

THE SCIENCE OF THE BUDDHA



21 DAY RETREAT
JUNE 1ST - 21ST, 2012

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Plum Village Practice Center was established in 1982 in Southern France,
founded by the Venerable teacher Thích Nhất Hạnh.

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This booklet is for the 2012 - 21 Day Retreat, “The Science of the Buddha”
organized by the Plum Village Practice Center.

Printed in France

THE SCIENCE OF THE BUDDHA

A COLLECTION OF SUTRAS AND ARTICLES FOR REFERENCE

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Introduction



In Buddhism there are two kinds of truth: conventional truth (S: *samvṛti-satya* C: 俗諦) and ultimate truth (S: *paramārtha-satya*, C: 真諦). In the framework of conventional truth, Buddhists speak of being and non-being, birth and death, coming and going, inside and outside, one and many, and so on. The Buddhist teaching and practice based on this framework helps reduce suffering and bring more harmony and happiness. In the framework of the ultimate truth, the teaching transcends notions of being and non-being, birth and death, coming and going, inside and outside, one and many, and so on. The teaching and practice based on this insight help practitioners liberate themselves from discrimination and fear, and touch nirvana, the ultimate reality. Buddhists see no conflict between the two kinds of truth and are free to make good use of both frameworks.

Classical science, as seen in Newton's theories, is built upon a framework reflecting everyday experience. In this framework, material objects have an individual existence and can be located in time and space. Quantum physics provides a framework for understanding how nature operates on subatomic scales that differs completely from classical science. In this framework, there is no such thing as empty space, and the position of an object and its momentum cannot simultaneously be precisely determined. Elementary particles fluctuate in and out of existence, and do not really exist but have only a "tendency to exist."

Classical science seems to reflect the conventional truth and quantum physics seems to be on its way to discover the ultimate truth, trying very hard to discard notions such as being and non-being, inside and outside, sameness and otherness, and so on. At the same time, scientists are trying to find out the relationship between the two kinds of truth represented by the two kinds of science, because both can be tested and applied in life.

In science, a theory should be tested in several ways before it can be

accepted by the scientific community. The Buddha also recommended, in the Kālāma Sūtra,¹ that any teaching and insight given by any teacher should be tested by our own experience before it can be accepted as the truth. Real insight, or right view (S: samyag-dṛṣṭi, C: 正見), has the capacity to liberate and to bring peace and happiness. The findings of science are also insight; they can be applied in technology, but can be applied also to our daily behavior to improve the quality of our life and happiness. Buddhists and scientists can share with each other their ways of studying and practice and can profit from each other's insights and experience.

The practice of mindfulness and concentration always brings insight. It can help both Buddhists and scientists. Insights transmitted by realized practitioners like the Buddhas and bodhisattvas can be a source of inspiration and support for both Buddhist practitioners and scientists, and scientific tests can help Buddhist practitioners understand better and have more confidence in the insight they receive from their ancestral teachers. It is our belief that in this 21st century, Buddhism and science can go hand in hand to promote more insight for us all and bring more liberation, reducing discrimination, separation, fear, anger, and despair in the world.

The practices of mindfulness and concentration can help scientists to be better scientists, and, in this way, Buddhism can act as a source of inspiration, suggesting directions for future investigation and discovery. In this retreat we will explore how insights from science can be useful, not only to develop technology and improve our material comfort, but to reduce the suffering of individuals, families, and society. This retreat will bring a lot of joy to and confidence in both traditions as we find out that good science and good Buddhism can be much and do much for the wellbeing of the world.

1. Aṅguttara Nikaya 3.65

The Heart of Perfect Understanding



The Bodhisattva Avalokita,
while moving in the deep course of Perfect Understanding,
shed light on the Five Skandhas and found them equally empty.
After this penetration, he overcame ill-being.

Listen, Shariputra,
form is emptiness, and emptiness is form.
Form is not other than emptiness, emptiness is not other than form.
The same is true with feelings, perceptions, mental formations, and consciousness.

Listen, Shariputra,
all dharmas are marked with emptiness.
They are neither produced nor destroyed,
neither defiled nor immaculate,
neither increasing nor decreasing.
Therefore in emptiness there is neither form, nor feelings, nor perceptions,
nor mental formations, nor consciousness.
No eye, or ear, or nose, or tongue, or body, or mind.
No form, no sound, no smell, no taste, no touch, no object of mind.
No realms of elements (from eyes to mind consciousness),
no interdependent origins and no extinction of them
(from ignorance to death and decay).
No ill-being, no cause of ill-being, no end of ill-being, and no path.
No understanding and no attainment.

Because there is no attainment,
the Bodhisattvas, grounded in Perfect Understanding,
find no obstacles for their minds.
Having no obstacles, they overcome fear,
liberating themselves forever from illusion, realizing perfect nirvana.
All Buddhas in the past, present, and future,

thanks to this Perfect Understanding,
arrive at full, right, and universal enlightenment.

Therefore, one should know
that Perfect Understanding is the highest mantra, the unequaled mantra,
the destroyer of ill-being, the incorruptible truth.
A mantra of Prajñāparamita should therefore be proclaimed:

Gate gate paragate parasamgate bodhi svaha
Gate gate paragate parasamgate bodhi svaha
Gate gate paragate parasamgate bodhi svaha.

Prajñāpāramitāhṛdayasūtram

(The Heart of Perfect Understanding in Sanskrit)



āryāvalokiteśvarabodhisattvo gambhīrāyāṃ prajñāpāramitāyāṃ caryāṃ caramāṇo
vyavalokayati sma | pañca skandhāḥ, tāmśca svabhāvaśūnyān paśyati sma ||

iha śāriputra rūpaṃ śūnyatā, śūnyataiva rūpaṃ | rūpaṇna pṛthag śūnyatā,
śūnyatāyā
na pṛthag rūpaṃ | yadrūpaṃ sā śūnyatā, yā śūnyatā tadrūpaṃ ||

evameva vedanāsaṃjñāsaṃskāravijñānāni ||

ihaṃ śāriputra sarvadharmāḥ śūnyatālakṣaṇā anutpannā aniruddhā amalā na
vimalā
nonā na paripūrṇāḥ | tasmācchāriputra śūnyatāyāṃ na rūpaṃ, na vedanā, na
saṃjñā, na saṃskārāḥ, na vijñānāni | na cakṣuḥśrotraghrāṇajihvākāyamanāmsi,
na
rūpaśabdagandharasaspraṣṭavyadharmāḥ | na cakṣurdhāturyāvanna manodhātuḥ ||

na vidyā nāvidyā na vidyākṣayo nāvidyākṣayo yāvanna jarāmaraṇaṃ na
jarāmarāṇakṣayo na duḥkhasamudayanirodhamārgā na jñānaṃ na prāptitvam ||

bodhisattvasya prajñāpāramitāmāśritya viharaty acittāvaraṇaḥ |
cittāvaraṇanāstitvādatrasto viparyāsātikrānto niṣṭhanirvāṇaḥ |
tryadhvavyavasthitāḥ
sarvabuddhāḥ prajñāpāramitāmāśritya anuttarāṃ
samyaksaṃbodhimabhisambuddhāḥ ||

tasmājjñātavyaḥ prajñāpāramitāmahāmanthro mahāvīdyāmanthro
'nuttaramantro 'samasamantraḥ sarvaduḥkhaḥpraśamaṇaḥ satyamamithyatvāt
prajñāpāramitāyāmukto mantraḥ |

tadyathā - gate gate pāragate pārasaṃgate bodhi svāhā ||

般若波羅蜜多心經

(*The Heart of Perfect Understanding*)



觀自在菩薩。行深般若波羅蜜多時。照見五蘊皆空。度一切苦厄。舍利子。色不異空。空不異色。色即是空。空即是色。受想行識。亦復如是。舍利子。是諸法空相。不生不滅。不垢不淨。不增不減。是故空中無色。無受想行識。無眼耳鼻舌身意。無色聲香味觸法。無眼界。乃至無意識界。無無明。亦無無明盡。乃至無老死。亦無老死盡。無苦集滅道。無智亦無得。以無所得故。菩提薩埵。依般若波羅蜜多故。心無罣礙。無罣礙故。無有恐怖。遠離顛倒夢想。究竟涅槃。三世諸佛。依般若波羅蜜多故。得阿耨多羅三藐三菩提。故知般若波羅蜜多。是大神咒。是大明咒。是無上咒。是無等等咒。能除一切苦。真實不虛。故說般若波羅蜜多咒。即說咒曰。揭帝揭帝。般羅揭帝。般羅僧揭帝。菩提薩婆訶。

The Discourse on Emptiness in its Ultimate Meaning



Thus have I heard.

At one time, the Buddha was staying in a village of the cow-herding Kuru people.

At that time, the Buddha said to the monks: “I will teach you Dharma which is good in its beginning, middle, and end, which is of good meaning and good flavor, entirely pure, pure for the noble life, namely: The discourse on emptiness in its ultimate meaning. Listen attentively, consider well, and I will teach you.

“What is the discourse on emptiness in its ultimate meaning?

“Monks, when the eye arises, there is no place from which it comes; when it ceases, there is no place to which it goes. Thus, the eye, without any real substance, arises; having arisen it will finally have to cease. It is a result of some action but there is no actor at all.

“When one aggregate ceases, another aggregate continues. All other conventional designations, such as ear, nose, tongue, body and mind can equally be described that way.

“The meaning of conventional designations is: Because this is, that is; because this arises, that arises, thus: Conditioned by ignorance are formations; conditioned by formations is consciousness, and so on ... and thus arises this whole mass of suffering.

“And again, when this is not, that is not; when this ceases, that ceases. When ignorance ceases, formations cease; when formations cease, consciousness ceases, and so on ..., and thus ceases this whole mass of suffering.

“Monks, this is called the discourse on emptiness in its ultimate meaning.”

When the Buddha had taught this discourse, the monks, having heard what the Buddha had said, were delighted and put it into practice.

SAMYUKTA AGAMA 297

第一義空經

(*The Discourse on Emptiness in its Ultimate Meaning*)



(三三五) 如是我聞。一時。佛住拘留搜調牛聚落。
爾時。世尊告諸比丘。我今當為汝等說法。
初, 中, 後善。善義善味。純一滿淨。
梵行清白。所謂第一義空經。諦聽。善思。
當為汝說。云何為第一義空經。
諸比丘。眼生時無有來處。滅時無有去處。
如是眼不實而生。生已盡滅。有業報而無作者。
此陰滅已。異陰相續。除俗數法。
耳, 鼻, 舌, 身, 意亦如是說。
除俗數法。俗數法者。謂此有故彼有。
此起故彼起。如無明緣行。行緣識。
廣說乃至純大苦聚集起。又復。此無故彼無。
此滅故彼滅。無明滅故行滅。行滅故識滅。
如是廣說。乃至純大苦聚滅。
比丘。是名第一義空法經。佛說此經已。
諸比丘聞佛所說。歡喜奉行。

The Discourse on the Middle Way



I heard these words of the Buddha one time when the Lord was staying at the guest house in a forest of the district of Nala. At that time, the Venerable Kaccayana came to visit him and asked, “The Tathagata has spoken of Right View. How would the Tathagata describe Right View?”

The Buddha told the venerable monk, “People in the world tend to believe in one of two views: the view of being or the view of nonbeing. That is because they are bound to wrong perception. It is wrong perception that leads to the concepts of being and nonbeing. Kaccayana, most people are bound to the internal formations of discrimination and preference, grasping and attachment. Those who are not bound to the internal knots of grasping and attachment no longer imagine and cling to the idea of a self. They understand, for example, that suffering comes to be when conditions are favorable, and that it fades away when conditions are no longer favorable. They no longer have any doubts. Their understanding has not come to them through others; it is their own insight. This insight is called Right View, and this is the way the Tathagata would describe Right View.

“How is this so? When a person who has correct insight observes the coming to be of the world, the idea of nonbeing does not arise in her, and when she observes the fading away of the world, the idea of being does not arise in her mind. Kaccayana, viewing the world as being is an extreme; viewing it as nonbeing is another extreme. The Tathagata avoids these two extremes and teaches the Dharma dwelling in the Middle Way.

“The Middle Way says that this is, because that is; this is not, because that is not. Because there is ignorance, there are formations; because there are formations, there is consciousness; because there is consciousness, there is the psyche-soma; because there is the psyche-soma, there are the six senses; because there are the six senses, there is contact; because there is contact, there is feeling; because there is feeling, there is craving; because there is craving, there is grasping; because there is grasping, there is becoming; because there is becoming, there is birth; because

there is birth, there are old age, death, grief, and sorrow. That is how this entire mass of suffering arises. But with the fading away of ignorance, formations cease; with the fading away of formations, consciousness ceases; ... and finally birth, old age, death, grief, and sorrow will fade away. That is how this entire mass of suffering ceases.”

After listening to the Buddha, the Venerable Kaccayana was enlightened and liberated from sorrow. He was able to untie all of his internal knots and attain Arhatship.

SAMYUKTA AGAMA 301

中道因緣經

(The Discourse on the Middle Way)



(三〇一) 如是我聞。一時。
佛住那梨聚落深林中待賓舍。爾時。
尊者(跳-兆+散)陀迦旃延詣佛所。稽首佛足。
退住一面。白佛言。世尊。如世尊說正見。
云何正見。云何世尊施設正見。
佛告(跳-兆+散)陀迦旃延。世間有二種依。
若有, 若無。為取所觸。取所觸故。
或依有, 或依無。若無此取者。
心境繫著使不取, 不住, 不計我苦生而生。
苦滅而滅。於彼不疑, 不惑。不由於他而自知。
是名正見。是名如來所施設正見。所以者何。
世間集如實正知見。若世間無者不有。
世間滅如實正知見。若世間有者無有。
是名離於二邊說於中道。所謂此有故彼有。
此起故彼起。謂緣無明行。乃至純大苦聚集。
無明滅故行滅。乃至純大苦聚滅。佛說此經已。
尊者(跳-兆+散)陀迦旃延聞佛所說。不起諸漏。
心得解脫。成阿羅漢。

The Discourse on the Emptiness of Compounded Things



Thus have I heard. At one time the Buddha was staying at Jetavana, Anāthapiṇḍika's park at Śrāvastī. ...

The Buddha said to the monks: "...Monks, just as two hands coming together produce a sound, so, conditioned by eye and visible forms arises eye consciousness, and when these three things come together contact arises. From contact arises feeling, perception, and volition.

"All these phenomena are devoid of a self, they are impermanent. They are a kind of impermanent self, a self that is not eternal, not stable and always changing. Why is this so?

"Monks, because they have the nature of birth, aging, death, ceasing, and rebirth.

"Monks, all compounded things are as an illusion, a flame, ceasing in an instant; their nature is not true coming and true going.

"Therefore, monks, with regard to all empty compounded things you should know, rejoice in, and be mindful of (awake to) this:

"All empty compounded things are empty of [any] permanent, eternal, lasting, unchanging nature; [they are] empty of self and of what belongs to self. ...

