







# Enchantment and disenchantment in the fields of Wiltshire

by Richard J. Andrews

ometime in the very early hours of Monday May 24, 2010 – when I really ought to have been getting some sleep in preparation for the working week ahead rather than getting a social media fix – I followed a link to a photograph of a crop pattern reported the previous Saturday. Named for its immediate proximity to Wilton Windmill in Wiltshire, it was a simple circle: 300 feet in diameter, and formed in five-foot-tall oilseed rape. It was inscribed with twelve radial spokes, from either side of which extended eight short arcs, constructed on circumpolar concentric circles.

Noting its superficial similarity to the disc created at Crabwood Farm in 2002, which was accompanied by a cleverly implemented representation of an archetypal alien face, and located next to a microwave relay station, I immediately suspected that a message could be encoded into the Wilton Windmill formation's design and decided there and then to have a crack at it. The Crabwood disc had encoded a spirally-arranged and highly enigmatic message in binary code, translating into English via ASCII character codes – numerical representations of keyboard characters used by computers.

Beware the bearers of FALSE gifts & their BROKEN PROMISES. Much PAIN but still time. Believe. There is GOOD out there. We OPpose DECEPTION. COnduit CLOSING,

The eight arcs attached to each spoke of the Wilton Windmill crop pattern strongly hinted at the possibility of 8-bit ASCII codes (and as others have noted, the arrangement of the code is reminiscent of the arrangement of data in sectors on a computer hard drive), but I needed to figure out which way to read them. Because the inner ring of arcs all extended from the spokes in the same anticlockwise direction, I decided that these probably represented redundant zeros, placed in the first column of each byte of information. Each letter was to be read from the inside of the circle towards the outside. Next I had to decide where the message began. The Wilton Windmill itself provided a useful punctuation point by the side of the field, so I assumed the message should be read from there, in a clockwise direction.

After tabulating the binary digits on the ubiquitously-employed back of an envelope, I typed the supposed 8-bit character codes into a handy online ASCII conversion utility to derive the corresponding keyboard characters. The resulting string of characters read:

e^(hi)pi)1=0

## HIDDEN IDENTITY

It looked like some kind of equation, and when I copied it into Google and hit the search button, Google asked if I had meant ' $e^{(i)}pi$ )1=0', for which the top result was something called 'Euler's identity', usually written as  $e^{i\pi}$ +1=0.

Euler's Identity has been rated as one of the most beautiful expressions in mathematics. One aspect of this beauty is the fact that it combines, in highly compact form, five fundamental mathematical constants with three basic arithmetic operations. It has also been said that it "reaches down into the very depths of existence" – an impressive claim.<sup>2</sup> Given that the fields of Wiltshire have been amply exploited in recent years as a canvas for the simultaneous expression of key mathematical principles and aesthetically beautiful geometrical forms, I suppose it was almost inevitable it should turn up there eventually.

Euler's Identity is a special case of Euler's formula, represented graphically by a circle inscribed by a unit radius passing through all possible angles. That this particular formula has to do with the mathematics of the circle and the cyclic oscillation of trigonometric functions makes it a perfect subject for a 'crop circle'. On first seeing the photographs of the crop formation, I had been struck by the subjective impression – perhaps reflecting my personal interpretative bias, that it referenced both the turning wheel of the windmill and the twelve-part division of the zodiacal cycle, the cosmic wheel. Euler's Identity seemed to make perfect sense of those references. On reflection, I felt that this was a very clever and elegant design, in which mathematical and symbolic meanings were fused into a single 'identity'.

My excitement at having decoded the formation,<sup>3</sup> and my admiration for the designer, was somewhat marred however by a number of apparent errors. For a start, the translated message  $e^{(hi)}$  pi)1=0 contains an anomalous 'h'. It is possible that this was an error,



Binary-ASCII encoding of Euler's Identity in Wilton Windmill crop circle<sup>4</sup>

as the ASCII code for this letter is just one 'flipped bit' from that for the opening parenthesis '(' (01101000 as opposed to 00101000), which is needed to pair off with the otherwise unpaired final closing parenthesis. This would give us  $e^{(i)}=0$ . But there is also a '+' missing, a crucial mathematical component, which if introduced, would bring the number of characters to thirteen:  $e^{(i)}=0$ . However, a circle with thirteen equally-spaced spokes would perhaps be harder to create in the field, and less symbolically potent.

