

UNDERSTANDING THE 2.5TH DIMENSION: MODELLING THE GRAPHIC LANGUAGE OF PRODUCTS

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ABSTRACT

Recognizing a product of a specific brand without seeing the logo is difficult. But for companies it is important to distinguish themselves from competitors with a consistent portfolio, which will be easily recognized by their target consumers. The recognition of brands and their associated brand values can take place in different ways. In this paper a framework is discussed to analyze a brand at different levels of graphical dimensions. The proposed framework distinguishes the difference between graphics (2D), such as a logo or a text; form and shape elements (3D); and everything in-between (2,5D), which we will call 'graphical elements'. Examples of such graphical elements are the protruding letters on a beer bottle of Grolsch, the characteristic grill of a car or the illuminated apple in a Mac Book. The framework, based on the work of Karjalainen & Warell, was developed further within an educational setting. In an elective master course, students developed a product for a specific brand using the most remarkable design features of the brand. The results of the course showed that modelling the 2.5th dimension of the products actually had a great impact on the translation of the brand values of the analyzed brands into new designs. The integration of these 'graphical elements' is often underexposed, but this paper shows that they can play an important role in the recognition of a brand and its brand values.

Keywords: Visual recognition, graphical elements, brand identity, design semantics, 2.5th dimension

1 INTRODUCTION

Are you able to recognize a product of BMW or Apple without seeing the logo? For some brands it is easy. Apple for example is famous for their silhouette forms with round corners, and the minimalistic, highly intuitive and refined user interface. Recognizing this brand only by its appearance is very easy. But other brands, such as Philips or Samsung, are harder to distinguish, mostly as a consequence of their very broad product portfolio.

In the current 'experience-society' there is an overwhelming choice in consumer products. Consumers are flooded with a lot of products with the same functional characteristics, solely differentiated by a different product appearance, in the so called segmentation phase [1]. To distinguish yourself within this context as a brand from your competitors, you have to develop a consistent portfolio. This means that the products of your brand should have a clear visible language of form in order to be recognized by consumers. Through this design consistency, a brand can also develop a solid base to create new recognizable products [2]. In our research on the graphic language of products we try to develop a framework which will contribute to a better recognition of brands and their brand values. We distinguish different levels in recognition. It can be realized by the three dimensional shape of the product, such as using the same silhouette, or on a more detailed level, by consequently using the same color for a button. Besides the three dimensional form, a product can also be recognized by using a logo or a text. In fact the use of a logo is the most frequently used design element for brands in order to be recognized by consumers. In between those two levels, we identified a new area which we will call the 'graphical elements' of a design. These elements are somewhere on the borderline between two dimensional aspects such as the logo and three dimensional aspects such as the silhouette form. The grill of a car for example is a design element which can be quite remarkable for a brand. The cars of BMW are often recognized by their kidney-formed grill which is consistently used in their portfolio (figure 1). The use of this element will provide a better recognizability of the brand. Even though the

form of the grill has been changed through the years, it is still a quite remarkable element. Consumers are able to identify the brand more easily by viewing the front of the car with this graphical element.



Figure 1. Evolution of the BMW grille from very small almost rectangle forms (1979) to more smoothly kidney shaped forms (2004)

The application of these graphical elements seems to play a decisive role in the recognition process. To understand the effects of the different levels of recognition better we developed a framework, which is used by master students in an elective master course. The results of the course have been used to improve the framework.

2 COMMUNICATING BRAND IDENTITY

Products are a medium of communication between brands and consumers [3]. It's important for brands to communicate their brand values by using the right kind of associations in their designs. To evoke the right brand values, designers have to translate these brand values into forms. This can be done in several ways. According to Karjalainen [4] products can be designed to carry explicit and implicit design cues. Explicit design features are the most recognizable features of a product and recognition takes place when a brand repeats a certain kind of form language in the new product. When we take a look at the products of Ducati (figure 2 a,b), the V-shape in the main body, the triangle framework and the red colour are consequently repeated in the current portfolio of the brand. The implicit design features are the values of the product or brand, such as a 'cute' car or a 'luxurious' car. These elements are harder to determine [4-6]. These terms cannot be distinguished separately like the explicit features, but when we take a look at the complete product, they 'make sense'. For the brand Ducati these implicit design cues refer to high performance, powerful and dynamic styling. When designing a new product which is not in the current portfolio, the use of these explicit and implicit elements will help to incorporate the brand and its associated values. The brand and the product will make a new connection through the help of the specific design language (figure 2 c,d). The design of the shoe cleverly integrates all the explicit and implicit design cues: according to Barthes [7] the framework in the base of the shoe and the colour connotes to power; the V-shape reflects the dynamic styling with strong powerful lines. The delicate, exclusive forms and materials refer to the high performance of the brand.



