The following is a transcript of a public interview with Max Neuhaus I organized as part of a festival at Wesleyan University in 2002. A pioneer in what might be termed "non-musical auditory high culture", Max Neuhaus coined the term "sound installation" in 1967. And, in the interview, voices considerable skepticism about the term "Sound Art" which had begun to emerge within the visual art world at the time of the interview. My approach was to engage Neuhaus by asking about the relation to his earlier role as a percussionist to his art, pursuing my own view that his artwork actually resolves compositional questions that were of great interest in the early 1960's, but does so by leaving the domain of concert music. Max was interested in expanding the interview for publication, but we were not able to find occasion to do so before fell ill with cancer, ultimately dying in early 2009.

Recently I was contacted by the editorial team of forthcoming *Max Neuhaus, Les pianos ne poussent pas sur les arbres, Ecrits et entretiens*, who found the interview in the Neuhaus archive. They have asked to include it in their book. The following is a new version of the interview transcript I completed for that publication. More details on the book follow the transcript. (This is not yet a "forthcoming publication", as no contract has been signed.)

Conversation with MAX NEUHAUS

Ron Kuivila: The piece in New York will be reopened in Times Square sometime in April. I guess the date is uncertain?

Max Neuhaus: We're planning for the end of April.

RK: By way of introduction, Max began as a percussionist. And in thinking about it, it occurred to me, particularly after hearing Tone's talk which was so much about music as a way of listening and the changes -- the formal possibilities that emerge from that idea in Cage's work. And it made me think of David Tudor. And think that there is a parallel in that both of you made a transition -- a different kind of transition -- but a transition away from your instrument, or instruments in the case of a percussionist. In both cases, all indications are of remarkable command and of being absolutely extraordinary performers… towards electronics. And I wonder if you have any comment on that. Or, for example, what your interaction with David was during that time.

MN: I first met David preparing for performances of Stockhausen's *Momente* 1963. Of course, he was much older performer than I was. It was a wonderful experience to work with him, to be on tour with him. I remember David always used to… he used to carry, first of all, bags of spices – he had bags of different
things. He only played the piano, I was the one with one thousand pounds of instruments. But he managed to have bags of things. In every town that we would go to, David would go off and [disappear somewhere]. One day, I insisted on going with him to see where he went. In every town, it seems he had an electronics store that he would know about in every city we went to and he'd go and buy a potentiometer or some thing like that.

. And it was a time when I was also certainly in need of expanding the timbre bank that I had, I was carrying around. I was aware of, and using amplification. But it was wonderful to see his approach. I don't know…when I stopped performing after I made the record for Columbia, I lost touch with music completely. And Dave and I saw each other occasionally once in a while, when I happened to be in the town where Merce Cunningham was performing. And we'd have dinner together. In my case, I just found… well, first of all, being in a virtuoso percussionist is a full time job. You have 6 hours a day of work just to stay in one place. And it's physical also because you're moving much more than a lot of other instrumentalists. So one, I found myself having other ideas, but not having… not being able to really do them because of the commitment of energy of being a virtuoso. And secondly, I realized that these other ideas didn't

really work for the music. And I was type-cast. And the only way out was to make a revolution. So when the opportunity to make this record for Columbia came, I saw it as a way out. I had this solo repertoire that I was performing around the world. And for me, it was a way of leaving that world, leaving it on record, which was a traditional way of… it was the best I could do. I never talked to David about why he stopped performing or did he ever really ever stop performing?

RK: Oh, I think he stopped playing the piano [I would like to correct this to say: he he stopped identifying himself as a pianist, but would play piano when needed for MCDC]. Certainly for a long period. But performing, of course, never. And in fact, maybe to jump ahead a little bit, but there is a small anecdote, that during a series of *Events* [MCDC], they had invited Liz Phillips to provide an installation. I happened to talk about this with both Liz and David. And the story was that David was very struck that Liz did not want to adjust installation once set. He couldn't understand the thought that you would not perform it. And for Liz, David didn't really understand at all what she was trying to do. And it seems that maybe this captures a distinction between a piece like Rainforest which is kind of tentative/attended installation where there is always a sense of direct involvement by performers whether explicit or possible and a piece like a permanent sound installation where by the very concept that would be an impossibility. So maybe just talk a bit about how… Or maybe we can back up a little bit and talk about the distinction between the 'Broadcast' works and sound installations.

