

Acculturated Topographical Effects of Shamanic Trance Consciousness in Archaic and Medieval Sacred Landscapes

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Abstract — Various linear enigmas exist in ancient sacred landscapes worldwide. These include examples of Native American landscape lines, such as the Chacoan "roads", New Mexico, and the Nazca "lines", Peru; Neolithic linear earthworks, called "cursuses", in Britain; stone rows in Europe, Malaysia and elsewhere; temple alignments in Indonesia. There is also the archaeologically heretical idea of "leys" (alignments of ancient sites), put forward by Englishman Alfred Watkins in 1921. Although the ley theory has long been derided by mainstream scholarship, new German and Dutch findings show that there was a medieval tradition of straight "Doodwegen" (death roads) or "Geisterwege" (ghost paths). It seems Watkins may have unwittingly uncovered vestiges of these features. Certainly Watkins had no concept of current "New Age" notions of "energy ley lines", which are modern fantasies. It is argued that such medieval features arise out of a deep-seated, universal conceptual complex associating "spirit ways" with straight lines: straight cords and threads in ancient traditional healing practices as well as straight tracks and other ceremonial landscape markings. It is suggested that these ideas have their roots in archaic shamanism, which, throughout Eurasia, influenced later, ceremonial aspects of monarchy. A proto-Indo-European language vestige is cited.

Preliminary evidence is presented indicating that the spirit – line association derived from the ecstatic "journey" experienced during the shamanic trance. This gave rise to images of "flying shamans" in tribal societies throughout the world, and, ultimately, to the "magical flight of the sovereign" in proto-state and state societies. It is this "flight of the soul" that seems to have been translated onto ancient sacred landscapes as straight lines, which later became variously acculturated as sacred ways, spirit and fairy paths, roads of the dead or of ghosts, or Royal Routes. The neurological aspects of the so-called out-of-body state, and its possible association with modern psychological epidemics such as "UFO abductions", is alluded to.

Introduction

Because the origins of landscape lines seem to relate to a universal experience provided by the human central nervous system (i.e., the out-of-body experience), the basic nature of landscape lines worldwide can be studied cross-culturally.

Enigmatic straight lines of various kinds exist in many ancient ceremonial landscapes worldwide, a famous example being the complex of lines on the pampa near Nazca, Peru. No one has hitherto been able to provide an explanation for such curious features, but now an exciting and somewhat unexpected rationale is coming into view. But first, I'll describe some of these landscape lines.

American Indian Lines

Nowhere has more surviving or recorded examples of these lines than the Americas. The Californian sierras contain the remnants of straight tracks worn deep by the now-extinct Miwok Indians. The tracks were up to 40 miles in length (Barrett and Gifford 1933; Sample 1950). In New Mexico, straight, so-called "roads" radiate out for tens of miles around Chaco Canyon (Kincaid et al 1983; Frazier 1986; Lekson et al 1988). These were built about a thousand years ago by the now-lost Anasazi, the "Ancient Ones", and Chaco Canyon is currently seen as having been one of their key ceremonial centers. The roads are engineered features, not mere trails, being a fairly constant nine meters wide, with spur roads about half that width. They are now difficult to see at ground level. They change direction only occasionally and seem associated with pueblo complexes called Great Houses — several roads meet at Pueblo Alto, for example, on the northern rim of Chaco Canyon. Where the roads come to the top of the canyon walls, what appear to be ceremonial stairs were carved out of the living rock of the canyon sides.

But why did a people without the horse or the wheel need such strange "roads"? The mystery has been compounded by recent computer-enhanced infra-red air surveys by NASA, which reveal multiple parallel sections to the roads which are no longer visible to the eye or the normal airborne camera (Sever 1990). Most researchers now think these roads were ceremonial or sacred ways (Kincaid et al 1983; Sever 1990; Lekson et al 1988). Broken pottery, probably resulting from votive activity, has been found in patches along some of the roads.

