

THE BOOK OF NATURE

*A Sourcebook of Spiritual Perspectives
On Nature and the Environment*

Selected and Edited by

Camille Adams Helminski

*To God belong the east and the west.
Wherever you turn, there is the Face of God.
Witness, God is Infinite, All-knowing.*
[Qur'an 2:115]



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THE BOOK OF NATURE

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Notes on Translation

In most cases we have attempted to transliterate Arabic words as they are pronounced. In quoted material, the spelling may vary according to the custom of the author. Throughout this book, references to the Qurʾān are in brackets. These refer to the name of the *sūrah*, the *sūrah* number, and verse (*ayah*). The first time the Prophet Muḥammad ﷺ is mentioned in a paragraph, his mention is followed by the calligraphic symbol for *ṣalla Allāhu ʿalayhi wa sallam*, “May the peace and blessings of Allāh be upon him.” When Muḥammad’s companions are mentioned, they are followed with the symbol for *raḍīallāhu ʿanhu* (may Allāh be pleased with him) ﷺ. In material that is being quoted, we have used the symbols to replace these blessings, but have not added them if they were not present in the original text.

When quoting the Qurʾān or referring in the text to God, exalted is He, we have used the masculine pronoun. Please be aware that this is merely a limitation of language and that within the universe and understanding of the Qurʾān, God is without gender and far beyond any words or manner by which we might try to describe Him/Her.

Subḥān Allāhi Rabb il-ʿālamīn!

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INTRODUCTION

*To God belongs all that is in the heavens
and all that is on earth;
and all things are returning to God.*

[Sūrah Al-ʿImrān (The House Of ʿImrān) 3:109]

*God—there is no deity but Hu,¹
the Ever-Living, the Self-Subsisting Source of all Being.
No slumber can seize Him nor sleep.
All things in heaven and on earth belong to Hu.
Who could intercede in His Presence without His permission?
He knows what appears in front of
and behind His creatures.
Nor can they encompass any knowledge of Him
except what He wills.
His throne extends over the heavens and the earth,
and He feels no fatigue in guarding and preserving them,
for He is the Highest and Most Exalted.*

[Sūrah Al-Baqarah (The Cow) 2:255]

¹ Hu: the pronoun of Divine Presence. All words in Arabic have a gender grammatically ascribed to them as they do in French and Spanish, etc. Although Allah is referred to with the third person masculine pronoun *Hu* (*Huwa*), it is universally understood that Allah's Essence is beyond gender or indeed any qualification, That which is beyond all our attempts at definition, limitless in subtle glory.

This and all verses of the *Qur'an* which introduce chapters in *The Book of Nature* are excerpted from *The Light of Dawn, Daily Readings from the Holy Qur'an*, selected and rendered by Camille Adams Helminski, Shambhala Publications, 2001, or are adapted from *The Message of the Qur'an* by Muhammad Asad, published by The Book Foundation, 2004.

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*To God belong the east and the west.
Wherever you turn, there is the face of God.
Witness, God is Infinite, All-knowing.
[Sūrah Al-Baqarah (The Cow) 2:115]*

*We have built the universe with skill and power;
and truly, it is We Who are steadily expanding it.
And We have spread wide the earth—
how well We have ordered it!
And of everything, We have created opposites
that you might bear in mind that God alone is One.
[Sūrah Adh-Dhāriyāt (The Dust-Scattering Winds) 51:47-49]*

*And We have established the night and the day as two symbols;
and then We have effaced the symbol of night
and put in place the light-giving symbol of day,
so that you might seek to obtain your Sustainer's bounty
and be aware of the passing years and of the reckoning.
For clearly, most clearly, have We spelled out everything!
[Sūrah Al-Isrā' (The Night Journey) 17:12]*

*Know that God gives life to the earth after it has been lifeless!
We have indeed made Our signs clear to you
that you might learn wisdom.
[Sūrah Al-Hadīd (Iron) 57:17]*

*We will show them Our signs on the farthest horizons
and within their own selves
until it becomes manifest to them that this is the Truth.
Is it not enough that your Lord is witness to all things?
Indeed! Are they in doubt concerning the Meeting with their Lord?
Ah, truly! It is He Who encompasses all things!
[Sūrah Fuṣṣilat (Clearly Spelled Out) 41:53-54]*

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Reading the Book of Nature

~ Charles Upton

It is of the utmost significance that in the Qur'an Allah is said to be All-Encompassing (*Muhit*), as in the verse, *But to Allah belong all things in heaven and on earth. And it is He who encompasses (muhit) all things.* [Sūrah An-Nisā' (Women) 4:26]²

~ Seyyed Hossein Nasr

Many traditional cultures read nature like a book, knowing it as God's original scripture. Within the unfolding universe of the revelation of the Qur'an numerous chapters take their name from natural phenomenon or the *ummahs*, the communities of nature: the bee, the cow, the ant, the spider, the elephant, the fig, the light, the dawn, the night, smoke, the glorious morning light, the sun, the moon, thunder, the constellations, sand dunes, winds, gold, iron, the rocky region, Mt. Sinai, the connecting cell, woman, the human being.

From the Islamic perspective, the natural world is a tapestry woven with the "signs" of the Creator, the Arabic word for "signs," *ayat*, being the same one used to denote the "verses" of the Qur'an, thus making the correspondence between nature and scripture explicit. According to the Qur'an, *In your creation and in all the beasts scattered on the earth there are signs for people of true faith. In the alternation of night and day, and in the provision which Allah sends down from the heavens whereby he quickens the earth after its death, and in the distribution of the winds, are signs for people who are intelligent* [45:4-6]. And: *Truly the creation of the heavens and of the earth, and the succession of night and day, and in the ships which speed through the sea with what is useful to man, and in the waters which Allah sends down from the heavens . . . and in the order of the winds, and the clouds that run their appointed courses between heaven and earth, are signs indeed for people who are intelligent* [2:164].

Christianity has much the same doctrine. According to Origen, "The apostle Paul teaches us that God's invisible nature has been 'clearly

² Seyyed Hossein Nasr, *Islam and the Environment*, Ta-Ha Publishers Ltd., 1998, pp. 120-121.

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perceived in the things that have been made' (Romans 1:20): what is not seen is perceived in what is seen. He shows us that this visible world contains teachings about the invisible world, and that this earth includes certain images of celestial realities. . . ." And a complementary teaching is found in Judaism—that the ability to see the signs of God in nature comes from God Himself: "It is He who gave me unerring knowledge of what exists, to know the structure of the world and the activity of the elements: the beginning and end and middle of times, the alternations of the solstices and the changes of the seasons, the cycles of the year and the constellations of the stars, the natures of animals and the tempers of wild beasts, the powers of spirits and the reasonings of men, the varieties of plants and virtues of roots; I learned both what is secret and what is manifest" (Wisdom of Solomon 7:17-21). There is probably not a single traditional Muslim philosopher or scientist who would disagree with this; in the words of Muḥammad (peace and blessings upon him), "O God, show me things as they really are."