MN: Well let me take your point and then we can go over there. Well yes, I can understand both. Actually, Liz, when I first met her, was studying sculpture at Bennington I think. So her perspective wasn't music. It was sculpture, which, for the most part, is static in time. So I can understand why she wasn't interested in performing it and why David was mystified. And indeed, it's the difference in… I mean, it was what I was feeling when I was having ideas about what I now call the 'Placeworks.' They weren't music because I essentially had taken sound out of time. In the experience of everybody, from the time we are born, sound exists only in time. The ways we communicate with it, with the codified language of music or speech. Those things can only exist in time. But because the 'Placeworks' of mine are continuums, textures, which don't change in time, essentially, they take sound out of time. And they turn the idea of sound over and make it into something which took its place. But you wanted to go around…?

RK: Just for a moment here, let's maybe make another little detour which is to… It strikes me that the placedness is environmental and it might be worth contrasting it to LaMonte Young where of course the idea of 'The Dream House' is certainly a placed sound and a very, you know, an eternal drone really. But in a sense, that place is autonomous.

MN: Yes, it could be many different places, I think. The idea behind the 'Placeworks', my 'Placeworks', is that I use a given place to… it's the other way around. I use the sound to make a new place out of a given place. It's not that the sound is… I don't choose a site for the sound. The place I choose is what I make a work out of, using sound. And this is an idea that is so contrary to music that many musicians really can't grasp it. And also feel a little insulted that sound could be used… In fact, sound in these works, the sound is not the work. Therefore, recording it makes no sense. It's like taking the paint off a painting and putting it in a box and saying that you still have a painting. Of course you do. But you don't have the canvas. And it is literally the same thing with these 'Placeworks.' The other point that is disturbing to the music world is the fact that they don't change. Often people are waiting for the music to begin. My favorite story about is someone we all know, named Alvin Curran. We were meeting in Italy and actually we were swimming in a lake together. And he started asking me questions and I started talking about 'Placeworks.' And he really didn't follow it but I said finally to cinch my point, "But Alvin, you know these pieces really aren't music. And he looked at me. He said "I'm really glad you finally admitted it."

Comment [dLS1]: redite de l'interview avec Loock.

RK: That's funny. It brings up an association that is too far a tangent. Afterwards… Well, now let's talk about the 'Broadcast' works, which are about creating an opportunity for musical interaction by a large distributive public kind of through wireless-ness. Really through radio, primarily.

MN: Yes. Well not primarily. I've gone on to find… Originally I called them 'The Broadcast Works', but it was more… not really thinking through the concept and naming them by the means, rather than what they were. And now I classify them as a group where it's called 'Networks.' And the first was made in '66 made by combining the public telephone network with WBAI to create a two way public aural space which anybody could enter into if they were within range of WBAI and had a telephone and inviting people to essentially make any sounds they wanted to. And my role I felt was as a kind of moderator. I built a ten channel mixer, a channel for each person, and the situation of putting people directly on the air was quite unusual. I mean talk shows, call-in talk shows didn't exist. The engineer at 'BAI was really terrified to the point where he said he would have nothing to do with it. So I… It was also a time when there was… there were no answering machines. I invented with an engineer friend, a kind of automatic answering machine which would run. I interfaced the telephone with a microphone in a plastic cup stuck on one end and a … feeding a line into the mixer and also the phone was sitting on a platform with a solenoid so that when it rang, I could flip a switch and it would raise up.

RK: Just barely off the hook.

MN: Thank you. And I realized that there were people who were very extroverted and people who were very calm and sensitive. So I felt my role was as a moderator. I recently heard a recording of this…I mean, my premise in… I always insisted that 'Broadcast,' or 'Networks,' works not be recorded because it would have made a miserable product of something… the idea of the work was to initiate the process… that using contemporary means, we could step back perhaps into time or a period where music was a kind of sound dialogue, non-linguistic, between like public. So why not, in addition to the way we make music at the present time, and this other dimension by bringing in other means. These pieces developed, gradually becoming… I gradually extracted myself from this situation by building systems which would realize the first step was to add the…well, I added some tone generators whose pitch was controlled by the amount of energy coming to each line which generated a dense cluster of sound upon which people's sounds floated. But, I mean, the thing to remember about these pieces is that there is no way to imagine the incredible variety of things that came over these lines. I mean from people playing musical instruments, to talking, to reading, the sounds are out of here. I'm amazed. From 1966 till 1977 when I realized a work for the whole of the USA, NPR's then network of 200 stations, and using their wire connected network as an instrument by forming it into five loops with a call-in city on each loop, which circulated with sounds with a pitch shifter in each loop. With a kind of mixer, an automatic mixer that, at each call-in city, which essentially was a granular synthesizer. Or what we call a granular synthesizer now. It picked instance depending on a criteria that was programmed into it because of course it was an analog machine.

