CHROMATIC TRANSFORMATIONS OF VISUAL INFORMATION AS MEANS OF COMMUNICATION

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Visual communication designers have the new tasks due to intensity of modern life and information overload. They need to upgrade the means of information visualization in order to receive information about a product or service and increase their perception.

In XXI century development of new technologies activated creation of various indicators and materials, which change the color due to the influence of external and internal factors. Dynamic characteristics of objects attract the consumers' attention. They also emphasize positive aspects of medical [1], food [2; 3], industrial [4], educational products, etc. These aspects are the most powerful communication signals with the consumer [2]. Study of design dynamic visual communications characteristics, which are based on chromatic transformations, requires further researches. It is the purpose of this work.

Color is the effective means of visual language formation. The temperature and time indicators give an opportunity to observe chromatic transformations during the products life. Their action is based on physical, chemical, microbiological and enzymatic reactions that depend on temperature and time conditions.

The common way to design chromatic transformations is to use the influence of temperature. Thermosensitive elements or coverings represent the reverse and irreversible processes of objects changes due to the influence of temperature. People use them as an indicator to determine of term of products use, as an indicator-trainer (e.g. thermosensitive stickers) or as the indicator of a person’s emotional state (e.g. mood rings with a layer of thermochromic liquid crystals [4]).

A company “Glass Dekor” applied the thermochromic color for design of vodka bottles “Khortytsia ICE” [3]. It changes its color when the air temperature is decreasing and has a reverse action.

Chromatic transformation of the image also takes place due to the water influence or high humidity. For example, we use books for child development to play in the bathroom. Book pages change color when they are getting wet. It makes it possible to get new information to the child quickly. Visual identification of products is important for quality control or humidity level control during storage and transporting. Color intensity informs about the level of getting wet and humidity level.
The new method of consumers’ attention activation is to use the chromatic changes of materials or coverings due to the sunbeams action (e.g. toys, magazine pages, etc.). The presence of light-sensitive elements allows painting the achromatic image.

The action of indicators in food products is based on physical changes, chemical or biochemical reactions that take place during set time. Their work usually imitates not microbiological changes but biochemical or chemical reactions that cause worsening of organoleptic properties of product. Such processes are effective to determine the timing of their damage. Static or dynamic chromatic transformation is the result of their change. It is a means of trust level determination in purchased products.

Nowadays we use the band-aids with rapid chromatic imaging of implementation processes of antibacterial strategy due to active research in the medicine field. Their dynamic coloring depends on sensitivity to bacteria. It is possible to identify a bacterial infection and choose the rational method of using antibiotics on the basis of the created colorimetric map [1]. In modern conditions chromatic messages appear on the medical packaging in order to avoid the use of expired medication. Perspective direction of design is creating of band-aid that masks its color as the human body color.

**Conclusions.** Chromatic transformation of visual information becomes an effective instrument for quick identification of other objects properties. Color changes due to the influence of external factors (temperature, water, sunbeams) and internal objects properties (biochemical reactions). Such design developments are based on interdisciplinary researches, so that it is necessary to involve the specialists from different knowledge areas to create them. The chromatic transformations using in order to increase of ergonomics and aesthetic descriptions becomes the perspective design direction of dynamic visual communications.

**References:**

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