Moving southwards, evidence of pre-Hispanic straight track systems in Mexico survives in the region around the archaeological site of La Quemada. About 100 miles of Native American roads have been identified there, and dated to around 700 AD (Trombold 1991). In the Yucatan Peninsula of south-eastern Mexico, we enter the domain of the ancient Mayan culture. The Mayans interconnected their sacred cities with straight roads (sacbeob), the longest-known one being the 100-kilometer length that links Coba with Yaxuna. Explorer Thomas Gann encountered this feature in the 1920s and marvelled that it was "straight as an arrow, and almost flat as a rule." (Robertson 1983).

In South America, the Kogi Indians of northern Colombia have networks of paved tracks which extend over their territory (see below). The Inca had 41 ceques that radiated out from the Coricancha, the so-called "Temple of the Sun", in Cuzco, Peru, that linked sacred places or wakas. Investigation has shown

that these lines were variously used for sun watching and multifarious ritual purposes, including straight-line pilgrimages. Indeed, the lines had considerable socio-religious importance within Inca society, involving *mit'a* or shared labour, kinship groupings, ancestor worship and water supply (Hadingham 1987; Aveni 1990 [2]). Probably the most famous of American Indian straight lines are the markings on the pampas around Nazca, also in Peru. Formed by removal of the desert varnish revealing a lighter subsoil, the Nazca lines are of various widths, ranging from large trapezoid areas to track-width features. They can be up to several miles long, and pass without deviation over ridges. They criss-cross the pampa in bewildering array and are interspersed with a variety of unicursal ground drawings of animals and geometric forms (Reiche 1968; Reiche 1974; Morrison 1978; Morrison 1987). The lines have been noted by Western researchers for several decades, but the most significant work on them has been done only as recently as the 1980s by an inter-disciplinary team co-ordinated by Anthony F. Aveni of Colgate University (Aveni et al 1990). No strongly significant astronomical orientations have been found in the lines, but Aveni and colleagues have confirmed that a network pattern is embedded within them: there are over 60 star-like "ray centers", from which lines radiate like the spokes from the hub of a wheel, and at least one line from each center links with another. Amongst other things, Aveni's team also discovered:

- a) that well-worn trails were engraved within the pure geometry of some of the lines — it is thought this was caused by ritual walking, perhaps similar to the straight-line pilgrimages of Cuzco (above);
- b) that some pampa lines seemed directed at the Nascan ritual center of Cahuachi, from where archaeologist Helaine Silverman suspects "the Nasca priest-scientists observed the natural and supernatural world"; and
- c) various types of stone structures exist amongst the lines.

Silverman and anthropologist Gary Urton also suspect that the lines were ritually swept and cleaned during their period of use. Urton witnessed this ritual cleaning still being practised in a Christian context in an Andean community: before a saint's image was paraded around the plaza in front of the church, each local kinship group cleaned and swept a strip of the square to symbolically convert it to sacred space (Silverman 1990; Urton, 1990). It is not a big leap from these plaza strips to the Nazca lines. (This apparently minor point about ritual sweeping is more important than it seems, as will be seen.)

South of Peru, we come to the altiplano of western Bolivia, where old straight Indian tracks also can be found — some of them longer than anything at Nazca. They seem to have been first brought to Western attention by French anthropologist Alfred Mâtraux in the early 1930s. He found shrines set out along pathways that were "absolutely straight, regardless of the irregularities in the ground".

Knowledge of these paths re-emerged in the 1960s during air photography for a new map of Bolivia. Tony Morrison and colleagues investigated some of the lines on the ground. They found that maintenance of the lines is in some cases dying out with the older inhabitants of the altiplano communities; consequently, many of the lines, which are formed merely by the clearing of bushes and stones, are growing back into the landscape. Some of the holy places on these old straight paths have been Christianized, and even some churches have been built on the lines, as at Sajama (Morrison 1978).

