

The Semiotic Process of Design as a Creator of Existences

RAQUEL PONTE

Universidade do Estado do Rio de Janeiro (Brazil)

Abstract

This article aims to present, based on American Charles Sanders Peirce's philosophy (1839-1914), how creation in Design integrates elements of possibility, quality and variety present in Firstness with the generality of Thirdness, with the intent of shaping objects of human material culture in the Secondness of existence. Such products that result of Design projects can be understood as the exterior side of ideas and thoughts. We understand the development of a Design project, as well as the use of the designed object by the user, as processes of unlimited semiosis, in which signs generate increasingly complex signs in a process of continuous development. Thus, thoughts stimulate existences — material objects that permeate daily life and, as a result, human culture — which, in turn, generate new thoughts and actions *ad infinitum*. In this article, firstly the three phenomenological categories of Peircean philosophy will be presented, as they form the basis of all the philosophical architecture of the thinker, which includes his Semiotics or Logic. The doctrine of Synechism — or the principle of the *continuum* — will also be described. Synechism is a concept which permeates not only Peirce's Objective Idealism and Realism but also his Cosmology and Pragmatism. Based on this theoretical substratum, Design will be seen as a way of creating existences as well as a semiotic process, through which these material existences — concrete signs — will generate other signs. Taking into consideration the inherent semiotic characteristic of Design, we will analyze the components of the sign triad. Then we will examine how the designer, by intentionally creating existences in reality — in human material culture — brings about practical consequences for the experiential universe. We will demonstrate that Design, seen as a semiotic process, must take Esthetics and Ethics, according to Peirce's branches of normative sciences, as their point of departure, and that designers must bear both of these notions in mind when creating new products, which will integrate material culture.

Keywords: Peirce, Design, Fenomenology, Sinequism, creation, semiosis

1. PEIRCE AND FENOMENOLOGY (OR FANEROSCOPY)

The American philosopher Charles Sanders Peirce (1839-1914) graduated in Chemistry, but devoted himself to various other scientific fields during his life, among which Astronomy, Physics and Biology (Santaella, 2005:30). Despite having left an extensive work, Peirce never finished or edited a book. His writings are composed only of articles published in journals as well as manuscripts, all of which are kept at Harvard University. Even though some of the articles have been published in collections, most of the manuscripts — the major part of his work, it must be emphasized — have not yet been transcribed.

Best known for his studies in Semiotics, which he also called Logic, and in Pragmatism, he later renamed to Pragmaticism, he developed a complex philosophic architecture, which includes Phenomenology, Metaphysics, Aesthetics, Ethics, Cosmology, and other fields of study. Always in dialogue with other philosophers, he did not merely criticize the answers given by his predecessors, with whom he disagreed, but also showed new solutions that seemed better representative of the universe in which we live.

In his division of science, Peirce established Phenomenology as the first subdivision of Philosophy:

1. Mathematics
2. Philosophy
 - 2.1. Phenomenology
 - 2.2. Normative Sciences
 - 2.2.1. Aesthetics
 - 2.2.2. Ethics
 - 2.2.3. Semiotics or Logic
 - 2.3. Metaphysics
3. Special Sciences

According to Peircean thought, there is a descending order of abstraction in that division. The more abstract the science, such as Mathematics, the greater its capacity to serve as the basis for the less abstract ones. Thus, we can see that Phenomenology lays the foundation for Metaphysics and Normative Sciences, which include Aesthetics, Ethics and Semiotics — subdivision that maintains the same logic: Aesthetics provides the basis for the other two. Although Peirce established Phenomenology as a division of his philosophy, its categories permeate all his work, as they are modes of being of the observed phenomenon.

For many years Peirce searched universal categories to explain the multiplicity of **experiential** phenomena, not satisfied with the answers reached by other philosophers like Aristotle, Kant and Hegel. Therefore, Phenomenology, or Faneroscopy — term coined by Peirce to make a distinction from other developed phenomenology —, intends to make an inventory of the characteristics of *faneron* (Ibri, 1992:4), which can be understood as everything present to a mind, either concrete or abstract (a dream, an idea etc). Peirce concluded that the whole range of phenomena is reduced to three general categories: Firstness, Secondness and Thirdness. He defined *experience* as a result of cognitive life, and the corrective factor of his philosophical

thought. Thus, anyone can carry out phenomenological research. It is only necessary to develop three faculties: to *see* (to contemplate what is before the eyes without any interpretation), to *pay attention* (to distinguish) and to *generalize*.

