



Spirals the Patterns of Existence

By Geoff Ward

WHEN I look back it is still surprising to think that it all began with a humble snail - the "dodman" to be precise, as described by the Hereford antiquarian, inventor and visionary Alfred Watkins in his classic work of 1925, "The Old Straight Track".

In that book, Watkins compares the snail with its two horns to the ancient surveyor who, wielding his two sighting staves, laid out a system of track ways, or leys, across Britain, which Watkins had discovered, or perhaps rediscovered. The snail's spiral shell suddenly reminded me of the spiral tongues of the serpent corbels I had seen at Kilpeck Church in Herefordshire.

This church is simply festooned with dragons and serpents - evidence of the old homage that must have been paid to the earth spirit at this site in past times. It's raised position, and its oval shape, suggests that it may overlay megalithic remains, and dowsing has shown that the church - its apse, chancel and nave - is aligned to an underground stream.

I was also reminded of the discovery, half a century ago, by the pioneering dowser Guy Underwood, of spiral energy patterns in the landscape. Underwood found that these energy lines converged on, and emanated from, springs just below the surface at the centres of Neolithic sites such as Stonehenge, and Avebury. T C Lethbridge, the great paranormal investigator of the last century, also referred to force-fields in spiral and conical patterns, and the charging of sacred places with energy.

For me, the old stones had always seemed to stand there as a reminder - to prompt our collective memory, as it were - of something important that the human race had lost, or at least forgotten, but might yet find again. Indeed, ancient monuments and old churches are where they are for very good reasons, their sites not having been decided merely by whim, or aligned to one another simply by chance. Such places were holy ground, esoteric centres where, according to Underwood, the "blind spring"

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designated the centre of the sacred site, while its spiral of energy bestowed that "divine protective sanctity" postulated by students of the old religion.

Early man believed that the earth was inhabited by a spirit, that the earth was not simply inanimate matter but possessed a life and soul of its own. In many cultures this idea came to be identified with an earth goddess, or earth mother, a provider and protector whose pre-eminent symbol, I came to discover, was the spiral.

Pondering such manifestations of spiralling earth energies, I was already aware, like everyone else, of the helical structure of the DNA molecule. But then I was struck by the fact that spiral curves were repeated in galaxies throughout the universe. Only in March this year (2006), it was reported that astronomers, using a specialised camera on the Spitzer space telescope to observe thermal dust emission, had discovered an infra-red nebula in the shape of the DNA double helix near the centre of our Milky Way galaxy.

Although the less complex relative of the spiral, the helix is also fundamental to the pattern of existence, while the spiral curve moves steadily away from a point of origin, the helix simply twists along within the same diameter, this being the reason for its importance, the difference between a spiral and a helix being that of a helter skelter slide and the rifling in a gun barrel. The helix concentrates the lateral, expansive, prophetic energy of the spiral and makes it vertical, making it ideal for urgent tasks, as exemplified in drill bits and the often misnamed "spiral" staircase, the actual helical structure of which makes for efficient use of living space.

It was a meeting with Colin Wilson in 1999 that inspired me to persevere with the completion of researches for my book, the idea for which I had had for a number of years. The development of the Outsider theme in Wilson's many books over almost half a century seems to me capable of being represented as a series of ascending turns on a literary and philosophical spiral affording new vantage points from which his work has been refined and deepened.

The theme of my book (Spirals: the Pattern of Existence) stands wholly against the pessimistic view of our place in the universe which has become so prevalent in our time -the "fallacy of insignificance", to use one of Wilson's key terms - that we are merely on a "dust-mote" planet in orbit around an average star in a run-of-the-mill galaxy; that there are countless other planets, stars and galaxies out there; that although Earth has life, it may not be that unusual or important; and that because the distances are so vast there is such little chance of locating intelligent life elsewhere that we might as well be alone in the cosmos; in short, that the universe is out to persuade us that we are nothing very special.

