PLEIN AIR -

QUESTIONS AND ANSWERS

August 2010

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Questions and Answers

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Tim Collins: Do you have questions for us? Maybe we'll start there.

Jenny [Cooperwell]: Well, I would like to know how, apart from telling people we know about what you're talking about here today, is there any way that individual people can help – yes, get guidance on what to do – because, I love trees. I adore all the trees that I come into contact with. We have special relationships. One of our trees is a Korean tree that we bought one Christmas. It was too big for the house by the following Christmas, but we moved, and it's been to several locations and has come up to Scotland, and it goes wherever we go and it's settled in nicely into the ground and seems very happy – so ... I think about, when I go – when I die – I don't want people coming along and murdering the trees! So, I would like to put something down that, if they don't want them in the garden, that they are uprooted and taken – very kindly – to a tree sanctuary or wherever. That's what I think. But, you know, how to help, with what you're doing.

Tim Collins: Thank you, Jenny.

Reiko Goto: I think, Duncan – you could help ...

Duncan: Yes. I suppose, if you've got an attachment to that tree ...

Jenny: Yes – I have an attachment to all trees. I wish my husband was here because he would have enjoyed this very much. We live out Methlick way and just driving towards our land the other day, we noticed that some people have moved onto one particular habitat and that they chopped down three big old trees and we were really upset. David said, "Tree murderers! How would they like to have a leg chopped off or an arm amputated whilst they're still alive!" Yes, I felt like that too.

Duncan: Certainly, there is something you can consider – you can speak to a local authority. The obvious thing would be to place a tree preservation order on that tree and that, essentially, protects it for its life. I mean ...

Jenny: We have several. We've planted several and, you know, they have a right to live like any other species on the planet.

Duncan: It is very difficult because you can have some kind of legal protection on the tree – that doesn't stop somebody cutting it down. You just can't foresee what somebody's going to do. It's just not possible. It is very difficult – short of making a tree preservation order which would be the thing that I would see.

Jenny: I suppose the other aspect is the spiritual aspect of the tree [_____].

Tim Collins: It's complicated. Spirituality is very individual. We live in a time where most living things are property and we have to work within the laws of the land to resolve some of these questions. At the same time, beliefs – like yours – can help to take us to another place. Do either of you have anything to say about this kind of proposition?

Woman: Actually, I don't – no. *[Laughter.]*

Reiko Goto: I think, in the face of history, we can see that there is almost no answer because we judge situation by situation. We cannot just organise one answer. We go to different places, like when we go back to my home country, Japan, with temples and shrines with really old – thousand-year old – trees. There are some reasons that those trees are preserved, and we really appreciate to see those trees because, mostly, we cannot save trees for many reasons, but, somehow, these have become historical landmarks and tell some stories. Another place we went to like the Trossachs – there are many 200-year old trees, and when people see that, they all of a sudden see the [_____]. We should direct the people ... Maybe we cannot save *this* tree, but somehow give an opportunity to see the trees in context – *then* people might start to think differently.

Tim Collins: Another question?

0:06:19.0

[Mr Galbraith:] I think the British public ... One of the ways to approach your problem is the different types of trees that are available. We just don't know. We may love a tree, but we don't know what type ... It is quite interesting – the first question was, "What kind of tree was this?" We're all guessing. There was a campaign in Aberdeen about saving the elm trees – but that hasn't kicked on. It died

a death, as far as I understand it, apart from the ones that I know. This identity with a living thing is important. How do you get it important to the general public?

Tim Collins: On a certain level, by learning to say its name, we develop a relationship.

[Mr Galbraith:] Yes, that's the first thing I would suggest because I only know there is broadleaves – apart from that – nothing.

Can I go back to something that I also noticed that is interesting in Scotland and I'm quite sure it happens in England as well. In the countryside, the use of trees to hang adornments on, especially after death – motor accidents, in particular, where the tree becomes a shrine – a point you were making about Japan. That's becoming more and more apparent now in Scotland – and I presume in Britain as well. So, there's a movement within the people in Britain that would suggest that things like trees are recognised for something else, [that once we just passed by].

0:08:19.4

Woman 1: [...] There are many uses for trees and on many different levels [_____]. I also liked the point you said about not knowing the name of a tree because this is something we can get very hung up on – education – because there seems to be two lines of thought: one is that it doesn't matter – the fact is that you are engaging and developing a living relationship with nature really makes a difference; and then there is the other line of thought that says, actually, it does because it helps make a connection, it helps explain where a name came from and gives you a little greater understanding. Certainly, concern has been raised about the amount of things like logos that children know compared to the number of wild flowers or tree species and things like that. That is something that is a debate within education itself.

0:09:18.1

Woman 2: You have the great opportunity with the children, don't you, to get them so interested that, hopefully, they'll carry that throughout their adult lives and they will give it to their children – educate their children – having fun, going for walks and naming trees and different plants ...