Secondness is one of the most obvious categories in daily experience. As Peirce says, «we are continually bumping up against hard fact» (CP, 1.324), because we are always being confronted with reality, which escapes our control and is independent of our wish. The philosopher understands the concept of Secondness as this relationship of duality, the contrast between two things, an agent and a reagent. This experience consists of the idea of the other, of negation, of the non-ego that opposes the subject. Thus, Peirce departs from Cartesianism, because the ego derives from an opposition to the non-ego, and not from an original doubt. In addition to these concepts, the idea of individuality — singularity — is also implicit in Secondness, as the experience of action and reaction is always unique, not reproducible. In brief, we can understand the Second Category as a logical relationship of opposition between a Second and a First.

To Metaphysics, which seeks to understand what lies behind the phenomena that make things appear as they are, Existence is the mode of being of Secondness in the world, which serves as an explanatory hypothesis for our own individual character, a hypothesis based on direct experience, according to Peirce. Existence is, thus, characterized by its dual character.

Firstness excludes the experience of alterity. The First is what is without reference to anything else (Peirce, 2008:24): a quality of feeling, released of the flow of time, a suchness. Because it is outside temporal experience, it distinguishes itself from the facts, being only a state of consciousness, a possibility. To be in this state of presentness, it requires the capacity to see, which can be understood as contemplation or a poetic look. But this feeling is lost if the mind seeks to understand suchness, since analyzing is comparing (Secondness) and generalizing (Thirdness).

The category of Firstness can not be understood only as inner experience, as Phenomenology considers *faneron* everything that is presented to the mind, real or not. The variety and multiplicity of nature appear under the aspect of the First, as a manifestation of freedom. Spontaneity generates creation in nature, producing, according to Peirce's evolutionist point of view, the diversity of things. Firstness is itself a myriad of possibilities that can be actualized.

Thirdness configures itself as the category of generality or mediation in which a First related to a Second generates a Third. We do not understand, in Peirce's philosophy, generality in opposition to diversity, because the idea of diversity is included in generality, since Thirdness assumes Secondness, which in turn contains Firstness in itself. There seems to be a tendency in the mind — not only the human mind — to generalize a large number of phenomena in a concept, making them therefore more general (Ibri, 1992:14). Mediation is a synthesis, pointing to the future, providing a sense of cognitive learning. The cognitive component of this process is a representation, which Peirce links directly to the concept of Thirdness. Since the creative impulse is in Firstness, with its diversity, spontaneity and freedom to generate singularities in its multiplicity, the generality of Thirdness is the capacity of representing individuals and mediates future action (Ibri, 1992:15).

2. PEIRCE AND SYNECHISM

Thirdness configures itself as a condition for the possibility of thought, because mediation needs a real generality. Unlike Existence, which has only the mode of being of Secondness, Reality, besides its character of insistence against conscience, encompasses Thirdness, because such an insistence places Reality in a flow of time, and its apprehension presents a regularity, which requires mediation by an intellect to recognize the relationship between the occurrences, generalizing them.

Therefore, the philosopher extends the eidetic quality to exteriority by not confining the inner objects to consciousness, so that it is a condition for mediation. Peirce writes that «nature only appears intelligible so far as it appears rational, that is, so far as its processes are seen to be like processes of thought» (*CP*, 3.422). Unlike a conception that marks a clear separation between subject and object, Peirce understands internal and external as adjacent. The third category, as contemplated by the outside, is called Law; however, if looked at both internally and externally, it is called Thought. Thus, Reality has an intellectual nature.

Peirce rejects the independence between physical and psychical laws, arguing that matter derives from mind, a kind of mind exhausted by inveterate habits. The central argument of Peirce's Objective Idealism is the design of the material world as a form of mind, since it is equipped with habits of conduct in the form of natural laws. Both physical and psychical laws are general rules of conduct of individuals, with the difference that the former are crystallized habits, while the latter only make a specific feeling more prone to emerge. Breaking with the mind / matter duality, Peirce presents a key concept in his metaphysics: continuity, developed in its doctrine of Synechism (from the Greek *synechés*, continuous). Thus, there is continuity between mind and matter, as there is between the inside and the outside.

