

Ui-Sang's Ocean Seal and Holographic Principle¹

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Introduction

This paper is a comparative study of the Ocean seal or Diagram of the *dharmadhatu* of Ui-sang, the First Patriarch of Hwaom Buddhism in Korea and the holographic principle, both of which can be considered models for a new description of reality. Ui-sang's Ocean seal reveals a unique and creative Korean version of Chinese Hua-yen Buddhism which seeks the synthesis of the noumenon and phenomenon. Ui-sang's thought is essentially rooted in Han philosophy by virtue of which he was able to indigenize creatively Chinese Hua-yen Buddhism into Korean Hwaom Buddhism. Therefore, in order to understand Ui-sang's system, we should know the concept of Han. The word han has diverse and inclusive meanings. Han implies one, many, big, great, same, approximate, whole, part, about, and many other things. The concept of Han represents a Korean way of philosophy, thinking, and spirituality. The characteristic of Korean religion is essentially the 'mind of Han.' Han as deeply rooted in the Korean mind as is Yahweh for the Jewish mind, Logos for the Greek mind, and Tao for the Chinese mind. Therefore, Han deeply permeates not only Korean's religious mind but also their culture.

So far Ui-sang's thought has been considered to be irrational, illogical and unscientific because of its ambiguity. Ui-sang's logic is unscientific, irrational, and ambiguous in terms of the Cartesian-Newtonian mechanistic paradigm which sees the world as constituted by many separated parts. However, seen from the perspective of contemporary physics, Ui-sang's system is scientific, logical and rational. This paper will try to prove the scientific basis and rationality of Ui-sang's thought in virtue of the holographic principle, one of theories of modern physics.

The holographic principles which have emerged from science in the last thirty years have provided a new paradigm for understanding the universe. They have forced us to see the universe not as a collection of physical objects, but rather as a complicated web of relations between the various parts of a unified whole. A hologram is a three-dimensional photograph created through laser technology. When a piece of a hologram is broken off from the whole, it reproduces the entire picture and not just the piece. This occurs because a hologram is a picture of a wave-interference pattern, not an image the way a conventional photograph is. "Holography is a method of lensless photography in which the wave field of light scattered by an object is

¹. This work was supported by a Hanshin University Research Grant.

recorded on a plate as an interference pattern.”² The key feature of the holographic principle is that it concerns the harmony of part and whole. Interestingly enough, the holographic principle has a fascinating resemblance to Ui-sang’s Ocean Seal. The ambiguous characteristic of Ui-sang’s Ocean Seal can be metaphorically articulated by virtue of the holographic principle.

This paper proceeds as follows. In the section below, I will explore Han philosophical aspects, which consistently emphasize interrelatedness and dependence. This section analyzes the Ocean Seal(Hwaom-ilsung-Popkye-do) of Ui-sang who is great master of Korean Hwaom(Hua-yen) Buddhism. Among many Korean Buddhist scholars who developed their theories in terms of Han mind, Ui-sang was the most eminent. In his ingenious work, the Ocean Seal, Ui-Sang revealed Han thought clearly and systematically. Therefore, Ui-sang’s theory can fruitfully be discussed when we relate his interpretation of reality to the Korean Han mind. In third section, I will briefly discuss holographic theory, and then argue its key aspects, which stress the interdependent, parallel and simultaneous processing of events. This section will also attempt to show that the main feature of Han—bipolar aspects of one and many, parts and whole—described by Ui-sang are able to be clearly understood by the holographic principle. In the final section, I will conclude by making some comments.

Han Philosophy and Ui-Sang’s Ocean Seal

In the previous section, I pointed out that the term Han contains various meanings. I will not discuss all of them here. My special concern is examination of the inseparable harmony of one and many, parts and whole which are the most unique system of Han thought. In order to perceive clearly such a unique nature of Han mind, we need to explore briefly the historical origin of Han thought. Kyung-Tak Kim, a former professor of Korean University, traces the historical origin of Han in terms of history of religious development. According to him, the word Han appeared for the first time in Korea during the Iron Age. Before the Iron Age, Han was expressed differently as follows: *Gam*(darkness) in the Paleolithic Age, *Bak*(lightness) in the Neolithic Age and in the Bronze Age, and finally Han in the Iron Age. They were conjoined one by one in the word *Gam-Bak-Han* in the Iron Age. So Han has the synthetic meaning inclusive of *Gam-Bak-Han*.³ Nam-sun Choi insists that Han originated from the Mongolian word *tengri* which means ‘sky’, ‘lordship’, ‘god’, ‘high’, and ‘heavenly god’.⁴ Therefore, from very early time on, Han has been used as the word which designates a religious reality. *Gam* is a god of total darkness who

². Ken Wilber, ed., *The Holographic Paradigm and Other Paradoxes*(Shambhala: Boulder & London, 1982), 6.

