

Title	Pragmatism and Ruskin's idea of beauty: The relativity of color and form considered from Peirce's phenomenology
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Citation	Osaka Human Sciences. 2017, 3, p. 137-152
Version Type	VoR
URL	https://doi.org/10.18910/60588
rights	
Note	

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PRAGMATISM AND RUSKIN'S IDEA OF BEAUTY: THE RELATIVITY OF COLOR AND FORM CONSIDERED FROM PEIRCE'S PHENOMENOLOGY

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Abstract

In this paper, the authors have been paying their color and form in the painting art that are thought it has intrinsic value, and examining how Ruskin determined to theoretical validity about the color expression based on Peirce's phenomenology.

By the consideration, it became clear that Ruskin determined to the validity by a process of abductive inference in an idea of beauty as a guidance about whether a color as the uncertain secondary qualities of the relationship with things could embody in intrinsic value in the painting art. Furthermore, it became clear that an idea of beauty in Ruskin is placed as the ideal that is similar to esthetic goodness as the ultimate end in pragmatism.

Key words: intrinsic value, pragmatism, John Ruskin, C. S. Peirce

1. Introduction

In consideration of the fact that it is important to reveal reception processes regarding distinct values inherent to nature and culture in preserving the natural environment and cultural properties surrounding our lives, the authors have conducted their research mainly from the perspective of cultural economics. For that purpose, we, emphasizing the thoughts of John Ruskin, a British critic of art as well as an economic thinker in the 19th century, who advocated the existence of an "intrinsic value" in nature and culture and its preservation, attempted various approaches as

This article is the English translation of the original one "Kittaka, H., and Miyoshi, E. (2016). Pragmatism and Ruskin's Idea of Beauty: The relativity of color and form considered from Peirce's phenomenology. *Bulletin of Graduate School of Human Sciences*, **42**, 118–135 (in Japanese)".

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are overviewed below.1)

First, we looked at the fact that the concept of "acceptant capacity" of value that Ruskin proposed has a functionalistic characteristic, ²⁾ and then examined the similarities and differences in the concept of reception ability using the concept of "Umwelt (a German meaning environment or surroundings)" proposed by Jakob von Uexkull to explain the functionalistic relationship between all living things, including human beings and the environment.³⁾ Next, regarding the assumption of the existence of "cultural natural capital" based on the concept of economic capital as a base that provides intrinsic value in nature and culture, we reexamined the relationship between the capital and reception ability from a functionalistic perspective and attempted to create our own explanations using the "Membrane Model" (Fig. 1) that graphically represents the perspective.⁴⁾

On the other hand, based on the relationship between a landscape as a cultural natural capital and the theory of intrinsic value, and furthermore taking into consideration its utility as a concept of economic value and theory of intrinsic value, in order to reexplain the theory of intrinsic value, we took up the semiotics of Charles Sanders Peirce and proposed the "Membrane Model" (Fig. 2) which has been modified using this semiotic perspective.⁵⁾

After the transition of these studies, we revealed that the value-reception process in the theory

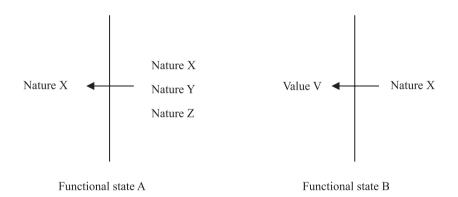


FIGURE 1. Membrane Model

With regard to Ruskin's painting theory, architectural theory, and social and economic philosophy, many researchers have been studied since the time when he was still alive, but the research of the theory of intrinsic value has recently begun in the field of cultural economics. Throsby (2001), Ikegami (2003), Throsby (2011) can be cited as major studies. This paper is characterized by consideration of the theory of intrinsic value from an epistemological and ontological perspective.

In Ruskin's theory of intrinsic value, the realistic aspect that a value is inherent in an object and the idealistic aspect that a value is received as an idea are compatible. Considering that the relationship between a value and a value idea represents a functional state of value reception, we discussed it from the functionalist perspective such as Putnam (1975).

