of richer product experiences.



Form

- " Form is what we tend to perceive when an image is realized and concrete in a specified spatial environment, for the aesthetic qualities of an image or an object determine the degree to which its formal characteristics inspire psychological reactions in the viewer "
- " A particular organization of the shape capable of arousing the emotional and ideational participation of the beholder "
- " shape and structure of any thing "
- " a perceptual structure "

Emotion

- " An intense feeling "
- " A valanced response to an action or incarnation of a cognitive process, either of whose degree's of manifestation can be determined by the eliciting situation, or memory(s) of a similar situation "

TORSO : Cutting through our thoughts, chopping up all feeling, baring each and every soul! The faces trampled down by guilt, scattered in the forces of bursting harmonies. Cold idyll disintegrating before the exposed discretion.

A silence brought to speak.
- Frank B. Ehemann , Sculptures in silver

The background of the slide is a collage of various images. On the left, there are two vertical strips showing the faces of women with different expressions. In the center, there is a large, faint image of a man's face. On the right, there is a smaller image of a cat and another image of a person's face. The overall theme is human emotion and expression.

Why study product emotions?

Emotions play an important role throughout the span of our lives, because they....

- Guide, Enrich and Ennoble life
- Provide meaning to everyday existence
- Render the valuation placed on life and property.
- Have a strong influence on people's own evaluation of their lives.
- Enrich virtually all of his/her waking moments with either a pleasant or an unpleasant quality.

- A substantial part of our emotions is elicited by 'cultural artifact's (e.g. art, clothing, and products).
- In consumer research, emotions are often found to be strongly influencing the user satisfaction

Product Experience

An effective Product experience refers to a large variety of psychological states such as

- Emotions
- Feelings
- Moods
- Sentiments
- Passions ...etc.

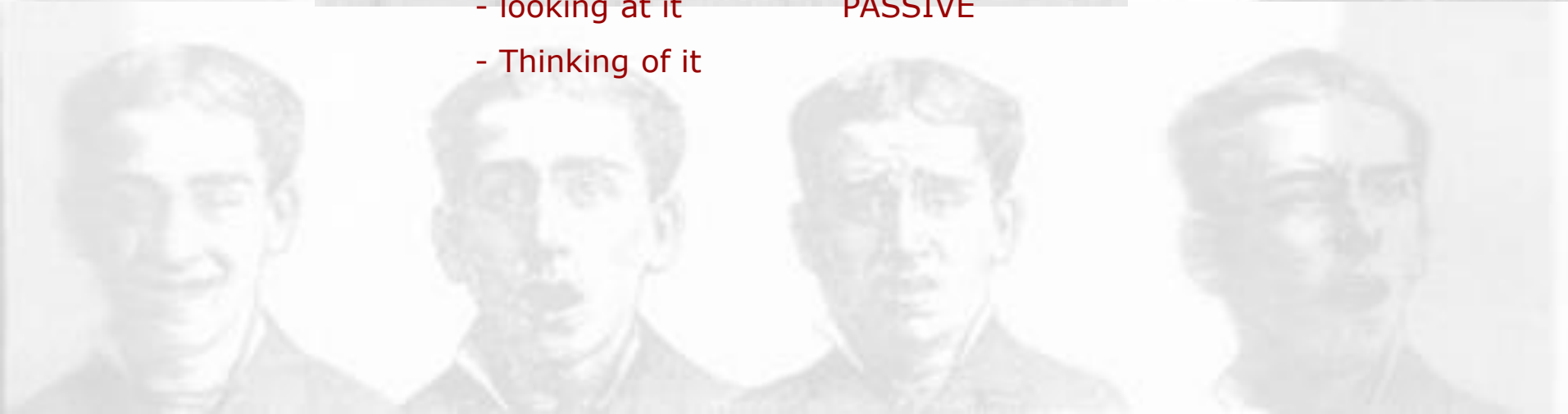
These can be induced just

- using it
- Playing
- looking at it
- Thinking of it

ACTIVE

PASSIVE

USER INTERACTION



The background of the slide is a collage of various images. On the left, there are two vertical strips of faces: the top one shows a woman with a surprised expression, and the bottom one shows a woman smiling. In the center, there is a large, faint, circular sketch of a human head in profile. On the right, there is a small image of a cat sitting on a person's shoulder, and below it, a larger image of a man's face with a distressed or pained expression. At the bottom, there is a horizontal row of four faces of a man with different expressions: smiling, neutral, and two variations of a pained or distressed expression.

The level of **experience** is classified as


Emotional experience

- most relevant to understand
- Implies one-to-one relationship between experience and object

Aesthetic experience

- appearance, fineness and beauty expressed in terms of form
- Pleasing to eye
- All parts are in a harmonious, balanced relation ship

This project concentrates on the **emotional experience**.