RK: Just to make sure everybody understands .The loop… so there is a delay and the sound is being held by that delay and that delay is being derived by the network connection? Or by separate…? So it is literally a delay loop that is happening across North America.

MN: Yes. Or sections of America. There is a loop that runs up through Buffalo and out through Chicago and came back. And another one that went south down to Miami, it came back by air. There was another one that went out to the Midwest and went down to Dallas and came back. And then hopped over the Rockies to California and came back through [].15:45

RK: And then the frequency shifter is … its role is, in a sense, to channel the material to create separate layers? [MN: Exactly.] To make it a little more controllable because of the density?

MN: Yeah, well there was no way we could… I wasn't interested in making acoustic feedback, which is what would have happened without it.

RK: I see, so it's really a feedback suppression device.

MN: No, what it did was build these wonderful layers. The sound coming to the audience, of course, was much more stable. Much more consistent. So it became very very long textures drifting in and out. There are actually five different sounds at work that weren't heard together. Although I was in Washington and did some mixing of these loops… It was possible to feed it into the other loops. Well, it's a wonderful piece… progression of textures over… these broadcast for two hours over all 200 stations.

RK: Just a small question: I remember a piece called 'Whistle Fill' but I didn't find it in the catalogue.

MN: No. It was found. This piece, the NPR piece, was called 'Radio Net,' which…it's kind of funny in terms of today, because at first they refused to let me name it 'Radio Net,' because it stood for 'National Educational Television.' They said, "But nobody knows that we're a network." I said "Darn right."

RK: And if we call it "Net Radio…!"

MN: Exactly. Um… what was the question?

RK: I just was wondering… Was there a piece called 'Whistle Fill'?

MN: What you're forgetting sounds, because of this automatic rain maker picked the highest out of the ten calls that were coming in, the highest most pitched sound for any instant. And… so what I…my strategy in getting some pitch material was to ask everybody to whistle. And of course, knowing that ninety percent of them wouldn't whistle but there would be some whistles. And you may be also confused with group of works for pools.

RK: Well, we should come back to… well, in fact, let's talk about the water whistles for a moment. Why don't you just go ahead.

MN: Well, I recently kind of begun to articulate my work in… it was always a problem when I was interviewed by somebody who wanted to write a long monograph on my work is that they would try to find a linear path through it, or a linear development, or some kind of relationship. And then after talking to them for 45 minutes, they never recovered.

RK: It don't work that way!

MN: And I realized, in fact, a much more accurate model was to think about vectors. So I've developed a structure of eight connectors and they start with performance. the opposite end of that vector is the 'Networks', which we just talked about because they are a performance by many people. Another vector pair is a place and a group or works which we haven't talked about called moment, which again an opposite. Another vector pair is the 'Water Works,' which I realized… Again, when I was naming them for the medium, what they were about were sensation. And so it's part of a vector which goes from sensation to design, which is a group about a part of my activity which in fact isn't art doesn't have to do with art works and I wanted to make clear that they were in fact functional designs. My project is to design sound and

sounds for emergency vehicles. So yes, the underwater topographies, the water whistle, is involved in this sensation vector.

RK: I'm confused a little bit in the structure… In the case of the 'Siren' project, that's part of a sensation vector also?

MN: No, no, it's a design!

