ANALYSING THE ONTIC LAYERS OF THE DESIGN PRODUCTS

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Abstract

All being has something that shows itself even if one does not see it. Daily objects that exist may be seen as just the things that one uses. However, being for usage is only a form of data, not a form of being. Seeing that being will be possible only by communicating with possible things in the being in a way that complies with its ontic structure. This is because comprehension of ontic entirety makes it an obligation to propose a method that will analyze entirety and help us understand design products better. This paper attempts to propose a New Ontology-based method of ontological analysis to describe the polyphonic structure of the design product that shows togetherness and singularity in its plurality into three layers on a homogeneous real (physical) level and four levels on a heterogeneous irreal (spiritual) level.

1. INTRODUCTION

In this study, I will consider the product of design as an object of knowledge and investigate the process of its creation, and the layers of being it hold via the discourses of New Ontology (NO). Although NO and its discourses have not received the representation they deserve in the design literature, NO's different approach to the process of creation and its ontological analyses of the work that arises as a result of creation has the quality to lead design studies. The motivation behind this daring enthusiasm of mine is my belief in this potential of the NO approach towards our understanding of the creation mechanism of design products. One of the things I am sure of is that there certainly are some shortcomings in my discourse. However, it is also clear that these shortcomings will set a positive basis for valuable discussions towards the future.

As the discourses of NO have not been investigated in the design literature so far, in the first section of my discussion, I will analyze the approach of NO on the concept of being in a particular way. In the next section, I will discuss the humane act of creation by staying loyal to the opinions of Nicolai Hartmann, who was one of the prominent representatives of ontology. In the last section of the study, I will consider the design product, which is a result of the process of creation, as an object of knowledge, and discuss what its layers may be in the ontic sense.

As my discourse is based on the discourses of ontology, it becomes indispensable that ontology will be discussed in detailed in order to create satisfactory content. For the reader to have a sound understanding of the issue, I will try to present a context that is long but simplified in the first section. As our subject is the design products, I will try to use an example from the field of design regarding ontology discourses, as well as images. Because the NO literature is mostly in German, I will pay attention to providing the German equivalents of terms regarding the terminology the reader might not be familiar with.

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2. WHAT IS NEW ONTOLOGY AND ITS COUNTERPART IN THE FIELD OF DESIGN?

The subject of ontology is being. Ontology is concerned with the fundamental reasons and principles of being and investigates them. In summary, the subject of ontology is everything about being. Historically speaking, we see that philosophy approached the issue of being in two ways by taking idealism as a basis. First of these is subjective idealism. Subjective idealism is sometimes called *mentalism* or *phenomenalism.* Subjective idealists (e.g., Descartes, Berkeley, Kant, and Fichte) do not deny the existence of the real world; however, the real issue is how it will be interpreted. Existence of a real world that is independent of a subject is out of the question. Therefore, anything that is is the mind and its realizations. According to Berkeley, who was a significant representative of this approach, no perception or object can be without a subject [1]. In a sense, the subject (mind or consciousness) creates its objects. What the subject sees and thinks of is dependent on the mind, and thus, the world is a mental world. On the other hand, objective idealism opposes the idea that the outer world is human-made. The subject is not in the center for objective idealism; a being already is but the subject perceives only a part of it. According to the supporters of this view (e.g., Plato, Schelling, Hegel, and Hartmann), the mind and the consciousness discover what already is. The way NO constructs its theses is this objective idealism.

According to Hartmann, the founder of NO; what is, and the object as a consciousness correlates are different things, that is, the being and the perceived are different things [2]. Discussion of being in ideal forms never provides all knowledge about the real being. This would only be a logic based on it. This is because being is broader than the field of perceived objects, and things that are known are always only a part of what is. What is may only be made an object by a knowing subject? Hartmann called this process *objektum.* However, "what *is*" already is without an object of knowledge. The perceived data is generally only the surface of being; it is external. The actual being is the inside of this external thing. It is the thing that cannot be turned into data that is not secret. In summary, Hartmann asserted that we might perceive only a part of being as humans, and it is a limited and incomplete definition for us to see the actual being and what we perceive as equivalent, that is, limit it to the world of objects as a result of objektum. This leads to the following conclusion: We perceive only the part of the real being that it makes visible for us (phainesthai) within the limits of our perception, and turn the part we have perceived into knowledge. Therefore, what we call knowledge is a partial representation of real being, it does not represent the entire being, and it is not what actually is. All that we perceive today is the form of being that has been made into knowledge, what is already is without being perceived by us. Hence, this approach separates NO from subjective idealism, and it means the expansion of knowledge and that the circle of objects we know is ever-expanding.

The first job of ontology is to explain what is as it is with all its generality. Then, what is being according to NO? According to NO, being and what *is* can be neither defined nor limited. Indeed, being and what is are ultimate. As they are ultimate, they cannot be endowed *substantiality*; it should be accepted as it is, and there is no need to look for anything underlying it [2]. Nevertheless, what underlies being had always been questioned. Being was defined by Aristoteles as *ousia* and *eidos*, by Plato as *idea*, by Kant as the "thing in itself" (*Ding ans ich*), by Berkeley as mind, by Hegel as absolute *Geist* (spirit and mind together), by Schopenhauer as freedom (*die Freiheit*), and by Husserl as pure-self (*reines Ich*). NO accepts being as being, but accordingly, being shows plurality and stratification. Behind the effort of NO to describe being, there is the purpose of describing types of being, categories of being, and layers of being with all aspects. With its entirety, being is a stratified construct in ontology, that is, it is a heterogeneous construct consisting of steps. According to Hartmann (1949), layers of being are listed as an inorganic layer (*anorganisches Sein*), organic layer (*organisches Sein*), psychic layer (*seeliges Sein*) and spiritual layer (*geistiges Sein*). This is a pyramid-like construction, with the expansion being reduced from the inorganic layer to the spiritual layer (Figure 1). In these layers, in addition to basic categories of being that are related to the whole and valid for each layer, we also see special categories of being called novum [3]. The inorganic layer which is the first layer of constituting the floor of the pyramid of layers, and it is the layer that covers all space that is intertwined and not graded (e.g., space, substantiality, causality). Above it, there is the organic layer. It covers a large pool from the simplest single-cell organisms to humans. An organic layer is a form of the inorganic layer that gained a capable shape, and physical rules in the inorganic layer also apply here (e.g., finality, organic system, metabolism, homeostasis). There is consciousness in the psychic