³ "John Ruskin's Concept of Acceptant Capacity" 2014 Research Convention of Japan Society of Lifology, 2014.5

^{4 &}quot;Natural Capital and Cultural Value from the Functionalist Perspective" Japan Association for Cultural Economics <Japan> Kansai Branch, 2014.6

^{5 &}quot;John Ruskin's Theory of Intrinsic Value and Concept of Economic Value" Japan Association for Cultural Economics <Japan> 2014 Research Convention, 2014.7

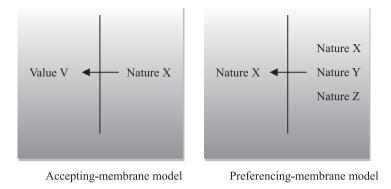


FIGURE 2. Membrane Model (modified)

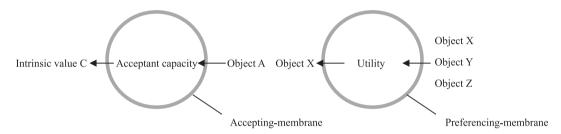


FIGURE 3. Accepting-Membrane Model (left) and Preferencing-Membrane Model (right)

of intrinsic values is an "abduction" as a teleological inference process from the perspective of Peirce's semiotics, and based on that, we illustrated the process using the "semiotic membrane model" (Fig. 3) to clarify the differences between the theory of intrinsic value and the utility concept.⁶⁾

After that, out interest has changed from a perspective that considers the value-reception process in the theory of intrinsic value epistemologically, to a perspective that considers the relationship between the intrinsic value itself and the reception ability ontologically. As a part of this, we took up Ruskin's architectural theory and considered it from Peirce's phenomenological perspective, paying attention to the fact that Romanesque and Gothic architectures that are thought to have cultural intrinsic value contain a law of proportion as can be seen in the spacing between their pillars or stages, and hold uniqueness that deviates from these laws as an element of their value.

⁶ Compiling the above-mentioned results, we published it in "Cultural Economics," a bulletin of Japan Association for Cultural Economics (Kittaka, 2015)

^{7 &}quot;Ruskin's Theory of Architecture and View of Nature – Based on Peirce's Phenomenology" Japan Association for Cultural Economics < Japan > 2015 Research Convention, 2015.7

⁸ Means to regard reception of intrinsic value as recognition of reality in the semiotic inference process.

⁹ Means that reception of intrinsic value is classified into general presence mode in the phenomenological categories.

In this paper, continuing to base our study on Peirce's phenomenology, we focused on the relativity of color and form in paintings which are considered to have intrinsic values, and examined how Ruskin determined the theoretical validity of color expression. The reason why we focused on color in this paper lies in the fact that colors may embody realistic characteristics of value within paintings, while holding idealistic aspects of which subjective tendencies are a bit too strong to claim that both color and value are objective natures inherent in an object. Additionally, it is because of this that it was considered necessary to set up a policy to determine the validity of color theory and value reception.

Ruskin considered color based on John Locke's concept of primary and secondary qualities which will be mentioned later, ¹⁰⁾ which brought about a perspective that sees color and value as parallels, which is mentioned above. However, Ruskin, in a departure from Locke's perspective, ultimately determined the validity using the "idea of beauty" and the "idea of relativity." We understand that this indicates that the "pragmatic ultimate end," which goes beyond Locke's empiricist epistemology, can be considered a policy to determine color theory as well as the validity of intrinsic value reception. As for the preceding studies that referred to Ruskin's color view, Landow (1971) pointed out that the synthesis of art provided by the conceptual color view was forced to transform through Locke's epistemology, and Hewison (1976), pointed out that a symbolic perspective can be seen in color views; however, they did not discuss the validity of the color view. Based on the above, our aim in this paper is to examine the limit of Locke's perspective from the color views of Newton and Goethe, and to reveal, using Peirce's phenomenological perspective, that Ruskin's idea of beauty corresponds with a pragmatic ultimate end.

Locke refers to a characteristic that is inherent in an object and directly sets off a response in a perceptive entity as "primary quality," and a response set off by said object's nature as "idea" (Locke, 1690). Following this definition, color is a response wherein there is not enough directness to refer to the concept as an idea, and its relationship with primary quality, which is supposed to be the cause for this insufficiency, is uncertain. For example, one can speculate on whether colors like blue or yellow, which can be recognized in an object, indicates that the object itself is colored blue or yellow, or if this color only exists in the individual who looks at the object in such a way. Locke refers to the characteristic of an object whose relationship with ideas such as color, sound, or taste is uncertain as "secondary quality" (Locke, 1690).