A collage of various faces and a cat. On the left, two women's faces are visible. In the center, a man's face is partially obscured by text. On the right, a cat is visible, and below it, a man's face is shown with a distressed expression. The word 'Copyright' is partially visible on the right side.

Commonsense and research confirms that

“ people use appearances to make judgments about realities ”

It matters little whether

- the products are high priced / low priced
- they are technically complex/ simple
- the buyer is supremely sophisticated in the technology/ plain ignorant
- they buy themselves/ their relatives

Appearances and **external expressions** comes first of all

Four black and white portraits of Theodore Levitt, arranged horizontally. He is shown from the chest up, wearing a suit and tie. His expressions vary slightly across the four images.

Marketing intangible products
and product tangibles

- **Theodore levitt**



Various **elements** of form....

- structural precision or imprecision
- Texture
- Proportionate harmony and feelings
- Clarity or ambiguity etc.

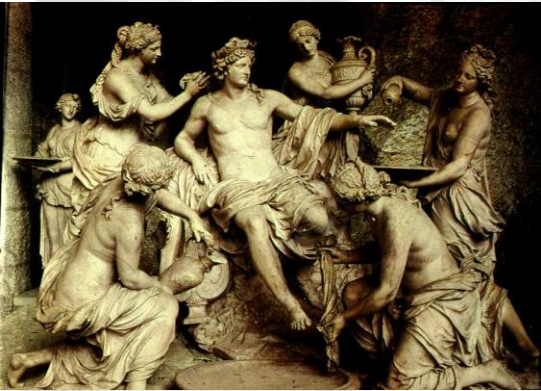
.....work on our personal thoughts and feelings



Emotions elicited by consumer products influence

- both the decision of the purchasing the product
- pleasure of using it after purchasing

Form Appreciation



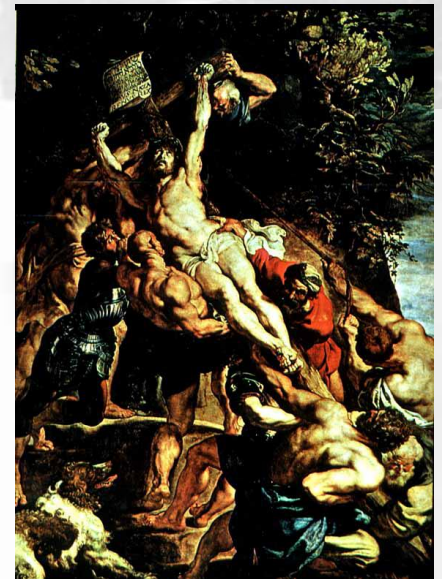
A form can be appreciated even with closed eyes through the sense of touch

We all have personal reactions of thought and feelings to omnipresent presence of the form

At lowest level - comes the simple act of **accepting** or **rejecting** something when we shopping

At highest level - comes an intense feeling of **recognition**, **understanding** and a complete **identification** with the object through highlighted total consciousness.

FORM = **SHAPE DERIVED FROM STRUCTURE** + **AESTHETIC AURA**



Aesthetic implications of form

- **Graham Collier**

Emotional Fit



Design should include product

- That " Fit " the preferences of the user
- That elicit emotions that the user would like to experience
- That integrate subjective and objective wishes and demands

Many-a –times emotional response is

- due to in-tangible highly personal construal of the product (meaning yielded from the product)
- and not from the tangible product expressions or attributes.

Emotion through expression

Designing mobile telephones
with an emotional fit

P.M.A. Desmet

**Delft University of Technology,
Netherlands**

Department of Industrial Design

The background of the slide is a collage of various images. On the left, there are two vertical strips of faces: the top one shows a woman with a surprised expression, and the bottom one shows a woman smiling. In the center, there is a large, faint sketch of a man's face. To the right, there is a small sketch of a cat, a portrait of a man with a mustache, and a portrait of a man with a surprised expression. The text is overlaid on this collage.

How to achieve emotional fit?

Limitations

- Difficult for the users to express what they feel ,why they feel (experiential factors)
- Troublesome to designers to get the grip of the users feelings
- Designers can not depend on their own construal (no guarantee to suit with user's)

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Approach

- including user in the design process (mutual communication)
- maintain balance between subjective and objective properties, functional and emotional expressions, information and inspirations
- Considering various properties (experience) of the product. (contextual - handled, touched, heard and tasted)
- Effective interpretation of the users emotion and feelings