Other kinds of landscape lines of antiquity survive elsewhere in the world. In Britain, for example, there are earthen lines called cursuses. In 1723, antiquarian William Stukeley stumbled on what is now known as the Stonehenge Cursus, a linear earthwork about a mile-and-a-half long, linking two mounds just to the north of Stonehenge itself. He thought it was a Romano-British running track, and so he gave the Latin word "cursus" to it, meaning racecourse. But we now know it dates to around 3000 BC and its purpose is a mystery. About 50 further cursuses have since been found, mainly by air photography because these mystery earth lines are now mostly so eroded that they show up only as vegetation marks from the air. Cursuses typically consist of parallel ditches, usually linking prehistoric burial mounds or barrows, and can extend for several kilometers. Excavations within them have revealed very little.

Most cursuses are fairly straight features, like the one at Aston-upon-Trent in Derbyshire, which had one ditch aligned for a mile towards a (now eroded) mound (Gibson and Loveday 1989), and another at Scorton, in Yorkshire similarly aligned to a hilltop site (Topping 1982). A dead straight, two-mile-long segment of a crop-mark cursus was found to the west of Heathrow Airport, London, dwarfing the runways designed to handle Jumbo jets! Some cursuses, though, are straight only in sections — perhaps dating from different periods — while others have irregular linking sections.

Another alignment aspect to cursuses was first noted in 1947 during archaeological investigation of the Stonehenge Cursus: the line of the straight northern ditch could be extended almost a mile to pass through a standing stone remnant known as the Cuckoo Stone and a Neolithic ritual site named "Woodhenge" (Stone 1947).

I have studied about half of the known cursuses, and found that 64 per cent of them pointed to either a prehistoric site or an ancient church (presumably on an earlier sacred site) up to three miles beyond one of their ends (Pennick and Devereux 1989). In one case, the old church in the Suffolk village of Fornham All Saints actually stands on one length of the cursus there. Furthermore, another segment of the same cursus aligns to the major ancient site of Bury St Edmunds Abbey.

Another prehistoric linear enigma is that of the stone rows, found in various landscapes around the world. In Britain, they are particularly numerous on the wild, prehistoric landscape of Dartmoor. Like cursuses, no one understands what these rows were for. They occur in single and multiple lines, and invari-

ably pass through burial cysts. At their ends are larger stones set at right angles to the line of the row. These are called "blocking stones" by archaeologists.

To pluck another example of a landscape line at random, there is the alignment of temples on Java, Indonesia. There, the famous Borobudur shares an alignment with other temples that is still recognized in ceremonial terms.

There are many other kinds of such lines around the world.

Ley Lines

One cannot discuss landscape lines, especially alignments, for long, without mentioning the archaeological heresy of "leys" (or "leylines").

In 1921, Alfred Watkins noticed that prehistoric burial mounds, standing stones, hilltop earthworks and other ancient sites in his Welsh border homeland fell into straight, cross-country lines. He considered that these had developed along old traders' tracks laid down perhaps 4,000 years ago. The tracks were straight, he reasoned, because they had been laid out by line-of-sight (Watkins 1925). Watkins called his alignments "leys" (a Saxon term meaning "cleared strips of land") because he felt that the old straight waymarked tracks had originally passed through virgin forests, and strip-clearance had eventually occurred at points along them. He considered that the old tracks had gone through various changes in the Bronze and Iron Ages, gradually becoming forgotten in the early historical era. Watkins explained the fact that ancient churches recurred on these supposed prehistoric lines by saying they had evolved on earlier pagan sites.

Although mainstream archaeology at the time dismissed the whole idea of leys, neither Watkins nor his detractors seemed properly aware of cursuses or the American Indian lines, and their potential relevance to the whole issue.

The split between orthodox and fringe views about leys and landscape alignments started to widen shortly after Watkins' death in 1935. Occultists and dowsers began to fantasize about leys as "lines of power", and in the psychedelic Sixties, UFOs, dowsable energy lines, planetary grids and suchlike were added to the potpourri of notions surrounding the ley issue. This all got caught up with the expansion of the New Age movement in the 1970s, so that now there is a populist fantasy version of "leylines" as "energy lines".