Based on this, Ruskin claimed that the "uncertainty which is inherent to secondary quality indicates the ambiguity and low importance of color," while he evaluated primary quality as "the

With regard to Locke's primary and secondary qualities, George Berkeley's view has been established that since a primary quality inherent in an object, such as a size, form or motion, is also a subjective and relative matter depending on the position or state of a perceptive entity, it is the same as a secondary quality that is supposed not to be inherent in an object (Aoki, 2002), but this paper focuses on the point that Locke regarded an object's nature as objectively recognizable.

most important truth combined with the entity" (Ruskin, 1846). Ruskin's original interest lies in what properties of an object will generate a perception of beauty within a creator such as a painter or the spectator, and he interprets primary and secondary qualities of objects from this perspective. However, it cannot be said that Locke himself made judgments regarding which of these is better than the other. So in Section 2 of this paper, we will analyze color views based on Locke's concept of primary and secondary qualities, and in Section 3, we will take up Ruskin's original color theory which goes beyond Locke's perspectives to consider how this theory is related to ideas of beauty and intrinsic value. With these sections as backdrops, in Section 4, we will examine the relationship between ideas of beauty and the pragmatic ultimate end from Peirce's phenomenological perspective. Finally, we will give a conclusion in Section 5.

2. Ideas of Beauty based on Primary and Secondary Qualities

In his work, "Modern Painters Vol. 1" (Ruskin, 1843), Ruskin discusses color and form in a painted expressions and his ideas of beauty as a spectator, wherein he placed an emphasis on "qualities in bodies." or its form. Ruskin used Locke's concept of primary and secondary qualities to discuss the importance of color compared to form. Locke said the following regarding primary quality: "it is a something that can, by no means, be detached from the object no matter what state the object is in, or a something that an object consistently possesses no matter what modifications or changes an object undergoes or no matter what force is applied to the object." In other words, this is the "solidity, extension, form, or mobility" that cannot, under any circumstances, be removed from an object (Locke, 1690), and he referred to this as a "simple idea," which is comprised of direct ideas such as "solidity, extension, form, mobility, motionlessness, or numbers," which is created within individuals by said un-removable characteristics (Locke, 1690).

On the other hand, he referred to secondary quality as "a nature that is merely a power for creating various types of senses through primary quality, or, in other words, through volume, form, texture, or mobility of an imperceptible part as colors, sounds, or tastes" secondary quality (Locke, 1690). Phrased differently, secondary quality is, although it is in itself primary quality, a nature which is meant to "inspire our senses as an imperceptible element with various types of volume, form, numbers, and different actions and to bring out various feelings inside of us through the color and form of an object" (Locke, 1690). Therefore, a secondary quality in an object is "merely the power to create diverse feelings in ourselves, and, as mentioned above, is based on the primary quality of an object or the volume, form, texture, or motion of a part of an object" (Locke, 1690); this means that we cannot confirm whether or not it is caused by primary quality, except through inference.

In response to this opinion by Locke, there is a generally-established criticism that primary and secondary qualities are both subjective and relative, and that the distinction between them

has no significance (Aoki, 2002). However, a secondary quality defined by Locke is clearly distinguished from a primary quality only in that its relationship with ideas that perceptive entities have is uncertain, and that this can actually raise the idea that it is no different from being a primary quality. In other words, Locke emphasized the strong relationship between an idea within the heart of a perceptive entity and the nature of an object that produces it, and in that sense, he suggested that the same relationship between a secondary quality and an idea may be as strong as those between a primary quality and an idea. Locke had originally distinguished a position wherein the relationship between an idea and a quality is studied as a subjective perceptual phenomenon from a position wherein a relationship is inferred from a physical perspective that considers the objective quality of an object as existing outside of an idea (Aoki, 2002). Thus, we consider that Locke's concept of first and secondary qualities should be regarded as a hypothesis to understand an object from an objective and physical perspective, beyond a subjective and relative one.

As an example, Locke discussed the colors in porphyry, red and white, from this perspective. If there is no lighting on the rock, "the colors disappear and the idea of color is no longer created in our minds." However, when a light is cast on the rock again, "it reproduces the phenomenon of color in our minds" (Locke, 1690). Here, Locke asks himself whether the presence or absence of light brings about a kind of change in the nature of the rock. Certainly, it can be said that "the stone has an arrangement of elements which always creates the idea of red in our minds through light reflecting on a part of the stone, as well as the idea of white through light reflecting on another part of the stone" (Locke, 1690). However, the stone itself "does not possess whiteness or redness, but rather a structure with the power to form such senses in our minds" (Locke, 1690). This 'power' is the secondary quality which creates the idea of color. Thus, this does not mean that a secondary quality itself is a subjective idea, but suggests that an objective quality that causes a subjective idea can exist in an object.

