

SIGN IN THE MARKETING COMMUNICATION

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ABSTRACT: *The company sign or logo is an important tool for communication, impact, identification and connectivity. We have studied the influence of the sign over two particular products through examining the absorption coefficient, vibration frequency of the Lorentz oscillators, refraction of the light. We have made an experiment for the explanation of the essence and the mechanisms of influence, conclusion for the meaning and the application of the sign.*

KEYWORDS: *logo, sign, sign language, absorption coefficient, marketing communication, vibration frequency of the Lorentz oscillators*

Introduction

The creation of the company logo or sign is one of the most important steps in the initial phase of the development of every firm. It can contribute for the creation of a company image of the entity, which will distinguish it from the competitors, will attract and keep the attention and will have an impact over the audience and the whole environment. Because of the mass impact the last mentioned is a huge responsibility, which should be used with a lot of knowledge, enlightenment and awareness of connectivity. In this research we look at the sign as a sacred symbol. The sacred sign of family, state or spiritual practice exists thousands years back and are written on walls, plates, bread, flag and stamps. They have relation to the spiritual plan of the Universe and they are timeless perfection and reality. The sacred geometry simultaneously consist all the aspects of the language as a main tool for communication: 1. sound /vibration, consonance; 2. numbers, proportions and sequence of numbers; 3. archetype of geometric shapes/circle, triangle, square, etc. [1]. The scared geometry call the architecture of the Universe pure communication, because the body reacts to the vibration, to the rationality and the messages of the different shapes provoking different feeling/sensual knowledge.

Therefore some authors define the sacred geometry as the mind of the Universe, common language, omnipresent unity or integrity which makes it a harmonizing factor in the exchange. The marketing communication has a similar function and the end goal of marketing is exchange of all the benefits with all the stakeholders. The research and the approach used are determined from the following considerations:

- The author of trade marks Stefan Kanchev – the creator of the signs of Bulgarian National Television, Petrol, The Union of Bulgarian Artists, National Art Gallery, Balcancar, Bulgarian Science Academy, of publishing houses like “Science and Art”, “Technology”, “Education”, of Sofia opera, theater “Sofia”, puppet theater, received recognition long ago not only in Europe but also in the whole world. There are American publications with selected trade marks from all over the world and the majority of them are designed by Stefan Kanchev. In 1966 in New York is organized the first world expo of trademarks and the only Bulgarian with an impressive presence is Stefan Kanchev. He is included in the encyclopedia ‘Who’s who’ in the graphic design in a couple of consecutive editions. Possibly this is because Stefan Kanchev is inspired mostly from the Bulgarian spirit expressed in the folklore. Important fact is that he comes from an old family of iconographers. His father is an iconographer and this has a big influence over Kanchev’s worldview. He is influenced by the Bulgarian church mural, from the icon, the Bulgarian rugs and embroideries, stone sculptures in which the sacred geometry is present; [2]

- Symbolism is an ancient science. In the past almost the whole knowledge in the world was disguised by different symbols. According to a legend in the sign of the Bulgarian is encoded the ancient science “isometric”, through which people will have the ability to master the ancient knowledge for the harmony between the man and the nature, the universal formula for resolving the human contradictions. Every geometric shape has a different message. The circle in static, e.g., is completeness, perfection, unity, the triangle – might, stability, balance, the square – instability, concern. Through its

vibration the sign communicates at the same time with the people, the Earth, the space – it transfers information, it is a weapon, a link or a wire [1]. It acts like an antenna and changes the energy system of the body with which resonates, it becomes an emitter. Human DNA consists of icosahedrons and dodecahedrons [3]. Maybe the time has come to go back to the ancient symbols, the sacred geometry, to get to know them, to rediscover them, renovate them and live them again;

- Daniel Kage – master of geometry and sculpture from Vienna, reflects the connection between the nature, the Universe and the spiritual world, with his art he spreads the knowledge of the sacred geometry. He speaks about the inner connectivity with the nature and the important meaning of the ancient knowledge in present times. The sacred geometry reveals the secret codes of the Universe. The sacred geometric shapes are powerful mandalas which allow us to connect with the higher dimensions in order to keep the vibrating energy in one and the same frequency with the Universe and therefore to find inner peace / mandala – a Tibetan word for a wheel, integrity, circle of faith, awareness, expression of the heart which leads to self-awareness. Drawings joining together amazing figures and strict geometric shapes.

