Carl Stone: Hello I'm Vicki Bennett.

Vicki Bennett: And I'm Carl Stone.

CS: Nice to meet you.

VB: [laughs] So thanks for coming along everyone. There is a lot of noise going on on the roof at the moment so there's going to be some strange accompaniments to our conversation. I think we first met about twenty years ago didn't we?

CS: Yeah. You reminded me that it was in San Francisco or maybe more precisely in Berkeley. I was doing a radio program on a station called K.P.F.A, on my slot dedicated to experimental music, and you were my guest. I had a chance to interrogate you.

VB: Yeah, indeed. And now we are turning the tables.

ST: Twenty years later.

VB: Indeed, indeed. And you're touring at the moment, aren't you?

CS: Yeah small tour, started off in Holland and then came to the U.K. Played I guess two nights ago at the Barbican in St Luke's on a double bill with Yasuaki Shimizu, went into sort of your hometown territory in Colchester, performing in Scotland after this and then going back to Japan where I live.

VB: Just so I'm going to ask you some questions that start a while ago. You studied at Cal Arts under Morton Subotnick and James Tenney. Just wondering what was it like to be working at that time in that location?

CS: Well, it was a really exciting time for me - I was just fresh out of high school, I was an undergraduate, eighteen years old and starting out, I hadn't had a lot of exposure to contemporary or experimental music but I had come across some electronic music and found it fascinating so I was interested in pursuing that. I had been playing keyboards in a band that was sort of modelled after the Soft Machine who probably many of you know. I saw them open for Jimi Hendrix in Los Angeles back in 1967 and myself, bassist by the name of James Stewart and drummer Z'EV (who some of you may know, he passed away recently) had a kind of trio and were experimenting. I played keyboards and was interested in radically modifying the sound of the instrument so that led to an interest in synthesis. Switched-On Bach had come out and the Moog synthesiser was in vogue and Cal Arts was offering an undergraduate program in electronic music based around- they had three synthesiser studios run by Morton Subotnick so I jumped in and began working there and Subotnick and James Tenney didn't- neither of them taught me the nuts and bolts of synthesis, the actual practical teaching was done by another faculty member Barry Schrader, but Subotnick and Tenney both gave a lot of really interesting ways to think about form and structure and the kind of the meaning of shape in music, and this is something that I've sort of kept with me.

VB: And you also had a job at the library where you were transferring vinyl to tape?

CS: Yeah. Yeah, and that was kind of as important as any of the classes that I took in terms of helping me find my own approach to making music. Subotnick felt that I really, because I sort of came out of rock'n'roll and I knew classical music a bit but I was wasn't familiar with all the tendencies in twentieth century modernism (for example, he told me I should read 'Die Reihe' which is a very dry German text about modernism in music in the 50's and 60's, he just wanted me to find out a lot more about music of the twentieth century) and so his idea was that if I got this job they needed people to backup all the LP records in the Cal Arts music library - there must have been ten thousand of them - and you know, this is 1973 so the archive medium of choice was the cassette, and so they wanted to back up the records because they were records, they would get warped or scratched or stolen or whatever, and then a lot of them were very valuable, they had a lot of rare recordings - stuff that was bought by teachers as part of the world music program, bought in from India or from Indonesia or Africa etc, so some great stuff. And so my job was to take every LP in the library and transfer it on to tape. And new stuff was coming in all the time, it was kind of a Sisyphean task which I convinced them to help me solve by not just one, one turntable and one tape recorder, but we got a bank of turntables and a bank of tape recorders together and so I could have, you know, three or four (I forget how many we had, maybe four) going all at the same time. And what happened was I could monitor them individually to make sure that the records weren't skipping or they hadn't run out to the end, but I could also monitor them together. And I began to notice these sort of interesting collisions that were happening when you had, you know, some African music on turntable one and some Schoenberg string trio on turntable two and some Gesualdo on turntable three and, and who knows what else on turntable four, this was really interesting. And I began to start playing with the balances and so on - I didn't think of it as composing. But it somehow struck a chord

in me about how radically different musics might be able to combine to produce some interesting third result and that's kind of informed my approach to music making ever since.