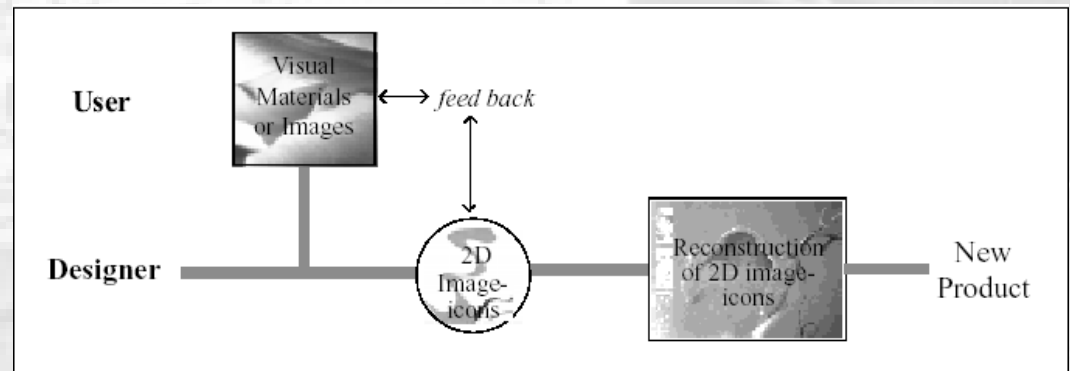
Methods existing to capture the emotional response of user's

- QFD (Quality Function Deployment)
- Paired Comparison Method
- Scales of ranking
 - ratio scale, interval scale, ordinal scale

Research Papers

Kansei design approach

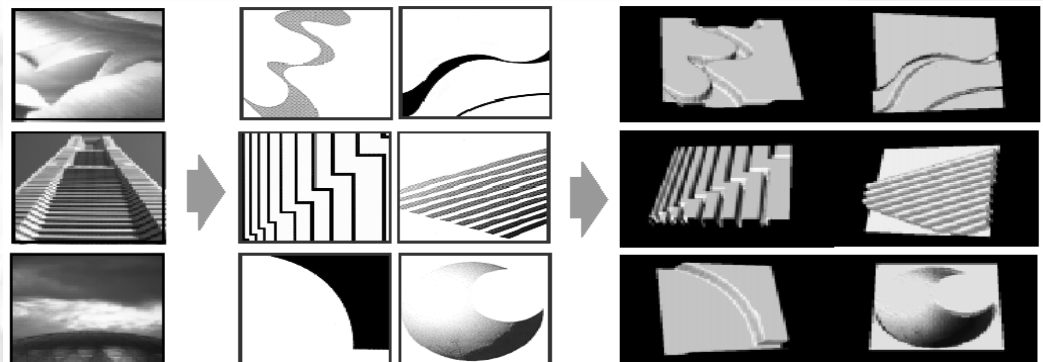
Kansei design approach visual imagery is used to carry the subjective meanings, and the designer extracts form elements from inspirational material into abstracted 2D image-icons (pictorial image).



The *Kansei* model is needed in design to understand how people receive their **impressions or emotions** from the objects.

Extending of design approach based on Kansei by dynamic manipulation of 3d objects

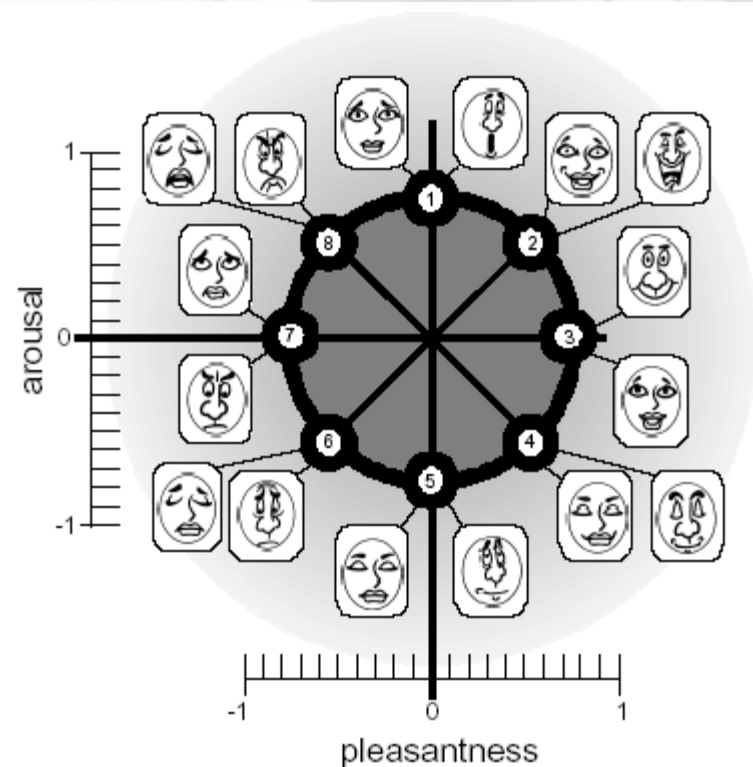
SeungHee Lee
Pietwv Jan Stappers
Akira Harada



Emo-cards

- This paper presents an approach to include the user in the design process in order to obtain an emotional fit between the product expression and the ensuing emotional construal.
- Emo-cards are developed. The Emo-cards are based on the dimensions 'pleasantness' and 'arousal'.

In an experiment, Subjects can express their emotional responses to products by pointing out the card that best indicates their response.



