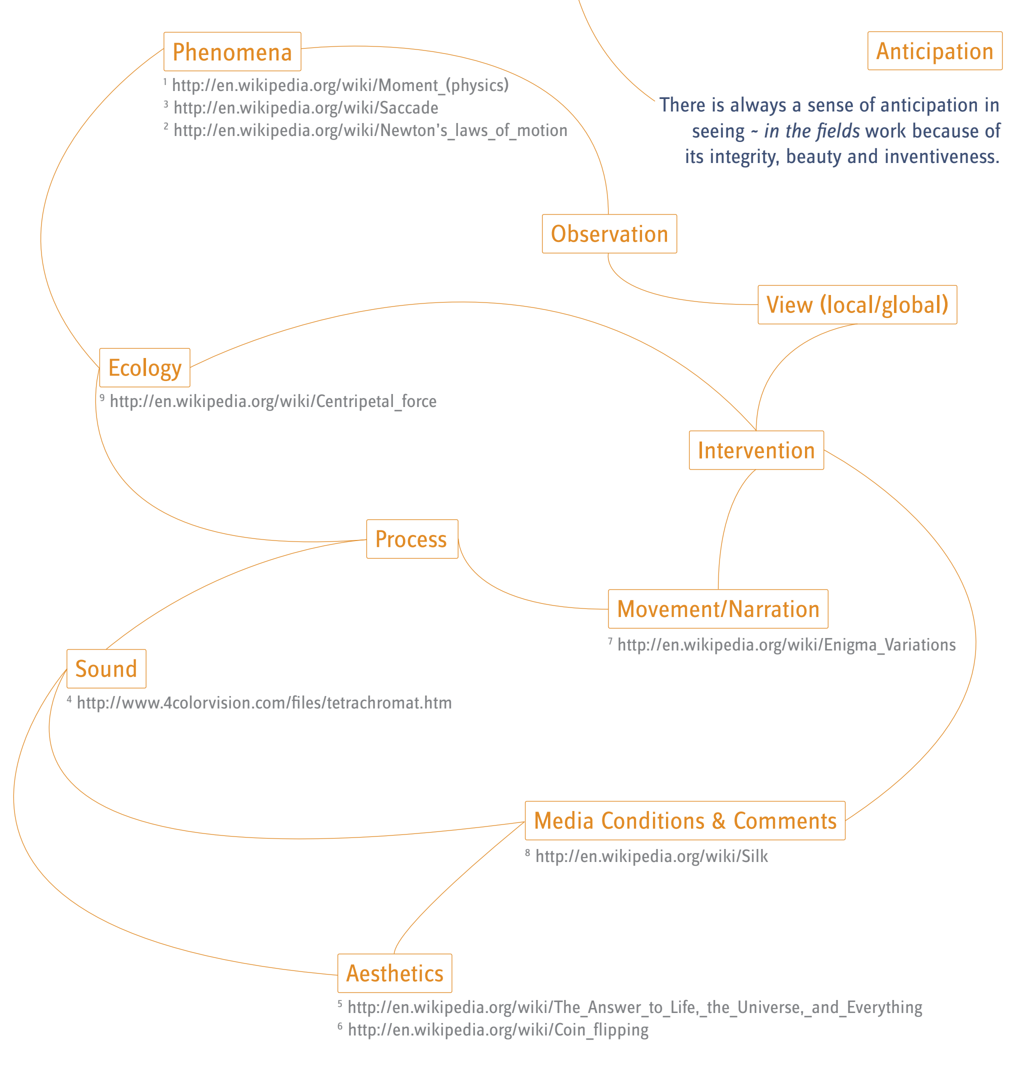
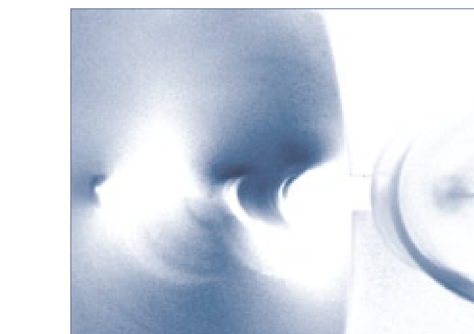
Stills

