



The Skeptics SA guide to Crop circles

Crop circles are those clearly defined circular patterns found primarily in fields of grain, and to a lesser extent in reed beds, fields of grass, or in snow and other places. Where they occur in cereal crops the stalks have been flattened into various patterns such as circular shapes (crop circles), more complex geometrical patterns or pictograms (symbols representing a word or group of words). Although they are found worldwide, perhaps significantly their greatest concentrations are in Britain, with some 90% of all examples being found around Milk Hill, in Wiltshire.

While it is generally claimed that ‘modern’ crop circle formations first appeared in the late 1970s, at least in Britain, during the 1960s there were earlier reports of circular formations from other places, particularly Australia and Canada, where some were referred to as ‘saucer or UFO nests’ implying they were produced by landing UFOs.

In 1966 it was reported that a large circle was found amongst reeds in a swamp at Tully in Queensland. During the 1960s Queensland had become well-known for UFO sightings and a number of these nests had been found ‘in swamp reeds and canefields, many of which predated the Tully case’ (Schnabel 1993, p 13). Similar sites were reported around Australia,

including one at Tooligie Hill in South Australia in 1971, and at Navarre in Victoria in September 1972 (Collie, 1973).

During the 1980s the number of circles reported increased dramatically, and reflecting the possibility that there might be other explanations for their origins, the term ‘crop circles’ came to be used more commonly, while around the same time the growing public interest in these circles resulted in the appearance of numerous ‘experts’, referred to as ‘croppies’ or Cereologists (from Ceres the goddess of cereal crops), who proposed various explanations for the origins of these circles.

Some claimed that the circles had been created by (a) UFOs landing, (b) by an unknown form of energy, possibly paranormal, (c) that they were formed by ‘miniature black holes’, (d) they were communications from the spirit world, or (e) a transdimensional gateway like the Stargate.

Others, some of whom had legitimate qualifications, proposed what appeared to be valid scientific explanations, but examination of these claims revealed them to be just as bizarre and dubious as any of the metaphysical explanations.

Interestingly, as these creations evolved from

simple circles to increasingly more complex shapes, these ‘experts’ were forced to constantly ‘adjust’ their theories. Thus, Meaden (1989), who had initially attributed the circles to wind vortices (mini tornadoes), ‘attempted to modify his theory to involve electrified forces and multiple tornado funnels.’ (Randles 2002, p 176). He introduced the concept of ‘plasma vortices’, an extremely hypothetical concept involving a mass of spinning, ionized air, rather like ball-lightning, which, when it landed in fields, created extremely complex patterns.

Andrews (2002) attributed them to underground water acting like, ‘a dynamo creating an electro-static field that causes the plants to collapse.’ Talbot (2002) claimed that ‘Ground electrical charge... greater than in other areas could be functioning as an attractor to an atmospheric energy system, rather like the way that lightning is drawn to earth because of the negative and positive charges.’

Many of these abstruse pseudoscientific or metaphysical theories relied on quasi- or totally non-scientific tests: thus, Andrews, R (1992) who, using dowsing rods, detected within the formations a form of mysterious life-energy. As Irving (2002) pointed out one buried “bot-

bles of water in crop patterns, measuring the resultant energy resonance by dowsing (counting pendulum oscillations). These findings are confirmed by carefully monitoring 'delta activity' (intuition)." (p 50). Such techniques are not only totally unscientific but also extremely subjective, and as such, totally worthless.

Seriously damaging the various theories concerning the authenticity of the circles were admissions by Doug Bower and Dave Chorley in 1991 that they had created many of these circles using only a 1.2 metre long wooden plank, a ball of string, and a baseball cap with a sighting wire mounted on it.

However, even then hoax circles were not original: Wood (2000) admitted that as an evacuee in 1940 he was sent to a farm in Gloucestershire, where he and several friends marked out 'patterns in standing cereal crops by running around in them.' Later, he admits, 'one of our gang hit upon the ideas of making circles and other shapes using a length of rope' (p 52).