VB: So do you think that was your first instance of discovering collage as a way forward?

CS: Yeah. Yeah, it was and what I did is I, you know, there were some albums that I discovered in the library that I really loved - this recording of music of Burundi for example which I've kept in my head to this day. I began to experiment with making loops in the studio and so on, and some of those samples find those way into pieces that I've done twenty years later - in fact one on this latest release, a piece called [Banteay Srey](#) is based on one of the child singers found on that recording back in 1973.

VB: I mean you're mixing ethnological music with the Western tradition - how do you feel about the way that the two things mix together, and where do you think that comes from - because you're trying to make more than the sum of the parts when you make collage aren't you?

CS: Yeah of course. It's- I mean, I think that it's possible in principle to combine any different kind of music with anything else and find a way to make it work, and I've been really kind of amazed at some things that seem extremely unlikely in terms of kind of innate musical compatibility but that fit together almost like a glove. I have one piece that uses the voice of a Vietnamese female singer and in the course of the piece it's combined with several different pieces of baroque music, with Japanese

shakuhachi music, with some Irish reels and without any pitch shifting or for those of you with technical inclination, without using Melodyne or anything else. You can kind of squeeze it together and make it work. And also, what is working? Even if it doesn't fit together perfectly in a Western template it still can sound pretty interesting.

VB: Oh yeah, discordant things can sound lovely, yeah. I mean, I was just thinking about- did you say that you describe yourself as a recovering minimalist, or did I imagine that?

CS: I may have said that. I mean a lot of my work- you know, I've fallen off the wagon several times. Some pieces tonight are very loop based and in a sense minimal in that there's a lot of repetition involved and slow, slowly evolving or sort of micro change happening in the course of repetition so that changes accumulate more and more over time yes. Um, but, probably minimalism is the kind of standard aesthetic that I've held onto the longest. My works tend to either involve repetition or if they don't involve repetition they involve a kind of reduction of materials, and if they don't necessarily involve the reduction of materials they at least involve a lot of materials but stretched over a long period of time. So these are kind of the three pillars of minimalism that I've embraced from time to time.

VB: And the thing about the loop in terms of technology - and, you know, when we're working with, well I wouldn't say hi-fi based, recording based instruments - they're sometimes not so much dictated but they can be how we can get inspired, like when you were working with the library that was - you got inspired by the technology.

CS: Yes, yes absolutely.

VB: So how do you think that has changed with the advent of the older computer, but also broadband and the high speed computer where the sky is the limit? Because the loop is a limit in a way isn't it, which is either self-imposed or it's imposed upon you.

CS: Yeah, it depends how strict you want to be with your loops. I am kind of now exploring loops where the timing of the loop may suddenly expand or contract, or the material inside of a loop may- you may replace materials microseconds at a time so each repetition is first of all analytically different, but even if it was the same I have a theory that there is no such thing as true repetition because every time we hear something repeat our perception of it is conditioned by each previous time that we've heard it.

VB: And also it's a different moment in time.

CS: Yeah sure, of course. We've grown that much older and wiser.

VB: [laughs]

CB: But back to your question about enabling. I mean, looping has never been easier really and the things that we used to really have to- we were kind of enslaved by this fascistic relationship between pitch and time for so long, where when working with tape or with vinyl or whatever you kind of couldn't escape the physical reality that when sound vibrates faster- if you speed something up the pitch will rise and if you slow it down the sound driver is slower and it will be lower in pitch - this was