For the author, continuity is not a plurality of individuals (Secondness), but a generality, a mode of being of a whole, thus representing Thirdness because the ideas of learning, growth, intelligence and generality, all subsumed to the third category, presuppose a *continuum*. The individual, the discrete element, loses its identity in generality, making it impossible to identify its finitude in a *continuum*, since it is a discontinuity, permeated by Secondness. Therefore, the generality of a *continuum* is quite uncertain with respect to any individual. However, to Peirce, the notion of continuity is not limited to the category of Thirdness and is also applicable to Firstness in the concept of possibility. The possibility that has not been materialized yet, that is, achieved in existence, has a sense of uncertainty, since it is impossible to distinguish individual units without identity. Thus, both Firstness and Thirdness give an idea of generality, linking them to the concept of continuity, unlike Secondness, which refers to the discontinuity of existence.

We can see that the first and third categories must be inferred through the second one. It is in Existence that we can apprehend Firstness and Thirdness, since it is impossible to individualize possibilities not materialized and point to the general. One can only define what is determined, what is singular. Thus the relationship between the *continuum* of Firstness — Possibility — and Thirdness — Need — is established in the actuality of Secondness — Existence. As the Brazilian researcher Ivo Assad Ibri wrote (1992:111), *becoming real* requires, necessarily, its externalizing into a theater of reactions, which is the very condition of possibility of evolution: from dream to reality there is the passage through the chisel of Existence.

3. DESIGN AS CREATION

Design is a project-based activity that seeks to create products that are part of human material culture. These physical artifacts have the ability to represent the society in which they were formed as well as its time and its values. Thus, Design, as a creative field, works with the intentional exteriorization of ideas. The first phenomenological category shows itself in the myriad of possibilities for the realization of a project. Qualities can be arranged in a syntax subsumed to Firstness (Santaella, 2005). As Peirce says, all evolution proceeds from the vague to the definite (*CP*, 6.191), and a definition is necessary in order to bring out an existence. A potentiality not achieved therefore becomes useless. An idea of design that is not materialized in a product does not exist, because it does not advance from the level of Firstness to Secondness as a condition for intelligent realization. But existence involves choice (Ibri, 1992:84), and a whole series of possibilities suggested in the first stage of implementation should be discarded to make room for the chosen possibility that will be materialized.

The nature of freedom and spontaneity of the creative process, based on Feeling, refers to the abductive inference that Peirce suggested. Abduction, differently from induction and deduction, is the only real argument for innovation. However, unlike the Arts, which use the abductive method and do not require an empirical validation of what is produced, Design searches results, i.e. it aims to communicate objectively its message, to meet the needs of the customer and to fulfill them through its existing products. Therefore, in addition to Firstness, the creative process consists of the category Thirdness, because even though pure possibility, as potentiality, may be materialized in the future.

Reason, went to the third category, mediates our relationship with the hard facts, looking for their generality through their redundancy in order to better adapt to them. This mediation is reflected in the prediction of future events, so we can better prepare ourselves for reality. Design aims to transmit an argument to a person who will consume the product. However, because it is a process that requires high reproducibility — production on a large scale in most cases — Design wants to reach not just a singular individual, but a group that share similarities: the audience. Defining a target audience is generalizing, determining a general rule from which we can deduce the individual responses of consumers. Because efficiency is needed in the created piece, it is necessary to understand the general public — their desires, their needs, their codes, their repertoire — even knowing that not all elements of the group can react in the same way. But in an inductive process, it is possible to predict the likely response expected, which can only be proved through experiment, by carrying out tests or by using the finalized product. Furthermore, Thirdness it is also present in the concepts that form the basis for the creation of the piece of design, considering that Peirce associates a general meaning with the third category.

After the creation of the product, one can infer, through its existence, the possibilities of qualities and feelings chosen and performed, subsumed to the first category, and the generality of the concepts communicated as well as the generality of the public for which the piece is intended, since the objects of design are planned to be held in conjunction of Thirdness and of Firstness to generate Secondness. That represents the outline of Peircean creation (Walther-Bense, 2000:91).

For the viewpoint of the Synechism, we understand this determination of a piece of design as the outer side of an idea or thought, as subject and object are not disconnected elements in the Peircean philosophy. What exists is a *continuum* between interiority and exteriority.