"So also for the ear, nose, tongue, body, ... conditioned by mind and its mind-object arises mental consciousness, and these three together are contact. From contact arise feeling, perception, and volition. All these dharmas (phenomena) are devoid of a self, they are impermanent, empty of self and of what belongs to self. ...

空諸行經

(The Discourse on the Emptiness of Compounded Things)



(二七三) 如是我聞。一時。
佛住舍衛國祇樹給孤獨園。時。
有異比丘獨靜思惟。云何為我。
我何所為。何等是我。我何所住。從禪覺已。
往詣佛所。稽首禮足。退住一面。白佛言。世尊。
我獨一靜處。作是思惟。云何為我。
我何所為。何法是我。我於何住。佛告比丘。
今當為汝說於二法。諦聽。善思。云何為二。
眼色為二。耳聲，鼻香，舌味，身觸，意法為二。
是名二法。比丘。若有說言。沙門瞿曇所說二法。
此非為二。我今捨此。更立二法。彼但有言。
數問已不知。增其疑惑。以非境界故。
所以者何。緣眼。色。生眼識。
比丘。彼眼者。是肉形，是內，是因緣，是堅，是受。
是名眼肉形內地界。
比丘。若眼肉形。若內，若因緣，津澤，是受。
是名眼肉形內水界。

比丘。若彼眼肉形。若內，若因緣，明暖，是受。

是名眼肉形內火界。

比丘。若彼眼肉形。若內，若因緣，輕飄動搖，是受。

是名眼肉形內風界。

比丘。譬如兩手和合相對作聲。如是緣眼，色。

生眼識。三事和合觸。觸俱生受，想，思。

此等諸法非我，非常。是無常之我。非恆。

非安隱，變易之我。所以者何。

比丘。謂生，老，死，沒，受生之法。

比丘。諸行如幻，如炎。剎那時頃盡朽。

不實來實去。是故。

比丘。於空諸行當知，當喜，當念。

空諸行常，恆，住，不變易法空。

無我，我所。譬如明目士夫。

手執明燈。入於空室。彼空室觀察。如是。

比丘。於一切空行，空心觀察歡喜。

於空法行常，恆，住，不變易法。空我，我所。

如眼，耳，鼻，舌，身，意法因緣生意識。

三事和合觸。觸俱生受，想，思。

此諸法無我，無常。乃至空我，我所。

比丘。於意云何。眼是常，為非常耶。

答言。非常。世尊。復問。

若無常者。是苦耶。答言。是苦。世尊。復問。

若無常，苦。是變易法。

多聞聖弟子寧於中見我，異我，相在不。答言。不也。

世尊。耳，鼻，舌，身，意亦復如是。

如是多聞聖弟子於眼生厭。

厭故不樂。不樂故解脫。解脫知見。我生已盡。

梵行已立。所作已作。自知不受後有。

耳，鼻，舌，身，意亦復如是。時。

彼比丘聞世尊說合手聲譬經教已。

獨一靜處。專精思惟。

不放逸住。乃至自知不受後有。成阿羅漢。

The Discourse on the Adaptation of Conditioned Genesis Connected with Emptiness



Thus have I heard.

Once the Buddha was staying in Kalandaka's bamboo grove at Rājagṛha.

Then, the World-Honored One (the Buddha) said to a monk coming from another tradition, "I have transcended doubt, got away from uncertainty, dug out the thicket of evil views, and will turn back no more. Since the mind has nothing to which to attach, where could there be a self?

"The Buddha offers the Dharma, offers the teaching on the adaptation of conditioned genesis connected with emptiness, a holy and supramundane truth.

"That is to say: Because this is, that is; because this is, that arises.

"That is to say: Conditioned ignorance, formations arise; conditioned by formations, consciousness arises;

conditioned by consciousness, name and material form arise; conditioned by name and material form, the six sense-spheres arise;

conditioned by the six sense-spheres, [sensorial and mental] contact arises; conditioned by contact, feeling arises;

conditioned by feeling, craving arises; conditioned by craving, attachment arises;

conditioned by attachment, becoming arises; conditioned by becoming, birth arises;

conditioned by birth arises the suffering of aging, death, sorrow and affliction. Thus is the origin of this whole mass of suffering. And in the same way is the cessation of this whole mass of suffering.”

He taught like that, but the monk still had doubt and uncertainty.

He could not at first gain the perception that is to be gained, obtain the perception that is to be obtained, achieve the perception that is to be achieved.

The Buddha then asked the monk, “Why does someone after having listened to this dharma, find that sorrow, regret, loss and obstacles arise in his mind?

“Profound indeed is this, namely conditioned genesis; even more profound, more difficult to see is this, namely the extinction of all attachment, the destruction of craving, the fading away of desire, the cessation of all suffering: nirvāṇa.

“These two dharmas are namely the compounded and the un-compounded.

“The compounded is arising, persisting, changing, passing away. The un-compounded is not arising, not persisting, not changing, not passing away.

“Monks, this is to say: All formations [compounded things] are suffering, and nirvāṇa is the cessation of all suffering.

“When the causes of suffering are there, suffering arises; when the causes cease, suffering ceases.

“All routes are cut off, all continuums cease. The cessation of the continuums is called the ending of suffering.

“O monks! What is it that ceases? It is any remaining suffering. When this ceases, there is coolness, tranquility, namely the extinction of all attachment, the destruction of craving, the fading away of desire, the cessation of all suffering, nirvāṇa.”

When the Buddha had finished this discourse, all the monks, having heard what the Buddha said, were delighted and put it into practice.

空相應緣起隨順經

(*The Discourse on the Adaptation of
Conditioned Genesis Connected with Emptiness*)



(二九三) 如是我聞。一時。

佛住王舍城迦蘭陀竹園。爾時。世尊告異比丘。

我已度疑。離於猶豫。拔邪見刺。不復退轉。

心無所著故。何處有我為彼比丘說法。

為彼比丘說賢聖出世空相應緣起隨順法。

所謂有是故是事有。是事有故是事起。

所謂緣無明行。緣行識。緣識名色。緣名色六入處。

緣六入處觸。緣觸受。緣受愛。緣愛取。緣取有。

緣有生。緣生老，死，憂，悲，惱，苦。

如是如是純大苦聚集。乃至如是純大苦聚滅。

如是說法。而彼比丘猶有疑惑猶豫。

先不得得想，不獲獲想，不證證想。今聞法已。

心生憂苦，悔恨，矇沒，障礙。所以者何。

此甚深處。所謂緣起。倍復甚深難見。

所謂一切取離，愛盡，無欲，寂滅，涅槃。

如此二法。謂有為，無為。

有為者若生，若住，若異，若滅。

無為者不生，不住，不異，不滅。

是名比丘諸行苦寂滅涅槃。

因集故苦集。因滅故苦滅。斷諸逕路。滅於相續。

相續滅滅。是名苦邊。比丘。彼何所滅。

謂有餘苦。彼若滅止，清涼，息沒。

所謂一切取滅，愛盡，無欲，寂滅，涅槃。

佛說此經已。諸比丘聞佛所說。歡喜奉行。

The Paramārtha Gāthās of Aṣaṅga

Gathas on the Absolute Truth

瑜珈師地論 — 勝義跏陀



1. svāmī na vidyate kaścīn na kartā nāpi vedakaḥ
dharmāḥ sarve 'pi niśceṣṭā atha ced vartate kriyā

There is absolutely no subject, no agent and no one who enjoys the fruit of action (no one who feels). No dharma (phenomenon, object of mind) has any function. Nonetheless the passing on of one effect to another does take place.

都無有宰主，及作者受者
諸法亦無用，而用轉非無

2. dvādaśaiva bhavāṅgāni skandhāyatanadhātavaḥ
vicintya sarvāny etāni pudgalo nopalabhyate

There are only the 12 limbs of existence, the aggregates, the realms (āyatanas) and the worlds (dhatus) that are always changing. When we observe thoroughly and contemplate these things we shall not find a separate self anywhere.

唯十二有支，蘊處界流轉
審思此一切，眾生不可得

3. śūnyam ādhyātmikaṃ sarvaṃ śūnyaṃ sarvaṃ bahirgatam
na vidyate so 'pi kaścīd yo bhāvayati śūnyatām

Both within us and outside of us everything is empty of a self and the person who practices meditation on emptiness is herself empty.

於內及於外，是一切皆空
其能修空者，亦常無所有

4. ātmaiva hy ātmano nāsti viparītena kalpyate
naiveha sattva ātmā vā dharmās tv ete sahetukāḥ

Both the self and the elements that give rise to the self are empty. They are just constructions of our perverted (confused) mind. The separate-self nature of all the sentient species is also empty. The only thing that is, is the causing and conditioning of one dharma upon another.

我我定非有，由顛倒妄計
有情我皆無，唯有因法有

5. kṣaṇikāḥ sarvasaṃskārā asthitānām kutaḥ kriyā
bhūtir yeṣāṃ kriyāsau ca kāraḥ saiva cocyate

All conditioned things undergo change at every instant. Their abiding is not something real, much less their function. All we can say is that their arising is their function and their arising is also the agent.

諸行皆刹那，住尚無況用
即說彼生起，為用為作者

6-7. cakṣuḥ paśyati no rūpaṃ śrotraṃ śabdaṃ śṛṇoti naḥ
ghrāṇaṃ jighrati no gandhāṃ jihvā nāsvādayed rasāṃ
kāyaḥ spṛśati no sparśā mano dharmān na kalpayet
nāsti caiṣāṃ adhiṣṭhātā prerako vidyate na ca

Eyes cannot see form, ears cannot hear sound, the nose does not smell scent, the tongue does not taste an object, the body does not feel touch, the mind does not recognize objects of mind. However in the organs and objects of sense there is no one who maintains or begins the perception.

眼不能見色，耳不能聞聲
鼻不能嗅香，舌不能嘗味

身不能覺觸，意不能知法
於此亦無能，任持驅役者

8. na paro janayaty enaṃ svayaṃ naiva ca jāyate
pratītya bhāvā jāyante niṣpurāṇā navā navā

That does not give rise to this. Nor do things give rise to themselves. Birth is due to conditions. Things are not old or new, but there is old and new all the same.

法不能生他，亦不能自生
眾緣有故生，非故新新有

9. na paro nāśayaty enaṃ svayaṃ nāpi ca naśyati
pratyaye sati jāyante jātāḥ svarasabhaṅgurāḥ

That cannot put an end to this. This cannot put an end to itself. Birth takes place because of conditions and once birth has taken place there has to be death.

法不能滅他，亦不能自滅
眾緣有故生，生已自然滅

10. pakṣadvaye niśritā hi janatā upalabhyate
pramattā viṣayeṣv eva mithyā coccalitā punaḥ

The arising of all phenomena takes place dependent on two categories of event: the losing oneself in the surroundings and material objects or the proliferation of wrong views.

由二品為依，是生便可得
恒於境放逸，又復邪昇進

11. mohenāpahṛtās te vai mithyā uccalitās turye
tṛṣṇayāpahṛtās te tu pramattā viṣayeṣu ye

Wrong views proliferate because of ignorance. Losing oneself in our surroundings or material (or human) objects happens because of craving.

愚癡之所漂，彼遂邪昇進
諸貪愛所引，於境常放逸

12. sahetukatvād dharmāṇāṃ duḥkhasyeḥa tathaiḥ ca
maulaṃ kleśadvayaṃ kṛtvā dvādaśaṅgo dvidhā kṛtaḥ

All things arise from causes as does the suffering of living beings. Because of the two basic illusions there is the division into twelve limbs of two kinds (some of which belong to cause and some to result).

由有因諸法，眾苦亦復然
根本二惑故，十二支分二

13. svayaṃkṛtā kriyā naiva tathā parakṛtā na ca
paraḥ kriyāṃ na kārayati na ca nāsti kriyā punaḥ

The doing does not come from itself nor does it come from something else. The doing does not arise because of another lifetime. That does not mean that there is no doing.

自無能作用，亦不由他作
非餘能有作，而作用非無

14. nādhyātmaṃ na bahir vā ca nāntarāle tayor api
anutpanno hi saṃskāraḥ kadācid upalabhyate

It is not inside, nor is it outside. It is not something between inside and outside. Before (saṃskaras) conditioned things have arisen it is not possible to grasp them (in terms of time and space).

非內亦非外，非二種中間
由行未生故，有時而可得

15. utpanno 'pi ca saṃskāraḥ tenāsau nopalabhyate
anāgatam nirnimittam atītam tu vikalpyate

Moreover after conditioned things have arisen it is not possible to grasp them. The future does not have any sign (by which we can grasp it). The past can be an object of our discriminating mind (imagined).

設諸行已生，由此故無得
未來無有相，過去可分別

16. kalpyate 'nubhūtaṃ (na) ca nānubhūtaṃ ca kalpyate
anādimantaḥ saṃskārā ādiś caivopalabhyate

We are able to discriminate the things we have been in touch with, we can also discriminate the things we have not yet been in touch with. Although there is no beginning of saṃskaras, the discriminating mind can still use the concept of beginning.

分別曾所更，非曾亦分別
行雖無有始，然有始可得

17-18. phenapiṇḍopamaṃ rūpaṃ vedanā budbudopamā
marīcisadrśī saṃjñā saṃskārāḥ kadalīnibhāḥ
māyopamaṃ ca vijñānam uktam ādityabandhunā
ekotpādās ca saṃskārā ekasthitinirodhinaḥ

The physical body is like foam. Feelings are like bubbles on the surface of the water. The perceptions are like a magic city. The mental formations are like the stem of a banana tree. The consciousness is like a magic show. That is what the Buddha has taught.

諸色如聚沫，諸受類浮泡
諸想同陽焰，諸行喻芭蕉

諸識猶幻事，曰親之所說
諸行一時生，亦一時住滅

19. na moho mohayed moḥaṃ paraṃ naiva ca mohayet
na paro mohayety enaṃ na ca moho na vidyate

Ignorance does not make ignorance ignorant, nor does it make others ignorant. Another does not make ignorance ignorant. Nevertheless ignorance is not non-existent.

癡不能癡癡，亦不能癡彼
非餘能有癡，而愚癡非無

20. ayoniśomanaskārāt saṃmoho jāyate sa ca
ayoniśomanaskāro nāsaṃmūḍhasya jāyate

Ignorance is born from inappropriate attention. Inappropriate attention arises in the ignorant person.

不正思惟故，諸愚癡得生
此不正思惟，非不愚者起

21. puṇyā apuṇyā āniñjyā saṃskārās trividhā mataḥ
trividhaṃ cāpi yat karma sarvaṃ etad asaṃgatam

Merit, lack of merit and immovability; these formations are imagined in a threefold way. All things have three kinds of karma and these karmas are not compatible with each other.

福非福不動，行又三應知
復有三種業，一切不和合

22. prabhaṅgurā vartamānā atītā na kvacit sthitā
ajātāḥ pratyayādhināḥ cittaṃ cāpy anuvartakam

The present disintegrates immediately. The past does not remain anywhere. The unborn depends on conditions to be born. The mind evolves in accordance with the three times.