Emotion through expression
Designing mobile telephones with an
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Logica



Helix



My "impossible" teapot.

"Nanna" teapot

"Tilting" teapot

THE THREE TEAPOTS

"I value my teapots not only for their function of brewing tea, but because they are sculptural artwork. I love standing in front of the window, comparing the contrasting shapes, watching the play of light on the varied surfaces. When I'm entertaining guests or have time to spare, I brew my tea in the Nanna teapot for its charm or in the tilting pot for its cleverness. Design is important to me, but which design I choose depends on the occasion, the context, and above all, my mood."

These objects are more than utilitarian. As art, they lighten up my day. Perhaps more important, each conveys a **personal meaning**: each has its **own story**. One **reflects my past, my crusade** against unusable objects. One **reflects my future, my campaign** for beauty. And the third represents **a fascinating mixture of the functional and the charming**.

EMOTIONAL DESIGN

Why we love or hate everyday things

- DONALD A. NORMAN
New York

"Pleasurable things need not be always useful"

Understanding Form



Shunyata

Frank B. Ehemann

Sculptures in gold

Haus am See

D-27308 Kirchlinteln

The innate sensitivity of the form should have

- Significance of the Beauty and Perfection
- Psychology of Aesthetic Sensitivity
- Urge of Possession
- Faculty for Identifying with the object.

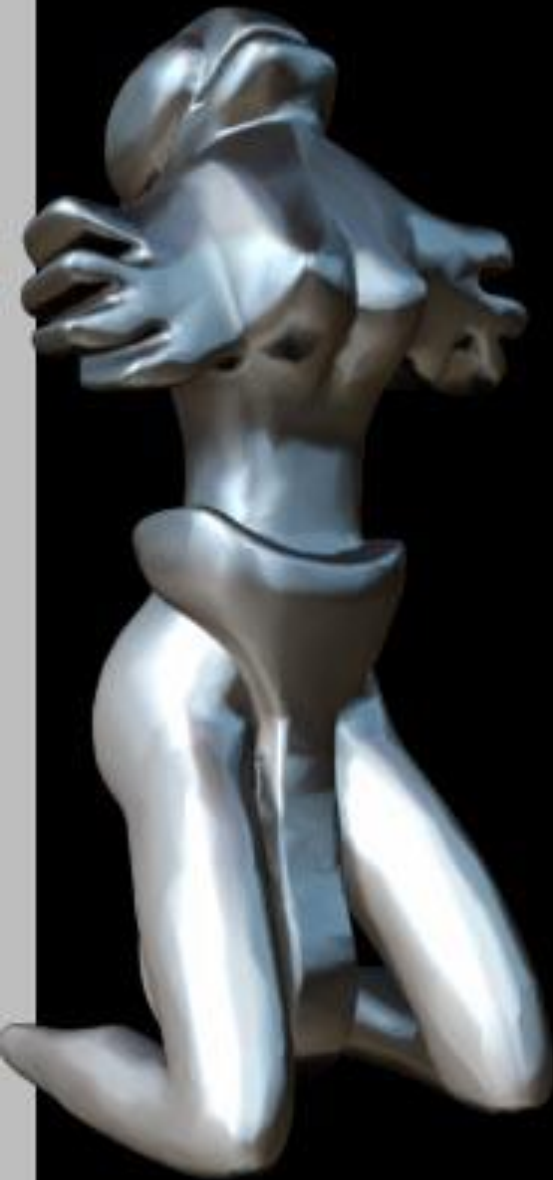
" When form appears complete and unalterable....when we sense that any addition or subtraction would ruin the complete ness...

when form is charged with hidden meaning..... when it coincides with our desires....when it invites our physical or imaginative possession and....the subsequent loss of our own identity in identification with itself

- Then for a moment we become involved with the mystery of an aesthetic response "

- Graham collier

Shunyata



Fantasy and intuition are disruptive forces prying open the fetters of the soul: Already you sprout wings, spread the pinions, suspect the perfection of sublime flight to escape the base plains of humanity where sorrow and licentious instincts dwell. As yet the gravity of life ties you to the ground; the chimera of reality deprives you of your senses - your spirit is captured in the net veiling continents and oceans. Be assured: He will elevate himself in the struggle for freedom and deliverance and leave behind all murky dungeons.

- Frank B. Ehemann , Sculptures in silver

Challenge

How to capture expressions in form, that are related to what user desires or had already in mind ?

How to produce some thing which is liked by majority of users ?

How to specify a new research direction for the interplay between emotion and design ?

Emotional Life-cycle of Products

It is one thing to design products that elicit certain emotions; it is another matter to maintain those emotions that have been generated. It is desirable to maintain the emotional content of a product throughout its entire physical lifespan.

Is it an acceptable solution to design emotionally demanding products in order to guarantee the longevity of its emotional lifespan ?

- With in this theme I' am addressing the emotional involvement of the user in any design conceptualization.

