

**"Egg, Tear & Slice" Formations: UK, June, 1994****Laboratory Code: KS-02-71**

Plant material: Barley plants and seed heads, *Hordeum vulgare*.

Formation: These extremely interesting and intricately produced formations are explained in detail in Mr. Barry Reynolds "News" letter which Ms. Nancy Talbott has appended to this report.

Sample Information: Collected by Barry Reynolds and Andy Thomas. Along with the material referred to above was a limited sampling from a "Dumbbell" formation at Falmer, East Sussex, UK (also described in the "News" appendix). This will be referred to later on as a supplemental sample set. Also included was a sample of what Mr. Reynolds, so accurately described as a "nest" of interwoven plants. These were treated as a separate sample.

**Laboratory Results:**

The germination rate of barley and the growth vigor of the seedlings are generally lower when compared with development in wheat. For this reason the previously discussed, development factor Df, taken at the 7-day seedling stage was utilized in the analyses of the germination data.

A.) "Egg" formation results are summarized in Table I. The stem node lengths are listed for the apical or N4 position (in mm). The control value is a mean from six samples taken at the west and east locations, 25, 50 and 125 ft. from the formation.

Table I. Stem Node and Seedling Development Factor

<u>Sample Location</u>	<u>Node Length</u>			<u>NI-change</u>	<u>Df</u>
	<u>ave.</u>	<u>sd</u>	<u>N</u>		
Controls 25-125 ft.	2.97	0.41	69	-----	7.31
Epicenter	4.00*	0.84	5	+34.5%	4.82
10 ft. inside	5.11*	0.58	10	+71.8%	2.72
10 ft. inside	5.69*	0.41	10	+91.3%	0.78
Edge of Formation	3.29	0.33	10	+10.6%	5.26
Near Tram Line	2.68	0.91	9	-9.9%	5.26

\*-  $P < 0.05$

It is quite apparent from the data in Table I. that there is a significant increase in the node expansion within samples taken from the Egg formation. In addition there is a pronounced drop in the seedling development factor, both parameters suggesting a substantial influence of the formation energies on cell structure and growth processes. It should also be pointed out that expulsion cavities and node splitting were only observed in plants from the formation (none in controls).

B.) "Tear" Formation: Since this sample group seemed to have a more clear cut delineation of the spacing within the formation, therefore the Beers Law relationship was applied (see Report No.24). The  $\ln(NI)$  data are presented in in Fig.1-A (attached).

The linear regression curve ( $r=0.99$ ) does not include the point at the epicenter. Here, as in the Chehalis, Washington sample (Report No.24) the epicenter point lies considerably above the regression curve. Again this may be explained by the fact that, as in the Washington case, the lay of the plants was different at the epicenters in both the Egg and the Tear, than in other locations within the formations (as detailed in Barry Reynolds report to this laboratory). At the epicenter of the Tear the lay was such that the plant nodes could have received more energy per unit area, thus explaining the greater node expansion.

The Df values from the Tear plants are compared in Fig.1-B with the distance from the epicenter. Here we see a direct relation between the Df level and the distance from the epicenter. This relationship clearly confirms the presence of a damaging energy source. For those who might wonder why these data do not conform to the same  $\ln$ -relationship as the NI data, the explanation lies in the fact that the node expansion is the result of a physical energy absorption, whereas the Df values reflect a physiological damage within the seeds. In other words these are quite different parameters, but both reflect the influence from the energy impingement.

C.) "Nest"-this formation of intricately woven plants was apply named by Mr. Reynolds. It was extremely difficult to separate the interwoven stems of what Barry refers to as "dinner plate size" nests, without damaging them in the process. The node expansion was very severe (ave. 5.48 mm) and the seedling development factor very low at Df=0.32, (for control comparisons see Table I.). These nests are very suggestive of the formation of severe, highly localized sub-vortices within the formations.

D.) "Flailed Control" -prepared by Mr. Anthony Cheke for the purpose of comparing with other plant material. The mean node length expansion was 3.01 (0.59 s.d.) and Df=10.78, both parameters falling well within the range of the controls (see Table I.). There were no node expulsion cavities or splits in this sample group.

E.) Supplemental "Dumbbell" Formation-data for the four submitted samples are listed below.

Sample Location	-----NI mm-----				Df
	ave.	sd	N	% Change	
Center-Standing	4.08	0.67	10	+54.0*	7.99
Ring-Standing	3.39	0.36	10	+27.9*	10.95
Underlay	3.97	0.43	10	+49.8*	2.84
Control 100 ft.	2.65	0.23	10	-----	8.33

\*-P<0.05

Here the heat energy was severe enough to cause pronounced node expansion. Only the underlay sample was reduced in seedling development and was the only one to contain expulsion cavities.

