

A Holographic Alternative to a Traditional Yogācāra Simile:

An Analysis of Vasubandhu's Trisvabhāva Doctrine

STEPHEN KAPLAN

In the *Trisvabhāvanirdeśa* Vasubandhu employs the simile of an elephant produced by a magician in order to illustrate the doctrine of the three *svabhāvas*—the three natures. The basic structure of the magic show simile is stated in verses 27–30.

By means of a mantra an elephant is made to appear by magic. There is only the form (*ākāramātram*). In every respect the elephant is not existent.

The elephant is the *kalpita svabhāva*; its form is the *paratantra* nature; and the elephant which is not existent there is regarded as the *pariniṣpanna*.

So the non-existent construction appears with the nature of duality from the root-mind (*mūlacittād*). the duality is completely non-existent. Only the form exists there.

The root-mind is like the mantra. Suchness (*tathatā*) is like the wood. The construction is like the form of the elephant. Duality is like the elephant.¹

¹ Vasubandhu, *Trisvabhāvanirdeśa*, Sanskrit text quoted by verse number from Fernando Tola and Carmen Dragonetti, "The Trisvabhāvakārikā of Vasubandhu," *Journal of Indian Philosophy* 11 (1983), 225–266. All translations while indebted to other translations of this text are the responsibility of this author.

*māyākṛtam mantravaśāt khyāti hastyātmanā yathā/
ākāramātram tatrāsti hasti nāsti tu sarvathā//27*

A HOLOGRAPHIC ALTERNATIVE

In this simile the magician by means of a mantra makes an elephant appear in place of a piece of wood. Vasubandhu relates the wood and the non-existence of the elephant to *pariniṣpanna*, the perfected or consummated nature. The form of the elephant which appears and the conditions given which the elephant can appear are compared to *paratantra svabhāva*, the relative nature—that nature which is dependent upon causes and conditions. The belief that the appearance of the elephant is a real elephant is related to *parikalpita svabhāva*, the purely imagined nature.

This simile when examined in greater detail helps to elucidate each of the three natures as well as the relationship between the three natures. This simile seems to have been the best one available to Vasubandhu. However, the simile of an elephant produced by a magician has its limitations like all such analogies. For example, few of us have ever experienced this feat of magic and those that have are the subject of the experience (*parikalpita*), not an analyzer of the experience.² In addition, the block of wood which represents *tathatā* (*pariniṣpanna*) is a spatial-temporal object composed of parts which are each distinctly different than the next part. The block of wood is conventional in structure, dualistic in nature; and therefore, I believe rather limited in its ability to illuminate *pariniṣpanna*.

*svabhāvaḥ kalpito hasti paratantras tadākṛtiḥ/
yas tatra hastyabhāvo 'sau pariniṣpanna isyate//28*

*asatkalpas tathā khyāti mūlacittād dvayātmanā/
dvayam atyantato nāsti tatrāsty akṛtimātrakam//29*

*mantravan mūlavijñānam kāsṭhavat tathatā mata/
hastyākāravat eṣṭavyo vikalpo hastivad dvayam//30*

² The exact manner by which these feats of magic are performed can be unclear. Stephen Anacker, [Seven Works of Vasubandhu, (Delhi: Motilal Banarsidass, 1984), p. 289] says: "Some kinds of magicians in India operate with what might be described as a form of mass hypnosis. For instance, they may sit in front of a pot, and make a huge flower grow very rapidly from it. Anyone who walks into the middle of the performance will see the same thing all the other spectators are seeing. But if a photograph of the event is taken, all that appears is the magician sitting in front of an empty pot." While this description seems clear, one may ask how a complete mass of people are hypnotized; and more significantly, one may ask how someone entering late would also be hypnotized?

Holography, the technique by which three-dimensional optical artifacts are produced, may provide us with a more useful metaphor for elucidating the three *svabhāvas*. First, as a modern form of technology one can produce holographic images at will. One can simultaneously look at them, study them, and analyze them. The magic show simile does not afford us those luxuries. In addition, holography produces three dimensional images which appear out there in front of us, but these images do not exist out there. These images are also produced from a holographic film which contains no images. Therefore, one can say that the very life-like holographic images which we experience do not exist where we believe we experience them (*parikalpita*). Nonetheless, the holographic film contains the conditions for the production of the images (*paratantra*); even though the film is itself empty of images just like *pariniṣpanna*. These characteristics of holography in conjunction with a more detailed analysis of the subject will prove helpful in illuminating Vasubandhu's doctrine of the three *svabhāvas*.

The three *svabhāva* doctrine is a complex and multifaceted notion. It encompasses epistemological, psychological, soteriological and ontological issues. The following discussion will attempt to present the major characteristics of each nature as well as their relationship to each other. However, the comparison between the three nature doctrine and the holographic simile will have to focus upon specific issues. In particular, much of the focus of the comparison will be upon two issues raised in separate articles by Professor Nagao Gadjin, the eminent Buddhist scholar.

The first article by Professor Nagao to which I wish to call attention is entitled "The Buddhist World-View as Elucidated in the Three-Nature Theory and Its Similes."³ As the title suggests this article focuses upon the three *svabhāva* doctrine found in Yogācāra and relates this doctrine to the various similes employed in Yogācāra texts. The simile that Professor Nagao believes most appropriately exemplifies the Yogācāra world-view is the magic show.⁴ In this context, one of the key issues that Nagao highlights is the issue of convertibility. He says:

³ Nagao, Gadjin, "The Buddhist World-View as Elucidated in the Three-Nature Theory and Its Similes," *Eastern Buddhist*, Vol.16, (Spring, 1983):1-18.

⁴ *Ibid.*, p. 18.

