

Interview with Nicolas Collins, Chicago / Berlin via telephone, December 2001

[Golo Foellmer] 1. To begin with: How do you describe yourself? What's your profession?

[Nicolas Collins] I think of myself mostly as a composer and performer. And I also do installation work, occasionally. I don't do as much installation now as I did in the late seventies and early eighties.

I work a lot with technology, not exclusively, but I would say 90% of the work I do incorporates electronic technology of some sort. And this is a mix of micro computers and circuitry. I think I like a very confusing technological environment, and as soon as I find myself going in a particular direction, like software-based music, I force myself to change and go in a different direction. So very often a piece will mix up a dedicated micro processor and a bunch of cheap electronic devices like CD-players. Then the next piece will be just with the laptop and the next thing will be with a bunch of string players.

I'm also very involved in a sort of trying to gather information about the culture of Post-Cageian music. I've written for a long time articles and essays, and for the last five years or so I've been the Editor-in-Chief of Leonardo Music Journal. And I'm using that annual journal as a way to sort of gather writing by artists about work. And I've been focusing each issue on particular themes, and in fact there was one issue about responsibility and identity in new music that addressed a lot of the issues that you're concerned with, having to do with networks and the role of improvisation and computers making decisions in pieces of music.

And for the last couple of years I've also been a teacher, which is something I'd never thought I'd be. I'm a professor at the school of the Art Institute in Chicago. I'm the chairman of the department of sound - a wonderful title. So I'm basically involved in teaching what is essentially musical practice to people who come from a visual art background rather than a music background. So that's me.

[GF] 2. Tell me about your work. How does it involve the network and which consequences does this have for the resulting music?

[NC] I was thinking about that when I knew we were gonna do this. And I think there is a pretty straight line that you can follow. When I ended up in college in America, ... 17-18 years old, I went to Wesleyan University, and I went there with the intention of studying Indian music. But I met Alvin Lucier the first day I arrived, and so I did a sort of a parallel track of studying composition with Lucier and Indian music with a tabla player from North India. And when I left the university I stopped doing anything with Indian music, but remained quite active in electronic music. When I took Lucier's introduction to electronic music course as freshman in my first year I got very involved in Lucier's own ideas, having to do with notions of making music about acoustics and architectural space. These were things that I had a great interest in for other reasons, and I suddenly saw how to incorporate them into musical work. But also I fell in love with the music of Christian Wolff, a composer somewhat under-recognized of the Cage generation. He some years younger... But Christian had music in the late 50s and early 60s that was based on the idea of co-ordinations. These were scores that instructed the players to make sounds in relation to one-another, rather than against a time frame. Christian used to say that what he wanted to do is reduce the tempo of music to zero, that is freeze the time of music and have all the events be based on cueing and coordination. And these are ideas that came up much, much later in the work of John Zorn, but in 60s this was a very radical idea.

And I looked at these scores and I thought: Hm, these are the scores for computer pieces. I mean this is the way computers work. All of these co-ordinations of Christian's looked like logic diagrams: And, Or, Not, Exclusive-Or etc. So I sort of gave myself a mission some time

around 1973 to try to make electronic music - and then when I started to work with micro-computers in the late 70s computer music - that was sort of based on these ideas of Christian's. And I've had very mixed success on that. It's been one of those goals I dangle out in front of me, like the carrot at the end of a stick to make a donkey go faster. And in about 1979 I did a piece that was a digital hardware instrument - it was sort of like a dedicated hand-built computer - that was controlled by four performers. It was one instrument that could only be played if four people played it at the same time. And the sounds that it made and the speed with which it went through its structural sections was based on co-ordinations between players playing little simple keyboards and this and that.

And most of my early micro-computer music in the early 80s was also based on these sort of multi-player instruments. There is piece on my first record for Lovely Music called *Little Spiders* that looked essentially at two eight-key-keyboards that were played by two performers ...

Then what happened was, I sort of drifted off into human networks, I started working more with players, and I think fell back on more traditional ideas about interaction: less mechanical, more having to do with recognizing the skills of the players and their ability to make decisions, in a much more interesting fashion, often, than my rather simple programs did. So I began to lose track of that a little bit.

But then, what I forgot to mention earlier on, in addition to writing about our music scene I've concert promotion and festival production for a long time, starting when I was a student in college, and then continuing through New York, I was a curator for the Kitchen and PS1 and the Clocktower and a number of other spaces. And I've continued that, you and I have been involved in projects together as well. And that led to my sort of most direct involvement in networked music, which was producing a *Hub* concert in New York City in the late 80s, in 1987.