If the natural world is a book, then we might say that the Holy Qur'an, rich with natural symbols, is in some sense like the world of nature transposed to a higher level. The Holy Book, because it was sent down from a Reality higher than nature, allows a kind of dialogue between nature and human language. The Qur'an, upon entering our consciousness, is like the world in the form of a book; the world of nature, illumined by the Qur'an, is like the Book in the form of a world.

So every visible form is a sign of God; or, to say it another way, a name. But what, exactly, is the relationship between a name and the thing being named? The Names of God are not the *parts* of God because God is One (*Al-Ahad*). So why must we say that God has ninety-nine names, or even innumerable names? Why can't we simply say that God's Name is *Allah*, and let it go at that?

The answer is that God's Names have to do with His relationship to creation. God is One but His creation is many, which is why He must show a different face and name to every creature—not because He is divided, but because every creature is different and unique. Yet all of His Names are Names of the One Reality, the Divine Essence, which exists beyond any idea, any image, or any name. In Shakespeare's words, "A

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Rose by any other name would smell as sweet”; the scent of the rose, not the mere name “rose,” is its true essence.

Yet in terms of Islam, which was sent to the human race by God Himself, the Name *Allah* and other Divine Names have an intimate connection to the Reality they name—which is why it is said that “God and His Name are One,” and why the invocation of the Name of God is also an invocation of His real presence.

*To Him belongs what is in the heavens and on earth
and all between them and all beneath the soil.
Whether you pronounce the word aloud or not,
truly, He knows what is secret and what is yet more hidden.
God—there is no god but Hu!
To Him belong the Most Beautiful Names.
[Sūrah Ṭā Hā (O Man) 20:6-8]*

To name something is to make it real in your consciousness. A plant or animal you don’t know the name of is relatively obscure to you; it’s just some animal, some plant. But when you know the name of it, everything you know about it becomes virtually present to you. “Oh, that’s an *elder* tree; you can make preserves out of the berries, and its flowers are good for colds; they are used in cough drops.” And the same thing is even more true of another human being; when you learn a person’s name, he or she becomes more real to you.

The forms of the natural world are like words spoken by God. As God taught Adam the Most Beautiful Names, so Adam named the animals [2:31-33]. God is the only Being to Whom the name Reality belongs intrinsically; every other being only possesses reality by virtue of a free gift from That Reality. Therefore all created things are, in one sense, like Names of God. Since God is the Only Reality, all things symbolize Him—and these symbols are unveiled at the moment when human consciousness encounters the world as it really is, with no intervening ego to separate them, since God is Lord equally over the object perceived and the subject perceiving it. *We shall show them our signs on the horizons and within themselves until they are assured that this is the truth. Is not your Lord sufficient for you, since He is over all things the Witness?* [41:53]

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To cultivate a vision of the natural world as a tapestry of symbols, as the Creator's first book in which every form is a letter, every living being a word, and every vital process a chapter, you must in a sense become profoundly naïve. We must empty ourselves of pre-conceptions and turn again to witness the Reality before us.

For instance, we may ask, "Why is the sky blue?" The scientific answer to this question involves the various wavelengths of radiant energy within sunlight, the gaseous composition of the atmosphere, the laws of refraction, etc. However, the spiritual visionary may engage in a different kind of reflection and arrive at a different meaning: "Because there is a higher world known as the angelic plane—the *Malakut*, a subtler and more complete reflection of God than the material world—where all is high, cool, serene and clear, where perception is pure and transparent, free from the agitation of discursive thought, where each separate object, like a bird, the sun, and the daytime moon, is a perfect expression of its enveloping matrix, which is the essence of clear perception, the essence of *air*; because this higher world exists in a relative eternity 'previous' to our experience of time, because all realities radiate their particular qualities, reflection upon reflection, into ever more constricted and literal worlds, that angelic world, through a series of spiritual, psychic, subtly material, and finally physical processes, ultimately reveals itself to our physical eyes as the luminous, blue, over-arching daytime sky." The scientific answer to "why is the sky blue?" though it may be highly illuminating, deals only with the solidified outer surface of things. . . .

According to al-Ghazali, God in His Name *Al-Khaliq*, (The Creator) conceives of creation in its essential design, like the blueprint of a building. In His Name *Al-Bari* (The Evolver) He commands that this design come into being in the material world. In His Name *Al-Muṣawwir* (The Fashioner), He shapes and molds what He has created. God as Creator sees all that will be in His universe as a single form filled with many particulars. Within the circle of "material existence" is the circle "planets"; within the circle "planets" is the circle "earth"; within the circle "earth" is "biological life"; within the circle "biological life" is the circle "trees"; within that is the circle "oak tree"; within that is the circle "this particular oak tree." In other words, creation branches—and trees are symbols of this truth. *Al-Khaliq* is like the root of the tree, *Al-Bari* like

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the trunk, *Al- Muşawwir* like the branches, and the forms of the world like the leaves and fruit.

○ *Humankind!*

*Worship your Sustainer,
who has created you and those who lived before you,
so that you might remain conscious of the One
who has made the earth a resting-place for you and the sky a canopy,
and has sent water down from the sky
and with it brought forth fruits for your sustenance:
then don't claim that there is any power that could rival God,
when you grasp the truth.*

[*Sūrah Al-Baqarah (The Cow) 2:21-22*]

God has hidden the sea and revealed the foam,
He has hidden the wind and revealed the dust. . . .
How could the dust rise of itself. . . .
Yet you see the dust, not the wind.
How could the foam move without the sea?
But you see the foam and not the sea, amazing!

~ Jalaluddin Rumi

The Imperishable is the Real. As sparks fly upward from a blazing fire, so from the depths of the Imperishable arise all things. To the depths of the Imperishable they again descend. Self-luminous is that Being, and formless. He dwells within all and without all. . . . From him are born breath, mind, the organs of sense, ether, air, fire, water and the earth, and he binds all these together.

~ The Upanishads³

³ *Mundaka Upanishad*, II, i: 1-4, as reprinted in *Seeing God Everywhere*, Edited by Barry McDonald, World Wisdom, Inc. 2003, p. 33.

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This world, with all its stars, elements, and creatures, is come out of the invisible world; it has not the smallest thing or the smallest quality of anything but what is come forth from thence.

~ William Law (1686-1761)⁴

The heavens declare the glory of God and the firmament shows his handiwork.

~ The Prophet David, [Psalms, 29:1]

I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived.