layer. The critical issue here is that this is not a physical layer in terms of novum. The psychic layer is intrinsic, and it does not occupy space. There is an exchange of state between the organic layer and the psychic layer, and this exchange creates a substantive distinction (e.g., act and content, consciousness and unconsciousness, pleasure and distress). The last layer dependent on the psychic layer is the spiritual layer. This layer forms the world of culture and history (e.g., thought, cognition, desire, freedom, valuation, and personality). The novum that distinguishes the spiritual layer from the psychic layer comes from its composite structure. This layer is formed by the spiritual lives of individuals that come from their togetherness. In NO, the spiritual layer is expressed in three pieces (Figure 1).
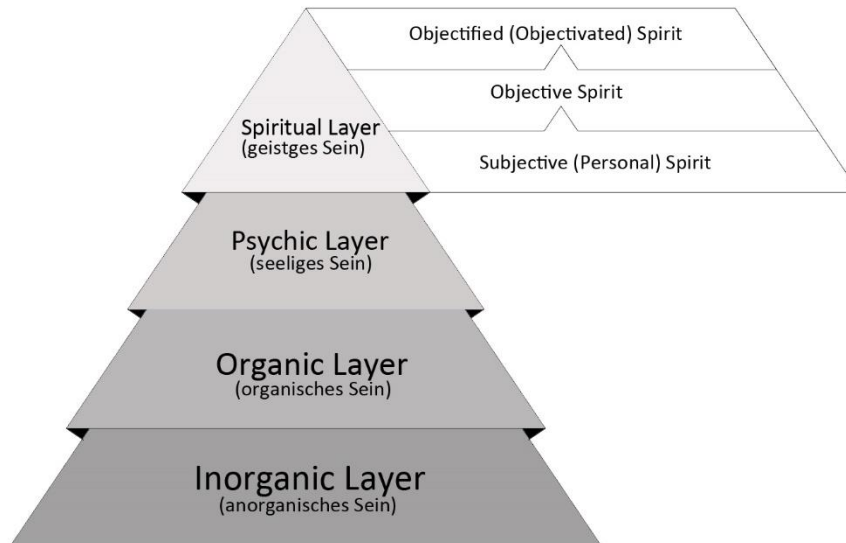

Figure 1. Hartmann's layer system of Being [3].

The first one is the personal spirit. Personal spirit is consciousness about ourselves. Like everything real, the personal spirit is characterized by temporality and individuality. A person is a being that knows and acts, and this forms the fundamental characteristic of personal spirit. Objective spirit is a gathering of personal spirits. Being of history and culture is formed by this gathering. As it is temporal, it is a real being. According to Hartmann "…it is the union (*Ineinssein*) of objective spirit and personal which constitute the real world of spiritual life" [3]. The third piece is objectified spirit. The association of substance and spiritual being occurs in this spirit. Many things that are human-made such as art and design constitute objectified spirit. A spiritual content occurs in an object in objectivation. The thing that is in the thoughts of the individual becomes an object in their actions via objectivation. Hartmann defined this as *objektivation*. As objectified spirit is not temporal, it is irreal. Objectified spirit only lives through the living personal being that will comprehend it, establish a connection with it. At this stage, I would like to address an example of this complex structure to take shape in the mind of the reader. As it is known, whether they are an artist or a designer, a creative individual has a purpose for creation. They want the living spirit they have objectivated in a particular substance to affect another subject, establish a connection to a subject. For this interaction, the artist of the designer performs a creation with message concerns. For example, let us discuss the famous 1942 oil painting of Edward Hopper titled Nighthawks (Figure 2).

Figure 2. Edward Hopper, *Nighthawks*, 1942 (*Source:* Art Institute of Chicago Building).

This work that physically exists is actually the form of the sum of the artist's personal spirit and the subjective spirit he was in and affected by, which came into being in an object, that is, the emergence of spiritual content in an object; objectivation. The thing in Hopper's thoughts became an object by occurrence and his creation. Spiritual being found an external object that is suitable for itself. Therefore, Nighthawks is before us as both real (physical) and irreal (spiritual). The spiritual being of a work does not exist by itself. It exists for a subject that will perceive it. Although Hopper is not among us anymore, the spiritual being of Nighthawks continues to live independently from him. It pulled itself from Hopper's fate; its spiritual being will exist again and again as long as there are spirits that comprehend it. While Hopper created the work once, there are multiple subjects to perceive it. Even this study is in contact with Hopper's irreal spiritual being as long as it discusses Nighthawks. This situation is the same for products of design that are objectivations, carry spiritual being, and turn into objects of knowledge.

In the following sections, I will discuss what the counterparts of the NO approach that I summarized so far in the field of design with examples. Indeed, the design is a process of creation. An object of knowledge emerges as a result of this creation. Creation and survival of this object of knowledge is dependent on the knowledge it contains. Then, how does the creation and survival mechanism of this object of knowledge work based on the understanding of NO?