現在速滅壞，過去住無方
未生依眾緣，而復心隨轉

23. atyantikaḥ saṃprayogo viprayogas tathaiva ca
na ca sarvair hi sarvasya cittaṃ copagam ucyate

In absolute terms there is association or disassociation. Whether mind is associated or not associated with all formations, it is said to evolve accordingly.

畢竟共相應，不相應亦爾
非一切一切，而說心隨轉

24. tasmin srotasya vicchinne sadṛśāsadrīṣe punaḥ
ātmadr̥ṣṭyanusāreṇa saṃvṛtiḥ kriyate tv iyam

In this stream there is no ending, no same and no different. Everything is in

accord with the view of a separate self resulting from the relative truth and it is not inexistent.

於此流無斷，相似不相似
由隨順我見，世俗用非無

25. bhidyate rūpakāyas ca nāmakāyo 'pi naśyati
svayaṃkr̥to 'pabhogaś ca paratreha nirucyate

If our physical form is subject to destruction, then our psychological form is also subject to destruction; still it is said that in this life we lay down the cause and in the next life we enjoy the fruit.

若壞於色身，名身亦隨滅
而言今後世，自作自受果

26. paurvāparyeṇa cānyatvāt svahetuphalasaṃgrahāt
sa eva kartā vettā ca anyo veti na kathyate

Because of the difference between previous and present life and because the cause is found in the effect, we do not say that the one who acts and the one who enjoys the fruit of the action are different from each other.

前後差別故，自因果攝故
作者與受者，一異不可說

27. hetuvar̥tmānupacchedāt sāmagryā vartate kriyā
svasmād dhetoś ca jāyante kurvanti ca pariḡraham

Because the process of cause (and effect) is uninterrupted the process of action is due to completion. These two processes contain their own cause and also the object of the action.

因道不斷故，和合作用轉
從自因所生，及攝受所作

28. prapañcābhirati hetu tathā karma śubhāśubham
sarvabījo vipākaś ca iṣṭāniṣṭaṃ tathā phalaṃ

When the cause is the delight in the proliferation of ideas then there is action that is wholesome or unwholesome. With the ripening of all the seeds comes a desired or undesired fruit.

樂戲論為因，若淨不淨業
諸種子異熟，及愛非愛果

29. sarvabījo vipāko 'bhi jāyate ātmarāśanam
pratyātmavedanīyo 'sau arūpī anidarāśanaḥ

Relying on the ripening of seeds, the view of self arises. At that point there is a recognition of an inner knower which is formless and invisible.

依諸種異熟，我見而生起
自內所證知，無色不可見

30. kalpayanty antarātmānaṃ taṃ ca bālā ajānakāḥ
ātmarāśanam āśritya tathā bahvyaś ca dṛṣṭayaḥ

Those who are childlike and unwise construe this as their inner self. Based on this view of self many wrong views arise.

無了別凡夫，計斯為內我
我見為依故，起眾多妄見

31. piṇḍagrāhātmabījāc ca pūrvābhyāsāt sahāyataḥ
śravaṇād anukūlac ca jāyate ātmarāśanam

Because of the grasping to the seeds a self, because of the accompanying habit energies of previous lifetimes, and because of what is learnt (in this lifetime) the view of a separate self is born.

總執自種故，宿習助伴故
聽聞隨順故，發生於我見

32. snehas tatpratyayaṃ caiva adhyātmam upajāyate
anugrahābhilāśaś ca bahiḥ sneho mamāyitam

Helped by the conditions that belong to an inner self, attachment arises and because it embraces the impure habit energy, it craves an object outside itself.

貪愛及與緣，而生於內我
攝受希望故，染習外為所

33. yato bibheti loko 'yaṃ tan mohātmaṃ haraty asau
pūrvam niveśanaṃ kṛtvā tenopaiti prapañcitaṃ

What is to be feared in the world is that out of ignorance people grasp to things. In the beginning they make a store of craving and then give rise the proliferation of ideas.

世間真可怖，愚癡故攝受
先起愛藏已，由茲趣戲論

34. yat tan niveśanaṃ kṛtaṃ tad āryā duḥkhato viduḥ
yena duḥkhitā sadā bālāḥ kṣaṇamātram upaśamito na hi

This making of the store of craving the noble ones know to be suffering. This suffering oppresses the foolish without ceasing even for an instant.

彼所愛藏者，賢聖達為苦
此苦逼愚夫，剎那無暫息

35. vairūpyaparigataṃ cittaṃ ācinoti duḥkhaṃ tathāvidham
yadā cittaṃ bhavati bālānām ahaṃkārasukhaduḥkhapratyayam

The mind that is bound and does not have the wisdom of oneness is filled with suffering. The fool stores up the suffering, because of a mistaken attachment to the ideas of self, suffering and pleasure.

不平等纏心，積集彼眾苦
積集是愚夫，計我苦樂緣

36. yatra saktāḥ sarvabālīśāḥ pañke patati kuñjaro yathā
saṃmohas tatra cādhiḥ sarvatragaḥ sarvaceṣṭite tatparaḥ

Fools are firmly stuck like an elephant that has fallen into a bog. Ignorance

makes difficulties grow and grow all the time both for the action and the object of the action.

諸愚夫固著，如大象溺泥
由癡故增上，遍行遍所作

37. sarvasrotasām vinirbhedāya yāni loke srotāṃsi viṣamāṇi
naitad asty agnir na vāyur na bhāskaro 'tīsoṣayed anyatra
dharmacaryayā

Streams of unbearable suffering in this world are flowing fiercely. No fire nor wind not even the sun can dry them up. Only practicing the right Dharma can do this.

此池派眾流，於世流為暴
非火風日竭，唯除正法行

38. duḥkhī duḥkhito 'ham asmīty ātmānaṃ sukhito vā duḥkhaṃ
vyavasyati
parikalpo drṣṭisamutthāpakaḥ sa tasmāj jātas taj jānayat api

In the midst of suffering people can say: “I am suffering,” or “I am happy.” This kind of mental construction concerning suffering gives rise to views (being caught in views). This view gives rise to that view and other views as well.

於苦計我受，苦樂了知苦
分別此起見，從彼生生彼

39. sahotpannaniruddhaṃ hi kleśaiḥ kliṣṭaṃ manaḥ sadā
tasya nirmokṣo na bhūto na bhaviṣyati

As long as the defiled manas endures, the afflictions (kleshas) are born and come to an end in it. The liberation of manas does not happen before and it will not happen after the destruction of the afflictions.

染污意恒時，諸惑俱生滅
若解脫諸惑，非先亦非後

40. na tad utpadyate paścāc chuddham anyatra jāyate
tac ca pūrvam asaṃkliṣṭaṃ kleśebhyo muktam ucyate

It is not after the liberation has arisen that different pure dharmas can arise. The liberation that was there before was not defiled and that is why we can say it is liberated from the afflictions.

非彼法生已，後淨異而生
彼先無染污，說解脫眾惑

41. yat kliṣṭaṃ tad ihātyantāc chuddham prakṛṭibhāsvaram
na ceha śudhyate kaścit kutaścid vāpi śudhyati

All things that have been defiled have purity as their true nature. Because if there is not the object that is purified, how can there be the subject that purifies?

其有染污者，畢竟性清淨
既非有所淨，何得有能淨

42. sarvabījasamutsādāt sarva kleśaparikṣayāt
tatraiva cāpy asaṃkleśād dvidhābhinnam pradarśitam

When the seeds are destroyed the afflictions cease. So in this case there is the non-defilement. From this appear two different things [the cessation of suffering and the cessation of mental proliferation].

諸種子滅故，諸煩惱盡故
即於此無染，顯示二差別

43. pratyātmavedanītyatvād duḥkhamātraparikṣayāt
tathaiva niḥprapañcatvāt sarvathā na prapañcayet

Because the object of realization is not outside the subject and because all kinds of suffering have ceased, and because all proliferations of ideas have ceased forever therefore everything is free from proliferation.

自內所證故，唯眾苦盡故
永絕戲論故，一切無戲論

44. pravāhe pudgalākhyā syād dharmasaṃjñā ca lakṣaṇe
na vaha kaścit saṃsartā nirvāty api na kaścana

Living beings is the name of a continuous stream and all phenomena as the object of perception are only signs. Therefore there is no real change of birth into death and death into birth and no person who realizes nirvana.

眾生名相續，及法想相中
無生死流轉，亦無涅槃者

THE YOGACARABHUMI-SHAstra (VOL. 16) OF ACARYA ASANGA

51 Mental Formations



漢	Sanskrit	Việt	English
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徧行五	sarvatraga	5 Tâm Sở Biến-Hành	5 Universals
觸	sparsā	Xúc	Contact
作意	manaskāra	Tác ý	Attention
受	vedanā	Thọ	Feeling
想	saṃjñā	Thưởng	Perception
思	cetana	Tư	Volition

別境五	viniyata	5 Tâm Sở Biệt-Cảnh	5 Particulars
欲	chanda	Dục	Intention
勝解	adhimokṣa	Thắng giải	Determination
念	smṛti	Niệm	Mindfulness
定	samādhi	Định	Concentration
慧	prajñā (mati)	Tuệ	Insight

善十一	kuśala	11 Tâm Sở Thiện	11 Wholesome
信	śraddha	Tín	Faith
慚	hrī	Tàm	Inner shame
愧	apatrāpya	Quý	Shame before others
無貪	alobha	Vô tham	Absence of craving
無瞋	adveṣa	Vô sân	Absence of hatred
無癡	amoha	Vô si	Absence of ignorance
精進	vīrya	Cần	Diligence, energy
輕安	praśrabdhi	Khinh an	Tranquility, ease
不放逸	apramāda	Bất phóng dật	Vigilance, energy

行捨	upekṣā	Hành xả	Equanimity
不害	ahimsa	Bất hại	Non harming

一行禪師 添加		Sư Ông Làng Mai thêm vào	Wholesome Mental Formations added by Thầy
無畏	abhaya	Vô úy	Non fear
無憂	aśoka	Vô ưu	Absence of anxiety
堅	sthira	Kiên	Stability, solidity
慈	maitrī	Từ	Loving kindness
悲	karuṇā	Bi	Compassion
喜	mudita	Hỷ	Joy
謙	sagauravatā	Khiêm	Humility
樂	sukha	Lạc	Happiness
清涼	nirjvara	Thanh lương	Feverlessness
自在	vaśika	Tự tại	Freedom/sovereignty

根本煩惱六	kleśa	6 Căn-Bản-Phiền-Não	6 Primary Unwholesome
貪	rāga	Tham	Craving, covetousness
瞋	pratigha	Sân	Hatred
癡	mūḍha	Si	Ignorance, confusion
慢	māna	Mạn	Arrogance
疑	vicikitsa	Nghi	Doubt, suspicion
惡見	drṣṭi	Kiến	Wrong view

隨煩惱二十	upakleśa	20 Tùy-Phiền-Não (được chia làm ba phần)	20 Secondary Unwholesome
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小隨煩惱十		Tiểu Tùy (10)	10 Minor Secondary Unwholesome
忿	krodha	Phẫn	Anger
恨	upanāha	Hận	Resentment, enmity
覆	mrakṣa	Phú	Concealment
惱	pradaśa	Não	Maliciousness
嫉	īrṣya	Tật	Jealousy

慳	mātsarya	Xan	Selfishness, parsimony
誑	māyā	Cưỡng	Deceitfulness, fraud
諂	śāṭhya	Siểm	Guile
害	vihimsā	Hại	Desire to harm
僥	mada	Kiều	Mischievous exuberance

中隨煩惱二		Trung Tùy (2)	2 Middle Secondary Unwholesome
無慚	ahrī	Vô tâm	Lack of inner shame
無愧	anapatrāpya	Vô quý	Lack of shame before others

大隨煩惱八		Đại Tùy (8)	8 Greater Secondary Unwholesome
掉舉	auddhatya	Trạo cử	Restlessness
惛沉	styāna	Hôn trầm	Drowsiness
不信	āsraddhya	Bất tín	Lack of faith, unbelief
懈怠	kausīdya	Giải đãi	Laziness
放逸	pramāda	Phóng dật	Negligence
失念	muṣitasmr̥tītā	Thất niệm	Forgetfulness
散亂	vikṣepa	Tán loạn	Distraction
不正知	asamprajanya	Bất chánh tri	Lack of discernment

一行禪師 添加		Sư Ông Làng Mai thêm vào những phiền não	Unwholesome Mental Formations added by Thầy
恐懼	bhaya	Sợ hãi	Fear
憂	śoka	Lo lắng (hối hộp)	Anxiety
絕望	viṣada	Tuyệt vọng	Despair

不定四	aniyata	4 Tâm Sở Bất-Định	4 Indeterminate
悔	kaukr̥tya	Hối	Regret, repentance
眠	middha	Miên	Sleepiness
尋	vitarka	Tầm	Initial thought
伺	vicāra	Từ	Sustained thought

The Thirty Verses of Vasubandhu

Triṃśikāvijñaptikārikāḥ

唯識三十頌



1. ātmadharmopacāro hi vividho yaḥ pravartate |
vijñānapariṇāme 'sau pariṇāmaḥ sa ca tridhā ||

The metaphors of self and dharmas, which function in so many different ways, take place in the transformation of consciousness. This transformation is of three kinds:

由假說我法，有種種相轉
彼依識所變，此能變唯三

2. vipāko mananākhyāśca vijñaptirviṣayasya ca |
tatrālayākhyam vijñānam vipākaḥ sarvabījakam ||

Maturation, mentation, and the perception of sense-objects.
Among these, maturation is the consciousness called store, which has all the seeds.

謂異熟思量，及了別境識
初阿賴耶識，異熟一切種

3. asaṃviditakopādīsthānavijñaptikaṃ ca tat |
sadā sparśamanaskāravitsaṃjñācetanānvitam ||

Its appropriations and its manifestation of locality cannot be known. It is always associated with contact, mental attention, feeling, perception, and volition.

不可知執受，處了常與觸
作意受想思，相應唯捨受

4. upekṣā vedanā tatrānivr̥tāvākṛtaṃ ca tat |
tathā sparśādayastacca vartate srotasaughavat ||

Its appropriations and its manifestation of locality cannot be known. It is always associated with contact, mental attention, feeling, perception, and volition.

不可知執受，處了常與觸
作意受想思，相應唯捨受

5. tasya vyāvṛttirarhatve tadāśritya pravartate |
tadālambaṃ manonāma vijñānaṃ mananātmakam ||

Its release takes place at the state of an arhat. Dependent on it and having it as an object is the consciousness named manas, its nature being mentation.

次第二能變，是識名末那
依彼轉緣彼，思量為性相

6. kleśaiścaturbhiḥ sahitaṃ nivṛtāvākṛtaiḥ sadā |
ātmadr̥ṣṭyātmamohātmamānātmāsnehasamjñitaiḥ ||

Manas is always conjoined with the four passions, veiled but indeterminate, known as self-view, self- confusion, self-pride, and self-love.

四煩惱常俱，謂我癡我見
并我慢我愛，及餘觸等俱

7. yatrajastanmayairanyaiḥ sparśādyaiścārhatō na tat |
na nirodhasamāpattau mārgē lokottare na ca ||

It arises wherever the other arises, and it arises along with contact and the rest. In the state of arhatship, the attainment of cessation, or on the supramundane path it no longer exists.