Woman 1: That's it! I think what does again concern me is that, when you ask people about their childhood memories and say, "What do you remember about being outside? What do you remember about trees?" – people won't remember, probably, their educational experiences. They'll talk about making mud pies or hiding in a tree; they'll talk about the fact that an adult probably wasn't there; there's a sense of risk and adventure there. I think this is something now in education again, we have to stop and say, "Right. If these are the formative experiences; if these are the experiences that impact on memory which, again, although it isn't knowledge, is absolutely crucial for us as humans, then how do we allow children to have this, particularly in a society that is becoming more urban, more indoor, and more fearful of the outdoor world. I say 'agoraphobic' but people shoot me down if I say that – but I do actually think so. So there are issues there about that – the role of education in allowing children to experience these opportunities because, as I said before, unless you plant these core experiences, you will not have the understanding of climate change; you will not actually get why there is an issue – why we even need a tree preservation officer – goodness me! You know – so there are some fundamental questions here.

0:11:08.7

Woman 3: I've enjoyed the exhibition and I think it is an exciting project because it adds another layer to our experience in encountering trees – that you are trying to give voice to, in a way. I am very curious: how did you decide ... Reiko mentioned about developing an authentic voice – it was somewhere in her presentation, I think – but how did you decide on what kind of sound or voice to give the trees. Here it is the piano. I am very curious as to how you arrived at that decision.

0:11:52.2

Reiko Goto: Well, for this exhibition, we used just the piano, also the synthesizer. We could have chosen almost any kind of sound. At Headlands we used the flute. One thing is, it has to be very clear – we're not musicians. We talked about it a lot. If we used a visual effect – colours or shape – it might be a more fixed idea about what colours represent and what the sound represent – that would be more dynamic, changing – those are logical reasons why we chose sound.

Also, I think, my feeling is, I really wanted to, when we moved to the UK – everybody speaks English – very different people. Different landscapes, different history, and I really, really, wanted to understand what is nature here – nature in the UK, and how do I really find out? We chose a tree and then came here.

Now I'm going back to sound – why sound. It's like the caterpillar I showed at the end of my presentation. It started changing – metamorphosis. Eggs to caterpillar to chrysalis, and chrysalis to adult butterfly and each butterfly or moth has different patterns. Why didn't they all become the same – the same-coloured creatures? But the patterns – in the process that we are creating it, we're stopping and stretching the time to be with the trees. When we went to the Trossachs, people were looking at the trees – the trees are always between people and then they're not seen any more! They're looking at the tree like this, "Wow! Two hundred years old. How did it survive here?" We're treating them [not like an object] and it's natural – no force ...

Tim Collins: Sound.

0:14:42.1

Reiko Goto: Sound!

Going back to sound ... If you think about it – the sound to understand – ok – that's elm, that's oak. And then, here is the sound of an oak, and what's going on right now; what the crowd is doing; what the sound is doing; what are the trees doing ... Just a little bit of attention.

It can be deeper with the sound that comes in. We'll probably show a different process, but so far ...

Tim Collins: Yes, the process is in three steps. In the Headlands we didn't have a system running in real time – now you are hearing real time sound in relationship to the response of the leaf to CO_2 and the light that's available in the gallery. Firstly, at the Headlands, we could only get a dataset and then we interpreted the dataset through computer software. Reiko tried lots of experiments. She didn't just use flute – she used the sound of crickets; she used human voices – so she made lots and lots of different experiments, and some of them were really exciting. We've got one where

she's used a human voice and because of the tree being in hot sun, late fall, San Francisco, California, the tree was just s-l-o-w-l-y breathing with a deep bass voice – owhaow – and Reiko went, "Oh, it went to sleep!" For us, that had some authenticity. Every once in a while we come across something that has authenticity. The problem is, the damn technology consistently gets in the way.

0:16:31.7

What we thought was going to be easy, and all the people we've been working with, saying, "Oh, yes – we can do that. Oh, yes – we can do that." We go so far and then, all of a sudden, it will be like, "Wait a minute – we can't do that", so we have to wind it back. So, we kept winding it back until, at this point, we've got it working and the piano is the easiest to follow in terms of note changes – but it is not satisfactory because it gives us the sense that it's a piano, it's not a tree.

Part of the question is, we work with a young algorithmic composer, so she uses mathematics in her compositions and she had some really interesting ideas about how you would chase the authenticity of a tree. It is interesting, because we talked about this to another one of our friends yesterday and she had a whole lot of different sets of ideas about how we would chase that authentic voice – what is authentic; what is aesthetic truth – is one of the questions that we chase at this point and the only way, we find out, is by testing it and then getting people's responses. So this is a step in the development of the project – that's basically what it comes down to.

0:17:50.4

Reiko Goto: The aesthetic truth is a core enquiry we're chasing, and I don't have a good example right now – so I have to use a different note for the tree. I haven't found the right example.