That's my involvement in networks. What I can say is that I began with the idea, before the Internet, of working with networks within a computer environment or a digital hardware environment as sort of creating a networked instrument. And then, as usual I think I'm always a little too early, a little too late, because I didn't get involved in the Internet as a network tool. And by the time that became a real option for me, my interest had moved in different directions, working with somewhat more traditional means of performer interaction. But I've always had a real affection for that vision of how to work. And so this is why I've been a good friend of The Hub people for a long time, and I've tried to encourage their performances in many places.

[GF] 3. What kind of ›product‹ do you aim at? Can we hear net audio projects like yours as music like we have known it, or are they fundamentally different?

[NC] No, actually I don't think so at all. I think that's why I was able to make the small steps stylistically. First of all I saw the Christian Wolff pieces and the notion of a computer music as being very closely allied. And I always saw the Christian Wolff pieces as a sort of ›Uebemusik‹. For me Christian Wolff is the most musical ... ja, ›Metamusik‹ maybe! Because for me it is stripping music down to its most essential characteristics. So I saw that as a natural link, and therefore I saw the role of computers as indeed being very musical. I think that where I began to shift away from computer music in the sense of letting computers do the coordination to working more with players, had to do with aspects of stiffness versus flexibility. I think my first work with computers, it was a little bit like playing a music with a metronome going. Which is, it has a kind of a rigid rule-structure. There is very little rubato in this sort of logical structure. I don't mean just in terms of tempo, I mean in terms of fuzzy areas. But that's because I was programming in a very primitive environment. I remember this was machine language programming, assembly language programming for 8-bit micro-processors that had one k of program memory ... When I look at the pieces that Paul DeMarinis or David Behrman were doing in those days, I mean it's astonishing what they could fit into those computers. And I was never so virtuosic a programmer.

I found my own programming skills weren't high enough to let it be flexible enough, and I think of course that's changing now. There are so many software tools at your aid that can allow you to tweak the performance of an interactive network so that it has the kind of growth and flexibility of a real musical environment. Look for example at George Lewis's software for improvising with a player: It has the properties of great players embedded in it. You would never say: Oh, that's a computer playing.

[GF] [unclear passage]

The listener of net music is usually interacting with the production process of the music in one or the other way, and this is just logical, because active involvement is the most characteristic feature of the Internet. Does this mean that interactive audio works shift musical responsibility from the musician to the listener? Is the interacting listener a creator of music, or is this change a rather superficial one?

[NC] I mean this comes down to what I regard as a sort of fundamental cultural question at the moment, which is the whole issue of interactivity, and: Do people want it? The example I always quote is that one of the advantages of a CD over an LP is that you can access individual tracks very easily, and you can access them while sitting in comfortable chair. ... the people who designed the CD-players put in these various mechanisms for using this power. For example you can play in a random mode, or you can pick out your favorite tracks on a record and just play those tracks, or you can repeat one track over and over again. No that's a very low level of interactivity, but I think maybe only 1% of music listeners bother to use that feature. Most people just put on a CD, and the prime advantage is that you don't have to flip it over after 18 minutes, you get more uninterrupted music, more time without interaction! In other words it's anti-interactive. And I think that the primary area of interaction, culturally, is in gaming, clearly. And channel-surfing, you know figuring out which channel you want to watch on the cable, and playing a game. There seem to me very few instances of a linkage between music, or I suppose visual art like film and video, and interaction. In other words it seems as though the technology has a little wall there, a kind of a conceptual wall. So the question is: What kind of people want to interact with music? Clearly it does not seem to be the consumer, yet. Consumers, they don't just want to watch computer and video games play back like a video tape, but for music it seems there is still the distinction between performers and consumers. And the question is then: What's a good medium for extending the capabilities of the performer? And in the early days of these telephone and Internet linked concerts, what I found was very odd was that as a promoter and a producer I was always being asked to move musicians from one location to another. Like, we're gonna bring three Bay Area composers to New York, and we're gonna send three New York composers to the Bay Area, and they are gonna connect and do concerts. (laughs) But I guess musicians just like to travel...