It is Isaac Newton who discussed light and color from physical perspectives and with an attitude very similar to that of Locke's.¹¹⁾ Newton pointed out that in an experiment using a prism, "proper color," which is in accordance with the prism's refractivity level, emerged on an image of a ray (sunlight) refracted by transmitting light through a prism, also known as a spectrum (Newton, 1704). From "one end, where a ray with its maximum refractivity was cast" to "another end, where a ray with its minimum refractivity was cast," the "colors emerged as a constantly-changing continuous line consisting of violet, indigo, blue, green, yellow, orange, red and their neutral colors" (Newton, 1704). However, immediately after this, Newton pointed out regarding his remark that "light and rays as colored" is not correct in a philosophical or in a strict sense, and that "strictly speaking, a ray is not colored," and restated that "there is nothing else

In this paper, Newton's optical experiment has been taken up in a form wherein the commonality of views between Locke and Newton concerning an object's nature is emphasized.

than a certain Power and Disposition to stir up a Sensation of this or that Color" (Newton, 1704). According to Newton, a color is not something inherent to a ray, but "a sensation in the form of color resulting from these motions" generated in the sensorium (Newton, 1704). It may safely be assumed that a "power" and "disposition" to create a sense of color almost correspond to a "power" and "secondary quality" in Locke.

As seen above, Locke and Newton put a great deal of significance on physical explanations regarding light and rays that have secondary qualities, but hardly dealt with the idea or the sense of color that is produced by nature. In contrast to this, Johann Wolfgang von Goethe adapts the stance that there is a universal law in the very idea and sense of color that reveals the reality of color.¹²⁾ Spurred on by Newton's prism experiment, Goethe conducted a similar experiment using a prism. Though he focused on physical perspectives as well, Goethe's main interest was not in the object that caused the color, but in how a color is seen by a perceptive entity. This can be seen in his method of prism experiment. In Newton's experiment, he observed a projection image of an optical spectrum that was produced by transmitting a small-diameter ray through a prism, whereas Goethe directly observed an image of an optical spectrum (border color) that was produced in the boundary between bright and dark sides through a prism. (Fig. 4)

The bright side which can be seen through a prism is dispersed as a wide ray of light, and its spectrum image appears on the boundary of a particularly dark side. Goethe describes this as follows: "The phenomenon of color can be observed at the border where bright and dark sides are clearly separated." Elaborating upon this observation, Goethe presented a hypothesis wherein a color emerges through the actions of a "medium" within the poles of light and darkness, or what Goethe calls "fundamental phenomenon." For example, "When one sees a light through a slightly clouded medium, one can see the color yellow," and "As the cloudiness of the medium or its density increases, the color becomes orange." Additionally, "When you see darkness through a clouded medium lit by light, the color blue emerges," and "As the cloudiness of the medium increases, the color becomes brighter and paler" (Goethe, 1810). Such perspectives which seek to find sensory properties of color are not seen in the approaches of Locke and Newton.

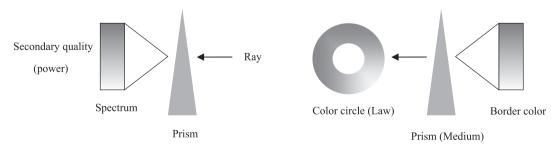


Figure 4. Newton's Experiment (left) and Goethe's Experiment (right)

¹² It is considered that Goethe's theory of color is characterized by its point of presenting a law of a perception - color circle - whereas Newton regarded colors as a light refractive index.

The color that emerges first in the fundamental phenomenon is a conflict between light and darkness: a conflict between yellow and blue in response to "polarizability." From here, Goethe progresses his consideration of a color's "acceleration property," wherein polarization moves toward unification, as well as the "opposite color" or "complementary color" that an eye of a perceptive entity demands. On one hand, yellow and blue are integrated into crimson through orange and purple, and on the other hand, into green, and eventually the six colors obtain integrity in a form of a color circle while maintaining the relationship of complementary colors with each other. Goethe said that the "Color circle emerged before us, and revealed various relationships of generations and changes" (Goethe, 1810). We consider that Goethe's approach of actively proposing a hypothesis to a sense of color to find a definite law such as a color circle is clearly different from those of Locke and Newton, whose understanding was that a color is dependent on a secondary quality, and shows a teleological idea of color, or "physiological color," based on the experience of the perceptive entity itself. J. M. W. Turner, ¹³⁾ who is frequently mentioned in Ruskin's "Modern Painters", is known as a painter skilled at color expression under the influence of Goethe's color theory, so we will discuss in the next section how Ruskin determined the validity of theory concerning colors.

