

“The Long Now”

Brian Eno

Seminars About Long Term Thinking
Fort Mason, San Francisco
14th November, 2003

By the mid 1970s I'd started to imagine a different kind of music that I wanted to hear. This music really grew out of three separate threads of interest. One of them is African music - I was listening to a lot - particularly Fela Kuti the Nigerian bandleader. The second was the Velvet Underground and the scene that constituted. The third was composers like Steve Reich and Terry Riley. What I think interested me about all those sorts of music was that they flattened out the shape of the music, the hierarchical structure of the music was flatter. So the pop music I had been listening to mostly had a voice sitting at the top then some rhythm instruments, and then some drums. And the focus of the music, the shape of the music was very pyramidal. What I found I was preferring to listen to was music where that pyramid was squashed down, where no particular instrument was featured as the lead instrument and instead you had a network of interactions between lots of different sounds. In my own work this manifested in an emphasis on making what would have been called the background more interesting, and what would have been called the foreground, less and less central, thus sinking foreground elements into the background.

The other thing that I was interested in was in losing the obvious boundaries of music, I wanted to make something that didn't sound like it had edges, sonic edges, or that it had a beginning and an end. I wanted to make something that belonged to a big space and you as the listener could hear some of that but not necessarily all of it, and I wanted to make something that felt like it had always been going on and would always be going on and you just happened to catch a part of it. I guess the first piece I made which had a feeling of being a kind of eternal present tense was a record called *Discreet Music* in 1975, which was a very long record for a vinyl album. It was the longest I could possibly get on to one side of a vinyl album - thirty minutes and thirty one seconds - and I wanted to give the implication that this was not a piece of music in the ordinary sense of something that had been composed with a beginning, a middle and an end, but instead was a continuous endless place in time. So I was developing this idea of place of music being not so much a sonic narrative but more a sonic landscape - again with the feeling that this

was a landscape that was always in the present tense, a landscape that was an extended present tense.

So sometime in the late 70s a couple of things happened to me that made a big difference to the way I thought about music. One of them was in Germany, I was sitting in an airport, and listening to the music that they play in airports the message of which is 'don't worry you're not going to die' - music that is deliberately very lightweight, with no threat, where everything's got a nice smile and usually the most disconcerting thing about it is that the tape player doesn't work properly and you think 'if they can't get that to work'.....

But anyway I was listening to this music and I thought this was exactly the wrong kind of music to play in an airport, because it makes you really nervous, it makes you think 'all they're saying to you is 'Death? Don't mention it! Don't even think about it'. So I started thinking 'What would make you not think about death so much?' and I started to think that what you really needed in airports was the kind of music that would make you care less about your own life, that would make you not be so concerned about the prospect of dying.

So I wanted to make a kind of music that would actually reduce your focus on this particular moment in time that you happened to be in and make you settle into time a little bit better; and I came up with the record Music for Airports - a record that was very deliberately aimed at changing one's sense of time. This was the point where I realised that a lot of what I was thinking about musically was to do with the experience of time.

Shortly after making that record, I moved to New York, I was living on 8th St and 5th Avenue. I was invited to a party one evening, by a friend of mine, a singer, and she gave me the address. I didn't know New York very well, so I hailed a cab, and the cab driver started driving south and the street lights got darker and darker and the pot holes got bigger and bigger. The steam was coming out of the streets and finally we ended up in a very dark gloomy medieval street at what appeared to be the address on the card, and I thought it's very strange that she should live down here: this must be a joke of some kind. I rang the bell and was buzzed in and got in the elevator and went up the stairs to see a glitteringly expensive loft. This was in itself a surprise - that someone had spent so much money in such a bad neighbourhood, so I asked the hostess during the evening whether she liked living there, and she said "oh yeah this is the best place I've ever lived" and I realised that what she meant was within these four walls.

So this was very New York to describe the 'here' that you live in as the

place within the walls, and not to include the neighbourhood as part of the experience. So I had this idea then that she lived in what I called a very small 'here' and I felt fairly confident that I wanted to live in a big 'here'. I wanted to live somewhere that not only the part I controlled was mine, but also the neighbourhood was mine and I felt that I had some degree of involvement or responsibility after I had shut my door.