For me what it's gonna come down to is very subtle aspects of what constitutes performance. In my work I rely very heavily in live performance as a component of my music. In other words I do not feel that a piece of mine is finished until it's performed before an audience, even if it's only three drunks in a bar in Århus, it's still: it has to be stage and somebody out there. And very often I don't even know if a piece that I've done is any good or not until I get on stage. I might have worked on something for five months and think it's just fine, and then I get on stage and within three minutes I realize it's terrible and I have to radically change something.

And I think that at the moment it's very difficult to create the ambiance of performance in a network environment, unless you are networking concert halls, where there is a live audience. But this notion that musicians can just sit at home and interact over the Internet, it sort of begs the question of: Is it a performance, does it satisfy the needs of a performer? Or is it more like a recording session?

[GF] ... [unclear passage] I think this is also what The Hub is trying to do. And now one could discuss whether maybe in the performances of the The Hub maybe one problem is,

aside from great things they did, that they might feel it, but the audience doesn't: this feeling of a distance.

[NC] I think what one has to do then, if you don't have a performance concert environment is to look what you get, not what you lose. Let's say you lose an audience in a public, in the traditional sense of the term. What do you get instead? And you are right: You get the distance. When you were speaking I was reminded of all the scenes in movies of people playing chess by shortwave radio, Kurzwelle. And I'm in Irkutsk and you are in Buenos Aires, and we have a chess game, every night we make one move. That obviously brings certain people in intense pleasure. Now in the cinema it's always portrayed as being very melancholy, it's always an attribute of someone who is a lonely person, that they have to seek this partner from 10,000 miles away. But nonetheless it is a powerful thing for somebody... This distance, that notion of connecting, yes, perhaps the image lies more in concert environment than in the cliché of the jam session. During the 50s you would read about Bebop arose from these after-hours clubs where the musicians who were playing in the Big Bands entertaining the diners of New York would retreat to these small clubs and play for themselves. That's probably the traditional musical application that I see most appropriate to the network. And then I think, what it is going to come down to is issues that I don't have direct experience with, that you are probably getting more from other people, which is: Is the net quick enough, and does it have a high enough bandwidth to make it musically satisfying to play - in the most general sense of the term - with another person? Or is it going to be like having two musicians on two ends of a tunnel trying to play with each other, or on two sides of a basketball court. There is, yes, there is interaction, but it's not ideal, because there is a time lag, and there is echo and everything else.

[GF] If you try to find out about the standard formats like Flash and everything, if you dig into these manuals you find out, that the whole software is a work-around the bandwidth and compatibility problems, because you never know who will have the bloody newest plugin of this thing. So basically it's a large compromise. But of course many musicians like for instance Atau Tanaka, they try to play exactly with that, and they either have a more or less good idea how to work with minimal data or they even play on that, they play with the delay or something. This is done a lot.

So basically, if I understand you right, you are saying that first of all it's not like the whole mass of consumers is becoming activated through interactive tools, but they are not very much interested in that.

[NC] My gut instinct is that the makers of art, the producers of art, the creators of art are racing with the technology now, pushing it to its limits, designing innovations, well in advance of a public that can consume it. But hasn't that always been the case? In other words it's no different than other sort of revolutions in music, say serialism or Cage...

[They] developed their musical vocabulary and their tools well in advance of the public's ability to absorb and appreciate it. And none of them are pop stars, even now. So clearly there is a big lag.

[GF] That's right, but am I right that you said that there is a potential for musicians to jam, to improvise with each other, using this medium in special ways.

[NC] Not quite, I didn't mean that they would be jamming and improvising. I meant that that would be the best model, because it's the idea that it's musicians working amongst themselves rather than for a public. It might be composition rather than improvisation, it might be a network where you exchange information about where to get a good gig or where to buy cheap shoes if you're in Bosnia. But I'm just saying that the tools might be much more useful amongst musicians or artists, rather than between musicians, artists and their public.

[GF] I see. Nevertheless I want to get back to the listener, the user of music with an example, which is Chris Brown's idea of the Eternal Network Music Site. This idea basically is a web site with some sort of interface and a generative algorithm in behind that is

always generating music in real-time, which is somehow dependant on the interactions of the listeners. There might be several, and the interaction schemes are built in a way that on one side the person is interacting with an instrument, but also with the other musicians. A special algorithm might be depending very much on how people push information back and forth. So this site is always running, everybody can always get there and play with this, and Brown thinks of that more as a way of listening to music and directing it a little bit than making this music like a performer does. Do you think this is an option?