According to NO, the knowledge that the designer will use in the design process is formed through the designer's perception. The designer objectivates a part of the being that they can perceive and makes it an object of knowledge, or if there is a contribution to their creative act, design knowledge. This design knowledge has two components. The first is the personal spirit. Personal spirit is *sui generis* for each designer because the personal spirit of the designer also covers implicit knowledge of the designer that is not transferrable. According to Croce, the work that arises as a result of creation occurs and ends inside the creator, the creator cannot experience the emotions experienced during creation again, and the same emotions cannot exactly be felt by anyone else [4]. The second is objective spirit. Objective spirit is collective and related to the time and culture the designer is in. According to Schelling, the period and society the creator lives in are influential on the creator's formation of creative work [5]. Events that take place in the society cannot be repeated in an identical sense. The first issue here to be concerned about in terms of NO is that not only personal spirit, but also objective spirit that also affects personal spirit are real beings. This is because both are temporal and contemporary. The second important issue is that design knowledge represents only a part of being as it is a correlate of consciousness. The ability of the designer to subject only a part of being to objectivation, that is, form only a part of being as data, actually constitutes the first condition for continuity of the process of design. It is forming only a part of being as data creates incompleteness in the representation of being. The process of design progresses through ontological assumptions adopted by the designed within their knowledge of design. Therefore, design knowledge based on incomplete representation leads all processes of design to continue incompletely. At this point, while it

is subject to incomplete representation, one should now belittle the ontological assumptions of the designer or see them as dysfunctional. The ontological assumptions the designer has at the beginning of the process of design constitute a strategic tool for opposing the entirety of being that surpasses the limits of our perception. Several types of knowledge used in the design process is a result of objectivation. From the formal education that the designer received to implicit knowledge, they developed with practice, from consumer studies to user personas, and even from the knowledge created by design teams through team interactions to participatory design models, all knowledge that guides the designer in the creation process is the form of being that has become data. The thought of a design that creation is based on is the sum of knowledge that influences the designer's personal and objective spirit. For example, the knowledge that produces participatory design practices is real knowledge in that it is collectively contributing to objective spirit, and dependent on time and culture. Fictional user presumptions such as hypothetical persona approaches that aim to define potential users are perceptual contents that partially represent a heterogeneous crowd.

Design works are covered by objectified spirit. That is, design work is objektivation; it is the emergence of spiritual content in an object. According to Heidegger, a person who is aware of their existential being facilitates the emergence of the being of other objects [6]. This may suggest that design objects exist as other beings, and they need to be analyzed ontologically. All design works consist of a combination of matter and spiritual being. The designer forms a being by using personal and objective spirit, and this being objectivated itself. Thus, spiritual being has found the most suitable external object for itself. This is the design product itself. In the ontic sense, every design product consists of real (physical) and irreal (spiritual) layers. Among these whole pieces, the real being, the design product, carries the spiritual being. What I mean by spiritual being here is the idea of design or design thinking. The designer creates an idea of design within limits of their design knowledge. This design thinking exists in the design product, which is a real, physical being. What we call a design product with a layered structure is the carrier of the design idea/thinking. The designer transmits the design idea via the design product. Indeed, the designer creates their works for other people. He creates it for expressing own to others and the world, expressing the idea of design, and this expression uses a real language, which is the design product. A design product is there for a subject to perceive it. The designer wants to communicate with the perceiving mind through the product.

Personal spirit creates the design product once, but there are multiple subjects to perceive it. While objektivation is created by a single spirit, the spirits that comprehend it are multiple. The design product exists not only by itself but also by its designer and the subject that perceives it. Thinking of these as separate means that objektivation did not completely take place. The design product is data for the perceiving subject, a set of data, a basis, an origin. This is because, for design to be understood, it needs conscious audiences who will resonate with its spiritual being, it needs users; the subjects will create the outermost circle in the objectivation of the design product. The role of subjects with the design product, which is to reach the underlying spiritual being by resonating with the product, is a significant factor in terms of not only the designer but also the design product.

I want to provide examples regarding the famous designer Dieter Rams and his works. Rams is one of the few designers who structure the idea of design clearly and openly, and whose saying "less but better" (*weniger aber besser*) has been a source of inspiration for many designers. The "10 principles for good design" approach that is also known as "*ten commandments*" is the message that Rams tries to transmit via his works. This message constitutes his irreal spiritual being. His real, physical products are the carriers of this spiritual being. The chapter by Rams, *Omit the Unimportant* in the book named *Design Discourse: History, Theory, Criticism* edited in 1989 by Margolin is on a level that is perfectly descriptive in terms of the potential inferences of the discourses of NO on the field of design.

Partial representation of being discussed by NO and the problem of representation created by this is expressed by Rams as "The spectrum of people's need is often greater than designers are willing…" (p.111) while one way of overcoming this problem is seen as the participation of all elements, including the public that contribute to new product development [7]. On the other hand, the necessity of personal spirit and objective spirit that play an effective role in the process of creation is also among the discourses of Rams.

Rams explains his personal spirit guiding the design process as "my own experiences" (p.112) and "my design approach", and expresses collectivity and his addition of temporal objective spirit in his designs as "Our culture is our home especially the everyday culture expressed in items for whose forms I am responsible" (p.113) According to Rams, "Every manufactured item sends out signals to the minds and emotions" (p.112). Accordingly, products "talk" (p.112) and "express themselves" (p.111). With this discourse of message, Rams claims that the spiritual being he adds onto products reaches the user via the products. Rams summarize the job of products to carry messages as "They (*designers*) must transpose their insights into concrete, three-dimensional objects" (p.113). Then, did the spiritual being contributed onto Rams' products reached the subject that will perceive them? Undeniably, the answer to this question is yes, considering Rams' seventh principle of "good design is long-lasting." With this expression, Rams emphasized the irreality of spiritual being and suggested that the spiritual being held by good design breaks free from the temporal fate of the product that carries it. The design idea added to Rams' product by him resonated not only with users but also with other designers. For example, later designers such as Naoto Fukasawa, Jonathan Ive, Sam Hecht, and Konstantin Grcic stated that they were directly inspired by the idea of design living as a spiritual being in Rams' works [8].