There is, however, a much more sober, if much less known, research-based approach to the whole question of archaic landscape lines, and below is outlined the most recent developments to have occurred in that research-based understanding of mystery landscape lines.

Spirit Ways

In *Lines on the Landscape* (with Nigel Pennick, Hale, 1989) I suggested that we were dealing with archaic spirit lines rather than "energy lines". Shortly after the book was published in 1989, further material began to emerge to support that idea.

First, John Palmer, a British artist living in Holland, came up with remarkable data on medieval Dutch doodwegen or death roads — perfectly straight roads, some, near Hilversum, still visible, leading to cemeteries (Palmer 1989, 1990, 1991). These roads had a legally-determined width of six feet, and Palmer even traced a medieval oath relating to the straight carriage of corpses. This echoes an earlier, Viking practice of carrying a dead chieftain to rest in a ceremonial wagon along a straight sacred road, as has been uncovered at Rosaring, Sweden (Saward 1986).

Death and straightness seemed linked in earlier centuries, but why? Why "dead straight"? The connection seems to be with the spirits of the dead, for German researcher, Ulrich Magin, has recently found an old reference to Geisterwege, or "ghost paths" (Magin 1992). "These paths," says the German source, "always run in a straight line over mountains and valleys... In towns they pass the houses closely or go right through them. The paths end or originate at a cemetery." The spirits of the dead "thrive" on these paths, and "one meets with ghosts quite often" on them.

It now begins to look as if Watkins' "leys" could well have been alignment remnants of such medieval spirit tracks, and it seems archaeologists and the "energy ley" dowsers alike will have to reappraise their views.

These medieval death/ghost paths may have developed from a core concept that had an earlier form in the Neolithic cursuses (above), linking, as they do, burial mounds. The Celtic idea of "fairy paths" running in straight lines from one prehistoric earthworked hill to another must also be closely related to this core concept. In Ireland it was considered bad luck to build one's house on a fairy path (Mac Manus 1959/1973), a startlingly similar idea to that enshrined in the old Chinese geomantic system of Feng shui, in which it is said that bad spirits travel in straight lines and one should not build in their way (Eitel 1873/1973; Lip 1979/1987).

The concept of lines for spirit use is also incorporated into the American Indian sweat lodge tradition, in which a straight earthen ridge is built to connect the firepit with the lodge entrance for spirits to use to enter there-in (Deer and Erdoes 1972/1980). Traditional Amerindian sand paintings also have spirit path depictions, which also occur in the Peyote and other ceremonial activities. These images almost certainly derive from a matrix of ideas that probably also informed the large-scale American Indian landscape lines, as the already-noted Andean Indian practice of ritually sweeping or cleaning a line suggests. Interestingly, a similar concept of spiritual sweeping seems to have prevailed in northern European folklore, which describes a special spirit flail used to sweep unwanted sprites from old pathways (Pennick 1989 [2]). The same idea is also expressed in association with British morris dance and folk gatherings, such as Yorkshire's "Plough Stots", in which a "Betty" (a man dressed as a woman) follows the sword dancers along an ancient country road, carrying a broom and miming a sweeping action.

Thread Lore

I have found that the strange, ancient association between spirits and straight lines could also extend to threads and cords. These also are "lines" — we talk of a "clothes line" for instance, or a "fishing line". So an Australian Aboriginal healer would fix the filament produced by a certain insect to the head of a sick person, and run it to a nearby bush where the patient's soul was ensnared (Dobkin de Rios 1990). The spirit would be coaxed down the insect's thread back into the person's body. Again, during a healing, Siberian Buryat shamans would lay an arrow next to a sick person, and run a red thread in a straight line out from the arrow-point to a tree outside the tent, so that the patient's spirit could be brought back along the "road" formed by the thread (Eliade 1951:1964). The Kalahari !Kung "climb threads" when their souls go out-of-body during trance dancing (Campbell 1988) and the Rigo people of Papua New Guinea leave a taut "fishing line" behind them when they go on out-of-body flights (McIntosh 1980). And so on — there are many examples.