I have always rejected such a defeatist attitude. Certainly, the astronomy of Copernicus, with its heliocentric system, overturned that of Ptolemy, which for a thousand years had placed the Earth at the centre of the universe. Inevitably, the Copernican revolution dislodged human beings from the centre of the physical universe, but at the same time it reconvened our relationship to the universe on a different level. The new astronomy after Copernicus not only realigned the human subject as a rational being capable of understanding the structure of the cosmos through mathematical endeavour, it also paved the way for the realisation that we are

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the universe contemplating itself - indeed, a privileged position. I wondered if the spiral could actually be the "way" of the universe, the link between microcosm and macrocosm, and if there was some special force or generative energy "field" behind it. The quest was to try to find out, and it was indeed how the universe shaped up.

Perhaps, unconsciously, I was seeking a symbol that would at one level connect microcosm and macrocosm, above and below, within and without (to use the Hermetic dictum), and at another level, science and spirituality. My interests have always been eclectic and this probably helped me to see the connections, but I was surprised to find so few books on the subject of the spiral and its manifestations in nature. Of course, there was Archimedes' book of 225BC, doubtless the first on the subject, and the studies made by the Renaissance artists Albrecht Dürer and Leonardo da Vinci; there were Filippo Buonanni's and Martin Lister's studies of spiral shells in the 17th century; and the studies of Canon Henry Moseley (shells again) and Arthur Church (plants) in the 19th century.

From the 17th century, there were also investigations of the spiral by various mathematicians and scientists, including Descartes, Bernoulli, Torricelli, Sir Christopher Wren, Edmund Halley, Sir John Leslie and Professor John Goodsir. The classic works came in the early years of the 20th century, with books by Theodore Andreas Cook, Wentworth d'Arcy Thompson and Colman and Coan, and then only Jill Purce's *The Mystic Spiral* in 1974, which seems to have been the first to look at the spiritual aspects of the spiral pattern. In 1903, Cook published "Spirals in Nature and Art", and followed it up with his truly groundbreaking work, "The Curves of Life" (1914), which is exhaustive in its catalogue of myriad spirals and helices in nature.

Cook realised that one of the main beauties of the spiral was that as it was always growing, yet never covering the same ground; it was not simply an explanation of the past but a prophecy of the future. While it defined and illuminated what had already happened, it also led constantly to new discoveries, and he saw that its continuous curve gave the impression of unceasing motion and, in fact, of life itself. Cook, who studied classics at Oxford, and whose interest in sport and literature led him into journalism and editorship of *The Field*, was the first to draw the study of spirals into a comprehensive whole, and the foundations that he so admirably and painstakingly laid enabled me to delve more deeply into the spiral's eternal domain.

Synchronistically, just as Cook was reading the proofs of "The Curves of Life", he received a book from America, "Nature's Harmonic Unity: a treatise on its relation to proportional form" (1911), written by the landscape painter Samuel Colman (1832-1920) - famous for his paintings of the Grand Canyon in Arizona - with the lawyer and mathematician Clarence Arthur Coan as editor. It dealt broadly with the same issues that had intrigued Cook, but came at them from a different angle. While struck by "the way in which two minds may be attracted by kindred subjects at the same time, without any knowledge of each other's studies", Cook felt his work gave a better explanation of the phenomena which the two authors were investigating. Colman was more concerned with proportional form, while Cook preferred to consider form in relation to growth.

Then in 1917, Edinburgh-born Thompson, a naturalist, Greek scholar and the first bio-mathematician published "On Growth and Form", which also examined spirals in nature and came to regard them as providing evidence for a fundamental geometry of creation. It was his assumption that all science and learning was one, and he attempted to make biological phenomena conform to mathematics.

Of course, in mathematics there are many different kinds of spiral, the seven most recognised ones being the logarithmic (or equiangular), the Archimedean, the hyperbolic, or reciprocal (the inverse of the Archimedean), Fermat's, or parabolic, the lituus (the inverse of Fermat's), the square root, and the Golden. My interests lie primarily with the equiangular spiral which, with its close relative, the Golden, is the most relevant to my theme.

The remarkable property of the equiangular spiral, so named by Descartes, is that it is the only mathematical curve which increases by growth at one end but keeps the form of the entire figure, a characteristic which is known as self-similarity. The term "logarithmic" comes from the way in which the radius of the spiral increases as its curve is described clockwise. The spiral is called "equiangular" because of another special property - if a straight line is drawn from the central point, or pole, of the spiral to any point on its curve, it always crosses the curve at exactly the same angle. In antiquity, the pole was known as the "eye of God", embracing, I think, the idea of us being closely observed by eternity.