For example, in science, when something (an insect, for example) died – how do you describe it? Maybe the heart stopped, or the brain [stopped functioning] – there are many ways to declare its death, but when you really encounter death it's just like something is leaving your body. It can be experienced by anybody – but it is not really that something is going out from your body. In science it 'stops' – an organ 'stops' working, but we *feel* the 'going-out'.

0:19:02.4

I'm talking about aesthetic truth. There is something that we understand is knowledge-based, and what we feel and experience. I don't think it is a force that we feel that something came out from our bodies.

There's a painting by Poussin (late Renaissance – more towards the Baroque period) – he painted a painting called 'Travellers of Arcadia'. There is a famous quote, 'Even in Arcadia there is Death'. So, in the beautiful landscape a traveller arrives, and then he sees a person with a dead body by a snake, and women just freaking out on the bank looking at this. The runner is just a bystander. Far away is the city of Arcadia. When I see the picture, I really feel this is really describing death. It's not death – it's a picture! I don't know why I feel this is death.

So, I don't have a tree example to talk about this, but this aesthetic truth is something that is different from science that we all experience in our lives. That is something that I might be able to do.

Woman: And the wind through the trees – the noise of the wind on the trees – that vibration, the noises can't [emanate] from the tree.

Judy Spark: It's just interesting what you said about experiencing some sort of aesthetic truth. It has to do with experience and it is not science – that chimes with me with something you said earlier about the tree saying something to you, but for you that wasn't grounded enough. You had to find a way of making it grounded, and so you picked science to do that, because what you've done is use a scientific concept of [what's trees – how you [_____] CO2], but also your methods, with the software and the way you're using it, and creating music from it. So I think that's really interesting – taking one sort of truth, putting it in some scientific parameter, and you're hoping it's going to come out the other side as another emotional attachment through empathy. So I think you're joining things together there that, sometimes, people keep apart. That is quite interesting.

0:21:48.5

Tim Collins: Thank you, Judy. It's a great question.

[**Woman:** [It's great being British] – I wish I can speak like you do. My English ...]

Reiko Goto: We're switching on and off, almost, about things of knowledge – switching on and off. There is not just one way to understand it. That is what I've begun to understand through this project that many things are going on in our heads – and that is really wonderful.

Anne Douglas: Can I just respond to Judy. In a way, there are historical precedents for this kind of relationship. If you go back to a point at which science and art divided. Goethe, if you like, is somebody who's dealt with both the arts and the science and developed the idea of the colour wheel which was a kind of base scientific approach to colour which then is informed by the arts, but which painters then in some sense accelerated in other kinds of developments. But it does bother me a little bit because I think you seem to have a slightly different understanding of 'authentic'. What I'm hearing in yours, Tim, is 'authentic to nature' and what I'm hearing in Reiko's is 'aesthetic authenticity'.

Tim Collins: [_____]?

Anne Douglas: We have a promise in science of something being proven, and therefore truthful, which is one kind of authenticity.

Woman: [_____].

Anne Douglas: That is a popular understanding – what informs technological development is the idea that something works – 99% of the time ...

Tim Collins: ... or if you can replicate it.

Anne Douglas: ... and can you replicate it. That is one kind of 'truth' which is a slightly different truth from the idea of aesthetic authenticity which is a construction; it's an evocation of an idea. It never pretends to be actual. In fact, it often celebrates its 'not-being-true' or 'real' in a scientific way.

0:24:36.2

Tim Collins: I would argue that the aesthetic truth does not have to be replicable for its 'facticity' to occur. It does need to stand up to discursive exchanges and it's

through a dialogue about a common understanding – understanding is a long word – a common perception of an aesthetic experience where you start to see a truth. I think on [I go back and reread Kant and Plato] [_____] understand it, ultimately, it's whether or not *this* experience stands up for him as beauty – for a very broad range of people. Now, I'm not sure that there are those kinds of standards of beauty that stand up globally at this point in time, but I think there are aesthetic experiences that we can develop a sense of truth about within a discursive community. That is how I would understand it. Reiko may have a different outlook. Our guests here will have a different way. I think these are key questions or, at least, they're not key questions – they're annoying questions. *[Laughter.]*

Woman: It's a shame you can't discourse with the trees and understand their language, isn't it? Because they've experienced so much, and seen so much in their lives ...

Tim Collins: Reiko wants me to read these questions – they're questions that go from us to you; that we're hoping ... It's a slightly different twist.

Georgina: I have another follow-up comment that might be a question as well. There is so much of your presentation that I really enjoyed – particularly seeing where you come from in your individual works which makes me try and imagine how that contributes to the results here. I'm also intrigued about the production of sound and, as a viewer of artwork, it creates a number of problems and questions.

