

DUVERSITY 33

- According to R. Allendy, "this number shows the free activity of the being in the organization of the world. (...) It shows the free creature related to the plans of the Creator by links of justice and love or by the providential intermediaries".
- This number is a multiple of 11 of which the two antagonistic units have increased to the harmony by developing each one in a ternary, thus moving away the danger of the temptation, according to Lacuria. R. Allendy adds that the activity of the individual is added harmoniously to the cosmic realization of the Archetype: this is why 33 would never have unfavorable meaning.



"Intelligence can go beyond any level of meaning." Arleta Griffor

We are most gratified to grace our pages with a previously unpublished interview with the physicist David Bohm, conducted and recorded by Arleta Griffor, a Polish mathematician who came to England just for the purpose of studying Bohm's ideas. Only half of the interview is given and the second may be published later. Arleta thought it best not to add a series of footnotes seeking to 'explain' some of the references made in the course of the conversation. Just get the feel of the ideas and, if you are still hooked, go to the original materials. A small bibliography is given.

To give some balance, there follows an article on Morris Dancing first published in 1975. We continue with an extract from a conversation between William Pensinger co-author of the fabulous *Moon of Hoa Binh* and Anthony Blake on the subject of multi-value and end with some notes by Nicky Gregory on 'human mathematics'. Both Arleta and Nicky are members of ANPA (Alternative Natural Philosophy Association) like myself.

The image above is taken from a Pre-Raphaelite painting of the *Danaïdes* the fifty sisters condemned to fill a vessel which is not sealed. It may possibly be an inspiration for Gurdjieff's saying of the futility of mind as 'pouring from empty into the void'. I feel that it reminds me of the wisdom of grasping that intelligence works only when it flows. So do not worry over much about 'understanding' - just do what you can to pay attention and listen to the flow.

Conversation with Prof. David Bohm, Birkbeck College, London, 31 July 1990

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B (David Bohm)



A (Arleta Griffor)

- A. In your book *Wholeness and the Implicate Order* you write that the general way of perceiving order is to give attention to similar differences and different similarities. In one of your papers you call all the orders based on a hierarchy of similarities and differences “sequential orders”. Then you introduce what you call the “generative order” - a particular case of which would be the implicate order - saying that it involves a creative generation of the total order out of some general principle. My question is whether giving attention to similar differences and different similarities is really the most general way of perceiving or comprehending order.
- B. Perception of differences and similarities seems to be the most general way of perceiving order in common experience, and also in the implicate order, because we put, for example, ink droplets in different degrees of implication.
- A. So we have similar differences which make up the order.
- B. Yes, at least for the description of order it seems to be right, and for thinking about order. Also, when you perceive order with the senses, I think that this is the information that you pick up. The mind has to organize this information. Order goes onward to arrangements and structures, because from order we go to order of orders, which is an arrangement of orders, and if you have contact of orders, within different arrangements, you have structure. So order have to be understood in the context of structure of which it is a part.
- A. In the context of structure? Because you also say that structure comes out of order.
- B. But there is also a process, a whole process which is the creation and annihilation of structures. The meaning of order depends on this context, and cannot be seen solely in the context of similar differences of a particular order. I mean, that is description

(i.e., similarities and differences), but then the meaning of order depends on the wider context.

- A. On the wider context of structure?
- B. The structures in process. The order of process is part of the structure of process. Order is an abstraction.
- A. So you say that when we talk about an order, we actually consider a structure and describe it as having a sequential or an implicate, or whatever order. In other words, we abstract similarities and differences which are the beginning of a description of the order of that particular structure.
- B. But also, all descriptions, all language depend on abstraction. We are abstracting something which we call order, describing it. It is abstracted from the broader context which includes structure, but goes beyond structure, goes on to organizations, to wholes.
- A. So it is possible to say that differences and similarities are the way of describing order and limiting it at the same time.
- B. Yes, you cannot describe what is unlimited. We have to say that whatever underlies our descriptions and our thoughts cannot be stated. But it is the unlimited which contains all that is limited. Not to say that the unlimited stays over and opposes the limited, but rather, the unlimited already contains everything limited. So everything limited is already unlimited, but it is abstracted as limited. It is like saying... suppose you start with a circular object that you are looking at from different angles. When you walk around it the appearance changes. You say, there is changing of appearances of a fixed object which is a circle. Your thought tells you "It is the circle", but it appears to the eye really as an ellipse. Your eye would describe it as an ellipse. But we are saying "The circle is the essence, the true being, the ellipse is an appearance". That is the way we think. It may be a correct appearance, because ellipse is the correct aspect of the circle. Then the circle seems like a solid rigid circle, but if you go deeper, it has a structure within it, atomic structure, mostly empty space and atoms. So on another deeper level, the circle is an appearance too, the atoms are taken as the essence. But then the atoms turned out to be electrons and protons and so on, and mostly empty space, and the atoms are now appearance. The essence would be other particles like quarks, or may be fields. You see that finally it does not look that you are going to end that, but rather you have a certain standard form of thought which is that at every stage there is the essence and the appearance, but what plays the role of essence and appearance is relative, essence changes into appearance. You may say, thought is constantly giving new appearances to the mind, and more appearances you have, better you understand the object. If you have several views, as in a stereoscope, you can see in three dimensions. You can see, these two appearances have no independent substance, the two pictures in a stereoscope, their only meaning is that they are part of a three-dimensional world.
- A. In order to say that we really deal with a three-dimensional object, we have to assume reality of the three-dimensional space, or what you call the "Cartesian order". Going to a deeper essence implies a change of order.
- B. Yes, eventually we have found order which is relativity and quantum theory. That order may be taken as essence at one stage, but may become appearance at later stage. So you have to say, in fact, all our thought is appearance, the essence is finally unknown, it may be a correct appearance or an illusory appearance.

- A. With regard to essence and appearance. Sometimes you say that “what is” is to be expressed in terms of the implicate order - which would be in agreement with what you are saying now, but more often you say that “what is” is the implicate order...
- B. That is taking the implicate order as the essence. Then the explicate order becomes a particular case of the implicate order, in which case the latter is the appearance.
- A. Is for you the implicate order the same as the holomovement?
- B. The holomovement is more general than the implicate order. It is a kind of ground, a kind of deeper essence. The holomovement would then be something which cannot be specified, described.
- A. So the implicate order could be a way of looking at the holomovement, but it is still a limited aspect of it.
- B. Yes, at this stage we take the holomovement to be the essence, but at some later stage we may eventually find that it is also an appearance of something else. I suppose that this view of more appearances rises the dimensionality of the essence. All these different appearances refer or relate to each other because they come out of one whole. That is really the basic point. The whole which is a richer whole that cannot be understood in the order of appearances; we call it higher dimension, a different order. So the appearances are certain order and we find the essence is not understood in the order of appearances, but appearances are understood as particular manifestations of the essence.
- A. Then the essence may also dissolve into new kind of appearances.
- B. But then there is another order. I am saying the Cartesian order was taken by science to be the essential one, but that is beginning to dissolve. I say, it is a particular case of the implicate order. Then, the implicate order may dissolve into something else. It will still be there, but it will be there as a non independent form, as an abstraction. That is sort of a general view of order, a general view of anything you want to talk about. But order has to be in there, and there is always a subjective element, we have chosen to abstract this order and not another one, but if it is an appearance that is correct, it works coherently and so on, then it is more than subjective as well. In some way there must be something in reality, otherwise it would not fit, but that does not mean that the order which we picture is just there.
- A. So there is no element of the absolute in what you write, even though sometimes it may be understood like that.
- B. Yes. We may even say that this whole scheme is a proposal which have to be superseded, but we say, we are going to use it until we find that it has to be superseded. In other words, that is the proposal, it works coherently. Until we find its limits, we are going to use it. It is a general approach which is suggested.
- A. I have been thinking about a connection between the notion of order and that of active information. Similarities and differences in the context of a sequential order seem to play a similar role to that of active information in the context of generative orders. For example, a few first similar differences may determine a whole sequential order, and in the case of generative orders, active information, like DNA, determines the order of an organism. Then, however, active information is in itself an order, an implicate order.
- B. The active information is a potential order. It is an order in itself, but it is potential of another order if energy is available from a broader context. It is the same idea if you take DNA of a seed. The energy comes from environment, from water, air, sun, soil,

minerals, it comes from all over. It all happens to gather together at that point where DNA starts to produce a new order. That energy has the potential for infinity of orders.

- A. The energy in DNA or in environment?
- B. In the environment, in the whole world. We have to say, life is not in DNA alone any more than order is in the mind alone. It is all over. DNA has ability to liberate this potential, to realize certain potential. The environment is potentially everything, it can be life, it can be all sorts of things.
- A. That depends also on DNA being, as it were, able to cooperate with environment.
- B. Yes, DNA has an order which coheres with the order of an environment, so things grow. Over evolutionary period you tend to get mostly DNA which produces survival, though there are some defects, it is never perfect. The point is, it is the same in thought. Thought is in a generative order. In some sense it has produced all that we see here. Thought formed most of the environment we live in, and had all sort of effects on the whole planet, on people, etc... So thought is basically the generative order of our society, of our culture. A new order has arisen which is not a biological order. It is based on the biological order, but it is not a biological order. First, you have the order of inanimate matter, then - biological order, now - you have thought, also society and culture, which is a new kind of order. This latter order is constantly generated from the activity of human beings, and especially from their thought.
- A. In this generation it is not only thought that participates, matter also cooperates.
- B. But thought is like DNA, and environment cooperates with DNA to produce a plant. It is a mutual participation. The plant grows not just from DNA, it is the whole planet coming together to produce this plant, even sun. It is all participating. Then there are similar differences among species, and so on, which is a kind of order. Also evolution is through series of similar differences. There may be a tendency for some people to think that evolution is solely random, but it might be not. There may be certain differences which tend to follow in evolution. One mutation may tend to follow another which is similar but different, so that evolutionary process is not so random as they think it is. That might explain rapid periods of evolution. At present most of the mutations are random. When the species is stable there is a very slow rate of mutation which is random. If it were not random, it would change species. No stable species could exist unless mutations were fairly random. But that does not mean that there is not potential capacity for an order of mutation.
- A. Some people say that thought disrupted the order of evolution.
- B. I think, civilization has disrupted the order of evolution. There might have been a slow evolution toward a more developed intelligent beings, but civilization disrupted it because it does not really focus on intelligence. It focuses on techniques to get results. It is a rather low order of intelligence. The ability to handle materials... They say, the man with opposite forefinger was crucial for human beings. It is true, but it does not mean that it is the essence of intelligence. It helped to shape the direction, but the ability to keep thought in order, and to organize society in a really coherent way requires a higher kind of intelligence than that required to organize the material systems and technology. We have developed this latter ability very fast and we detached ourselves from that other ability - how to organize society, in that thought really failed. Giving attention to technology might have diverted attention from the higher order of intelligence.