³. Kyung-Tak Kim, “Development of God’s Concept” in *HanKukmunwhasa Daekye*, vol. 2(Seoul: Koryominjokmunwhasa Yonkuso, 1979). 117f.

⁴. *Works of Choi Nam Sun*, vol. 3(Seoul: Hyunamsa, 1974), 304-305.

responds to prayers in miraculous ways. In contrast, *Bak* is an affectionate and radiant god who gives salvation. However, they are not two distinctive gods but one, that is, as Hananim who has a dual function.⁵ For Koreans, the Greek word 'theos'(God) is pronounced as Hananim who means the god of heaven. The word Hananim was derived from Han. The personification of Han, for Koreans, is Hananim who corresponds to the God of Westerners. In a word, Koreans understand Han as the Ultimate Reality.

As is said above, religiously han is personified in the form of Hananim who possesses a correlative duality. The Korean concept of Hananim, also has a duality which bears harmonious unity. This distinctive and inseparable dual aspect is based on the philosophical aspect of Han. Philosophically, Han, in short, means a non-dualistic, non-substantial view of the world. According to Sang-yil Kim, Han rejects the concept of substance not only as the constituents of the phenomenal world but also the unchanging source of all things. There is no beginning and no ending in the concept of Han. It is "ultimately non-oriental through and through."⁶ The most basic and unique character of Han does indeed imply the two aspects of one and many, parts and whole at the same time. Frederick Coplestone examines the similarities and dissimilarities between one and many. He says that theories of one and many can decide two lines of thoughts as follows:

If one is identical with the phenomenal world and eliminates transcendence, 'the one' becomes simply a collective name for the Many. If the idea of the one as transcending the Many is related, the ultimate reality remains on the horizons, as it were, outside the area of which can be clearly seen and described.⁷

Frederick Coplestone explains the relationship of one and many in light of various philosophical and religious traditions such as Taoism, Buddhism, Advaita Vedanta, Islam, etc. In this respect, he identifies one with the Ultimate reality.⁸ The one has the phenomenal and the transcendental aspects. The phenomenal aspect of the one is simply a collective name for the many. The pure Korean word for this aspect of the one is *knot*(날) whereas the other side of one transcending the many remains outside the area of what can be seen and described. The pure Korean word for this aspect of one is *on*(온). In other words, Han as one denotes two sides of knot and on at the same time.

The pure Korean word, *knot* and *on* also indicate parts and whole. *Knot* as part and *on* as whole in the single word Han are inseparably related. It means that for Koreans 'part' is 'whole' and 'whole' is 'part.' This bipolarity of Han thought is ambiguous, irrational and unscientific in terms of the Cartesian-Newtonian paradigm which asserts that it is difficult to harmonize one with

⁵. Ibid., 450.

⁶. Sang-yil Kim, *Han Philosophy*(Seoul: Jeonmangsa, 1983), 35.

⁷. Frederick Coplestone, *Religion and the One*(New York: Cross Road, 1982), 7.

⁸. Ibid., 18.

many. Consequently, this paradigm, according to Ken Wilber, makes a boundary line between one and many. Wilber contends that dualism followed after drawing the boundary: the dualism of the one and many, chaos vs. Order, simplicity vs. Complexity.

Rooted firmly in these dualism, Western thought throughout its history has continued to generate those of its own: instinct vs. intellect, wave vs. particle, positivism vs. idealism, matter vs. energy....space vs. time-the list is endless.⁹

According to Wilber, dualistic boundary led us to favor either one or many separately. Therefore, he states, "most of our problems,are problems of boundaries and the opposites they create. Now our habitual way of trying to solve these problems is to attempt to eradicate one of the opposites."¹⁰ We usually imagine that "the opposite are irreconcilable, separates forever set apart."¹¹

But as is seen in Han thought, there is no boundary between one and many, parts and whole. The relationship between the both is not separable, opposite, and contradictory but essential interrelatedness and interdependence. This distinctive feature of Han thought was the most clearly embodied in Ui-sang's doctrine known as Hwaom-lisung-Popkye-do(the Ocean Seal). Now let us examine Ui-sang's theory in terms of Han philosophy.