0:27:09.8

My first frustration is in that I'm being *told* that this is what the tree sounds like, but I don't know how, quite, it's being produced – whether the CO2 ... It's fascinating and really quite pleasurable to play with – like breathing. So, I'm curious as to the idea of empathy and also aesthetic truth – the differences between yourselves, as artists. Reiko seems very, very intimate and personable and what I experience as a viewer is a sense of pleasure and beauty – particularly from your work – and I wonder whether you're interested in how the viewer responds to the trees – what is the viewer's relationship and whether you are concerned about how we [hear] the trees and the difference might be with what Tim has noticed. [Tim wanted to enable the people to

touch the water] which is quite different to Reiko's own touch. I don't know if that is an interesting thing for you to comment on.

0:28:35.6

Tim Collins: How's it different? For me, I'm a very selfish person. I go through the world creating experiences for myself and every once in a while I have an experience where I say, "Holy shit! If only other people can see this." So that [tidal] with east-west axis and just realising that [tidal] variation was pretty exciting because I haven't been in California that long. The [tidal] variation here kicks ass of the [_____] variation in California, I must say. But, yes, it's just a way of doing things.

Reiko Goto: Well, of course, people come to the gallery and look at the work, and how much they understand ... Yes, we have some responsibility, so that's why we're making a website or a brochure or sign to ask the gallery – those kinds of things. That's my way, but also, this project is not just about plants growing. [They're typical of a place.] You probably sensed that we talked to many people. I met Duncan three years ago. That was really the beginning. I'm not really asking that everybody loves trees – I wish it, for the future, but I'm not asking them. It depends on the person – it's like knowing and having a conversation. Sometimes it goes deeper, sometimes it takes you to a different world or situation. Almost, like inside of me, the tree is growing and then it's here; based on here.

0:31:00.8

Likewise – the other side, by talking – you may not understand today, but years later you might find something. So, you have a small tree inside of you too. That's the way we try to do the project.

Tim Collins: Ultimately, with all of this work, we are interested in people's response to what's there and how it functions and dysfunctions and the feedback. Let me read these questions that Reiko's put together.

One of the [...] questions that we would have for everybody we're talking to [...] is, what are your personal experiences about trees that include the negative and the positive? Do you have moments in your life that are exquisite moments of joy or

moments of pain and frustration? I can tell you some funny stories. Then we're also interested in your relationship with trees and the context for that relationship. Is your relationship with trees defined by your property and the trees that you own? Is your experience with trees actually with parks and forests, or is your experience with trees more global and expansive? And then, ultimately, the follow-on question is, what is your sense of responsibility for trees, and how is that manifest, given the fact that we live in a world that sees trees as property and commodity? Of course, [you had a run at these questions before we even got started which is brilliant]. So we're curious. Does anybody have any interesting, positive or negative experiences with trees that they want to share?

0:33:21.6

Anne Douglas: I was brought up in Africa and one of my friends had the privilege of being able to build their own house and on the plot that they chose was a quite mature tree in an area where most of the trees were very spindly. So my mother said that, whatever the architect did, this tree had to be preserved. In the end, the whole design of the house circulated around this tree – but the tree ended up peering out of a kind of, I suppose, a paved area, so there was a huge anxiety as to whether the tree had survived this whole process. We weren't in the house long – probably about three years, but I remember this architecture and I remember the anxiety about its survival. In a way, it was about property ownership. In another way, now, it makes me think what would be a form of building, or approach to building or human habitation, that actually was dictated by what nature was there, rather than, as currently, the other way round, we tend to privilege our own process of inhabiting the land, rather than nature's. So, it is very interesting to turn that question around and how would that change what we build with; what we build; how we build it; and where we build it. I don't know – but that was provoked by your question.

0:35:07.9

[Mr Galbraith:] A tree is a marker, and I use a certain tree as a marker so that I can bury something there, so I know they're there. I live in a stairwell where people are constantly changing so you can't leave your key with a neighbour because you don't who your neighbour is. So I go to the local park; plus bottle; put the extra key in it;

and put it next to the tree. So the tree's a marker for something that is important to me in my life. You can never guarantee if the person you've given the key to is in or there. So, I have this problem, and that is why I use a tree as a marker, and it is in a public park, so I can get in and out – as long as I can scale a wall.

It also suggests – if you want to be even more dramatic – we still have the people who scar their initials in trees as a memory.

Tim Collins: Anybody else – maybe some negative experiences.

Woman (Scottish): I was just going to say that I think my general experience of trees is that I have to go somewhere to be with them, because I live in a city and maybe that's the reason that, for a long time, I've always regarded trees as something that were 'other', and somehow separate from me even though my being here depends upon them. So there is that connection and yet it seems important to me to regard them as 'other' because I find that when I go to be close to trees, my behaviour changes. I walk differently; I listen in a different way; I look in a different way and, although you're talking about developing empathy with trees as existing beings or 'others', I still think it's important that I don't develop that empathy to such an extent that I feel we're the same. We might be part of the same things, but the concept of something very different from me is very important to me because it makes me more define my behaviour, and I don't understand whether that's good or bad or what it is. I just think I've got something to learn from it.