A HOLOGRAPHIC ALTERNATIVE

The principle of “convertibility” (expressed by words such as ‘change,’ ‘transformation,’ or ‘conversion’ in the previous discussion) is a remarkable and important feature of the three nature theory. It prevails in all three natures and enables them to constitute one and the same world. Through “convertibility,” it is possible for the world to be one and at the same time to possess the three natures. These changes, conversions, or transformations are possible only on the “basis” of the other-dependent nature.⁵

The Yogācāra doctrine of the three *svabhāvas* is not intended to divide the world into three distinct and separate ontological domains. Rather, the three nature doctrine is intended to indicate that there is only one world and it can be known—experienced—in three ways. Nagao is thus highlighting not only the notion of convertibility but also the concomitant notion that *paratantra* is the basis of the other two natures.

Professor Nagao sees the magic show simile most aptly directing us toward the notion of convertibility. However, he also notes that another simile better exemplifies the notion that *paratantra* is the basis of the other two natures.⁶ The latter is the gold-ore simile in which “. . . gold-bearing ore appears simply as clay, for no gold is visible.”⁷

It is my contention that the holographic simile can most aptly exemplify both the notion of convertibility and the notion that *paratantra* is the basis of the other two nature. These two notions are inextricably intertwined. There is no convertibility without *paratantra* as the basis for convertibility. Therefore, that simile, namely holography, which can aptly illustrate both principles simultaneously would seem to illustrate each principle more vividly. By analogy, holography will allow us to envision how “it is possible for the world to be one and at the same time to possess the three natures.” The holographic simile simultaneously presents us with the following three natures: 1), an imagined form that appears to be other (*parikalpita*) 2), the conditions for the arising of that form (*paratantra*) and 3), a nature that is always empty of form (*pariniṣpanna*). These three natures will be shown to

⁵ Ibid., p. 6.

⁶ Ibid., p. 16.

⁷ Ibid., p. 10.

have their basis in one nature—the interference patterns that are the basis for holography.

The second article by Professor Nagao that shall draw our attention focuses upon the notion of *śūnyatā*. This article is entitled “What Remains in Śūnyatā: A Yogācāra Interpretation of Emptiness.”⁸ In this article Nagao examines a description of *śūnyatā* provided by Vasubandhu in the *Madhyāntavibhāga Bhāṣya* (1.1):⁹

Thus [in this verse] the characteristic of emptiness has been shown in an unperverted way as stated: “It is perceived as it really is that, when anything does not exist in something, the latter is empty with regard to the former; and further it is understood as it really is that, when, in this place, something remains, it exists here as a real existent.”¹⁰

Professor Nagao’s comment on the phrase “something remains” in *śūnyatā* is as follows:

The expression, “something remains” (*avaśiṣṭa*), however, is enigmatic indeed, for sunyata is generally accepted as non-being, negative in character, while “something remains” positively asserts the existence of something. Perhaps one should understand this as an ultimate reality which is never denied, not even at the extremity of radical negation; it is, for

⁸ Nagao, Gadjin M., “What Remains’ in Śūnyatā; A Yogācāra Interpretation of Emptiness,” Minoru Kiyota ed., *Mahayana Buddhist Meditation: Theory and Practice* (Honolulu: University of Hawaii Press, 1978), pp: 66–82.

⁹ It should be noted that Lambert Schmithausen (“Sautrāntika-Voraussetzungen in *Vimśatikā* and *Trimśikā*,” *Weiner Zeitschrift für die Kunde Süd und Ostasiens und Archiv für indische Philosophie*, Vol. XI, (1967):109–136) questions whether the Vasubandhu that wrote the *Vimśatikā* and *Trimśikā* was the same as the Vasubandhu that wrote the commentaries to such Yogācāra texts as *Madhyāntavibhāga*. Professor Nagao does not seem to hold this position as he attributes the commentary of the forementioned to Vasubandhu. In this context we will follow Nagao and others, as well as the tradition itself, who accept the authorship of one Vasubandhu. It must also be noted that the important phrase—“the existence of non-existence of duality”—can be found not only in the *Madhyāntavibhāgabhāṣya*, but similarly in the *Trisvabhāvanirdeśa*. See footnote #35.

¹⁰ Vasubandhu, *Madhyāntavibhāgabhāṣya* 1.1. Since we will follow this passage with a comment by Professor Nagao, this text is quoted from Nagao Gadjin, “What Remains in Śūnyatā; A Yogācāra Interpretation of Emptiness,” p. 69.

A HOLOGRAPHIC ALTERNATIVE

instance, similar to the situation in which one cannot negate the fact that he is negating.¹¹

Vasubandhu also informs us that the phrase “something remains” refers not only to *śūnyatā*, but also to *paratantra*. This information, while helpful, was not sufficient to remove the “enigma”, as Nagao refers to it, surrounding the identification of *śūnyatā* with the phrase “something remains.”

It is my contention that the holographic simile will be able to illuminate the enigma to which Professor Nagao calls our attention. Holography can illuminate the issue of “what remains in *śūnyatā* while also illuminating the two issues previously mentioned. Holography will present us with different domains whose natures appear to be radically different than each other, but which are, in fact, not other than each other. Holography will also us to picture and to describe theoretically what remains in that holographic domain which is empty of particularity or self-nature, but yet which is the condition given which particularity can appear. These statements are intended to hint at the relationship between holography and the three *svabhāvas* as well as to indicate the direction of this paper. A more complete discussion of both holography and Vasubandhu's three *svabhāva* doctrine are needed before the details of this comparison can be unfolded.

It must be clearly stated that this paper will not be presented as an attack upon the magic show simile. Aside from the few brief comments already made, there is no intention of denigrating the traditional Yogācāra simile. The holographic metaphor is offered to further illuminate the three nature theory and the traditional Yogācāra similes employed.