- A. It seems that it was impossible to avoid that, unless from the very beginning people were very intelligent.
- B. Yes, if they were intelligent enough they could avoid it, but you have to say that it was not very likely. You could never say what all the potential were. But by choosing this ability (i.e., technology, etc.) they got rid of all the others.
- A. It seems that now, many people begin to look in different direction.
- B. Yes, if it is possible, if there is time, the thing may change radically. If it all changed so very fast, it may change again.
- A. I think that we need a very broad attention for this change to be realized. But apparently, for thousands of years human beings were concentrating on what is necessary in some narrow areas of immediate material survival.
- B. Yes, but it is not a very firm thing which holds attention, it is only thought of what is necessary. If you have a very fixed disposition of thought of necessity, it seems very firm but it is not. The thought of necessity means, you cannot change. I think that the trouble arises, we don't handle thought properly. There are several fundamental mistakes which thought has about itself and which are the cause of the trouble. One of them is that thought claims to be a purely mental process. Even though we know better now, people still think that way.
- A. Does this assumption mean that we do not pay attention to thought?
- B. Yes, that is right. They say, thought is purely mental process, spiritual. But I say, thought is basically a material process, an extension of the body. It is in some sense wrong to say that mind thinks. I would say, it is the body that engages in thought. Thinking is an extension of the process of the body. This is very crucial, because if you go back to the animal level you have so called "pleasure-pain principle". In the body there is the tendency - it is the same tendency as similar differences - if you move toward something that is more pleasant, the next movement is a similar difference and so on. That is the way the body works. And in fact, that is correct on that level. Evolutionary and statistically it leads to survival. Now, in thought it does not work, because thought can produce pleasure from memory and it can distort the whole thing. It then creates an impulse to think some more. Now, what Krishnamurti said was very crucial here. Thought is the movement, he said it very often. We do not really see why he was saying that so strongly. You see, the body engages in movement in which we have an intention, an impulse to act, and we produce results. We ordinarily have proprioception of that movement, in the sense that we are aware of it as it happens.
- A. And there is no proprioception in thought.
- B. Apparently not, but I say there is the capacity because thought is of the same nature, therefore there is no reason intrinsically why it should not be capable of it. Let us try to look at it. I like this example, a child who got used to move toward bright objects - which gives pleasure and becomes eventually a reflex from memory. Then he moves toward the fire and burns himself. So the next time he starts to move toward the fire, but then he is held back because of pain. You have a suspension of the impulse, and then the impulse turns back inward to search the memory for solution to this. He wants the fire but does not want the pain. So memory provides the solution that it was pleasant up to a point but to move further was unpleasant. Then comes action again. So thought reflects back in, and eventually, action comes out, which is tested again.

- A. So all that is the movement of thought.
- B. Yes, but also - of the body. The movement of thought is nothing but the extension, prolongation, of the movement of the body.
- A. Once you gave an example of a paralyzed man who was teaching movement. Was the crucial point of the example the fact that the man was very aware of how movement begins, or what is that which initiates movement?
- B. That is right. The impulse. He was very aware of the impulse. If a man wants to play the piano, he cannot play because he has to move his fingers independently, and he is not set up for that. He says, "I want to play the piano but it does not play". It is incoherence. So then, he keeps on being aware. In practice, what he really has to be doing is to become aware of the connection between the impulse to play and what is happening with his hands touching the piano. If he finds a slight improvement then his brain almost automatically moves by similar differences. So he learns skill to move the way he wants to move.
- A. Is this impulse to move the thing that is possible to observe in the body?
- B. Yes, it is proprioception. The body is proprioceptive. When the man plays the piano he has a kind of proprioception which automatically moves by similar differences to get better. I say, thought fundamentally should be of that nature too, because it is the same movement. In fact, if you are not aware of it, it becomes very dangerous. The fact is that thought is a physical movement. If you are not aware of your physical movement, you are not very viable. What happens is that thought operates on the animal level based on the pleasure-pain principle (toward pleasure and away from pain) by similar differences. So when thought moves then it does the same thing as we do with the body. On animal level with simple things it is still all right. But as it gets more subtle, this mistake becomes more serious because you now produce a result and you don't know that you have produced it, and therefore you begin to fight that result. You try to get more pleasure. The movement is: "I have got pain so I must move away from that toward pleasure". That is the automatic movement. I find differences, I get an idea of something nice, and I move by similar differences toward that more and more.
- A. And this process is building up by itself.
- B. Yes, that is the order of thought. The order of thought goes wrong. The order of similar differences of pleasure is not really very good for thought. It may be all right for your body, but it might be limited, because then if you want some skills you have to go beyond that.
- A. Perception of similarities and differences does not seem to be very useful here.
- B. Well, we do not try to do anything. The important point is that the next mistake thought makes is that it tries to do something about it. This is the consequence of the previous mistake which is that there is something there which is independent of thought and about which it makes sense to do something. You see, there is a series of mistakes, and mistakes entrain each other, they entangle with each other, one mistake leads to another, then another... so to correct one is of no use. In this net every move that you make entraps you further.
- A. On the other hand, it does not mean that there is nothing to do.
- B. Yes, but the first thing to note is that the movement of thought entraps you. We have seen that.

- A. But still the problem is how to distinguish perception and thought.
- B. But you are still making the same mistake, how to do it. Thought is not able to do it. Thought is a movement. It may clarify the issue and so on... but we have to realize - thought by itself is not going to do it. We do not know what will do it, but thought will not do it. Therefore its every movement is ultimately useless, or even worse than useless. If thought sees this, then thought will stop moving. If it does not see this then we say "Why does it not stop moving, why is it so irrational"?
- A. Is it thought that is seeing it? It is a puzzling way of putting it.
- B. Well, but thought is also more than thought. The word "thought" is an abstraction. Thought is this whole tacit process, a part of the unlimited. So you cannot say thought is just thought, however you define it.
- A. Yes, because then one may say "All my thought is useless, I cannot use thought any more".
- B. Yes, that is another thought. And that becomes the conflict - one thought against another. You have to go through all that. The point is, is there something creative, something new, which can take place, another order? Let us try to get deeper into the order of thought. We said the order of thought is a part of the order of body movement. One of the basic mistakes is that thought seems do not know it. If thought were able to know it, it may act a little more differently. The next point is, Freud called attention to the pleasure-pain principle in children, and then he goes into society which gives him the reality principle: "You must act according to reality". One of the most important points about reality is necessity. A child have to learn that there is necessity, he cannot have his way all the time.
- A. The pleasure principle seems to involve necessity as well.
- B. Yes, but let us go into that. Freud now says... He hopes he will replace pleasure principle with reality principle. In fact, many people have hoped that, saying, "We will then behave rationally". But ultimately, this will not work because two things; one thing is that the pleasure principle takes hold even of the reality principle, thought of the reality principle, and begins to distort it, and the other is, that the thought of necessity enters into the pleasure principle and pleasure becomes absolutely necessary. The pleasure principle becomes intensified by the necessity in the reality principle...
- A. Pleasure principle becomes...
- B. Stronger, bringing in the thought of necessity which comes from the reality principle: "I must have pleasure, cannot stand it otherwise" or "I cannot stand pain". If you use reality principle correctly, it is all right, but then reality principle get distorted by applying reality principle to this pleasure. It does not see that it comes from thought, it treats it as an independent reality. So the reality principle says: "It is all real, all that pleasure is real and necessary, and all that pain - we have to get rid of it", and so on. But at the same time, because of the lack of proprioception, it does not see that it is producing the whole thing. But even then, it defends the lack of proprioception because the ego is build up of such thoughts, and prioprioception would now seem to be the threat to the ego. It builds up a series of entrained mistakes, one mistake entrains another, another, etc.. They are all tangled up. Therefore we have to say, there is a third principle which is the principle of meaning - which is that this meaning has to be coherent. We need a coherent meaning before we can rise the question of reality and truth properly. Because without coherent meaning we will be completely deceived about what is real.

- A. So you are introducing the principle of necessity of coherence.
- B. Yes, even before you rise the question of truth and its content. Therefore why we have dialogue. You may watch it as well by yourself - to watch the whole meaning. The point is, the level of the reality principle which Freud talks about, is also the end and the means, projecting the end and trying to reach it by some means, which takes time. That will not work with meaning. You cannot project coherence of meaning as an end and take time to reach it. That is why this dialogue has to be without any purpose.
- A. I was thinking about dialogue and necessity. It is connected with suspension of personal necessities. Suppose that we have in a dialogue situation two very strong opinions - two absolute necessities, and suppose that people are able to listen to each other to such a degree that these two necessities become part of their own thought, their own consciousness.
- B. Yes, then there is a very big stress.
- A. This seems to be an important point because if we say that then mind goes into pieces, there is no point of having dialogue. So it seems that somewhat we expect that ultimately our mind is able to do something coherent about this contradiction.
- B. To stay with contradiction. The constant tendency of the physical basis of thought, the pleasure principle, is to release it by false means.
- A. Or to choose only one side.
- B. But this is also a release. It releases it in one way or another, or tries to suppress it, or to turn attention away.
- A. If that would be the only activity of the mind, then there is no point in the whole thing.
- B. You have to stay with that. The same holds with the individual in conflict. But then the next point would be - we have two absolute necessities - there is the question "Are they necessary?" When we raise the question we begin to move a little out of the thought process, we create that opportunity for thought. Many questions are actually not questions at all. They assume what should be questioned, so they are bad questions. But suppose you rise a really proper question, you raise the question "Is it necessary?"
- A. You mean, both of them.
- B. Both of them, yes. This whole movement of thought may stop in its track for a second. The one of the functions of the question is - when it is a serious one - it stops this movement of thought.
- A. So if there is anything beyond thought it may operate.
- B. We are proposing that there is something beyond thought that is to be awoken - at least - but mind is so full of that stuff that it does not happen. The point now is... Suppose we now say, the question momentarily stops or suspends the movement of thought. Of course, thought comes back if nothing more happens. Usually the question calls for an answer, but we are facing the question which has no answer, it cannot have any answer in the known.
- A. If both are absolutely necessary then there is no answer in the known.
- B. Yes, that is right. Then it leads us to the question "Is that necessary?" If you say that it is necessary - then the whole thing has no meaning. But then, something new may happen - a creative perception of a new meaning of necessity, like in an artistic perception, in an order of necessity.