0:37:45.6

Woman: Similar things happened in education. I don't know if anybody else here is in education, but there has been a rise in the last ten years or so in the concept of 'forest schools' – in other words, spending time in woodland areas or actually in other natural spaces, but mostly woods, and this is something that teachers are always quite astonished at, is the change in behaviour simply through the change in place. I would argue that in education, [we've had a fault] in the last many, many years in that we've looked always at people and the activities and relationships between people and the relationships between people and activities, and we've removed place. It's like trying to sit on a three-legged stool with only two legs and wondering why it is difficult, why are we not getting there with education? I think we still need to be considering

what the impact is of place in every sense, the physical, the social, the cognitive, the emotional – [and then we'll be able to start out together in a bit more holistic way] *[background noise]* and maybe, perhaps, serve these children's needs better.

0:39:06.4

Reiko Goto: I agree. It is almost a mystery because every child is so different. When you watch children, some children are very gentle to other creatures and plants, but other children are not. As adults, when we see these things – like [_____] – both boys and girls do this – what should we really do? Because, 'Don't do that' will not work – we know that. It makes me question, how can we be more sensitive? [...] Just for myself – how can I be more sensitive? What kind of practice should I engage in? Does my practice make me more sensitive to notice? I think, maybe, that is the education part, or practice part. There is a way to be sensitive. Maybe, I should be sensitive, then, if I get better, maybe I can be sensitive to others – reaching out. I think, when we see children, we see it, or when we go to beautiful pristine areas and see garbage there. Your eyes go wide. Why do they do that? Are you ok about this? Why? This knowledge that you feel that it is terrible – that feeling is important, isn't it? You might not feel the tree is being cut; that I feel sorry – but if something is really brutally cut, many people feel this is not right.

Tim Collins: Back to the questions: personal experiences, relationships and their contexts and, ultimately, your sense of responsibility or the limits of that responsibility.

0:41:36.6

[Duncan]: With my job, on a day to day basis, my personal and negative experiences are very much dictated by the people I see, and their positive and negative experiences with trees. Sometimes, for me, particularly with negative experiences, it can be quite difficult to deal with.

Tim Collins: [_____]. *[Laughter.]*

[Duncan]: On a personal level, people often ask me, "Have you got a favourite tree species?" My answer to that is, "Well, for me it is almost like a Beatles song – it

changes all the time." You have a favourite tree, and you have a favourite Beatles song – and it changes. But I have this almost love/hate relationship with beech trees because they're such grand and beautiful things when they reach maturity. Everybody can recognise a beech tree and it is absolutely stunning to look at – but they're such weaklings; they're such saps when it comes to getting diseases or damage. They're just so easily destroyed; so easily hurt. I have this thing – yes, they're really beautiful, but they're always having these problems with them. It is a very difficult thing to try and sort out, but because of my job, I feel I have this real responsibility to try and manage them appropriately, and manage them in the correct way. And that is difficult.

[John]: I think it is really interesting what you're saying there. I appreciate what you – Tim and Reiko – are saying that the way you [_____] scientific knowledge, that you know the species and yet, on the other hand, there might be a different way of coming to an empathetic relationship through imagination or memory and so on. Just that sense that you can get when you do start to recognise different kinds of trees and that the depth of relationship that you get from that is really important – I don't know if you found that, either of you, and perhaps it is more difficult to teach children about different kinds of species but, on the other hand, that awareness of, when you have an open patch of land, the first thing you're going to get there is probably birch trees, and then something else will come up, maybe. That sense of awareness or relationship that comes through that kind of knowledge – it is quite hard to separate that, in a way, from the imagination and memory, but I think it is really important and I think it is a real shame ... Even [_____] taught at school – you never really get the chance to learn about what different kinds of trees there are. [_____].

Woman: I think one of the problems with that is that, within Scotland – certainly – research has been done and in 2006, during the month of May, the average time spent outside by a primary child at school – a school-age child – was 19 minutes a week, and May is one of our best months. For secondary school children it was 12 minutes as an average per week. Now, of course, that's partly why I'm doing the job I'm doing because I want that increased, but the good news is coming through from Scandinavia – from Sweden – where they've had [_____] schools for many years now, since 1986. We're coming through – and it's the same in Sweden, Norway, and

Denmark, and Scotland – wherever you go, where children have repeated visits or repeated time to places that become familiar, that are natural spaces, their knowledge about nature increases and their understanding to grapple with more complex issues over sustainability and that's not through reinforcement from the teacher saying, "Now, remember, this is a birch, and this is a [_____]." It is just through using these natural materials and natural places in their play and learning and subtleties can happen, so with teachers – one of the jobs I do is, say, rather than use a pen to point to things, use a stick; rather than count with standard Lego, use stones. There are various things you can do and you can try it yourselves. If you build a tower with Lego – no problem – it will take you all of two seconds; you try building a tower with just five pebbles and, my goodness me – you'll probably end up asking somebody else to help you – they'll be able to balance it – and if you knock it down, you're going to build it in a different way – so it's very, very powerful – this contact with natural places and the use of natural materials, and we're getting the evidence now that, not only does it make a difference, it makes a huge difference.