~ Henry David Thoreau (1817-1862)

The book of nature, my dear Henry, is full of holy lessons, ever new and ever varied; and to learn to discover these lessons should be the work of good education.

~ Mary Martha Steerwood (1775-1851)

Read nature; nature is a friend to truth.

~ Edward Young (1683-1765)

Symbolic consciousness does not only teach us how to learn something about God by paying attention to His signs in the world around us. It also purifies our souls by breaking our attachment to the world of sense-objects. It does this by transforming these objects from material facts into *truths*.

It is possible for you to own a material object or a piece of information—but it is impossible for you to own a truth. You can never make a truth other than it is, and a truth always has both the power and the right to demand that you consider and obey it. Contemplating the

⁴ *Selected Mystical Writings*, quoted in *A Treasury of Traditional Wisdom* by Whitall Perry (London, 1971), p. 26.

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forms of the world as symbols, we contemplate God—but we need always to remember that God is also looking. As the Prophet Muḥammad ﷺ said, “Pray to God as if you saw him, because even if you don’t see Him, He sees you.”⁵

When my faithful servant draws near to me by his voluntary devotions, then I love him and I become the ear with which he hears, the eye with which he sees, the tongue with which he speaks, the hand with which he grasps, the foot with which he walks.

~ *Ḥadith* of the Prophet Muḥammad ﷺ⁶

⁵ Charles Upton, contributor.

⁶ A *Ḥadith* is a saying of the Prophet Muhammad ﷺ. This *ḥadith* is noted in the *ḥadith* collection by Bukhari.

CHAPTER ONE

BASIC PRINCIPLES

*This Book of blessings We have sent down to you—
so that they may meditate on its signs⁷
and that people of insight might take them to heart.*

[Sūrah Ṣād 38:29]

*A Sign for them is the earth that is dead;
We give it life and produce grain from it
of which you eat.*

*And We produce there orchards with date-palms and vines
and We cause springs to gush forth from within it,
that they may enjoy the fruits there.*

*It was not their hands that made this;
will they not then give thanks?*

*Limitless in His glory is God Who created in pairs
all things that the earth produces
as well as their own humankind*

as well as things of which they have no knowledge.

And a sign for them is the night:

*We withdraw the day from it
and see how they are plunged in darkness;*

*And the Sun runs his course for a period designated for him
that is determined by the will of the Almighty, the All-Knowing.*

*And the moon—We have measured mansions for her to pass through
until curved like a withered date-stalk she returns.*

*The sun is not permitted to overtake the moon
nor can the night go beyond the day,
but each moves easily in its lawful way.*

[Sūrah Yā Sīn (O Thou Human Being) 36:33-40]

⁷ Signs: *ayat* means both “verse” as well as “signification” or “sign.”

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*Blessed be the One in Whose hands is sovereignty:
and He has power over all things—
He Who created death and life
that He may test which of you is best in deeds.
And He is the Almighty, the One Who is Ever Ready to Forgive,
He Who created the seven heavens in harmony;
no lack of proportion will you see
in that which the Most Compassionate has created—
just look again: can you see any flaw?
[Sūrah Al-Mulk (Dominion) 67:3]*

*And He it is who has created the heavens and the earth
in accordance with an inner truth—
and the Day He says, “Be,” it is.
His word is the Truth.
And His will be the dominion
on the Day when the trumpet of resurrection sounds.
He knows all that is beyond the reach of a created being’s perception,
as well as all that can be witnessed:
for He alone is Truly Wise, All-Aware.
[Sūrah Al-An‘ām (Cattle) 6:73]*

The Journey Towards Knowledge

~ Muhammad Asad⁸

For, indeed, it was Islam that had carried the early Muslims to tremendous cultural heights by directing all their energies toward conscious thought as the only means to understanding the nature of God’s creation and, thus, of His will. No demand had been made of them to

⁸ Muhammad Asad, *The Road To Mecca*, Dar Al-Andalus, Gibraltar, 1980, (republished by The Book Foundation in conjunction with Fons Vitae, 2004), pp. 191-192.

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believe in dogmas difficult or even impossible of intellectual comprehension; in fact, no dogma whatsoever was to be found in the Prophet's message: and, thus, the thirst after knowledge which distinguished early Muslim history had not been forced, as elsewhere in the world, to assert itself in a painful struggle against the traditional faith. On the contrary, it had stemmed exclusively from that faith. The Arabian Prophet had declared that "Striving after knowledge is a most sacred duty of every Muslim man and woman," and his followers were led to understand that only by acquiring knowledge could they fully worship the Lord. When they pondered the Prophet's saying, "God creates no disease without creating a cure for it as well," they realized that by searching for unknown cures they would contribute to a fulfillment of God's will on earth: and so medical research became invested with the holiness of a religious duty.

They read the Koran verse, *We create every living thing out of water*—and in their endeavour to penetrate to the meaning of these words, they began to study living organisms and the laws of their development: and thus they established the science of biology. The Koran pointed to the harmony of the stars and their movements as witnesses of their Creator's glory: and thereupon the sciences of astronomy and mathematics were taken up by the Muslims with a fervour which in other religions was reserved for prayer alone. The Copernican system, which established the earth's rotation around its axis and the revolution of the planets around the sun, was evolved in Europe at the beginning of the sixteenth century (only to be met by the fury of the ecclesiastics, who read in it a contradiction of the literal teachings of the Bible): but the foundations of this system had actually been laid six hundred years earlier, in Muslim countries—for already in the ninth and tenth centuries Muslim astronomers had reached the conclusion that the earth was globular and that it rotated around its axis, and had made accurate calculations of latitudes and longitudes; and many of them maintained—without ever being accused of heresy—that the earth rotated around the sun. And in the same way they took to chemistry and physics and physiology, and to all the other sciences in which the Muslim genius was to find its most lasting monument. In building that monument they did no more than follow the admonition of their Prophet that "If anybody proceeds on his

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way in search of knowledge, God will make easy for him the way to Paradise”; that “The scientist walks in the path of God”; that “The superiority of the learned over the mere pious is like the superiority of the moon when it is full over all other stars”; and that “The ink of the scholars is more precious than the blood of martyrs.”

Throughout the whole creative period of Muslim history—that is to say, during the first five centuries after the Prophet’s time—science and learning had no greater champion than Muslim civilization and no home more secure than the lands in which Islam was supreme.

Sea, Earth, and Sky

~ Charles Recknagel⁹

[Professor Fuat Sezgin], a leading authority on the Golden Age of Islamic Science (from the 8th to the 16th centuries) has published thirteen volumes detailing the accomplishments of Arabic-Islamic science. He posits that it was the unusual “receptiveness” of the Muslims that enabled Muslim science to quickly become the world’s dominant scientific tradition.