Ui-sang(AD 625-702) transformed Hua-yen Buddhism into the style of Korean Han mind. Hua-yen Buddhism developed in China, especially during the Sui-T'ang period, through the efforts of Tao-hsuan(557-640) and Chih-yen(600-668). Hua-yen Buddhism was established as an independent sect in China during the Sui-T'ang period(559-900). Hua-yen Buddhism has been regarded as a creative synthesis of all these systems of Buddhist thought from the perspective of the mutual interaction of the phenomenal world and transcendental, the universal and the particular, the non-obstacle co-origination of the particular with the particular.¹²

In AD 661, Ui-sang went to T'ang China to study Hua-yen Buddhism. He studied for eight years under Master Chihyen(602-688), the second Patriarch of Chinese Hua-yen and teacher of Fa-sang(643-712), the celebrated Third Patriarch. After returning to Korea, Ui-sang became the first patriarch of Korean Hua-yen Buddhism, and developed systematically Hua-yen Buddhism based on Han philosophy. Since Ui-sang, Hua-yen Buddhism in Korea is called Hwaom Buddhism.¹³ In Korea, the syncretistic harmonization pattern characteristic of Hua-yen Buddhism culminated in the work of Ui-sang. Indeed, a study of Ui-sang's life and writing reveals that he was heavily

⁹. Ken Wilber, *The Spectrum of Consciousness*(Wheaton: The Theosophical Publishing House, 1982), 30.

¹⁰. Ken Wilber, *No Boundary*(London: Shambhala, 1981), 19.

¹¹. Ibid., 20.

¹². Steve Ordian, *Process Metaphysics and Hua-yen Buddhism*(Albany: State University of New York Press, 1982), 9.

¹³. Ibid., xv-xvi.

influenced by the Korean Han thought. Ui-sang's major thought is profoundly exposed in his ingenious work, the Ocean seal(Hwaom-ilsung-Popkye-Do) the full name of which is Diagram of the Dharmadhatu according to the one vehicle of Hwaom. The seal is composed of 210 Chinese characters arranged in 30 verses of 7 characters each. Ui-sang's ocean seal is the summary of the vast teaching of the Hua-yen text with 210 Chinese characters. He drew a square diagram and in it he concentrated the whole teaching(see figure-1).

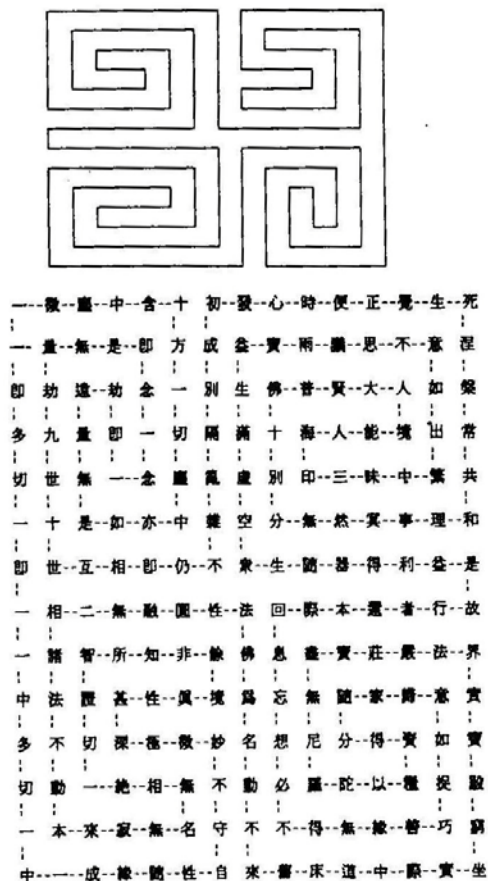


Figure-1

Steve Ordin comments on Ui-sang's Ocean seal as follows:

The Ocean Seal as a whole designates the university, identity and formation marks, whereas its many curves, bends and meanderings represent the particularity, difference and disintegration marks. However, since these Six marks do not attach to self-nature but follow(causal) conditions inexhaustibly, the whole and its constituent parts all interpenetrate without obstruction such that each meandering curve is different and yet identical to the entire seal. In a similar fashion Ui-sang's Ocean Seal illustrates nearly

all of the key doctrinal innovations of Hwaom Buddhism.¹⁴

In this Diagram, Ui-sang dealt with the problem of how one and many, parts and whole are related, which is not only the key thought of Han philosophy but also the core point of Hwaom Buddhism. He, more than anyone, argues the structure of relationship between one and many, parts and whole. Indeed, the issue of one and many dealt with so far culminated in Ui-sang's system. In a word, Hwaom Buddhism is a philosophy which explores the relevance between one and many, parts and whole. Before we examine the doctrine of the Ocean Seal, it is needed to know its basic structure. In order to show visually the relationship between one and many, Ui-sang drew a diagram and in it succinctly explained the entire system of the Hua-yen Buddhism. Ui-sang explains the method of reading the poem or path of the seal:

As to the method of reading the poem, you should begin with the character pob(skt. Dharma) at the center(of the seal), going through many curves, bend, and meanderings, finally coming(full circle back to the center) to the character pul(skt. Buddha). Then read following the Tao(path) of the seal through 210 characters and 54 curves.¹⁵

In Ui-sang's Ocean, both the first and last characters, i.e., *dharmā*(法) and *Buddha*(佛) are located in the same position at the center of the seal. That is, the beginning and end put in the center altogether. The reason, is "to express that the two positions of cause and effect---in the dharma-nature school(of Hwaom) are both in the Middle way."¹⁶ Indeed, Ui-sang's Ocean seal illustrates the key doctrine of Hwaom Buddhist metaphysics, namely, that start and finish or cause and effect are both in the same position in the Middle way, so that they interpenetrate harmoniously together without any obstructions whatsoever.¹⁷ Steve Ordin has translated a 30 verse poem into English.¹⁸ I will not discuss all of them(1-30). I will argue the most important phrases of the Ocean Seal, and in doing so I will attempt to reveal distinctive way of thinking of Ui-sang.

Ui-sang's Ocean seal begins with the nature of dharma which appears in the center of the Diagram with first phrase. "1. Since dharma-nature is round and interpenetrating, it is without any sign of duality."¹⁹ For Ui-sang the Dharma-nature is 'round and penetrating', and the true Dharma

¹⁴. Ibid., xiii.

¹⁵. Ibid., xviii.

¹⁶. Ibid., xviii.

¹⁷. Ibid., xviii.

¹⁸. See, *ibid.*, xix-xx.

¹⁹. Ibid., xix. *Dharma* can be called the Ultimate Reality. According to different religious traditions, it is called God, Tao, Brahman, and the Infinite. Yet Dharma exists beyond any nature, form, or characteristics. It is never defined in the form of epistemological dualistic structure in essence.

nature is profound, mysterious and sublime. Ui-sang expressed his ideas about relationship between one and many, parts and whole as follows.

7. In One is All, In many is one.
8. One is identical to All, Many is identical to One.
9. In one particle of dust, Is contained the ten directions.
10. And so is, with all particles of dust.
-
17. Particular-phenomena(shih) and Universal-principle(li),
Are completely merged without distinction.²⁰

The seventh stanza and the eighth stanza clearly show the essence of dependent co-origination of one and many, parts and whole. Ui-sang expresses all the things of transcendental world and immanent as merely number. He summarizes parts and whole as many and one. For Ui-sang, whole is in parts and parts is in whole. Therefore, parts themselves are whole, and whole itself is parts. How is it possible? The reason, according to Ui-sang, is that neither parts nor whole have self-nature(*svabhā*). If there is separate self-nature in all the things, they have nothing to do with one another and cannot participate in one another. But according to Ui-sang's system there is no being which has inherent self-nature in the Universe. "The relationship between parts and parts, and parts and whole is made by following causal conditions."²¹ As we will examine next section, this is a philosophical basis to be able to establish Holon.