[NC] Oh, absolutely! That's what I was gonna say: The next step is that you do have a sector of the population that is interested in exploring the web. It is a recreational site for them. These are people who want something more interactive than watching television or listening to a CD. And just because the web is global it means that even if this is a small percentage off the population, it's still a lot of people, it's a lot of computers online. So I think the web is a more enticing environment for interactivity than the CD, because it is new and it is based on interactivity: You wouldn't go there if you wouldn't want to click your mouse. You cannot be passive on the web. So indeed sites like the one that Chris [Brown] is talking about or Sergi Jordà's project FMOL I think represent a perfect application of what you can do with the web. Which is: You have something that has some degree of interaction with performers, some degree of pre-programming, and someone who logs into it can get a sense of satisfaction from it responding. If it's well designed he can get a sense of the presence of other people on it. I think that's a very nice idea. I mean it's sort of like a real-time abstract chat room, when it works right. Because you get a sense of the interactivity from the site. And I think that that is more interesting as an art idea than the idea of just using the web like a complicated telephone to allow musicians to play with each other.

[GF] 8. How interesting can music be that's being brought about by non-musically trained people? Chris Brown and also Sergi Jordà, they aim at both: people who have dealt with music and people who haven't. But then, would this be music that is only fun to play with and to kind of listen to or could this still be music that is performed in a concert hall, by non-musically trained people?

[NC] I think it's a very telling question, because that is what music from about 1960 has shown very clearly, but a lot of people are unwilling to accept it. Which is that it is possible for people from non-musical backgrounds, people who are not trained in traditional musical skills to make music. I think that Cage showed that with a fair number of his pieces, perhaps most notably Cartridge Music, the piece he did in 1960 where you make noises with phono cartridges. And an awful lot of the English composers who is associated with the experimental music catalogue: Gavin Bryars, Scratch Orchestra... They created scores and tactics for people to make music who didn't have traditional music skills.

Now I deal with this daily in my job at the moment, because I'm teaching art students. Very few of them have any musical background at all. Some of them produce very beautiful sound work that is indistinguishable from music, though we don't call it that at the school, very funny. And some of them are hopeless at it, they just have no instinct whatsoever for working with sound. But I've believed all along that this notion of what is a musician is a very, very circumscribed term which doesn't really have relevance now. I mean, you look at a lot at people who rose into positions of musical prominence as engineers and producers and remixers. Very many of the people who tailor pop music for the public today have no traditional musical skills. But I think that the notion of a musical instinct is a much more deeply routed skill, it doesn't really have much to do with whether you can play piano and read notes.

[GF] 9. So of course the notion of listening or o the listener is changing, and you it's also the musician who we maybe only have to see differently today, right?

[NC] Right. And also it's a questions of: Does the musician know where he or she can act intelligently and where not. So for example, I have a fair number of house DJs as students.

And these guys can program up very, very good rhythm parts for their tunes. And they can do pretty good voice programming for something like a bass line. Whenever they try to write a riff, a melody, they fail miserably. None of them can write a melody. And the other thing that they very often fall into the trap of doing is having everything line up in units of four or eight. They are not capable of understanding the notion of a suspension or an art meter or something like that. So there is a certain point they can't go beyond, and they don't realize that when they go beyond this they're failing and if they stay on the other side of the line they're succeeding. And I think that of course is the beautiful thing you can do with an interactive software environment, say based on the web. You can put fences up so that you can ask the general public to do the things that the general public does well, but retain control for those things that require some special skill. And this might be a musical issue or it might be a technological issue. But you can sort of set that up with much more control that you can by, say just putting a saxophone in somebody's hands and say: Now play!

[GF] 10. Musicians working with computers or in networked environments tend to abandon the idea of the fixed musical work. ... Does this imply in a way that the maker is giving up his individual expression?

[NC] Oh, right. I mean that is really the beauty of the whole arrangement. I think that Cage's most extraordinary gift to music was the notion of abandoning your ego in a piece of music. Can there be music and what happens to music when the composer no longer exercises personal taste? And he a sense he was a proto-algorithmic composer. In the sense that he set up his algorithms to generate the music, and then he stood back and let them happen. I-Ging, various methods, limitations, certain rules... I think that maybe that Cageian notion of relinquishing the ego is a kind of a step back to proto-music in the days when music was a communal activity and there were no composers. Everybody got together, everybody was a musician and you participated with your community in making a piece of music. I have, literally from the first pieces I did when I was a student of Alvin Lucier, I worked on methods of getting my own personal decision making out and coming up with methods or systems or tasks or processes for making decisions. If you look at the legacy of Steve Reich's tape phase pieces, Terry Riley's *In C*, some of those La Monte Young prose pieces, Fluxus stuff - I mean there is legions of composers who have emerged, especially from the 60s on, who made a very strong point of trying to abandon control.