有覆無記攝，隨所生所繫
阿羅漢滅定，出世道無有

8. dvitīyaḥ pariṇāmo 'yaṃ tṛtīyaḥ ṣaḍvidhasya yā |
viṣayasyopalabdhiḥ sā kuśalākuśalādvayā ||

That is the second transformation. The third is the perception of the sixfold sense-objects. It is beneficial, unbeneficial, or neither.

次第三能變，差別有六種
了境為性相，善不善俱非

9. sarvatragairviniyataiḥ kuśalaiścaitasairasau |
saṃprayuktā tathā kleśairupakleśaistrivedanā ||

It is always associated with the universals, the determined, the beneficials, as well as with the afflictions and the secondary afflictions. Its feelings are of three kinds.

此心所遍行，別境善煩惱
隨煩惱不定，皆三受相應

10. ādyāḥ sparśādayaśchandādhimokṣasmṛtayaḥ saha |
samādhidhībhyāṃ niyatāḥ śraddhātha hrīrapatrapā ||

The universals are contact, etc. The determined are zest, confidence, memory, concentration, and insight. The beneficials are faith, dignity, shame,

初遍行觸等，次別境謂欲
勝解念定慧，所緣事不同

11. alobhādi trayam vīryam praśrabdhiḥ sāpramādikā |
ahimsā kuśalāḥ kleśā rāgapratighamūḍhayaḥ ||

absence of greed and absence of the two others, vigour, ease, carefulness, and non-harming. The afflictions are craving, aversion, confusion,

善謂信慚愧，無貪等三根
勤安不放逸，行捨及不害

12. mānadṛgvicikitsāśca krodhopanahane punaḥ |
mrakṣaḥ pradāśa īrṣyātha mātsaryaṃ saha māyayā ||

pride, views, and doubt. The secondary afflictions are anger, malice, hypocrisy, cruelty of speech, envy, selfishness, deceitfulness,

煩惱謂貪瞋，癡慢疑惡見
隨煩惱謂忿，恨覆惱嫉慳

13. śāṭhyaṃ mado vihiṃsāhrīratrapā styānamuddhavaḥ |
āśraddhyamatha kausīdyaṃ pramādo muṣitā smṛtiḥ ||

guile, mischievous exhuberance, desire to harm, lack of shame, lack of dignity, mental fogginess, excitedness, lack of faith, sloth, carelessness, loss of mindfulness,

誑諂與害驕，無慚及無愧
掉舉與昏沈，不信并懈怠

14. vikṣepo ‘samprajanyaṃ ca kaukrtyaṃ middhameva ca |
vitarkaśca vicāraścetyupakleśā dvaye dvidhā ||

distraction, and lack of recognition. The four which can be beneficial or unbeneficial are: regret and torpor, initial mental application and subsequent discursive thought.

放逸及失念，散亂不正知
不定謂悔眠，尋伺二各二

15. pañcānāṃ mūlavijñāne yathāpratyaṃyambhavaḥ |
vijñānānāṃ saha na vā taraṅgāṇāṃ yathā jale ||

In the root consciousness, the five perceptions arise according to conditions, either singly or together, like waves on water.

依止根本識，五識隨緣現
或俱或不俱，如濤波依水

16. manovijñānasambhūtiḥ sarvadāsaṃjñikādṛte |
samāpattidvayānmiddhānmūrchanādapyacittakāt ||

The manovijnana functions always, except in the twofold samapatti (non-

perception and cessation), in sleep, in fainting, and in the state where the mind stops.

意識常現起，除生無想天
及無心二定，睡眠與悶絕

17. vijñānapariṇāmo 'yaṃ vikalpo yadvikalpyate |
tena tannāsti tenedaṃ sarvaṃ vijñaptimātrakaṃ ||

The transformation of consciousness is mere construction. What is constructed does not have real existence. So everything is mere manifestation.

是諸識轉變，分別所分別
由此彼皆無，故一切唯識

18. sarvabījaṃ hi vijñānaṃ pariṇāmastathā tathā |
yātyanyonyavaśād yena vikalpaḥ sa sa jāyate ||

Consciousness is the totality of the seeds. Transformation takes place in the way it does because of a reciprocal influence; out of this, the different constructions arise.

由一切種識，如是如是變
以展轉力故，彼彼分別生

19. karmaṇo vāsanā grāhadvayavāsanayā saha |
kṣiṇe pūrvavipāke 'nyadvipākam janayanti tat ||

The habit-energy of actions, with the habit-energy of dual-grasping, give rise to another maturation, when the former maturation has been exhausted.

由諸業習氣，二取習氣俱
前異熟既盡，復生餘異熟

20. yena yena vikalpena yadyad vastu vikalpyate |
parikalpita evāsau svabhāvo na sa vidyate ||

Whatever range of events is constructed by whatever construction, it is not like it appears to be. It is not that. It is only a construction.

由彼彼遍計，遍計種種物
此遍計所執，自性無所有

21. paratantrasvabhāvastu vikalpaḥ pratyayodbhavaḥ |
niṣpannastasya pūrveṇa sadā rahitatā tu yā ||

The nature of the interdependent is born from the discernment of conditions. The absolute is the state when the interdependent is separated forever from the constructed.

依他起自性，分別緣所生
圓成實於彼，常遠離前性

22. ata eva sa naivānyo nānanyaḥ paratantrataḥ |
anityatādivad vācyo nādṛṣṭe ‘smin sa dṛśyate ||

Therefore it is neither different nor non-different from the interdependent, just like impermanence, etc. When the one is not seen the other is not.

故此與依他，非異非不異
如無常等性，非不見此彼

23. trividhasya svabhāvasya trividhām niḥsvabhāvatām |
saṃdhāya sarvadharmāṇām deśitā niḥsvabhāvatā ||

The non-nature of dharmas has been taught only in connection with the three non-natures of the three natures.

即依此三性，立彼三無性
故佛密意說，一切法無性

24. prathamo lakṣaṇenaiva niḥsvabhāvo ‘paraḥ punaḥ |
na svayaṃ bhāva etasyetyaparā niḥsvabhāvatā ||

The first is a non-nature because of its own character. The second is a non-nature because it does not exist by itself. The third is without its own nature, because . . .

初即相無性，次無自然性

後由遠離前，所執我法性

25. dharmāṇaṃ paramārthaśca sa yatastathatāpi saḥ |
sarvakālaṃ tathābhāvāt saiva vijñaptimātratā ||

... it is the ultimate truth of all dharmas; it is also suchness. Since things are just as they are, that is why it is mere manifestation.

此諸法勝義，亦即是真如
常如其性故，即唯識實性

26. yāvadvijñaptimātratve vijñānaṃ nāvatiṣṭhati |
grāhadvayasyānuśayastāvanna vinivartate ||

As long as consciousness does not dwell within the nature of mere manifestation, the residues of dual-grasping cannot come to an end.

乃至未起識，求住唯識性
於二取隨眠，猶未能伏滅

27. vijñaptimātramevedamityapi hyupalambhataḥ |
sthāpayannagrataḥ kiṃcit tanmātre nāvatiṣṭhate ||

Although there may be the perception: “All this is mere manifestation,” because this still involves an object of perception in front of it, it does not yet really dwell in merely-that.

現前立少物，謂是唯識性
以有所得故，非實住唯識

28. yadālambanaṃ vijñānaṃ naivopalabhate tadā |
sthitaṃ vijñānamātratve grāhyābhāve tadagrahāt ||

But when mind no longer grasps an object of consciousness, it will stop at mere consciousness. For without any object to grasp, there is no longer any grasping.

若時於所緣，智都無所得
爾時住唯識，離二取相故

28. yadālabanaṃ vijñānaṃ naivopalabhate tadā |
sthitaṃ vijñānamātratve grāhyābhāve tadagrahāt ||

But when mind no longer grasps an object of consciousness, it will stop at mere consciousness. For without any object to grasp, there is no longer any grasping.

若時於所緣，智都無所得
爾時住唯識，離二取相故

29. acitto ‘nupalambho ‘sau jñānaṃ lokottaraṃ ca tat |
āśrayasya parāvṛttirdvidhā dauṣṭhulyahānitaḥ ||

It is without discrimination and without attainment, that the supramundane wisdom (operates.) When the double incapacity is abandoned, transformation at the base is realized.

無得不思議，是出世間智
捨二麤重故，便證得轉依

30. sa evānāsravo dhāturacintyaḥ kuśalo dhruvaḥ |
sukho vimuktikāyo ‘sau dharmākhyo ‘yaṃ mahāmuneḥ ||

It is the realm of non-setback, inconceivable, beneficial, stable, bliss, the body of liberation, called the Dharma of the Great Sage.

此即無漏界，不思議善常
安樂解脫身，大牟尼名法

Enjoyment of What Is Beyond Time and Space

泥洹品 法句經



1. Patience is the best way to protect oneself,
Nirvana is what the Buddha has praised as the highest and the best.
When you lay aside the worldly life, practice the celibate life, keep the precepts, calm and pacify your mind and your thoughts, then nothing can invade you from without.

忍為最自守，泥洹佛稱上
捨家不犯戒，息心無所害

2. Good health is the greatest advantage.
Satisfaction is the greatest of riches.
Loyalty is your best friend.
Extreme happiness is Nirvana.

無病最利，知足最富
厚為最友，泥洹最快

3. Hunger is the affliction most difficult to bear,
The mental formations are what bring about the greatest suffering.
Keep looking into things as they are in order to have the understanding
That nirvana is the greatest enjoyment of happiness..

飢為大病，行為最苦
已諦知此，泥洹最樂

4. In the world few people are on the wholesome path .
Those on an unwholesome path are many.

Keep looking into the four noble truths in order to have the understanding
That nirvana is the most secure abode.

少往善道，趣惡道多
如諦知此，泥洹最安

5. You are born in the realms of the gods because of wholesome deeds.
You fall into the lower realms because of unwholesome deeds.
Nirvana is also due to a cause;
It is experienced because you have practiced the path

從因生善，從因墮惡
由因泥洹，所緣亦然

6. The deer take refuge in the forests.
The birds in the clouds of the sky.
The manifestation of phenomena depends on the discriminating mind,
Those who practice the truth depend on nirvana to live in freedom.

麋鹿依野，鳥依虛空
法歸其報，真人歸滅

7. When there is insight into 'no beginning' and 'no non-beginning',
Into 'no being' and 'no non-being',
That is the non-attainment,
Which cannot be conceptualized..

始無如不，始不如無
是為無得，亦無有思

8. The mind is difficult to see, but habit energies can be recognized,
Someone who can recognize a craving mind and can see fully that
It is not possible to find joy in sensual pleasure, can avoid all kinds of
suffering,
For passion always makes suffering increase.

心難見習可觀，覺欲者乃具見

無所樂為苦際，在愛欲為增痛

9. When the mind is clear, you do not allow it to be tainted,
Once this purification has taken place, you can master all craving thoughts.
At that point you no longer have to come in touch with a world of suffering
Even though your eyes see, your ears hear, and your mind remembers and knows.

明不清淨能御，無所近為苦際
見有見聞有聞，念有念識有識

10. Once you let go of all ideas you can enter that world
Where you attain non-attachment and non-discrimination.
You will transcend all ideas of a separate self,
And master all mental formations that cause suffering,
You will end completely the habit energy of discriminatory perception.
Then there can be no more suffering.

觀無著亦無識，一切捨為得際
除身想滅痛行，識已盡為苦竟

11. In a disruptive environment, when you can keep your mind light and at ease,
You will remain still.
When the mind is disturbed, you cannot be close to nirvana, you cannot have peace and joy.
When ideas about suffering and happiness have been transcended then there is the true silence.
When ideas about the true silence have been transcended there is no more need for coming and going.

猗則動虛則淨，動非近非有樂
樂無近為得寂，寂已寂已往來

12. When there is no more coming and going, birth and death end also.
With the ending of birth and death, how can there be discrimination between this and that?
The idea of this as well as the idea of that have ended.

This absolute silencing of ideas is the absence of a world of suffering.

來往絕無生死，生死斷無此彼
此彼斷為兩滅，滅無餘為苦除

13. O monks, in the world there is the born, the becoming, the made and the compounded,
But there is also the not born, the non-becoming, the not made and the not compounded
For these are the way out of the born, the becoming, the made and the compounded.

比丘有世生，有有有作行
有無生無有，無作無所行

14. Only when you have attained non-ideation
Can you arrive at nirvana.
Once there is no birth there is no more becoming.
Then there is no more doing, no more formation.

夫唯無念者，為能得自致
無生無復有，無作無行處

15. As long as you perceive birth, becoming, doing and formation as real,
You have not yet arrived at the essence.
If you can understand the nature of no-birth
You will not perceive becoming and will have no need to do and to create formations.

生有作行者，是為不得要
若已解不生，不有不作行

16. Because there is becoming there has to be birth
And because there is birth, becoming continues.
When there is doing and formations there is death and rebirth.
This is the opening of the door of birth and death, leading to the arising of all phenomena.

則生有得要，從生有已起
作行致死生，為開為法果

17. Everything subsists because of food..
Even happiness and sadness need food to survive.
If the essential nourishment is not there,
There are no more traces of formations for you to discern.

從食因緣有，從食致憂樂
而此要滅者，無復念行跡

18. When suffering ends and there are no more formations
Happiness will be there very silently and there will be peace.
The bhikshu will know himself who he is
And will not need to go in search of any particular realm.

諸苦法已盡，行滅湛然安
比丘吾已知，無復諸入地

19. There is no going to the realm of empty space.
There is not a place that we need to enter.
There is no going to the realm of no perceptions and no no-perception.
There is no going towards this life or the next life.

無有虛空入，無諸入用入
無想不想入，無今世後世

20. There are not perceptions and ideas about the sun and the moon.
There is no going and no staying behind.
There is no separate self that can go and come back.
So there is no going and coming back.

亦無日月想，無往無所懸
我已無往反，不去而不來

21. In the place where the ideas of 'is no more' or 'is still having the ground
for rebirth' do not arise,

In that place there is nirvana.

Then, whether there is an object of perception or no object of perception,
You have thoroughly understood the ground of suffering and happiness.

不沒不復生，是際為泥洹
如是像無像，苦樂為以解

22. We no longer fear the things that we see.

We have no more doubt about things that can or cannot be expressed..

Once the arrow has been shot it fells the ideas of being and non-being

On encountering someone who does not understand, you do not feel
you have to explain.

所見不復恐，無言言無疑
斷有之射箭，邁愚無所猗

23. That is the foremost kind of bliss.

This path of extinction is the highest.

At this point we have the capacity of inclusiveness, our mind is like the
earth

And the practice of inclusiveness is like a citadel.

是為第一快，此道寂無上
受辱心如地，行忍如門闕

24. Your mind is pure as clear water, without a drop of impurity.

The substratum of the cycle of birth and death is no longer present, we do
not undergo the world of bondage,

Winning and profit are no longer criteria for us to follow,

Because victory and profit are always accompanied by suffering.