RK: Design. Sound design! One thought here is that in each of these cases, it's remarkable formal innovation based in part on the the advent electronic technologies in the sixties opened up these possibilities, so describing the WBAI piece before there is a telephone answering machine
MN: Or call-in radio show
RK: Points to the real radicality that was attainable at that moment. Now, of course, one is inevitably dealing with conventions on some level, or has to distinguish these from conventions because, as these technologies have penetrated or permeated, there are certain sets of expectations set up by the normal pattern of interaction with them. How does, can you give us kind of a sense, I mean, you were talking about this before, your departure from the term 'sound installation' was in a sense because its been heavily appropriated, where it had been an innovation in 1967 it became a kind of noisy disturbance afterwards.

MN: Yes. it was no longer a term which clarified. Let me just say one thing before we get off 'The Broadcast Works". The current project is a way of realizing these projects on the internet. And it's a project called 'Auracle' which is described on the ems site. It's still in a proposal form. I realized that it was going to be very difficult to do something on the net because of the audio quality and delay of time. And I managed to think my way around those two problems.

RK: Well, let's talk about that, actually.

MN: O.k. I mean the problem with doing something… I always resisted the internet even though I had been working with it because I was introduced to it by the engineers I was working with, who insisted on communicating that way for about fifteen years or something. And everybody always was saying "why don't you make a piece on the internet?" But of course, what was there to make? You couldn't really send sound in real time over it; we still can't. And it really wasn't in the hands… the idea of 'The Networks' is their openness -- anybody can pick up a telephone. And I … from the beginning I was interested in breaking out of the event and building an entity for this interaction. But it was quite hopeless to think of commandeering a network of radio stations, perhaps around the world. I mean, who do you do that? It's an incredible thing to maintain. After the piece for the USA, I wanted to make a work that was International, not only because of scale… the idea of scale… but also to have the richness of a multi-lingual population. Not just that they would speak differently, but I'm sure other people have articulated that the way we hear is incredibly influenced by the sound of the language we speak. Our hearing template is formed, essentially, by what we speak. So I was fascinated in the seventies about that. The opportunity to mix, to co-mingle, people who are not trying to speak together, but with their different aural templates on, and how they would
fit together. For 'Auracle', the technical break-through about thinking about sound, about how to get a good sound quality out of the internet was in fact to realize that we didn't have to transmit the sound. We can give each participant a virtual instrument and send control signals over the net. They interact by sending control signals and receiving control signals on their instrument… and this allows the construction of a site which allows them to very casually generate ensembles. So, they log on, they download some software, they have an instrument they can play themselves. A unique thing about the instrument is that it is not something that they play with their hands because of course they are not people who have the skills, the musical skills as musicians with their hands. They do have an incredible skill… and that is their voice.

And it is a very sophisticated means of controlling anything. So, the idea is that the instrument is played by voice. And so they play it by making sounds with it. when they go to the site, they are able to audition other existing ensembles simply with asking for the control signals of that ensemble to come to their instrument. The only limitation on sound quality is their limitation of whatever kind of sound producing equipment they have. They're able to form an ensemble very simply by just starting to make sound with their instrument that is connected to this net. So it's a dynamic process where they can… in a way, …it encapsulates us all the ideas of 1966. It was where it was going even thought it had no way to get there. I made several attempts after this… to realize Radio Net I had to build this system, one system for each of these cities and we sent it by UPS and debugged it over the telephone. But was really the limit of analog technology; I felt like it was the limit. I was really trying to go digital in the early eighties, but it was quite impossible []. I found a DSP machine made for people but the only other customer was the US Navy.

RK: Actually, [] it occurs to me – one of the interesting facts about the world of sending instruments to the dumpsters is that turntables have surpassed electric guitars. It's a …

MN: The sales of turntables for making music has surpassed the status of electric guitars?

RK: Yeah, why else would you buy a turntable at this point, except to be a D.J.? And in facts, it's an extraordinary []… And so the sense that there seem to be these two different kinds of musicality— body musicality and musicality that is based on example or based on… I mean the joke that I wanted to push on to… Leon Bonstein was here a few weeks ago is the fact that everyone is becoming a conductor in some sense. And so, I'm just curious if any of the modes of interaction were [] or if you have any thought about… because in a sense, the thing that is both interesting and disturbing… because the minute it leaves the body, it become a kind of strange consumerism.