Clearly, the philosophy of NO developed by Hartmann has serious correspondence in the field of design. Even further, NO provides significant opportunities for us to analyze design objects by dividing them into their layers. According to Hartmann, all creation facilitated by creative spirit consists of two layers [3]. They are the real (*vordergrund*) and irreal (*hintergrund*) layers that are found at the same time in the same object which create the polyphonic entirety of the design product. The following section will question the means of the method of ontological analysis in analyzing the polyphonic structure of the design product.

3.ONTOLOGICAL ANALYSIS OF THE DESIGN PRODUCT

Due to its heterogeneous structure, a design product may be a subject of analysis in different perspectives. In this section, I will instead explain the principles of the method of ontological analysis that is frequently used in analyses of artistic works by utilization of NO, and question the means of application of this method in the field of design. The initial usage of the method of ontological analysis that is prevalent in analyses of artworks may be traced back to Roman Ingarden [9]. However, it was Hartmann who saw works of art as objectivation and systematically discussed reality and irreality as a whole. However, neither Ingarden nor Hartmann did not subject the daily design object to analysis. To the best of my knowledge, the method I will propose here is the only Hartmann-style product-based ontological analysis method in the field.

According to Hartmann, the product of creative spirit is an objectivation, and there is a question of the emergence of irreality in reality [3]. Therefore, the product, which is an object of knowledge consists of two layers in terms of style of being. The first of these is the real layer that is perceivable, the front-end (*vordergrund*) structure. The other is the irreal structure given to us by comprehension, the back-end (*hintergrund*) structure. The real layer is homogenous as it is the result of sensible perceptions, and it does not show a stratified structure. It looks the same to everyone. However, the irreal layer is heterogeneous as it is related to comprehension, that is, cognitive level. Heterogeneity leads it to be divided into new layers. Each layer joining the irreal layer provides new depths that facilitate an entirety with each other incomprehension of the work. Thus, the existence of the irreal layer belonging to the work reveals the relationship between the designer who is the creator subject and the subject who perceives, and more importantly, comprehends.

Works of art distinguish works of design in a few aspects. Firstly, works of design have a function and a functional value. However, this functional purpose is not the only variable that determines the acts of design. Besides this goal, there is also an aesthetical purpose that determines the act of design. This aesthetical purpose is also a guide that leads designers as a purpose that is dominant in the practice of design. On the other hand, the thing we call design consists on one side of design, plan, or project created, and on the other side of its tangible occurrence, which is the design object. Therefore, for objectivation, the irreal layer needs a tangible structure. This real tangible structure is the design product and it constitutes the front-end structure. It what we call design project is also materialized itself; that is, it is also written down and visualized, the design project itself also become a real object and a front-end structure. In this

case, the design product consists of an irreal back-end structure and a real and front-end structure, whether it is materialized as a product or a project. Reproduction of industrial design products as tangible products in different times, does not disrupt their irreality, because the underlying irreality, which is the idea of design, stays constant.

If the underlying purpose of the act of design is to provide a message belonging to the spiritual being over a tangible object, perception of the message to be given is essential in the structure of communication as much as the message itself. How much the idea of design to be provided via the design object is perceived by the user, in other words, the resonance of the user with the spiritual being, is one of the problems of quality. A few reasons may cause this problem. The first of these is the problem of representation I mentioned before. While the creator presents their work, there may be incompleteness in the representation of the design knowledge they used and turned into data. The designer might not have analyzed the problem and the user sufficiently in the beginning stage of the project. As a second point, the designer might not have been able to objectivate the idea of design in a tangible object. That is, each element of the idea of design might not have been met in the tangible product, or it might be experiencing conflict. The third reason may be the inadequacy of the user to objectivate. The user might not have reached the design idea that is the spiritual being of the product. Indeed, while the designer conducts a process of creation from the level of spiritual being to the level of real being, the user conducts a critical reading from real being to spiritual being due to their design knowledge and experience. The fourth reason is a bit complicated. The heterogeneous structure of the user who perceives the design on a real level and comprehends it on an irreal level may affect the resonance. Sometimes, elements that were not put into the creation process by the designer consciously may be revealed by the user. Barthes defined these emergent things as *punctum* [10]. In his analysis on the art of photography, Barthes expressed the situation that beholding is in with two keywords: *studium* and *punctum*. Barthes defined punctum and studium as two concepts that are found simultaneously in a photograph but are entirely independent of each other. Studium defines the process of analyzing the photograph in terms of shape and content, interpreting it and liking or assigning value to it based on what we perceived. Studium is shaped and transmitted by the artist within a consciousness.

On the other hand, punctum is the meaning that attracts the person beholding the photograph first, penetrates the person and is internalized at that moment. While punctum is personal, it is a situation that need no explanation with its semiotic structure that gathers emotions together. Attempts to understand punctum start to carry us towards studium. As if the aura of the photograph, punctum is independent of the discourse of the photographer. Punctum is a pulse that gets to the viewer silently from inside the photograph, and shakes you when noticed. In product design, punctum is a consciousness correlate that is comprehended by the user but not projected by the designer. If non-projected punctums stimulated in heterogeneous users by a product can be collected later, they may turn into studiums that will create new richness in the next product.