淨如水無垢，生盡無彼受
利勝不足恃，雖勝猶復苦

25. You should look for the kind of victory and profit that comes from the
practice of the Dharma.

Once there is the victory of the Dharma, there is the not born.

Once there is not born there is no more doing.
If you want to put an end to the cycle of birth and death keep within the
bounds of propriety.

當自求去勝，已勝無所生
畢故不造新，厭胎無姪行

26. Once a seed has been burnt, it cannot give rise to life.
Once your thinking has stopped, it is like the fire has been put out.
The place of sexual misconduct is a polluted ocean.
Why look for pleasure in a place like that?

種燋不復生，意盡如火滅
胞胎為穢海，何為樂姪行

27. Although there are the realms of the gods above,
They have nothing to compare with nirvana.
When you have the understanding of all things, you end all afflictions.
You are no longer attached to the world.

雖上有善處，皆莫如泥洹
悉知一切斷，不復著世間

28. Letting go of everything and crossing to the shore of extinction,
Is the most beautiful of all paths.
The Buddha has explained the practice of the truth..
Someone who is wise and brave can do that practice.

都棄如滅度，眾道中斯勝
佛以現諦法，智勇能奉持

29. Living the life of chastity without any blemish,
One knows oneself, transcends time and space, realizes peace and
stability.
When embarking on the path of practice the first thing is to leave sexual
desire behind.
One should adorn oneself with the practice of the precepts right away.

行淨無瑕穢，自知度世安
道務先遠欲，早服佛教戒

30. Ending the afflictions, leaving the world of bondage behind
As easily as a bird spreads its wings and flies up into the sky.
If you understand this verse of the Dharma,
You should put your whole heart into going forward on the path of practice.

滅惡極惡際，易如鳥逝空
若已解法句，至心體道行

31. This is the path that goes to the shore of no-birth and no-death,
Goes towards the end of suffering and calamity.
On the spiritual path there is no longer the discrimination between near and far.
You do not need to concern yourself with who has worldly power and who has not.

是度生死岸，苦盡而無患
道法無親疏，正不問羸強

32. The most important is not to be caught in perceptions.
When the being bound and being unbound are both pure
Then the person of high understanding is no longer attached to this body, subject to disintegration,
And sees that it is something without a firm ground in reality.

要在無識想，結解為清淨
上智饜腐身，危脆非實真

33. This body brings with it the suffering of bondage and very little peace and joy.
Among all the nine orifices, there is none that is clean.
The wise person who knows how to avoid danger and maintain peace
Puts an end to boasting, puts down the burden of misfortunes.

苦多而樂少，九孔無一淨
慧以危貿安，棄猗脫眾難

34. Once this body has disintegrated, it will turn into dust.
Someone who is wise knows how to let go and not be attached to it.
Looking deeply to see that this body is a tool that brings with it many fetters,
Birth, old age, sickness and death will not longer cause you to suffer.

形腐銷為沫，慧見捨不貪
觀身為苦器，生老病無痛

35. Letting go of the impure and traveling on the path of purity,
You have the chance to arrive at great peace and stillness.
Relying on awakening, laying aside wrong views
And not taking them up again you arrive at the dissolution of the ashavas.

棄垢行清淨，可以獲大安
依慧以卻邪，不受漏得盡

36. Living in purity, transcending time and space,
You are revered by both men and gods.

行淨致度世，天人莫不禮

Letter to a Young Scientist



UNDERSTANDING AND LOVE

As a scientist, you have a need to discover. I, too, as a meditator, have a need to discover. Which is why I'd like to write you a letter.

I feel that to discover is one of the great needs of humankind. It is the need *to understand*. To understand and to love are two fundamental human needs. And only if we satisfy both needs can we be happy.

Understanding has some kind of connection with love, and I believe this is something you may also have perceived. Understanding—even scientific understanding—can take us in the direction of love. I see that where there is understanding, there can be love; but where there is no understanding, there cannot be love. And if there is love, then there must already be understanding, and that understanding will continue to grow. Understanding and love are two faces of one reality, like the heads and tails of a coin, or the wave and particle forms of an electron.

I call you a young scientist because you have within you this deep desire to make a discovery. To discover is first of all to satisfy the need to understand. And if you discover something truly new then you will become famous, and your name, perhaps associated with a theory or an equation, will go down in the history of science. The distant dream of becoming a famous scientist can give you a huge amount of energy to work. You can sit hour after hour in the laboratory, not thinking about eating or drinking or going out, your entire mind absorbed in your research. This passion for your research can give you a lot of energy, but it can also make you tired and prevent you from being in touch with the wonders of daily life, in you and around you.

I address you as a young scientist because you also have the capacity to release your views, to let go of the knowledge you have accumulated, so as to be more

objective in your research and in the presentation of your work. In principle, a scientist is supposed to be objective, but you know that in scientific circles there are many people who describe themselves as objective, who actually continue to observe and present things from their own subjective point of view. In religion, especially in Buddhism, we are taught to let go of what we already know so that we can go further in our search for the truth. We have to let go of the knowledge we have acquired during the process of learning and discovery. If we believe that the knowledge we presently possess is the absolute truth then we lose our objectivity, and we are no longer able to get in touch with any deeper truth, because our knowledge has become an obstacle. This is called knowledge as an obstacle (*jneya avarana* in Sanskrit).

Both scientists and yogis must have the capacity to let go of knowledge that has become an obstacle. In the Sutra of One Hundred Parables, the Buddha tells the story of a boy who was kidnapped by robbers who raided and set fire to his village. The boy's father was away on business at the time. When he came home he saw his house had been burned to the ground. Lying nearby he saw the charred remains of a young boy. He believed right away that this was the corpse of his son. He tore his hair and beat his chest, blaming himself for having failed in his responsibility as a father. After the cremation ceremony he put the ashes of his son in a specially made silk bag, which he kept with him wherever he went, even when he was eating, sleeping or working. One night, after waking from a dream about his son, he was unable to get back to sleep. He wept and moaned, overcome by regret, unable to calm himself down. In that moment, he heard a knock on the door. His son had been lucky enough to escape from the hands of his captors and find his way home. He was standing in front of the newly built house, believing that this must be his father's new house, knocking on the door and calling out. But his father refused to open the door. The boy called out again and again, "Father, father, open the door! It's me, open the door!" But because he was absolutely sure that his son was already dead, and still clutching the silk bag tightly against his chest, he assumed that the boy at the door must be a young rascal who was just playing a nasty trick on him, to disturb him and stop him from sleeping. The boy called out again and again but eventually decided that this must not be his house after all. He went away, and from that moment on, father and son never met again.

Concluding the allegory, the Buddha explained that if we believe something to be the absolute truth then we will be caught in that belief and we will get stuck in our search for the truth. That is why all scientists, as well as all yogis, have to train themselves to let go of what they know. The spirit of science is the spirit of objectivity, not caught in subjective views or perceptions. If a yogi is able to do this

then he or she also has the spirit of a scientist. If a scientist is not able to do this then he or she cannot be a true scientist.

In religious communities, progressives are in a very small minority and are often criticized or discriminated against. But it's not necessarily true that in scientific circles everyone is a progressive. The majority of scientists tend to be conservative: they are afraid that new discoveries will bring their conceptual structures crashing down. They lean on whatever they hold to be true in order to discover more. If this foundation were to collapse, they would have to start again from nothing; and so the conservative tendency is always there. Knowledge must be built on the firm foundation of the fundamental laws, concepts and constants. And yet we know that in the history of science these fundamental notions have crumbled many times. In the book *Discours de la Méthode*, even Descartes says about the sciences that, since they borrow their principles from philosophy, “nothing solid could be built on foundations so infirm.” In Buddhism the fundamental doctrines of impermanence, non-self, emptiness, interbeing, dependent co-arising, and so on, are used as tools to help practitioners let go of their ideas about permanence, self, being, non-being, cause and effect. But practitioners are also instructed to transcend and let go of the converse notions of impermanence, non-self, emptiness, interbeing, and dependent co-arising, so as not to be caught by them either. This is exactly the spirit of the destruction of clinging to ideas: that no notion can be used as a foundation for insight, not even the notions of nirvana, liberation, or enlightenment. That's why one often hears the phrases: “Look for Nirvana in birth and death. The afflictions (*klesha* in Sanskrit) *are* the awakening. Buddha and living beings are one, etc...”

Knowledge—that which we know—is an obstacle, a barrier that prevents us from going ahead. Not only yogis but also scientists must release it.

Just as a yogi can be influenced by the doctrines of their particular sect, by the views of their teachers or spiritual guides, and can be caught in what they have learned in the scriptures, including notions regarding nirvana, birth and death, the pure land and the mundane world, and so on, then so too can a scientist be influenced by their particular school of thought, by what they have learned during their training at university, by the models and theories they have heard about and studied. Yet the concepts, models, and theories that we hold on to could in fact be the biggest obstacles to the furtherance of our research. Even great scientists like Einstein were sometimes influenced by their metaphysical prejudices. It was because he was caught in the idea of *realism*, that Einstein could not accept the probabilistic description of the atom and of subatomic particles revealed by

quantum mechanics. This is why, in order to succeed, both yogis and scientists must cultivate the capacity to let go of what they already know. Yogis know they must not get caught in concepts, even the most fundamental concepts such as, ‘everything has Buddha nature.’ In order to help one student break free of this notion, Zen Master Zhaozhou¹ said, “a dog does not have Buddha nature”—apparently in contradiction with the Buddhist teaching that all living and non-living things do have Buddha nature. But the Zen Master’s intention was not to transmit or to confirm any particular notion, but to help his student *be liberated from his notion*. As long as someone is trapped in a concept or notion they cannot be free, even if it is the concept of God or the Ultimate Reality.

AFFLICTIONS AS AN OBSTACLE

Knowledge is only the first obstacle. The second obstacle is our own suffering. States of mind (known as *mental formations* in Buddhist psychology) such as confusion, hatred, anxiety, craving, the desire for vengeance, and so on, are collectively known as ‘afflictions as an obstacle.’ They are like the dust covering a mirror and preventing it from faithfully reflecting reality. For scientists, instruments such as mathematical techniques, telescopes, microscopes, measuring devices, particle accelerators, and so on, are absolutely necessary for the work of research. While for a yogi, the mind is practically their only instrument. If our mind is burdened by worry or suffering, by views, confusion and anger, then it is very hard for us to practice mindfulness, concentration and insight in order to realise the path and look deeply into ourselves and into reality. In fact, behind all sophisticated mechanical instruments, the scientist’s mind is still the fundamental instrument. Our mind must be free from views and preconceptions, and free from afflictions. If scientists know how to build, maintain and keep their instruments perfectly clean, then they should also know how to handle and transform the suffering that comes from grief and frustration since the mind is the fundamental instrument that stands behind all other instruments. Releasing views, knowledge and afflictions not only helps scientists be more successful in their careers of research and invention, but also helps them to have more happiness and freedom, and establish good relationships with their families, their friends and the world.

INTUITION

Our mind is not just the intellect—our mind is also composed of the unconscious and the subconscious, as well as our sensibility, the feeling of wonder, of awe, and the capacity for intuition. Scientists don’t usually make their

¹Chinese Zen master (b.778, d.897)

breakthroughs in the laboratory or while thinking about their research; so their breakthroughs don't occur while scientists are using their intellect. Breakthroughs are the product of intuition, not deduction. Deduction and the intellect can serve to check the insights offered by our intuition, but they do not bring about those insights. Yogis can see this point very clearly. *Sudden enlightenment* does not arise by thinking but by intuition.

In the Zen tradition, intuition depends to a great extent on practice, the practice of sowing the seed of a question in the unconscious (known in Buddhist psychology as the *store consciousness*). All we have to do is to maintain our confidence in the capacity of store consciousness. It is just like entrusting a seed to the earth and then watering it regularly. Whilst eating, drinking, lying down, sitting or working, a practitioner maintains this confidence, aware that the seed has been entrusted to store consciousness, knowing that there is no need for thinking or reasoning. This is called mindfulness and concentration. To be mindful is to recognise and to be aware. To concentrate means to maintain this recognition and awareness. This recognition and awareness does not require thought. It's like watching the sunset: all we need to do is remember that the scene is beautiful and we are perfectly present for the sunset, without any need to think or compare. Concentration is maintaining this awareness so it can last for a long time. Mindfulness and concentration will help to ripen the seed planted in store consciousness, and one morning, that seed will suddenly bud and blossom. This is known as 'insight arising from intuition.'

DOUBLE GRASPING

Our discriminative mind can also be an obstacle. For example, we consider our mind and the real world that we seek to understand to be two distinct entities that can exist separately from each other. This is the problem of the subject and object of perception. Neuroscientists like to pose the question: "How is it that the objective computational activities of the neurons produce our subjective consciousness?" A large number of scientists still believe in an objective reality that exists outside of our consciousness, and that continues to exist whether we are conscious of it or not. Since time immemorial philosophers have been asking whether or not there is an objective reality that exists independently of our consciousness. In the 18th Century David Hume said "Although we have no ground for believing in an objective reality, we have also no choice but to act as if it is true." A large proportion of us still believe that there is some kind of subjective consciousness *in here* reaching out to an objective world of reality *out there*. This discrimination, according to Buddhism, is the greatest obstacle that stands in the

way of enlightenment. Such discriminative thinking, where the mind is caught in the idea of the subject of consciousness and the object of consciousness as two separate realities existing apart from each other, is called *dual grasping* (*dvayagraha* in Sanskrit).

Yogis, especially Buddhists, are carefully trained to deal with this problem. They are trained to see that the object of consciousness and the subject of consciousness depend on each other and arise at the same time. Subject and object of consciousness do not arise one after the other, nor do they exist independently of each other. In every school of Buddhism, the constituents of the material world, including the body with its five sense organs, as well as feelings, perceptions, mental formations and consciousness, are considered to be objects of mind consciousness (*dharmas*). The object of mind consciousness manifests in the same moment as mind consciousness. Subject and object of consciousness rely on each other and manifest together—they exist for one *kshana* (Sanskrit term denoting the shortest instant of time) and form the foundation for the birth of consciousness in the following *kshana*. This is known as the principle of co-arising (*sahajata*), or co-being (*sahabhu*)—depending on each other but arising together: ‘if this is not, then that is not.’ *Sahabhu* can also be translated as interbeing. This can be compared to the scientific concepts of *superposition* or *entanglement*.

In Buddhism, nothing can have a separate existence—‘this is because that is.’ This is inside of that, but we still think that this is outside of that. In fact, everything belongs to a tightly interwoven net. If one thing is present then everything is present; if one thing is absent then everything is absent. A renowned Vietnamese Zen Master of the 12th Century, called Đạo Hạnh, expressed this when he said “If one thing exists, then everything exists. If even just one thing does not exist, then the whole universe does not exist.” The Buddhist view is that nothing has a separate self-nature: there is no self and there are no separately existing phenomena. This is the insight of *no self* and *no dharma*. Everything depends on everything else to exist. Subject and object of consciousness behave in the same way; like the two sides, left and right, of a piece of paper—they depend on each other to be there. If there is no left there can be no right, if there is no right there can be no left. That is why separating subject and object of consciousness is a fundamental error. In the school of philosophy known as *phenomenology* there is the principle that “Consciousness is always consciousness of something” (*conscience est toujours conscience de quelque chose*). Our consciousness is not something standing outside of, or independent of, the object of consciousness. Many scientists have already glimpsed this point, saying that “a scientist should be a participant rather than an observer.”