MN: Yes, there are now also a number of web instruments, but [strangely enough they are limited, instead of being open, they are closed, one sets up an appointment get together with ones friends. And the ones that aren't are… basically musical automatons where the player doesn't play -- he selects this rhythm or that timbre and plays, starts the music machine, so to speak. And well, my reaction is… well the premise of the Networks is that… I suppose that the reason they use musical automatons is to keep someone who is not a musician from doing too much damage. I mean how much damage can you do if you're only selecting cowbell versus drum. The premise of the Networks is that there are in fact no non-musicians – that we are all born with the basic sensibility to be musicians, although perhaps not with the skills. And it goes back to [the fact] that we do develop really quickly an incredible aural skill or muscular control just to be able to speak. And we develop an incredibly refined sense of hearing just to be able to understand language. So why not take these givens that everybody has and use those as the means to control this instrument? So… there are a number of ideas. I've always thought about uh… I mean not using the voice sound directly, certainly… and not trying to replicate the sound through code control signals etc… but really analyzing the sound in fundamental ways. And over the last 20 years, I've experimented at the idea of thinking about the emotional content of the expression of… the natural expression that goes into speaking and analyzing that -- using that as a means of generating control signals… and using Neural Networka… I developed some private Neural Network fuzzy an algorithm developed at Boston University. Max objects that are self –learning objects that learn immediately, they don't need to be trained… So, this whole thing has been brewing now, what uh… twenty-five years?

RK: Let me see… It's interesting that the issue of convention, I'm kind of interested in pursuing… your comment was really that in these web-instruments, they rely on the convention and are stabilized through the convention, and are consequently uninteresting because the participant doesn't really have the power to really act. They can only select. So, I'm going back

to Tone's paper and the issue of… o.k. Cage's antipathy to recording what that's about …and thinking in a sense it's about listening in a conventionalized mode to a recording and then when you juxtapose in various ways, if you situate a radically sited sound … in a sense a completely stable sonic identity is beyond a recording in terms of it's stability. But the site specificity makes it something entirely different. So there is some issue here about… in a sense, when you go to the web, everything is content. And everyone has the slight impatience of a tourist waiting to be entertained… in progressing through the web. And it strikes me that that fundamental characteristic of the human experience of that is in a sense the thing that… that's a parallel to the recording. So, consequently, it's the thing that you have to battle with. The recording …listening to the recordings, the expectation, immediate gratification. "Here it is. Listen to this music. I don't have to think about there anymore. There it is. And if you have to listen to it, go to the Grosse Fugue at five o'clock in the morning, so be it." That is one side of that. And the other side of it is this movement through it.

MN: I think John made some very good points about why recordings are bad. But probably the most tragic thing is that the fact that the materialization of something which isn't material—music. It has been a process that's done perhaps in notation and just became more and more so but to be now totally in the hands of whatever [] corporation, really as a result of that idea which was really an engineering idea. Not about creation, but about re-creation, recreation also.

RK: I want to pursue this a little in a slightly wayward fashion, which is a question of notation or the possibility of… one thing that I've been very struck by in returning and looking through the evolution of Cage's music is how variations ii represents this very distilled point of abstraction in terms of his whole project. And that there is this way in which later pieces, can be imagined, has alternative realizations of Variations II, as much as separate pieces. And I'm wondering whether you could ever imagine your own work developing… or having a piece that follows a notational strategy for realization by others… would it ever be possible to characterize in a meaningful way your process of siting a sound or sounding a site for a subsequent person to actually realize, just as you would make a realization of Fontana Mix?
36:10

MN: Uh, no… And I think that if I describe my process, it will become obvious why. I'm usually commissioned either by a city or by a museum to make work and the first step I ask for is to for them commission of proposal. And uh, this involves going and looking at the areas that they control for a site. And I… the hardest thing to do in this phase is not to look for the site – to not have anything in mind – to walk though, to spend these two days just waiting for the signal. And usually I get four or five signals. And at that point, I talk to the person who brought me to find out what those…I mean does the… what I see as places that give me a signal, but there is another dimension of how they are seen locally so I add that to it to find out where this place is. I still have no idea what this piece will be. I just know that this site… that I… that something inside me tells me that I will be able to make something with this thing. It smells right. And then I build a schedule of what has to be done and when it has to be done… and that leads to an amount of money. They either have it or it isn't. And I go back and I… my first real problem is designing, or finding a way to embed sound in this place. I'm not building a sound -- the sound that I'm making isn't the work. I'm building a placement. So if the sound is heard as something which is played in the space, I've lost the battle. It is not longer a place. It's a place where the sound is going to be played. And this is… both an aesthetic task and a technical task. How do you get people to feel that there is a sound in the wall? And the way I choose is a technical solution, but it is also, it's… In a way, I sometimes use analogies of a sculpture working in stone. When I select the site, I've essentially gone to the quarry and said "O.k. it's this piece of rock that I want you to pull out." And when I figure out how I want to, and how I can embed sound into this site, I've cut the block into a certain dimension. To just give you an example, one of the most difficult places I succeeding doing… is embedding… was a room – or three