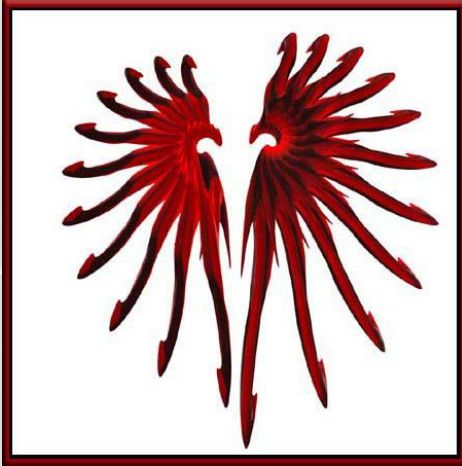
EMOTIONAL DESIGN

Why we love or hate everyday things

**- DONALD A. NORMAN
New York**

Design Darwinism : **Survival of the best expressive**

Research Directions



Direction-1

- selecting a object (flower,leaf,animal etc.) from the nature that has strong aesthetic appeal as form.
- drawing out cluster of visuals freely and deliberately exaggerating the particular aspect that appeals .
- Showing the user and asking him to observe the drawings and decide if it appeals as much as original object.
- Analyzing "yes" or "no" and "why" and "where"



Direction-2

- Try to get abstract from great paintings(El Greco,Rubens,Titan) or old sculptures ,weapons,from museums
- providing cluster of images to the user and asking to pick out the main forms of the design which he feels are exhibiting expression he feel
- picking out the main forms,main rhythms which hold design together, attempting to express these forms and their rhythms in proposed product in the form of sketches
- asking the user to rate which will be an expressive abstract of the original .

The background of the slide is a collage. On the left, there are two vertical portraits of women. In the center, there is a large, faint diagram of a human head in profile, with various lines and labels, possibly representing a cognitive or emotional model. On the right, there are several smaller images, including a group of people and a close-up of a person's face.

Direction-3

- Involving the user in the design process and this simplifies the complexity of “understanding user”.
- Letting him to come out with what he wants from the design and want to see in the product form.
- He him self given liberty to choose the visual imagery and artifacts which he is emotionally involved with along with the personal feelings verbally mentioned.
- These clues are interpreted by the designer as he will be provided with richer information from the user side.

Among all the 3 directions **Direction-3** is selected as the research direction as it is more relevant to the emotional experience of the user. This makes the user more involved among all the three.

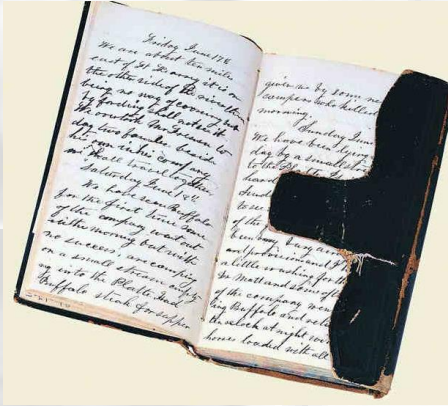
Research Method

- The **qualitative** user study aims at **understanding the life and values** of people to find **opportunities for product conceptual design** .
- The rich and visual data collected will be used to **create empathy** in the designers for the users .
- This method focuses on **understanding** the meaning of emotional experiences in human-product interaction.
- Several methods can be used in the user study to collect a rich and inspiring data: a focus group, diaries, open questions, self-photographing, interviews and collage making.
- To gain understanding and visual material about more **latent feelings** which the user may not express verbally.

The focus group

A focus group will be first organized to achieve a basic understanding of the area and to ensure the research material is appropriate. The focus group is supposed to have a general picture of who the people were, and of their lifestyles and exercise habits.

Research material



Diary



Disposable camera



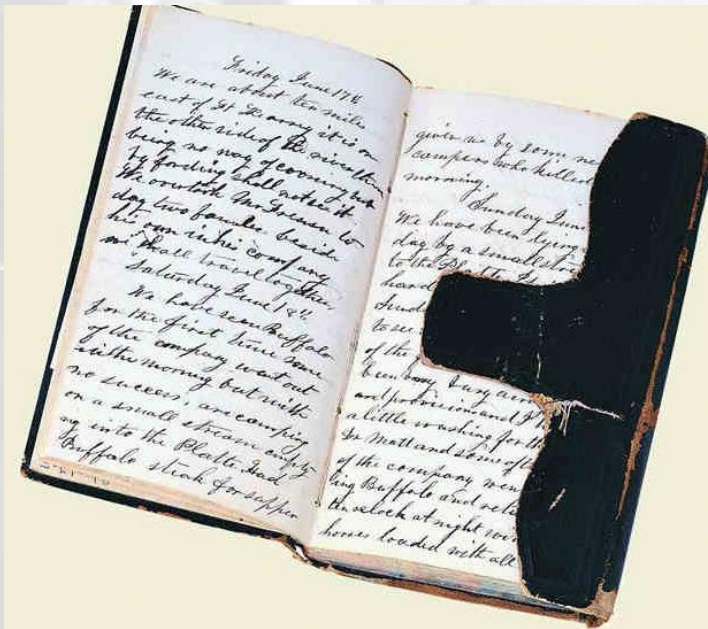
Open questionnaire

The idea of Specific material

- To make the users feel positive about the research
- Make users willing to be involved.
- Empathic approach in designers.