For example, if we look at the Earth as just a block of matter lying outside of us, then we have not yet truly seen the Earth. We have to see that we are a part of the Earth, and the entire Earth is in us. We have to see that we are Mother Earth and that Mother Earth is us. The biologist Lewis Thomas looked deeply into the Earth and saw that Mother Earth is an organism, a cell in the body of the cosmos. That's why he called his book *The Lives of a Cell*—'cell' here means Mother Earth. When we see the Earth as a living being we can overcome the idea that the Earth is just matter. The life of a living being includes spirituality and consciousness. When we refer to the Earth as Mother Earth, we see the Earth no longer as merely a block of matter, but as a wondrous mother who has given birth to countless living species, one of which is the human race—as well as many saints, Buddhas and Bodhisattvas. To look at the Earth in this way is to look with all of our sensibility and respect, and with the feeling of wonder and love; we shouldn't look only with our intellect. When we look in this way we feel deeply connected—the boundary between subject and object melts away, and our intuitive vision can arise. In this way we can free ourselves from the trap of double grasping, from the habit we have of thinking that subject and object of consciousness are two separate realities.

OBSERVATION AND PARTICIPATION

Einstein said that when he contemplated the beauty, harmony and mystery of the universe, a deep feeling of admiration and awe was born within him. This was the basis of what he called “the cosmic religious feeling.” Exactly this sensibility—Einstein's feeling of admiration and subtle emotion at the beauty and orderliness of the cosmos—afforded him the keen intuition which led to the discovery of the space-time continuum and the theories of special and general relativity. So if we look at the sun and only see hydrogen and helium, then the sun, for us, is just a lump of matter; yet for Saint Francis of Assisi, the sun was a brother (see his poem *Canticle of the Sun*), and for many Buddhists the sun is a Buddha of infinite light and limitless lifespan (*Amitayus, Vairocana Tathagata*). The mind that discriminates between subject and object, spirit and matter, self and other, is caught in double grasping and will have great difficulty in establishing the feeling and intuition needed to make a significant discovery or realise the path.

We can speak about good science and bad science, as well as good Buddhism and bad Buddhism. Good Buddhism is a kind of Buddhism in which our actions of thought, of speech and of the body are all founded on *right view*. The Buddha was once asked by one of his disciples, “Dear Buddha, you often teach about right view, but what exactly is right view?” The Buddha answered that right view is the kind of view which is based on the insight of non-discrimination. When we know

that the other person is in us, and we are in the other person; when we know that their suffering is our suffering, and our suffering is their suffering; that their happiness is our happiness, and our happiness is their happiness, then everything we think, say and do will go in the direction of healing and reconciliation, in the direction of true love. When everything we say, think and do is based on the insight of non-discrimination and interbeing, then that can be called good Buddhism. If as scientists we can release our dualistic views and discriminative thinking, then our minds will be able to penetrate deeply the object of our study, perhaps even overcoming the distinction between the observer and the observed. We may also then discover that science founded on the wisdom of non-discrimination is good science.

In English we have the verb to *comprehend* which is composed of the prefix *com*, meaning ‘with,’ and the verb *prehendere*, from Latin, via French, which means ‘to grasp.’ If we truly want to understand, we have to become one with the object that we are seeking to understand. To grasp it and become one with it—that is the meaning of the verb *to comprehend*. We can imagine a grain of salt standing on the seashore, wondering how salty the ocean is. The only way for the grain of salt to find out is to jump into the ocean and become one with the seawater. In this kind of understanding we completely penetrate the object of study, and there is no more discrimination between subject and object, subjective and objective. The French expression, ‘il faut être dans sa peau pour le comprendre’ (*you have to be in his skin to understand him*), means the same thing. This is called ‘the wisdom of non-discrimination’ in Buddhism (*nirvikalpajñana*)—a kind of vision in which there is no longer any boundary between subject and object, and where we are free from comparison, free from the complexes of superiority, inferiority and equality. If we look at Mother Earth and we see that we *are* Mother Earth and Mother Earth is us then we can be liberated from our dualistic way of seeing, and overcome our fear of birth and death.

STORE CONSCIOUSNESS

In the Zen tradition, practitioners know that ‘the realisation of the path,’ or enlightenment, is a fruit offered to us by store consciousness, and is not the result of thinking. Store consciousness, sometimes known as *root consciousness* (*mulavijnana*), is the foundation of our mind consciousness. It has the functions of receiving, maintaining, and processing information, as well as the capacity to learn and to nourish the seeds of insight. The function of store consciousness is similar to that of a hard drive, yet with the difference that everything in store consciousness is constantly changing, just like a wave on the ocean, whereas the data

stored in a hard drive is static and unchanging. This is why store consciousness is sometimes called the *life-continuum* (*bhavangasrota*). Mind consciousness simply plays the role of planting the seeds in store and diligently watering them with the energy of mindfulness and concentration. Mindfulness and concentration are not thinking, but merely being aware and recognizing, and maintaining this awareness and recognition. Yogis or practitioners choose to live in a suitable environment for this practice, called the *sangha body*. The collective energies of mindfulness and concentration available in the sangha are a great support for the practitioner. If scientists could also live in an environment capable of nourishing the energies of mindfulness and concentration, they would certainly succeed more easily in their search for the truth. In such an environment there are teachers, friends and co-practitioners, as well as many reminders to let go of the obstacles of our knowledge and our afflictions, so that our bodies and minds can be more peaceful as we patiently pursue our work of research.

The tendency to see mind and matter as two separate entities, to see subject and object as two things that can exist outside of each other, is a very old habit that has been transmitted to us over many generations. This habit is so strong that it requires daily practice and training in order to release. The dualistic view of reality is known as double grasping. The Zen Master Tuệ Trung Thượng Sĩ said: “If we can release the dualistic view then reality will reveal itself to us in its entirety.”

Yogis and scientists, once they have been able to release this view, will be able to make a great leap forwards. After that, letting go of such deeply rooted ideas as being and non-being, or birth and death, will become relatively easy.

NO BIRTH, NO DEATH

Let us talk about the ideas of birth and death. The notions of birth and death arise from and are intimately connected to the notions of being and non-being. Many of us believe that to be born means that from nothing we become something; and that to die means that from something we become nothing again. Yet with the law of conservation of energy, scientists have discovered that energy has the nature of no-birth and no-death: energy cannot be created and cannot be destroyed; it can only be transferred. Matter also has the nature of no-birth and no-death, since matter is in fact a form of energy. When Lavoisier said “Nothing is created, nothing is lost, everything is transformed,” he made a statement which is very close to the Heart Sutra: “All dharmas are marked with emptiness, they are neither produced nor destroyed.” If every phenomena has the nature of no-birth and no-death, then we too have the nature of no-being and no non-being. If the

notions of birth and death are overcome then the notions of being and non-being are also overcome. But many scientists are still caught in notions of being and non-being, which is why they ask, “Where did all this come from?” or “Why is there something rather than nothing?” In Buddhism the notion of being is defined very clearly: being implies the existence of an *entity*, a *substance*, a *self-nature* (*svabhava*). Practising Zen meditation we look deeply into phenomena, and we see that, in fact, nothing has a separate self, nothing has a separate existence, everything has no-self nature and everything arises from conditions. Everything is the reflection of an interconnected web of causes and conditions. In this way, nothing really exists. To stick to the idea of *being* is a mistake. To stick to the idea of *non-being* is also a mistake. The notions of being and non-being are not sufficient to describe reality. Reality cannot be said to exist, nor can it be said not to exist—whether we are speaking of God, a cloud, or a pebble.

A cloud has the nature of no-birth and no-death. A cloud does not come from nothing to suddenly become something; a cloud cannot pass from the realm of non-being into the realm of being. The cloud’s nature is not-born. Nor can a cloud die: nothing can pass from being into non-being. A cloud is like energy—it *is* transformed endlessly and cannot die. A cloud can only become rain, or snow, or hail, but does not circulate in the sphere of birth and death. A cloud wanders freely in the realm of nirvana, in the realm of no birth and no death, no being and no non-being.

REASONING AND ENLIGHTENMENT

When Antoine Laurent Lavoisier discovered the no-birth, no-death nature of matter, he had the opportunity to simultaneously discover his *own* no-being and no non-being nature, as a clear and logical consequence of his work. If this talented scientist had been able to maintain the insight of no being and no non-being in his daily life, then in the moment of climbing the scaffold to be guillotined (Lavoisier was executed in 1794), he would have been able to smile—he would have been liberated from the notions of birth and death, being and non-being. So let us speak about the difference here between insight and knowledge. Many people have an intellectual understanding, a knowledge, of the notions of impermanence, non-self, no birth and no death. They have faith in these principles and may be able to explain them clearly, rationally, and eloquently—and yet they still live and act as if things are permanent, as if things have a separate self, are born and will die. There are scientists who believe that after death there is nothing, even though they simultaneously uphold the principle that nothing is created and nothing is destroyed, just as Lavoisier discovered and believed. An *intellectual understanding*

of impermanence, non-self, no birth and no death is not sufficient to completely liberate us from fear, craving and hatred. It's only when we directly verify our intuition, maintaining it alive throughout our daily life, that we can get the insight which will truly liberate us. It is for this reason that in Buddhism we must practice mindfulness and concentration. Mindfulness (*smṛti*) means to sustain our awareness. Concentration (*samādhi*) means to be able to maintain our insight. The practice of a monastic is to allow awakened wisdom to become the substance of daily life. Scientists have been able to release a number of superstitious beliefs that contradict the observations of science—such as the beliefs in deities, ghosts and astrology—thanks to a certain degree of mindfulness and concentration. But the discoveries of science are usually applied only to technology, and not to our daily emotional and spiritual lives. This is the difference between knowledge and insight, between the intellect and enlightenment.

BEGINNINGS AND ENDINGS

The true nature of reality is the nature of no birth and no death, no being and no non-being, so why must we look for a beginning and an end? To begin is to be born, and to end is to die. The Big Bang theory is an attempt to explain the beginning of the universe. But does the universe need a beginning? Amongst all the phenomena of the universe we cannot find even one which has a beginning or an end. What is born must die; and so, if we speak of a Big Bang we also have to speak of a Big Crunch, we have to speak of becoming and of nothingness. Big Bang theorists posit that time and space began with the Big Bang. But according to them, the phenomenon of the Big Bang happened *after* the beginning of time, just after the beginning of the universe (10^{-35} seconds). Scientists have not yet been able to find a way to represent or imagine the beginning of time (time zero). Why don't we speak of the manifestation of this universe as the continuation of another universe, or of many universes, just as the manifestation of a cloud is the continuation of the water vapour, the heat, the sun, and many different rivers and streams? If *this* universe exists then perhaps *other* universes also exist. Isn't it true that there are scientists who have proposed that there are many universes manifesting in parallel to ours? Perhaps this universe is just a manifestation of the network of all universes—why not?

TWO KINDS OF TRUTH

In Buddhism there is a form of contemplation known as 'penetrating the true nature by following the form' (*tùng tưởng nhập tánh*) which means to go from the phenomenal world into the noumenal world. If we contemplate very

deeply the phenomenal world we will be able to come into contact with the noumenal world. To enter the noumenal we must let go of the ideas and mental models we're accustomed to using to describe the phenomenal world. We have to use a kind of language which is more representational. To this end, Buddhism presents two types of truth: conventional truth (*samvritisatya*) and ultimate truth (*paramarthasatya*). For example, in the phenomenal world, we can use the notions of birth and death, being and non-being, coming and going, one and many, and so on, but when we start to approach reality as it is, then we have to let go of those notions. In Buddhism we call the noumenal world 'reality as it is', suchness, or nirvana. In the *Udana (Inspired Sayings)* the Buddha said, "O monks, there is that which is not born, not brought to being, not made, not formed. If there were not that which is not born, not brought to being, not made, not formed, then no escape would be discerned from what is born, brought to being, made, formed." The not born, not made, not brought to being, and not formed is the noumenal world, the ultimate reality. The path of penetrating the true nature by following the form is a gradual path which can also be called 'the natural flowing together of dependent co-arising and emptiness,' (*sunyata pratisamyukta pratityasamutpada anulomata*). It means that if we are skilful in using the notion and the wisdom of co-dependent arising to enter the ultimate dimension of Emptiness, then there will be no conflict or contradiction between the conventional and the absolute truth. *Anulomata* can be translated as *adaptation*—and adaptation, here, means to use the notions and principles of dependent co-arising skilfully, without being caught by them. By starting just with the *notion* of dependent co-arising, we can touch no-birth; from the phenomenal, we can enter the noumenal.

The conventional truth and the ultimate truth do not contradict each other and both kinds of truth can be useful according to the circumstances. There are sutras that speak of the conventional truth and there are sutras that speak of the ultimate truth. Both kinds of sutra can be useful according to the circumstances. To say that living beings and Buddha are different is correct, but to say that living beings and Buddha are not different is also correct. The first phrase describes the conventional truth and the second describes the ultimate truth. The early Buddhist teacher Nagarjuna, in the 2nd and 3rd Century CE, in his work *Fundamental Verses of the Middle Way* spoke about the no-birth nature of things in this way: "Things do not give birth to themselves, nor are they born from another thing, nor are they born from both of these together, nor are they born spontaneously. Thus, the nature of all things is no-birth." If the nature of all things is no-birth then it is also no-death, no being and no non-being. In this way, we can go from the notion of conditioned arising towards the insight of no birth, no death.

In science there are also two kinds of truth. The first kind of truth is represented by classical science, the science of Newton. This kind of science has confidence in an objective real world, existing outside of consciousness, in which each thing has a definite position in space and in time, has well-defined characteristics, and is completely independent of the observer. This kind of science is based on the philosophical schools of *realism* and *determinism*. Even Einstein, although he was able to let go of the idea of the *point-mass* or *particle*, continued to uphold a form of realism. He wrote, “that which we conceive as existing (‘real’) should somehow be localized in time and space. That is, the real in one part of space, A, should (in theory) somehow ‘exist’ independently of that which is thought of as real in another part of space, B.” In Buddhism, when we begin to observe the world of phenomena, we define things in a similar way. We say that things have to maintain their nature (their characteristics), long enough for us to form an idea about them and for us to recognise them.

With the advent of modern science, especially quantum mechanics, scientists no longer see matter in this way. Things are composed of atoms, which are themselves composed of subatomic particles, which do not exist as something independent, but can only exist as a part of the whole. These atoms and subatomic particles also do not have a definite position and momentum in space until they are measured by an observer. In *The Grand Design* Stephen Hawking says that “Individual atoms and molecules operate in a manner profoundly different from that of our everyday experience. Quantum physics is a new model of reality that gives us a picture of the universe. It is a picture in which many concepts fundamental to our intuitive understanding of reality no longer have any meaning.” In order to express this new picture of reality, scientists are forced to let go of the concepts and language used in classical science. They use new words which have a more pictorial feel, like *charm*, *colour*, *flavour*, *string*, and so on. The meaning of these words does not correspond to their meaning in daily life.