insurmountable for many years. You know, I think back in the 60's there was an invention which Stockhausen tried to use, I forget what called, I'm blanking on what it was called, [The Phonogene] but it involved a revolving head like a video recorder but it was for sound, but it never worked right and it didn't sound good and so it got thrown away- but now, shifting pitch independent of time is trivial. Anyone computer can do it practically, if anyone here uses a program Ableton live you know that it's absolutely- there's nothing to it all. Digital technology has enabled that, and it has also enabled- I think we participated in an advance that dealt with slowness, and this was especially interesting for me because the whole idea of making something as slow as possible, well, as slow as possible in the physical world - there are limits to how slow for example you can play a cello or tuba. You're limited by your length of breath or just the physicality of being able to produce a sound. You need a certain amount of momentum to be able to make a sound but again, in the digital world, any sound you can- it's like is Zeno's paradox - any sound you can slow down, you can slow down even more.

VB: It's all relative.

CS: Right. And so you have pieces like Leif Inge's er-

VB: [9 Beet Stretch](#).

CS: Yes! Which he took a Beethoven symphony, 9th Symphony, slowed it down to 24hours.

VB: It's beautiful [laughs]

CS: Yeah, oh yeah, it's gorgeous. But I thought, well you know, I mean why stop there?

VB: [laughs]

CS: So I took the same ratio that he used for slowing down the Beethoven and I slowed down his piece - it became one week long. Yeah so, what were we talking about?

VB: I was talking about computers, and I suppose it was also - I mean from a person point of view I found that the year 1999/2000 revolutionised the way that I was because of the advent of the high speed computer but also broadband - making networking, that it wasn't localised anymore.

CS: Right. That same year, and it was probably the same year, was also kind of a big forward step for me but for different reasons. It's because that's when the laptop became usable for actual digital sound processing. Before I was using a laptop in performance to control a bunch of midi gear, uh, outboard gear likes synthesisers and samplers but it came to the point around 2000 where you could actually do it inside the computer and Max, the the programming language Max had evolved to the point where you could do that, and a couple of years after that M.S.P. which is an extension of Max allowed you to do this digital signal processing all in real time, all under your control, all with a laptop so you don't have to haul around eighty tons of gear and this was a big forward step.

VB: Definitely. Yeah, yeah. And I mean, you were you have based in America for a very long time but then you moved to Japan.

CB: I did.

VB: How do you think that that has changed you, or how has it changed your perspective upon the culture upon the culture you came from or where you moved to? How has it changed your creative approach to things?

CS: Well one thing that happened is that I became a lot more interested and developed a much more fluency in improvising, in working with other musicians in an improvisational context which I really didn't do much before I moved to Japan. I mean I did a little but I didn't really have my chops together. When I moved to Japan various opportunities presented themselves - working with either traditional players or with people coming through from Europe or the U.K. whatever who just wanted to play and it was easy enough in Tokyo to just throw gigs together. And so I began to develop a facility for live performance using some of my sampling techniques and adapting them to real time. So that was one big change but also I mean being in Japan and being far away from- I moved to Japan right after 9/11 happened - Bush was president and you could sense the whole country moving in a rightward direction and I thought, well, this might be as good a time as any to be an ex-pat. Now, now Bush almost seems quaint [laughs] and so I ain't going back.

VB: And what do you teach in Japan?

CS: Well it's er - I teach music technology. The students there are very clever, they want to actually make a living so they don't particularly want to be composers, or if they do want to be composers they want to maybe do music for computer games or be recording engineers, or do sound design. The school- I live in Tokyo but the school is based in the city of Toyota and as you might imagine in the city of Toyota, the main industry there is Toyota. And so, you know, every time you open a door in a car, you push a button or turn a knob you hear a sound. Someone designed that sound and so sound design is one of the things that I work with students. And you know, they can actually make a living doing that unlike me. I have to teach to make a living.

VB: [laughs] Maybe, I think, has any one got any questions at all? I know I just sprung that on you but if anyone has any questions in their head that they're pondering over?

CB: Any answers?

VB: [laughs] That's was very cruel of me. Oh, there's one.

Audience: Has the technology you use for your performances changed a lot over the past few years?