- A. Let us say that there is this perception of a new meaning, would it have its own necessity?
- B. Yes, but it might be a coherent necessity. We have to have some necessity. The artist cannot make fortuitous splashes of paint, there must be an inner necessity. That is the freedom, to create these new orders of necessity, to perceive them.
- A. It seems that each order has some order of necessity, including the order of thought.
- B. The order of thought has been made necessary. It has no intrinsic necessity. It began simply as the extension of the physical order of the body into another level, but then disorganized itself with the thought of its necessity. The thought of its necessity made it necessary, it always does.
- A. But it seems that the way out of it is again through another form of necessity.
- B. But you ask "Is it necessary?", and discover that if it is only thought it is not necessary.
- A. I am considering the very act of asking this question, it is not the question which is asked from the past. What is asking or what is the intention of this question?
- B. There is no intention. It depends on how you do it. If you do it in the middle of the conflict, it is just simply natural at some stage to ask it, "Is it necessary?", as part of the process. You have intention to understand conflict, or get out of it, or whatever. You see that the conflict is useless, that it has no resolution in that framework. The movement of thought cannot solve it, so it seems natural if you come that far to ask: "Is it necessary?" If it is necessary and you cannot solve it, you are stuck forever.
- A. Put in this way, it seems that there is some hope for changing order of the mind. Such situations of conflict are not difficult to come by in the context of dialogue or within oneself.
- B. Yes, it is depending on the energy that you can bring to it, then something may happen. The word "passion" means that the thought process is passive. It is the same idea that the movement of thought has to stop, really. The paradox is, the word "passion" usually means something very energetic, and yet its root is "passive". The answer, I think, is this - passion depends on the passiveness of the past, of the memory, of thought, so that true action takes place. That is the same thing - the movement of thought stops. The movement of thought is not passion, it may have some kind of passion behind it, but in that case it would be different. I mean, the ordinary movement of thought.
- A. Krishnamurti used to say, "Passion is the ending of sorrow".
- B. It is the same idea, because the ending of the movement of thought which underlies sorrow. The movement of thought inevitably brings about sorrow if there is no proprioception.
- A. Krishnamurti was saying that all people are basically similar, but you emphasize that in a dialogue it is good that there is enough people - so that differences show themselves. These differences are not very deep. Are they needed in order to arrive to those different "absolute necessities"?
- B. Yes, to bring up the conflict, to show up. Otherwise you can easily engage in self-deception and say "There is no conflict, my mind is perfectly ordered and calm. I have no problems". It is very easy for the mind, by similar differences, to come to a more pleasant state.
- A. So these differences are needed in order to see that there are contradictions.

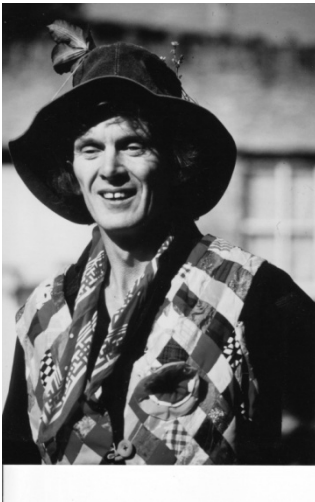
- B. They only help, I do not say that they are absolutely necessary, but that they may be helpful. Avoiding them is certainly wrong. What happens is that usually people avoid them by all these similar differences leading to a more pleasing state.
- A. Some people coming for the first time to a dialogue say that there is a tacit assumption there: "Never touch things that are disturbing", which apparently is quite opposite to what you are saying.
- B. That is the whole culture to avoid it. The culture leads to that thought, which leads to that sort of similar differences. When you move to something disturbing you start movement away, and the movement away is carried forward by similar differences until it seems to go of that.

Bohm, D.: *Wholeness and the Implicate Order*
 ----- *Thought as a System*
 Bohm, D. & Hiley B. *The Undivided Universe*
 Bohm D. & Krishnamurti, J.: *The Ending of Time*

MORRIS DANCING

Anthony Blake

This is taken from an article written in 1975. It reflects J. G. Bennett's wide embrace of techniques and practices, Sherborne House being the place where he created and ran the International Academy for Continuous Education until his death in 1974. Many were surprised that he fostered this traditional dancing as well as Gurdjieff's movements. As I imply in the article, Morris dancing may stem from the spirit culture of ancient Britain.



It is now the third year of Morris dancing at Sherborne House. Early in 1973, during the Second Course, we obtained the services of a superb teacher, Mr .Alexander Hamilton, who taught us Morris dances once performed in Sherborne village. These dances were all taken down from one old man, George Simpson, who was found living in Berkshire. Dancing in Sherborne had stopped by about 1880 and Simpson was not interviewed until some thirty years later. Many of the dances are still unpublished and can only be found in manuscript form. An enthusiastic group of men and women students formed to work on the published dances; the women following a traditional role of sewing costumes and helping the men. We were lucky enough to come across a lady in the village who remembered helping her father to dress for the Morris. Sherborne, like all the Cotswold villages with their own tradition of dances, had its distinctive outfit: a billy-cock hat with blue

and yellow ribbons; a single red sash tied with rosettes at the shoulder, waist, chest, back; and red and white handkerchiefs.

The Morris Men were escorted by a cake and sword bearer and danced on in single file, forming a circle, before going into place; and they "made obedience" to the audience by

bowing slightly and "pulling the forelock". Their great pride was in the "gallery" step: while hopping on one foot the other describes two circles in the air, the thigh being horizontal.

The Academy's newly formed Morris team performed at the Summer Fete and in local villages. With the fresh students of the Third Course, the process was repeated. This time, the Sherborne Morris Men were invited to join the Gloucestershire Morris Men's performances on Tuesdays in the towns and villages of the county of Gloucestershire and we presented our special Sherborne dances to hundreds of people.

The Sherborne dances are unique in their precision and energy. It used to be said in the old days that Sherborne was a "desperate Morris place".

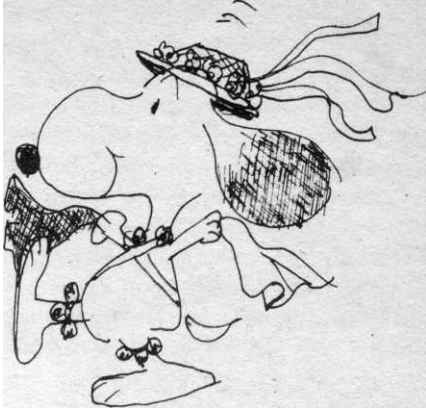
What follows is an attempt to put together ideas, experience and information to give some picture of the inner content of these remarkable dances and their origins.

The sources drawn upon are too numerous to mention; but I must single out the material provided by Alexander Hamilton, which goes much further than nearly all of the published and widely read accounts. It is largely due to him that I have been able to refer to the probable pre-Celtic sources of the Morris. Opinions presented here are solely those of the author.



Morris dancing in Sherborne at Bennett's Academy c. 1974. George Bennett is on the left, John Mason on the right. The author is middle right facing Henri Bortoft middle left, who had the role of Fool (carrying a 'pig's bladder'). Sadly, Henri died early this year.

THE STRANGE WORLD OF THE MORRIS



'To dance is to live, to live is to dance'

Snoopy

When you see Morris Men for the first time, it is all rather strange. Dressed in white, they prance on dressed to exaggeration with rosettes, sashes; their hats festooned with wild flowers and adorned with ribbons. They make music as they dance, from the pad of bells strapped just below their knees, and their gestures are emphasised by the fluttering of handkerchiefs. A clown-like figure leaps around waving an inflated pig's bladder on the end of a stick, which he

every now and then uses to belabour a flagging or incompetent dancer. The foreman of the group shouts jokes at the crowd, chats with his men, lines them in one or two groups of six and announces a dance. And they are off!

Lightly, all the time on the ball of the foot, they step and hop in time to the music. They weave in and out of each other; they change places; they bow to each other or sing; and at the end a yell goes up. Immediately, the formation breaks apart to reassemble for the next dance. Then another strange figure appears. An artificial horse's head complete with operable jaws, clothed in a skirt, is danced on by another man. The horse joins in with the dancers or engages in mock combat with the fool.

Looking at the audience, you see that some of them have "caught" something: they are smiling and there is a light in their eyes; they are one with the dancers. Young women look at the dancers in "a certain way". The children are excited, but somewhat awed by the energy and strength of the dancing. Just at this time, the foreman who leads the dancing and calls the tune, offers the crowd a piece of "the luck of the Morris" if they will put a coin or two in the basket now visible between the teeth of the horse. On special days, a cake, impaled on a sword, will be cut and given to donors in the audience.

Dancers when resting, pour quantities of beer into themselves. Maybe this is not only because it is thirsty work. The foreman will do a solo dance combining steps in complicated patterns, light as a bird; but in such a way that you are aware of his masculine strength.

WHAT HAPPENED?