#### Comments:

One of the most interesting aspects of the Tear and Egg formations is the fact that for the first time we have a clear cut example of the formation energy being dissipated above the ground level. The presence of the large number of small, but very energetic sub-vortices is yet another striking example of high degrees of complexity developing within the vortex systems. In the Tear formation in particular, the energy seems to originate at the epicenter, as shown by the adherence to Beers Law (Fig.1-A). The energies in both formations are sufficient to reduce seed vigor and viability (Table I and Fig.1-B).

The suggestion was made by Mr. Barry Reynolds, that the "Slice" formation could be a portion of the organized energy which was literally sliced off the main vortex, through its interaction with the overhead power cables. This hypothesis seems to us a very reasonable one, when considering the fact that very low level energies can completely disrupt the energetics of very high energy, unstable systems. In other words, what we are seeing here, is the external electric field around the power line having sufficient influence to literally split off and change the direction of a segment from a large vortex which presumably possesses an electric

field several orders of magnitude higher than the field surrounding the power lines. What evidence exists to support the fact that local electric fields can alter extensive charge configurations within ion plasmas which are in the range of 20 meters in diameter? Here, we will present just one example of the many cited in the scientific literature.

In studies with forming thunder clouds which commonly have a (-) charge on the bottom and a (+) charge on the top, it was found that a negatively electrified wire strung below the cloud formation (between mountain tops) and powered by less than 100 watts of energy could completely reverse the polarity of the cloud (C.B. Moore, B. Vonnegut et. al., "Abnormal Polarity of Thunderclouds Grown from Negatively Charged Air", Science, 233, pp.1413-1416, 1986). That is, after exposure to negatively charged air the cloud now had a (+) charge at its base and a (-) charge at the top. Only 100 watts input changed the charge configuration in a cloud with a potential energy in the order of 100 million watts. The authors attributed this surprising result to subtle changes in the unstable charge configurations within the cloud. These findings demonstrate that very slight changes in the electrodynamics of the external environment can have a drastic influence on the charge and forces within ion plasmas, and thus provides a reasonable explanation for the Tear-Slice formation.

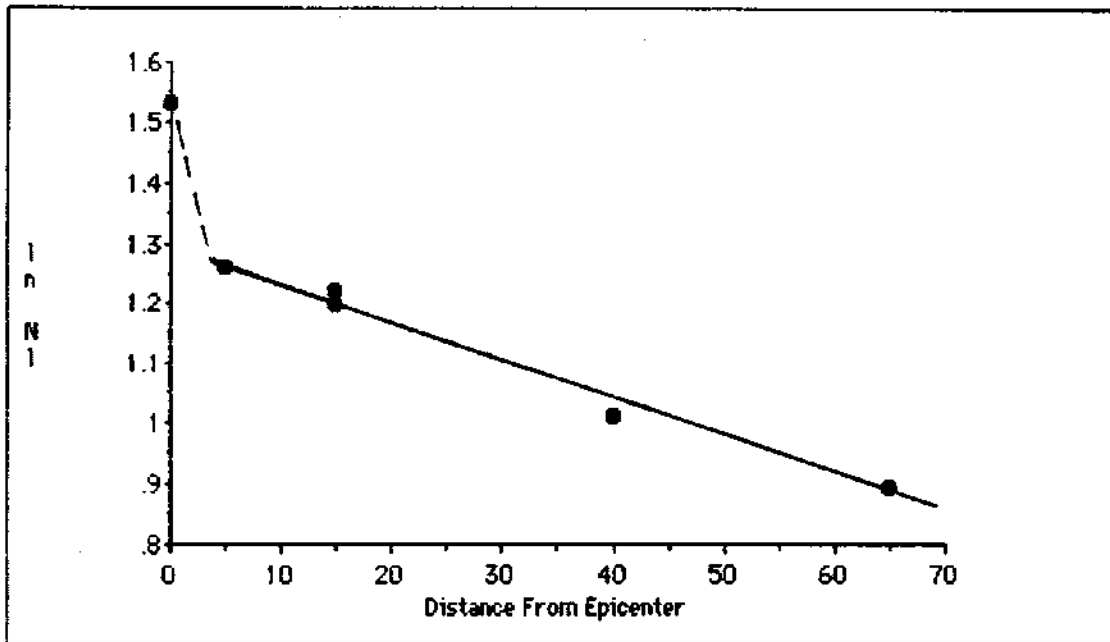
W.C. Levengood  
Pinelandia Biophysical Lab.