- We base this research on results for a study by professor Chavdar Kacaunov on the adaptometric / radiesthetic/ definition of the impact of the symbols orenda over the human bio-field (aura). He emphatically proves the ability of the symbols orenda to harmonize the human bio-field in cases of energy shortage and energy surplus;

- Our study of the impact on the absorption coefficient of water over different marketing tools—signs, slogan, attitude and clay, showed the most significant the influence of the sign. This provoked our interest in a deeper study of the impact of the sign on different solutions – water and clay solution 1%. We chose the sign orenda as an influence tool, because it is a sacred symbol which is defined as an unity of spirit, soul and body, integrity, freedom, initiation and desire for life, the basis of life. Orenda is a spiritual journey, concentrated intention for happiness, synchronized connection of the soul

(figure 1).



Figure 1. **The sign Orenda**

The main goal of this study is to find objective evidence and indicators for the influence of “the sign language” on a particular product. This will reveal the role of the sign, it will increase the responsibility in its use, the enlightenment and the professionalism in its creation. Our working hypothesis is that the sign changes the vibration of the object it acts on and therefore it has an impact on the consumer.

I. Essence of the sign

As a major element of semiotics the shortest definition of the sign is an abstract group of all the sensory receptive signals which are related to a particular object of the state of things. If we apply the definition of professor Kaftandjiev sign is everything we use to express something during communication. The company sign or or emblem is called **logo design**. It is a basic element of the corporate style and represents original drawing or image of the name and the activity of a particular firm, product brand or service. The design of a company logo can be created from a print, graphic image or a combination of both. The company or corporate identity in marketing is “the face” of the firm. It is expressed through the harmony of the advertisement materials, products packaging, trademarks, and also the messages. The logo and the complimentary graphic elements should be designed according a set of rules which determine the color palette, the prints, the outlook of the pages and other tools that ensure visual continuity and recognition of all the physical aspects of the object. The creation of a corporate identity starts with the design of a company sign (logo) – separately or in combination with a print (logotype), package of

materials for marketing corporate communication – business card, form, envelope, file, color image of the firm as well as designing all the additional materials needed for the marketing presentation. The nature of the symbols is matter studied long ago by the philosophy and the semiotics. But nowadays the most common notion is that the efficiency and the sense of a particular sign depends both form the receiver and the one who sends the message through him. If the “sender” is not familiar with the particular language of the sign, he would not be capable to express the message or he would create a wrong notion in “the receiver” of the message. Therefore in advertisement and the advertising messages is needed a deep knowledge and sense of the right and effective use of symbols, signs and their symbolism. The inability to send the desired message would lead to a failure for the particular advertisement and the creation of mistakes and possibly negative associations within the target group. The unique company sign (the logo) could be [4]:

- Logo **print** – the most common logo with a design focused on the text. It is suitable for companies who can easily and successfully visualize their activity through the text of the logo. Another reason for common use of the **logo print** could be the easy recognition of the products (services) by the written name rather than by one symbol (sign). Such logo are the trademarks Panasonic, Samsung, Sharp, etc.;
- Logo **letter** – Often it represents an abbreviation from the name of the company or the product in the cases when the initials are better interpreted than the full name or when the name of the company consist several words. Such logo are J & B, JPS, JPG, etc.;
- Logo **symbol** (sign) – it represents simple but strong graphic symbol harmonized with the company, the product or the service. It is suitable when the company activity needs an emblem which is correctly interpreted by the consumers. Such are the logo of trademarks like Blaupunkt, Nike, Apple Computer, etc.;

- Logo **image** (illustration) – graphic image (illustration) that includes a symbol and a text inscription of the name of the company/product.

II. Methodology of the experiment

In the Lorentz model the quantum analogue of the classic linear oscillator includes all the direct transitions between zones, all the transition in which the electron transfers from one energy zone to another without a change in its wave vector. The Drude model is applicable with metals in which the electrons are free and the quantum analogue of the classic oscillator includes transitions within the zone. The acceleration of the electrons under the influence of light makes them stay in the zone they are. With the acceleration their transition in a state with a higher energy does not depend on the wave vector.