Because Cereologists are so keen to believe these formations are genuine alien communications, or created by some supernatural force, they tend to reject the claims of the hoaxers, whom they regard as mere spoilsports trying to discredit 'genuine' evidence of abnormal phenomena. Yet, as Jay (1998) and Irving (1999) pointed out, many creators of these designs do not consider themselves to be hoaxers but rather 'cereal artists': graffitists who create their work in fields rather than on urban walls. In 1990 Jay set out to counter the croppies' claims that creating a pictogram was difficult,

and with the assistance of two friends, he created his first pictogram.

While he admitted it was an extremely amateurish attempt, nevertheless, when 'found' it was widely proclaimed by Cereologists as an outstanding example of a genuine alien pictogram. Testing even revealed certain electrostatic variations in one part of the diagram. A researcher heard a pinging noise being emitted from a central recess within the main circle, evidence he claimed, that considerable energy must have been required to create the formation.

By 1991 the Etchilhampton Formation (the name by which Jay's creation had become known) featured in a number of crop circles books, where it was lauded as a genuine example of alien art. Andrews and Delgado (1991), two leading crop circle 'experts' featured this pictogram on the front cover of their book. When Jay admitted its true origins, they refused to believe him, insisting the formation must be genuine since the precision of the figures and the unruffled nature of the stalks clearly proved that no human could have created the figure.

A principal argument by Cereologists is that many of the pictograms are so complex no human could possibly have created them, and so they must be alien creations. In addition, Thomas (1999), a founding member of the Centre for Crop Circle Studies and author of several books on pictograms, while admitting that some pictograms were hoaxes, claimed that 'the physical creation of some of the very

large, spectacular and hugely complex patterns we have seen over the years simply wouldn't be possible in one night under cover of darkness' (p 46). Such feeble claims are reminiscent of those made by Von Daniken (1968) who insisted that building the pyramids was beyond the ability of humans, therefore, aliens must have built them.

So what are the facts?

- Hoaxers have demonstrated these formations can be easily made using the most basic equipment, usually a flat board, which is moved progressively forward stamping down the stalks, a rope, and sometimes a long tape-measure. Even Andrews (2002) admitted that with a single board one could create a circle 23 m in diameter in about 40 minutes. More recently some hoaxers have used water-filled lightweight plastic garden rollers that enable them to flatten the crops much faster than with a plank. In one nighttime competition to create a pictogram the runner up was Schnabel, who 'worked alone armed only with a plank, some lengths of rope, and a small garden roller'. (Science 1992)
- Hoaxers have created complex patterns very quickly: e.g. Dickinson (1999) reported that along with two others, they created for US television a 91m pattern containing 150 circles and complex geometrical shapes, that was completed in 3 hr 45 min' while others created a 61 m pictogram in four hours for a local pop group. Although this was done in daylight, hoaxers say that working in moonlight is not much more difficult: the secret is

careful planning, especially determining the proper sequence for producing the various parts of the pictogram.

- To support their claim that the formations are alien creations, Cereologists insist these patterns are made in a short space of time, always ‘overnight’, yet this is not necessarily a valid claim for it is quite possible some are made over several nights. Brookesmith (2001) cites the quite complex Bythorn Mandala that was done ‘in two stints’ (p 42). The fact is that most rural fields are rather isolated, often located on rarely used backroads, so they rarely attract attention and are rarely visited. Crops that might take five to six months to grow may only be checked by the farmers three or four times during that time. Their isolation allows hoaxers plenty of time to visit these fields over several nights and create the most elaborate formations at their convenience. Furthermore, because of their isolation many patterns may remain undetected for some time.
 - Cereologists claim there is no evidence of pathways that would enable hoaxers access to the formations. The incredible naivety of this claim was revealed in the video *Crop Circle Communiqué* (1992) where, as the commentator is unashamedly stating, ‘no entry or exit signs were visible’ the sweeping aerial view of the formation clearly showed numerous tramlines, wide parallel tracks made by farm machinery, running throughout the formations. Yet even without tramlines hoaxers are able to pick a path between
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standing stalks, and where several hoaxers are involved, they simply follow the leader, stepping in their footprints.