[GF] I also think that this is the major dividing line between the European and the experimental school.

[NC] I think you're right. You know, I certainly noticed that when I moved from New York City to Amsterdam in 1992 - then I lived in Europe for seven years - I was made very, very conscious of some of those sort of primary distinctions in what a composer does and is, between Europe and America. It was right around the time of Cage's death and Cage was being worshipped all over Europe. But he was worshipped as a stranger, as an outsider, as a foreigner. You would never have had Cage in Germany. And I was very aware of these little subtle things like: Composers didn't perform. This was a European idea. If you got on stage and played you were a second-rate composer. Little things like that. Whereas I come out of a whole scene of this sort of revolution of the composer-performer that started with Cage and Tudor and went through the sonic arts scene and everybody, where it was considered to be the thing to do. There are those stylistic differences.

[GF] 11. Installation art, performance art, audio art ... These art forms all have to do with dissolving the borders between the arts. With the computer and now with the availability of every kind of software tool via the net, the borders between the art forms are maybe vanishing more and more in a natural way, they are just not there that much anymore. Does this lead to totally new combinations or merges of the old art forms? So do you think that for instance a musician using Nato and Max/MSP together ... would lead to something you would naturally call, say ›musicpicture‹ or something like that?

[NC] Well, that's a good question, because I find for example my students ... The art school I am teaching is very, very computer oriented. And I have students who live inside their computer. They do their graphic design in the computer, they write their papers on the computer, they do their video editing on the computer, they do web design on the computer, they do music production on the computer. So there is tremendous fluidity, because the operating system of the computer means that you're using very similar language to describe activities in different media. So cutting and pasting for example is a visual art term, but now it's used not just in doing illustration, but it's used as a term in film, video, sound, anything! So you get a fluidity of movement. My students would very often prototype a musical idea in Director or Flash, which are really primarily web and visual data manipulation programs, because it's fast and it's easy. So I see a lot of prototyping being done on the computer. For the young students I deal with the computer has become the sketch book that artists always used to carry around. One day they are making a drawing in a bar, and the next minute they'd be writing a diary entry. But then in turn they very often take their ideas out of the computer to realize them. In other words they'll do a markup or prototype in a software environment and they'll produce a canvas or a sculpture or a sound installation or they'll make a circuit to do something that had been done on the computer. Because I think that we now have at least one and probably more than one generation of people for whom the computer is just a pencil. In other words: There is nothing special about it. And just because they worked out an idea on the computer doesn't mean that it has to be computer art.

At the same time you can either use a new technology to make a new art form. Like say, the computer music that grew out of the first micro-computers in the Bay Area in the late 70s generated a whole new form of music, like David Behrman's and George Lewis's interactive things, that was a really new music. But computer music can also just mean a sequencer, which is a substitute for multi-track tape, which is a substitute for session musicians, which is a substitute for having an orchestra. You know, that's not a quantum change in what you can do with music, the sequencer didn't give us a new form of music. Whereas the KIM-1 did (KIM1: a very early (ca. 1975) single-board microcomputer. 1mhz 6502 processor (same as Apple II later). 1k RAM (K not Meg). Programmed in machine language (no assembler) on keypad with 6 digit led display. Store programs on audio cassette. League of Automatic Music Composers', Behrman's & DeMarinis' first computer. [annotation by Nic Collins]).

So I look around and I see two types of work, generally, being done on computers. I see a lot of the DJ, laptop, visual art stuff being just another sort of version of animation as it was presented to us as children. You look at the cartoons that were made in the 50s and 60s, where the music always mimicked whatever was happening visually. It's done because suddenly data is data, and the same data that you're using to make a note, in another piece of software can make a color or a form. That sort of synaesthetic idea is old, it's at least as old as Kandinsky and Scriabin. And I look at it and I don't get terribly excited, because I'm not seeing anything terribly new. But you know, on the other hand you have somebody who is probably working with the exact same software and hardware tools, creating something that would not have been realizable without the benefits of that technology.