Figure 2. (a,b) current portfolio of Ducati Motors, (c) Design of a USB stick using the characteristics of Ducati, (d) Design of a Shoe using the characteristics of Ducati

In order to develop the framework more, it is integrated in the master course "Graphic Language of Products". In this course students get familiar with applying two dimensional and three dimensional elements to their design to achieve a better recognition. They learn to analyze a brand and develop a new product which is not in the current portfolio yet. The first part of the course focuses on analyzing the identity of the brand. In the analysis phase the students have to specify the different levels of recognition and identify the most remarkable design features of the brand. The second part of the course is about translating the values and specific design features of the brand into a new product. In this phase the students are free to translate the brand into a new product on different levels, but they are not allowed to use the logo of the brand.

In order to help the students to define the identity and design characteristics of the brand, the model of Karjalainen & Warell [8] is used. This model provides a clear view of the most remarkable design features. However it is true that the model is based on a high level of subjectivity. Some of the groups analysed the same brands but came up with different design features. On the other hand the differentiation in the analysing phase is not a big issue, as long as if there are no contradictions in the design features. The differentiation of the analysing phase leads to different levels of translations into new designs. It showed that the resulting designs connect on a different level to the starting point, but still evoke the same associations. On the whole, for this courses purpose, the model succeeds to provide a clear structure for defining the brand identity, brand values and remarkable design cues.

3 CONCEPTUAL FRAMEWORK

The model of Karjalainen & Warell was used as the primary approach in the visual analyses of the product portfolio of brands. Besides that, the students had to define the visual language of the brand in more depth. As we take a closer look, we can identify different levels of recognition. To understand these different levels better, a conceptual framework was developed. This framework consists of three main branches: design features referring to three dimensional forms; two dimensional aspects like the material/colours and a logo; and associations (figure 3). The level ‘design features’ can be divided into three sublevels: the main form such as the silhouette form, medium design features such as a handle, and more detailed elements, such as a logo or buttons. In order to get a better grip on the brand, the students have to use this framework in their analysing phase.

These levels can also be connected to the main categories in the model of Karjalainen & Warell: the design features and the material and colour are explicit design features, referring to the brand’s style, and the associations are implicit design features referring to the brand values.

A company can distinguish itself with a consistent design language, by using one or more elements of the framework. By using more elements as visualised in figure 3, the brand is achieving a higher level of recognition.

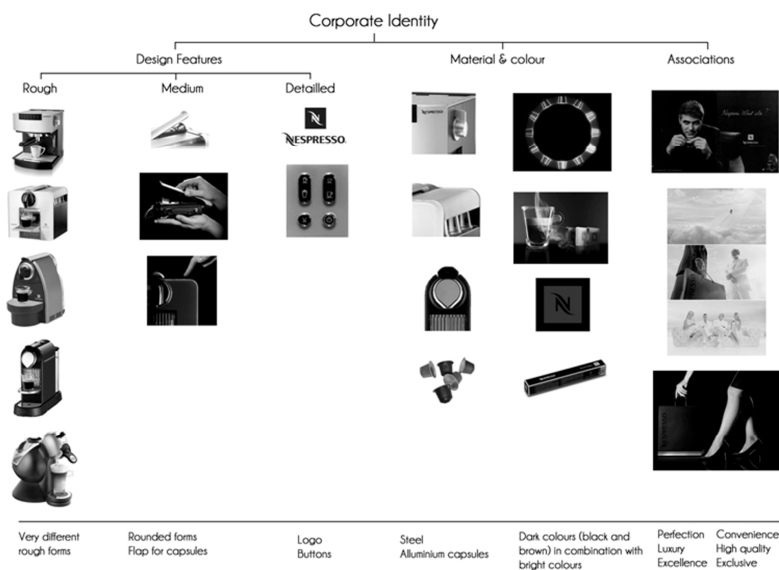


Figure 3. An example of students work; different (graphical) levels of recognition of Nespresso

To achieve a better recognizability the elements that are being used have to be congruent in order to communicate the same message. The products of Ducati show congruency in using the red colour and the dynamic forms to underpin the brand values ‘powerful’ and ‘dynamic styling’. In this case the explicit design cues (V-shape in main form and red colour) reinforce the implicit ones (dynamic styling and powerful). According to van Rompay [9] using congruency as a design tool will lead to products with a higher level of reliability and it shows that consumers are also willing to pay more for congruent designs.