Scientists have seen many illogical and contradictory things in the world of quantum physics and have been forced to accept these illogical and contradictory things. One example is the dual nature of fundamental particles—they are called particles, but they are also waves, whereas in normal daily life, waves and particles are two totally different concepts. Another example is the uncertainty principle, according to which the position and the momentum of an elementary particle cannot both simultaneously be exactly determined—the more exactly one property is determined, the more uncertain the other becomes. Another example is that of quantum entanglement. In certain systems, two or more particles can become linked in such a way that they become fundamentally indistinguishable

from each other regarding some or all of their properties. If entangled, one particle cannot be fully described without considering the others in the system. This one is not that one, but this one is also that one. This one is not only present here, it is also present there. Richard Feynman said that “The theory of quantum electrodynamics describes Nature as absurd from the point of view of common sense... So I hope you accept Nature as She is—absurd.” He also said, “I think I can safely say that nobody understands quantum mechanics.”

If we still see reality as absurd, it is because we have not yet released our notions and the habit of attempting to grasp reality through those notions. Science has begun to see that space and time are not two separate entities and are not absolute. Both space and time are dependent on mass and speed, as well as on the position and mind of the observer. Science has begun to see that nothing has an independent existence; each thing is part of a tightly interwoven net and carries the whole net within itself. Electrons do not have a separate existence; the interactive energies between an electron, its environment and other particles are part of the electron, or even comprise the whole electron.

We can compare the electron with a flower. A flower is made only of non-flower elements such as sun, clouds, earth, manure, gardener and so on. If we remove the non-flower elements from the flower, the flower will cease its manifestation. The same applies to an electron, and to a star. This is what is known in Buddhism as *interbeing*. Interbeing means that, dependent on conditions, things manifest. The Buddha said, “This is, because that is. This is not, because that is not.” This is true for the pair space and time, just as it is true for all other pairs of opposites, like birth and death, being and non-being, movement and stillness, before and after, here and there, inside and outside, one and many, and so on. Looking into interbeing we can slowly release all our notions and come into contact with the ultimate reality.

In Buddhism the world of birth and death and the world of no-birth, no-death are not two separate realities. We have to look for no-birth and no-death right in the heart of birth and death. In this way, if we skilfully rely on the awareness of conditioned arising we will be able to realise the wisdom of no-birth. Skilfulness here means adaptation—the capacity to let go of our notions and the habit of grasping reality with those notions. The notions of birth and death have to be released as assumptions. The notions of nirvana, and no-birth no-death also have to be released. If we conceive of nirvana as existing outside of birth and death then it is no more than a notion.

In Buddhist studies, practitioners are taught to look for nirvana directly in birth and death. Looking for nirvana outside of birth and death is like a wave going to search for water. A wave goes up and down, is high or low, has a beginning and an end, is, and then is no more—but all of these things are properties of the wave. If the wave knows that it is water, then the hopes, comparisons and fears that arise from the notions of going up or down, being higher or lower, existing or ceasing to exist will be ended, and the wave will be free. A wave does not need to look for water, because a wave *is already* water.

THE MIDDLE WAY

In Buddhism there is the teaching of *emptiness*, or the *middle way*. Emptiness here means the absence of notions. The *middle way* means to transcend pairs of opposites such as birth and death, being and non-being, subjective and objective, matter and spirit and so on. Nagarjuna employed a form of dialectical reasoning in order to reduce all notions to absurdities (*reductio ad absurdum*). Not only do the pairs of opposites not annihilate each other but, on the contrary, they depend on each other to exist. The subject of consciousness and the object of consciousness are taken to be like that, and so too are the pairs being and non-being, birth and death. The two sides of a piece of paper are also like that—because one side is there, the other side is there. So it is also for the two aspects of an electron, and for a wave and particle. The middle way is the path between the extremes, not caught in either side. Anton Zeilinger has said that “Ultimately, physical sciences are not sciences of nature. Nature itself is always a construction of the mind.” This is also true for yogis—for yogis, nirvana, or the absolute truth, cannot be described in language or by concepts. Statements about nirvana cannot express nirvana. This is the wisdom known in Buddhism as *adaptation wisdom*, or *conformity wisdom* (*anulomajnana*), which we can use to take us from the conventional truth towards the absolute truth, without contradicting either truth.

To begin with, Buddhism also speaks of the existence of phenomena—phenomena with well-defined positions in space and time, different characteristics, and which are recognised to exist outside of each other. This corresponds to what David Bohm has called the *explicate order*: the conventional truth that we are used to in daily life. *A* can only be *A* and cannot at the same time be *B*. A chicken is a chicken and is not a table, egg or flower. This is the principle of identity. But if we apply the vision of interbeing, we see that the flower is formed only of non-flower elements such as the seed, the mud, the earth, the sunlight, the rain and so on. If we try to take any of these elements out of the flower the flower will cease to exist. In this way *A* is not really *A* but is just an aggregate of *B*, *C*, *D*, *E*, *F*, etc... The

Diamond Sutra employs a similar dialectic in the following way: “Living beings are not living beings, that is why they are truly living beings.” Symbolically we can write $A \neq A = A$. When we see that A is not really A , but is actually an aggregate composed entirely of non- A elements, then that is when we are truly able to see A . Then we can write $A = B + C + D + E + \dots$. This is *adaptation wisdom (anulomajnana)*, which has the capacity to destroy the principle of identity and bring us towards the world of conditioned arising. We see this is in that, that is in this; things are not outside of each other but are inside each other. This is the world that David Bohm has called the implicate order. With this way of seeing we begin to perceive the interbeing nature of all things. Our view begins to adapt to the vision of *emptiness* presented in the Heart Sutra: “neither created nor destroyed, neither defiled nor immaculate, neither increasing nor decreasing.” Using the wisdom of conditioned arising we can go from the view that self and dharmas (*phenomena*) are separately existing realities, to the vision of things as empty of a separate self or existence. This is the vision presented in the Samyukta Agama 293, called the natural flowing together of dependent co-arising and emptiness. With this way of seeing, time, space, matter and spirit are all inside each other, just as birth is present in death, and being in non-being, and nothing exists separately or outside of anything else any more.

THE MATHEMATICS OF INTERBEING

In Buddhism there is a way of seeing known as *tương đăi* which can be translated as *waiting for each other*, or *inter-waiting*, or *inter-relying*. This way of seeing, along with the vision of interbeing, can help us remove dualistic views and realise the wisdom of non-discrimination—touching reality as it is. The wisdom of *inter-waiting* is similar to the idea of symmetry in science. Similarly, *interbeing* can be compared with entanglement or superposition. Interbeing is proposed as a more skilful word than entanglement² or superposition. When we use the words entanglement or superposition, we are still caught in the idea that *this* is not *that*—because there have to be two things in order for them to be entangled or superposed. The word interbeing is very skilful, because in it there is the word being, but we use it to remove the notion of being, without approving or confirming the notion of non-being. We use the word interbeing to remove the notion of being, in order to arrive at neither being nor non-being.

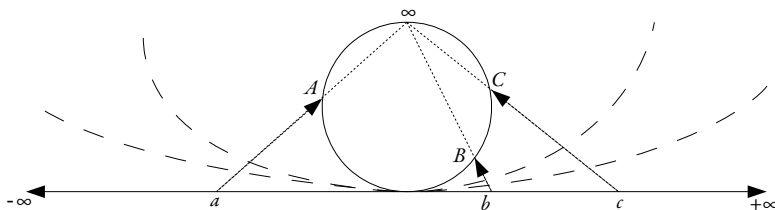
According to the wisdom of inter-relying, the concept of a point and the

²In fact, the German word originally used by Schrödinger to denote the concept of entanglement was *verschränkung*, which can also be translated as *interleaving*, or *interconnection*.

concept of a line, in geometry, depend on each other to exist. In order to define a point, we have to use the concept of the line, and in order to define the line, we have to use the concept of a point. When we say that a point is the intersection of two lines, and a line is the displacement in space of a point, then we recognise the inter-relying nature of the two concepts. When one is there, the other is there. Point and line can only appear together, in the same moment. Point and line rely on each other to be established. Point and line are not two separate realities: in the point there is the line and in the line there is the point. This is inter-relying; this is interbeing.

This is also true for the concepts of addition and subtraction, as well as the concepts of positive and negative infinity. Positive and negative rely on each other to be established. The numbers that we call the *rational numbers*, lying between positive and negative infinity, are also like this. The number 1 can be expressed in terms of sums of other numbers, for example, $6 - 5$, or $-4 + 5$, or $7 - 4 - 2$. And all the other numbers can be defined in terms of the number 1. So conceptually we can see that all the numbers are present in the number 1, and the number 1 is present in all the other numbers—just as in the flower there is the cloud, the sunshine, the earth and the entire cosmos. The flower seems to be small, but it contains the entire cosmos. Overcoming the ideas of small or large, inside and outside, we can truly see the flower. Seeing that the ideas of beginning and ending depend on each other to arise, then so can we also see that the ideas of positive and negative infinity depend on each other to manifest.

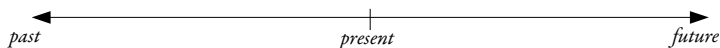
In geometry, it is possible to wrap a line extending from negative infinity to positive infinity, around a circle, with the point at the top of the circle representing both positive and negative infinity. Every single point on the line corresponds to a point on the circle.



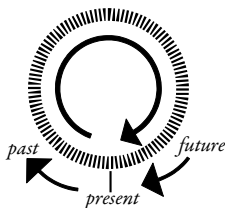
In the diagram, the points a , b , and c , on the line, are mapped respectively to the points A , B , and C , on the circle. We can see that as we wrap the two ends (negative infinity and positive infinity) towards the top of the circle, the infinitely large can fit in a finite space, just as the whole cosmos is present in a flower. Points

further and further in the directions of positive and negative infinity have to be squeezed closer and closer together on the circle, getting infinitely close, but never reaching, the top of the circle. At the point on the top, positive and negative infinity come together as one.

We are used to representing the passage of time with a straight line extending from the past, through the present, to the future.



We may have the idea that the section belonging to the past is getting gradually longer, and the section belonging to the future is getting correspondingly shorter. In Buddhism, time can be represented by a circle—rather like wrapping the line onto the circle as above. We may like to imagine a slide-projector, with 100 slides, in which the slide being projected represents the present, and the slides are shown one by one, coming from the side of the future and being stocked away on the side of the past.



When slide number 100 is shown, slide number one has come all the way round to the side of the future, ready to be projected again in the present.

In Buddhism we speak of *vipaka*, which can be translated as *maturation, ripening, or concoction*. *Vipaka* is one of the functions of store consciousness. The mind can be described as a store of seeds that undergo a process of maturation and gradually ripen. Our experiences and actions in the present moment are stored as seeds in store consciousness. This is like the slides passing from the moment of projection, and being stocked away on the side of the past. The slides going around the carousel represent all the seeds in our store consciousness—the seeds planted by our actions and those planted by the actions of our ancestors. These seeds gradually undergo a process of maturation—they are cooked by store consciousness—and at some point in the future, they ripen and manifest again in the present moment. The image of the slide-projector is good but it is incomplete, since the slides do

not change as they go from the present, to the past, around to the future and into the present again, whereas in store consciousness, the seeds are all of an organic nature and are always changing. All the seeds are maturing in our consciousness in every moment. The seeds sown in the present moment become those of the past. These seeds of the past, stocked in store consciousness, will mature and eventually ripen as the basis of an action in the present moment. Nothing is lost, and every action, every seed, in the past, has a consequence in the future. This is why *karma*, the Sanskrit word for action, includes time and space—that is, everything. And time and space interare with action: every moment contains actions of the past, present and future. Present action becomes the past, past action matures as the future, and the future ripens as present action. The three times are inextricably linked—in Buddhism this is known as the ‘interbeing of the three times.’

On a one dimensional line, one point can always be compared to another in terms of being greater than, less than, or equal to the other one. In a similar way, we are often caught in the tendency to compare. We may compare ourselves in terms of weight, height, wealth, success, or power, and find that we are superior, inferior or equal to the other person. But we can only ever compare one of these aspects at a time. As soon as we try to compare two or more aspects of things at the same time, we find situations in which we cannot say one is greater or less than the other, but in which the two are also not the same, and thus are not equal. For example Alan is 170cm tall and weighs 60kg. Bob is 150cm and weighs 100kg. The two aspects of height and weight cannot be compared at the same time. In mathematics, on a 2D plane, when we compare two different points lying on a circle, they are not equal, but nor can we say that one is greater or less than the other.³ Because we see that each thing has multiple aspects or variables, we recognise the futility of comparison and are released from the three complexes of superiority, inferiority, and equality. When we stop comparing, the wisdom of non-discrimination manifests.

The particular aspect of an object is of equal significance to the universal aspect, because the particular is also a kind of universal. In set theory, a subset (particular) can also be a parent set (universal) in relation to its own subsets. The elements that make up a house, the windows, doors, bricks and roof, are considered to be the particular aspects of the house. But the window is also the universal aspect of its constituents: wood, nails, glass, etc. Particular and universal are just designations. In another example from set theory, if A is a subset of B and

³If we plotted this example on a graph, with height on one axis and weight on the other, Alan and Bob would both be the same distance from the origin, i.e. they would lie on a circle, of radius $\sqrt{(170^2 + 60^2)} = \sqrt{(150^2 + 100^2)} = \sqrt{3250} \approx 180$

B is also a subset of A then $A=B$ because all the elements of A are in B and all the elements of B are in A . This corresponds to our conventional view of reality. But looking deeply into the ultimate nature of reality, we see, for instance, that our father is in us, and we are in our father, and yet we are not the same as our father. We are 'neither the same nor different.' Set theory as it is currently formulated cannot account for this kind of relationship.

Mathematics built upon logical formalism and the principle of identity will have to change in order to be able to describe and convey the reality of interbeing and non-dualism. Are you, as a young scientist, able to create a new mathematics, founded on 'middle way dialectics,' the contemplation of the middle way, and the insight of interbeing? 'Middle way dialectics' means just this: if you look into A but only see non- A elements, then you have truly seen A . A is just a *conventional designation*. A is not an entity. A can only continue to exist in a relationship of conditioned co-arising with all non- A elements. This is the insight of interbeing.

GOING TOGETHER, HAND IN HAND

Yogis are very happy when they see that scientists have been able to explain and demonstrate the things that were previously discovered by intuition and meditation, like the no-birth, no-death nature of matter and energy, the non-dual aspect of wave and particle, of space and time, the interconnectedness of all phenomena, the interbeing nature and non-local nature of atoms and subatomic particles. Yogis can use these discoveries to speak about and to explain their realisations on the spiritual path. This is why the yogis and the scientists need to work together. Scientists can design experiments to help yogis explain what they have discovered in the realm of the spirit. Scientists can also inherit and benefit from the discoveries and the methods of the yogis. This includes methods of practice like mindfulness, concentration and insight, used as tools to release the obstacles of our knowledge and our afflictions. If we know how to use these methods we will be more effective in the work of research and discovery; we will more easily release our habits of thought and our notions, and be able to truly enter the ultimate dimension. Now many scientists recognise that they are entering the domain of philosophy and are knocking on the door of ontology.