In the ninth and tenth verses, Ui-sang examines the unique space concept of Hwaom Buddhism. Even a speck of dust includes the limitless unfolded world of being. A speck of dust can be great or small. The reason is that there is no self-nature.²² Ui-sang does not make distinction between big and small in our thought. In small is big and in big is small. They penetrate one another. As all kinds of things cannot be contrasted to the one speck of dust, so any kind of dualistic terms such as one and many, possessor and possessed, etc., cannot be applied to the dualistic concept of space.

In seventeenth verse exposes the gist of Hwaom Buddhistic doctrine. Ui-sang explains the relationship of parts and whole by means of different words. He identifies whole with *Li*(理) and part with *Shih*(事). In Western philosophy, Li and Shih indicate *noumena* and *phenomena*. Ui-sang says the 'non-obstructive interpenetration of universal-principle with particular-phenomena(理事無碍) as well as the 'non-obstructive interpenetration of particular-phenomena with particular-

²⁰. Ibid., xix-xx.

²¹. Sang-yil Kim, *Contemporary Science and Korean Philosophy*(Seoul: Chongrobookcenter, 1994), 155.

²². Ibid., 157.

phenomena(理事無碍).²³ In a word, according to Ui-sang, all phenomena in simultaneous interfusion and non-obstructed mutual penetration.

What is the relationship between one and many, and how do their relationships have to appear in our reality? What is appearing following after non-obstructive interpenetration of universal principle and particular-phenomena and of particular-phenomena and particular-phenomena? Ui-sang's ultimate intention is to assert that many is not derived from one in the laws of cause-effect, and that many is not conditioned or defined by one. In Ui-sang's system, one is never the efficient cause or material cause of many. In the world of Hwaom, there is no creating cause and fulfilling cause. So, what is the world of Hwaom? According to Ui-sang, the situation that occurs by acknowledging that one becomes many and many become one is "awakening mind." When we are in "awakening mind," how do all things appear? They are appeared with fullness. The ultimate purpose of Ui-sang philosophy is to perceive existing realities as suchness.²⁴

The main thinking of Ui-sang is characterized as 'reconciliatory,' 'inclusive,' and 'harmonious.' Ui-sang's thought also is characterized as 'Buddhism of total interpenetration.' The pattern of Ui-sang's thinking is characterized as syncretistic interpenetrative harmonization. Ui-sang's way of thinking is heavily dependent upon Han thought. Ui-sang's world view is close to the theories of contemporary physics. Just as in Ui-sang one and many are unceasingly, eternally interrelated, and they are interpenetrated with each other, so contemporary physics asserts that parts and whole are totally interrelated. Wilber says:

Quantum theory has abolished the notion of fundamentally separated objects, has introduced the concept of the participator to replace that of the observer, and has come to see the universe as an interconnected web of relations whose parts are only defined through their connection to the whole.²⁵

In this respect, Ui-sang's thought has a dynamic resemblance with quantum theories. In the following section, I will discuss Ui-sang's idea in light of the holographic principle.

Metaphorical Relation between the Holographic Theory and Ui-Sang's System

Ui-sang's thought can be articulated metaphorically in terms of the theories of contemporary physics. Seen in the holographic principle, we will notice how one and many, parts and whole can exist at the same time. Here I will briefly discuss the holographic principle, then explore its philosophical meaning, and finally interact its principle with Ui-sang's system. Because of the possibility of a new and higher paradigm in approaching to the nature of reality, the holographic

²³. Steve Ordin, *ibid.*, xiii-xiv.

²⁴. Sang-yil Kim, *Han Philosophy*, 280-282.

²⁵. Ken Wilber, *No Boundary*, 40.

theory has been one of the most noted areas of modern physics. The holographic principles were developed from the holography invented in 1948 by Dennis Gabor, a Hungarian-born scientist. Holography is method of reproducing a unique three-dimensional photographic image of an object by means of light wave patterns recorded on a photographic plate or film. The plate or film with the recorded wave patterns is called a hologram.²⁶

The light used to make a hologram must be coherent, i.e., of a single wavelength or frequency and with all the waves in phase. Before reaching the object, the beam is split into two parts; one(reference beam) is recorded directly on the photographic plate and other is reflected from the object to be photographed and is then recorded. Since the two parts of the beam arriving at the photographic plate have traveled by different paths and are no longer necessarily coherent, they create an interference pattern, exposing the plate at points where they arrive in phase and leaving the plate unexposed where they arrive out of phase. The pattern on the plate is a record of the wave as they are reflected from the objects recorded with the aid of the reference beam. When this hologram is later illuminated with coherent light of the same frequency, a three-dimensional image of the object is produced. Since waves from all parts of the objects are recorded on the all parts of the hologram, any part of the hologram, however small, can be used to reproduce the entire image.²⁷