3. Relativity of Color and Form and Intrinsic Value

As described in the previous section, since Locke's idea of color, sound, or taste is uncertain with respect to the relationship with the primary quality that creates it, a secondary quality or power is assumed as a nature to solve this problem. Based on this opinion by Locke, Ruskin described that "All truths regarding color fall to second place" (Ruskin, 1843). According to Ruskin, "Because a primary quality such as volume, form, or number characterizes only a property inherent in an object, it is the most important truth connected to the object" and that "A color - a secondary quality - characterizes an object as something not so important." He claims that "A person who neglects the truth of form due to the truth of color neglects a great truth due to a trivial truth" (Ruskin, 1843).

As an example, taking two trees of the same type, he pointed out that "Color cannot tell apart two things of the same species," but if they are two broken rocks, "form not only characterizes its species but is the sole characteristic in representing its individuality among things of the same species" (Ruskin, 1843). He also said that the "Color of everything changes with the property of light being shined on it," but "the essential qualities of an object are independent from those changes" (Ruskin, 1843). On the other hand, with regard to "one color associated with other colors," he pointed out that "color exerts a clear and special power on the retina depending on

Turner (1775–1881) is a leading landscape painter of Britain and Ruskin wrote "Modern Painters" with an aim to champion Turner's late works.

its association with other colors," thus, "the color of any object is not as dependent on the nature of the object or the eye of a perceptive entity as it is on colors of nearby objects" (Ruskin, 1843).

However, because Locke did not attribute superiority or inferiority to first or secondary qualities, these evaluations would not result from the first or secondary quality but be based on Ruskin's own thoughts. Ruskin's truth that "a color as an origin of pleasure is fragile compared to form" is revealed in the process of "considering an idea of beauty" (Ruskin, 1843). According to Ruskin, what the word "beautiful" indicates is "a tangible object that gives us pleasure just by looking carefully at its external properties without directly using intelligence" (Ruskin, 1843). With regard to the question "why do we derive pleasure from some forms or colors and not others," he said "We can neither ask nor answer that question" (Ruskin, 1843). However, "this is completely different from selecting a certain tangible thing among others instinctively and intuitively" (Ruskin, 1843), and it does not mean that the idea of beauty has no relationship with intelligence. If a person can indicate a kind of thought as "an origin of pleasure," he "received something more than the idea of beauty," and this is "an idea of relation" as an origin of pleasure associated with the activities of "intellectual powers" (Ruskin, 1843).

When we consider color and form based on this idea of relativity, we can see the subtle connection between the two of them. A form is generally considered to be related to an outline, but Ruskin says that "form implicitly includes light and shade as an inevitable consequence," and it cannot be said that there is no relation with form and how a color is expressed. Ruskin also says the follows.

... no form whatsoever can be known to the eye in the slightest degree without its chiaroscuro; and, therefore, in speaking of form generally as an element of landscape, I mean that perfect and harmonious unity of outline with light and shade, by which all the parts and projections and proportions of a body are fully explained to the eye; being nevertheless perfectly independent of sight or power in other objects, the presence of light upon a body being a positive existence, whether we are aware of it or not, and in no degree dependent upon our senses. (Ruskin, 1843 [1903], p. 161)

In other words, contrasting belongs to the phenomenon of light and color, while at the same time, it can be said to be an objective nature that represents the form of an object. Those who observe nature "can hardly determine an accurate perception of hue," but "a form that is created by light and shade is always determinable, self-evident, and is the origin representing the major characteristics of everything" (Ruskin, 1843). Ruskin also says that "since light and shadow overcome the distinction of local colors so perfectly, the distinction of hue between the lit portions of white objects and black objects is not as large as that between the luminous and dark side of each object" (Ruskin, 1843).