The idea for the package was inspired by the Cultural Probes research (Gaver et al. 1999, Wensveen 1999)

Activity- Experience



Step-1

For one week the users will fill in a diary about their everyday well-being, health and exercising and other thoughts that these issues raised. There are also allowed to use optional little stickers for illustrating moods.

Experience

- Know about people's everyday **life and values**
- Will bring **involvement** into users daily life.
- Opportunity to discuss **personal and intimate** issues.
- The diaries will also help in revealing
 - The **importance of nature and social activities in the everyday life**, which may not so obvious from the focus group discussion.



Step-2

The disposable camera goes with list of themes for self photography.

e.g. my fridge, a favorite place, something tempting. User is given liberty to fill the camera with all his personal and emotional reflections.



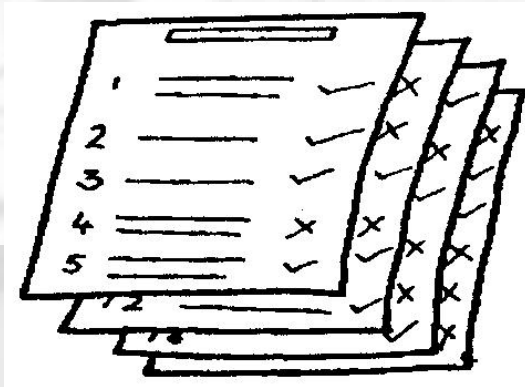
Experience

- Discussing the issues and the photographs in the interview will create a **feeling of understanding**.

- The users are allowed to explain e.g. about their problems and about their **relationships with objects and places**.

- The photographs can be used as projective material as well as for presenting the physical **environment of the user**.



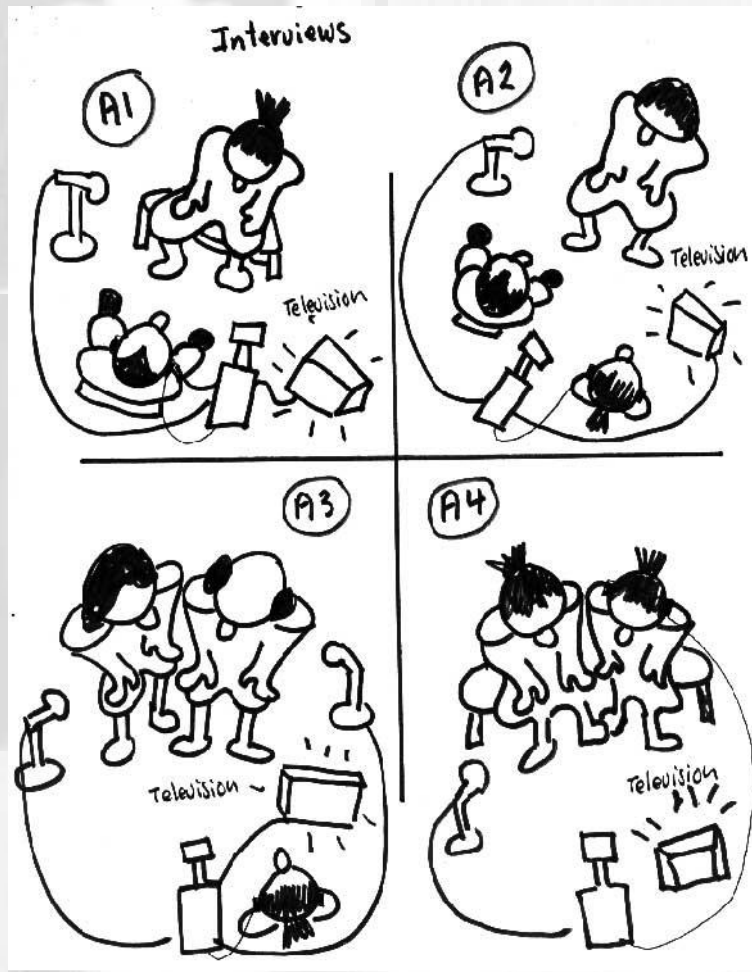


Step-3

The open questions, e.g. what causes stress and how do you handle it, were on separate cards illustrated with thought-provoking images (emocards).

Experience

- This expresses what kind of [psychological states](#) they enter at times.