The holographic principle, along with development of laser light in the early of 1960s, has been applied to many fields: microscopy, optics, acoustics, medicine, geophysics, and even archeology.²⁸ The holographic principle which has emerged from science in the last forty years manifests that a cosmology is not an empirical schemata but a fabric woven of interacted and interpenetrated relationships. It could be accepted as the basic paradigm of reality. The most

²⁶. John B. Develis and George O. Reynolds, *Theory and Applications of Holography*(London: Addison-Wesley Publishing Company, 1967), 1-2.

²⁷. Ibid., 3-5.; see, M. Francon, *Holography*(New York: Academic Press, INC, 1974), Chapter 2.

²⁸. See, Francon, *Holography*; Caulfield H.J. *The Applications of Holography*(New York: Wiley-Interscience, A Division of John Wiley & Sons, 1970); John B. Develis and George O. Reynolds, *Theory and Applications of Holography*. These books show various applications of the holographic principles. English physicist David Bohm has utilized the holographic model for explanation of reality of the universe. According to him, the sensible world is known as the "explicate order." This corresponds to the reproduced image of the holographic model. Beyond the sensible world is a vast ocean of quantum energy potential that contains myriad possibilities and is unlimited by corporeal limitations such as time and space. This is known as the "implicate order": it corresponds to the wave-interference pattern captured on the holographic plate. D. Bohm, *Wholeness and the Implicate Order*(London: Routledge & Kegan Paul, 1980), 147-149. Cf. Ken Wilber, *The Holographic Paradigm and Other Paradoxes*(Boulder & London: Shambhala, 1982), 187-214.

intriguing character of the holographic principle is that it shows not that parts belong to whole but that a part contains the information about whole. Each part, however small, includes whole.

A hologram is a special type of optical storage system that can best be explained by an example: if you take a holographic photo of, say, a horse, and cut out one section of it, e.g., the horse's head, and then enlarge that section to the original size, you will get, not a big head, but a picture of *whole* horse. In other words, each individual part of the picture contains the whole picture in condensed form. The part is in the whole and the whole is in each part---a type of unity-in-diversity and diversity-in-unity. The key point is simply that the *part* has access to the whole.²⁹

This principle could be considered to be irrational or unscientific in light of Cartesian-Newtonian paradigm. In the Newtonian world, a part cannot be considered whole, and it is considered less than the whole. The bipolarity of parts and whole is irrational. In contrast to the mechanistic Cartesian view of the world, the world view that emerges from the holographic principle can be characterized as an organistic, wholistic world. The universe is seen as a dynamic whole whose parts are essentially interrelated. Indeed, the holographic principle has shown that parts are not isolated grains of matter separated from whole but are interconnections in an inseparable cosmic web. In short, holography is move toward the inherent harmony of one and many, and its principle is to show the unbroken wholeness of the reality.

The holographic principle is most dynamically applied to Ui-sang's thought. I will apply the holographic principle to the interaction between one and many, part and whole in Ui-sang's ocean seal. The key theme of Ui-sang's philosophy was to show how the relationship between one and many, parts and whole can be articulated. The holographic gives a scientific validity to Ui-sang's system. In his Diagram, Ui-sang tried to harmonize between Buddha's saying and the variety of people's mind. Ui-sang's Diagram is alike a photographic plate of holography. The line patterns recorded on the plate by creating interference pattern between reference beam and reconstruction beam could be compared to lines or curves drawn in Diagram. Buddha's saying is like reference beam and varieties of people's mind are compared to reconstruction beam. Just as interference and coherence of reference beam and reconstruction beam make a photographic plate of the hologram, so Ui-sang's Diagram symbolically shows wave patterns which are created by the interfering of Buddha's saying and the varieties of people's minds with each other. As is seen figure-1, the diagram of the ocean seal begins and ends in the same place, moving spirally to all directions. The pattern of the diagram corresponds to the holomovement. And moving itself is similar to the holoflux which means a straight circular movement.³⁰ As reference and reconstruction beam are cointerfered with each other, Ui-sang's ocean seal also shows a wave pattern that part and whole interfere and interpenetrate each other. In other words, all the parts

²⁹. Ken Wilber, *The Holographic Paradigm and Other Paradoxes*, 2.