Woman: [_____].

0:46:59.5

Woman: Well, I actually do. I reckon there's a lot to say. This is not a natural environment; this is not where we're meant to be. You know, our genetic heritage says that, actually, we need to be in natural spaces just like every other animal species and that the more we isolate ourselves from that, the more dysfunctional we're going to be and there's an amazing woman called Frances Kuo who spent the last ten or fifteen years working in Chicago in some of the poorest neighbourhoods studying things – like the amount of call-outs for the police for domestic incidents is directly related to the number of trees and green space around the tenement blocks and the number of children who have hospital admissions for asthma is directly related to the number of trees that are in the environment and that children's levels of confidence and independence – particularly girls' – is affected by the amount of green space nearby and the evidence and Frances Kuo said if you look at it, we're doing what unhealthy organisms are doing. We're soiling the nest when you think about how we live and the way we're polluting things – it's soiling the nest and no healthy species does that and I think she has a very, very good point there.

0:48:32.3

Reiko Goto: How do you do your question – it's brilliant. Not just the surface, but going one more step deeper. How do you do it with your student?

Man: In the kind of teaching I've done, I've never really spent time teaching about species or those kinds of things. On the other hand, most of my colleagues have done. I have a colleague who researches human perception of birdsong – bird sounds – about how we can learn about birds, and he's been exploring different ways of just going out into the environment with people and just doing simple exercises of listening and giving responsibility to the people he is with to name the different birds that they can hear around them in the environment. I'm not sure he's come to any major conclusions from that, but he is certainly interested in that relationship between coming to know something more than just feeling, in a sense, of really coming to learn the ecology, if you like, and maybe the ecological side of it is a part of that learning experience that [Judith] is talking about as well. Just a kind of – what actually is there. It is a place and [_____].

0:49:56.2

Tim Collins: I can tell you a funny story. [As a kid] I was a pretty wild child growing up along a textile mill and a mill pond with an island. We were about eight when we started to figure out trees. I remember that summer – we all climbed to the top of the highest trees. It was like just sailing. There would be about six of us all up these trees and we would be able to see each other, and we'd sit up there an hour or two. If my mother had seen us, she would have had a heart attack – and indeed, when shit would happen – you know, at one point, one of my friends fell out of an apple tree and into these bushes – it's like a ten-foot bush. It was interesting because he hit, and he bounced – at which point, we all climbed up the apple tree and jumped into the bush. We spent the rest of the day bouncing around in this bush until the bush didn't have the ability to bounce back anymore, and then we felt really bad that we've killed the bush. We went back the next day and the bush – it all kind of came back. But it was interesting because that summer we also figured out that there was certain trees that we can run along the banks of the mill pond and it was like a fifteen-foot drop and there was certain trees we could launch ourselves off the top of the bank into the

thing, grab the tree and it would slowly bend and deposit us twenty feet down the bank. I had friends that weren't the brightest in the bunch, and they would grab the wrong trees, and it would just snap off at which point one of them got pretty badly banged up – but it was interesting. Some of us began to figure out which trees are more subtle and, of course, if you were a real tree lover, you would have been appalled at what we were doing – but it was a great summer.

0:51:59.3

I can tell you – something that's happened recently with beech trees. Reiko and I set the system up in the middle of Aberdeen. Reiko – stand up and put your hand up. So, her hands go lower than my hands. We set the system up and she goes and she touches [_____] right here. She said, "This is perfect. We can hook it up to here – no problem." So we're both really [_____] – it's been a hard week with a lot going on. So she is doing something else; I'm setting the system up. So Reiko set the system up, and I go to fix the tree. I can't reach the tree anymore! How did this happen? It's interesting. We got there like eight o'clock in the morning so all I can imagine is that the tree is still relatively supple; the sap has not risen with the sunlight because there was little or no wind that day and just, as the sun comes up and the sap starts to come up the tree ... It was *huge* diameter branch, basically lifted two feet to the point where I really couldn't reach it. We had to move everything to get it to hook up. [_____] in the morning. Is this possible? Did this just happen? What a wonderful experience – but like totally mysterious! Some people don't believe us.

0:53:37.2

It's this notion that they are living things and we understand things about them, so we go back and forth between ... You know, one of my favourite art classes was with [Robert Erwin] and he uses a quote from Paul Valéry, "Seeing is forgetting the name of the thing one sees". We've talked previously about naming the thing so that we can see it, but then, we're naming a set of things which, I would argue, is the function of science and the function of art is naming the specific thing – developing its specific relationship with one living thing that is exemplary and inspiring. Maybe that's the way to think about it.