room actually… It was a work paid for by Dcoumenta Nine which is this large international exhibition of every 5 years in Kassel Germany. It was done in a public building it has since become a permanent work. But Germans like… for some reason, have a fascination with elaborate stairways. And this stairway, of this four floor building built in the fifties is in fact four very large glass walled rooms with a spiral staircase in the center. And the concept…well, the rooms are absolutely bare there's a cement floor, there's two cement walls and two and a half glass walls. And concrete. And nothing else in the room. And I… in this case, I could go there with equipment and really try things. And what I finally found was near the windows on three sides was a heating system which was nearly 4 inches wide and 24 inches high. But it was near the glass. And I found that if I projected sound onto the glass itself, in fact, I succeeded with this embedding…but I couldn't figure out why at first, but then I realized that uh… Well, kinda the fundamental premise of 'The Placeworks' is that in daily life, eye and ear are working as a team -- each one does what the other can't do. They are complementary. But they always questioning each other – if the eye sees something, it wants to confirmed with the ear and if the ear hears something, it wants to confirmed by the eye. And this dialogue is necessary. I think it is one of the reasons we in fact feel very uncomfortable in anechoic chambers because the dialogue stops. The ear just has nothing to go on even though the place is not very frightening or uncomfortable visually, aurally, it's a nightmare! When the ear just doesn't have any voicing. It is getting asked questions by the eye and doesn't have anything to say, it feels like an idiot!. So in this case, when the sound is… you're hearing the sound only reflected from the center of the glass wall, the ear clearly knows where it is – it's coming from the middle of the wall. But the eye looks and it's a piece of glass – it is nothing that it could be coming from. So in fact, they agree to disagree and you don't know where the sound is coming from.

RK: It's very interesting… also glass I think of R. Murray Schafer's short essay, 'The Glazed Soundscape" and the idea that glass, by allowing the eye to look out, but preventing the ear from hearing, creates the sting of what he calls schizophonia. So it's as if the piece goes right to that rupture and replaces that effect.
43:11
MN: The piece was very subtle. It's a group of works where I'm more interested in building a sound presence then a sound. So people try to hear it, but you don't really have to hear it. It's there. It's there like a color on the wall. If you hear it, then I really haven't done what I wanted to do. So, in the midst of this very very active, once every five year, hundreds of artists exhibition, scattered over in the museum, it became a very calm place. And also because of this glass height, it was a place where you were meant to look at the same time as you were. So indeed that happened. I haven't gone to the third step… Once I get sound embedded in the place,[], I build it in. In this case, I built some very special speaker systems that got installed in this very small heating system. And once it's built in, that's the first time that I can think about what this sound that I will make. That's the first time the rock is there, so to speak. And I go, again, with as few pre-conceptions as possible. In the meantime, from the time I conceive it to the time it's installed physically, I build some tools for manipulating sound because I really have to conceive what this sound will be there by working with sound in place. I have to work where the sound is. It usually takes ten days and it's a progression of following a path and not knowing where you're going but only knowing when you've arrived, which is perhaps a process that is closer to the visual arts than to music, but for me it's the most effective way []. You are completely thrown back on your intuitions []. And you're skill is really finding the point where it is there and not going too far. Of course, we're a little more free than the poor guy who gets stuck with a piece of stone – if he goes too far, it's finished. For us, we can push the 'yesterday-button.'

RK: Maybe just to finish up, what strikes me about that is in…this working in the site to identify the final sound, it almost like that is a performance – a performane that is fixed or soildified in relation to what the sonic possibilities are at that moment or with that configuration, which brings to mind both Glenn Gould in that the idea of having a set of recordings he has made of

different versions of a piece and deciding how to collage them together to get an interpretation he is actually satisfied with, which is the image he has of a particular realization that in classical music can be a demon "other" of someone making a fixed recording to be perceived as a fixed recording. That in a sense, both carry a relationship to performance, but distantly.