II. Holography and its Two Domains

Holography was conceived by Dennis Gabor in 1947.¹² Gabor pro-

¹¹ Ibid., p. 70.

¹² It should be noted that there are several types of holograms. The exact methods and means of production and of reconstruction vary according to the type. This presentation draws upon transmission holograms and the presentation of virtual images. In the case of virtual images the reference beam used to illuminate the scene generate spherical waves which diverge. The divergence of the waves creates the appearance that

posed the manner in which a photographic film could retain the optical information necessary to reproduce, from itself, a three-dimensional image. Gabor's idea could not be fully utilized until 1964 when Emmet Leith and Juris Upatnicks employed the then newly-developed laser as the light source for this optical technique.

As indicated, holography is the technique by which one produces three-dimensional optical images. Holography produces visual images which exhibit all the properties of our everyday visual world. Holographic images have height, width and most significantly depth. This third dimension distinguishes holographic images. It is absent from photographs, paintings, movie and slide projections. This third dimension affords the viewer multiple perspectives from which the object/scene may be viewed. This dimension allows for parallax effect. In other words, if a hologram reproduces two images, an anterior image which partially conceals a posterior image, one can change one's vantage point in order to see around the anterior image and thereby view the entirety of the posterior image. In contrast, photography and cinematography present two-dimensional images which by the nature of being two-dimensional offer only one vantage point. The latter are exhibited upon paper or flashed upon a screen; whereas, a holographic image appears suspended in space. In this regard, holographic images are like sculptures—three-dimensional. However, they are remarkably different from than sculptures since they are not tangible. Holographic images only appear—appear three-dimensional.

The difference between holographic images and all the varieties of two-dimensional images to which we are accustomed is enormous. Unless one is familiar with holographic images, it is easy to conflate the three-dimensional nature of holographic images into categories appropriate to two-dimensional images. To conceive of holographic images in terms of two-dimensional images or even in terms of three-dimensional sculptures would be to miss the uniqueness of holography. (It would also lead to problems when one tries to compare holography and the three nature doctrine.)

Holographic images are produced in a different manner than

the waves are generated from a focal point on the side of the hologram away from the viewer. It is essential to realize that nothing is at that focal point.

A HOLOGRAPHIC ALTERNATIVE

photographic images and these differences will help to clarify the nature of holographic images. In photography, there exists a point to point correspondence between the object and its illumination on the photographic film. Holograms do not record any such point to point illumination. Rather the film records interference patterns.

Holograms are produced with lasers which are coherent, single frequency, light sources. The laser beam is split with a half-silvered mirror. One part of the laser beam is directed toward the object to be filmed and then toward the film; while the other part is directed only toward the film. These two beams of light converge at the film and their convergence creates interference patterns. These patterns are like the ripples/waves that are produced in a pool of water when two stones are dropped into the pool. The waves from the two stones would spread across the water creating ripples. When the waves from the two stones meet, their confluence will create new wave patterns that spread across the entire pool of water. The convergence of the two wave patterns of water is like the convergence of the two laser beams at the film. Wave or interference patterns will be spread across the film. No image exists on the film; no image can be seen on the film. Only interference patterns exist on the film.

In order to view a hologram, one must pass a beam of light back through the holographic film.¹³ This will reverse the process by which the interference patterns were recorded on the film. It will in effect reverse the convergence of the two beams. This reversal of the convergence will eliminate the interference between the two beams of light and it will reconstruct the original wave patterns that were reflected off the object. This reconstruction of the original light patterns makes it appear as if the object is present. The same optical conditions that existed before the two beams of light converged are now recreated. In other words, the light striking one's eye from this reconstructing process will produce the same image as the light from the original object would have produced. The image will appear to be "over-there."

The holographic situation presents us with two domains. David Bohm, the noted physicist, call these domains the implicate and the ex-

¹³ The reconstructing process may take place without the use of a coherent light source. For example, the light from an ordinary light bulb can be used to present a holographic image. However, the image will not be as vivid.

plicate domains.¹⁴ The holographic situation is constituted by three things: 1) the object filmed 2), the film and 3), the reproduced three-dimensional image of the object. The implicate domain refers to the film, particularly the manner in which the information is stored on the film. The explicate order refers to the object which is filmed and the image of that object which is reproduced. Each domain has characteristics which are strikingly different from the other.

The explicate order represents our normal, spatial-temporal world. Here things are separate; boundaries between things are explicit. Explicit entities can be divided into parts and the sum of these parts will constitute the entire entity. Explicit entities are particular and measurable. They are defined in relationship to other things. The holographic image which we view and the object that produced the image are both explicate in nature. Each appears with spatial and temporal qualities.

On the other hand, the implicate domain is not constituted by entities which are defined by particularity and its concomitant spatial relationships to other entities. Particularity and its concomitant spatial relationships are enfolded—folded within—the entire implicate order. Separate and distinct entities do not exist within the implicate order. The implicate order is not constituted by a series of parts whose sum equals the whole. Rather, in the implicate domain each piece contains the whole. Each piece of the film can be used to reconstruct the entire image because the information needed to reconstruct the entire image is contained in all parts of the hologram. Practically stated, you can tear a hologram in ten equal pieces, throw away nine pieces, illuminate the tenth piece and still produce the entire image. Illuminating only one-tenth will still produce the same image as illuminating five-tenths of the film or as illuminating the entire film. Each piece of the film can produce the entire image and all the pieces together produce only one image. The entire image is implicated within each piece.

Holography has this unusual property because the film which we have labeled an implicate domain records interference patterns. The interference pattern is the same throughout the film. The interference pattern is describable by a mathematical, Fourier equation that can descri-

¹⁴ David Bohm, *Wholeness and the Implicate Order*, (London: Routledge and Kegan Paul, 1980).