This understanding of color and form based on the idea of relativity further develops into a

discussion of color tone in paintings. For Ruskin, color tone is "a perfect relationship between major 'light' portions of a painting with all contrasting portions of 'darkness', regardless of whether it is in the sky, water, or anything else," which becomes clearly apparent depending on the distance from the object that comprises the painting; at the same time, it is "a perfect relationship between colors in the 'light' portions those in the 'darkness', wherein a color in darkness is different from a color in light in the degree of color tone, even if they are the same color" (Ruskin, 1843). They are, in short, the contrasting relationship integrated throughout the entire painting (brightness) and the mutual relationship of colors depending on the contrast (saturation). This integrated relationship is particularly affected by colors in light portions, and is considered to be "a climate subject to brightness or atmosphere of one kind." (Ruskin, 1843)

Judging by the fact that Ruskin states that "form not only characterizes the object's species but is the sole characteristic that represents its individuality among others of the same species," color expression which clarifies form through differences in distance from an object must be used in as detailed a way and as systematically as possible to enable individualization of each object. Ruskin evaluated Turner as a painter who focused intensively on this process. He also said that "Turner set every degree of shade to individually represent distance and to show each phase of approach to the painted object. This means that he did not merely show a discrepancy in degree represented by shades in nature, but showed a discrepancy in the proportion which matches a discrepancy between the possible totality of shades and the totality of shades in nature" (Ruskin, 1843).

As seen above, finding a color tone which serves as a valid painting expression by setting the idea of beauty or relativity as a guideline can be considered to be part of the process of accepting an element of value as a quality inherent in an object known as a painting. That means that the cause for creating the subjective idea of value exists as a quality or power of an object. Ruskin refers to this as "the absolute power of anything to support life," or an intrinsic value (Ruskin, 1872), and this value is considered to not be relevant to a person's thoughts or a quantity of an object, and to be an invariant, life-strengthening power known as "valor" that is inherent in an object regardless of whether or not it is used (Ruskin, 1862). The power or the concept of valor can apply to the 'power' that is mentioned in Locke's concepts. For example, it is "a sheaf of wheat of given quality and weight has in it a measurable power of sustaining the substance of the body," or "a cubic foot of pure air, a fixed power of sustaining its warmth," or "a cluster of flowers of given beauty a fixed power of enlivening or animating the senses and heart" (Ruskin, 1872).

In short, a value in Ruskin's concept of intrinsic value is a nature or "power" inherent in an object; therefore, a person "accepts" value from an object naturally and normally in accordance with the action of its power. However, to do so, "a certain condition is required from the recipient." For example, Ruskin says that "before food, air, or flowers fully become something sufficiently valuable for a person, said person's digestive functions, breathing functions, or

perceptual functions must be perfect" (Ruskin, 1872). Ruskin refers to these human functions as "acceptant capacity," and it can be said that the direct emergence of a value through a perfect match between the power of an object and human ability is a characteristic of Ruskin's value reception process. This acceptant capacity can be regarded as the ideas of beauty and relativity.

4. An Idea of Beauty Considered from Peirce's Phenomenology

In this section, we will provide an explanation considered from Peirce's phenomenology that the idea of beauty as acceptant capacity serves as a guideline to integrating color as a secondary quality and form as a primary quality. Peirce is known as the founder of pragmatism as well as one of the founders of semiotics, and he considers pragmatism as "a method to confirm meanings of concepts" (Yonemori, 1981, p. 209). However, the meanings of concepts must be "a practical result" with future universality; therefore, a behavior with universality that is capable of producing a practical result is formed as "a habit" (Yonemori, 1981, pp. 216–220). Universality is a type of law and cannot be perceived directly, much like Locke's concept of primary quality. Laws can only be confirmed through an experiment under certain conditions, and thus, Peirce's "practical results" can be said to be results obtained based on scientific grounds through these experimental procedures.

As seen in Section 2, Newton's experiment revealed a secondary quality as a cause of color senses, whereas Goethe's discovered a teleological law within the color sense itself. In response to these, it can be said that Ruskin conducted an experiment, based on Peirce's concepts, of a law of painting expression using colors after regarding the opinions of Newton and Locke as self-evident. By replacing color, which is an undetermined secondary quality with form, which is a primary quality, Ruskin presented the third determined painting expression of color tone, wherein the two qualities were integrated. This color tone is a hypothesis to explain valid painting expressions, and Ruskin demonstrated that it applies to the works of Turner in particular, comparing them with works of other painters such as Claude Lorrain and Nicolas Poussin. Therefore, it may be safely said that color tone is a practical result of painting expressions, or a candidate. However, even if an experimental procedure is conducted, one can say that some kind of conviction is required to conclusively determine a hypothesis. Peirce assumes "esthetic goodness" or "superlative goodness" as an ultimate end to solidifying this conviction (Takami, 1982), and we believe that, for Ruskin, this was the idea of beauty. With regard to the question of why we hold ideas of beauty, we "can neither ask nor answer" anything more than this.