For pragmatism, action is a stage of thought. But in order to not commit a mistake in the interpretation of the method proposed by Peirce — understanding the meaning of the concept as a variety of acts and reducing it to Secondness —, it is important to comprehend that the philosopher did not think that acts, which are more strictly-singular than anything else, could be the purpose or the proper interpretation of any symbol (*CP*, 5.402 n3). Peirce, in fact, associated the generality of a meaning with Thirdness, refuting the idea of action as the purpose of man and defending that action is what needs an end — this end being similar to general ideas. Understanding action as an end, disregarding the thought connected to it, would be tantamount to maintain that there is no rational purpose — an inconceivable hypothesis.

Thus we understand action as a mere exterior aspect of ideas — the end of a thought is an action whose purpose is a thought. Two implications flow from this idea: «[...] that concepts are purposive, and that their meaning lies in their conceivable practical bearings [...]» (*CP*, 8.322). There is something intellectual in the conduct of intentions that expresses itself in the rationality of thought in relation to a possible future. This *in futuro* being reaffirms the Thirdness that is relative to the conception of meaning already present in its generality.

The idea of continuity that transpires in the relationship of mind and matter, action and thought, interiority and exteriority, which are based on Synechism and Peircean Objective Idealism, makes clear the evolutionary trait of the philosopher. The determination of a piece of design in Existence by imbrications between Firstness and Thirdness in the creative process sets continuity in motion, generating growth and complexity. This materialization of thought in a product of design is the externalization of an internal sign to the world of Existence, considering that every thought is a sign in Peirce's conception. Thus, we can understand Design as a semiotic process.

4. DESIGN AS SEMIOSIS

Semiotics, though confined to the third subdivision of Normative Sciences — based on Aesthetics, the first subdivision, and on the Ethics, the second one —, permeates the whole Peircean philosophy since the intelligibility of the universe depends on its generality being mediated. What mediates the relationship between the real object and an interpreting mind is a sign. This process is denominated Semiosis. Mind, as mentioned previously, is not restricted to the human mind, since Objective Idealism postulates that everything is mind, even matter, which derives from it.

There are three elements of the sign: representamen, object and interpretant. The representamen is the first correlate in the triadic relationship from the logical viewpoint because it mediates the relationship of representation, and because it is through it that the interpreter has contact with the sign. Thus, the representamen can be understood as the perceptual aspect of the sign, the way in which the sign is presented. In the case of products of design, we create a sign system, which is the individual product itself in Existence. This system consists of

different signs, which may be visual only — such as developing a corporate identity symbol — or of a combination of signs (visual, verbal, audible, olfactory, tactile and even taste), which is usually more common in everyday life, characterizing Design as a hybrid language (Santaella, 2005). Motion design projects, for example, are based on sound, visual and verbal matrices of language and thought, whereas three-dimensional design objects look for tactile signs to ensure better user-product relationship. But the current trend, whenever possible, is to try to integrate increasingly different signs to stimulate all the senses of the receiver in the same project (Lindstrom, 2007).

This first correlate is determined by a second, its object, which appears to him in a relation of Secondness. According to Peirce, the sign «[...] stands for that object, not in all respects, but in reference to a sort of idea [...]» (CP, 2.228). Thus, the sign can only partially represent the object, otherwise it would be the object itself and not its representation. It is important to emphasize that the second correlate is not just a material object existing in the physical universe, but it can be immaterial, intangible, belonging to the universe of thought, such as an idea or a dream.

In the creation of a new design project, there is a conceptual object, generally the brand elements, of the product being designed. This connection with that abstract object is essential to ensure the consistency between the product and the brand. In the case of different applications of the same corporate identity, it is the anchorage to this conceptual object that allows each product separately to represent its concepts in the best way possible. This also happens when the designer works on new products to extend the line of any brand. In both cases, it is important to create each piece so that, individually, it can best represent the concepts that are intended to be conveyed. But as any representation is always partial, it is crucial, in situations where there are a number of pieces related to the same brand, that they all, as a whole, reaffirm and fortify the concepts, reinforcing the strengths of each individual to enlarge the view of the object.

The third element, the interpretant, is the effect that the sign produces on an interpreting mind. Since the created pieces of design will be interpreted by a receiver, it is necessary to know the audience that they are designed for, with the objective of knowing their codes and peculiarities — its rule and laws, as explained before. In the interpretation process, there are cultural filters — the environment and individual experience —, physiological filters — acuity of perception — and emotional filters — attention and motivation (Niemeyer, 2007:27). This is evident in Peirce's triadic theory of perception (Santaella, 1998), in which the percept — something external, commonly called stimulus — is internalized as a *percipuum*, generating a perceptual judgment, because it is the conceptual schemes that bear the general interpretative elements that allow the identification and recognition of the percept (Santaella, 2005). We can also complement, based on the theory of communication, that repertoire, understood here as a kind of vocabulary or a kind of stock of signs known and used by a person (Coelho Netto, 2007:123), related to the mentioned cultural filter, also influences interpretation.