- Cereologists claim ‘genuine’ patterns display anomalous evidence not found in hoax formations: these include (a) unusually high levels of radiation, (b) a high incidence of magnetite, (similar to that found in meteors), and (c) bursting of cereal stalks. Since, as they claim, hoaxers could not produce these unusual conditions, circles with such anomalies must be ‘genuine’: however such claims are completely erroneous! Jay (1998) noted ‘scientific’ tests of his pictogram revealed unusual electrostatic variations, although he had done nothing to create such anomalies. In the TV documentary *Crop Circles: Mysteries in the Fields* (2002) MIT Aerospace Engineering students were challenged to create a crop circle within four hours that duplicated the radiation, the presence of magnetite, and the bursting of the stalks. They designed and built several portable contraptions: a magnetron wave guide (a magnetron from a microwave oven), a ‘Flamschmeisser’ (a home-made water-pipe cannon, that shot iron powder through a ring of flame) so as to ‘spread iron molecules in the soil inside the crop circle’ (Burgel 2002), and an incendiary bomb filled with iron powder. In just under four hours they created a 92 metre long pictogram consisting of a single plain circle joined by a straight line to a larger circle, 30.5 metres wide, containing a triangular diagram, (based on the shape of an MIT building). Their crop circle replicated the expul-

sion cavities in the stalks and the presence of high levels of magnetic iron particles, but not the radiation: however given that this was a first attempt by inexperienced amateurs two out of three of the markers of ‘genuine’ crop circles seems a reasonable result!

- Cereologists tend to ignore logical explanations for anomalies such as varying levels of soil-iron. Geologists and many farmers know that iron levels in soil can vary considerably from field to field, or even within a single field.

There are a number of clues supporting the proposition that crop circles are the product of humans rather than aliens:

- a. If these formations were alien creations one would expect that from the time when they first appeared, their annual numbers would have remained practically constant: but they have not! At first they were relatively rare, then after widespread publicity their numbers increased yearly. Nickell (1996) noted that while some 250 were reported in 1989 by 1990 the number had increased to some 700. This enormous increase in numbers strongly suggests that more and more people, rather than aliens, were copying the hoaxes.
- b. There is clear evidence of a definite developmental trend in these formations. Andrews (2002) admitted that they had evolved: starting as simple circles, gradually more complex patterns — involving multiple circles — started to appear. The first of these in 1978 comprised five circles in the shape of

a Celtic cross, then in 1990 circles joined by straight lines started to increasingly appear, and thereafter the designs became increasingly more elaborate until in the early 1990s complex pictograms emerged, often featuring contemporary designs. For instance, when information on the mathematical concept known as fractals appeared in the media, very soon afterwards a formation featuring a Mandelbrot set, one of the better known examples of a fractal, was discovered in August 1991 near Cambridge.

If we accept the Cereologist's claims that aliens are visiting Earth to communicate with us by vandalizing crops, then we are faced with a number of possible dilemmas:

- a. The basic precept of all forms of communication between species is to enable the communicator to be understood. Yet what can one make of supposedly intelligent beings that leave indecipherable signs in cereal-fields? If they are seeking to reveal their existence, why not use symbols, or even words, that can easily be understood by humans?
 - b. Why would aliens so advanced that they can cross the vast gulfs of space, expending enormous time, effort and expense to come to Earth, and then when they arrive limit themselves to leaving cryptic symbols in cereal fields? It would be like Christopher Columbus, after facing all the hardships of crossing the Atlantic, creeping surreptitiously ashore during the night, trampling down the Indians' crops to form his name, which the Indians would not have been able
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to read, and then sneaking off. Such actions make absolutely no sense whatsoever!

If crop circles are truly the work of alien intelligences, then we must face the sad truth that these aliens travel vast distances across space with the sole intention of tramping down our cereal crops! Is this some form of sexual fetish they have, or, like the fairies of folklore, are they leaving their marks by dancing in the fields? Isn't it much more likely that human hoaxers are the culprits?