When the dancers dance away, finally in a chain led by the foreman, you still feel spellbound. What has happened? Is it just the shock of seeing some archaic event perpetuated in modern times? For many of the audience, the dance has "worked". But, then, how has it worked? What was its function and aim, and do these have any relevance to the needs of people and communities today?

The dances are not easy. They require physical fitness and agility and an intensive training is involved. In this, the Morris dances differ greatly from the traditional country dances which can be — and were intended to be — picked up in a very little time and done by people of all ages without strain.

Traditionally, only men perform the Morris. The men manifest while the women work behind the scenes preparing the costumes, serving the beer and so on. In this century,

however, there has emerged a special form of the Morris done entirely by women, which is called the "fluffy Morris" . This is very popular in the North of England and has a variation in the USA in the antics of the "Pom-pom" girls who put on a display before the start and at half time at football games.

Behind all these vicissitudes there lies a very ancient tradition and it is probable that the dance was originally performed by a college of priests - such as was well known in Celtic times - to which the apparel of white stands testimony. The special nature of these dances is highlighted further by the evidence that initially the dancers themselves were hidden or disguised by the blackening of their faces, a practice that diminished to using a symbolic black spot, and then entirely disappeared. As always, there is an exception to the general rule: in Lancashire, the "Royal Britannia Coconut Dancers" still maintain their blackened or "blackamoor" faces. What is actually known about the origin of Morris dancing is very little — that is, known in terms of the written record of history. This dancing lived and evolved amongst the people of the countryside, not those of the town. For the greater part of European history, the doings of peasants and rustics were despised by the literate, even though they drew on their vital creativity. The history we learn at school is that of the ruling class, the establishment and the self-appointed guardians of culture .The modern practice of recording absolutely everything is very recent. Reliance on a written record would have made no sense to people who were used to knowing and learning by experience and demonstration. Cecil Sharp, the great English pioneer of the folk-culture revival, had to create a whole new notation to record those dances he saw. Without his precise and careful recording — work he began in 1899 — nearly all would have been lost.*

The Morris had rapidly declined in the nineteenth century. The feeling of what lay behind it all was largely lost and people looked on it as a form of begging rather than as a powerful remnant of a sacred ritual. It was no longer respectable.

MORRIS LIVES!

Of all the myriad of village traditions, only those of Chipping Campden in Gloucestershire, Adington, Berkshire, Headington and Bamton in Oxfordshire, continued unbroken . The first World War came, and hardly any Morris dancing remained active. But with the folk revival in England, which involved such great composers as Vaughan Williams and Gustav Hoist, the search was on for the music, the song and the dance of the true people of England; the extraordinary-ordinary people who created wonderful things anonymously in the village as part of the living tradition which made their lives meaningful. Cecil Sharp's work was brought to life (strangely enough, first of all in the East End of London through a group of adolescent working class girls) and the Morris began to live again. Now, almost a hundred — taking into account even small variations — dances are known and practiced; though at one time, there may have been a thousand!

If we go back 400 years, references to the Morris are sparse. There are references in Shakespeare, in Henry V, where the Dauphin mocks the prancing of the English Morris and dismisses the English as a rabble of fools .Interestingly enough what the Dauphin describes indicates the use of ceremonies involving the Morris which were, at the very least, ways of reducing social tension such as are to be found in all traditional societies. An unemployed actor, Thomas Kemp, morrised his way from London to Norwich in a publicity stunt and got a book written about himself and his exploits.

In meagre references like these, it is pretty clear that everybody at that time knew about the Morris; even though the townsfolk would have been hard put to say anything definite about it. It was taken for granted; so much a part of rural life, that nobody bothered to see it for what it was. But there was a very important reciprocal exchange between the court and the villages: nearly all of the dances of the court in some way drew on those practised in the country.



What the court did was to refine them, standardise them and introduce all kinds of mannerisms corresponding to the fashions of the time. This gave a new stimulus to the stream of dancing of the folk . The Elizabethan galliard, a quick and lively dance, probably gave rise to the term of gallery (the name of a foot movement which happens to be peculiar to the Sherborne Morris) . So, out of the life of the villages, were abstracted the dances of the court; which in their turn were absorbed into the stream of country dancing . Each imitated the other.

The record before the Elizabethan age is almost non-existent. Everyone is agreed, however, that the phenomenon of Morris dancing is very probably a relic of ceremonies that reach back long before the birth of Christ, The Morris is a religious dance concerned with energies. It is something of a miracle that it survived until modern times, especially when we realise how effective the Church was in eradicating nearly all traces of earlier beliefs — recent authorities speak of the "lost gods of England". But, as General Booth used

to say, "Why should the devil have all the good tunes?" The Church adopted many of the existing practices of people, modifying them to fit the Christian model. Almost certainly, the Morris was severely retailored. What was once a ceremony to do with the new year and the solstices, a fertility magic, became an adjunct to the festivals of the Church. Thus, the dancers begin training just after Easter and first perform on Whit Monday.

If we go back to our original scene of the gay dancers in white, we might wonder about the place of the fool and of the horse. Why does there have to be a fool, and why a horse?

People who have studied traditional dancing and ceremonies in the historical perspective are very sure that the horse is the sole relic of possibly a whole pantheon of animal gods and a very domesticated one at that . In Europe, and possibly throughout the regions of the people of Indo-European culture, first the reindeer and later the horse were experienced as major spirit powers, or rather, as manifestations of those powers. When men communicate with them, the spirit of the animal enters into them and they dance. Until very recent times, there existed in Rumania dancers known as the "calusari", a word derived from "calus" which means "little horse" . The men at certain times prance and leap like wild young horses. There are relics of horse sacrifice even into historical times. It has been suggested that when the horse became domesticated and made an integral part of agricultural communities, the eating of its flesh became taboo. This taboo still has effect in

England and in the USA where the eating of horse-flesh is looked upon with repulsion. The sacrifice of the horse as a ritual of fertility harkens back to the days in which the horse spirit was used as a medium of communication with the Earth Mother. The use of intermediaries was pretty universal, and of course in time the intermediary became an end in itself.

It was probably the Celts originating around the Caspian Sea who brought the cult of the horse into Northern Europe and England. They were in close contact with the Scythians, who were the people of the horse of ancient times. It was the Celts who left behind the great images of the horse carved in the downs of southern England, to correspond with the White Goddess herself who, it was hoped, would smile on them.

In Herefordshire the ceremony of "Crying the Mare" continued until quite recent times. The last sheaf of corn in the field at harvest was tied into the shape of a mare and cut by men hurling sickles from a distance. This relates the horse directly to the corn-spirit. But England abounds with relics of the rituals of the horse in a variety of forms: the "hodening horse", the "obby oss" and so on. In Wales there was the ceremony of "Mari Lwyd" (which probably meant "Grey Mare") in which a horse's head was worn by a member of a wassailing party visiting houses for alms at Christmas time. The "obby oss" of Padstow still suffers its death and resurrection in the May Day ceremony.

It must be recognised that the ceremonies to do with animal-spirits were probably totemistic, that is, having to do with the essential origins of the community. This includes what is crudely called "ancestor worship". In practice this meant re-leasing energies through sacrifice and dancing to vitalise the spirits of the dead; these could then give guidance through their relatively untrammelled perception and also intercede with the spirits of vegetation. Dancing that energises the ground sometimes literally feels like an "awakening of the dead".



The use of the animal spirit has been in evidence since Palaeolithic times, as witnessed by the remarkable paintings from *Les Trois Freres* at Ariege. These depict men wearing animal masks and costumes in dance-like poses. The continuity of such practices for more than ten thousand years enables us to understand the intentions behind them far better than any amount of speculative examination of conflicting theories of ancestor-worship, vegetative-worship, mother-goddesses and the like.

The action of the dancing gods is a way of revitalising and recreating experience in the essence world. It is no wonder that at times it is strongly sexual. To understand this, it is first of all necessary to grasp that in the authentic experience there is a unity of animal-man-god. The god itself has no physical body, and needs a body in order to manifest, to dance. The real physical body of man belongs to the essence world and is awakened by the dance, but takes its forms of manifestation from the patterns of movement and

experience long established in the life of the earth. These patterns are within our physical bodies, though the "memory" may have to be activated by imitation and training. These patterns are the animals.

Recently, the "capeioreros" of Brazil performed in Europe and one was able to see a clear demonstration of the dance of the animal-man-god. In the voodoo type ceremony involved, the dancers are "possessed" by gods. After being possessed, they go to the side and put on costumes corresponding to the character of the god, and they dance. One will dance like a horse, another like a member of the cat family, and so on . The dancers of this tradition have a wonderful saying, "We are God's horses", meaning that the higher powers can only operate in this world through men. Such dances evidently contain a real and profound insight into man's role in the different worlds: of bodies, energies and the spiritual world.

*It is important to recognise that there were no precisely set dances. They could vary within a village and from man to man. Cecil Sharp understood this but younger more rigidly minded researchers insisted on finding the 'true' versions and denigrated Sharp's remarkable pioneering work.

MULTI-VALUE AND IDENTITY TRANSPARENCY

William (Larry) Pensinger and Anthony Blake - Santa Fe, 1994



*Transcribed by George Blake
and edited by Anthony Blake
and William (Larry) Pensinger*

A: We are going to be making an exploration of some of your ideas of multi value and identity transparency. It would be interesting to have some way of experimentation of a modest kind which would indicate to people what it is about by using conversation as a means of displaying some of the properties of multi-value.

So you if don't mind if I rabbit on for a little bit -

L: Sure sure.