Then, what are the layers of being in design works? I previously stated that a design product consists of two layers as real and irreal. I will firstly discuss the real layer that is perceived and homogenous, which is the front-end structure "that *is* by itself" (Figure 3). The real layer of a design product is divided into three parts. These three layers are hierarchically deepened towards the irreal layer. The first of these layers is the product composition that is perceived physically. The color, proportion and mass relations of the products are perceived in this layer. The second layer is the dynamic composition layer. In the dynamic composition layer, the interrelations of proportions or masses that constitute the product are perceived. The dynamic composition may harbour realities of the real world and functional obligations within. The third layer within the real layer is the purpose layer. In this layer, the purpose of creation for the perceived product, namely, its functional purpose is perceived.
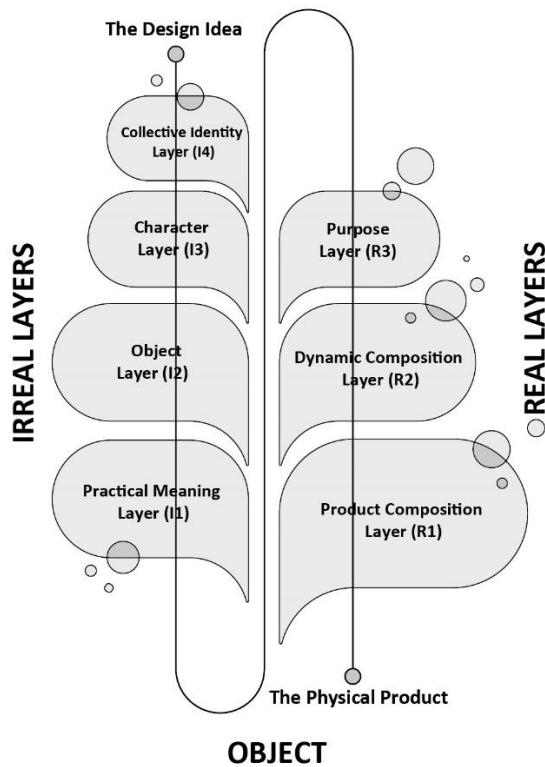
Figure 3. Proposed layers of being in design products.

The irreal layer of being that gives shape to sensible, real beings, namely the back-end structure, consists of four different layers. The relationship between form and meaning in a design object is established based on the relationship between the back-end and front-end structures in the ontological approach. Therefore, the front-end structure that symbolizes reality and the back-end structure that symbolizes the comprehension, meaning, emotion, and thought the world of the user constitute a whole. The back-end structure in a design product is the cultural being of the product. This cultural being is what shapes the real product. The first irreal layer in a design product is the practical meaning layer. This layer contains making sense of and comprehending the physical elements towards the solution of the practical goal, that is, the purpose. The second layer is the object layer, and in this layer, the parts where the meaning is the most intense are comprehended. The object layer is where the design product mainly differentiates from ordinary precedents. The third layer is the character layer. While this layer is a mental layer, the mental world, character, and life views of the designer arise in this layer. The last layer is the collective identity layer. In this layer, the product becomes a part of and a reference to a collective image. At this stage, the being of the product is incorporated with its belonging. The product that joins belonging does not disappear but creates a collective belonging along with others. This belonging may be a brand or a generalized design discourse.

I choosing the Dyson Cinetic Big Ball vacuum cleaner as an example to explain the layers of being in a design product in more details (Figure 4). The most important factor for me to choose this product was that the product's irreal layer could be noticeably read as it is a good example.

Figure 4. Dyson Cinetic Big Ball vacuum cleaner (*Source:* www.dyson.com).

4. ANALYSIS EXAMPLE: DYSON CINETIC BIG BALL VACUUM CLEANER

The main design philosophy of the firm Dyson is to account for form and function simultaneously. The main message that the firm wants to express on a spiritual level is the saying by the inventor J. Dyson, "I just think things should work properly." According to various studies, the underlying reason for the firm's success is its design discourse and aesthetical quality [11,12,13,14,15]. In the following section, I will first divide the Dyson vacuum cleaner into its ontic levels that I determined, and then, I will discuss whether the spiritual design discourse of the firm resonates with users or not, using customer comments on their online sales website.

4.1. Real Layers

4.1.1. Product Composition Layer (R1)

This layer is the layer where the physical composition of the product is perceived. The most primitive form of the elements belonging to the physical appearance of the product is perceived here. Masses and their proportions are expressed in the form of basic geometries. The colour and transparency are detected without any functional attribution. If we use our example, this will be read by the user as a grey sphere, and a transparent cylinder diagonally placed onto the sphere. Besides the main mass, a tube attached to it, and a rectangular piece on the tip will be seen. The product composition layer is the level where the product can be described to another person verbally in a simple way. Based on this description, another person can visualize the main lines of the product (Figure 5).
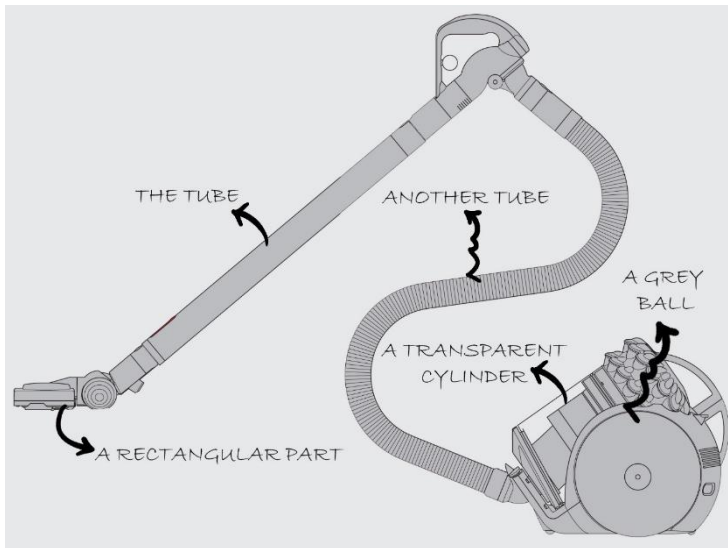
Figure 5. Perceived product composition layer.