John A. Burke  
Am-Tech Laboratory

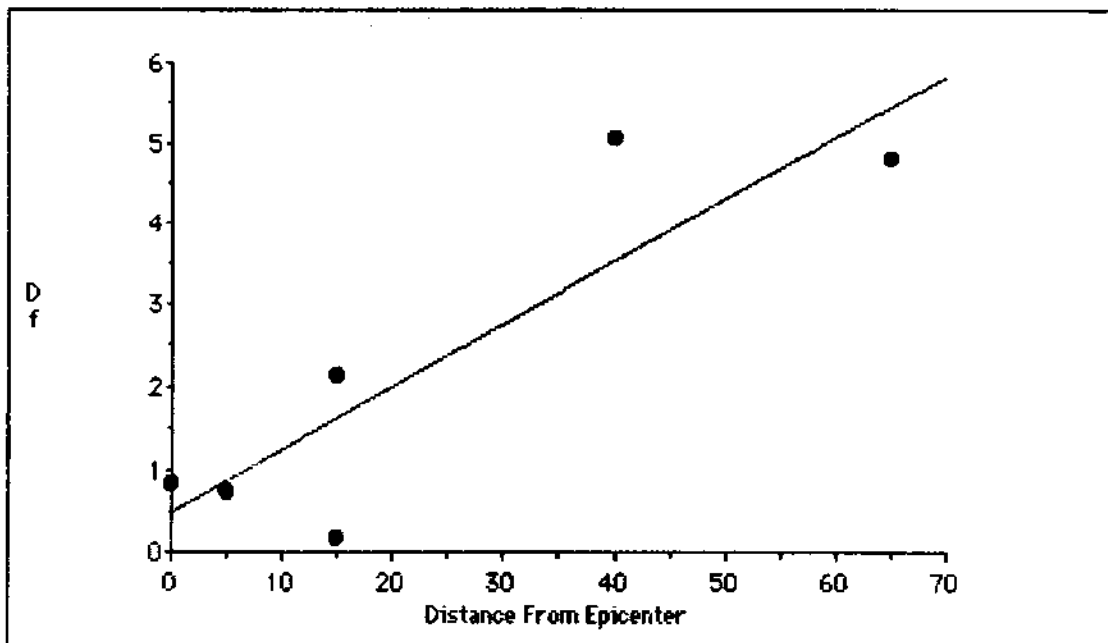
Fig.1

A) Node expansion (apical) related to distance from the epicenter of the Tear formation. Solid curve is linear regression ( $r=0.99$ ).

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B.) Seedling development factor in Tear samples, as a function of the distance from the epicenter (linear regression  $r=0.88$ )



1. Barry's write up on Birling Gap, E. Sussex forms  
in CCS Sussex Circular

KS-08-71 Appendix

NEWS

SUSSEX CROP FORMATIONS 1994 - STONE THE CROWS

REF: SUSSEX 1994/03

Location: Birling Gap, East Sussex

Crop: Barley

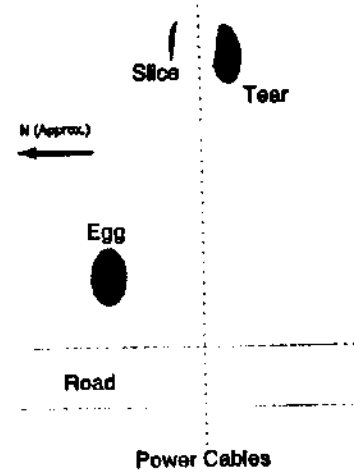
Formed: 20/6/94 or 21/6/94

Spotted by Chris Mansell, 21/6/94

Description: The Egg, The Tear & The Slice

Diameters: Egg 25.6ft (narrowest) by 30.9  
(widest), Tear 27.1ft (narrowest) by  
33.3 (widest), Slice 27.6ft by 14.10.  
Distance from Tear to Slice 33.5ft at  
western end, 38.0 eastern. Distance  
from Tear to Egg 700ft approx.  
Tramlines at 097°, circles align at  
109°.

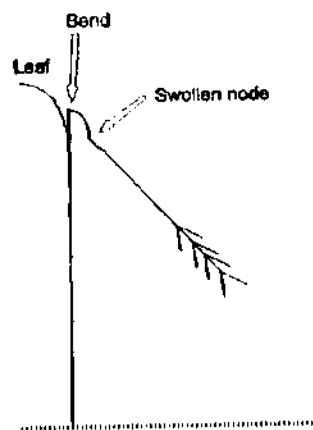
Surveyed by: Barry Reynolds & Andy Thomas



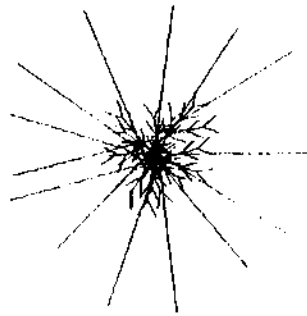
DETAILS: First seen by the farm manager who says that the circles were not there the previous weekend (18/19th June), confirmed by another farm worker.