~ *in the fields*

annotations by Katie Nicoll & Clive Gillman



There is always a sense of anticipation in seeing ~ *in the fields* work because of its integrity, beauty and inventiveness.



ume, 2006

Phenomena

Poetic moment The moment[1], in scientific terms, is the force that stimulates rotation. The poetic moment revolves the stationary and makes it a force for change. But change soon gathers a crowd.

[1] In physics, the moment of force (often just moment, though there are other quantities of that name such as moment of inertia) is a pseudovector quantity that represents the magnitude of force applied to a rotational system at a distance from the axis of rotation.

Swarms and the crowd begins to swarm around the change and by its clustered movement renders it static. Movement is only as much as stasis – like Newton's first law[2] – that we keep moving until we are acted upon by an external force that causes us to stop.

A story unfolds by human presence within a space whether it is an image of a humming bird fluttering down to take nectar from an array of colourful flowers, *ima flue (k)* or the ambitious proposal *Daylight Cinema*, in which you as the audience can dictate how you experience the story and thereby the outcome through your own level of engagement. Walk too fast, walk too slow or stay static means that how the story ends is ultimately your responsibility.

Metamorphosis And when we stop we are both changed and the same. In this way we are defined by our movement as still while the context rushing by us creates the sense of motion and continuity.

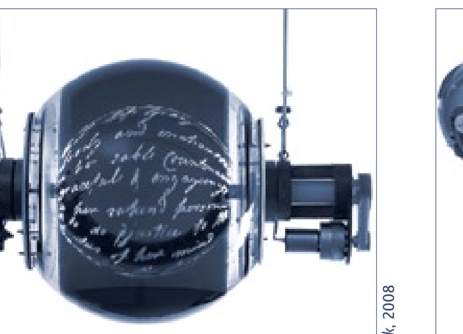
Elements How do we know when we are still – what do we use to tell us? Is motion only known through reference to more than one of your sensations? A triangulation of elemental perception? If you close you eyes and place your fingertips on your eyelids, you can still feel your eyes beneath darting from side to side, seeking stimulation, but they make their own choices and even the open eyes may not always see[3].

ume, 2006

Process

There is a remarkable coming together of both historic processes and new technology to create and provide a new development in the work. Take a thaumatrope, a popular Victorian toy made from a disk printed with an image on either side attached to two pieces of string, which when the strings are twisted quickly between the fingers the pictures appear to merge into a single image into an optical illusion. By using this process but changing the human intervention to a renewable energy, such as solar or wind power, there is greater potential to place the work into different environments by contemporising the core simplicity of this action.

[6] **Physics of coin flipping** Experimental and theoretical analysis of coin tossing has shown that the outcome is predictable, to some degree at least, if the initial conditions of the toss (position, velocity and angular momentum) are known. Coin tossing may be modelled as a problem in Lagrangian mechanics. The important aspects are the tumbling motion of the coin, the precession (wobbling) of its axis, and whether the coin bounces at the end of its trajectory. The outcome of coin flipping has been studied by Persi Diaconis and his collaborators. They have demonstrated that a mechanical coin flipper which imparts the same initial conditions for every toss has a highly predictable outcome – the phase space is fairly regular. Moreover, they have demonstrated both mathematically and experimentally that the underlying physics of coin tosses appears to have a slight bias for a caught coin to be caught the same way up as it was thrown, with a probability of around 0.51. Stage magicians and gamblers, with practice, are able to greatly increase this bias, whilst still making throws which are visually indistinguishable from normal throws. Since the images on the two sides of actual coins are made of raised metal, the toss is likely to slightly favor one face or the other. This is particularly true if the coin is allowed to roll on one edge upon landing; coin spinning is much more likely to be biased than flipping, ...



ink, 2008

Aesthetics

Cluster We all huddle together, wishing and hoping we are placed here to create an effect.