The experimental setting for measurement of the absorption coefficient in the visible spectrum consist the following components: halogen lamp (1) with a stabilized voltage source 3H-7 (2), monochromator SPM-2, collimating system of quartz lenses (3), cuvette with the solution under study (4), cuvette-holder (5), detector Hamamatsu S2281-01 (6) and picoampere measurement MV-40 (7) (figure 2). The thickness of the cuvette used is $d = 0.995$ cm.

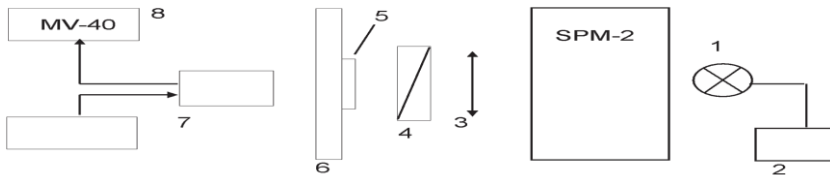


Figure 2. Experimental setting for measurement of the absorption coefficient $\alpha(\lambda)$.

The absorption coefficient is determined according the Beer-Bouguer-Lambert law $\alpha(\lambda) = (1/d) \cdot [\ln(I_0/I)]$, where d is thickness of

the sample, I_0 is intensity of the falling light and I is intensity of the transmitted light (figures 3, 4).

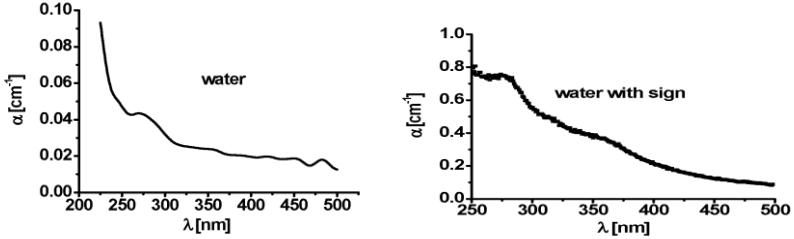


Figure 3. The absorption spectra of water solutions in the spectral region 200 – 500 nm.

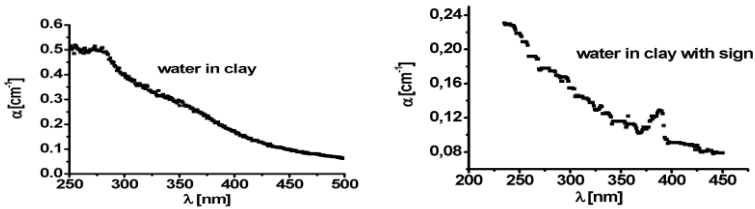


Figure 4. The absorption spectra of clay solutions in the spectral region 200 – 500 nm.

When the electromagnetic wave is distributed in an isotropic immersive environment, the absorption coefficient is represented as:

$$(1) \quad \alpha(\lambda) \approx [N\epsilon^2(\gamma/2)]/[2cn\epsilon_0m(\lambda_0-\lambda)^2 + (\gamma/2)^2]$$

The normalized curve of the absorption coefficient has the shape:

$$(2) \quad L(\lambda) = [\alpha(\lambda)/\alpha_{\max}] = (\gamma/2)^2/[(\lambda_0-\lambda)^2 + (\gamma/2)^2],$$

where

$$(3) \quad \alpha_{\max} = [\text{Ne}^2]/[2\text{en}\epsilon_0\text{m}(\gamma/2)].$$

Whether the curve is actually a Lorentz curve could be checked as follows: The dependence $L(\lambda)$ is reduced to linear through a linear correlation analysis.

Therefore the equality (1) is transformed into the equality

$$(4) \quad [(1/L(\lambda)) - 1]^{1/2} = [\lambda_0/(\gamma/2)] - [1/(\gamma/2)]\lambda.$$

λ_0 is own wavelength oscillation of the oscillators per one unit of volume, and γ is coefficient of attenuation which accounts the loss of energy in the vibration of the oscillators. If $Y = [(1/L(\lambda)) - 1]^{1/2}$,

$B = [\lambda_0/(\gamma/2)]$, $A = - [1/(\gamma/2)]$ and $x = \lambda$, then we can write down the following linear function $Y = Ax + B$ (figures 5, 6).