I started to notice that this attitude to space - this attachment to a very personal local sense of space in New York - also translated into an attitude towards time. I knew a lot of young artists there who appeared mostly from Ohio it seemed, to make their fortune in New York.

It was a very exciting time in New York. They were living an exciting life but their commitment to the city was absolutely zero. They planned to move on as soon as they could, or they planned to get a loft like my friend's loft. At least there was no attachment to the idea of the city as a continuing entity. So I thought they lived in a very short Now, their sense of Now was from about the beginning of last week to the end of next week. And if you said what are you working on now they would tell you what they had been working on that morning, not what they'd been working on for the last couple of years or so - it was exciting but it was very narrow and that kind of narrowness in time- thinking slightly worried me, because it doesn't translate into terribly productive social behaviour. It doesn't encourage you to set in place projects and agreements and arrangements between people that will flower over very long periods. So my response to living in New York was to try to make music that celebrated both the Long Now and the Big Here I think. I always made music as an antidote to the place I was living in; for example the noisiest music I made was when I was living in an idyllic house in the East of England surrounded only by geese and I was making bloodthirsty enraged afro jazz punk for a brief period.

When I was in New York quite a lot of the music I made was very very quiet. The music I made which was a celebration of the Long Now idea included the records *On Land*, and *Plateaux of Mirrors* with Harold Budd. But then there was another thread of the music which I think was in some sense a celebration of the Big Here. Now in musical terms the Big Here asks how much of the world can I include in my music. I guess it's now called World Music but at that time it didn't have a name and I think that the things that came out of that thread would have included *My Life in the Bush of Ghosts* which was a very African influenced record, but it was also whatever I happened to hear on the radio at the time. I would just tape it and build it into the music. One of the other manifestations of that is the work that Talking Heads and myself did together I think. That was very much a celebration of being alive in a big world and being able to handle the variety - not putting fences round it. So these two thoughts

- Big Here and Long Now were in my mind, and they remained in my mind and like many of the other ideas in my mind I didn't do much with them - they just sat there for a long time.

In the early 90s a group of people were attracted to each other because of their shared interest in the idea of time, and in the idea of responsibility for the future. This group of people came to call themselves the Long Now Foundation. I say it this way round because I don't want to give the impression that I started the whole thing: it was really the product of a group of people who had converged on this issue from many different directions and from many different experiences. We felt that there was a need to create some new form of human thinking about Time. We were all aware that everything was getting faster. One of our founder members was Danny Hillis, who built one of the fastest computers ever made, so he was particularly aware of the degree to which time had been sliced into finer and finer parts. We were also aware as we looked around that most of the ambitions and objectives of people in corporations and in government, even in education had become closer and closer in terms of time so corporations were living in fear of their quarterly results and politicians were living in fear of the next opinion poll. There seemed to be an ever-decreasing horizon into the future and very little encouragement from people in any direction to lay long term plans. No politician wants to start on a plan that doesn't yield results pretty quickly at least within his or her term of office. The worst thing of all is if it yields results in the opposition's term of office and of course the media don't help this by always focusing on things that seem like blue sky projects and criticising them as being stupidly idealistic and pointless. We thought that there was first of all the need for an organisation that would celebrate that kind of thinking, that would ally with it, that would support it, that would encourage it and in fact would try to do it itself.

Now, whenever you talk to people about thinking about the future, there are certain standard responses to this idea and I've modelled some of these myself. I'm now going to show you them.

The first response I call the Realist, this is the person who quite reasonably says 'can you make any predictions?' so the answer to that is 'Of course not, that's not what we're trying to do'. We're not trying to be a crystal ball or trying to tell you what the future is going to be like.



THE REALIST

“Do you *REALLY* think
you can predict the future?”

The second character, one very close to my heart, is the Pessimist,



THE PESSIMIST

“What bloody future?”

Nice glasses

This is a person who says ‘look there’s not going to be a future anyway so let’s not worry about it.’ And he could be right and in fact I spend a lot of my time thinking that’s me. The only problem there is that if he’s wrong, if there is a future, it would have been a good idea if we’d done something about it.