0:54:31.9

Man: I would say that science is not about naming things. Science absolutely isn't about naming things and I would also say that, just because you *know* the name of something, doesn't mean you have any knowledge. This idea about being able to name a tree – that's an ash – that's not knowledge – that's recognition. Knowledge is knowing what a tree is; what a tree does. What you are talking about when Reiko reached the tree and was able to put a clip on the thing and then, when you went back later, and you couldn't reach it because the sap had risen – this thing about you jumping off and being able to bend off it, and with some trees you couldn't – that's knowledge; that's understanding; that's saying what a tree is; and knowing what trees are. Being able to *name* something is not knowledge and never will be knowledge and science is not about naming things – it's about understanding things.

Woman (Scottish): Do you think it gets mistaken for that – people mistake naming things for knowledge?

Man: Absolutely. And that's what a lot of education is about – being able to name something – so, if you can name it, you know it – well, you actually don't. You're probably least likely to know anything about that plant or tree or whatever if you can simply name it, or just recognise it. Sorry. [_____]. *[Laughter.]*

0:56:10.6

The other thing is – what you're doing here, basically, is you're saying you're trying to give a voice to the tree. I think that's what you're trying to do, from what I've heard – but, basically, all you're doing, as I understand it, is measuring the CO2. You could put the same thing on me, and measure the CO2 coming out, and you could have a piano making a noise – but that doesn't give a voice to me; that doesn't tell me whether that tree is healthy or not – or, if it does have an emotion, whether it's got an emotion or not. It's just telling me that it's alive. You could do the same to me and measure the CO2 and all that would do is tell you that I'm alive. It wouldn't necessarily give you any empathy or any further knowledge of the state of that tree – although, I can see how you can use that for some very interesting experiments because you could take, if they're the same sort of trees, you can see the response for that tree – perhaps in different environments. So, if you've got this tree – and you've got this tree in this greenhouse at the moment – what if you took that tree and put that

tree in the centre of Aberdeen where you've got not just the CO2, you've got all these [_____] particulates coming from the diesel trucks which will all go onto the leaves and all the rest of it. How is that tree responding then?

Woman (Scottish): Is that what these other trees are getting? So what's been revealed there which is above and beyond the [_____] is a hidden response that we don't see. You can tell it's alive just to look at it; but you can't tell what's going on – whether it's respiration, and how that's impacted by us unless you hear something in which case, at the moment, you hear the piano.

Man: Yes, but you won't be able to relate that in any kind of context. All you can hear is that noise. Maybe if you had the corresponding sound of a similar tree in the urban environment where it's not, maybe, quite so healthy, you could then say, "Well, I can see what's going on. I can appreciate that this is what a nice, healthy tree sounds like, and this is what one that is in distress is sounding like." So, you're gaining something from not just ... Because, for me, that's just CO2 – you're just measuring a CO2 response. It's not telling me anything about the goodness or the well-being of that tree. There's no context in it; there's no relationship in that sense because I can't tell the difference between ...

Tim Collins: You don't have a point of reference.

Man: Yes, absolutely – no point of reference.

Anne Douglas: But isn't that the next stage? It's taken you until extremely recently to be able to get the real-time connection?

Man: I appreciate it's work in progress!

Anne Douglas: Yes. The starting point was seeing this technology out in the Duke Forest and realising that, actually, it was access to an immediate response. If you think about trees as [being old] and being very slow to respond, what it is experiencing is immediate, but to get the whole system working in real-time has taken literally up to the week before the exhibition.

Man: It's all very new.

Anne Douglas: So you're [_____].

Tim Collins: The bottom line is, it's not rocket science, but most of us understand trees in seasonal time and the thing [_____] in North Carolina was understanding as we were there, really early in the morning; we're all up on the platform; they hadn't turned on ... Basically, what we're going to say is there was a carbon-exchange experiment; ten years of study, pumping in something like 400 parts per million CO2 per day from 9am till 6pm every day. So, we're there at eight o'clock; the system is not on yet; the scientists are getting pretty excited because the sunrise is really bright and they're getting a nice sap-rise response; they're getting an initial photosynthesis response which is really powerful, then all of a sudden, a bunch of clouds came in – but the kick of it was, the CO2 delivery truck showed up. Now, these guys have never been there when the CO2 delivery truck showed up. It was upwind from the test site, and all of a sudden the CO2 rate starts to go up and the trees start to react at which point the scientists are going ballistic. "Wow! Look what's happening!" [_____]. Yes, we can believe that – of course we can. And here is a moment that was [_____] for them which just kind of blew us out of the water because all of a sudden the trees are reacting like that!