Considering the three components of the sign, the designer must, in creation, make sure to establish three scopes for the determination of a piece: how this sign designates — relation with the representamen —, what it designates — relation with the object — and for what purpose it designates — relation with the interpretant (Walther-Bense, 2000:80).

With the three elements of the triad defined, we must add that, to Peirce, each of these elements is a sign. Thus the object — a sign — determines another sign that determines, in turn, an interpretant — a subsequent sign. When this process occurs, we have genuine semiosis, clearly related to the category of Thirdness, which promotes growth and continuity, because if an interpretant is also a sign, he will establish a new interpretant (equal or more developed) and so on. Similarly, an object is a sign that was determined by another object, in an infinite regression. This whole process is called unlimited semiosis.

The semiotic process, according to Peirce, depends on an interpreting mind, because the interpretant is essential for the realization of the sign. To him, the triad conceives a sign as «[...] a representamen of which some interpretant is a cognition of a mind» (*CP*, 2.242). Therefore, Peircean semiotics is directly linked to the cognitive sciences, as, in unlimited semiosis, «[...] every thought-sign is translated or interpreted in a subsequent one [...]» (*CP*, 5.284).

Therefore we can understand the process of design as an unlimited semiosis. Its sign systems — the pieces of design materialized in visual, verbal or other kind of signs — represent concepts — an abstractive object that is the product of thought in the internal world, which in turn may be the effect of other thoughts or actions in a *continuum* in infinite regression. Such a materialization of the possibilities of thought into real existences, in turn, generates new interpretants — thoughts and actions — in a continuous loop *ad infinitum*.

5. CONCLUSION

This article aims to analyze Design from the perspective of Peircean philosophical thought, comprehending its process of creation, as well as the use of the designed object by the user, as an unlimited semiosis, in which there is a *continuum* between thought and execution in existence: a concept — an abstractive object — that realizes itself in a product of design — a representamen. Working with the possibilities and qualities of Firstness, and not losing sight of the necessary generality of Thirdness, the designed piece materializes in the theater of the existence of Secondness. The product of design can be understood, therefore, as an external realization of an internal thought: a sign or a sign system that will generate new interpretant signs — thought-signs which, in turn, can generate new actions and conducts, in a continuous evolutionary process, which provides enrichment and an increasing complexity of material culture.

As an intentional creator of existences in Reality, Design involves practical consequences for the experienceable universe. As Pragmatism makes explicit, action accrues from a thought and its purpose is also a thought, since the universe tends to Thirdness. Therefore, taking Design as semiosis and based on Charles Sanders Peirce's division of science, in which the most abstract sciences are the basis for the others, we can see that this area of knowledge, which creates objects of material culture intentionally, should aim to achieve the admirable aesthetic (Firstness), without losing sight of the ethical foundations (Secondness) during the creation process of a piece of design.

BIBLIOGRAPHY

- Coelho Neto, J. Teixeira (2007): *Semiótica, Informação e Comunicação*. 7. ed. São Paulo: Perspectiva.
- Ibri, Ivo Assad (1992): *Kósmos Noétos*. São Paulo: Perspectiva: Hólon.
- Lindstrom, Martin (2007): *Brand Sense*. Porto Alegre: Bookman.
- Niemeyer, Lucy (2007): *Elementos de Semiótica Aplicados ao Design*. 2. ed. Rio de Janeiro: 2AB.
- Peirce, Charles S. (2008): *Semiótica*. São Paulo: Perspectiva.
- (1994): *The Collected Papers of Charles Sanders Peirce*. Electronic edition. Virginia: Past Masters.
In <http://library.nlx.com/>.
- Santaella, Lucia (1998): *A Percepção: uma Teoria Semiótica*. 2. ed. São Paulo: Experimento.
- (2005): *Matrizes da Linguagem do Pensamento: Sonora, Visual, Verbal*. 1 ed. São Paulo: Iluminuras.
- Walther-Bense, Elisabeth (2000): *A Teoria Geral dos Signos*. São Paulo: Editora Perspectiva.