4.1.2. Dynamic Composition Layer (R2)

The dynamic composition layer is the area where mass relationships are associated with the real world. Mass size proportions and relationships are described in compliance with the rules of physics. In the light of generalized experienced based on the past, statements such as "for it to stand up," "for carrying" and "for rolling" are read by the user on this level. At this stage, elements belonging to the product are described in a way that does not contradict the rules of the physical world. Regarding our example, primarily, the user will perceive that the tube-shaped structure is for transferring something, and the spherical structure is for rolling (Figure 6). As dynamic composition complies with physical rules, it is the main layer that determines product forms and justifies them.
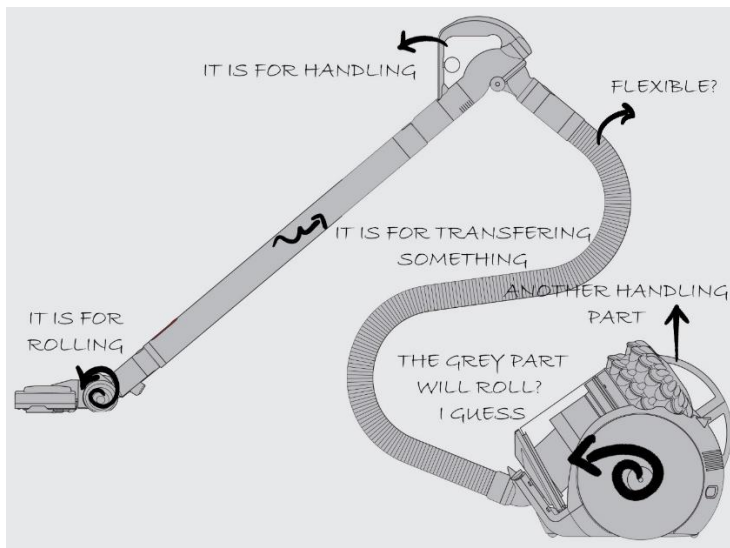

Figure 6. Perceived dynamic composition layer.

4.1.3. Purpose Layer (R3)

There is a primary purpose for all products of design. The inferences made in dynamic composition determine a purpose. This purpose is the main purpose of the product. In the purpose layer, the main purpose is reached instead of secondary purposes. In this stage, the user tries to reveal the purpose justification of

the product they contacted, by analyzing the probabilities of the existing product structure. Previous experiences related to similar forms make it easier to perceive the primary function, while atypical forms and compositions make it harder to perceive the main purpose. In summary, the purpose layer is the layer determining what the product is for. In our example, the user will perceive that the example is a vacuum cleaner based on their set of previous experiences (Figure 7).
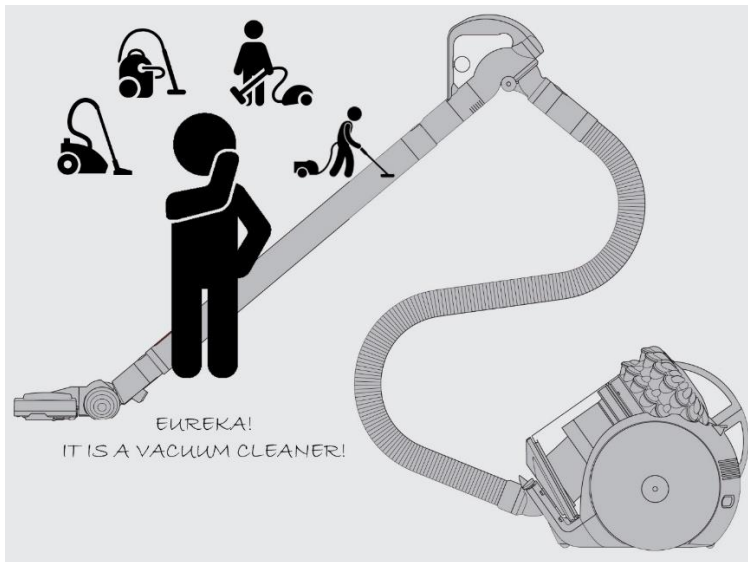

Figure 7. Perceived purpose layer.

4.2. Irreal Layers

4.2.1 Practical Meaning Layer (I1)

The practical meaning layer consists of the comprehension of product details towards practical purpose, exceeding perception. In this layer, the user examines product details, comprehends the purpose for each detail on a cognitive level. Distinguishing characteristics are easily found. As this level is a cognitive level, the user surpasses the perception of the messages the designer wants to express and slowly starts to comprehend. The product is now in a dialogue with the user. For the user, this stage is the area where the pleasure of discovering the product starts. The user starts to reach area of the opportunities provided by the product with its details, and the spiritual being buried into the real object by the designer starts to be revealed. Considering our example, the user will examine all details of the vacuum cleaner, and guess and experience what these details are for. In line with the skills of communication, they will establish over the details of the product, our user will focus on the product, for example, they will try to remove the dust chamber, put it back or try to test its ability of movement and performance by using it directly (Figure 8).
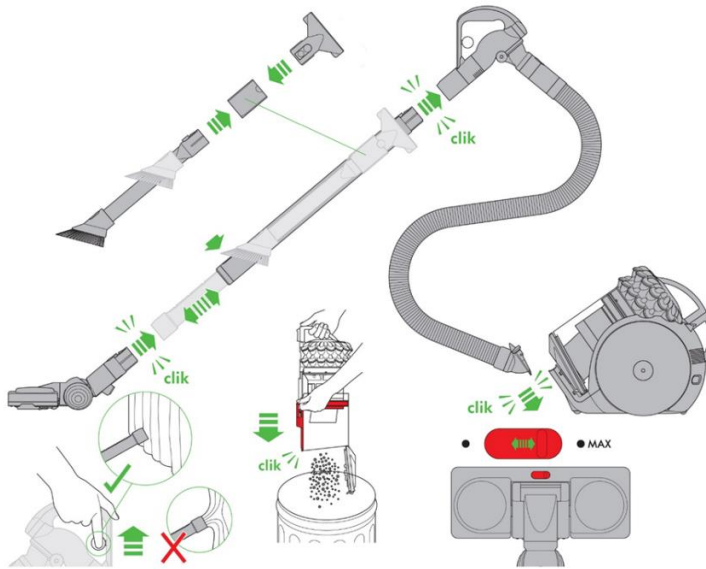
Figure 8. Comprehended practical meaning layer.