A HOLOGRAPHIC ALTERNATIVE

be the entire film or any piece of the film. The interference patterns that the hologram records are spread over the entirety of the film. Each part of the film therefore contains the whole because the interference patterns which are recorded on the film are not localized; but rather, they are spread throughout the entirety of the film. David Bohm describes this as follows:

It is clear, then that there is no one-to-one correspondence between parts of an 'illuminated object' and parts of an 'image of this object on the plate'. Rather, the interference pattern in each region of the plate is relevant to the whole structure, and each region of the structure is relevant to the whole of the interference pattern on the plate.¹⁵

Not only does the implicate domain allow all entities of an explicate domain to be enfolded within each region of the implicate order; but in addition, multiple explicate domains can be enfolded within the totality of an implicate domain. Different and separate scenes can be stored on the same piece of holographic film by recording the different scenes at different laser frequencies or by changing the angle at which the interference patterns are stored on the holographic film. Each of the separate scenes may be reproduced from the one implicate domain by using the appropriate laser frequency or by using the angle appropriate to each particular image stored on the film. This property is noticeably different than photography. In photography you cannot record two or more separate and distinct scenes on one piece of film. Photographing a second scene on one photographic negative leads to double exposure—to a blurring of both scenes. Such is not the case with holography whose implicate domain lacks particularity, but allows for the enfolding of countless particulars.

To recapitulate this section, we can say that holography produces three-dimensional images which appear but do not exist. Holography presents these images from an implicate domain which reverses all that we commonly assume about the relationship between parts and whole, subjects and objects. Holography with its unusual characteristics will help us understand Vasubandhu's notion of the three natures.

¹⁵ Ibid., p. 146.

III. The Three Nature Doctrine and the Magic Show Simile

The introduction to this paper sketched an overview of the magic show simile and the three nature doctrine developed in Vasubandhu's *Trisvabhāvanirdeśa*. In that text, noted here after as *TSN*, Vasubandhu describes each of the three *svabhāvas* and their relationship to each other. He also employs the magic show simile to illustrate these points. We will therefore proceed with a description of the three natures and their relationship while reviewing the magic show simile.

The opening verses of the *Trisvabhāvanirdeśa* put forth the basic definitions of the three natures.

The *kalpita*, the *paratantra* and the *pariniṣpanna* are the three natures that are to be profoundly known by the wise.

Paratantra is that which appears; its transformations are dependent on causes. How it appears is *parikalpita*; its nature is only construction.

The way that which appears appears is never existent. It is to be known as *pariniṣpanna svabhāva* for it is not other (than that).¹⁶

In these passages Vasubandhu presents us with the distinction between what appears and how it appears, and then proceeds to declare the absence of how it appears. What appears is not denied, only how it appears and that it exists as such.

What appears or manifests (*yat khyāti*) is the *paratantra* nature. *Paratantra* is the relative aspect; it is that nature which is dependent upon conditions. It gives rise to experience and as such becomes the causes and conditions for further experience. It is associated with

¹⁶ *kalpitaḥ paratantras ca pariniṣpanna eva ca/
trayaḥ svabhāva dhṛtānām gambhīram jñeyam isyate//TSN 1*
*yat khyāti paratantra' sau yathā khyāti sa kalpitaḥ/
pratyayādhitnavṛttitvāt kalpanāmātrabhāvataḥ//2*
*tasya khyātur yathākhyānam yā sadāvidyamānatā/
jñeyah sa pariniṣpannah svabhāvo 'nanyathātvataḥ//3*

A HOLOGRAPHIC ALTERNATIVE

ālayavijñāna and *pravṛitti-vijñāna*—the store consciousness and the functioning consciousness.¹⁷ *TSN* (#5) also informs us that *paratantra* is the mind that presents our constructed mental images and these constructions are nonexistent (*asatkalpa*, *abhūtaparikalpa*).¹⁸ Although we are told that these mental constructions are *asat* or *abhūta*,¹⁹ we are informed that they exist as an error (*brānti*).²⁰ Therefore, *paratantra*, like both of the other natures, is said to be both existent and nonexistent.²¹ *Paratantra svabhāva* is therefore that which manifests (appears), the seeds from which it manifests, and the mind by which it manifests.²²

In the magic show simile, *paratantra* refers to the form (*ākāra*) by which and as which the elephant appears. “Something” is seen and what is seen is said to be a mental construction/fabrication (*vikalpa*).²³ This construction is the form (*ākāra*) of the elephant. It is only an appearance; there is no elephant or duality so says *TSN* #29. The form of the elephant is the *asatkalpa* (the unreal construction) of the mind. The mind constructs and projects this appearance (*prātibhāsika*) enabling it to be presented. Therefore, this presentation which is described as

¹⁷ *TSN* see #6–9.

¹⁸ *TSN* #5.

¹⁹ The term *asatkalpa* appears regularly in the *TSN*; while *abhūtaparikalpa* appears in *Madhyāntavibhāgabhāṣya*. The form *abhūtakalpa* appears in the *TSN* (#8). I take these terms to imply the same thing.

²⁰ *TSN*, #12.

²¹ *sadasattvād dvayaikatvāt samkleśavyavadānayoḥ/
lakṣanābhedaś ceṣṭa svabhāvanam gabhīratā//TSN 10*

²² In the following, the comparison will focus upon *paratantra* as that which manifests and the seeds from which it manifests. The focus of this paper as regards *paratantra* will not be upon *paratantra* as the mind that manifests. For a discussion of *paratantra* as mind and its relation to holography see, by this author, “*Paratantra and Parikalpita as Epistemological Concepts in Yogācāra Buddhism and Holographic Psychology*,” Nathan Katz ed., *Buddhist and Western Psychology* (Boulder: Prajna Press, 1983), pp. 211–225.