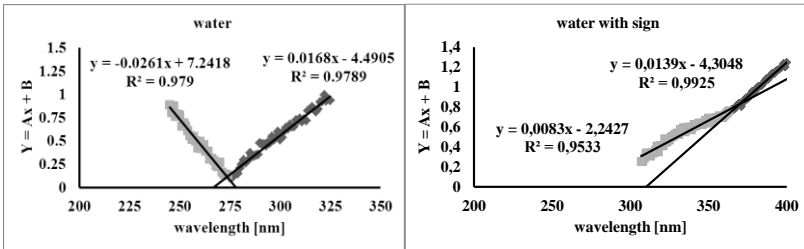


Figure 5. The experimental dependence $[(1/L(\lambda)) - 1]^{1/2}$ for water solutions.

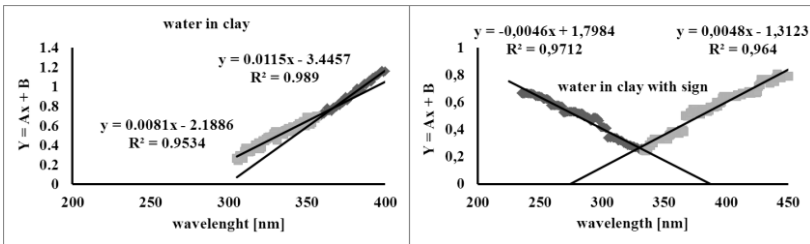


Figure 6. The experimental dependence $[(1/L(\lambda)) - 1]^{1/2}$ for clay solutions.

If the coefficient of correlation is $R^2 = 0,98$, then the probability P would be 0,95. At the end we can conclude that the dependence between Y and x is linear and the curve is a Lorentz curve.

For the absorption coefficient and the related Lorentz curves of water, water after the influence of the sign orenda, clay solution and clay solution after the influence of the sign we have the following results.

Table 1. Summary of the research results

Object of study	water	water and sign	clay solution	clay solution and sign
Absorption coefficient [cm^{-1}]	0,09	0,8	0,5	0,23
Frequency of vibration of the Lorentz oscillators [s^{-1}]	6,85	5,18	5,23	5,66
Ph	7,3	7,36	7,38	6,96
the frequency of fading dipole oscillator ω_0 [s^{-1}]	$6,85 \cdot 10^{15}$	$5,18 \cdot 10^{15}$ *	$5,28 \cdot 10^{15}$ *	$5,66 \cdot 10^{15}$

The analysis of the results shows the following (table 1):

1. Water has a low absorption coefficient and high vibration frequency of the Lorentz oscillators, which means that electrons are on high energy levels and do not absorb. The structure is chaotic and unbalanced;
2. Water and sign have 8 times higher absorption coefficient and lower vibration frequency of the Lorentz oscillators, which means that electrons are at low energy levels, it is needed more energy from outside to get them on a higher level and to start secondary emission. The wave length is increased. This means that the structure is in equilibrium and it is balanced;

3. The changes in clay solution are similar to those of water and sign, but in terms of quantity the structure of water and sign is more balanced. The influence of the clay and the sign on the water is identical, but the sign is more powerful.
4. Clay solution compared to the previously accounted influence of the sign on object, decreases the absorption coefficient and increases the vibration frequency of Lorentz oscillators, which means that the structure loses its balance. The explanation is the one-direction action of clay and sign, they start fighting each other when they are together, they decrease the power of the impact of the sign because the spectrum structure of the clay is balanced. Compared to water this object is also more balanced, harmonized and in equilibrium;
5. The analysis of the change of Ph proves the above mentioned conclusions, as the sign and the clay make the object more alkaline, e.g. pore useful.

III. Conclusions

1. The sign or enda has a very significant influence on both products and it also balances and leads to equilibrium the spectrum structure. The degree of influence is different and depends from the structure of the object. The mechanism of influence is a change in vibration frequency in the Lorentz oscillators. The result from the influence fully complies with the description of this symbol. Similar influence is positive not only for the product and its consumer but also for the whole environment.
2. The usage of symbols from the sacred geometry in the design of a sign not only improves the communication with the consumer but also changes his spirituality and harmony, contributes to the transformation of the Earth of a better harmonized place for living. The sign becomes a unique energy print of the company.

3. We need to study and apply the sacred geometry, to further explore the influence of the different geometric real company signs on one and the same object.
4. The results from the experiment prove that the sign can have a significant role in salesmanagement in two aspects:
through direct communication of the sign and its impact on the optic abilities of the product;
through added value to the consumer value of the product.

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