The third one is a character that I think is a particularly American character. I don’t know how many of you have read Voltaire’s *Candide*, in *Candide* there’s a philosopher called Dr Pangloss, who’s constantly in ever- worsening situations, being flayed to death, being bugged by hairy Algerian pirates and he somehow manages to come out of every situation saying everything is for the best in the best of all possible worlds. He’s the eternal optimist who thinks that there’s absolutely no point in doing anything about anything because it’s all for the best.



THE PANGLOSSIAN
“Everything is working out fine”

I actually started writing an essay a while ago called Dr Pangloss is alive and well and living in California. And I have a lot of sympathy for Dr Pangloss: everything's very laissez faire, much too complex to predict, there's no point in interfering, it'll probably work out for the best

The last character is the Designer,



THE DESIGNER

“We could create a perfect world”

So when we talk about Long Now a lot of people think that this is what we're after doing, that we're after saying we actually know what the world of the future is going to be like and we're smart enough to design it for you. That isn't the point either.

None of these characters, although they might represent some of my character, they aren't what the Long Now is trying to do. They all miss the point. What you could say is that we're trying to encourage a habit of thought. Now habits of thought do actually have outcomes. We don't particularly predict those: we're not trying to predict. We're simply trying to extend the idea of the length of the future that we think about.

So we chose an ambitious period to think about. We decided that we wanted to think about the next ten thousand years. We chose that time because it was the mirror image of the ten thousand years of known human settlements - we see the beginnings of what we would call

civilization going back about ten thousand years and we thought “let’s act as though we’re in the middle of a twenty thousand year cycle”. So we’ve had ten thousand years, let’s look forward to another ten thousand years. And if we think about the possibility of humans being here for another ten thousand years - It might happen - How does that effect what we do? How does that change the way we think about what we’re doing now? There are some very obvious outcomes to this - it’s very hard to imagine a world of the future that would be better for having, for instance, less fresh water.

So the suggestion is that if you start to think long term there are certain kinds of assumptions about the future that you might make. It doesn’t mean that you know how you’re going to bring those into effect, but it means that you will assess your probabilities a bit differently. A very good book about the effect of time on thinking is the book by Robert Axelrod called ‘The Evolution of Cooperation’. He looks at situations where competitors are placed in a recurring long term competitive relationship with each other, and it turns out that cooperation nearly always evolves if there is repeated interaction. He gives some very famous examples, the most famous that you probably know about is during the trench warfare before the Somme, the British troops and the German troops faced each other on the lines, sometimes only eighty or a hundred yards apart, and the same troops were facing each other week after week and eventually they stopped shelling each other. And the famous story is how they put their guns down and on Christmas day they came out and played football together. But one other interesting story is an English soldier who was a barber in civilian life and set up a stall on No Mans Land and began giving haircuts to English and German soldiers in exchange for cigarettes. The authorities immediately realised that this was a disaster for their war plans, so they made what was the only intelligent response from their point of view: they kept rotating units, so that people didn’t have a chance to build up cooperative relationships. Now I suppose one of things about the Long Now idea is that we want to suggest that if we think long term we will think about building up cooperative relationships. If we think we’re all going to be here together for quite a long time, it might reward us to think differently about the types of relationships that we have. I think as a culture we’ve become very good about dealing with the idea of the Big Here - in that we can enjoy the music and the cuisines and the thoughts and ideas and the aromas and the therapies and everything else of other cultures. A very considerable empathy geographically with other peoples, but that kind of empathy that we have in a geographical and global sense, is almost mirrored in the decrease in empathy we have in time. We seem to have very little connection now with our possible descendants and our ancestors and we seem to not be able to make any good assumptions about how to make their world better. We’ve lost the ability of thinking

long term, and it's not surprising because the future changes so quickly. So we in the Long Now Foundation believe that these are issues that could somehow be dealt with.

The first Long Now project is called the Clock of the Long Now and in some ways it was to build that clock that we initially came together. The Clock is a design of Danny Hillis, who I mentioned earlier. Danny built the fastest computer, and this is the slowest computer. It's a clock that is designed to run for ten thousand years, and to be some kind of an icon to the possibility of a very long future.

Now when you describe this to people they say "well do we really need another clock? You know there's plenty of them in the world" and that's a good point. We don't really need another clock.