²³ The use of the term construction for *vikalpa* can be questioned. Professor Roger Corless (Duke University), who must be thanked for his helpful comments on an earlier version of this paper delivered to I.A.B.S., 1987, has called my attention to the issue of translating *vikalpa* with the term construction. When translating *vikalpa* as construction, it should be understood to imply mental construction, mental fabrication, problematic product of the imagination.

asat or *abhūta* establishes the mind as that which manifests. As indicated, *paratantra* is the manifestation of the mind. These presented images such as the form of the elephant are not other than the mind, yet they appear with the nature of duality. However, Vasubandhu tells us that "... this duality is completely nonexistent. Only the form exists there."²⁴ This duality can not be real because all that has become manifest is a mind. The appearance does not become other than the mind. "It is important here to note that the 'relative' (*paratantra*) is one unitary event, and it is not the relation between two things."²⁵

Parikalpita svabhāva, the purely imagined nature, is the demand that the "unitary event" is the duality of a subject encountering an object. In the *TSN* #2, quoted above, Vasubandhu informs us that *parikalpita* is how *paratantra* manifests/appears. It manifests as *grāhya* and *grāhaka*—as the duality of perceiver and perceived, of subject and object. Duality is how *paratantra* manifests. This duality is never existent. It is only constructed—*kalpanamātra*. *Parikalpita* is a mental fabrication. It is that mental fabrication which results from the imposition of names or signs and from the imposition of objectness or existence upon that which only appears (*asatkalpa*, *abhūtaparikalpa*).²⁶ The manner of cognizing *paratantra* which insists that that which appears is other than an appearance and is, in fact, imagined to be a real, external object is *parikalpita svabhāva*.²⁷ *Parikalpita svabhāva* is not therefore a denial of experience; but rather, it is a denial of the dualistic structure that we impose upon our experience.

Returning to our simile, we can now say that the imposition of the duality of subject and object makes it seem as if the *ākāra* of the elephant is separate from the mind. However, the constructed, appearing *ākāra* of the elephant is not other than the mind. In other words, that which the mind manifests in the *paratantra* nature is imagined in the *parikalpita* nature to be the objects that are available for our percep-

²⁴ *TSN*, #29.

²⁵ Herbert V. Guenther, "Samvṛti and Paramārtha in Yogācāra according to Tibetan Sources," M. Sprung ed., *Two Truths in Buddhism and Vedānta* (Dordrecht, Holland: D. Reidel Publishing Co., 1973), p. 95.

²⁶ Vasubandhu, *Madhyāntavibhāgaśāstra*, Stefan Anacker, *Seven Works of Vasubandhu*, (Delhi: Motilal Banarsidass, 1984), 5:13. This text hereafter listed as *MVB* and all Sanskrit verses are quoted from this edition.

²⁷ *MVB*, 3:16.

A HOLOGRAPHIC ALTERNATIVE

tion; and hence, as objects for our perception, they are imagined to be other than the perceiver. Thus, the elephant-*ākāra* which is manifest by one's mind, as part of the *paratantra* nature, is now imagined to be a real elephant distinct from the perceiver. Vasubandhu tells us that there is no elephant; no such duality exists.

The realization that there is no elephant is the realization of the existence of the wood. *TSN* #33 & 34 tell us that:

By the non-perception of duality, the form of duality (*dvayākāra*) disappears. By the cessation of that (the form of duality), *pariniṣpanna*—the non-existence of duality—is revealed.

Because of the non-perception of the elephant, the form of that disappears and, in this illusion, the perception of the wood happens simultaneously.²⁸

In the simile, we see that the wood is compared to *pariniṣpanna*—to suchness (*tathatā*). It is always without the form of the elephant—always without the existence of duality. *Pariniṣpanna* is that manner of cognizing *paratantra* in which the falsely imputed objectness is realized to be never existing;²⁹ and therefore, the non-existence of the duality of subject and object (*grāhaka-grāhya*) is uncovered. *Pariniṣpanna*, the consummated nature, is without subject-object duality; it is without imperfections, without discrimination. *Pariniṣpanna svabhāva* is without *parikalpita*. In other words, *pariniṣpanna* is *paratantra* without *parikalpita*. When saying this, it must be realized that *parikalpita* is not a thing taken away from *paratantra*. *Parikalpita* is purely imagined. It is not a separate ontological reality that is subtracted from a second ontological reality (*paratantra*) in order to lead to a third ontological reality (*pariniṣpanna*). The three *svabhāva* doctrine is intended to indicate that there is only one world and it can be known/experienced in three ways. We have seen Professor Nagao refer to this latter notion as the “principle of convertibility.”

²⁸ *dvayasyānupalambhena dvayākāro vigacchati/
vigamāt tasya niṣpanno dvayābhāvo'dhigamyate//
hastino'nupalambhaś ca vigamaś ca tadākrteh/
upalambhaś ca kāsthasya māyayām yugapad yathā// TSN, #33 & 34.*

²⁹ *TSN, #3. (See footnote #16.)*

In this context, Vasubandhu also tells us that *parikalpita*, *paratantra* and *pariniṣpanna* are all neither the same, nor different.³⁰ We have seen how each nature is different. For example, *parikalpita* appears with duality; while *pariniṣpanna* never has duality. But we are also told that each of the natures is not different than the other. For example, *parikalpita* and *pariniṣpanna* are not different since neither really has any duality. Since these natures are not the same, samsara is different than nirvana and there is a path to enlightenment. Since they are not different, samsara is nirvana. One does not have to move an inch in order to cross to the other shore. Both shores are transformations of one's knowledge of *paratantra* and as such there is only one world which by its nature of convertibility can appear as all worlds.