Spheres Like the Douglas Adams[5] supercomputer we roam around a sphere seeking the form of the questions we want to ask.

[5] Deep Thought is a computer that was created by the pan-dimensional, hyper-intelligent race of beings of planet Magrathea to come up with the ultimate answer to Life, the Universe, and Everything. When, after seven and a half million years of calculation, the answer finally turns out to be 42, Deep Thought's creators sheepishly realize that they do not know the question whence the ultimate answer turned out to be. Deep Thought itself does not know the ultimate question to Life, the Universe and Everything, but offers to design an even more powerful computer (Earth; see Earth in fiction) to calculate it. After ten million years of calculation, the Earth is destroyed by Vogons five minutes before the computation is complete.

Utopias We want to make a perfection of our path, but we inhabit a guano stained reality in which the perfect is just the discredited smooth slide away into the heaving ocean below.

[6 continuing] ...and conjurers trim the edges of coins so that when spun they usually land on a particular face. Although it is extremely rare, it is possible that a coin will come to rest on its edge.

Multilayer model But the bond that links our tiny quantum of defined existence to the next, less defined, state cannot be known unless one can grip two sides of the same coin[6] and know them both.

Relation haptic touching and seeking the signals of a legible texture to know how it will fall.

ink, 2008

Sound

The use of sound within ~ *in the fields* work is an essential component to the experience. Walking into a top floor flat in 2006 to view *ume* and *ima flue (k)* as part of the Edinburgh Art Festival, there was a sense of anticipation created because of a fluttering sound from the front room that gave the impression of trapped birds. Turning the corner, the sound was made by a constantly moving chain of 50 thaumatropes, which were depicting a flowering leafless branch of plum blossom (*ume*) and that the sound represented the wind through the tree. As the movement of the chain came from a solar panel on the windowsill, the flowering of the blossom was intermittent, as was the sound, waiting for the next ray of sunshine.

Light Waves It is like breakers beating on a closed door, sensors beneath unable to register the vibration or the deep purple passing through beyond its spectrum[4].

[4] **The Chromatic performance of the human visual system**
The current literature has long had a difficulty describing the chromatic performance of the human eyes in the short wavelength region between 400 and 437 nm. This region is hardly represented in the C.I.E. (1931) Chromaticity Diagram. Although it is frequently claimed that any color can be matched by a mixture of Blue, Green and Red. This is not true of the deep purple found near 410–420 nms. To match this color requires one of the matching lights to have a wavelength shorter than 410 nm.

just, 2007

Movement/Narration

Rhythm & Variation Above all we seek some solace in the beat and the melody, tracking the neat change that it marks and the enigmas[7] that it reveals.

[7] Fred Childs on NRP, December 27, 2007, interviewed a chemical engineer who said that he had determined that the musical puzzle of the Elgar's enigma is the mathematical value of Pi (3.142).
Some have proposed the tune of the British national anthem, "God Save the Queen" as the enigma theme's inspiration; others prefer "Auld Lang Syne" transposed to a minor key, which suits the subject of "old acquaintance". Some music scholars believe the theme may be based on part of Mozart's "Prague" Symphony, which was on the program at the "Enigma" Variations' premiere in 1899. Also proposed has been the traditional Renaissance theme La Folia, whose chords roughly fit the theme, although Elgar's use of accented seventh notes would have been a decidedly nineteenth-century adaptation. A currently popular theory is that the theme is related to the "never, never, never" section of "Rule Britannia"; in particular, the phrase is clearly audible in the first five notes of the work, and there are several other possible hints in Elgar's own statements, in particular "So the principal Theme never appears, even as in some late dramas ... the chief character is never on stage." However, the word "never" can be related as well to the second line of Auld Lang Syne "And never brought to mind", which fits (also musically) with the theory postulated by Eric Sams in 1970.