Again, we could be looking at a flipped bit. Turning the closing parenthesis ')' (00101001) into a plus sign '+' (00101011) would give us  $e^{(hi)pi+1=0}$ . However, if we correct both of these 'errors', to give  $e^{((i)pi+1=0)}$  we are still left with an unpaired parenthesis.

There are several more accurate renderings of Euler's Identity which do use twelve characters. Both  $e^{(i*pi)+1=0}$  and  $e^{(i.pi)+1=0}$  would work. Since pi ( $\pi$ ) has its own binary ASCII character code of 11100011 (or 227 in decimal notation) there is another possibility:  $e^{((i)\pi)+1=0}$ .

Whatever the cause of the 'error', it seems to have a message of its own. Perhaps it is no accident that the 'h', with the adjacent 'i', reads 'hi' – an embedded greeting from the circle-maker?

When someone mentioned on a forum thread, in all innocence, that 'h' was also a constant (the Planck constant), I couldn't help laughing (although sharing my mirth with the world via a threeletter acronym was easier to resist). The out-of-place intrusion of a constant from the world of physics into the abstract mathematics of Euler's Identity makes a most appropriate metaphor for a mislaid 'plank' (or stomping board) – the classic circle-making implement – bringing the 'pi in the sky' notions of non-human circle-makers crashing down to earth. Maybe it was just a Freudian slip, but I wonder if anyone thought to check the flipped bit in the field for a lost stomping board?!

#### Ambiguous Messages

Despite having taken the trouble to visit a local crop formation in the early 90s, I would not count myself amongst the 'croppies' – those who follow the phenomenon closely. I do, however, take a general interest in things anomalous, and as a result of my experience, I guess I'd be happy with the title of 'honorary croppy'. I'm not sure I would be universally accepted into their number though, since I am of the opinion that crop patterns are made exclusively by human hand – as my flippant interpretation of the flipped bit suggests. The reader can take it as read that the following arguments are based on this premise. I don't intend to justify my stance here, beyond stating that this is the only proven cause of the phenomenon to date.

However, those who claim to make crop patterns have been understandably reluctant to incriminate themselves by providing specific evidence of their involvement. The unsubstantiated claim that all crop patterns are human-made thus leaves ample room for ongoing mystery and intrigue surrounding this beautiful and enigmatic phenomenon, despite a creeping realisation amongst croppies that at least some crop patterns are human-made.

Of the alternative theories regarding crop pattern origins, the most prevalent, since the advent of complex designs, as opposed to simple crop circles, is that they are a medium through which some kind of non-human intelligence is attempting to communicate with humankind. Clearly, the makers of the Wilton Windmill crop pattern are not so intelligent as to avoid making basic mistakes. Errors in crop patterns can be revealing of the fact that their makers are only human after all. The pressure of executing an exacting design in near darkness and silence within a limited time window is bound to lead to the occasional error.

Such errors in crop patterns are probably more frequent than generally realised. They can be hard to identify when the original

intentions of the designer are unknown, or if the concepts intended to be conveyed by the design are abstract, ambiguous, or even nonexistent, relying to a greater extent on the subjective interpretation of the viewer. However, the inclusion of a highly specific encoded written message is a high risk endeavour. Not only does design complexity increase the probability of error, but any errors will be easier to spot; the decoded message of the Crabwood Farm crop pattern included a number of anomalies – partly capitalised words – which might be best explained as human error.

The 'message' in the case of the Wilton Windmill formation was relatively easy to decode, despite its anomalies, for a human – and it takes one to know one. Multiple human cultural conventions are employed in its design, such as computer code, clockwise rotation and mathematical notation (not to mention it's measured diameter, the suspiciously round figure of 300 ft). The symbolic windmill location also implies familiarity with their function as well as local geographical knowledge.