Spirit Baffles

There is a kind of logic in the old traditions in that while straight lines supposedly facilitated spirit movement, curved or twisted ones hampered it. For example, Baltic fishermen would run around a stone labyrinth on the shoreline to entrap any trolls following them, before leaping aboard their boats. Chinese Feng shui practitioners use curved or blocked lines to deflect spirits. Following the same basic principle, Indonesian temples have low walls inside their gates to prevent straight-moving spirits from entering. It is probable that essentially the same idea was behind the blocking stones on the Dartmoor stone rows (above).

Threads also figure in this aspect of the story. For instance, in northern European lore, "spirit traps" were made by stretching red threads across a hoop, and placing it on a staff on the path the spirit was supposed to haunt (Pennick 1989 [2]). Also, some medieval witches wore knotted string shawls so their spirits could not be taken.

Spirit Flight and The Shaman's Journey

That ancient landscape lines had to be thought of as spirit ways was in itself a breakthrough, but what lies behind this ancient and obviously deep-rooted conceptual complex linking spirits (in general) and lines? The main clue is surely the cross-cultural nature of the various associated themes. This indicates that we are dealing with some universal factor to do with human consciousness — and the obvious place to look for that is in archaic shamanism, itself a universal expression of human consciousness.

The shaman, of course, was the person who used trance-inducing methods in order enter the spirit worlds on behalf of the tribe. This "shaman's journey" was what we would call today an "out-of-body" experience, which was often

envisaged as magical spirit flight. Could it be that the lines of shamanic spirit flight became translated onto the landscape as straight lines of various kinds in certain societies? Flight is, after all, the straight way over the land — "as the crow flies", we say. Another phrase with a similar meaning is "as straight as an arrow", and arrow symbolism was strongly associated with shamanic flight. The Koryak shaman of Siberia, for instance, was said to leave his body along a path traced by an arrow (Eliade 1951/1964), and we have already noted hints of this association, too, with the Buryat healing procedure of running threads from arrow-points. Did some ancient peoples symbolically mark the lines of spirit flight onto their ceremonial landscapes, as physical traces of something happening "in spirit"?

This may seem an odd idea to Western minds, but, then, we are not dealing with our kind of thinking. Yet even we are familiar with the concept of a "Sacred Way", and what is that if not some specialized, sanctified route?

There is a surviving tradition in a few isolated Australian Aboriginal tribes where annual Dream Journeys are undertaken along specified routes through the Outback (Mountford 1968; Cowan 1989). These were originally trodden by the mythic Dreamtime beings. Where these spirit beings had been become inherently holy.

The Dream Journey routes are conceptual lines in the landscape, much like fairy paths in Celtic tradition, that are passed on verbally and by use from one generation to the next. But when we look at the Chaco Canyon mesa country, the wastes of Dartmoor, or the Nazca pampa, we can see that in some cultures spirit lines were given concrete symbolic expression as physical markings, and were doubtlessly also eventually endowed with acculturated socio-religious meaning and functions.

Lines in the form of threads have also traditionally been associated with the out-of-body state, as noted above with the Rigo and the !Kung for examples. The Aborigines have various other beliefs about a thread issuing from the penis or the mouth linking body and spirit during miriru, the out-of-body state, and the karadji, or holy men followed "aerial ropes" during their trance journeys (Cowan 1989).

Southern African San (or Bushman) rock art repeatedly displays a curious figure known to archaeologists as a "flying buck". Recent research (Lewis-Williams and Dowson 1988), confirmed by the San themselves, and long suspected by the late Joseph Campbell (Campbell 1988), shows that this creature, with lines trailing out behind it, represents the out-of-body shaman who transforms into an antelope and then flies. This image is now sometimes referred to as a "trance buck" by archaeologists because of this.