So this isn't so much about making a clock, it's a sort of artwork, it's an idea made to inspire people, it's not really an idea to tell people the time, it's an idea to make people think and what it makes people think perhaps is "how could a number of reasonably intelligent people spend their time on such a daft project?" That's a good thought to have actually, because it makes you start thinking about the nature of the project. Whenever we try to describe this thing to people, people say "well how can you know that about the future? There might be two dark ages, four earthquakes, one volcanic eruption, and god knows what else." But of course as soon as they start saying that they have begun to engage with the process that we want to engage with. They've started to think about the future, and of course when you actually start a design process, you start to make a real object that is going to last for ten thousand years you start to think hard about who the future might be and what you would need to survive in it. And here are some of the design considerations that came up with the Clock,

Longevity, obviously it's got to last and tell the time for ten thousand years.

Maintainability, it's got to be made of some kinds of materials and technologies which are such that when we disappear and perhaps when our whole culture and way of making things disappear, it can nonetheless be found again, can be made to work, can be repairable, maintainable.

Transparency, that means it must be evident within itself how it works. The thing itself should exhibit its work in progress, so that any reasonably intelligent being could approach the thing and find out how it works and mend it.

Evolvability, it should be able to incorporate new ideas, better thoughts

than we might have. We shouldn't regard this as definitive.

And *scalability* – it should be able to be made large or small.

Now all of these thoughts, once you start thinking about them, seem to me to be the thoughts you might want to think about in thinking about the future not only of a clock but of the whole species and of the types of cultures that we live in.

The fact of trying to do something real rather than just sitting round a table and thinking about it immediately starts to stretch your mind, it becomes a different kind of mental practice, and interestingly it starts to impact on the way you think about lots of other things. If part of your day has been spent in the next ten thousand years, the rest of your day, which is spent in the next 25 minutes feels a little bit different. You start to have another place to look at things from, and I suppose that's the point of projects like this, of having real design processes, of trying to make something that stays for a long time. You can find more information about the design of the clock at the Long Now Foundation website - www.longnow.org

When we were talking about the clock, we started wondering whether it should have a cuckoo. Danny's original idea was whether the cuckoo should come out every thousand years.

I thought that was a little ungenerous to the many visitors we anticipate, so we talked about various thoughts we had about what kind of noise the clock might make. Now being English of course I'm very interested in church bells, I don't know how many of you know about change ringing, but it's said by musicologists to be the only thing that the English ever invented in music, since everything else we borrowed from Italians or Africans or Elvis Presley. I started thinking about bells and this record, which is called 'January 07003', is the result.

This record is the product of the studies I did on different kinds of bells, so I started off by studying how real bells work. They work in a very interesting way, they're physically very complicated instruments and each different from the other - they're quite individual. And so I then started synthetically building new kinds of bells. Bells for instance made of metals which didn't yet exist. Or something that was halfway between a glass and a metal, or bells where the upper harmonics outlasted the lower harmonics which never happens in real bells. During doing this I happened to be sitting playing with my calculator one day and I noticed that the factorial of ten, which is to say the number of combinations of ten things was 3,628,800 and I also noticed that that's almost the number of days in ten thousand years, so I thought if you had a ten bell peal you

could have a different sequence of bells every day for ten thousand years. So I said to Danny can you think of an algorithm that will generate those three million odd sequences without ever repeating them and can you tell me what they would be playing in the month of January 07003? And in fact the title piece of this record is those thirtyone days of January 07003. The algorithm and other details are in the booklet with the CD, which is available from www.enoshop.co.uk and from www.longnow.org.

So making these pieces was another one of those exercises that put me in the frame of mind that I wanted to be in. I wanted to be in a frame of mind where I'm not so tightly locked to now, everything isn't quite so important in this moment, but it diffuses out a little bit. I suppose if I was at all religious in any way I probably would have found that in religion, but I'm not, so I had to invent this rather convoluted way to get there. The Long Now isn't only about making things better for the future but also the idea of making art that's intended to come to fruit over such a long period is something beautiful and new actually and something I think suggests a new era of culture of collaborative both in time and space, in long term collaborative projects.