The fact that the occasional crop formation contains a relatively unambiguous decodable message encourages croppies to attempt to interpret the meaning of every crop pattern, regardless of any



Crabwood 'alien disc' crop circle (Steve Alexander, www.temporarytemples.co.uk)

intent on the part of the makers to encode a message. Would-be conspiracy theorists might wish to comment on the resemblance of this circumstance to what psychologists call a 'variable ratio reward schedule', a highly-effective behaviour modification technique!

Even with a message as unambiguous as a mathematical formula, there is much scope for subjective interpretation. In this respect, the patterns act like Rorschach tests, allowing their observers to project onto them their own fantasies. I had perhaps naively expected my swift decoding of the Wilton Windmill formation to be the last word in the interpretation of its meaning, but I couldn't have been more wrong. Croppies as a group are very keen to project their own diverse and often far-fetched interpretations onto every detail of a crop pattern.

According to circle-maker Rob Dickinson, the ambiguity of a typical crop pattern is intended to "provoke inquiry and challenge pre-conceived ideas".<sup>5</sup> This stated intention originates from the early years of crop-circle making, but whether or not it is shared by other circle-makers, all too often, the result of the circle-makers' art is merely to perpetuate entrenched belief systems.

#### Ambiguous Messengers

The modern phenomenon of crop patterns allegedly originated with artists Doug Bower and Dave Chorley, who claimed that their simple crop circles in Hampshire were an attempt to emulate the so-called 'saucer nests' which were a feature of the Warminster UFO flap of the 1960s and early 70s, and which Doug had also come across in Australia. UFO research is notoriously plagued by hoaxes, and many of the hoaxers have a genuine interest in UFOs. Such was the case with Doug and Dave.

Eventually, their efforts attracted the attention of the mainstream media, and physicist Dr Terence Meaden, called in to investigate the phenomenon, came up with the meteorological 'plasma vortex' theory. Doug and Dave were apparently displeased with this development, and began to create more elaborate designs to confound him, for example adding four smaller circles around a larger one as if to represent the 'feet' of a flying saucer. Meaden, however, simply adapted his theory.<sup>6</sup>

By 1990, 'pictogram' designs with straight lines, and even double-D signatures – the first encoded messages – began to appear, not that anyone could decode them at the time. It seems that the original plan to hoax supposed UFO landing spots had been forgotten, and a new game of cat-and-mouse was afoot. The development of crop pictograms suggested an intelligence behind the designs, assumed by many croppies to be non-human, and offered much scope for symbolic interpretation.

The phenomenon started to occur over a wider area, and Doug and Dave surmised that other teams must have begun to operate, creating for example the double pictogram at Alton Barnes immortalised on a Led Zeppelin album cover. It seems that some croppies, in an act of

boundary-crossing typical of the paranormal field, were creating crop patterns themselves – perhaps to disprove the non-human-origin hypothesis, or perhaps in an attempt to establish a dialogue with the still-mysterious makers. Once they had sampled the dark art of circle-making, blurring the distinction between the seeker and the sought for, the



culprit and the victim, as servants of the Trickster<sup>7</sup> their motivations became harder to discern, perhaps even to themselves.

The belief that there is more to this phenomenon than teams of young men competing to create the best illegal art under cover of darkness is still prevalent in some circles (pun obviously intended). The croppies' reluctant acknowledgement that some crop patterns are made by human hand, combined with their unshakeable conviction that others have a more mysterious origin, leads them to make a distinction between 'genuine' and 'hoax' formations. Many croppies can not bring themselves to believe that the hated 'hoaxers' could have anything enlightening to say, so the presence of a 'message', whether real or imagined, has either been taken as evidence of a genuine crop formation, or the work of disinformation agents. They would rather resolve their cognitive dissonance by touting paranoid conspiracy theories, than by admitting to their own folly.

To state that the perpetrators of human-made crop patterns are hoaxers – deliberately attempting to deceive – can be problematic when there is no evidence of their making a false claim. This hairsplitting may be usefully exploited by the deceitful, of course, and who can say that the circle-makers, mixing amongst the croppies at their Wiltshire watering holes and conference venues, are not guilty of introducing false interpretations of their own work? Not that the croppies, willing partners in their own delusion, would need much help in that department!