As my efforts to synthesize all this material progressed, I came across a 1977 paper by American anthropologist, Marlene Dobkin de Rios (Dobkin de Rios 1977). I found she had already suggested a link between the out-of-body "aerial journey" of the shaman during trance with American landscape markings like the lines and also effigy mounds depicting animals, birds and winged

human beings, such as are found in Ohio, Wisconsin and elsewhere in the Americas. She realized these markings had been produced by shamanic peoples who were known to have taken hallucinogenic plants as part of their religious cults. Many of these native drugs give the specific sensation of "spirit flight" (La Barre 1975).

From the Heart of the World

That the mystery landscape lines, in the Americas at least, were related to spirit travel has recently been effectively confirmed by the Kogi Indians of northern Colombia. These isolated people have the best-preserved pre-Columbian society of any Native American people. They live in an isolated mountain fastness that contains most of the ecological niches to be found on Earth, and they see their territory as the "Heart of the World". They are ruled by shaman-priests called Mamas, "enlightened ones", who are able to see the spirit world—which they call *aluna*—interposed with the physical surroundings. The Kogi also have mysterious pathways that criss-cross their territory, linking ancient stone-built towns.

Alan Ereira has recently produced a TV documentary (Ereira 1990) and book (Ereira 1990 [2]) on the Kogi, and was, indeed, the first filmmaker allowed into the Kogi's territory. His film was shown on TV when I was in the midst of assembling the data being outlined here. Various things were shown and cryptic commentary used, that made me immediately contact Ereira and ask him if the Mamas had mentioned that their tracks related to their out-of-body travels. He confirmed that they had told him this, and referred me to a sequence in his film which showed tribal folk cleaning one of the paved pathways under the guidance of the Mamas. Ereira said that the pathway ran up from a river in a straight line and disappeared beneath an ancient sacred building in a Kogi town. The Mamas had carefully explained to him that the pathway was the physical trace of a spirit path which continued on in a straight line beyond the building, but in *aluna* only (Ereira pers. comm.). (Ereira admitted to me that it had required some adjustment on his part to see road cleaning as an aspect of the out-of-body experience! Obviously, this cleaning must relate to the traditional practice of symbolically creating sacred space by ritual sweeping, noted above.)

Ereira also photographed a Kogi standing stone covered with incised lines. He was told that the physical paths partly related to the stone's lines, which were, in effect, a map of spirit ways, the routes the Mamas took during their out-of-body shamanic journeys.

Bird Symbolism

The effigy mounds (above) depicting birds and winged humans were typical of Amerindian shamanic symbolism. The eagle feather, especially attached to a stick, was a sign of magical flight (Eliade 1951/1964). The Mississippian

people (c. 900–1500 AD) left many examples of pottery and shells decorated with human-bird figures classed by scholars as the "flying shaman" motif (Fagan 1991). A tablet of stone bearing the image of a man in bird costume was found in Monk's Mound, North America's tallest prehistoric earthwork, at the center of the Mississippian ceremonial complex of Cahokia (Fowler 1989).

The antiquity of this bird imagery in shamanism is shown in the Palaeolithic cave painting at Lascaux, France, of an apparently entranced man wearing a bird-mask. Near him is a bird-headed stick, and this was a documented symbol of shamanic trance in Siberia up until recent centuries (Eliade 1951/1964). In addition, the Siberian shaman might wear bird-claw shoes and a metal representation of a bird's skeleton on his ritual garb, similar to the way a Hopewell Indian shaman would hang bird claw shapes cut out of mica on his robes, as have been found in the Hopewell necropolis known as "Mound City", Chillicothe, Ohio, along with wooden effigies of hallucinogenic mushrooms.

Chinese Taoist priests were known as "feather scholars", denoting their shamanic origins (the idea of spirit lines in Feng shui probably came from archaic shamanism via Taoism), while at the other end of the Eurasian landmass, Celtic Druidism, too, was associated with the ability of magical flight. For example, the powerful Druid Mog Ruith is described as wearing an enchennach or "bird dress", and rising up "into the air and the heavens". Again, the father of the pagan Celtic Irish king, Conaire, was said to be a supernatural birdman (Ross 1970/1986). The Vedic Upanishads refer to the out-of-body spirit as "the lone wild gander" (in the Brihadaranyaka Upanishad: see Campbell 1988) and geese figure prominently in the symbolism of shamanic magical flight worldwide (Halifax 1982).