Sezgin says it has long been recognized that Muslim navigators undertook sea voyages over vast distances, which gave them a more complete view of geography than the ancient Greeks and Romans. But he says he believes he is the first to compile a comprehensive collection of evidence showing how Muslim cartographers combined the navigators’ information with studies of astronomy and mathematics to compile maps of astonishing precision for their day. . . .

One of his greatest successes was tracking down a copy of a particularly famous map that Western scholars knew existed from Arab

⁹ Excerpted from a 2004 feature article by Charles Recknagel, Copyright © 2006. RFE/RL, Inc. Reprinted with the permission of Radio Free Europe/Radio Liberty, 1201 Connecticut Ave. NW. Washington, DC 20036. <http://www.rferl.org>.

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histories but which was generally assumed to be lost. That is the map of the world that Caliph al-Ma'mun, who reigned in Baghdad from 813 to 833 AD, commissioned from a large group of astronomers and geographers. "Many geographers, many astronomers, many mathematics scholars made this map. Historians of geography knew of this map, but by its name only. I [finally] found this map in an encyclopedia in Topkapi Sarai,"¹⁰ Sezgin says. The map shows large parts of the Eurasian and African continents with recognizable coastlines and major seas. It depicts the world as it was known to the captains of the Arab sailing dhows which, with planks secured by palm-fiber ropes rather than nails, used the monsoon wind cycles to trade over vast distances. Western historians recognize that by the 9th century, Arab sea traders had reached Canton, in China.

Sezgin says the Caliph al-Ma'mun map illustrates how far the Muslim cartographers departed from earlier world views. The maps of the Greeks and Romans reveal a good knowledge of closed seas like the Mediterranean but little understanding of the vast ocean expanses beyond. "This map [shows] the Muslims knew the continents are islands, not like the Greeks' thinking that the seas are closed seas," Sezgin says. . . . He says Muslim scientists were able to make such advances because they were ready to build on the work of earlier scholars—Muslim or otherwise. . . .

"The Arabs, the Muslims, had taken from Christians, from Jews, from [Persia] without complexes. The Muslims were tolerant. The Muslims had accepted these Christians and Jews as teachers. That's very important, because the period of the reception of science was [thus just] 200 years," Sezgin says. . . .

Muslim science never disappeared. Instead, it reemerged as part of the new body of science developing in Europe as scholars there—in their turn—borrowed liberally from Muslim scholars before them. Sezgin says Portuguese and Spanish navigators used the knowledge they gained from Muslim cartographers while Iberia was under Arab domination to launch their own voyages of discovery. Those great sea journeys, including the

¹⁰ The Museum of the Topkapi Palace in Istanbul, Turkey.

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circumnavigation of the world and the discovery of the Americas, helped lead to a modern view of Earth as a globe containing all of the major continents.

Nothing is too wonderful to be true if it be consistent with the laws of nature.

~ Michael Faraday

Nature's laws are the invisible government of the earth.

~ Alfred A. Montapert

Nature uses as little as possible of anything.

~ Johannes Kepler

Human subtlety will never devise an invention more beautiful, more simple or more direct than does nature, because in her inventions nothing is lacking and nothing is superfluous.

~ Leonardo da Vinci

No snowflake ever falls in the wrong place.

~ Zen Proverb

Outer and Inner Space

~ Guy Murchie.¹¹

When I was a child I used to think that little things were simpler than big things, but one day, wandering in the woods, I suddenly understood that the smallness of an acorn may not really make it any simpler than the oak, for it as surely contains oaks as the oak contains acorns. And ever since then, whenever space outside our world of sense seems more important or more impressive than space within the atom, I can remind myself that the differences are only relative and almost certainly illusory. Are not the crystal world of the snowflake and the symmetrical lattice of metal as real as a comet or the Milky Way? And what of the wild microscopic jungles of yeasts and bacteria that have been making bread and cheese . . . since long before man could understand fermentation? Who are we to tell our genes what they may grow or our flesh its rate of metabolism? Can an emperor banish a case of sniffles? Is the elephant master of the mouse?

To grasp the meaning of size, one must consider the fact that outer space after all is made of nothing but inner space even as great Babylon was built of little bricks or a whale is outnumbered by its billions of invisible cells. Nor is inner space closer to our reach than outer space, paradoxical though this may appear, for its true dimensions and dynamic laws are even less understood than the more classic forces of the universe outside. In actuality, both kinds of space pervade our entire world, and as truly as the great suns of the remote sky radiate with the vibrations of their atomic parts do the orbits of our inmost structure add up to the amazing complexity and bulk of this material universe.

¹¹ Guy Murchie, *Music of the Spheres*. The Riverside Press, Cambridge, 1961, p. 230.

At Whose Command?

~ *Kena Upanishad*¹²

Speech, eyes, ears, limbs, life, energy, come to my help. These books have Spirit for theme. I shall never deny Spirit, nor Spirit deny me. Let me be in union, communion with Spirit. When I am one with Spirit, may the laws these books proclaim live in me, may the laws live.

The enquirer asked: “What has called my mind to the hunt? What has made my life begin? What wags in my tongue? What God has opened my eye and ear?”

The teacher answered: “It lives in all that lives, hearing through the ear, thinking through the mind, speaking through the tongue, seeing through the eye. The wise man clings neither to this nor that, rises out of sense, attains immortal life.

“Eye, tongue, cannot approach it nor mind know; not knowing, we cannot satisfy enquiry. It lies beyond the known, beyond the unknown. We know through those who have preached it, have learned it from tradition.

“That which makes the tongue speak, but needs no tongue to explain, that alone is Spirit; not what sets the world by the ears.

“That which makes the mind think, but needs no mind to think, that alone is Spirit; not what sets the world by the ears.

“That which makes the eye see, but needs no eye to see, that alone is Spirit; not what sets the world by the ears.

“That which makes the ear hear, but needs no ear to hear, that alone is Spirit; not what sets the world by the ears.

“That which makes life live, but needs no life to live, that alone is Spirit; not what sets the world by the ears.”

¹² *The Ten Principal Upanishads*, put into English by W.B. Yeats and Shree Purohit Swami. Collier Books, Macmillan Publishing Co, Inc., NY, NY, 1975, pp. 19-20.