[GF] Did you ever fiddle with Netochka Nezvanova's *nebula.m81*? There was an article on that in the Computer Music Journal, you might know this. I think this is a very, very good materialization of this mingling of media, because it uses text and graphics and audio, and you can play with it, and it mixes these in such a strange way that there is real step between the borders. So it really goes from one thing into the other and it does work. But these examples are extremely rare. ... One could argue that maybe it's not gonna be a new art form, but maybe you can only do this once, in a way.

[NC] Well, the other thing is that there is always this notion of the filter of time, which is that obviously there is more crap being made in the world than there is gold. There is more uninteresting art being made than there is interesting art, there is more insignificant art

being made than significant. And the problem is that five years later you can look back and all you see is the stuff that has sort of survived, in your memory or documented or something like that. And usually history helps a little bit. In other words, they say that there's a rosy glow of hindsight: You tend to remember the past as being a time of things being better... I think you can't get too critical at the moment, because ... For example I've been reading Richard Fineman, the American physicist and mathematician who was part of the Los Alamos project. ... Reading some essays of his in which he talks about how important it is to go into an experiment not expecting a particular outcome. If you're an experimental scientist you really have to be as receptive to the idea of failure as success on the given experiment. Otherwise it isn't a good experiment. ...

I think there is a reason why what I'm doing was dubbed experimental music by Cage. And it's a title that has attracted a lot of criticism over the past, but I really do believe that there should be at least one area of music where you are allowed to fail! You are allowed to fail, and the reason is that you are gonna try the things that the people who won't let themselves fail won't try. Because otherwise how are you ever going to make any sort of advancement, if there can be such a term, or in any case innovation in the field of art.

[GF] 12. Experimental arts also worked on dissolving the borders between high-brow and low-brow culture. Does net music bring popular and experimental music closer together?

[NC] Oh yeah, very much so. I noticed this with my students that they're much more receptive to experimental material now than students were, say, 10-20 years ago. The fuzzy area between electronica and experimental music is getting vaguer and vaguer, the cross-over is easier. The music is being disseminated through very similar channels now. The web is a very egalitarian resource for locating music. Using the various sites like Napster people would discover music based on its sound or peoples recommendations rather than on the publicity that record companies would put out. I think that there has been a rise in interest in obscurity and Hipper-than-thou-ism (Hipper-than-thou-ism: Trying to be hipper than everyone else. Thou=you, formal 2nd person [annotation Nic Collins]) in the hipper parts of the pop music consuming public, where they like to find something that nobody else has found. But I will say something that is a phenomenon that's been very clear to me since I started teaching 2-1/2 years ago. The generation of students that I have: They don't seem interested in history. They seem interested in the surface of musical work. I think it's a kind of a cliché of postmodernism and it's part of DJ culture. Which is that, when I play them a record, what they are really interested in is: What is that sound like? Would this be a record that I would like to play? (like I play this other record or this other record) John Corbett, a friend of mine at the school, put this in perspective. He said: When we were students, if somebody played a Xenakis record to us and it was interesting, what we would do is, we would say: Who is this Xenakis guy? Where can I find out more about him and some of his other pieces? Whereas now when you play a Xenakis record to a student and he likes it, he says: Cool, I'll take that record, and then he'll spin a Fat Boy Slim track and he'll cross-fade into a Xenakis track and then he'll go to an old Africa Bambata track, and that one record and what it sounds like is enough. And if the next day you play him another Xenakis record and he likes it, great. And if you play him another Xenakis record and he doesn't like it, he doesn't think: But wait, that's by the guy who's record I heard yesterday that I really liked!

You know, it's about surface. And what that means is: On the one hand you have a much wider public, because people will just pick up stuff because they like the way it sounds. But on the other hand if you have a music whose essence isn't apparent on the surface - and that can be any thing from Webern to Alvin Lucier - you may miss the audience.

[GF] But actually in some respect this sounds strange to me, because what I watch concerning, let's say the stronger experiments in networked music: From my perspective they have a very strong emphasis on conceptual aspects, as the whole of net art does. But this would be then be just the other direction, because what you're saying is that the students are not interested in the concept.