We also wanted to think about memory and about the transition of ideas over long periods of time and the observation of process over long period of time,

Stewart Brand, in his book, called 'The Clock of the Long Now', which is the Little Red Book of the Long Now Foundation, talks about something he calls slow science, there's very little encouragement to slow science - it doesn't produce glamorous papers, quick results, peer approval, but there have been examples of very, very long slow observations. One is the admiralty of Great Britain has kept detailed weather charts since 1648, they're daily weather charts, so this makes for the longest continuous survey of weather in existence and in fact it's turned out to be very useful. Another similar survey was made in Hawaii over about a fifty year period, and was the first definitive evidence of global warming, it showed the continual rise in CO2 levels, so these long term studies are very important but again, they are not really institutionally recognised or encouraged. We wanted Long Now to be the kind of place where they would be encouraged, where we would become the repository and the facilitator for those kinds of long term thoughts. So some of the things we're doing, are done (you could say) in the negative. They're perhaps attempts to avert catastrophe, the tragedy of the commons if you like, the tragedy that makes us exploit as much as we can as quickly as we can without thinking of any consequences. But the other side of it is a positive side, the idea that we can celebrate beginning something that won't be finished in our lifetime, that won't be finished in many many lifetimes, something that will grow and embody the intelligence of many

people in time.

It's a choice really that we can make, we are building the future whether we want to or not, we're building it every day, we're building it by every choice and by every omission that we make. We can either do that with our back to it or we can turn and look at it while we're making it. I think what we're trying to say is let's turn around and look.

Questions:

Q: Arthur Abrahams: the next hundred years look really hard, how will we survive them to make it to the Long View?

BE: Probably, this is the critical time for the Clock as well, after things have been in existence for a hundred years people respect them and try to preserve them. Until they're that old, it's tough for them. I don't know why you Arthur particularly limit to the next hundred years, I'm much more pessimistic than that. I think it looks tough all the way really. Unless we can start to learn to understand the difference between some things that need to be done slowly that need time, as opposed to the things that we can do quickly. Actually there's a very nice quote in Stewart's book,

'Now is the period in which people live and act and have responsibility. For most of us now is about a week, sometimes a year, for some traditional tribes in the American North East and Australia Now is seven generations back and forward 175 years in each direction Just as the photographs of the Earth [he's referring to the Apollo pictures, the space pictures] gave people a sense of a Big Here, we need things now that give people a sense of the Long Now. Candidate Now lengtheners might include: abiding, charismatic artefacts, extreme longitudinal scientific studies, very large slow ambitious projects, human life extension, highly durable institutions, reward systems for slow responsible behaviour, honouring patience and sometimes disdaining rush, widespread personal feeling for the span of history, and planet practices that preserve options for the future. In a sense the task here is to make the world safe for hurry, by slowing some parts way down'

Q: Terry Hall: how do you see the Long Now as it relates to the current political climate what can we do to change things

BE: I've been trying desperately hard not to be political, because I know if I did you would accuse me of being anti- American. Most of the things politicians do are terribly constrained by the way the media represent

things, simple thoughts, particularly in America actually, the thoughts have to be very simple, they have to be very easily reproducible, so really you have very little idea what any politicians think about. I remember speaking some years ago to a guy called Geoff Mulgan, who's one of Tony Blair's main advisers and I said to him 'why haven't you done any of the things you said you were going to do before you came into government?' And he said 'Well we have, we've done a lot of them', and I said 'but nobody knows about them' and he said 'well we daren't tell'. And what they had done was, that some of these very interesting and innovative social projects they were carrying out they had done them quietly in rather remote British cities to try them and see if they would work. They never made any fuss about them because they knew that the rightwing press in particular would tear them to pieces for it and somehow we have to change the atmosphere around that - we have to try to make it respectable for politicians to say I'm thinking of the next hundred years, not just the next year or two. I think this will change I believe that this problem is something that people are more and more responding to. The political people I know feel terribly limited by not being able to have long term positions, not being able to declare them publicly.

Q: Can you give us some examples of long now thinking, historical that we are reaping the benefits of now?

BE: Well there's one very famous example, it's an English example, there's a college in Oxford called New College, which was built about five hundred years ago. The college is a big high building and it has very thick oak beams to support the ceiling. About twenty years ago those beams started to appear to be in such bad condition that it was necessary to replace them, so the dean of the college said to the head gardener - because Oxford has a lot of lands and forests, actually all over England - "We need a lot of oaks - what shall we do?" And the gardener said when they built that college they planted a grove of oaks, to replace those beams, and so they had been planted five hundred years in advance of their need - so that's a kind of long term thinking. I don't know that anybody is doing that kind of thing now.