Loops & Series as small lives spin full circle showing a illusory moment of calm revealed only through movement.

Recursion such weaving allows us to create an image that is set against our racing imagination and it feeds in and out of our imagined spaces creating meaning and meaning creating.

just, 2007

View (local/global)

The impression is that the local view, from a domestic tenement flat, directly influences content within the work. A diversity of experience encountered looking out of a bay window onto Easter Road; a lone swan flying low up the street, Hibernian supporters heading to and from the football ground, the routine of one resident moving through the streetscape. Now ~ *in the fields* have moved from Easter Road, there is a new view, a different landscape to respond to. The global view is represented through their responsive use of renewable energy towards their work, both realised and conceptually, such as *ume* and *daylight cinema* respectively. In the proposed project *floc*, the identification of swarms and flocks behaviour and its impact on the global environment is a highly topical and ~ *in the fields* approach to these issues are imaginative, inventive and beautiful.

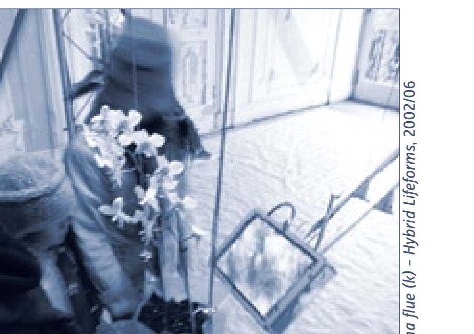
[2] **This law is also called the law of inertia.**
This is often paraphrased as "zero net force implies zero acceleration", but this is an over-simplification. As formulated by Newton, the first law is more than a special case of the second law. Essentially, the first law establishes frames of reference for which the other laws are applicable, such frames being called inertial frames. To understand why this is required, consider a ball at rest within an accelerating body: an aeroplane on a runway will suffice for this example. From the perspective of anyone within the aeroplane the ball will appear to move backwards as the plane accelerates forwards. This appears to contradict Newton's second law as, from the point of view of the passengers, there appears to be no force acting on the ball which would cause it to move. The reason why there is in fact no contradiction is because Newton's second law (without modification) is not applicable in this situation because Newton's first law was never applicable in this situation (i.e. the stationary ball does not remain stationary). Thus, it is important to establish when the various laws are applicable or not, since they are not applicable in all situations.

ima flue (k) – Hybrid Lifeforms, 2002/06

Observation

~ *in the fields* have observed daily life on their street and used it within their work. However, they too have been observed, sitting at their window overlooking a landscape and now neighbours, who they have never spoken to, wave up from their garden below while ~ *in the fields* are sitting looking out.

[3] **Saccadic masking**
It is a common but false belief that during the saccade, no information is passed through the optic nerve to the brain. Whereas low spatial frequencies (the 'fuzzier' parts) are attenuated, higher spatial frequencies (an image's fine details) which would otherwise be blurred out by the eye movement remain unaffected. This phenomenon, known as saccadic masking or saccadic suppression, is known to occur in the time preceding a saccadic eye movement, implying neurological reasons for the effect, rather than simply the image's motion blur.
A person may observe the saccadic masking effect by standing in front of a mirror and looking from one eye to the next (and vice versa). The subject will not experience any movement of the eyes nor any evidence that the optic nerve has momentarily ceased transmitting. Due to saccadic masking, the eye/brain system not only hides the eye movements from the individual but also hides the evidence that anything has been hidden. Of course, a second observer watching the experiment will see the subject's eyes moving back and forth.