[NC] No, there is a slight difference. They're not interested in the concept as a listener. That isn't to say they're not conceptual artists. In other words they may still make pieces that use a concept, right? But they are looking for material. So for example they consume music for its oral properties. They might make music based on structural and conceptual ideas, but they make distinction, I think, between being a consumer and being a creator. ... Also because you see so much of the music that they are doing is based on appropriation, right? So they have a framework for creating an appropriationist work. But they will subsume any material into that framework without regard for its internal framework. [!!]

[GF] So maybe one could say that, as we say in German, that the scissors open in the way that it's on one side more conceptual, on the other side the top layer is mostly aesthetic or sensual, very sensually used.

[NC] Right. You know it's a little bit like ... The use of the term ›collage‹ in English - I mean it's a French word, obviously - it usually has to do with putting things together purely on the basis of their visual appearance. In other words you'll take old newspaper pictures and this and that and put them together based on the way they work visually, not based on: Oh, that's a picture of Lenin and this is a picture Lenon! That's like a conceptual link. No, you would pick two pictures because here is a picture of Lenin and he has beard, and here is a picture of Santa Claus and he has beard. In other words it's a visual connection in collage rather than a conceptual connection.

[GF] 6. Concerning technology, do you have a special idea what maybe is missing to get more sophisticated in using the web as a musical tool at this point of time. Is it instruments, is it interface maybe, is it the bandwidth?

[NC] Let's see. I think I'm a real middle-of-the-road example, because at home I have a modem, at school I have an ethernet connection. I would never use my computer at home to try to do anything interactive over the net. ... And even on thee ethernet I question. I think bandwidth is still probably the biggest problem. And on top of that is just my private war with operating systems, which is: I just find the operating systems are getting worse and worse and worse, and every time I upgrade an operating system on one of my computers I have more bugs and more crashes and more failures and more interruptions, and everything goes slower. And, by the way, I find I understand less and less about my computer, there are more things that are there that I don't know why they are there. So I think that the idea of a networked computer, it might just come back again, the notion of a machine that you don't think of as a computer at all: It doesn't boot, it doesn't show you icons, you don't configure it, and it has a dedicated high-speed line like a cable connection that allows you as fast a through-put as you can ask for.

I'm sure it's possible, but at the moment I find the fact that the quality of one's interaction with the web varies so tremendously from location to location and even in different times of day, that it's still a very crude communication channel. And I think, by the way, that there is a problem where the people who design projects for the web always do it under optimum conditions. They're always working in the best case scenario, with a fast connection and so on, and it's only after the fact that they look to see: How is it gonna work on a modem that can't push its telephone lone higher than 12 kilobaud. And then they say: Oh well, I guess it's not so good there, but what can we do?

[GF] 13. What would be your musical utopia, what would make the network interesting for your music, possibly?

[NC] Now that's an interesting question because I've only done one project proposal for the web which was a sort of a chat room sales parlor, and it's never been realized. Boy, you know something: I don't have an answer for that. Ironically, maybe I'm just too traditional a guy, but so much on my work is based on live performance in front of an audience, that for me at the moment personally as a composer the greatest resource that the web could provide would be shadow of myself. A shadow, so that if somebody somewhere in the world was saying: Hm, I want to put a festival together and I want to

have something that is a little bit like this and a little bit like that... You know the Webcrawler would somehow retrieve this web site which would show like a little Nic on little stage doing for a few minutes what he does in a way that represented me reasonably accurately, so that he would be able to say, like computer dating: I think I could go out with that guy. ... But that's probably only a problem of whether I'm gonna bother to put enough effort into designing a good enough web site for myself. ...

But if one could create a form for web projects by artists that was like a club or like a concert series or a festival, where you could log in on a regular basis and see some type of performance or event, like a salon - I think that would be wonderful. ...

I myself don't have a big idea that is only realizable in a web environment. On the other hand I recognize that there are artists out there, whom I admire very much, like Chris Brown, like Sergi Jordà, like Mark Trayle, people who really are interested in working on the web. But the problem with the web is: There is too much out there, how do you find the stuff? And that maybe a salon, where you'd have a regular series, and instead you'd have to drive across town and go to the club you could just log on on Friday night at nine o'clock and watch and hear and maybe even participate in a Chris Brown concert or a Sergi Jordà concert. ... Like in Berlin, if you get a card from Freunde Guter Musik announcing a concert, you say: Oh, that would interest me because I like the kinds of things that Freunde Guter Musik produces, so I'll go! Well, you can't really do that on the web at this point. What you have to do instead is say: Search under Chris Brown, search under Sergi Jordà, ...