Q: Eric Thomas says: Why have song tempos got so fast, and what do faster song tempos mean for the future?

BE: Well, I would just theorise that song tempos are so fast because people want to create something that's more atmospheric than beat, what happened with jungle music in the 90s in England was the tempo became so fast that it stopped being rhythm, it just became a plateau of sound, so maybe its another way to make ambient music (which is of course what they're all trying to do).

Q: What's the most useful thing someone could do to alleviate human suffering?

BE: That takes us back to American politics doesn't it?

Well that's a very hard question. I'd like to know if anybody has an answer to that. Well actually I'd like to solicit some help from the audience. I had an idea, while I was talking to some young art students in London, talking about the state of the world and what could be done for the future, and I realised that they felt absolutely helpless. They felt that the world was pretty much sewn up by big corporations and unlistening governments. This was just after Tony Blair had ignored the biggest demonstration in British history, and gone to war anyway. We had two million people in London – that's 4% of our population. So there was sort of a feeling of powerlessness after that. And this feeling, this powerlessness was really quite paralysing to these kids. I think there were two problems here, they didn't really know which issues to grapple with and they didn't have any idea how to go about it, or any confidence at all that it would have any effect. So I had an idea for a book, which would be called something like '250 projects for a better future'.

And each page would have one project on it and it could be a very big project like, for example, Desalination. One of the big issues of the future is going to be water, water for irrigation, for human use, and if we could find a better way of creating fresh water from sea water that would be a big step forward. So one page might say Desalination, the next paragraph would say 'desalination is the process of converting saltwater to drinkable water', the next paragraph would say who's been working on it and how far they've got, probably refer you to various books and websites and the final one would say 'And here's what you could do'.

Or it could be very local problems like 'How do we help old people in our community?' or 'Can I contribute to the local school in some way?'

I thought that having a book of 250 projects like that you could sit on the lavatory and flick through, and you'd come across one and think 'Oh! That's a good one, I could do that.'

And I thought it would be a recipe book for people looking for a place to put their idealistic energy, so anyway my invitation is I now need to find 250 projects, so if anyone has anything to contribute to this book, I promise you'll be credited, in due course receive a copy.

Q: Pam Winfrey: How does the concept of a ten thousand year clock affect the way you feel about your own life span?

BE: Well this is a little bit like the music for airports thing: it takes the pressure off you a bit, to feel that you're part of a long continuum of human life and that there's going to be plenty more of it after you've gone, there was plenty more already. It sort of takes the pressure off I think, it makes you less precious and less tight about your own time on earth, it's a lesson which I have to keep on relearning, but I think I'm getting better at that. And of course, embarking on long term projects, doing things that you know put in place things that survive you is very much a part of that feeling.

I was just in a garden, a beautiful Capability Brown garden, about a month ago, and the garden looks absolutely fabulous and I realise that it is probably now at its best, so this garden was planted maybe two hundred and thirty years ago. And all those trees were tiny when they planted the garden. So the lord and lady who commissioned it would never have seen the garden as it was supposed to be, but it must have been nice to die thinking that that garden is going to be beautiful in two hundred and thirty years time. One of the things about long term thinking is that it reduces the pressure on your own life to constantly be performing, to constantly be absolutely full of action. It just lets you relax a little bit

Q: David Battino: 50 years from now when we all have broadband receivers embedded in our skulls, will we be paying for silence instead of music?

BE: Yes absolutely right.

I've done my best actually in that respect in making music that has less and less sound in it. I'm getting there. Actually in the 1950s I heard there used to be jukeboxes in America that had one silent disc, so if you wanted a bit of peace, then you put your dime in and you dialled that number and you got three minutes of silence. I'd love to get a collection of those records wouldn't that be fantastic! A jukebox where that's all you had on, different varieties of silence.

Q: Little Mike: Not to devalue your efforts, but isn't it kind of effete, or distanced from reality to focus only on the future when so much needs to be done in the here and now?