The concept of projection, in its original psychiatric context, refers to an unconscious defence mechanism whereby what is emotionally unacceptable in the self is rejected and attributed to others. By attributing the role of hoaxer to the circle-makers, might the croppies be rejecting the thought of their own self-deception?

Perhaps it is the self-appointed and phenomenologically-focused expert 'researchers', intent on promoting the concept of non-human origin, who might be justifiably accused of making false claims. As Carl Sagan was fond of saying, "extraordinary claims require extraordinary evidence". Many factors have been cited as evidence of 'genuineness', but science advances by falsifying explicit claims, not by proving vague ones. While a hoax requires only the theoretical existence of a genuine counterpart (such as Bigfoot), a 'genuine' event implies a unique and known origin, yet the mystery of crop patterns relies on the claim that their origin is not known.

Such considerations highlight the questionable pseudoscientific methodology of the 'researchers'. Should they also stand accused of pseudospirituality, of failing to remove the metaphorical plank from their own eye, before attempting to remove the speck from the eye of their brother?

The evolution of the crop patterns from saucer nests to sacred art has been accompanied by a parallel evolution in the definition of the 'genuine' article by croppies, and the expressed motives of the circlemakers. It is the uneasy symbiotic relationship between producer and consumer that has driven this evolution. This feedback loop further blurs the distinction between subject and object, scientist and artist. The swirling vortex of a crop circle is an appropriate image of the dynamic reflexivity at the heart of this mercurial phenomenon.<sup>8</sup>

### A GENUINE MYSTERY?

Many of the croppies, bewildered by the various claims and counter claims, now state that what matters is the personal experience of viewing and entering the designs: the awe that they inspire. Arguably the effects of crop patterns are now more interesting than their causes.

This approach to crop patterns neatly transcends the croppies' lack of consensus on the hoax/genuine issue, enabling them to accommodate to the human aspect whilst maintaining the spiritual, by invoking the agency of divine inspiration. It also demonstrates the transcendent nature of experience as neither genuine or false, real or unreal, and helps neutralise the negative feelings projected onto the circle-makers by those still taken in by the hoax mentality.

Given their generally secretive and deceptive nature, the question of the circle-makers motivation is one of the genuine mysteries of this phenomenon. We are all human, and I suspect that the croppies and the circle-makers are equally prone to engage in rationalisation. As circlemaker Jim Schnabel has stated, "If there can be artifice on the way into the mind, there can be artifice on the way out".<sup>9</sup> One interpretation of this statement could be that circle-makers can deceive themselves as well as others with regard to their motivations and actions. Latterly, as we have seen, some circle-makers have adopted a high intellectual stance, promoting their work as crop art, as an invitation to look within ourselves and understand the workings of our own minds, perhaps in the hope of retrospectively shaking off their reputation as lowly pranksters.

Another interpretation is that the circle-makers have come to the realisation that art is magic. Like stage magicians, their work relies upon the fact that people just don't suspect the incredible lengths they go to in order to pull off a trick, to create that all-important 'wow' (or is it 'woo'?) factor. While the art of deception can trigger paranormal or spiritual experience, it is not the source of that experience, but instead a way of distracting the mind, of opening it up to novel possibilities. Like a temporary temple, a religious icon or mandala, a crop pattern merely provides a supporting context, an appropriate setting, where belief in the divine can work regardless of its proven existence. It matters not whence it comes.

Their reflexivity qualifies the circle-makers as 'authors of the impossible', in Jeffrey Kipal's terms.<sup>10</sup> Kripal identifies two stages to becoming an author of the impossible: Realisation – recognition of our participatory role in the paranormal, of our "reading the paranormal writing us"; followed by Authorization – stepping out of the story we have been written into, and "*writing* the paranormal writing us".

The words of Alan Moore are pertinent here:

It is not the job of the artist to give the audience what the audience *want*. If the audience knew what they needed, then they wouldn't be the audience, they would be the artist. It is the job of artists to give the audience what they *need*.<sup>11</sup>

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