A: - about the context of this experiment we are going to try together. I want to look at what I think you call the different logics, or as I know it different number term systems, where one talks about the qualitative properties of number, as something that you can set up,

operative with, observe and see what happens. I have taken this medium, this realm of conversation, to try and see what we can do with conversation with one, two, three or four people. First, we have what I call monologue - I spell it 'mon A' to relate it to the nature of the monad - which is one person speaking. I know myself that the power of one person speaking is immense because it actually invokes incredible amounts of diverse presences in speech. And then you come to two people speaking which I call dyalogue, but again with different spelling 'd Y' - because the original spelling 'd I' which is dialogue Professor Bohm used to translate as 'dia' meaning 'through', and 'logos' - 'meaning' so dialogue means "going through meaning". It doesn't have to mean a chat between two people at all. It means 'proceeding through meaning', which is much more subtle and general. So when I spell it with a 'Y' I mean specifically 'between two people'. And I have looked at that and seen what's possible within sets of parameters which we will go into in a moment. And then go on to triologue, where we have three people, and tetralogue where we have four people, and that is about as far as I have gone. I'll just add that when people come together in tetralogue you get a very active kind of 'participación' - participation in the theme by the different people - because the theme can be seen from all sides as it were and the ensuing perceptions comingle and even reciprocate. So - that's the general preamble.

So when you get two people - I thought about this very naively - and, you know, deliberately naively - and what tend to do in ordinary conversation is either agree, disagree, or ignore.

L: Right.

A: So, I turn these three - agree, disagree and ignore - into three specifications. Though I use the idea of 'ignore' in a special way. One the agree is as is sometimes used in theatre in improvisation training. We get the agree, and we build in the response the attitude and the operation of the reply to the other person, treating it as 'yes *and*' but the 'and' means not simply bare agreement, it means an amplification of development of what the other person has said, a furtherance moving to another level if possible, so it is very challenging to keep this up. But it is interesting as an experiment because for most people the generic form of conversation - especially in the West where people are talking - takes the form of 'yes *but*'. That is, apparently agreeing but wanting to put your own thing in contrast to what they said.

So then we go to the second theme which is quite hard for a lot of people, that is kind of intentional, positive disagreement. That is to say that someone speaks to you and makes a proposition and I say 'no but' and look for the contrary view as best I can. Now that is very taxing as well, in the sense I may well not want to disagree with you. But do you find in that other, as you put it, in that other side of the mirror, you get crossing over and inversions of points of view.

And then the final one, where you speak, I speak and we speak like one continuing voice so it is neither agreeing nor disagreeing but the continuation of the discourse that becomes almost monadic.

L: Well this almost like capping in poetic duels in Vietnam, because especially the last one where you continue to talk alternating with one another. There are all sorts of conventions of Tang style poetry that have to do with parallelism and inversion and tonal sequences and the poetic duel will involve talking back and forth like that where it was incumbent upon both parties to continue the thought but in opposites or parallels. To fulfil all the very complex roles of a tang style poem over time apparently it would degenerate because they

would have arrived at all sorts of conventional resolutions of their rhyming difficulties or the parallelisms -

A: - they would have a whole repertoire -

L: - They have a repertoire, right. Because it is almost like a simultaneous translator who has a repertoire of ways of translating stock phrases so that they can keep on top of a conversation so that it didn't represent the same kind of challenges as it did without that repertoire.

A: Eastern cultures have these subtleties in them, which have built up this corpus and in a way even without external pressures began to produce – how do you say it – a dampening effect on this raw creativity. You know in the west where we have no repertoire of forms as such, we do it clumsily. But we are nearer to the edge of uncertainty.

L: Right. Well, there was a continuum from the peasant woman in the marketplace and their poetic duelling in folk poetry, spontaneous responses to human interactions in bargaining or whatever all the way to this very sophisticated Tang-style capping poetic duels that were part of the Mandarin examinations. No-one knew who came up with the folk songs that were carried in group memory, and some fell aside, but others were retained because they were so good from one generation to the next. Yeah, in a sense 'yes and' is the necessary precursor to this kind of activity and it is not a binary logic because a 'yes and' is like the beginning of a three value logic.

A: It feels to me like it just hovers there.

L: It hovers right before being a full-blown three value logic. Just like the androgyny of yin and yang. And in a sense it hovers right near being a three value logic because the two terms can become one another, but it is not quite the same as a two value logic.

A: No it's not, and my personal understanding is that you can get a three value logic and what happens is that it begins to hover over a fourth, and this hovering accompanies the different kinds of logic because they are not like separate discrete levels as we might imagine quantum states. There is this, as soon as you enter into the mainstay of the three you begin to invoke the four necessarily. This is how Whitehead sees it. He said the many become one which then extends the order of what you began with, so you see you had the three that they become one which creates a fourth which brings you to a fourfold logic in that way. That was his description in *Process and Reality*.

L: Well it is interesting... I believe there is an infinite class of these orders and the they span from two poles – no A is not A, and A is absolutely not A - and in between these two polarities is an infinite hierarchy of logical value orders; and one draws right into the next because that whole span is a model of identity transparency, and the more orders you add on the more you approach 'A is absolutely not A' which is a statement of identity transparency.

A: You know that model of the infinite variety or orders between is so Goetheian of course. It is so extraordinary, the importance of his metaphor of light, you know that the combination of the light and the dark is colour, and this is far more fundamental than just the phenomenology of colour. You see in that notion that there should be something like, if you extend his ideas, different orders of colour. I was even thinking about it in a very trivial matter this morning looking at the colours of jams on the table and suddenly realising but of course these real colours we meet in the world can't be put in a spectrum. You know people will say they are mixtures of different parts of the spectrum put together but this is a phenomena in front of our eyes all the time in multi-value – look at the colour of the jam – you know it's resonating the different parts of the spectrum all at once and that makes the

quality of these extraordinary colours – crimson, scarlet, certain kinds of purple. Why is purple so valued in alchemy, the colour of royalty, of attainment, it is not accidental.

L: Well, it serves the whole issue of whether, if what you see as red is the same as the thing that I see as red. That issue arises also not just in regards to colour but also in regards to the basic parameters of visual space per se and I am sure that the variations of those parameters also affect colour perception. For instance Bloomberg back in the fifties in at Columbia University demonstrated in the lab experimentally that it is impossible to localise a point in visual space independent of learned psychological properties and that the visual space is not a Euclidean space, that it's a non-Euclidean metric space and also that it has a limiting velocity and a functional equivalent of Lorentz contraction so that what we learn in the process of coming of age through enculturation sets in motion certain psychological factors that alter the metric of the visual space. He gave the term *psychometric distance function* and so if you grow up in Japan your visual space is subtly different than if you grow up in America. And localisation of a point in that space is dependent on that distance function.

A: Yes. And what you are speaking about begins to resonate with my own experience, I have, throughout my life, had these moments of being totally disturbed with respect to my environment, that is the bare existence of rooms and walls, right angles, this kind of structure of the world which you take for granted at times becomes totally alien as if something is wrong. And so when Frank Lloyd Wright used to say right angles are non democratic I think he was feeling this sort of thing because the architecture we create is a reinforcement of this spatial prejudice – if you can call it that. It is so extraordinary in my personal experience – literally I would reach out and touch a wall and think 'this is not really there like that'.

L: Yeah. The whole, well, Frank Lloyd Wright was very much into the transparency of inner and outer in a lot of his use of glass and the small terrace was inspired by the traditional [drafting] of his house. And the terrace is connectivity between the garden and the interior – you know, whole walls can be taken down at will in the Japanese house. So this transparency between inner and outer is a meta-referential element of the design of the house garden relationship. And it is a comment on identity transparency.

A: I'm now reminded of this friend of mine Joseph Rael, a North American shaman. He tells a story about a very key experience in his life to do with a wall in a Kiva or sacred chamber where this wall which apparently one would assume is a separation between inner and outer, that very separation itself became a doorway, and he saw his grandfather go through the wall, into this landscape and bring back some herbs which he gave to Joseph. This story and vision is an extraordinary inversion of our usual state. But if we pay attention to any kind of interface- I'm just speculating now – any kind of interface - you pay attention to the interface and hold it there, then there is a transition of some kind, you actually create new forms – you have to.

L: Yeah, the interface is an invitation like the narrow terrace around Japanese houses, it's an invitation to the identity transparency because paradoxically the garden on the outside of the outside of the house is a model of the interior psychological state, and the interior of the house is a model of exterior social space . . .

A: That's extraordinary.

L: And the fact that walls can be put up in many different ways in the interior of the house and taken down as they are needed to modulate what is happening in the social realm is

similar in a certain extent to the way spaces are articulated in the garden through the use of stepping stones that channel the way you move through that space-time.

A: Yes I begin to see that there's an extraordinary inherent available almost all around us cosmological modelling which almost inevitably cultures involve in what they do, so if you could, now for the first time it begins to feel like you could go into the culture and see the buildings and you would know them, and their understanding. And now I would go on to what you were saying the other day where, which I thought was really beautiful, about how effectively our projection, our viewing, our thinking, about the great cosmos, the stars, the planets, the galaxies - now I need to call upon you to remind me – isn't it a sense that this is a smaller world than that which is on the inverse of that duality which we crudely call the inner world. Now we have a problem because this - you know in our current culture if you talk about inner world it is to my mind absolutely pathetic, you know it is to do with being a person, being happy, sad, high, low, which is so crude. But I wanted to talk more about this prospect which the man I am trying to interest you in Charlotte Bach also had to say: when people talk about the microcosm and the macrocosm, the microcosm is the other stars, planets and so on, and the macrocosm is the within. And I never heard that stated before except by him and you.

L: Well, you know, the whole question of inner and outer, it's a matter of the relative order of values and logic you employ. Once you are no longer referencing your perception or your cognitive processes from a binary logical framework, the issue of inner and outer isn't cleanly separable. And the more values that are stacked on the proposition, the less it is possible to maintain a distinction between those two things, so that in a certain way it re-enters itself like a Klein bottle and you lose orient-ability. So if you go out far out enough you are in, in if you go in far enough you are out, because the orient-ability isn't maintainable except under decreasing orders of logical value, so as you reduce the orders of logical value, and you produce opposites as you increase the orders of logical value you extinguish them. So it depends on how you reference yourself within the logical value hierarchy, what kinds of oppositions you are going to see or not see.

A: Yes, and the concept of opposition you were saying which we all take for granted and understand is itself a multi valued, has multi valued character because one when one faces opposition in one way it's almost like brotherhood and in another state it is like warfare or a complete antagonism and another time it is like a mathematical cut, a splitting apart. There are the many colours of opposition, and say you go from the kind of two tone system the dyad to the tetrad or four tone which is sometimes said as the combination of two opposites, the nature of opposition is constantly being transformed within the system itself.