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*Such is God, your Sustainer: there is no god but He,
the Creator of everything: then worship Him alone—
for it is He who has everything in His care.
No vision can encompass Him,
but He encompasses all human vision:
for He alone is Subtle Beyond Comprehension, All-Aware.
Means of insight have now come to you
from your Sustainer through this divine Message.*

[Sūrah Al-Anʿām (Cattle) 6:102-104]

CHAPTER TWO

UNITY

*For with God are the keys to the Unseen:
the treasures that none knows but He.
And He knows all that is on the land and in the sea;
and not a leaf falls but He knows it;
and neither is there a grain in the earth's deep darkness,
nor anything alive or dead, but is recorded in a clear record.
And He it is who causes you to be as dead at night,
and knows what you do during the day;
and each day He brings you back to life
so that a term set by Him might be fulfilled.
In the end, to Him you must return;
and He will make you understand all that you did.*

[Sūrah Al-An'ām (Cattle) 6:59-60]

*Truly, God is the One who splits the grain and the kernel apart,
bringing forth the living from the dead,
and He is the One who brings forth the dead
out of that which is alive.
This then, is God: how then can you be so deluded?
He is the One who causes the dawn to break;
and He has made the night to be a source of stillness,
and the sun and the moon for reckoning
by the order of the Almighty, the All-Knowing.
And He it is who has made the stars for you
so that you might be guided by them
through the darkneses of land and sea:
clearly have We detailed Our signs for people of inner knowing.
And He it is who has brought you all into being
out of a single soul,
and so designated for each of you a time-limit on earth
and a resting-place after death:
clearly have We detailed Our signs for people who can grasp the truth.*

[Sūrah Al-An'ām (Cattle) 6:95-98]

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It is He who has created you all out of one soul.
[*Sūrah Al-Aʿrāf* (The Faculty of Discernment) 7:189]

*Say: “God is the Creator of all things;
He is the One, the Supreme, the Irresistible.”*
[*Surah Ar-Raʿd* (Thunder) 13:16]

The Signs of God in Mathematics and Geometry: An Islamic Perspective

~ Charles Upton

Within Islam God is referred to as *Al-Ahad*, the One, and as *Al-Haqq*, the Absolute Truth and Reality. Unity is the central doctrine of Islam. The Unity of God is reflected, imperfectly but still clearly, in His creation.

In Islamic doctrine, God is said to be both incomparable (*tanzih*), and also capable of being compared (*tashbih*) with various aspects of the created world—at least up to a point. In English terminology, *tanzih* is God’s *transcendence*, while *tashbih* is His *immanence*. Without *tashbih*, the signs of God could not appear in nature; without *tanzih*, nature would literally be God. In the *surah al-Fatihah* God is called Lord of the Worlds, Owner of the Day of Judgement. . . . This is *tashbih*. In the *surah al-Ikhlās*, it is said that He neither begets nor is begotten, and there is nothing to which He can be compared. This is *tanzih*.

Both *tanzih* and *tashbih* are reflected in the world of mathematics. Pythagoras, Plato, and their followers believed that mathematics and the various sciences based on it—music, geometry, etc.—were the best possible preliminary training for the understanding of eternal truths. This view of mathematics was inherited, and even further developed, by the philosophers and scientists of Islam. According to Seyyed Hossein Nasr,

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“Any first-hand knowledge of Islamic civilization and particularly the Islamic sciences reveals the ‘privileged position’ of mathematics in the Islamic tradition. There are crystalline and geometric aspects to Islamic art and architecture, a love of arithmetic and numerical symbolism in both the plastic and auditory arts—especially poetry and music—an ‘algebra’ of language and of thought so clearly reflected in Arabic and also in many other Islamic languages, and numerous other tangible manifestations which make plain the central role of traditional mathematics in Islamic art and civilization and on the highest level in the spiritual ‘style’ of Islam so directly reflected in its sacred art.

This love for mathematics, especially geometry and number, is directly connected to the essence of the Islamic message, which is the doctrine of Unity (*al-tawhid*). God is One; hence the number one in the series of numbers is the most direct and intelligible symbol of the Source. And the series of numbers themselves is a ladder by which man ascends from the world of multiplicity to the One.”¹³

Just as the eternal principles or Names of God are reflected in mathematics, so mathematical principles and relationships are reflected directly in nature: in the structure of atoms and crystals, in the design of cells, flowers and other living things, in the orbits of the planets and the revolutions of the galaxies—in fact, in virtually anything we can investigate.

Y
ou are plurality transformed into Unity.
And Unity passing into plurality:
This mystery is understood when man
Leaves the part and merges in the Whole.

~ Shabistari

¹³ Seyyid Hossein Nasr, *Islamic Science: An Illustrated Study*, p. 75

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Thou art the fire,
Thou art the sun,
Thou art the air,
Thou art the moon,
Thou art the starry firmament,
Thou art Brahman Supreme:
Thou art the waters,
The creator of all!

Thou art woman, thou art man,
Thou art the youth, thou art the maiden,
Thou art the old man tottering with his staff;
Thou facest everywhere.
Thou art the dark butterfly,
Thou art the green parrot with red eyes,
Thou art the thunder cloud, the seasons, the seas.
Without beginning art thou, beyond time, beyond space.
Thou art he from whom sprang the three worlds.

~ *The Upanishads*¹⁴

He it is who has made the earth a cradle for you.

[*Sūrah Ṭā Hā* (O Man) 20:53]

Behold, the heaven and the heaven of heavens is the Lord's, thy God,
the earth also, with all that is therein.

~ The Bible, Deuteronomy 10:14

¹⁴ *Svetasvatara Upanishad*, IV:2-4.

Only You

~ Levi Yitzchak of Berditchov¹⁵

Where I wander—You!
Where I ponder—You!
Only You everywhere, You, always, You.
You, You, You.
When I am gladdened—You!
When I am saddened, You!
Only You, everywhere, You!
You, You, You.
Sky is You!
Earth is You!
You above! You below!
In every trend, at every end,
Only You, everywhere You!

The Quest for Unity

~ Axel Reisinger¹⁶

What could quantum mechanics have in common with the philosophical musings of the ancient Greeks? In our age of multimillion-dollar supercolliders, it's hard to imagine that modern physics owes anything to thinkers who predate Descartes. But French physicists Etienne Klein and Marc Lachieze-Rey see an unbroken thread running from antiquity to the present—an ongoing search, throughout the history of science, for unity.

In *The Quest for Unity* the authors reveal how the quest for the One has driven all the great breakthroughs in science. They show how the Greeks searched for the fundamental element in all things; how Galileo

¹⁵ Reprinted from *Seeing God Everywhere*, Edited by Barry McDonald, World Wisdom, Inc. Copyright © 2003 World Wisdom, p. 252.

¹⁶ This selection is excerpted from pp. vii-viii, and pp. 130-131 from *The Quest for Unity, The Adventure of Physics* by Etienne Klein and Marc Lachieze-Rey, translated by Axel Reisinger, Copyright © 1999 by Oxford University Press. Used by permission of Oxford University Press, 1999.