Peirce classified philosophy, which is a foundation of sciences, into three categories - phenomenology, normal science, and metaphysics. Furthermore, he subclassified normal science into esthetics, ethics, and logic (Yonemori, 1981, pp. 51–53). As for the latter three studies, the purpose of esthetics becomes the basis of ethics, and then, the purpose of ethics becomes the basis of logic. Therefore, among each of their goals - esthetic goodness, ethical goodness, and

logical goodness - esthetic goodness, which is the most fundamental, is also the ultimate superlative summum bonum. Additionally, of these studies, semiotics is considered to be included within logic. These characterizations are actually based on the category concept of phenomenology, where phenomenology has a contrasting relation with semiotics; semiotics deals with the recognition process of signs, while phenomenology addresses the ontological descriptions of signs. A phenomenon is considered "a conglomeration of the entirety of things emerging in the human heart" of signs and the object it indicates, and phenomenology refers to the study wherein a sign and the most basic style or category in general existence are observed and described (Yonemori, 1981, p. 61). Peirce explains phenomenology (phaneroscopy) as follows.

What I term phaneroscopy is that study which, supported by the direct observation of phanerons and generalizing its observations, signalizes several very broad classes of phanerons; describes the features of each; shows that although they are so inextricably mixed together that no one can be isolated, yet it is manifest that their characters are quite disparate; then proves, beyond question, that a certain very short list comprises all of these broadest categories of phanerons there are; and finally proceeds to the laborious and difficult task of enumerating the principal subdivisions of those categories (Peirce, 1931 [1994], Vol. 1, sec. 286).

There are three types in a class or a category: Firstness, Secondness and Thirdness. ¹⁴⁾ Firstness is "a mode of being where the object is as it is, actively and without reference to anything else;" Secondness is "a mode of being where the object is as it is, with respect to a second object but completely regardless of a third," and Thirdness is "a mode of being where the object is as it is, by bringing a second and third object into relation to each other." (Peirce, 1958) Thirdness in particular is considered to be a more general class that includes Firstness and Secondness, and as its characteristics, seven elements can be cited - symbolic character, ideology, law, generality, continuity, habitual character, conditional character, integrity, and rationality (Yonemori, 1981, p. 79). Symbolic character, for example, means mediation or intermediacy between a sign and its indicating object (Yonemori, 1981, p. 79). Peirce classified signs by phenomenological categories. He described the functions of signs as follows.

Now a sign has, as such, three references: first, it is a sign to some thought which interprets

¹⁴ Peirce's categories do not directly approve of the objectivity of an object like Locke's primary or secondary qualities. The reality of an object is determined in Thirdness, wherein its indicating object is represented by a sign. Firstness, having no entity to be recognized nor a target to be recognized, is just a state of being as it is. If this is interpreted to mean that an idea of an entity and a nature of an object are completely matching, it is possible to regard it as a primary quality as in Locke's view. Additionally, a conflict between a recognition entity and its target appears in Secondness, but the conflict remains undetermined because it has nothing to do with the object belonging to Thirdness. It can be considered to be a state relatively similar to uncertainty of a secondary quality in Locke's view.

it; second, it is a sign for some object to which in that thought it is equivalent; third, it is a sign, in some respect or quality, which brings it into connection with its object (Peirce, 1934 [1994], Vol. 5, sec. 283).

The abovementioned sign for some object is a function known as "representamen," and it is inherent in a sign. Three aspects of it have been defined- the existence mode of "material," the representation mode of "object," and the statement mode of "thought"- and they are defined in a way wherein the symbolic action or symbolic process (semiosis) is derived (Yonemori, 1981, pp. 109–110). Each of these modes are classified into Firstness, Secondness and Thirdness, and the statement mode is further divided into "term," which is merely a possible statement, "proposition," which clearly indicates an object but leaves its interpretant undetermined, and "argument," which clearly determines an object as well as its interpretant (Peirce, 1932, Yonemori, 1981, pp. 160–171). For Peirce, "Argument always belongs to a general class comparable to the interpretant, and this class as a whole is understood to move forward to the truth" (Peirce, 1932).