L: That's right. And if you pick categories . . . it depends on partitioning. I mean, when you are talking about an infinite set of values to a logical proposition you can partition that set in an infinite number of ways, so in a sense any way you go about choosing those subsets is going to establish another infinite nest of infinities within it, right, so, so even, yeah, I mean, when you look at the fact that the number system that we work with, that 1 is 1 and only 1..

A: - and ever more shall be so -

L: Right, and 2 is 2 and 3 is 3, and 2 is not 3, those notions about the simple identity of the number, they all derive from the application of a two valued logic to the notion of number...

A: -That's right -

L: ..but if you start applying a three valued logic or a five valued logic or an m valued logic to consideration of the notion of number, you realise that self-identical numbers are not an absolute given, and so the holographic property of even the natural number system is a violation of our notion of absolute separateness. So when you start thinking about the implications of all that you realise that separateness and identity, or diversity and unity are totally relative notions and it's just the way you choose to partition things that gives rise to one or another of these philosophical perspectives.

A: Sometimes I feel that when you go up the number systems, go up the logics, you go up or extend in or progress or whatever dimension is, then the whole progression itself looks differently and it is very encouraging because it seems to me like – I was mentioning just now about colour as a metaphor – but also there is the sense which relates to quite worldwide traditions about almost *beings* becoming the numbers, because a being is more and more like a best representation of this kind of number, because it isn't a just say separability number or separate units in the number, it isn't a system as we get in engineering at all, and the best thing is there is almost a certain just quality so you get this feeling of 8 in cultures which is felt.

L: Eight-*ness*!

A: Eightness is felt! You go and you feel it, this is eightness, and if you say 'what is the eight?' you say 'I don't quite know what eight are but this is eightness'. And, so, as you go up you sort of merge – I think quite soon, around five or six or something – you begin to merge into a realm as if you actually have kind of spirits - and I am forced to use that sort of language – coming to meet you. Because you are not constructing them anymore.

L: Yes. Well, that obviously has a great deal to do with what animistic modes of apprehension are. And I personally believe that a state of identity transparency is not something that is inherent in a relationship between a this and a that, between the subject and the object. It is not that identity transparency breaks down the separation between subject and object in a one to one basis, it's always mediated by an identification with the whole, so in animistic connect the animist is identifying with the whole of nature, and in so doing there is an identity exchange between himself and a totem animal or another person or maybe it's mediated by a sacred textile that conveys them identity transparency.

A: Where you are inspired to give gifts.

L: So the gift is a signifier of the mutual recognition of the identity transparency which is mediated by the wholeness of the natural surroundings.

A: And this is so much reminds me of Keats' wonderful essay, I don't know if you ever read it, called *The Vale of Soul Making*– a wonderful essay where he gives this picture of why we go through this kind of life and existence, and during this he talks about his own nature as a poet and finds he has an identity problem all the time because he goes into the presence of people under different circumstances and he becomes as them. So for him he begins to see poetry as a signifier of this realisation and it changes its meaning very radically because then it is not an expression of Mr Keats about how wonderful he felt about this waterfall or a Grecian urn. No, it is something quite else, this is really great this is really important.

L: Yeah. Because, well, if, like, I suspect what happened with Keats was that if the enculturation process doesn't completely undermine your childhood capacity for multiple identity, which is a concomitant to identity transparency, then as you grow older and more and more pressure put on you by those around you and cultural injunctions, etc to establish a sense of absolute separateness, you move into a kind of hysteresis response,

and often times the child just collapses before all that pressure, but someone like Keats obviously didn't. And so maybe there was a period in his adolescent development or something where he went through a crisis where all the objects and persons around him were constantly imploding psychologically into his awareness, and in order to establish a sense of Keat-ness he had to be pushing away all the time. But possibly through practice he learned to accommodate himself to those states of generative empathy, or how ever one might designate them, and became comfortable with it, and once he becomes comfortable with it then he has a fluidity where he can experience that at the same time and cope with the enculturated demands to have a separate identity, in order to -

A: Yeah, I think this is really on the right lines. Keats himself died pretty young which may be due to his immune system breaking down living in Victorian England or the beginning of Victorian England. But what you've said made me feel that in a very positive sense you had in the writing of poetry and the romantic literature as we begin the 19th Century a very important phenomena which is now sneered at by people because of what they call a "pathetic fallacy", that is just identity transparency in fact. That is now taken to be a stigma of the Romantics. Keats might have undergone the making of poetry as the only way at the time of having adequate therapy to keep himself together in a creative way. These people were just doing this as an action to keep alive.

L: Right. Well, Cantor also, the mathematician who created transfinite set theory, had a lot of problems with seizures and things like that that at this point in time I would have a tendency to regard as autogenic, spontaneous and neural discharges that were probably triggered by these identity transparency states, because I look at enculturation as basically a resistance to these kind of states and if the brain has electrochemically recorded chronic resistances which are the effects of enculturated training – I mean how many times have you seen a child who is seven, eight years old, or maybe even younger who has a little friend that he has given a name to, and then he takes on the name of that friend and insists that he is that other person, and the parent takes this as a danger sign and applies one or another kind of injunction: you are not going to be able to have a dessert tonight if you don't stop calling yourself Johnny, you know that kind of thing. If these kinds of resistances become chronic it blocks the ability to sustain identity transparency. But later on, if through some meditative or contemplative method such as writing poetry or doing higher mathematics or some other sufficient -

A: Beautiful, yes

L: -methodology the person begins to overcome the effects of enculturation and the brain will begin to spontaneously unload this stuff and that spontaneous unloading is a discharge that can take a form very similar to a seizure; which is what Cantor experienced, and he said that he had, following these seizures, he had an incredible clarity of mind and illumination, of bright lights and many of his insights came at these periods. But this was a stigma, he was , he's been stigmatised from, you know, historically as well as by his contemporaries, as somehow not being quite healthy or whatever mentally, and so during the time his mathematics was regarded as the expression of a sick mind by certain categories of people. But in his definition of a transfinite, an uncountable transfinite set he gives a very explicit definition of identity transparency, how the whole and the part can be in a certain way identical, which is a holographic notion.

A: I want to pick up on something, you know, that facilities of a higher education of even a formal academic kind have an inherent danger in them to the state, and this is often reflected in the attitudes of people towards providing education to people, that you

shouldn't let them have access to this stuff, they shouldn't have music and poetry and mathematics - what good is it for? And it kind of has inherent in it a capacity of awakening some earlier state of mind which has become blocked or almost certainly eradicated in ordinary life so you actually, what happens – it's a very extraordinary picture here - where the true further education kind of reverses time and brings you back to an earlier state, a kind of *neoteny*. This emergence brings you more and more into emergent states and in contact with emergent states which is quite the contrast as how it appears, because it appears as though you are going to be inheriting this accumulated stuff which is all approved of, so there is a wonderful paradox in it.

L: Yeah, it is. Yeah, we're basically taught in most school environments to fill ourselves with things. That is what we go to school for, is to fill our heads with a lot of stuff that we can learn and we are never taught to empty our heads so that things can come from elsewhere, from what Mallarmé called the “anterior sky”. One is not taught to empty ourselves of a claim to- absolutely in so far -distinct self identity so that the collective knowing of the whole species or even larger components can register itself.

A: Oh God! I must say that I have now this science fiction kind of picture emerging of a kind of proper education as bringing oneself into a kind of conscious resonance with other minds, past present and future.

L: Mmm. Well, that is a multi-value state. You know, it is identity transparency or non-locality in time, or the two together. And that allowing yourself to be sufficiently empty of a claim to separateness, separate self-identity and self-sameness – I am only I, and you are only you, and never are we the same.

A: And we can only exchange little tokens with each other.

L: That's right. And so, the whole thing of, you know, of normal conversation or dialogue with an 'I' instead of a 'Y' is an information exchange process between separate self identities. But as you march up the logical value hierarchy, through the three to four to five to eight-ness, and beyond, it is no longer information exchange for us, it's like the conversation becomes the sacred cloth that is the conveyor of an already resident, not resonant, but resident identity transparency; and the conversation becomes the sacred weaving that signifies the recognition of that shared identity or that identity transparency that is not only right here in this physical space but is also over time because there is no identity transparency on a one to one basis which would mean separate things. It is only by both being identified with the whole you know spatial and temporal context and that thing is the anterior sky.

A: And so we're involved here in a kind of feeling, language feeling, a Heideggerean coming-to-presence, of bringing to presence of the Gods, and this kind of poetic metaphors he had, because there is some action, of enacting this, of bringing it to presence, I don't know what it is, to make it...transpire!

L: Right. *das* - being there - is not being here.

A: (laughter) Go on!

L: It's not being here, it's being in identity with the anterior sky in such a way that you allow its properties to make a registration. But if you fill yourself with what to think, which is the way we're taught, then you can't be such a blank state.

A: Ah. Now I'm getting more and more into this state where I am not concerned with what to think any more in talking with you, and the original feeling is I am trying to trace it is that gradually build this Klein bottle flowing that you and I are different elements of this bottle,

in other words it's, mmm, it is like my thought is entering into your speech, your thought is entering into my speech, and I don't know where anything is coming from. You know obviously I am remembering the books I have read on Keats, and things I have read about Frank Lloyd Wright, experiences I have had in Bristol when I was twenty-two and this kind of thing. It's still all there, the kind of itemised bits of data but there is this other action side by side with this. When you spoke in your book about remember about the contrast between the space of contention and the other space the hyperspace was it? I can't remember.

L: I am not sure exactly what you are referring to.

A: Well, it's about warfare.

L: Uhuh.

A: You know, there is another kind of simultaneity here, of simultaneously having all your faculties of ordinary ratiocination, data gathering, you know the usual reductionist abstractions which we are used to in the Western world, and having all of that completely functional side by side with this other, this wholeness, and then they in fact they don't have to vitiate each other at all.