CS: It's changed a lot since I started using technology in live performance. In the beginning I was using multiple cassettes through mixers and the old Robert Fripp, actually Pauline Oliveros trick of stringing a reel of tape between two tape recorders for a super long delay. And then eventually started using LP records and processing

them through a kind of high end stereo digital delay harmoniser, and then after that got stolen twice and the Macintosh was coming up I started using MIDI gear like samplers and synthesisers under MIDI control from a computer. And then as I said, things becoming faster, cheaper, out of control and so laptops generate their own Digital Signal Processing and I began programming myself using Max which is a programming language. And so as the technology has become as I say faster and more efficient you can get things smaller and do a lot more. And the move has been to more and more precision which actually enables you to precisely control how imprecise you want to be, which is and I think what I'm interested in. Does that answer your question?

Audience member: That's the new release, that's a vinyl over there isn't it?

CS: Yes. That's just a medium of the dissemination. If you're, I mean if your comment is based on the fact that vinyl is an older technology - is that what you're pointing out?

Audience member: No i'm just - are you going to make a 78 at some point soon?

CS: 78's? Well I'm thinking 8 track cassette, you know,.

VB: Generally things that being reissued on LP and cassette now when we weren't even able to even do it the first time around sometimes.

Audience member: That's yeah, I've got that one on cassette.

CS: Uh huh, well, first of all if anyone wants electronic versions of that album they can buy it as a standalone. If you do buy the album you can get the digital version free of charge, but either way you can have a perfectly reproducible digital version - could burn it onto a CD and roll your own. Bug L.P.'s are- some people think they sound better, some people like to collect them, some D.J.'s like to use them in their sets and it's nice to, you know, be able to have a cover for a change. Yeah OK.

VB: It's funny that it the label I'm on the moment, Discrepant, they only do vinyl and they're re-releasing my stuff from the 2000's but he sees it as archiving. Yeah, cause you know, the zeros and ones might disappear.

CS: Yeah, well that's right. You got to get it, you got to preserve it. But you know frankly speaking the LP is a mutable medium it's not it's not going to- an LP is subject to wearing out, warping as I said and so on so but, but it is getting- I guess if we can have our music in different iterations, in different many different formats that's probably the best situation for us right?

VB: Mmm, duplication. Any other questions?

Audience member: Have you got any plans to release your current work?

CS: Well I'd like to, I'm kind of searching for labels and maybe some people might have some advice but, you know, I have a nice label I work with on these archival releases - that that's sort of what they do - but I would be interested in releasing my current stuff. My absolutely most current stuff I like to keep sort of in the hands of my performance but maybe after year bring it out, but as something that you know

reflects more what I'm doing now as opposed to what I was doing in the 80's or 90's. Yeah, I would be interested in seeking recommendations on a good label.

VB: Ok, last question I think.

Audience member: Do you adapt your current setup according to your environment, i.e, when you're travelling or- I imagine you've got a much more comprehensive set up in the studio- but do you use a more stripped down one, mobile apps or anything?

CS: You know I would that would be my dream to be able to just travel with like an iPhone or to be able to do concerts or an iPad. I am not at that point yet. I've built interfaces for an iPad that allow me to perform but it's still- what they're doing is controlling a laptop so I haven't saved any space in my suitcase or made my burdens any lighter. I'd like to, I mean, I'm grateful that I don't have to haul around you know tons of MIDI gear anymore, and I hope the day will come where maybe I will be able to program and then perform on something like a tablet. But we're not quite there yet, I still need my computers. And you might be surprised but my set up at home, in my home studio, is not that much more than what I travel with. Pretty much doing it all on a laptop. I have some good speakers and good playback gear in my studio but the actual means of production of something- I want to be able to do it in the studio, pick up the machine and take it out on the road.

VB: Think that's all we have time for.

CS: Thank you.

VB: Thank you! So we have a ten minute break and then then I'm playing.

CS: I'm looking forward to that yeah, thank you.