When we find some wall freshly covered by complex patterns of graffiti we do not assume it has been done by aliens, we conclude it was done by human graffiti 'artists'. Yet similar human needs to 'leave their mark' appears to motivate both crop circle hoaxers and those who daub their pictures on walls.

It appears that many of the British circles were created by hoaxers Doug Bower and Dave Chorley, who from 1978 until 1991, when age and the efforts involved prompted their retirement, had made as many as 25 – 30 fake crop circles and other more complex formations every year. They had even left their 'signature' — a double D shape — on many of their later creations, marks clearly visible in photographs. Bower (1992) admitted that when Andrews and Delgado started to expect 'different things other than circles' they switched to providing diagrams, and then in 1991, a pictogram. It appears widespread publicity inspired many imitators, for, as they reported, during many of their nocturnal activities they saw other hoaxers at work in other fields.

A question that is often asked is 'What about the circles that existed before Bower and Chorley?'

It appears that circular patterns in grain fields were not entirely unknown in rural areas before Doug and Dave. Elderly citizens of Sussex reported to Anderhub and Roth (2002) that such circles had been a regular feature of their childhood, and authors such as Fuller and Randles (1986) found numerous reports of circular patterns dating back to the 19th century.

Natsis and Potter (1996) cited one example from August 23 1678 where a farmer found a large circular area of his crop apparently mowed down. This circle was attributed to demonic forces, the so-called Hertfordshire Mowing Devil, which, it was claimed, had descended on the oat-field with a demonic scythe, felling the stalks. The possibility that it was simply a natural phenomenon, or even a prank, appears to have been overlooked by the superstitious locals of that era, who, as Carroll (2003) pointed out, tended to attribute any unusual events, formations or structures, such as Stonehenge and Hadrian's Wall, to Satan.

Given the fact that before Doug and Dave these formations were always simple circles, perhaps, as Randles (2002) suggests, they could have been natural formations created by whirlwinds. These probably caused circular formations such as the one at Tully in Queensland. Doug Bower, who was living in Queensland at the time, apparently read a report of this event and this inspired him to create his own mimetic circles after he returned to England.

It appears that the numerous circles he created with Dave Chorley encouraged numerous imitators, and the subsequent media coverage resulted in the emergence of many 'experts', people with theories ranging from the crackpot through to the serious, who were all keen to use the media promote their fantastic theories to explain the origins of these circles.

So, while natural forces created earlier crop circles, because they were relatively uncommon with little newsworthiness, they were rarely reported until the 1970s and 1980s when the media were more willing to report any 'strange' phenomena, especially where there was a possible UFO connection. Then, once the circles became media features a self-perpetuating band of believers and a coterie of copyists developed, each seeking to outdo each other. Doug and Dave had unwittingly created a monster that got out of their control.

They became increasingly disillusioned, for as Chorley (1992) admitted, it had started as a fun thing — 'people were having fun, we had lovely art forms in the fields with a hundred people ooing and ahing' — but unintentionally, it had spawned a major industry. Even worse, it provided the opportunity for a few clever individuals to appropriate the phenomena to their own advantage, and in doing so, to make a great deal of money out of what had been meant to be nothing more than a harmless prank.

Cereologists tend to be so keen in seeking to find evidence to support their claims for the existence of genuine crop circles that they of-

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ten 'get it wrong!' In 2002 they excitedly reported the sighting of crop circles near Pike Lake in Saskatchewan, Canada. It was later verified that these 'circles' were in fact piles of manure dumped by a local farmer after cleaning out his barns. It seems what they had found were not crop circles, but crap-circles.

Further details of how crop circles and pictograms are created are available on the hoaxers own Web site at <www.circlemakers.org/> where their various techniques and photos of their creations are displayed.

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Laurie Eddie 4 November 2004

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The South Australian branch of the Australian Skeptics

For further information on the Australian
Skeptics and the journal, *the Skeptic*, contact:

Email: <info@skepticssa.org.au>

Web site: <www.skepticssa.org.au>