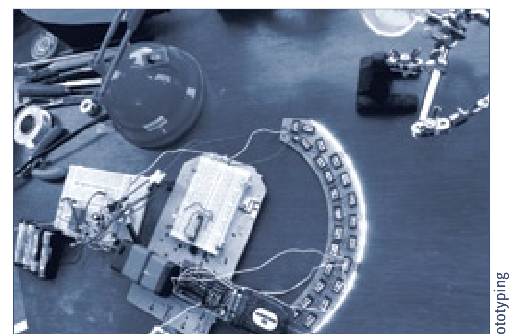


ima flue (k) – Hybrid Lifeforms, 2002/06

Intervention

The audience, whether intentional or not, directly affects the work by moving through a space. *just* (2007), a cluster of 16 thaumatropes boxes showing miniature moments taken from a street in Edinburgh, is triggered by members of the public passing by a window on the street. *ima flue (k)* (2002) has the same principle but the consequences of the human intervention can also be detrimental.

Gestures and gestures making the exquisite moment of charm – an **Aesthetic moment**.

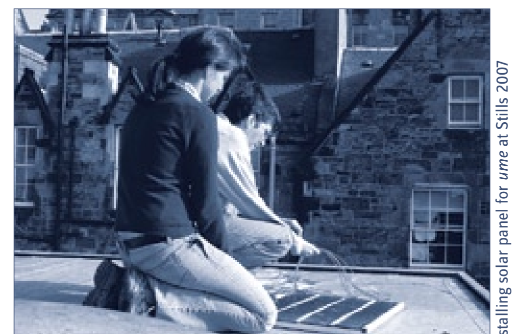


prototyping

Media Conditions & Comments

History & theory of apparatuses and techniques However, the mechanisms we invent through which we sever and unpick the genus of interpretation allow little scope for shared understanding. We touch and we spin and around us grows an **autonomous cocooned system**, stronger than steel[8] but as flexible as intent. Once again our eyes are closed and we join the celebration of **optical illusions**. The shadows dance on the wall of our silken cave, so close to our eyes to form another heavy lidded shutter through which all **moment of decision** is reduced to projection and self-fulfilment. The autodidact becomes the autogyro, self-deluding in flight and spun to pieces on an eccentric median of self-reflection.

[8] Silk fibers have a triangular cross section with rounded corners. This allows light to hit at many different angles, so silk is a bright fiber and has a natural shine. It has a smooth, soft texture that is not slippery, unlike many synthetic fibers. Its denier is 4.5 g/d when dry and 2.8-4.0 g/d when wet. Silk is stronger than steel, a test for this is e.g. a kilo of steel string 2 metres long against a kilo of silk 2 metres long (wrapping the strings round themselves) both tied to a weight, continuously tighten the strings equally and eventually the steel will break before the silk. Silk is one of the strongest natural fibers but loses up to 20% of its strength when wet. It has a good moisture regain of 11%. Its elasticity is moderate to poor: if elongated even a small amount it remains stretched. It can be weakened if exposed to too much sunlight. It may also be attacked by insects, especially if left dirty. Silk is a poor conductor of electricity and thus susceptible to static cling.



installing solar panel for *ume* at Stills 2007

Ecology

Renewable energy So the waves keep beating and we keep seeking for ways to ride them and through our riding to seek the virtue in taking no more than we can give. We touch wind and wind tight the springs that charge us with our guilty pleasures.

Responding responsibly we step back and watch, seeing how the flock whirls overhead and we respond by trying to take flight, to place it within our palette and present it back into our own **sensitive art**. And as we do it falls into its own space and leaves us for dead. We are an object with weight, mass and moment, spinning around the edge of something significant. For our centripetal[9] force, we create an artificial gravity from our ideas while our centrifugal[9] force, simply throws them back in our faces.

[9] For a satellite in orbit around a planet, the centripetal force is supplied by the gravitational attraction between the satellite and the planet, and acts toward the center of mass of the two objects. For an object at the end of a rope rotating about a vertical axis, the centripetal force is the horizontal component of the tension of the rope, which acts towards the center of mass between the axis of rotation and the rotating object. For a spinning object, internal tensile stress is the centripetal force that holds the object together in one piece.

Clive Gillman browsed the Internet on 12 February 2008.

More about ~ *in the fields*: www.in-the-fields.org

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