No, it's not 'voice' in that, but there is meaning in that – for me, and this is my interpretation – all of a sudden I'm seeing a living thing in now-time rather than seasonal time. I'm seeing a living thing in a completely different way and through the work we're doing in real time, we're starting to understand that [_____] – you'll probably get a kick out of it because you're a scientist, so you set the system up in our living room studio in Wolverhampton, and we can't get the damn thing to calibrate. The CO2 readings were 600, 700, 800 parts per million; we're calling guys in Canada – we're like, it's just not calibrating; it's still reading 800 parts per million; so they're tell me to check this, check this – it goes on for four days. So, finally, their chief scientist calls and he says, "Tell me about the room you're working in." [_____]. *[Laughter.]* At which point it's like, "No shit!" So moments like that ...

1:02:48.6

And the other thing – a story I'll tell you. We had these experiences in 2000 and we hadn't touched them for like ... We talked about this for a year or two; tried to raise

some money; and then let it sit. Now I had this experience when my mum died and she is hooked up (much like that tree) – she's hooked up with all this stuff. I was really close to her and I'm still really close to my dad. So she's hooked up and the doctor comes in and says she's almost gone – sometimes she'll be with us, but she's not with us much. So we're sitting around there – me and my sister. My sister thought she doesn't hear us, there's no reaction and I'm watching all the feedback. Her heart rate is pretty consistent; there are other things going on – and all of a sudden – my dad has a really distinctive cough – and he gets off the elevator, and all of a sudden we see the blood monitor – and she's supposed to be comatose – and [_____]. "She's here; she knows we're here; she's just reacted to Dad." My sister said, "I didn't see it, I didn't see it."

1:03:58.9

Part of it is ... One of the other things I'm reading is [_____] who writes about society and ecology and he is writing about the [_____] force and how we recognise it, and what it means and 'life-force' isn't the right word because it is not about a force that is stopped by another force – it is life. And life, somehow, is something else. From a Shinto perspective ... Reiko's parents have just died – both of them. [We have gone through various ceremonies in summer.] I engaged a bit with her elder family who were Shinto and who believe in Kami – the spirit that is life; that is within us; and within them. I've read about the Kami. The Shinto religion is about learning to recognise the Kami energy and it's not something that can be taught; it's not something that can be memorised; it's not a word, a name – but it's something that, by passing through these spaces ... The Shinto temples are architectonic because [_____] but within them all, they had was a mirror and the name of the Kami spirit. There's nothing else in there, but what they have is some shrine about trees. There's this notion that there are exemplary experiences of life that have real meaning to us.

1:05:23.8

So, basically, what we're playing with is, we're interested in the question of climate change and we are interested in our impact on the atmospheric conditions in cities – but, ultimately, what I think we're interested in (and we argue a lot) is the question of life and at what point in our culture, where all living things are property (it's only

recently that women have been emancipated from the role of property; it is only recently that people of colour have been emancipated from the role of property) – is it appropriate to start to think of *some* living things that bring real value to our culture as having a potential need for emancipation and the thing that keeps coming back to me is, of all the living things on earth, the largest living things on earth are trees. Aren't they something that really needs to be part and parcel to the resolution of the last two centuries of problems that we've created for ourselves? You know, how do we start to think about that differently; how do we get to this question? It's not through the rational, logical analysis of science, but through the experiential and aesthetic truths of [_____].

1:07:02.3

Anne Douglas: It's fine to frame and emphasise the whole issue of property, but think about the practice of music, for example. A child learning to play the accordion; a child learning to memorise [_____] blowing through a tube [_____] and that, to me, is much closer to this idea of understanding what it means to be part of the energy of life, and we practise that a great deal in our culture. They may not be the things that reach the political headlines, but the practice of the arts is fundamentally about trying to, in different ways, tap into and understand that energy. I think we need to also recognise those moments in which we are actually doing that very profoundly and many people are doing it. Children are also doing it. We have to be careful about the emphasis of certain kinds of framings.

1:08:25.9

Reiko Goto: Yes. Thank you – because that's the point. Not everybody is really tree, tree, tree – but practising music or practising art. It is more sensitive – not just being sensitive to ourselves, but sensitive to others. So, if not planting trees, or people not looking at trees – there is some kind of connection existing. I'm taking this moment to say, for example, Tim and I are having this exhibition which is about trees at the Peacock Gallery space and supported by Peacock staff, and organisations. There are some connections there – and then people come here. They might not be keen about trees, but then they may be curious – a little curious – why trees, and what about the sound? So, it's not just directly about trees, but somehow, if we can see

your role how to support, maybe that is the beginning to shift the change, rather than just directly thinking about the trees. These questions that we were talking about – I hope you will think about it – how you are connected to trees, but the answer might not be these trees because, recently, I reread about Henry [_____].

[*[Please check.]* There is a description about marrying a bird. This one paragraph – when you read about a bird marrying – there is nothing about writing about marrying – the description is all like the inside of [_____], or looks like – da, da, da, da – it's not talking about marrying at all. But then, the following paragraph is about the plight of the [_____].]

1:10:52.3

So, when we talk about the trees, maybe other things are more importantly relating to the trees – and then, finding the roots – [how other things are connected to the tree is interesting and also important to practise for all of us].

Thank you very much for coming!