L: Yeah, I mean, a lot of times it's um, well, the whole issue of time, eternity and hyperparis is illustrative of this because the normal way of thinking about an absence of time in an eternal now state is that there are no distinctions. It's just like a plenum, right?

A: That's right so-

L: So uh-

A: So you can go sort of like gaga or mindless

L: Right. So it's sort of like it's a blank by comparison to what temporal experience is like. But in fact I don't believe that that's the case at all and it's only because a two-valued logic cannot resolve anything in a non-temporal context like that, but there are all these other values that a proposition can have, that have their own form of distinctness's, but they are not resolvable from the perspective of the two-valued proposition, and so it just becomes a blank. There's no way to talk about it, there's no way to conceptualise it. It is by comparison to the source of distinctions that are based on oppositions that are the meat and potatoes of binary logic, this here is increasingly a blank slate, and it is not something that can be talked about. But if you have more values to the logic that you are engaged with in the form of comprehension of non-temporal awareness, then it isn't just an empty state. Um...

A: Now my mind is flooded with images of William Blake and his famous lines: "Hold Infinity in the palm of your hand/ And Eternity in an hour."

L: Yeah, his painting of the ghost of a flea, where he was able to obviously keep many many levels of comprehension and perception simultaneously going, he was functioning on many levels of logical value simultaneously and did that throughout his life.

A: And very important for him to be an inhabitant of London and all the streets he knew - which then became seemed to outsiders as just stimuli for dream states and visions and hallucinations - but this is a true multi-value: if you walk down the streets and encounter the prophets in those streets, they would be there all at once. And there's a sense you get people talking that way when you catch onto it, that one basic way they have of talking about it is rather like having different orders of events which are like space-time events, but also are simultaneous. So you get this in our culture a divorce between people who are

actually reading events which are actual, in a sense actual events, but they are in another place in eternity

L: Right. Well, there's a lot of confusion I think about this issue I think because we have the tendency to, well we can't think about time very well, we haven't learnt to think about time very well, and so we have a tendency to spatialise the whole thing and regard it as higher spatial dimensions. For instance, the Hilbert space that quantum physics is all built in is a multi-dimensional function space, so that every point in Hilbert space has n-spatial dimensions or degrees of freedom associated with it, but though that point might be 20 dimensional, you know, might take a 20 co-ordinate framework to designate that point, in Hilbert space is still logically single valued. There's a distinction between that physical dimension, that spatial dimension, and the order of value of the logic that is required to construct that reference frame. So if this sort of comprehension we're attempting to evoke were to be used in interpreting multiple valued relations in a quantum context, then in order for that to occur Hilbert space would have to be reconstructed from m-valued logical frameworks so that the point that has m-dimensions would also have m-logical values. Now what that would do in the construction of this Hilbert space would have to be reconstructed over and over again from each of these orders of logical value, and what that does is that each time you do it you create a shadow point for every point, and the shadow points are peppered over the whole space, or through the whole space, so every point that now is regarded as n-dimensional in Hilbert space would have x number of shadow selves peppered over or through the space, and so non-locality and non-simple identity would not be a bizarre occurrence in such a hyper-dense function space. Um.

A: This can map itself, relate itself very easily I feel to these experiences which say psychics report or sometimes ordinary people in their lives – you can certainly get this rush and you become inarticulate in front of it and suddenly you feel yourself like two thousand miles away in another place, and you even get this phenomena you know of people seeing the same person in several places at once which have been reported of Apollonius, this mystical figure in Greece who was supposed to have this property.

L: In order to understand this, because from the two valued perspective they violate their fallacies, I mean, no A is not A, and the case is either A or not A. Both of those laws of Aristotelian or Baconian logic formalised the notion of absolute separated-ness and simple identity. But those logical rules are not applicable you know even to the three valued logic, let alone a five valued logic, a twenty valued logic, an m-valued logic. So that there, if you start thinking about what is in this larger context of m-valued logic, what is the meaning of the notion of a fallacy for example, then you have to ask yourself well, perhaps there are something like invariants in this logical space, and that it has to do with the set properties of value arrays in this space. But there might be that what is a fallacy in one order of value is not a fallacy in another, and no-one as far as I know has ever begun to evaluate these kinds of issues.

A: I think it is a formidable task. Now, when you are talking about these frameworks, it comes to me this basic naïve puzzle that everyone has, but it's sometimes fun to pay attention to what is an obvious puzzle to everybody, because I am sitting in this chair, my mind is in my brain (perhaps), I'm sitting talking to you now, and it is in Santa Fe, we are in this room, it's Tuesday or Wednesday or whatever it is, and then my mind tells me well, you are going to go to another place and it will be another year, another time, and I am going to die and do all kinds of things, and there is a continuing puzzle which is *why amongst all of this am I actually here?*

L: Yeah, when you start thinking from these perspectives everything gets kind of inverted. I mean, death isn't a problem, it's how do I come to be that is the problem, right?

A: (laughter) Yes.

L: It's not what the meaning of death is, because coming into separateness is the total un-understandable thing, it's not the non-local thing that's the thing that's hard to understand, it's the other thing – how is it that the world could ever have had manifested itself in such a bizarre way as to allow separate self existence and locality, or how could finite numbers, self-identical finite numbers ever have come into existence?!-

A: -Existence! There's one pebble and there are two pebbles and there are three pebbles and that's the mystery. You know, in the Christian churches they felt this, you know, and there it is represented in terms - in theological terms - in terms of action from God and that key term is *kenosis* or privation. They say that God underwent kenosis to be to manifest on the Earth; in other words as God He couldn't manifest so He had to take away some of His attributes, and this then led to all these excruciating dilemmas of the early church about the nature of Christ which led to extreme violence and out of which came the doctrine of the Trinity. They have recognised somehow or other something that they have portrayed in divine terms but it is also our situation we are kenotic beings.

L: Yeah well, in a sense that is again looking at the whole thing in a two-valued perspective because the self forgetting of the Godhead is like a cascade or falling down the infinite hierarchy of multi-valued, um, stepladder so to speak. The orders of logical value from m-value to single value is the process of self forgetting, and it is like as you drop logical values out of the “multi-valued reference space”, separate self existence comes into being, or space-time experience comes into being; but it is a self forgetfulness because the multiple value arrays are becoming less and less and less dense. And as they become less and less dense, which is a constriction of consciousness, space-time experience more and more comes to be. But, in fact, the loss of the multiple-value arrays from this hyper-dense function space where – in Hilbert space or whatever you want to call it – where Hilbert space is constructed not only with a two-valued logic but it is over constructed with a three-valued logical, four-valued logic, and m-valued logic - this vacuum state which is a multi-valued reference space - when you drop values out of that space in order to generate separate existence you are just *forgetting* that they are there, but they are always there. It is just getting less and less and less dense, that space. So when you forget yourself into existence and change comes about. It is just the anterior sky and then this is a devoluted version of it, but they are not any different from one another; because everything that happens down here is always up here recorded because the only thing that is distinguished between the two is whether you remember it or not, the value that has been lost. So from the perspective of the multi-valued reference space nothing ever really changes, and from the perspective of the self-forgetting mirror image everything is nothing but changes, but in fact the two are identical to one another.

A: [This] raises so many things here. Why does Gurdjieff go on about self remembering? And the question when you go into it [there are some practices] has nothing to do with self in the ordinary sense whatsoever. It may be related to this disclosure, or minimisation of amnesia, a certain kind of thinning of amnesia which one is into. And there's other things too about how we're actually creating by using our hands a picture of a range, you know, between the single-valued and the total m-valued. For me this is like a, in quotation marks, “dimension” but the term dimension simply means ‘independent parameter’. Not a context

L: Right.

A: But this a true dimension, which I associate with eternity, this is the eternity dimension. Now this other Bennett thing of hyparxis you know is another operator still which has to do with the movements through the array, and is actually an added dynamic which alters the transitions between different vectors, sectors of the total sky is the dance.

L: Right.

A: And that has something somehow or other to do - what again is put into tradition as in Tibet – with that as is said say the good fortune to have a body. You know it is such a rare opportunity to understand; there certain things you can only do in this realm. But the action of being able to wake yourself up is such a crucial thing and this somehow or other has to do with that yet further consideration. Bennett played about with this ableness - what is it *to be*?

L: Yeah. Well, when we think about these kind of things we kind of do it from the wrong direction, it's kind of like time, eternity and hyparxis, but it is really not, it's hyparxis-eternity-time.

A: Yeah! Yes!

L: Eternity is not constructed out of time, and hyparxis is not constructed out of eternity. It is eternity as a second order temporal operator is a devolved operator from the third order operator, just as linear time is a devolved operator. It's a decomposing process. In other words, as in contemporary physical theory and computer mathematics, a recursive processes where you do something over and over and generate an emergent spectrum of activities of processes is composing rather than a decomposing, so it's rather Aristotelian as opposed to a Platonic notion. You can generate something by decomposition just as you can generate something by recursive processes. And with the decomposition you have the whole that self-limits, that's the way these operators are related to one another. The third order decomposes the second order, which decomposes the first order operator -

A: Absolutely. And I'd like to add in here a kind of picture or metaphor, which you know is bound to be flawed. As you were speaking my naïve emotional feeling about hyparxis was as some kind of primordial dance and out of this we say 'hang on let's see what we've got so far', and we make a kind of inventory and this is the eternity. You go on and say let's focus at one slice of this, and you get this special temporal realm, the realm of change unfolding. And so, what this is bringing into question now is a very weird question perhaps, but to me very very interesting because it has something to do with cultures and with people; it's that this what I might identify provisionally as eternity which is the range of multi-value, maybe it has so to speak, it really does have a thin and thick part to it. You imagine say on a planet like ours - this is just wild speculation - in which we exist, there is this tremendous whatever it is incredible action going on, but it is like if you took this eternity range there would be sort of blocks and gaps, so that here on this planet only some kinds of reality are possible. If you go to another planet it might be different. Similarly with cultures, so you feel in certain cultures, you get a sense that they've got a three-ness, they've got a three-valued logic in them, but for other people, the dominant kind of mode is fourfold. So part of the problem in our planet now is that -which you are addressing in terms of metaculture – is that even in terms of the immense years, thousands of years of experience which have accumulated and which are still vibrating, it's always only a partial aspect to the spectrum, and when cultures meet there can be really serious problems, because they are resonating at different parts of m-value.