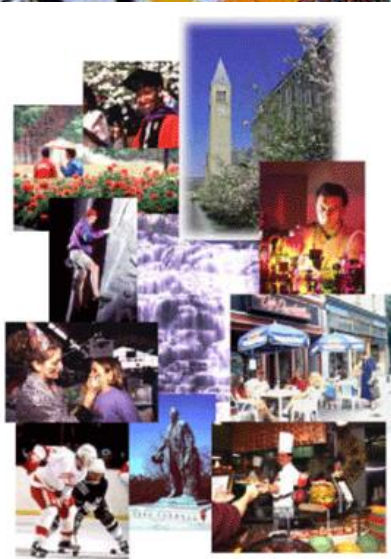


The interview

Each user was then invited to an interview to discuss the received material and further issues like the user profile. The photographs were also explained by the user.

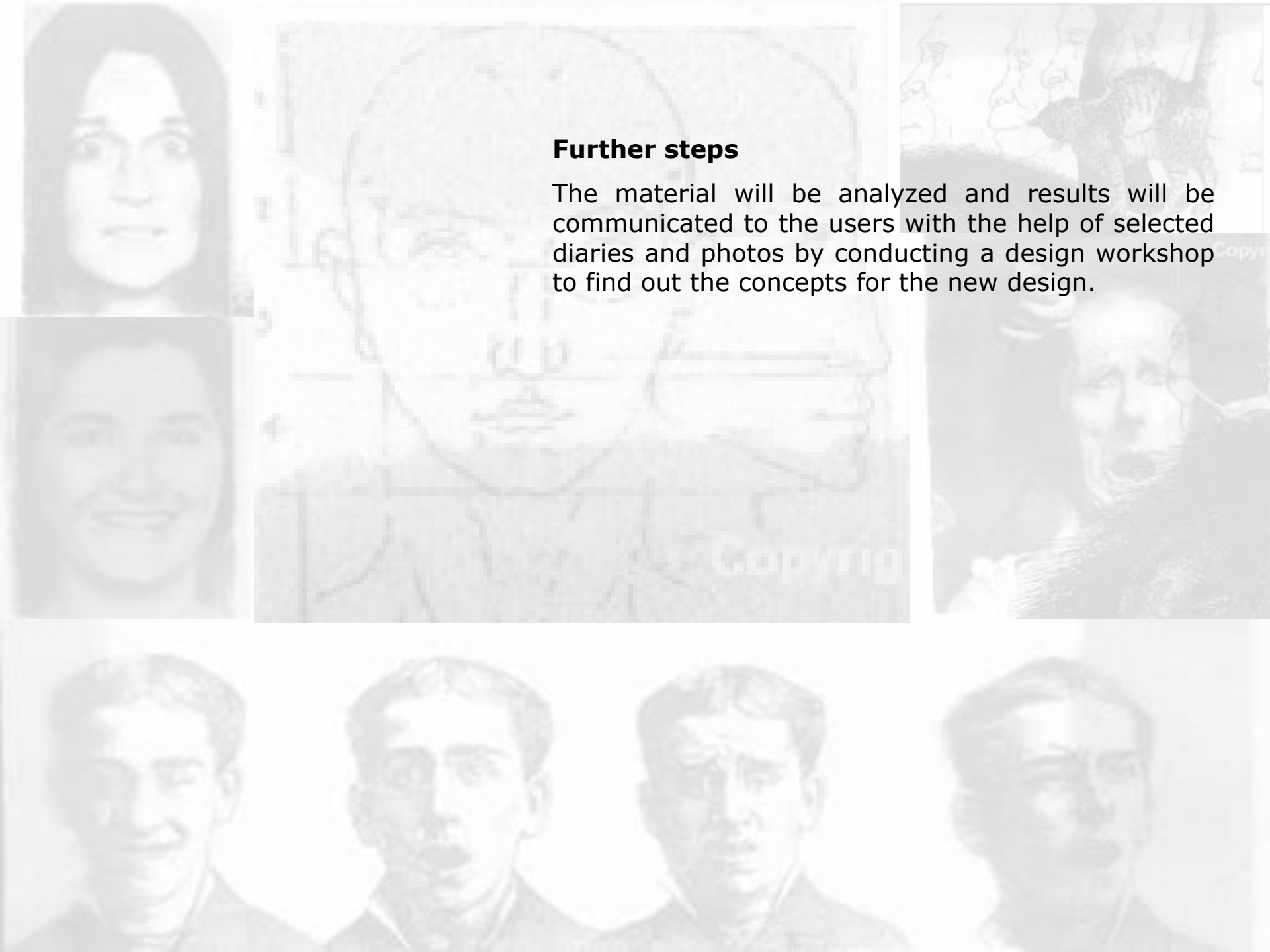
Experience

- The face to face meeting with the researchers and other people as well as the discussion will make the users feel more **involved and interested** about the study.



The users will make quick collage describing their ideal thoughts. The material consisted of pre-selected images and words of feelings, activities, environments and products.