Modern Western Spirit Flight Symbolism

Surprisingly, even modern Western societies still retain acculturated images of shamanic spirit flight. It has been suggested that the image of Father Christmas flying in his reindeer-drawn sleigh derives from the shamanism of Arctic Europe and Siberia, where the tribes were reindeer herders. Their experience of spirit flight was aided by the use of the Fly Agaric (*Amanita Muscaria*) hallucinogenic mushroom which has a distinctive red and white cap, the color of Santa Claus' robes! (Taylor 1980.)

Another familiar Western image of spirit flight is the witch on her broomstick. This relates to the use of "flying ointments", prepared by medieval "wise women" (known before their Satanization by the Church as "Night Travellers" — *qveldriga*, "night rider" or *Myrkrida*, "rider in the dark") from herbs containing hallucinogenic alkaloids which specifically generate out-of-body sensations and, often, the feeling of body-image transformation into animal forms. Broomhandles were sometimes used to apply the ointments to vaginal tissues (Harner 1973).

From Shamanism to Monarchy, from Tribe to State

The American Indian peoples came over the Bering land bridge at least 12,000 years ago from Asia, the heartland of "classical" archaic shamanism. They therefore brought shamanic traditions with them which survived because the Americas were not subjected to the same intensive cultural changes as was Eurasia. Even so, marked Amerindian spirit flight lines became very complex socio-religious features, with all kinds of beliefs and dogmas attached to them, as has already been noted above, regarding the ceques around Cuzco.

This was even more the case in the Old World, where there was much greater social flux. Tribal societies developed into more complex proto-state and state cultures, and great religions developed across Eurasia, absorbing or marginalizing the earlier shamanic practices. Shamans became priests, and they in turn became theocracies or divine chieftains and kings. Throughout Eurasia, there are myths of "flying sovereigns". In his classic work on shamanism, Mircea Eliade wrote that "The 'magical flight' of sovereigns manifests the same autonomy and the same victory over death" as did the shamanic journey (Eliade 1951|1964).

Most of the Eurasian myths of flying sovereigns belong to the linguistic group we call Indo-European, and a proto-Indo-European word, *reg, seems to relate to a priest-chieftain function, and means "movement in a straight line" (Partridge 1958|1961). It has become the root of many European words to do with kingship and governmental, spatial, moral and figurative straightness. The English word "ruler" derives from it, for example, and means both a leader and a straightedge. In Sanskrit, *reg can also be translated as mana or supernatural power, and, possibly, "protector". So we have the image of a shaman-chieftain, a protector figure, with charisma or special power (Mallory 1989). In his *The Golden Bough* (1922), Sir James Frazer pictured the divine king from whom "lines of force radiate to all quarters". Such lines of kingly power were surely another, more sophisticated development of the idea of spirit lines.

Eventually, in state societies, the ecstatic, shamanic origins of the straight line-spirit connection became forgotten and the Straight Way became rote ceremonial ways, boundaries, royal routes, imperial avenues, and so on. A vague sense that the Straight Way was somehow sacred or represented power associated with rulership survived, however, as we see with features such as the avenues of Versailles, the Mall leading out from Buckingham Palace, and even the Masonic lines of roads radiating from the White House in Washington DC.

A Common Origin

We can study landscape lines cross-culturally because the so-called out-of-body experience is a universal product of the functioning of the human central nervous system in trance conditions, and thus transcends cultures.