This one world can appear as three worlds because each nature is without self-nature—*niḥsvabhāva*.³¹ Since each nature is without self-nature, even though for different reasons, none of the *svabhāvas* have a nature which obstructs its convertibility to the other nature. They are all empty of self-nature and emptiness becomes a way of describing the three *svabhāvas*. In particular, *pariniṣpanna* which is identified with *tathatā* and *paramārtha*, is also to be identified with *śūnyatā*. The *Madhyāntavibhāgabhāṣya* develops this relationship.

Abhūtaparikalpa is the construction of the perceiver and perceived. Duality is the perceiver and the perceived. *Śūnyatā* is the removal of the perceiver and the perceived from the *abhūtaparikalpa*.³²

Abhūtaparikalpa is the same as *asatkalpa* which we have already seen in the *TSN* identified with *paratantra*. We have also seen that duality is *parikalpita* and the absence of that duality from *paratantra* was identified with *pariniṣpanna*. In the preceding passage, the absence of the duality is identified with *śūnyatā*. Thus, we have the identification of *pariniṣpanna* and *śūnyatā*. Vasubandhu defines *śūnyatā* in the *Madhyāntavibhāgabhāṣya* (1:13) as:

³⁰ *TSN*, #10 & 18–21.

³¹ See Vasubandhu's *Trimsikā* 20–24, Sylvain Levi, ed., *Deux Traités De Vasubandhu: Vimsatikā et Trimsikā* (Paris: Librairie Ancienne Honore Champion, 1925).

³² *MVB* 1.1 *tatrābhūtaparikalpo grāhyagrāhakavikalpaḥ/ dvayam grāhyam grāhakam ca/ śūnyatā tasyābhūtaparikalpasya grāhyagrāhakabhāvena virahitā/*

A HOLOGRAPHIC ALTERNATIVE

Indeed, the characteristic of emptiness is the non-existence of duality and the existence of the non-existence.³³

In the *bhāṣya* to 1:20 he adds:

The non-existence there of persons (*pudgala*) and events (*dharma*s) is *śūnyatā*. The existence of the being of that non-being in it is another *śūnyatā*.³⁴

These definitions are not unlike the description of *pariniṣpanna* found in the *TSN* #25.

Then *niṣpanna* which is the existence of the non-existence of duality is penetrated there. Just so, it is said to exist and non-exist.³⁵

We are seeing not only the identification of *pariniṣpanna* with *śūnyatā*, but we are also seeing an explanation of this nature which describes the latter in terms of “the existence of non-existence.” The relationship between this understanding of *śūnyatā* and the other two natures is found in the following passages from the *Madhyāntavibhāga* and the *bhāṣya*:

abhūtaparikalpa exists, not duality (not *parikalpita svabhāva*); but there is *śūnyatā*. In that (*śūnyatā*), it (*abhūtaparikalpa*) is found.³⁶

After reiterating the point of the *kārikā*, Vasubandhu says:

Thus [in this verse] the characteristic of emptiness has been shown in an unperverted way as stated: “It is perceived as it really is that, when anything does not exist in something, the latter is empty with regard to the former; and further it is understood as it really is that, when, in this place, something remains, it exists here as a real existent.”³⁷

³³ *MVB* 1:13, *dvayabhāvo hyabhāvasya bhāvah śūnyasya lakṣaṇam/*

³⁴ *MVB* 1:20, *pudgalasyātha dharmanāmbhāvah śūnyatātra hi/ tadabhāvasya sadbhāvastasmin sā śūnyatāparā//*

³⁵ *tato dvayābhāvabhāvo niṣpanno'tra pravṛṣyate/ tathā hy āsav eva tada asti nāstī cocyate//TSN* #25.

³⁶ *MVB* 1:1, *abhūtaparikalpo'sti dvayam tatra na vidyate/ śūnyatā vidyate tatra tasyāmapī sa vidyate//*

³⁷ *MVB* 1:1, (See footnote #10.)

In the above passages *śūnyatā* is described as the non-existence of duality and the existence of that. We have also been told that “something remains.” What remains is *abhūtaparikalpa*. *Abhūtaparikalpa* is to be found in *śūnyatā*. The latter is emptiness of duality, and yet in some sense also existent. We have seen no less a scholar than Professor Nagao labels this notion “enigmatic indeed.”

Not only is the notion of *śūnyatā* as “something remains” enigmatic, but one may wonder what *abhūtaparikalpa* is? Is this any less puzzling? It is the unreal construction. It is the *ākāra*, “what appears”. But how can this be without duality? Duality not only demands that we distinguish perceiver from perceived, but it also allows us to distinguish objects or forms from each other. In this light we can ask: how can “what appears” appear without duality? We thus end this section with a series of questions which will hopefully be illuminated by the confluence of three nature doctrine and holography in the last section of this paper.

IV. The Confluence of Holography and the Three Nature Doctrine

In the last section of this paper the confluence between holography and the three *svabhāvas* will be offered. It is my contention that holography can illuminate the queries that have just been raised as well as the two issues mentioned in the introduction. Specifically, the conclusion will focus on 1), the distinction between *paratantra* as what appears and *parikalpita* as how it appears 2), the principle of “convertibility” and 3), the enigma of what remains in *śūnyatā*.