Both the Egg and the Tear were noticeably non-circular, the one nearest the road being more egg-shaped and the farthest one being more tear-shaped. Both had very slight 'points' at either end. When surveyed on 25th June, both shapes were in pristine condition. Three overhead electricity cables on telegraph poles (not telephone cables) cross the field approximately east/west. The Egg and the Tear were to the north of the cables with the Tear being to the south. Crows had eaten a large amount of the affected barley seed (we assume) but had NOT caused the original damage. The farmer, who had been working there for over 15 years stated that he had never seen anything like it before.

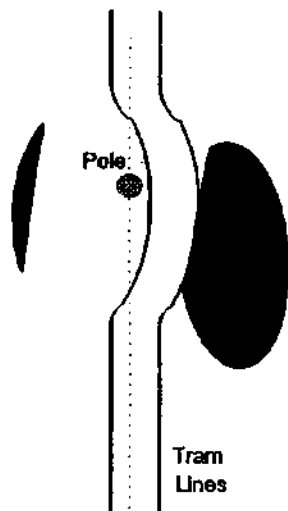
The crop was not bent at ground level as normal but had been bent at 180° fairly uniformly at a height of between 17" and 22". The bend occurred at the first weak point of the crop which was where the sheath of the leaf finished. The crop then bent slightly out at about 045° at the next node! This occurred all over all three formations in small areas so that where the heads of barley gathered, small 'nests' were formed. It was virtually impossible to retrieve a single stalk from a nest as they were woven so tightly. The shapes could not be walked across as your feet broke the suspended web of crop, leaving large holes. The lay of all three shapes was the same. There was none of the usual spiralling or radial swirling, but instead a series of dinner-plate sized nests suspended in mid-air about 20-30cm from the ground. Towards the centre of both the Egg and the Tear there was a very slight cross-shaped lay, the only noticeable pattern in the formations.



The Tear was very close to the overhead power cables and also to one of the telegraph poles. At this point the tractor tramlines diverted from their straight line as the tractor drove around the pole. It was this part of the tramline that the formation actually touched, with the edge of the Tear joining it for a short way. This part of the shape was noticeably flat. The flat side of the Tear and flat side of the Slice were both 27.6ft. >>



Close-up of nest  
Bird's eye view



To fully appreciate what happened when the Tear and the Slice formed, imagine a circle coming down from the sky. As it drops to the ground it hits the power cables which cut it into two parts, one considerably larger than the other. The larger part (the Tear) falls one side of the power cables and the smaller part (the Slice) the other.

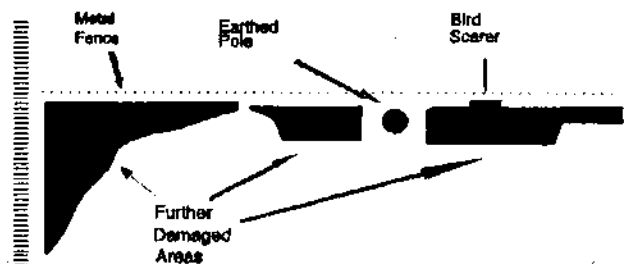
Around the telegraph pole there was a dead area where the farmer had sprayed weedkiller to keep the pole free from growth. A few other plants (rape and poppies) grew on the edge of this dead patch. The flat edge of the Slice butted up against this dead edge and the weeds around the pole. Where the barley had been growing through the rape it had still been affected and was actually bent through the plant, incorporating it as part of the damaged area. Rape and poppies also appeared to have been affected. A small, separate patch of completely dead wheat had also been bent. There were a few stems of wheat growing in the field amongst the barley. In the formations some of this wheat had also been affected but some of it had not and still remained standing upright completely untouched. Every stem of barley however had been affected. The circle-making force (?) had been just sufficient to influence all of the weaker barley and some, but not all, of the stronger wheat.

Chris Mansell noticed that at the flat part there was a small run-off from the Tear through the standing crop. He followed it and found the missing part of the Tear, the Slice. The run-off continued through the standing crop where it went over two small holes. Whilst these may have been made by animals after the trail appeared, there was no sign of soil having been ejected from the hole. The first was about the size of a clenched fist with the second considerably smaller.

