

# Mathematical Interpretation of the Buddhist Stupas

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Participant: I find that the two ways of the idea of a centered versus un-centered consciousness.

Wolff: Yes.

Participant: Now, in the case of describing the consciousness that transcended *nirvanic* consciousness, it was also referred to as non-centered or un-centered. Now, *sangsaric* consciousness—

Wolff: Where did you find that?

Participant: In your tape today.

Wolff: Hmm?

Participant: In your tape today.

Wolff: You said in the *Gita*, I thought you said.

Participant: No, in the tape this morning, you referred to the consciousness that transcends *nirvanic* consciousness as un-centered, as opposed to a centeredness of *nirvanic* consciousness.

Wolff: . . . ordinary *sangsaric* . . . *nirvanic*, being the orientation to the center and you retreat into it.

Participant: All right. In this tape the *sangsaric* consciousness was also referred to as un-centered.

Wolff: Yes, it is centered. You couldn't be aware of this phenomenal order without a centered consciousness.

Participant: All right. I was going to suggest that the two terms need somehow to be distinguished one from the other if we're speaking of two forms of non-centered consciousness. I would suggest that the transcendent form might be spoken of in a positive sense—

Wolff: No, I don't see two forms. I haven't spoken of two forms of un-centered consciousness. There's the centered consciousness oriented to the surface and the non-centered consciousness oriented to space corresponding one to *shes-rig*, the other to *Rig-pa*.

Participant: Yes. I would like also to suggest the traditional form of the dunce cap might be some kind of a mistake.

Wolff: Well, the dunce cap is in the shape of a cone, so that's what . . . all of this discussion.

Participant: Yes, perhaps it might be better as a cube.

Wolff: Well, the dunce caps, you know, aren't they in the shape of cones?

Participant: I'd say it was a wizard's cap.

Wolff: Any other interesting comments?

Wolff: A year ago last May, I was looking at a small volume by the German lama on the subject of the stupas.<sup>1</sup> I saw there a diagram giving the general appearance of the stupas—the elements that are in them. And all of a sudden there flashed into my mind an interpretation. I won't say it's the sole interpretation, but it is *an* interpretation that I doubt any Oriental would have devised in its completeness.

Wolff: Do you have the tape set up . . . ?

Participant: Yes, I do.

Wolff: Last Sunday we covered part of a tape and the continuation we propose to continue today, but it will be necessary to make a review of what was covered in the first tape so that those who were not here last Sunday may be abreast of what we are dealing with, and this may require an extended preliminary statement.<sup>2</sup>

Wolff: It was a year ago last May that I saw for the first time a book by the German lama, I can't recall his name—

Participant: Govinda.

Wolff: —Govinda, on the subject of the stupas. The stupas are monuments of importance in the Buddhistic community. It seems that directions were given by the Blessed One to raise these monuments at important places like crossroads. They were places of mediation or places that might have sacred objects. But there is a design that is fundamental on which there are variations, and that design was given in this book. And it aroused in me suddenly a recognition of something that resulted in this long tape. The basic design is, first of all, on the ground a cube, on top of that a sphere, and on top of the sphere a cone. Now, the cube and the sphere very easily arouses in one the thought of the problem of the squaring of the circle, which has had an important place in depth religion, as we may call it, in the past. In fact, the Great Pyramid of Giza may be said to be a monument to the number  $\pi$ , since it deals with this particular problem and  $\pi$  is a number which is a key to the problem of the squaring of the circle. What is the meaning of this? We may say that it is the rendering of Fundamental Insight, the Transcendental Truth, explicit in a mundane way—the circle representing the Transcendental, or the sphere, and the square or cube representing the mundane or manifested representation. The problem as a purely mathematical one has been solved long ago. We know that it is not possible to square the circle with compass and ruler, but there are other means. But that is not the side we are interested in. We're interested in it as a symbol of a depth religious problem.

Now, the problem in yoga is the reverse of the squaring of the circle. You might call it the circularizing of the square, that is, the ascension in consciousness from the mundane to the supermundane. Now, the meaning of the circle may be elaborated, to be sure, but the one thing that is most emphasized by the circle is centeredness. A circle is defined as the locus of a point on a plane that is a uniform distance from a given point,

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<sup>1</sup> Lama Anagarika Govinda, *Psycho-cosmic Symbolism of the Buddhist Stupa* (Emeryville, Calif.: Dharma Publishing, 1976).

<sup>2</sup> See the audio recordings, "Purpose, Method, and Policy of this Work," parts 8 and 9.

that given point being the center. So, the circle in peculiar degree directs the attention to centeredness.

Now, let us think of these symbols in terms of types of consciousness. The square or cube represents that type of consciousness which is oriented to the object, to the thing, to matter, as such, the realistic or the materialistic point of view—the field of interest that seems naturally to be the first developed by man. But it offers no real solution of the depth religious problem. That real solution, as represented in the yoga of Shankara, is the attainment of Self-Realization, in other words, the Realization of the *Atman*. And this, as you may remember, is achieved by a self-analysis primarily in which one breaks his identification with every *kosha*, or vesture, or material object connected with himself such as the body, such as the vital nature, such as the sense-mind, also the intellectual mind, from the personal ego, and ultimately eventuating in the position where one would say, “I am *Atman*,” and “I am That which is never an object before consciousness.” To succeed in this is to effect the yogic breakthrough, the possibility of the *nirvanic* withdrawal, which, so HPB says, is the summum bonum of the Brahmin. It seems to be the ultimate goal of the Vedanta, at least the Vedanta as conceived by Sri Shankaracharya.