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unified the earth with the heavens by discovering valleys and mountains on the moon; and how Newton created a single theory to describe the motion of the celestial bodies. . . . Throughout the book, the authors stress the aesthetic motives of scientists, how they recognize truth through apprehension of mathematical beauty. And in tracing the quest for unity up to the present day, they illuminate the bizarre workings of quantum mechanics and the sticky definition of reality itself at the subatomic level. A grand unification of all interactions still awaits discovery—but as Klein and Lachize-Rey show, the search itself is as fascinating as the end result may ever be.¹⁷

According to physicists Etienne Klein and Marc Lachize-Rey, science could not exist without a sense that there is an underlying unity to the universe. The struggle to give conceptual expression to this unity is the central thrust of physics:

The immenseness and diversity of the universe are awe-inspiring. The richness of the creation and the myriad forms it assumes seem far too boundless for us ever to hope to encapsulate them in a few principles. Can the world even be fathomed? The very idea of an underlying unity seems preposterous, almost insane right from the outset. The moment it is articulated, it is belied by the world itself. What could a star, a cloud, a snowflake, a living cell, an atom, and a quark possibly have in common? How could anyone reconcile the notion of unity with so many plausible and reasonable arguments that justify splintering reality into disconnected pieces? Indeed, everything points to multiplicity as an unassailable characteristic of the physical world.

And yet, without Unity as a beacon, the world, indeed human thought itself, would scatter into a dust of things and ideas impossible to integrate. The very concept of universe would become senseless. The history of human thought offers a decidedly different panorama, one that is full of syntheses, bridges, unifications, and sometimes even outright fusions. The most remarkable successes have revolved around matter and its interactions. The credit goes to men of science who have managed to distill from a profusion of phenomena and

¹⁷ Ibid., dust jacket introduction.

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concepts a few guiding principles capable of organizing and unifying the infinite diversity of everyday experience. Indeed, almost every single “great physicist” recorded by history has contributed unifications that changed the reach and power of physics, transforming it into something more than a simple patchwork of disparate theories.

Galileo, for instance, reconciled the sublunar and supralunar worlds when his telescope revealed mountains and valleys on the surface of the moon. Newton created a single theory to describe the motion of the earth and that of the celestial bodies. Maxwell unified electricity and magnetism. Fraunhofer demonstrated that the physical laws discovered here on earth apply just as well to stars. Louis de Broglie established a connection between waves and particles. Perhaps the most famous case is that of Albert Einstein, who melded space and time, until then completely distinct, into a unified space-time concept. He later devoted much energy looking for a unifying theory that would encompass both the universe taken as a whole and the laws governing its elementary constituents.

But from this vantage point, does science really differ from thought itself? The longing for Unity is without a doubt a requisite for intelligibility. It is a fundamental need of man’s intellect with its thirst for synthesis. At least, such was Leibniz’s opinion. He felt that the One (together with being, substance, sameness, cause, perception, and reasoning) is part of the innate notions anchored in our minds, without which the data of human experience would remain incomprehensible. Immanuel Kant shared the same view. He described understanding as “the power to reduce phenomena to the unity of rules,” and reason as “the ability to subjugate the rules of understanding to unity by means of principles.” It would be difficult to articulate more clearly the monism pervading the pursuit of knowledge.

Be that as it may, it is in the sciences that the quest for unity has produced the most spectacular results. It continues to stimulate a considerable amount of research. During the 1970s, two types of phenomena—electromagnetism and weak interactions (the latter being responsible for, among other things, the decay of a neutron

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into a proton, an electron, and a third particle called antineutrino)—ostensibly quite dissimilar in their phenomenology, were formally united within the framework of a new and broader theory. The so-called *standard model* was born, providing a very elegant classification scheme of the constituents of matter into three families. This encouraging success seemed to bring us one step closer to a triumphant unification.

By all evidence, the drive toward unity and synthesis is the primary impetus behind many scientific endeavors. It seems to have been a particularly fruitful and effective tool in the field of physics. Indeed, the belief that unification is the very foundation of physics and constitutes its ultimate mission is widespread. Pierre Duhem said as much explicitly: “Every physicist naturally aspires to the unity of science.” This aspiration is twofold: It reflects a drive “toward the logical unity of physical theory . . . [and] toward a theory which is a natural classification of physical laws.”¹⁸

Yet the authors realize that while physics must seek Unity, it may never be able to perfectly express Unity. And while they do not necessarily believe in religion, they recognize that only religion could (in theory) be a perfect reflection of reality, and that physics has no business presenting itself as a religion:

The search for unification continues to be the guiding principle of physics to this day. Harmony, atomism, teleology, geometrization, sundry analogies—everything is tried, discarded, and occasionally rehabilitated. The growth of knowledge results from successful consolidations and unifications of separate disciplines, notwithstanding the many failures littering its path.

Yet, modern physics is anything but unified; it appears fragmented and compartmentalized. The prospects for an all-encompassing unity are questionable at best. Indeed, it could be argued that we have never been further from a globally unified worldview, and that is a frustrating paradox.

We are faced with an apparent contradiction. On the one hand, physics is manifestly fueled by a unifying motive. Unity often results

¹⁸ Ibid., p. vii-viii.

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from the discovery of new concepts or hypotheses that, almost overnight, overthrow multiplicity and install homogeneity in its place. On the other hand, the process never seems to reach its culmination. Either it cannot be pushed to its ultimate conclusion, or it succeeds only too briefly until new results bring fresh elements into the picture and force a complete reassessment of where we stand. The breadth of each discipline keeps increasing and the landscape of knowledge shifts constantly. Two branches are no sooner unified than a third begins to grow. When, in turn, it is merged with the first two, still more appear. The cycle is endless, and no magic formula can ever fundamentally change that. Will we be able to reach higher levels of understanding leading to new unifications? Probably, and it is safe to predict that it will be at the cost of further setbacks to the cause of Unity. At best, partial unifications strengthen our resolve to keep searching for further breakthroughs.

If physics works at all, it is perhaps because such unifications are amenable to mathematical treatments and formulations, which become useful tools to describe, if not the world itself, at least all the matter it contains. This process—almost dialectical in nature—is absolutely vital. Should it ever stop, science would simply wither.

Under these circumstances, should we simply give up looking for the underlying unity of diverse phenomena? The answer is a resounding no—that would be tantamount to giving up on physics itself. Yet, the irony is that unification does not necessarily lead to Unity. It weaves a fabric that is never quite finished. Rarely does it offer more than a fleeting glimpse of Unity. Interim stages are a quintessential part of science and its main stimulus; they constantly provide new incentives to press on for a better understanding of things, more novel theories, and more creative insights.