All visitors to these formations including Colin Andrews, Michael Green, Lucy Pringle and Andrew King stated that they had NEVER seen anything remotely like the lay in these circles before.

Anthony Cheke thought that the formations could possibly have been made by someone using a flail-type affair and proceeded to demonstrate. Whilst this did indeed bend the crop in a similar-ish manner it was not as selective as the formations in where the crop had actually bent (just above the leaf sheath). It also did not produce the amazing plaitting effect. Anthony further surmised that this could have been caused by the crows. We can see no way that this could have been possible. We checked Anthony's small area eight days later and discovered that it looked nothing remotely like the rest of the damaged crop. The nodes had not bent even though the barley was still green, the heads were still intact on top of the crop (ie. the crows had not eaten it) and there was no bending, weaving or similar nests. This was a very valid experiment which we believe TOTALLY rules out the possibility of human intervention.

Two pieces of dock were standing near the centre of the Tear. These had brown marks (bruising?) on them all the way from the top to the bottom on the side of the stems, flowers and leaves that pointed 'up' (the stem was bent at about 20° from the vertical). Other dock in the field did not show this but did display similar visual effects if hit with a stick. This would not be consistent with the flail theory however as the dock stands >>



considerably taller than barley and it would only have been flailed at 20", not all the way from top to bottom.

Further similar crop damage was apparent further up the field to the east where oblong patches were discovered by Andrew King on 29th June. These ran parallel to a metal fence for a distance far in excess of 1000ft by 15ft wide and at 90° to the cables. Our postulation is that the circle-making energy came downwards from the sky and hit the cables slicing the formation into two parts. The energy ran along the cables until it earthed itself at the metal fence spreading outwards from the power cables. This was given further credence when Andy Thomas discovered yet more damage on 6th July in the north-east corner of the field where an enormous triangular area of several thousand square feet had been similarly affected, finally putting to rest the hoax/flail or crow theories. Next to the metal fence at the end of the field was the only earth pole. The affected areas then spread out from here and actually surrounded a gas-powered bird-scarer! Closer inspection of the very edge of the affected strips (where they joined a hedgerow) revealed that wild poppies, pansies, goose-grass, rape, rye, and other unidentified plants had also been affected. This damage occurred before the first of three electrical storms in this area and was therefore nothing to do with this. 'Energy' appears to have somehow been spliced by the overhead cables, run along them and earthed itself at the far end of the field via the earth cable on the telegraph pole. It then appears to have dissipated along the edge of the field using a metal fence and a large stone wall as buffers.

It is the opinion of those members of CCCS Sussex who surveyed the formations in the last few weeks that this damage was definitely not the work of humans, animals, birds or electrical storms - which the farmer agrees with. Whether these formations are the result of the traditional circlemakers (which we believe) or a totally new and previously unreported phenomenon, is completely unknown.

REF: SUSSEX 1994/04

Location: Falmer, East Sussex

Crop: Barley

Formed: 26/6/94?

Spotted by Michael Hubbard 26/6/94

Description: Dumbbell with ringed oval

Crop laid clockwise, except pathways which were laid in all directions.

Diameters: Inner Oval 11.11ft by 14.10, Standing Ring 15.7ft by 17.8 (width north-south 1.3ft by 2.5, east-west 1.6ft by 2.2), Outer Ring 29.5ft by 31.1 (width north-south 6.10ft by 7.0, east-west 6.7ft by 6.10), Circle 22.7ft by 26.4, Standing Tuft 1.2ft, East Path 2.6ft (width), standing crop 1.9ft, West Path 3.0ft, total Pathway length 15.7ft, total width 7.3ft. Total dumbbell length 67.7ft.



N (Approx.)

Surveyed by Barry Reynolds, Linda Reynolds, Andy Thomas & Martin Noakes.

DETAILS: First reported by Michael Hubbard from his microlight aircraft on 26th June, and not noticed by a local resident before this date, this formation was just visible from the A27 above Coldean, near Brighton. Surveyed by CCCS Sussex on 6th July, the formation was rather messy by this time and had clearly been visited by many people from the nearby Moulsecocomb housing estate and from the adjacent Brighton University, however the general lay of the crop was good. Most interestingly, the centre tuft in the lower circle was not only similar to the same effect found in this year's Sompting ringed circle (Sx 94/02) but also displayed the same damage (bent halfway up the stem) discovered in the Birling Gap 5 formations. Also reminiscent of the Patcham 1991 dumbbell, tramlines 'edging' the oval ring.