BE: Well I think that's a good point and I should have addressed that better. I think the point of focusing on the future is not so that you stop thinking about the here and now, it's so that you think about the here and now in a more productive way, so that you think of it as connected to the future rather than as stopping in three or five years time. So hopefully the thinking about the future is not a removal from the now but a

different way of immersing into it, and a different way of understanding it, and a way of trying to see it in terms of its played out consequences. But thank you for that question.

Q: Roxanne: How would you suggest we begin educating people to focus on the Long Now?

BE: Well actually I was toying the other day with a very interesting exercise, which is to do the opposite, just imagine if you knew for sure that everything was going to end in a years' time. You know the biggest asteroid was on its way to earth and there was nothing we could do to stop it. Well actually it was that film that made me think about it, it's called 'Armageddon' isn't it? I didn't think it's such a good film, but its very interesting to think what would happen to human behaviour if we really knew that the future was as short term as that, and what happens if we think about the next year and we've only got a year to live, what would we all do?

I'll talk about this in private with a few members of the audience, and we'll imagine that we just have a few days to live together.

But it's very interesting to see how your thinking changes as you change the scale, like if we only had 24 hours that would be terrible, you'd have to try to do everything in 24 hours, would you just get hysterically sad, or would we fight on the streets to try to get out somewhere? I don't know what would happen, that would be hysterical, but a year would give us the chance to either become very supportive of each other, become highly religious, to decide who we wanted to die with, or to fight with each other for the last remaining bits of sheer pleasure that we wanted to have, because there would really be no constraints of honour or shame any more. Honour and shame are both processes that only operate over time really. They only operate where there are continued interactions between the same people. That's why you don't get very much crime in small towns because there's such a social pressure against it, it doesn't feel good to be disliked so much by the people you know, and it does feel good on the other hand to be well liked, and there's a tremendous encouragement with long term interaction to behave well. What would happen over five years? What would happen over ten years, over twenty years, fifty? And as you start to slide that scale and actually try to think through, the kind of social processes that would happen, you start to realise that time is actually the single biggest factor in how we choose to regard our affairs and how we choose to construe them, so I would think in answer to Roxanne's question that a very good exercise for children at school for instance, would be to say 'what would you do if you were all going to die in a year?'

Q: This is from Eugene Chen. It seems that humans have a need to improve things, and this habit is making things worse

BE: John Cage said “don’t try to change the world you’ll only make it worse”, but I don’t agree with him, I think you don’t have a choice. Okay the question continues:

‘But if this is true, when we eventually figure this out, will we reverse ourselves?’

Yes yes I think we can say that. I think that one of most interesting movements in science, effecting a lot of the sciences is complexity theory. Complexity starts to try to understand what happens when a lot of variables interact, something I’m very interested in and in fact a lot of my music is based on creating processes where the same few elements interact and cluster and permutate in different ways, and I’m always amazed at the richness and variety. Well now there’s a science that deals with this and deals with the manifestations of this, and one of the things that becomes very obvious from that kind of study is that there’s a very tenuous linkage between the beginnings and the ends of processes. We really can’t set in train very long term plans that aren’t evolving, we have to make things that can be buffeted actually, and that can learn from being buffeted. So for instance I would say there’s a discouragement towards those monster projects like the three gorges dam in China, which is a huge and basically unchangeable, un-undoable project. It changed a great deal in China and it won’t be easy to undo. We had an experience, I wasn’t part of this, but some years ago, a couple of years ago when the Long Now Foundation was asked to consider disposal of atomic waste, could we think about disposing of atomic waste for a ten thousand year period.

So a huge series of holes had been dug in a mountain, Yucca Mountain, enormous holes, and a lot of money was spent, I think it was 16 billion dollars, on creating something that would be safe for ten thousand years, which is of course an almost impossible and unverifiable aim, and what the Long Now people thought about that was that actually it’s the wrong frame of time to think in. You can’t make a safe judgment over that period of time, so it would be better to make something that would work for say a hundred years and then reconsider the problem and remake it, redo it again, so I think one of things about this kind of thinking is not only understanding that you can embrace a long future, but also understanding that in doing so you very much don’t predict it. You simply try to think about how you will negotiate it, how it could be negotiated.