L: Right. And also, part of the assumption of culture per se is that nature is self identical, and it is what it is, and therefore there is only one proper description of it. So every culture assumes that nature is self-identical, and that it's got the only proper description and thus so inherent is our conflicted situation. And you know they embodied this notion of a self identical nature in arts and artefacts and this becomes the bosom of the culture. So if, if that is, remains the case I see no way that cultural conflict can be overcome.

But in fact I do not believe that nature is self identical. Which means that it is a multi-valued process, which means that there are many descriptions of it that are accurate even though they contradict one another from the point of view of a two valued perspective. And so once you understand that nature is not self-identical then there are multiple contradictory accounts of it that are equally valid, and this becomes a basis for the unity in diversity of cultures, because it takes you to another level where you can begin to imagine a metaculture which is based upon an understanding of the rules of world view propoundment rather than on any particular world view propoundment.

A: Right. It's like getting more hyparchical in your approach.

L: That's right. So in order to really embody something like that, in metacultural artefacts so to speak, the artist who created such an artefact – it might be a collectively created artefact – would have to be comprehending reality from an m-valued perspective instead of a binary perspective.

A: And you get some hints of this in you know in Aurobindo's *Savitri* which is about this deeper nature of Nature, and Bennett himself was constantly, at the end of his life, creating or trying to bring into focus new metaphors of nature. When he talked about nature, it became more and more what he called "unconditioned nature" which is not the sum of the existential life forms which exist on the earth per se but it was portrayed more like a kind of total vacuum state. But then also there was this theme of understanding the nature of which one could say that Nature loves us. It's not that we have to be special super conscious beings who create the love which we then direct to nature because we are so intelligent and wise.

Then you get the other aspect of nature of course which is floating around the world now which is very very significant: nature as Mother Mary and, related to an enormous amounts of world tradition, that nature is Gaia. So, it's potentially there but I'm sure you're right that it is only if you portray an overall, how would you say, scheme, which starts with the premise nothing is itself.

L: Hmm. Right.

A: And-

L: Nothing is simply itself.

A: Nothing is simply itself. That's right. Nothing is, nothing is simply itself. And, oh this would be wonderful, this would outdo Descartes.

Suddenly I get the feeling that this is it.

L: This is it? In terms of the end of the conversation?

A: The conversation. I don't know how you feel?

L: Fine, yeah that's fine.



Anterior Sky appears in the poem *La Fenetre* as an old man lying in bed gazes out of a window.

*I admire myself, see me as angel! I adore
-may the glass be art, may it be mysticity -
to be reborn, with my dream a crown for me,
in the anterior sky where Beauty flowers!*

A cautionary note from William Pensinger:

Complex abstract ideas such as those we may circumambulate here, in my experience and belief, never are CREATED through intellectual activity; they are arrived at through intensified percepts and sensations, the cognitive spin-off of heightened emotions and the visceral adrenergic cuing that inevitably accompanies a psychologically split-off, exteriorized, projected, or dissociated “out-there” all-around body-knowing. Being tiger on-point in cognitive jungles. The so-called creator person “falls into” the idea, often without being conscious of its presence “after the fall”, until registration of repeated visceral cues; or the idea implodes as an AHA! answer recognized (a brief instant prior to mental engagement) as important by its associated sensory habitus, affect-charge, proprioceptive “electrical” surge, but for which years of searching may be required to discover the precise question to which it refers. These “Grail” dynamics of the creative act inform us not only as regards the relation of personal and collective, but clearly suggest the notion that reification or misplaced concreteness is a fallacy is itself a fallacy -- in that the Real Concrete we regard as abstract, while the Real Abstract enculturated-consensual object we experience as concrete. Some women appear to have a grip on this more than most men. Maria-Louise von Franz, in NUMBER AND TIME, makes Jung and Pauli’s notion of synchronicity appear mere child’s play. She verily skirts the edge of postulating authentic operator-time, all but putting big-bangs and the like back in the tacit-assumption basket of enculturated linear-time where they belong. Her web is strung so tight, she all but sees: [1] the I-Ching’s binomial *pa qua* as chronomantic *tai chi* spinors, i.e., states of temporal curl; [2] the hexagrams and their Upper and Lower Heaven mappings as ordering the elementary particle zoo from a temporal-spin moment perspective (logically prior to quark symmetries, chromodynamics, charm, all spatial ordering); [3] the binary trigrammatic “generators” of the 64 archetypal states, not as recursion operators, but as end-terms of mathematical involutes decomposed under orders of non-linear operator-time. This is wealth of detail, where “probability”, “synchronicity”, “acausal connection” are mere black-box terms...and is almost like Mileva Maric coming up with the basic intuition for Special Relativity, wet-nursing her husband through its mathematical development, then watching as he foundered rudderless and sank under assault by a quantum reality his Einfühlung-lacking male ego refused to comprehend.

HUMAN MATHEMATICS: PYTHAGORAS LIVES; LISTEN TO RILKE

Nicky Graves Gregory 2012

Human mathematics is the mathematics of human experience. This is a revival of the original meaning of 'mathematics' in Pythagoras' mystery school. '*Ta mathemata*' ('those things which have been learned'), refers not to times tables and the like, but to holistic development, where learning about external and internal realities is part of one process.

Abstract mathematics (the dominant form today) is a brilliant, technical achievement, beautiful and powerful in its own right as well as being the defining language of materialist science. Nevertheless it is predominantly one-sided, the language of the head, not the whole.

It is a 3rd person language: it describes realities from the outside. It is essentially static: the aim is to ascertain eternal truths and prove them to be so. This language, these results have been created by living mathematicians, most of whom love mathematics. This human life and love is the starting place for human mathematics.

'*Wir leben wahrhaft in Figuren*' ('we live truly in shapes') writes Rilke in his profound *Sonnet to Orpheus*, no.xii, Part one. He continues, '*und mit kleinen Schritten gehen die Uhren neben unserm eigentlichen Tag*' ('and the clocks, with tiny steps, walk beside our actual day'). Human mathematics investigates the shapes of our lives, our actual days. Our goal is to refine our humanity: to refine our thinking, our perceptions, our actions, our living.

We can experience abstract mathematics. We experience numbers, space, points, lines etc. When we first come into this world, we experience extreme physical shaping. Our bodies begin as spheres: the egg receives the sperm, which after a pause, initiates a process of rapid division and multiplication, one cell to 2, to 4, to 8 and then the divisions get out of phase. A lake begins to form in the middle of the egg. All this time the conceptus is moving along the fallopian tube until it reaches the uterus and begins to embed itself in the uterine wall.

Our bodies form from only part of this conceptus, the embryonic disc. Further division of the cells involves internal differentiation of the cells as well as extraordinary changes in the relationships between them and in the overall shape. All is flux, with elongations, compressions, separations, joinings, flexions, rotations, invaginations, openings and closings.

Bless the spirit who loves to link us;
for we live truly in shapes
and the clocks in little steps
walk beside our actual day.

Without knowing our true place,
we act from real connection.
The antennae feel the antennae,
and the empty distance carried ...

Pure tension. O music of the powers!
Is not through venial business
every disturbance from you diverted?

Even when the farmer worries and works
where the seed changes into summer,
he never manages it. Earth gives.

Literal translation Nicky Gregory

What we learn in our early growing is pre-verbal. The movements of the cells and the structures that emerge, are meaningful, purposeful. Our bodies remember. The learning is stored in our bodies. Later, verbal, conscious learning is overlaid on this. We are able to choose what we want to investigate, what we want to learn. Developing self-awareness of how we choose is part of human mathematics (HM).

We start from a few assumptions that we may question later. Self-questioning (as well as questing) are key HM activities.

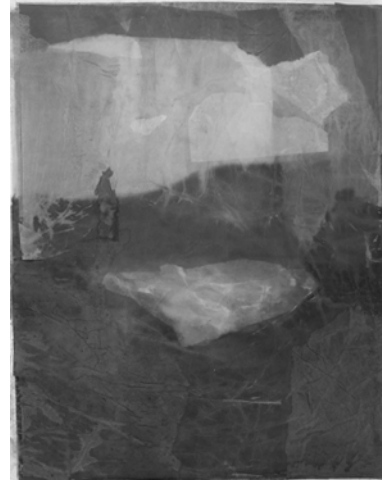
1. Being human involves self-awareness
2. Now is the only time of cognising, perceiving, doing (a phenomenological perspective)
3. We are incarnate in 3 spatial dimensions and unidirectional time
4. Our perceptions are polysensory and these have different natures.
5. We are not only thinking, but also feeling and willing beings.
6. We are part of the world and have responsibility for our thoughts and deeds.

We begin from this awareness and develop awareness of the shapes that we have created, that we might create, the connections that exist, that we might create. What a wonderful, human mathematical work!

Images, Metaphors, and Myth: An exploration into the untamed Images, Metaphors, and Myth: An exploration into the untamed frontier of the imagination.

Karen Stefano

The Tissue Paper Collage Method calls attention to the living space of the imagination as an active and vital healing tool. The hands on experience of working with tissue paper, glue, brush and board to make collages together with somatic awareness exercises allow the wisdom of your body to reveal what is essential to recognize. Every collage is embraced in beauty by virtue of the colors, textures and expression of the images. There is an inner peace and excitement that arises from this process, as you bring in a new channel of information and intimacy in order to assist you on your life pilgrimage. The imagination acts as a bridge to the world of potential.



Dates: Sebastopol, California: Friday May 31 - Saturday June 1, 2013

Shepherdstown, WV: Friday June 14 - Saturday June 15, 2013

Taos, NM: Saturday October 12 - Wednesday October 16, 2013

For more info: karenstefano@citlink.net; <http://www.tissuepapercollage.net/events.php>