So much for that part. That we might say has been the primary depth problem of the religious experience. But we have a cone on top of the sphere, and this immediately suggested something to me because of the mathematical background that I doubt would have been aroused in an Oriental mind which had not been influenced by Western theoretical thought. The material cone on top of the sphere in the stupa suggested to me immediately the mathematical cone which consists of two nappes from a point, one cone coming down, as it were, and the other up, and the cones extend to infinity. They're imaginary cones of course. They're not physically seen cones. And connected with these cones there are certain curves known as conic sections, that were of interest to the Greeks and have been of interest to us in our mathematics, and all of you who have had analytic geometry, or what is called coordinate geometry also, will have had experience with the conic sections, as they are called. They are five in number. But one of those is the hyperbola, which is a curve with two branches. If you took this cone and ran a plane parallel to the axis of the cone cutting both nappes of the cone, you would get a curve with two branches. That curve is called a hyperbola, and the branches open up more and more until they become tangent to two asymptote lines at infinity. Among the hyperbolas there is one which is known as the equilateral hyperbola. It is such that the conjugate hyperbola of it is precisely a reproduction of itself, and it occupies a position in the family of all hyperbolas analogous to the position of the circle with respect to all ellipses. An ellipse, you know, is a curve which has two foci, as well as a center, and the curve is defined as a locus of a point the sum of whose distance from the two foci is constant—you can draw it by using a couple of pins, and a loose string, and a pencil, to generate one—but have those two foci come together until they coalesce and you have a circle. So, the circle is a special case of the family of all ellipses, and the equilateral hyperbola a special case of the family of all hyperbolas. Both the circle and the hyperbola have certain functions that are of special importance. In the case of the circle they are called trigonometrical functions, and of the case of the hyperbola they are called hyperbolic functions. And as in an earlier tape,<sup>3</sup> I developed the sine curve connected with the circle

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<sup>3</sup> See the audio recording, “Purpose, Method, and Policy of this Work,” part 1.

as representing all periodicity whatsoever, which it has commonly done, and representing in particular the birth/death process of endless reincarnation from the beginningless past to the endless future. And yoga may be said in part to mean the way of breaking out of this endless periodicity. Now, if we consider the hyperbolic sine connected with the equilateral hyperbola, it does represent such a breaking out of this endless periodicity. You get a curve that runs up to infinity vertically. In other words, instead of going on in an endless rebirth in the horizontal direction, you ascend to the infinite, in which is a symbolism that I find very useful indeed.

But there is another approach to this hyperbola and that is one that happened in my experience. One day on the banks of the Eureka Creek in northern California, I was looking at the sky and it suddenly dawned on me that there where we seem to see nothing in space is true substance, and that where we see the mountains and the trees around us we have relative voids. It is a reversal of our ordinary view—our ordinary valuation. I did not at that time remember something in *The Voice of the Silence* that has a very definite bearing upon this. It is this, “. . . study the emptiness of the seeming full and the fullness of the seeming void,”<sup>4</sup> which is precisely the meaning that is contained in that Realization. I did not formulate it in the simple form of “void” and “fullness,” but of a relative void and a relative fullness, namely, that the objects before us are not all equally dense. Some objective ideas are very subtle, some very dense. At one extreme we would have a nuclear sun, something very dense, and that would be almost a pure void, and, on the other hand, an object that is extremely subtle, namely, the *Dharmakaya*, which has been called hardly more than a breath, would be extremely subtle. So that in reality the *Dharmakaya* is substantial in high degree and the nuclear sun would be very nearly a perfect void. In fact it's interesting that in the ultimate form our theoretical physicists call it a black hole in space.

Well, the formulation of this Realization took this form: *substantiality is inversely proportional to ponderability*—ponderability representing its determinateness for our ordinary perception. If it is a determinate thing like the objects around us, and particularly the nuclear sun, it is ponderable. If we look at space it seems very imponderable. The statement means that the space would be substantial, would be real and the ponderable things are essentially unreal, or relatively unreal. Substantiality is inversely proportional to ponderability can be stated mathematically in this way:  $S = 1/P$ —the  $1/P$  giving your inversely proportional. And, then, now you can apply your simple algebra. By multiplying both sides of your equation by  $P$  you get  $PS = 1$ , and we have arrived at the equation of the equilateral hyperbola referred to its asymptotes as axes of reference.