³⁰. See Ibid., 51.

reflect the whole like the photographic plate of the hologram. Therefore, the varieties of people's mind(each part) reflect Buddha's saying(Whole). As the relationship between parts and whole is compared to the relationship between people and Buddha, there are no obstructions, non-static place in their relationship. Just as the holographic principle shows organic harmony of parts and whole, so Ui-sang attempted to show that it is possible to conceive of the one in many and many in one without contradiction.

Concluding Remarks

From what has been discussed, the following statements can be emerged.

1. I attempt to show that Ui-sang's way of thinking based on Han mind is the very similar to the holographic principle. Indeed, the holographic principle is adequate to give a full understanding of Ui-sang's system.
2. Ui-sang's Diagram represents the co-interpenetrative relationship between one and many, parts and whole. Likewise, the holographic principle shows that each part, however small, reveals entire movie of whole. Here it is meaningless to distinguish between parts and whole.
3. Ui-sang's aim was to overcome both fallacy of eternalism which asserts that there is changeless reality and fallacy of annihilationism which believes that plurality of each part is true reality at the same time. In this sense, his system can be called trans-logic.
4. Ui-sang's thought and the holographic principle, beyond the challenges to realism and determinism, call into question the reductionism of Cartesian-Newtonian paradigm. We have discussed the inseparability of parts and whole. The being of a part is constituted by its relationships and its participation in more inclusive pattern. Such wholistic view contrasts with the reductionism of Newtonian paradigm.
5. Ui-sang's thought and the holographic principle represent a great convergence between contemporary scientific theories and ideas expressed in the Eastern religions. Modern physics, more than any other source, has strong affinity with the Eastern religious ideas. In this sense, the dialogue between religion and science can be dynamically made when modern physics encounters the Eastern religions.

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The purpose of this paper is to study comparatively relationship between the Ocean seal or Diagram of the *dharmadhatu* of Ui-sang, the First Patriarch of Hwaom Buddhism in Korea and the holographic principle, both of which can be considered models for a new description of reality. Ui-sang's Ocean seal reveals a unique and creative Korean version of Chinese Hua-yen Buddhism which seeks the synthesis of the noumenon and phenomenon. So far Ui-sang's thought has been considered to be irrational, illogical and unscientific because of its ambiguity. Ui-sang's logic is unscientific, irrational, and ambiguous in terms of the Cartesian-Newtonian mechanistic paradigm which sees the world as constituted by many separated parts. However, seen from the perspective of contemporary physics, Ui-sang's system is scientific, logical and rational. This paper will try to prove the scientific basis and rationality of Ui-sang's thought in virtue of the holographic principle, one of theories of modern physics.

The holographic principles which have emerged from science in the last thirty years have provided a new paradigm for understanding the universe. They have forced us to see the universe not as a collection of physical objects, but rather as a complicated web of relations between the various parts of a unified whole. A hologram is a three-dimensional photograph created through laser technology. The key feature of the holographic principle is that it concerns the harmony of part and whole. Interestingly enough, the holographic principle has a fascinating resemblance to Ui-sang's Ocean Seal. The ambiguous characteristic of Ui-sang's Ocean Seal can be metaphorically articulated by virtue of the holographic principle.

In this paper, I will explore Han philosophical aspects, which consistently emphasize interrelatedness and dependence, and then analyze the Ocean Seal(Hwaom-ilsung-Popkye-do) of Ui-sang who is great master of Korean Hwaom(Hua-yen) Buddhism. Also, I will briefly discuss holographic theory, and then argue its key aspects, which stress the interdependent, parallel and simultaneous processing of events. Consequently, I will attempt to show that the main feature of Han—bipolar aspects of one and many, parts and whole—described by Ui-sang are able to be clearly understood by the holographic principle.

Key Words

**Ui-Sang, Ocean Seal, Holography, Hwaom Buddhism, *Han, Knot, On*, Ken Wilber
Cartesian-Newtonian Paradigm**

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