Our first point concerns the distinction between *parikalpita* and *paratantra*. Vasubandhu has informed us that *paratantra* is “that which appears”, while *parikalpita* is “how it appears.” *Parikalpita* appears with duality—as subject and object. *Parikalpita* is the elephant. *Paratantra* is the form (*ākāra*) of the elephant. But what is the difference? What is the difference between “what appears” and “how it appears”? What is the difference between saying one appears with duality; while the other is a non-existent construction that is without duality. We can repeat Vasubandhu’s formulas, but can we understand them? What is the form (*ākāra*) of the elephant if it is not structured dualistically? Is the difference between the elephant produced by magic and the form of the elephant produced by magic—between “what

appears” and “how it appears”— all that clear to those trapped in *parikalpita*?

I think that holography can illuminate this issue. The holographic image appears over there. It appears three-dimensional. It appears real. Most significantly, it appears distinct from the perceiver. This is “how it appears”—namely, as separate from the perceiver. It appears as an object. But it is none of these things! The appearance of the holographic image is not independent of an individual—of a mind which experiences the image over there. There is no holographic image over there independent of someone's experience of it as an object over there. The image does not exist on the film; nor is there any “conglomeration of light waves” over there that resembles the image.³⁸ How the holographic image appears—as an object over there—is only imagined. This point can be rather elusive, but it is very important for both the *paratantra* and *parikalpita* natures and therefore bears explaining.

Where a holographic image is seen, one may believe that an object exists. As soon as one tries to touch the holographic image, one realizes that there is no object over there. However, one may still assume that where one sees the holographic image “light waves” have coalesced to form some shape.³⁹ But such is not the case. Where the holographic image is seen—where one believes that one sees a “conglomeration of light waves”—there is no light that looks like that. The reconstructing light traverses the spatial region where the holographic image is to be seen before it passes through the film. In other words, at the spot in which the image is seen, nothing has happened to the reconstructing light source. In the location where the image is seen, the reconstructing light source is uninfluenced by the information patterns that exist on the holographic film. Thus, one can in no sense say that the holographic image exists where it is seen.

In the holographic situation, just as in the *parikalpita svabhāva*, we

³⁸ It is essential at this point to recall that we are discussing virtual images and not real images. See fn. 4.

³⁹ It should be noted that phrases such as “light waves” and “conglomeration of light waves” are not intended to reflect accurate scientific jargon; but rather, it is intended to reflect the crude and naive experience of the viewer trapped by the *parikalpita* nature.

imagine that there is an object over there independent of us—the subject. Even the more sophisticated who do not impose objectness upon the holographic image still impose otherness upon this image. They still imagine that the holographic image that appears to be over there is independent of themselves. They still imagine that there is a “conglomeration of light waves” over there that has the shape of the object. We have explained that such is not the case in holography. “How the holographic image appears”—namely, with duality—does not exist in holography. I believe that Vasubandhu would understand perfectly well the non-existence of the duality of the experiencer and the holographic image that is experienced. I believe he would see it as a simile for *parikalpita svabhāva* which he says is how *paratantra* appears—it appears with duality which is completely non-existent.

Paratantra nature is what appears as opposed to how it appears. But what does appear? The non-existence of the duality of perceiver and perceived in both holography and the *parikalpita* nature does not negate the fact that there is an experience in both cases. In holography, a holographic image is experienced. A scene has been recorded on the film in interference patterns, non-dualistically, and can be reconstructed. Something can manifest. A holographic image appears; even though, it is *asat*, a construction (from interference patterns), and without subject and object distinction. The *paratantra* nature is also that which manifests or appears. We have also seen *paratantra* described as *asat*, a construction, and without subject and object distinction. Nonetheless, some form (*ākāra*) is experienced in the *paratantra* nature. In both the *paratantra* nature and the holographic simile, there is the presentation of images which appear over there, but do not exist over there. In both cases these images are also never independent, or other than, the mind which presents them. Holography thus re-presents this distinction between “what appears” and “how it appears” and allows us not only to see it, but to continually analyze it.

What appears as opposed to how it appears is also related to the conditions given which an image appears. In the holographic situation what appears and the conditions given which the images appear are most notably understood in relationship to the interference patterns.⁴⁰

⁴⁰ It might be suggested that my use of the holographic simile has ignored other con-

A HOLOGRAPHIC ALTERNATIVE

These interference patterns exhibit qualities which can be compared to the *paratantra* nature. Interference patterns, you will recall, are without subject-object distinction just like the relative nature. This lack of subject-object dichotomy is exemplified by the fact that any one region or part of the interference patterns can reproduce the whole. Remember, you can tear a hologram in ten pieces and reproduce ten distinct images. The interference patterns are without any duality, any particularity. They contain no images, but they are the conditions which give rise to appearances. *Paratantra* is likewise without subject and object distinctions, but it is the seeds (*biḥja*) from which experience unfolds. Paul Griffiths talking about Yogācāra texts says:

Instead we find them saying that the 'objects' of the store-consciousness are not such that an agent can be consciously aware of them, that they are extremely subtle and that conscious experience does not therefore occur in the store-consciousness.⁴¹

Comparably, the interference patterns are not objects and cannot be perceived as such; yet the decoding of the interference patterns is that which allows for the discrimination of images. I believe that Vasubandhu would say that this description of the interference patterns is very much like his description of *paratantra svabhāva*. What appears in a holographic situation (*paratantra*) is nothing like how it appears in a holographic situation (*parikalpita*). It appears with duality, but is empty of duality.

Vasubandhu has told us that *paratantra* is not other than *pariniṣpanna/sūnyatā*. There is only one world. This one world can be known/experienced with three natures and these natures are neither the same, nor different from each other. It is one world whose natures exhibit the

ditions necessary for the appearance of images. Here the focus is on interference patterns. We have not focused upon such thing as the observer, the object observed and the light source. In the context of Vasubandhu's philosophy, all of these things such as the observer and other objects must be understood in terms of the *paratantra* nature etc. Comparably, these things should also be understood in terms of interference patterns. For Vasubandhu, it would be inappropriate to discuss the observer etc. in terms of static, independent entities. In this context, see the final comment to the paper on the problem of reification.