As can be seen from the above, to Peirce, an inference is considered to be semiosis based on the form of argument, and becomes a subject of phenomenological category. It also can be said that the behavioral mode, which derives a pragmatic and practical result, specifically refers to an argument as Thirdness of the statement mode. An argument is further classified into deduction, induction, and abduction, and abduction in particular, is most emphasized as "a finding method" that encourages the proposal of a theory or hypothesis to explain a truth. Peirce regards abduction or hypothesis (assumption) as "an inference that derives a minor premise from other two propositions," while defining induction as "an inference to derive a major premise" (Peirce, 1934). Moreover, he presented a structure of an inference process wherein "the surprising fact, C, is observed; But if A were true, C would be a matter of course, Hence, there is reason to suspect that A is true" (Peirce, 1934). This is a verification approach wherein if Hypothesis A failed to explain Fact C, Hypothesis B is newly proposed. Then, if Hypothesis B does not explain Fact C, another hypothesis is proposed to verify Fact C.

Regarding this structure, Peirce stated that "there are presumably millions of possible explanations of facts," but at the same time, he added that "our mind can likely come up with one true explanation of a fact through a limited number of presumptions" (Peirce, 1958). Peirce states that such self-approving attitudes towards argument is a deliberate act based on "natural laws," which is considered to be a normative and consequently moral approval. He also described that "an ultimate end of action deliberately adopted, that is to say, reasonably adopted ...it must be an admirable ideal, having the only kind of goodness that such an ideal can have; namely, esthetic goodness" (Peirce, 1934). In other words, an inference itself is a norm as well as an object, one that is based on "esthetic validity" or an esthetic goodness that appreciates itself.

According to Peirce's category theory, esthetics is classified into Firstness, ethics into

Secondness, and logic into Thirdness. Esthetic goodness which is a goal in the esthetic field belongs to Firstness, and if we look at it as a statement mode, it can be restated as a term as merely a statement of possibility, or an emotion that completes itself. Thus, the ultimate end of solidifying a belief results in the reduction to an emotion or a mere feeling of pleasure or pain which qualifies as Firstness. However, Peirce himself regards this emotion not as a direct feeling of pleasure or pain with regard to beauty but as "esthetic enjoyment," and sees it as "a kind of intellectual sympathy" or "reasonable emotion" modified and habituated through generality as Thirdness (Takami, 1982). This point is considered to be a characteristic of pragmatism that is different from utilitarian effects. Ruskin presented the theory of integrated color tone of color and form to determine the validity of color expression, but we consider that a process of inference that derives such practical results as abduction. It can be considered that an idea of beauty that is a guideline in the process is positioned as a pragmatic ultimate end.

5. Conclusion

In this paper, focusing on the relativity of color and form in paintings wherein an intrinsic value is present, we discussed, based on Peirce's phenomenology, how Ruskin determined the validity of theory concerning color expression. Particularly, we clarified that Ruskin's idea of beauty corresponds to a pragmatic ultimate end from Peirce's phenomenological perspective, while also investigating the limitation of the perspective of Locke's first and secondary qualities from Newton and Goethe's ideas on color on which Ruskin had originally depended. First, in Section 2, we considered an idea of color based on Locke's first and secondary qualities, and then in Section 3 took up Ruskin's original color theory as a topic that is beyond Lock's perspective to discuss how it is related to the idea of beauty and intrinsic value. Based on these, we discussed the relationship between the idea of beauty and a pragmatic ultimate end from Peirce's phenomenological perspective in Section 4.

Based on the considerations above, it has been revealed that with regard to whether a color, as a secondary quality whose relationship with an object is uncertain, can embody intrinsic value in the painting art, Ruskin determined validity through an abduction-like inference process which set the idea of beauty as a guideline. Additionally, it has also been made clear that Ruskin's idea of beauty is positioned as a guideline similar to esthetic goodness as a pragmatic ultimate end.

As seen from above, it should be noted that the work to determine the validity of value regarding protection level of the environment or cultural properties, as long as it belongs to a so-called secondary quality, is very sensitive. However, Ruskin, by setting a pragmatic ultimate end - the idea of beauty as a guideline to such uncertain fields - progressed to active determination. We believe that this approach helps furnish a basis for the validity of protection of worldwide natural environments or cultural properties that are now in danger of being lost from an absolute

perspective, beyond a consequentialist or relative perspective based on utilitarian effects. In the future, while advancing more detailed discussions with reference to specific cases of Ruskin's thoughts on value, we will discuss further modification of the semiotic membrane model that we have discussed for explaining the value-reception process.

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