- This will bring out the inner elicited emotions of the user and what he want to reflect and likes to see.
- The value of the collage is mostly in the explanation of the ideas behind the chosen pictures. When explaining their ideas they will be able to verbalize.

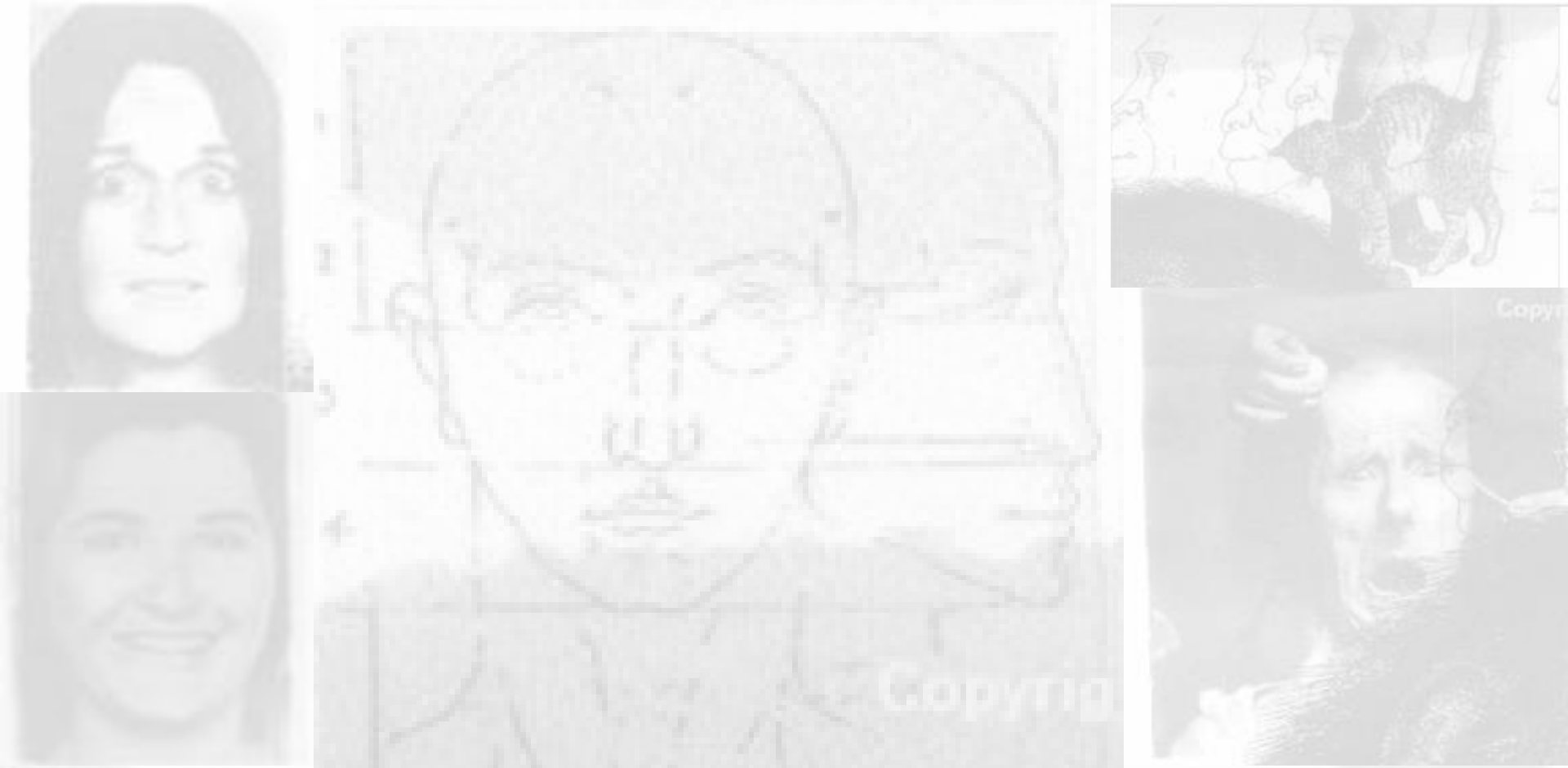
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Further steps

The material will be analyzed and results will be communicated to the users with the help of selected diaries and photos by conducting a design workshop to find out the concepts for the new design.

Conclusions

- These methods of studying people can **reveal their values, lifestyle**, how they take care of them selves, as well as what makes them feel good and how.
- This will **involve the user in the design process** and this simplifies the complexity of “**understanding user**”.
- This methodology of **emotive product form generation** will be helpful in **conceptualizing new design ideas**.
- The designer will be **matching with the idea in user's mind**. There will be no ambiguity.
- The designer will develop the product form according to the visual which is addressing the **emotional requirement perceived** in the user's mind.
- This help in generating **customized product forms** from the visuals provided by the user.
- User's aspirations will be extracted with this kind of **qualitative methodology** and designer will get a foothold for the directions in the form generation.



Thank u