4.2.2 Object Layer (I2)

In the object layer, the user focuses on the meaning-intensive parts of the product if there is any. The details that carry the meaning of the product heavily are noticed. The parts that noticeably distinguish the product from similar examples are meaning-intensive areas. These parts are functionally and semantically comprehended. Meaning-intensive parts are distinguishing elements that carry the main design idea of the designer. They are the only and unique elements of identity regarding the design. In our example, the first meaning-intensive parts are the transparent cyclone dust chamber and the spherical body that increases movement capacity (Figure 9).
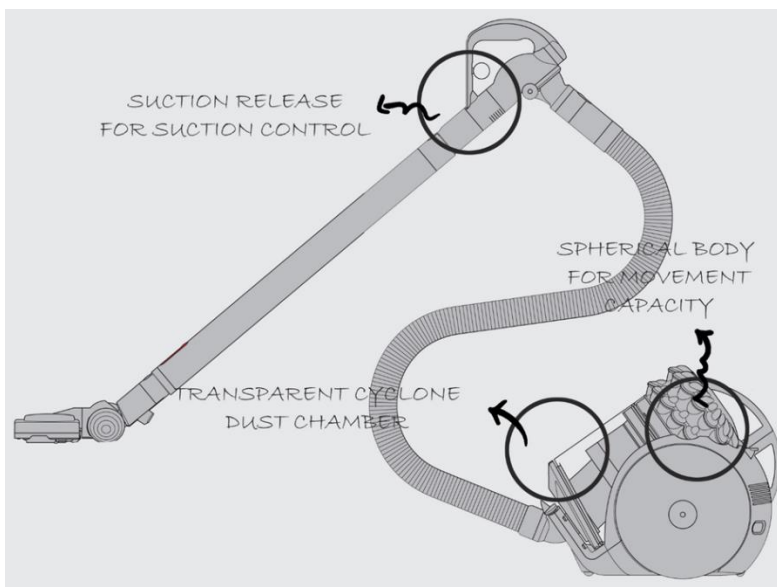

Figure 9. Comprehended object layer.

4.2.3 Character Layer (I3)

This layer is a mental layer, and the user tries to comprehend the mental world, character and life views of the designer. In this layer, the user tries to reach the personal and objective spirit of the designer over spiritual being. If the user has knowledge about the designer and is familiar with their discourse and previous products, the current product may be compared to previous counterparts. This stage is where the designer reaches the design approach over what is real. Even in case, the designer is unknown, the user tries to empathize with the designer over the product. Based on our example, if the user is familiar with J. Dyson, they will analyse the current product based on both his design discourse and his previous product, and comprehend the similarities and innovations by analysis. They will experience the pleasure of discovering the traces of previous products designed by J. Dyson on the current product and contact his personal and objective spirit that guided his design process (Figure 10). The design knowledge and culture of the user as a comprehending subject has importance in reaching the level of this layer.

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Figure 10. Comprehended character layer.

4.2.4 Collective Identity Layer (I4)

This layer covers the social structure containing the determinations and analyses made in the character layer and assessment of it in terms of the entire humanity. While establishing this connection, the user does not show a subjective approach, but they show an objective approach, at least in terms of the period they are in. In this layer, the product is considered in terms of its compliance and contradictions with its belongings. On this level, for example, any Mercedes C180 automobile is not seen as a C180 but as an image of Mercedes, and the total identity of the brand Mercedes is discussed and comprehended over the mass of users. The product is carried to a position of an intermediary object, and it is comprehended over its cases of belonging that become the main object. The spiritual level that the user desires to reach here is not the level of individual persons or products, but a metaphysical-universal one. Naturally, this level cannot be found in all products, but it is only revealed in iconic designs that are based on a strong collective identity. Regarding our example, now, what is essential is not the Dyson Cinetic Big Ball vacuum cleaner, but it is the entire product range of Dyson, and to go even further, it is a general view on life and a form of life (Figure 11).
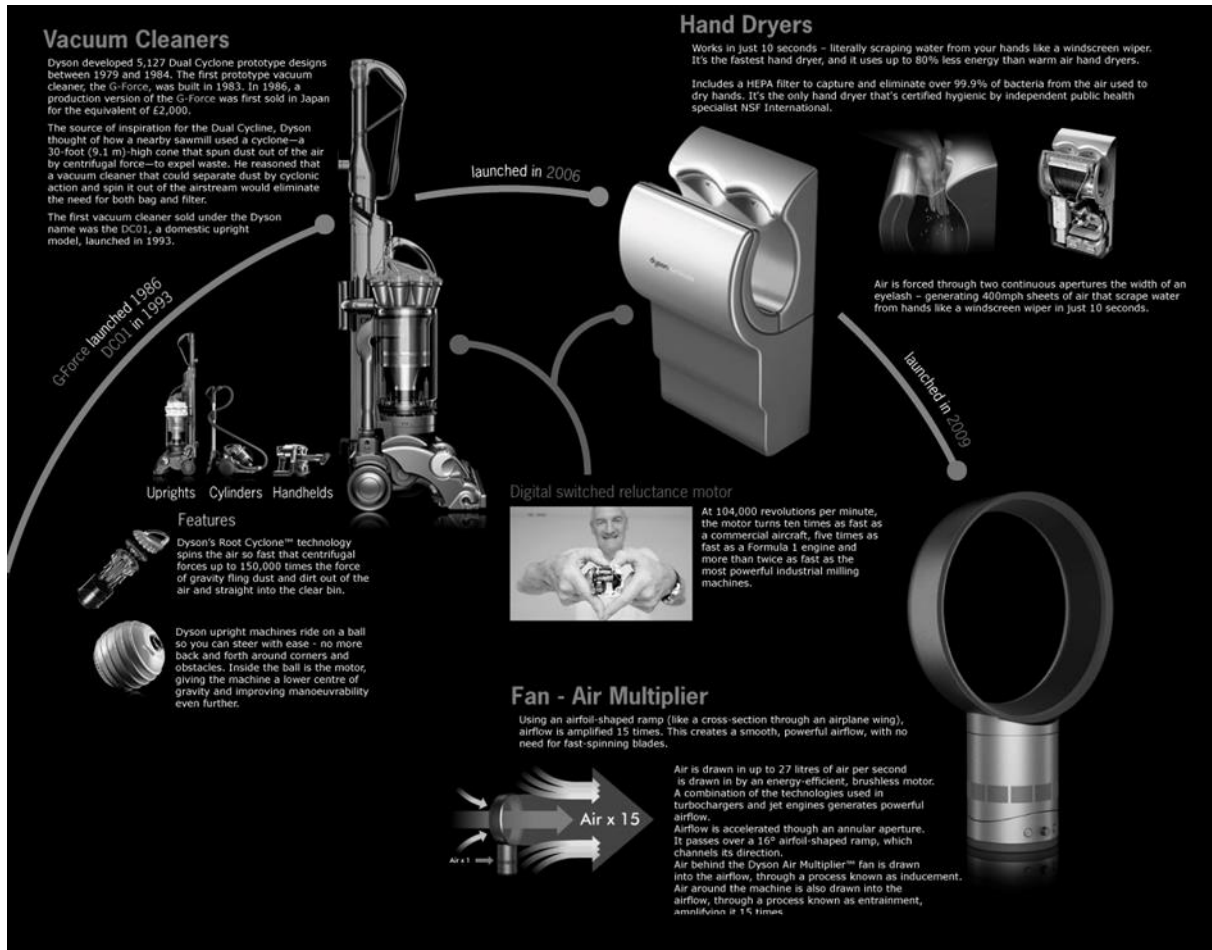
Figure 11. Comprehended collective identity layer.