Modern physics has scored remarkable triumphs. That exposes it to the risks that inevitably come with success. In its eagerness to publicize its next anticipated achievement, it can easily degenerate into metaphysical contemplations—some are beneficial because they inspire bold hypotheses, but others are far more insidious and prone to lure it into arrogant overconfidence that it is within reach of its destiny. Only if it renounces pretensions to be a perfect reflection of

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reality will physics continue to thrive. Its greatest challenge is to resist the temptation to project the false self-image of a religion able to reveal the ultimate truth.¹⁹

The World Is a Mirror

~ Mahmud Shabistari²⁰

Know that the whole world is a mirror; in each atom are found a hundred blazing suns. If you split the center of a single drop of water, a hundred pure oceans spring forth. If you examine each particle of dust, a thousand Adams can be seen. . . .

A universe lies hidden in a grain of millet; everything is brought together at the point of the present. . . . From each point along that circle thousands of forms are drawn. Each point, as it revolves in a circle, is at times a circle, at others a turning circumference.

Circles

~ Michael S. Schneider²¹

Give a young child a crayon and paper and observe what he draws. At the earliest ages children scrawl lines and zigzags. There comes a time when they discover that a line's end can meet its beginning, and they take delight in the loop. It continues endlessly around and creates an inside separate from an outside. Eventually, they come upon the circle. The circle brings the loop to perfection, so round in every direction. Children love to trace circular objects like cups and cans to achieve the fascinating perfection so hard for a young hand to draw.

¹⁹ Ibid., pp. 130-131.

²⁰ *The Wisdom of Islam*, compiled by Nacer Khēmir, Abbeville Publishing Group, New York, N.Y., 1996.

²¹ This selection is excerpted from pp. 2, 4, 8, 11-17, and 20 of *A Beginner's Guide to Constructing the Universe* by Michael S. Schneider. Copyright © 1994 by Michael Schneider. Reprinted by permission of HarperCollins Publishers Inc.

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The discovery and appreciation of the circle is our early glimpse into the wholeness, unity, and divine order of the universe. Some psychologists say that the discovery of the circle arrives as the child discovers the self and distinguishes himself from another. Even as adults our attention remains hypnotically drawn to circles, toward their centers, in objects we create and those we see. We draw circles and they draw us.

Looking at a circle is like looking into a mirror. We create and respond irresistibly to circles, cylinders, and spheres because we recognize ourselves in them. The message of the shape bypasses our conscious mental circuitry and speaks directly to the quiet intelligence of our deepest being. The circle is a reflection of the world's—and our own—deep perfection, unity, design excellence, wholeness, and divine nature. Everything strives in one way or another toward unity.

There's more to a circle than just a curved line. It's a wonderful first glyph of nature's alphabet. Every circle is identical. They only differ in size. Each circle you see or create is a profound statement about the transcendental nature of the universe. Expanding from the “nowhere” of its dimensionless center to the infinitely many points of its circumference, a circle implies the mysterious generation from nothing to everything. Its radius and circumference are never both measurable at the same time in similar units due to their mutual relation to the transcendental value known as “pi” = 3.1415926 . . . When either the radius or circumference is measurable in whole, rational units, the other is an endless, irrational decimal. Thus, a circle represents the limited and unlimited in one body.

Our deepest awareness, the power that motivates all awareness, which we can call the “Power to Be Conscious,” of which we are not ordinarily cognizant, recognizes its own transcendental nature in the geometry of the circle. For this reason the circle has been a universal symbol of an ideal perfection and divine state that always exists around and within us whether we acknowledge it or not. Religious art has traditionally turned to the circle to symbolize this state of divinity as “heaven,” “paradise,” “eternity,” and “enlightenment.”

Nothing exists without a center around which it revolves, whether the nucleus of an atom, the heart of our body, hearth of the home, capital of a nation, sun in the solar system, or black hole at the core of a galaxy. When the center does not hold, the entire affair collapses. An idea or

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conversation is considered “pointless” not because it leads nowhere but because it has no *center* holding it together.

The point is the source of our whole of wholes. It is beyond understanding, unknowable, silently self-enfolded. But like a seed, a point will expand to fulfill itself as a circle.

Nature’s forms represent invisible forces made visible. The force of the circle’s equal expansion works through different materials. Tap the side of a round cup of liquid, and watch as perfect concentric rings appear and converge to the center, then pass it and expand outward again. Nature delights in the principle of equal expansion in concentric ripples, splashes, craters, bubbles, flowers, and exploding stars. As you open your compass, consider that you are metaphorically repeating this first principle of the Monad, the opening of light, space, time, and power in all directions.

The second principle of the Monad is expressed by the circle’s rotary motion. Unlike the still center, the circumference speaks of movement. We replicate this universal principle in our geometric constructions whenever we run the compass around its point and scribe a circle. Symbolized in nearly every culture as a wheel, the circle represents nature’s universal cycles, circulations, circuits, orbits, periodicities, vibrations, and rhythms.

Because cycles are a principle of the Monad, they are all-pervasive in the universe. We are thoroughly enmeshed in cycles and periodic rhythms but notice only the most obvious, like our breath and hunger or the time or season.

All cycles have rising and declining phases. When one side goes up, the other goes down. This is true on any scale, in turning wheels and in the rising/falling pulse of an emotional burst, the changing amount of daylight through the seasons, the rise and decline of great cultures, and the life cycles of stars.

Observe a rapidly cycling bicycle wheel or ceiling fan. When it revolves slowly we can see each individual spoke or blade, but when it turns faster our nervous system just cannot register the revolutions as discontinuous, and beyond about 1,550 cycles per second the spokes and fan appear as a solid disk. Look around at any “solid” object. Be aware that the appearance of its “surface” is due to rapidly oscillating atoms,

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which move so fast as to give our nervous system the *impression* of a smooth surface. The same is true for our sense of hearing. A card held against turning bicycle spokes or the teeth of a turning gear will produce discrete sounds until the rapidity is such that the sound is perceived as a continuous hum. All senses are fooled by rapid cyclic vibration so that even texture, smell, and taste appear as continuous to our registration faculties.

Every process is characterized by cycles. The appearances of the entire world with all its natural and technological cycles are images rooted in the archetypal cyclic principle of the Monad represented by the geometer's turning compass. Cooperating with nature requires that we recognize the existence, and learn the ways, of its omnipresent cycles.

The third all-pervasive principle of the Monad involves the area *within* the circumference. A circle is not just the curve but the miraculous space inside, which manifests between nothingness (zero-dimensional point) and everything (infinitely many points around the circumference).

A circle expresses the most practical and efficient geometric space for natural and human creations to occur. Of all shapes a circle encloses the most space by the smallest perimeter. In other words, the most enclosure with least exposure. The Monad's third principle is maximized efficiency.

The Monad, or oneness, expressed as a point and a circle, is the foundation for our geometric construction of the universe. The three parts of the circle—center, circumference, and radius forming the space within—correspond to the three principles of the Monad: equal expansion, cycles, and efficient space. These principles, along with the Monad's wholeness, are all-pervasive and lie at the foundation of the world's objects and events, as the number one is hidden within every integer.