⁴¹ Paul J. Griffiths, *On Being Mindless* (La Salle, Illinois: Open Court, 1986), p. 96.

“principle of convertibility.” How these three natures are neither the same, nor different is illustrated by holography.

Holography presents us with images which appear, but do not exist. One person may experience these images dualistically as perceiver and perceived; while, at the same time and looking at the same place, another person may experience it as empty of duality. A third person may observe the interference patterns (on the film) and declare that these are the conditions given which the images appear. All three experiences occur at the same time and in the same place. In other words, one world exhibits all three natures.

This issue may be stated in another way. The interference patterns are the conditions given which these images are presented. (It is the basis for these images just as *paratantra* is said to be the basis for the other two natures.) Since the holographic images do not exist, they are not other than the interference patterns from which they appear. In Vasubandhu terms, *parikalpita* whose duality is non-existent is not different than *paratantra* which is without such duality. Since the interference patterns contain no images—no duality of subject and object—they are different than the dualistic appearance of the images just as *paratantra* is different than *parikalpita*. We must add that the interference patterns which are always without individuality and particularity are not different than that which is always empty of all dualistic constructions. In other words *paratantra* is not other than *parinispanna/sūnyatā*. However, in so far as the interference patterns are that which manifest, they are different than the implicate domain in which they are contained. By comparison, Vasubandhu tells us that *paratantra* is other than *parinispanna*.

It is at this point that we may be able to illuminate the “enigma” of what remains in *sūnyatā* as well as the notion that *sūnyatā* is itself affirmed. What remains is *abhūtaparikalpa*, i.e. *paratantra*. We have just compared *paratantra* to the interference patterns and *parinispanna/sūnyatā* to the implicate domain in which the interference patterns exist. The difference between the interference patterns and the implicate domain is based upon the fact that multiple sets of interference patterns may be implicated in one implicate domain. Thus, they must be distinguished. Their non-difference is based upon the fact that interference patterns are always implicated in an implicate domain; and therefore, the interference patterns are not other than the implicate do-

A HOLOGRAPHIC ALTERNATIVE

main that implicated them. By analogy, might we say that just as interference patterns “exist” within the implicate domain, so also *abhūtaparikalpa* exists in *sūnyatā*.

Sūnyatā, like the implicate domain, is that which is always empty of duality, without subject and object, without the distinction of one particular which stands against another particular. *Sūnyatā* is, as Nagao puts it, “negative in character” as regards the existence of things. However, its lack of particular thing does not imply that it lacks the conditions given which particulars arise. The implicate domain is empty of all things, but in it remain the conditions from which particularity arises. Even without individual things, one may still talk about “something remains” (*avaśiṣṭa*) when one imagines this in light of the implicate domain perceived as empty of all particulars, without subjects and objects, but yet as that in which interference patterns still exist. The interference patterns may be said to exist in the implicate domain just as *abhūtaparikalpa* is said to exist in *sūnyatā*. This implicate nature allows us to envision something which can simultaneously be empty of all particularity, yet still remain as something. Holography allows us to envision that what remains is that which is without duality, but yet is that which is the condition for duality. It allows us to envision how duality is only an appearance; and thus, how that which appears is different than how it appears. I believe that Vasubandhu would find holography with its implicate and explicate domains which are simultaneously existing and which are neither the same nor different a most appropriate simile for the Yogācāra three *svabhāva* doctrine.

I shall conclude this paper by noting a major weakness of the holographic simile. The propensity toward reifying the interference patterns is a serious problem. This propensity arises from one’s observations of the holographic film upon which interference patterns are recorded. The holography film is a “solid, static” piece of film. However, interference patterns are dynamic. They are anything but solid and static. They are the confluence of light waves. David Bohm describes this situation as follows:

The value of the hologram in this context is that it may help to bring this new notion of order to our attention in a sensibly perceptible way; but of course, the hologram is only an instrument whose function is to make a static record (or ‘snapshot’)

of this order. The actual order itself which has thus been recorded is in the complex movement of electromagnetic fields, in the form of light waves. Such movement of light waves is present everywhere and in principle enfolds the entire universe of space (and time) in each region (as can be demonstrated in any such region by placing one's eye or a telescope there, which will 'unfold' this content.⁴²

To conceive of interference patterns as solid and static will compel one to understand the holographic simile in dualistic categories as well as categories of substance—being. For example, such a reification would create the duality of film as unchanging object and ourselves as unchanging subjects. The use of these categories is inappropriate to interference patterns and problematic to the project at hand.

In the application of the holographic simile to the three nature doctrine, a reification of the interference patterns would severely limit our understanding of Vasubandhu. Such a reification would certainly lead us to see Vasubandhu's philosophical position as a philosophy of being. It would make his world static. Such a reification would lead us to reify *paratantra* and *pariniṣpanna/sūnyatā*. If the holographic simile leads us to reify *paratantra* and *pariniṣpanna*, it would certainly be problematic. It would lead us to more problems than it would illuminate. Understanding the interference patterns as dynamic is essential to understanding the three *svabhāva* doctrine and it may be the place to begin to contemplate in what sense, if any, Vasubandhu could be called an idealist.

⁴² David Bohm, *Wholeness and the Implicate Order*, p. 177. This reference to Professor Bohm should not be taken to indicate that this author assumes that Bohm's cosmology based upon holography is in agreement with Vasubandhu's philosophical position. Holography, like other metaphors, can be used in a number of ways. Therefore, it would be presumptuous to identify Bohm's position with Vasubandhu's position.