Of course the history and the marketing efforts of a brand are also important factors that determine whether the consumer recognizes a brand or not. However the products of the brand Fiskars, a brand

that is not so well known in the Netherlands, are also very recognisable as a product family. The brand uses almost all levels of the framework to form a consistent portfolio (figure 4).



Figure 4. Products from Fiskars using color as most important recognition element

The most important design feature is the use of orange elements that are indicators of how to use the tools. Besides the matching colour and materials, the main form (the top of the frame and the cutting blade) of the cutting tools is also familiar. And on a detailed level the products occur to have comparable orange buttons. A short indicative study proved that people were able to associate these products from different areas (scissors, garden tools and kitchen appliances, see figure 4) to originate from the same brand.

4 2.5TH DIMENSION

Analyzing the results of the course, a new level in the framework is discovered. Besides the characteristics in the main form of a product and the use of a logo on a product, there are also elements that are more in between. As stated earlier, these elements are somewhere on the borderline between two dimensional and three dimensional form. So in the improved framework we distinguish the difference between elements such as a logo or a text (2D), elements such as a form (3D) and everything in-between (2.5D) which we will call ‘graphical elements’. With the graphical elements we mean for example the protruding letters on a beer bottle of Grolsch the characteristic grill of a car or the illuminated apple in a MacBook (figure 5). The elements mentioned are more than just placing a logo on the product. These elements are precisely integrated with the product and are part of the 3D design. Some of the products are more on the 2D side, others are placed more to the 3D side. The logo of Apple is quite close to the 2D dimension, however by using another transparent material it is still a 2.5th dimension. Overall these graphical elements seem to play a decisive role in the recognition of the brand.



Figure 5. (a) Grolsch Beer bottle with protruding letters, (b) Illuminated apple in a MacBook, (c) Classic gamecomputer of Xbox (d) New gamecomputer of Xbox 360

Another example is the Xbox Classic game computer of Microsoft (figure 5, right). The use of graphical elements directly visualise the vision of the brand (“games are **the heart** of Xbox”) into the design of the game computer. The X-shape with the green centre can be seen as a green mysterious heart that is beating in a powerful black machine. The new design of the Xbox 360 visualises also the X form but in a more abstract way. When we squeeze our eyes a little bit we can see a silhouette of the design that will form an ‘X’. The green heart is visualised in the front as the main button of the machine.

So a lot of products consist of a design language that is evoked by carefully constructed and arranged graphical elements. The examples in figure 5 show the existence of the 2.5th dimension, but it seems that designers are not fully aware of the consequences when using those elements. They do not use the

elements consciously. In our research we try to discover the effect of this extra level and we investigate how to integrate this level in an earlier stage of the design process.

5 RESULTS MASTERCOURSE

In the master course Graphic Language of Products, students have to design a fragrance bottle for a specific brand. The results show that the students were able to integrate the different (graphical) levels of a brand in a new design. The brand Ray Ban was analysed by two students (figure 6). They both defined the brand as authentic, iconic and glamorous. The translation of these brand values into the design of a fragrance bottle was however very different. The design in the middle is focussing more on the explicit design cues such as the main form of the glass and the reproduction of the colour scheme translated in a more literal way. The other design integrates the brand values of Ray Ban in a more abstract way, using the implicit design cues as starting point. The incorporation of the diamond shape refers to the values 'iconic' and 'glamorous'. The diamond is also protected by the glass, just like sunglasses are protecting your eyes from UV radiation.



Figure 6. (left) Ray Ban campaign, (centre) fragrance bottle using more explicit design features, (right) fragrance bottle using more implicit design features

The results of the course also showed a great impact in modelling the 2.5th dimension of the products. In figure 7 an example of a fragrance bottle for Puma is showed. The student decided to develop a range of four fragrance bottles that will form the logo of Puma when carefully placed together. The use of the bottle is not just for a single moment. It is meant to fit your active lifestyle throughout the whole day (7 AM – get up fresh, 12 AM – take a brake, 5 PM – sport and be active, 10 PM – Go out and seduce). The use of the logo in a more three dimensional shape in this design, is crucial in recognizing the brand. Together with the different flavours for different hours in a single day, this concept is totally breathing the values of the brand Puma. This example goes beyond just copying the logo in the design, it integrates the brand values, the logo and the three dimensional form into a new graphical 2.5D element.