The neurological aspects of trance conditions, especially of the "out-of-body" or metachoric (Green and McCreery 1975, 1989) state, actually explain the recurrence of the straightness element noteworthy in ceremonial landscape lines. Conceptually, this is, as suggested above, related to the idea of flight over the land in spirit form, as in the "shaman's journey", but its basis is actually neurological. Work by various neurophysiologists (Siegel and Jarvik et al 1975) has shown the occurrence of entoptic ("within vision") phenomena in the early stages of trance states. These visual phenomena are grouped into specific "form constants" which include grids, nets, dots, zig-zags, spirals, and other semi-geometrical forms. Such images have been found in ancient rock art in various places around the world, and are now being associated with shamanic practice and trance conditions (Lewis-Williams and Dowson 1988). Moreover, in at least one tribal society, that of the South American Tukano Indians, the deliberate manipulation of entoptic imagery has reached a sophisticated level and is used as a basis for its decorative art (Reichel-Dolmatoff 1978, 1978 [2]).

The precise mechanisms producing the entoptic imagery are not yet fully understood, though it is thought that several factors may be involved, such as phosphene effects within the retina, and characteristic neuronal firing within the visual cortex. As trance deepens, these semi-geometric entoptic images—which appear as if in front of the eyes, and sometimes as if projected onto surfaces in the actual environment — become "construal". In other words, the geometric patterning becomes the matrix for the incorporation of memory-based imagery, much as the dot screening of a newspaper photograph "carries" the image. The billowing entoptic patterns trigger associations within memory function, and they "take on" representational form. Curious hybrid forms, perhaps half-human, half-animal, can appear, and may account for therianthrope imagery present in rock art and in ritual costumes (especially in the totemic ambience of a tribal society). Ultimately, the experient's locus of consciousness is absorbed into the interplay of the flickering, construal hallucinatory material, and participation occurs.

A key entoptic is the "tunnel" ("alley", "cone") form constant. This seems to herald the shift of the early trance state into the deeper condition of participation. This entoptic is, if I may so term it, the fundamental blueprint of the "straight way". It reportedly occurs frequently in Near Death conditions, in which the experient finds him or herself seemingly floating down a dark tunnel towards a light (Moody, 1975). On emergence at the "far end" of the tunnel, the person often sees a paradisaic "summerland", and perhaps encounters a radiant being of great sacral power. This Near-Death "tunnel" is strongly reminiscent of the UFO "traction beam", often mentioned in so-called "UFO abductions". It is now thought that these "abduction" experiences may be the spontaneous (and, I feel, the possibly pathological) modern version of the "shaman's journey" (Devereux, 1989; Ring, 1992), occurring in a secular society that has no shamanic or spirit tradition, but rather is imbued with the impersonal ("alien") and depersonalizing motif of the machine ("UFO").

The suggestion being offered here is that the directness inherent in ancient landscape lines is underpinned by this entoptic straightness, the "tunnel" of the "exteriorizing" spirit. Conceptually, the soul, like the crow or arrow, flies straight. The terrestrial linear markings are spirit lines, an environmental expression of the trance tunnel effect.

Modern opinion is divided as to whether this out-of-body experience involves an actual shift in the locus of consciousness, or is "merely" hallucinatory (see the differing viewpoints of Blackmore 1982/1983 and Kalweit 1984/1988, for instance), but the effect is the same as far as the experient is concerned. Ancient peoples clearly believed in the reality of spirit flight, and that belief has left its imprint as straight line and effigy markings on what can only be called shamanic landscapes. These lines varied from culture to culture and age to age in their form and meaning, but their underlying source was the common canvas of the human mind in metachoric trance conditions. These particular mind states have clearly left a deep imprint in many earlier societies; if our own culture was to reacquire itself with these realms of consciousness in an open, scientific manner, the potential would exist for the emergence of fresh understandings about consciousness and its relationship to the environment that could ultimately affect our whole worldview.

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The entire range of material outlined in this paper is dealt with in depth, and in slightly differing contexts, in two new works by Paul Devereux: *Symbolic Landscapes*, Gothic Image, July 1992, and *Shamanism and the Mystery Lines*, Quantum (UK), September 1992, and Llewellyn (USA), April, 1993. Paul Devereux can be contacted via: P O Box 92, Penzance, Cornwall TR18 2XL, UK.