The shell of the nautilus, the tusks of elephants, warthogs and of the extinct mammoths and sabre-tooth tigers, the tooth of the Beaver, the claws of cats, beaks of birds and teeth of rodents, all display this same curve. So do many aspects of human anatomy, the horns of animals, the flight of birds, the volutes of waves, the swirls of weather systems, and the growth of plants. One of the most beautiful manifestations of the spiral in nature is the shell of the nautilus, a marine mollusc akin to the squid, which approximates to the proportion of the Golden Ratio, to which the equiangular spiral's structure is closely related.

Patterns governed by the Golden Ratio and Divine Proportion are in the proportion 1:1.618, a figure which possesses amazing properties. Golden spirals are created by constructing quarter-circles inside the squares of Golden rectangles, which have the special property that when a square is cut off, the remaining shape is another Golden rectangle.

The Golden Ratio, so named by Leonardo da Vinci, was integral to the geometry of antiquity in the construction of sacred buildings including the Giza Pyramids and the Greek Parthenon. The Ancient Egyptians' term for it was "neb", translating as "the spiralling force of the universe", also meaning "lord", appearing in names of pharaohs, and used as one of the sacred names of the Sphinx. It became clear to me that the spiral is a uniting symbol right across nature and human culture, and appears as the sign of the eternal, creative and organising principle at work in the universe - a key to the essence of reality itself. Indeed, spiral energy fields are all around us and within us, patterning our very existence, from the tiny vortices of sub-atomic particles and the DNA molecule to the awesome "island universes" of galaxies where stars are born

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and the conditions for life created. The spiral is nature's most favoured pattern of growth and most efficacious deployer of its energy - inducing, protecting and supporting life.

Dowser Herbert Weaver, whose theory was that people, animals, plants and objects emit radiations that prehistoric and primitive man was able to sense directly, defined certain qualities of spirality as "magneto-protective" and maintained that there were aspects of fertility attached to it, which could be applied in combination to the life-supporting structures of galaxies and to the molecular architecture of the genetic material in the DNA helix.

Ultimately, the implication is that the spiral form is integral to strength and growth and indeed, it may be that all curves of growth are based on it. Moreover, the spiral is a powerful example of how nature tends to repeat the use of a successful design over and over again on every level of its creative handiwork: indeed, this design is the most universal of all.

It has been there in art, religion and philosophy from the most ancient times, in earth divination, event patterning, occult belief or "magical" systems, and in aspects of the studies of many sciences including astronomy, quantum physics, psychology, biology, anthropology and zoology.

I have found representations of the spiral all over the globe, in art from Stone Age societies in Europe and the Near East to pre-dynastic Egypt, the Kansu settlements of China, the Nazca plains of Peru, and throughout the history of Polynesian and Maori communities in the Pacific, to cite just a few examples.

Mankind has always sought a dialogue with the forces of creation. Occultists believed that all things were governed by secret laws, with hidden connections or correspondences between many things which on the surface did not appear to be linked; connections which are becoming familiar to us today as scientific theories converge in an attempt to answer the ultimate question of how the universe and life came into being.

The occultists' notion was that all phenomena contained something of the divine and that man, on a tiny scale, was a reflection of God and the universe: "as above, so below". And the idea of a path that could be climbed in stages to reach God has been fundamental to the Kabbalah, the Jewish religious philosophy, and exponents of magic down the centuries, the image of the spiral coming to render itself in the three- and two-dimensional initiatory labyrinths of antiquity.

Such spiral processional pathways probably existed at Glastonbury Tor in Somerset and at Silbury Hill in Wiltshire, examples of the sacred and spiral mountain, the symbolic World Mountains of old, the omphalos, where above and below, sky and underworld, were conjoined.

Thus the spiral is also the pattern of our spiritual development. The significance of it was clearly integral to the wisdom of the ancient world, and it should be reclaimed for us today.

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For more information about Geoff's research and his book
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