As seen here, the front-end and back-end structures of the Dyson Cinetic Big Ball vacuum cleaner are intertwined, and its back-end structure layers are ordered from the simple to the complex, namely, from abstract to tangible. As long as the user analyses the product from an ontological perspective, each layer they perceive forms the knowledge that is accumulated. As the user moves from the real layers towards the irreal layers, their comprehension of the product gets deeper, and after a point, the user contacts the spiritual world of the designer via the product, and the spiritual being of the objective world that the designer is in via the designer.

This is a reality that the layers of the product change while moving towards irreality, they are not the same as the layers below, and they are separated from each other this way. The distances between layers vary, and while the distances between the homogenous real layers are short, the distances increase between the heterogeneous irreal layers. Therefore, passing through the irreal layers one by one requires more in-depth analyses by the user. There is substantive phase separation in the transition between the real and irreal layers, and while transitioning between the real and irreal layers, perception turns into a comprehension on a cognitive level.

As the layers are stacked on top of each other as in layers in the physical world, each layer is an anchor to the one above it. There is dependence extending from the lowermost categories to the uppermost layers, but not the other way around. This is caused by the function of the basis. Spiritual being does not take form without the lower layers. Spiritual being is not being by itself. Its comprehension is dependent on physical real being that will provide clues.

5. MAIN DISCUSSION AND CONCLUSION

In the part before this, I tried to explain the way that the philosophy defined as NO discusses being and divides being into layers of being through some examples. Within such a conclusion, the design product appears as a heterogeneous structure, and with the effects of the laws of being dominant on this structure, this stratified structure shows togetherness and singularity in this plurality. All design products are objects of knowledge with specific qualities and characteristics. These qualities become apparent in a real object by gathering under an idea of design, and they become a part of the real world. That we have a real design object in our hands, does not mean its irreal being that occurs through objectivation is not there. Thus, the spiritual being placed and located into the matter should be uncovered, saved from the limitations of the physical world, animated in the form of layers, and comprehended again by the user as a living spirit. This is because the spiritual content carried by a design object that is given form is based on the consciousness of the user, and additionally, this spiritual being may be made visible through the real structure by the subject comprehending it.

Undeniably, objectivation has a purpose. The designer wants the living spirit that he objectivated in material to influence a subject, namely a user, and wants it to be comprehended. Therefore, this study considers design objects as objects of knowledge and analyses them on an ontic level through their real and irreal layers that represent a wholeness.

In this study, I proposed within my own limitations that, a design product may be separated into three layers on a real level and four levels on an irreal level. Researchers who will pay attention to this style of analysis, will, of course, see the problems that I could not notice, add a new layer or expand the current recommendations. I believe that no changes will take place in the reality that is the essence of the study, in terms of the concept of irreality and the stratified structure of design products. Indeed, the spiritual being in a design product that is wanted to be transmitted by the designer is not a being that exists by itself. While there are the personal spirit and the objective spirit used as bases by the designer in the creation of the spiritual being, there will be hierarchical but holistic points that will set a basis for its ontic analysis.

The approach I presented here is not only limited to the description of a theory by itself, but it also brings about a proposal of methodology towards product and design research. This is because comprehension of ontic entirety makes it an obligation to propose a method that will analyze entirety and help us understand design products better. All being has something that shows itself even if we do not see it. Daily objects that exist, may be seen as mere things that we use. However, being for usage is only a form of data, not a form of being, and nevertheless, they will be beings. Seeing that being will be possible only by communicating with possible things in the being in a way that is in compliance with its ontic structure.

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