There are many examples of scientific discoveries that can help yogis to better understand and explain their realisations. One of these is from modern biology, which has revealed that symbiosis may be much more prevalent in living systems and organisms than previously thought. The biologist Lynn Margulis has suggested that the Darwinian picture of evolution driven solely by competition is incomplete.

She points out that evolution is in fact strongly based on co-operation, interaction and mutual-dependence among organisms. It is now generally agreed that certain organelles of the eukaryotic cell, in particular mitochondria and chloroplasts, were originally bacterial endosymbionts. Mitochondria, present in every human cell, are responsible for generating most of the energy for the cell to use—they are sometimes called the powerhouses of the cell. Without mitochondria we could not lift even a feather, or walk, or breathe. But mitochondria have their own DNA, separate from the human genome, and may once have been independently living bacteria. Very early in the story of evolution they made their home in larger eukaryotic cells and in exchange provided ATP (*adenosine triphosphate*), the unit of intracellular energy transfer, for the cell. Chloroplasts are essential for the process of photosynthesis, and are thus present in all plant cells that perform photosynthesis—they are also responsible for the green colour of all leaves. They are able to capture light energy and store it in the form of ATP, which is then available as usable energy for the plant. Chloroplasts also have their own separate DNA and are believed to have originated from free-living cyanobacteria, which were incorporated into the eukaryotic cell through endosymbiosis, around one and a half billion years ago. These are just two of the many examples from modern biology that illustrate the interconnected and interdependent nature of all life. Can we imagine a world without photosynthesis? A world without trees and green leaves, cool shade and oxygen for us to breathe. As yogis and scientists, we can use examples like these to demonstrate and explain the idea of interbeing. Looking deeply into our own bodies we recognise that we are not individuals, but communities. When we see that every cell in our body depends on symbiosis to function we are able to touch our no-self nature.

Another example is from the discipline of archaeology. Before the discovery of the Pillars of Ashoka (inscribed with the *Ashoka Edicts*) and the ancient Sutras inscribed on palm leaves, Westerners still thought that the Buddha was a mythological figure, a deity imagined by the East, and not a historical person. Archaeologists and philologists have helped enormously in the work of identifying the sources of early Buddhist sutras—understanding when and where they appeared—so that Buddhists can have a more exact view of the history of Buddhist thought and teaching. Today's telescopes and modern astrophysics can also help Buddhists refine their views regarding the *great trichiliocosm*.

In Europe, before the birth of Copernicus, and before the invention of the telescope, the cosmos was very small. Galileo, when he became blind in 1638, wrote to his friend Diodati that he had seen a universe one hundred thousand times greater than the universe conceived of up until that point by Western

Philosophy. In India, at the time of the Buddha, more than 2000 years earlier, philosophers had already been able to see somewhat more. Time, in Buddhism, is not measured in years but in *kalpas*. One kalpa is more than 1,280,000,000 years. The image used to describe a kalpa is like so: imagine a huge mountain, perhaps in the Himalayas, and imagine that just once every hundred years a man climbs up to the top, and brushes it once, with a silken duster. The time it takes for the mountain to be completely razed to the ground is less than one kalpa. In another image, an entire world is crushed to dust then one speck of dust represents the life of a person. These are the images given in the Lotus Sutra, which speaks about the Buddha Mahabhijnabhibhu.

A minor universe, according to Buddhism is made of many stars, suns and moons. One thousand such minor universes make up a small universe (*small chiliocosm*). One thousand small chiliocosms together form a medium chiliocosm, and one thousand medium chiliocosms like that form a great chiliocosm. Buddhist sutras usually speak about the *three thousand great chiliocosm cosmos*—that is, a universe that is made up of three thousand great chiliocosms, as described above. In Sanskrit this is written *tri-sahasra-maha-sahasra-lokadhatu*. According to Buddhism, life is not present only here on Earth, but in many places throughout the immensity of the universe. This is the Buddhist view of the cosmos, attained by insight and then described in a simplified form; just as Siddhartha's contact with suffering in life is represented in simplified form by the image of him going out four times through the four doors of the Royal Palace. We should not compare this description with the modern scientific view of the cosmos. The intention of Buddhism is not to seek to understand the universe but to look for practices that can help us to overcome the obstacles of our knowledge and our suffering, so that we can live with more freedom, peace and happiness.

In the time of the Buddha there were countless people, including some of the Buddha's own disciples, who asked the Buddha metaphysical questions about the universe and the world. They asked questions such as, "How old is the universe?" or, "Is the universe limited or unlimited?" The Buddha always replied that these were not very important questions, and the people often did not accept this answer. The Buddha said that people should ask questions about suffering and about the way to transform suffering. Scientists are also people who have suffering and who want to find happiness. That is why we have to see Buddhism as a kind of science which has realistic methods to transform suffering and generate happiness. The great scientist Albert Einstein had a lot of suffering throughout his life. He couldn't communicate easily with his wife or his children. He was not able to see that to be in touch with oneself, to understand one's own suffering,

to accept oneself, and to be able to bring peace to one's mind and body, are all urgent topics for science. It is a field of scientific enquiry directed inwards. If we are able to understand ourselves and accept ourselves then it becomes much easier to understand and accept others. When we are mindful, we can recognise and be in touch with what is happening in the present moment. And if we maintain this awareness then insight will arise. We will be able to see that our consciousness is a flowing-together of many streams and we will be able to overcome the ideas of inside and outside, subjective and objective, and subject and object of consciousness. The uncertainty and the probabilistic nature of that which we seek to understand comes from the way the streams of our consciousness flow out.

We see that the *universal* aspect of something is just a sign, without reality, just as the *particular* is also a sign, without reality. This is because we can also see the particular as a kind of universal, relative to its own particular aspects. For example, we can see that snow and cloud are two different universals, without reality, in respect of which H₂O can be called a particular, also without reality. But H₂O is a universal relative to the atoms oxygen and hydrogen; while atoms are themselves universals, relative to the sub-atomic particles. In Buddhism all signs are empty. All signs are marked with emptiness—the signs of birth and death, the signs of coming and going. When we can see that no sign has a self-nature, not only do we let go of all notions and assumptions, but there is also no longer anything to call absurd.

Surely we should have a spiritual practice that brings about peace and happiness, freedom and contentment, joy of life, and an enhanced ability to understand and communicate with others, with nature, with mother earth, and with father sky. Do you, as a young scientist, recognise and feel the need to find such a path? A spiritual path, a way leading back to your mind, to the source; a kind of religion not based on a divinity as the ultimate cause, but only on that which can be verified and tested by the experience of many people.

A SPIRITUALITY FOR THE SCIENTIST AND THE YOGI

Each of us needs a spiritual dimension in our daily life. If we lack a spiritual dimension, it may be very difficult for us to overcome the challenges and difficulties we encounter. As scientists we also need a spiritual life. This spiritual life should be based on evidence, which can be verified, not on esoteric beliefs which cannot be tested. Below we propose a number of basic principles as a foundation for this kind of spiritual practice.

We can sit down together and share in order to establish an outline, or record a number insights upon which both scientists and spiritual practitioners can agree. For instance:

1. Looking into ourselves and into the universe, we see a profound harmony and beauty that causes to arise in us feelings of admiration, wonder, and reverence, which in turn nourish the will to discover and to love.

2. This feeling of admiration and reverence can help us to get closer to ourselves and to the cosmos, in the spirit of non-duality. In this way we can overcome the obstacle of perceiving subject and object as two separate entities.

3. There are two kinds of truth: the conventional truth and the absolute truth. And one truth can lead to the other truth, without opposition or contradiction, if we can slowly and skilfully release our ideas and notions about reality. The discriminative mind *can* bring about non-discriminative wisdom.

4. Ultimate reality cannot be grasped by means of concepts and cannot be described by words and concepts.

5. Direct intuition can bring about profound insights into the nature of reality and the value of those insights can be confirmed by scientific experiments.

6. Human consciousness is the basic tool in the search for truth. The functioning of this consciousness can be limited by prejudices (knowledge as an obstacle) and suffering (afflictions as an obstacle). There are practices that help us release our prejudices and transform our suffering, fear, worries, anxiety, craving, hatred, and despair, so that our mind can regain its clarity and its wonderful capacity of shining light on the nature of things.

7. Observing nature in terms of matter, energy, and mind, we see that nothing is born, nothing dies, there is neither increase nor decrease, and the ideas of being and non-being, birth and death, increasing and decreasing, coming and going cannot be applied to reality.

8. The idea that mind and matter, subject and object of perception, as things which can exist outside of each other, need to be removed.

9. Time and space are not separate entities and are not separate from the consciousness of an observer. All of them—time, space and observer—rely on each other to manifest.

10. To be, is to inter-be (to co-be). Things cannot be by themselves alone.

11. The one depends on the many to exist; the many depends on the one to exist. The ideas of one and many, sameness and otherness must also be transcended.

12. Body and mind cannot exist apart from each other as independent entities. Body cannot be removed from mind and mind cannot be removed from body. Body and mind are like the two sides of a sheet of paper—one side relying on the other to exist.

13. The no-birth, no-death nature of things necessarily implies the no-being, no non-being nature of things. Nothing is born and nothing dies—there is only manifestation. It is not because something manifests that we can say that it exists, and it is not because something has not yet manifested that we can say it does not exist. Nothing can pass from non-being into being, and nothing can pass from being into non-being. Being and non-being are only ideas.

14. Things do not have a separate self-nature (*svabhava*). A flower manifests as the coming together of countless non-flower elements, such as sunlight, clouds, rain, soil, fertiliser, seed and so on. A flower cannot be by itself alone—a flower depends on innumerable conditions in order to manifest. The flower, and all phenomena, are empty of a separate self. Non-self, impermanence, and interbeing are the true nature of all things.

15. Subject and object of consciousness cannot exist independently of one another. Perception and object of perception go together. The subject of perception cannot be without the object of perception; in fact the object of perception is present in the subject of perception.

16. Ultimate reality transcends all notions, such as being and non-being, birth and death, coming and going, before and after, good and evil, subject and object.

17. Experiences of suffering and happiness lead to the idea of good and evil. Suffering and happiness are not an objective reality, they depend on the way of looking and understanding of each individual. A transformation of our mind and our thinking can turn suffering into happiness or happiness into suffering. The same is true with good and evil—and these notions can also be given up—they do not correspond to the true nature of reality.

18. If the insights of no birth, no death, no being and no non-being, are

maintained by the energies of mindfulness and concentration, they can transform worries, anxieties and fears and make happiness grow.

19. Understanding the nature and roots of the suffering in ourselves and in others enables us to cultivate acceptance, love, forgiveness and the desire to help.

20. Clinging to ideas, discriminative and dualistic views bring about fear, anxiety, hatred and violence. The insights of interconnectedness, non-duality and togetherness bring about acceptance, love, and peace.

21. Fear, hatred, intolerance and despair are energies that can cause great suffering to ourselves and to others. Compassion, understanding, forgiveness, hope and joy have the capacity to bring about healing, reconciliation and happiness. Recognising and understanding our own suffering can help us more easily recognise and understand the suffering of others.

22. There are ways of living and acting that can bring about either suffering or happiness, for ourselves and for others. These ways of acting may be described as positive or negative, good or bad. The way of acting that has the capacity to bring peace, reconciliation, and happiness can be called *applied ethics*. Applied ethics is based on a profound and solid understanding of reality—on a kind of insight which transcends all discrimination and prejudice. This insight is known as *right view*—a view which transcends all dualistic thinking. This insight is a kind of *meta-ethics*.

23. The founding principles of applied ethics can be based on the non-dualistic view. If we live according to these principles, we, as human beings, will have the capacity to generate happiness and transform suffering. *Wrong view* leads to wrong thinking, wrong speech and wrong actions, which have the capacity to bring about suffering. *Right view*, on the other hand, gives rise to right thinking, right speech and right actions which have the capacity to bring about reconciliation, happiness and relieve suffering. Wrong view is the kind of view which is caught in the notions of being and non-being, birth and death, inside and outside, self and other. These ideas bring about complexes, discrimination, fear, worries, hatred and conflict. Right view is the kind of view that is based on the insights of dependent co-arising and interbeing, which help us transcend all discrimination, complexes, fear, worries, hatred and conflict; giving rise to the kind of thought, speech, and action that has the quality of non-discrimination, acceptance, understanding and love.

24. The insights of both scientists and yogis should be applied not only

to the domain of technology but also to our ways of acting and living, in order to transform fear, discrimination, hatred, and bring about communication, reconciliation, harmony, togetherness and happiness.

25. Discoveries made by yogis can be verified by science and scientists should accept the truth of those discoveries if they are not able to disprove them.

26. The practice of generating mindfulness and concentration can bring about insight. These energies can be generated by our daily practice.

27. The practice of mindful breathing and mindful walking can help us go back to the present moment. The practice helps us get in touch with our bodies, with our feelings, our perceptions, mental formations and consciousness, as well as with all the wonders of life that are available to us, such as planet earth, the sun, the moon, the stars, and everything that has the capacity to nourish and heal our bodies and minds.

28. Mindfulness practice can help us to let go, to release tension and stress in our body and mind, easing the pain in our body and mind.

29. Recognizing and embracing pain and suffering with mindfulness can bring about the relief of that pain and suffering. The collective energy of mindfulness generated by a group of able practitioners can help us to take care of our suffering and transform it much more easily.

30. The energies of mindfulness, concentration, and insight can help us recognize strong emotions, and quickly transform those feelings into calm and peace.

31. The practice of deep listening and loving speech can help us re-establish communication, relieve suffering, and bring about reconciliation. Compassionate listening can help to relieve the suffering of the other person. The practice of deep, compassionate listening will be successful if we are able to maintain mindfulness of compassion throughout the whole time of listening. If we are able to maintain mindfulness of compassion in us, then the seeds of irritation will not be watered as we listen, and we will not interrupt the other person.

32. Looking deeply into ourselves, we see Mother Earth, Father Sun, and the stars, even though they are physically very distant. We and Mother Earth are not two separate realities: we are Mother Earth and Mother Earth is us. Mother Earth is not just the environment, Mother Earth is us. We must live our lives in such

a way that Mother Earth can remain fresh and green for a long time. If Mother Earth withers, we will also wither and die. The presence of Mother Earth is our own presence, and looking deeply into our own true nature and that of Mother Earth, we see that they are both the nature of no birth and no death. Our life span is not limited to just 100 years, because we and our mother are not two separate entities. A global applied ethic should be built on that insight, and no matter who we are, whether scientists, politicians, businesspeople or spiritual practitioners, no matter to which religion or political party we belong, our way of life should reflect this insight.



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