Now, see what has happened? We have arrived at the equilateral hyperbola as occupying a place of importance which formerly was occupied by the circle, but transcends the Realization indicated by the circle which was centered consciousness. The hyperbola spreads out in space so that it implies an orientation to space which would be, using space as a symbol of consciousness, which often is done, an orientation to non-centered consciousness. We do speak of a center of the hyperbola, but it is external to the hyperbola and is a very minor thing, whereas the center is predominant in the symbolism of the circle. So we're moving from a centered consciousness, a consciousness centered

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<sup>4</sup> H. P. Blavatsky, *The Voice of the Silence* (Pasadena, Calif.: Theosophical University Press, 1946), 55-56.

in the *Atman*, to a consciousness which is oriented to space. It's a movement from point-I to Space-I—one's self-identity in Space.

I discussed this last time on the tape<sup>5</sup> taking the hyperbola as referred to its asymptotes as axes of reference and showed that it revealed that if you make one axis represented by *P* and the other by *S* that the larger the value of *P* the smaller the value of *S*; the greater the ponderability, the less substantiality, and vice versa. Then I rotated it through 45 degrees to get it into the form which we usually use in discussing hyperbolas, and you'll see on that mandala up there that particular form. In that case the asymptotes are the diagonal lines which the curve approaches and your axis of reference cuts right through the center of the hyperbola. There are two hyperbolas there that are conjugate hyperbolas and both are duplicates of each other exactly because they are the equilateral hyperbolas. You'll notice also that within the central region between the apexes of the hyperbola there is a square that is tangent to each of the apexes of the hyperbola. There is also a circle that is tangent that is contained within the square, inscribed within the square, and a second square that is inscribed within the circle. Now, there's a symbolism connected to this particular zone which we may say is the zone of the universe and the region beyond, where the branches of the hyperbola are reaching out to space, is that which transcends the universe. And it's about in here, approximately, that we'll begin.

Wolff: I have to differ with Jung when he says that the Western soul is found in Christianity. I rather agree with Northrop that it lies in the emphasis of the theoretical component in things contrasting to the emphasis upon the aesthetic component in things, which you find in the far Eastern thought and yoga, and that instead of our being essentially Christian, we are essentially Pythagorean and that Christianity was a superimposition upon our essential "Pythagoreaness" by the propaganda of that time. Christianity was an import from the East, really, from the Near East, and superimposed upon the Western mind. And remember what Pythagoras was. He had three outstanding characteristics: a major mathematician, a philosopher, and a mystic. And that if we were to pick one name to symbolize Western spirit, it would be Pythagoras. Plato continued it and so did the new-Platonists after Plato. I think there is where we find the real genius of the West and that by use of this that is indigenous to us we will find our way to the Realization, rather than imitating the Eastern way, which is native to Eastern man but not native to us. Jung says something that bears on this, the right path with the wrong man leads to wrong results.<sup>6</sup> And I'd say Western man trying to make of himself a Zen Buddhist would be preeminently doing just that. I don't see any sense in asking questions like, what's the meaning of one hand clapping—that's done in Zen Buddhism—except it serves the purpose of causing a kind of intellectual suicide.

Participant: And confusion.

Wolff: I do not at all accept the idea that the way requires intellectual suicide. In fact, I think that is a major error. Any other comments or questions? If not . . . hmm?

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<sup>5</sup> See the audio recording, "Purpose, Method, and Policy of this Work," part 9.

<sup>6</sup> Carl G. Jung, commentary to *The Secret of the Golden Flower* (New York: Causeway Books, 1971), 79: "An ancient adept has said: But if the wrong man uses the right means, the right means work in the wrong way."

Participant: Somewhat in line with this intellectual suicide, I might suggest that since there's some indication that manifestation is also infinite in—

Wolff: Hmm.

Participant: —in character, that if we think then that the symbolism on that basis could be turned into its counterpart and still be valid?

Wolff: Well, I see the infinite very definitely in the hyperbola since those branches reach out to infinity.

Participant: No, but what I was talking about was the representation of the square as being manifestation.

Wolff: Yeah.

Participant: All right, now if we assign an infinite quality to manifestation then the whole symbolism can be completely inverted and still be valid . . . ?

Wolff: I don't quite see you there. I would say that the manifestation, as we realize it, tends to be delimited, to be in the form of complete determination by a finite number of specifications, which is Williamson's definition of a mathematical concept. There are those who take the other position that the mathematical concept may also involve an infinite number of specifications and that takes you over into the transfinite numbers of Cantor and so on. I would say the square represents determinateness—the inner square—the outer square determinate-indeterminate: a kind of borderline thinking where you do not have clear definition all the way, partial definition. And I've been aware of such fields in my own excursions—definition barely enough to render thinkable, but not fully sufficient to fully comprehend.

Participant: You know it's a strange thing that the subatomic physics according to Dr. Capra; he says precision is impossible to pinpoint.

Wolff: Mm-hmm.

Participant: He says all that you've got is a field of possibilities. The potential seems to be the driving force in this research.

Wolff: I think—

Participant: You're not arriving at an absolute pinpoint anywhere.

Wolff: Mm-hmm.

Participant: It's a possibility field.

Wolff: Physics in this century has become mystical—

Participant: Yes it has.

Wolff: —and has gone beyond clear-cut determinateness, as you have just said there. I'll shake hands with everybody.