The Monad is knowable to us through its expression in nature's designs and human affairs as equal expansion, cycles, and efficient space. Natural structures are universally recognized as beautiful and most efficient. We, too, are part of the world's harmonious design and can't help but express the Monad's principles in the things we do and create.

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Philosophy in Warm Weather

~ Jane Kenyon²²

Now all the doors and windows
Are open, and we move so easily
Through the rooms. Cats roll
On the sunny rugs, and a clumsy wasp
Climbs the pane, pausing
To rub a leg over her head.

All around physical life reconvenes.
The molecules of our bodies must love
To exist: they whirl in circles
And seem to begrudge us nothing.
Heat, Horatio, *heat* makes them
Put this antic disposition on!

This year's brown spider
Sways over the door as I come
And go. A single poppy shouts
From the far field, and the crow,
Beyond alarm, goes right on
Pulling up the corn.

²² "Philosophy in Warm Weather," copyright © 2005 by the Estate of Jane Kenyon. Reprinted from *Collected Poems* with the permission of Greywolf Press, Saint Paul, Minnesota.

Sacred Circles

~ *Black Elk*²³

You have noticed that everything an Indian does is in a circle, and that is because the Power of the World always works in circles, and everything tries to be round. In the old days when we were a strong and happy people, all our power came to us from the sacred hoop of the nation, and so long as the hoop was unbroken, the people flourished. The flowering tree was the living center of the hoop, and the circle of the four quarters nourished it. The east gave peace and light, the south gave warmth, the west gave rain, and the north with its cold and mighty wind gave strength and endurance. This knowledge came to us from the outer world with our religion. Everything the Power of the World does is done in a circle. The sky is round, and I have heard that the earth is round like a ball, and so are all the stars. The wind, in its greatest power, whirls. Birds make their nests in circles, for theirs is the same religion as ours.

Al-Tawhid, Unity

~ Charles Upton

The central doctrine of Islam is *al-tawhid*, Unity. God is One; there is no god but God. And the Unity of God is reflected in the universe, in the unity of nature's laws, as well as in the uniqueness of each object in nature. To construct circles is to make a geometrical diagram of *al-tawhid*.

The Arabic word for "heart," *qalb*, is derived from the root QLB or QBL, which embraces a number of concepts having to do with "turning." In Sufi metaphysics the Heart is the center of the psyche, the point at which it is intersected by the vertical ray of the Spirit (*ruh*). This

²³ Black Elk quoted from *Black Elk Speaks* by John G. Neihardt, Copyright 1961 by the John G. Neihardt Trust, University of Nebraska Press, Lincoln, Nebraska, 1979, pp. 194-195.

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symbolic image has obvious affinities with the act of constructing a circle using a compass and a sheet of paper. The Heart is who we really are in the sight of God; it is the central point of our full and authentic humanity. Whoever wants to rise along the vertical path of the Spirit, the *axis mundi*, first has to have reached the Center, the Heart, which is another way of saying that we can't relate to God with only a part of ourselves. A line drawn from any point on the circumference of a circle so as to intersect a line passing vertically through the circle's center can never be one with the infinite elevation which the vertical line symbolizes. It must intersect the vertical line at some point short of infinity. Furthermore, it only "represents" its own point-of-origin on the circumference; it can in no way stand for the circle and the whole. But the center of the circle does stand for the whole circle, since it is the point from which the circle expands, and to which it returns. And only the central point of the circle is available to the ray of infinite elevation which symbolizes the relationship between the human form and God. It is said that God holds the Heart between His fingers, and turns it however He will. This is a way of saying that the Heart is the reality through which we can see how all the changes-of-state we experience in passing time have the same Point-of-Origin; that change on the horizontal plane is an expression of permanence on the vertical one; that the *waqt*, the present moment of spiritual time, is the manifestation of God's eternity in the created world. And just as God *turns* the Heart however He will, so the Heart is the point through which and by which the human soul *returns* to God on the spiritual Path; it is the spiritual Kaaba, the *qiblah* toward which we turn.

The Kaaba

~ Ali, Aliaa, and Aisha Rafea²⁴

People in Islam have one direction all over the world when they pray. It is the Center that they focus upon. This center is called *Ka'aba* or *baytullah*, the Holy Home. They also name it *Kebia* (Direction). Turning the face to the direction of the Holy Home connotes that God's message will remain on earth and should be sought herein.

Daily practices of prayers are distributed throughout the day with the movement of the Earth around the Sun. The Sun as the Center, around which the earth revolves, symbolizes Truth as the central goal of the human being, around which his life revolves. Observing times (dawn, noon, afternoon, sunset, night) reminds man all the day long of his intimate relation to Allah.

We can also speculate upon each time of prayer. The dawn time points to the rise of light pushing away the darkness. Prayers would support man to overcome whatever darkness is enveloping his life. The noon-time symbolizes the state in which the power of Light is all prevailing. The afternoon is a stage in which the Light is about to decline. With the sunset man begins a stage of darkness. Night prayer points to a stage where man is completely encircled with darkness with no ray of light, yet he keeps seeking the Supreme Power. Praying in all times can help man focus on the ultimate goal of life which is to be attached to

²⁴Ali, Aliaa & Aisha Rafea, *Beyond Diversities. Reflections on Revelations*. Sadek Publishing, Cairo, 2000, pp. 90-91.

The Kaaba is centered in Mecca. It is the temple which was dedicated to the One God by Abraham, and originally, before him, it is said, built by Adam, which was then later cleansed and rededicated by Muhammad. It is towards this point that all Muslims turn in prayer five times a day—towards this place of unity. The Kaaba itself is empty, indicating the pure space within the heart where we are closest to God. “Allah” is the name of God used by Arabic speaking Christians as well as Muslims. Jews, Christians, and Muslims all share the monotheistic heritage of Abraham, may peace be with them all and with all communities and their prophets and messengers of God. (C.A.H.)

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Allah. With the rotation of the light and darkness, he purifies his soul and empowers his will.

Prayer restrains from shameful and unjust deeds; and remembrance of Allah is the greatest (thing in life) without doubt. [Sūrah 29:45].”

Veriditas

~ Hildegard von Bingen²⁵

O most powerful path
that has entered into everything
the heights, the earth,
and the depths,
you fashion and gather everything
around you:
clouds float, air streams,
stones become wet,
waters create rivers
and the earth perspires greenness.

²⁵ Hildegard von Bingen, *Writings of Medieval Women*, Marcelle Thiebaux, translator. Copyright 1994 by Marcelle Thiebaux, Garland Publishing, NY, NY.