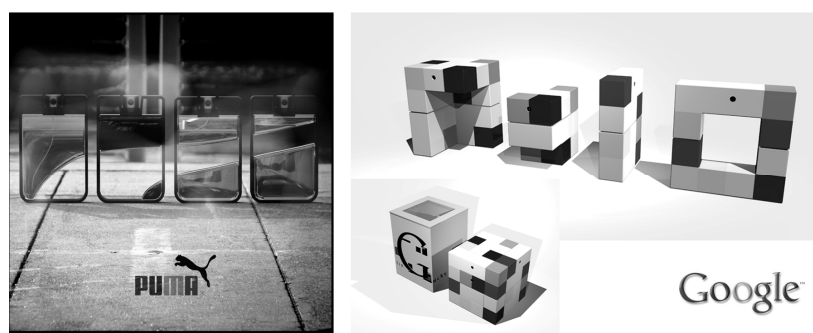


Figure 7. (left) Design of a fragrance bottle for Puma, (right) Design of a fragrance bottle for Google

Another example shows a fragrance bottle for Google (figure 7, right). This project was a little bit harder, because Google does not have a tangible product portfolio to analyse, but only an interface with the graphic design of a logo. The student translated the brand into a fragrance bottle by using the colour scheme and the simple forms that will remind you of a Rubick's-cube puzzle. The four bottles are meant for a family and together they form a simple cubic form. The bottles placed next to each other remind us of the logo of Google.

6 CONCLUSION

The results of the master course show that using the adapted model of Karjalainen & Warell was a successful way to determine the brand identity and to identify the specific design features of the brand. The students gained more insight into the product portfolio and learned to define the most remarkable design features of the brand. The translation of the research into the design of new products differs a lot from student to student. In some cases the use of the explicit design cues was emphasised more and other students paid more attention to the translation of the values of the brand. Because of the fact that students analysed the different levels of recognition using the framework, the designs in the end also show the different directions in recognizing the brand. It proves that the framework helps them to translate the brand identity in different ways. In order to gain more insight in the different levels of the recognition, the use of the framework was helpful. Students succeeded to decompose the products of the brand in the main categories. After analysing the results of the course the framework is extended with a new level of design features; graphical elements (2,5D) (figure 8).

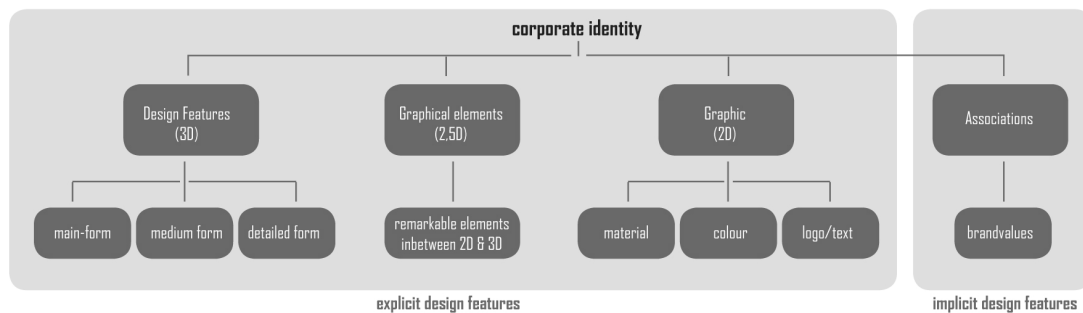


Figure 8. Improved framework

The new designs of the fragrance bottles also show that the 2.5th dimensional elements can play an important role in the translation of the brand values into new designs. Future work will be focussed on fine tuning the framework. The theory is still part of the master course Graphic language of Products and it will be tested and improved by students work. To achieve more usable results, we changed the set-up of the course a bit. In the next course the students have to implement the three levels of the brand in three designs instead of integrating all levels in one design. One of the designs focussing more on graphics (2D), the other design will focus more on form and shape elements (3D) and the last one is referring more to the 2.5th dimension. The results of this assignment will be used to test the recognizability of the different levels.

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