MK: Well, it's not a performance in my mind because as a performer, I was interested in a dialogue between the many headed beast and myself. And I would never be able to do this if somebody was watching me.

RK: But is it a dialogue with the space instead?

MN: It is and it is certainly a dialogue with my imagination of what the listener is and my knowledge and some of my experience what the listener is But, no, I think to try to push it into the term of performance, it's akin to building an entity. There are entities…

RK: I guess the reason why I was saying that is that there are entities that exist necessarily in interaction with the site. You're not acting as an architect, you're can't make a plan to realize ex nihilio. You have to go to that site. And that quality of site specificity makes it a kind of performance.

MN: I could act as an architect. I could build a site too, but with a different budget <laugh>. Building a permanent sound work is not cheap.] It's a lot of different considerations than building a performance system. There are many other things to think about that are important. But it's uh… There's this fundamental idea that is really important to understanding what they are, which is very hard to get across in the music context, because we look at sound from the other side. And the difference of the… the contrast… the flip between the viewer and the listener is quite profound. Usually people involved in contemporary music, it is unusual that they really have an appreciation of what the differences are and vice versa. Musicians think well these people, they're just put some funny colors there and sell it for a million dollars and the visual arts people think, "I'm gonna listen to rock and roll!" IT's a gulf..But the fundamental idea is that I'm using, I'm using the space itself… is the physical manifestation that I've transformed into something else by adding a sound, which you may not even hear, consciously. I think the fundamental problem is that throughout cultural history, any artist who chooses to work with sound has been a musician. But sound is half of life. We see and we hear in everything --practically everything that exists in the world has an aural component. The fact that artists choose to do something other than music in sound is the difficult question.

RK: I think maybe at this point, we could open up any questions…Also, Tone could join us

AUDIENCE 1: So Max, I have a question, and maybe it is in the form of a comment.

You mentioned, you talked about web-instruments?

MN: Yes, I did… early in the seventies, '71? I started building works in the form of aural topographies but underwater

RK: I think he said 'web-instruments.'

MN: I thought you said 'wet' <laughter>.

Mark Trayle: Isn't selection a possible musical action? And is it possible to have a level of virtuosity with making selections? And I actually heard your statement as being related to

performing on for example drum machines or something. So is it possible to have a level of virtuosity with that?

MN: I don't think we would call it virtuosity. I find it such a separate… I mean, the 'Network' idea is about a dialogue that is non-verbal. And yes, we could say, "o.k. flip this switch, flip this switch, and have this running and then we flip this one." It's a dialogue, but it's nothing like the dialogue that we could do… they could do… if they had the manual skills of a musician. But in fact, what I'm saying is that through learning to speak and understanding language, we have an incredible resource, and incredible potential which is vastly more important than just flipping switches, so why not try to use this, essentially?

A2: I have two separate questions. [for tony?] So first of all, I was wondering [] you've been working with this wounding of cd's for quite some time and I guess I'm wondering how you account for the apparent, I guess, pulsation of what you're doing because as much of it cacophonous as we heard, you know, when a TV skips, it goes 'dadadadada' in a very set and pulsed way. I guess I wanna know how you account for that or don't.

Tony: Well, that is not… I intended. So, it's just that, actually, just seeking the []…my first which I mentioned. So, it's…I simply try to over... that is the end result. The pulsation is always coming out under my [] so that is a characteristic of the []. But it is also sound as [] electric characteristics and… alright, [] it's impossible.

A3: The second question that I had. This is particularly for Mr. Nehaus, but it can be answered by any of you. Something that you brought up again and again is that you have this synthesis that is emerging between art in this culture and sound and all these different [] it's to the point that… I was reading in *Newsweek* this week that the [] Whitney [] has as many sound installations, in fact more sound installations than it has does []. And I was just wondering what any of you feel like this ultimately would mean for any of these []. Whether or not this is indicative of any kind of cultural direction.

MN: Actually, only one [] 'Placeworks', which enters into the plastic arts. And they do so because they fit very nicely into ideas of contemporary sculpture about building a perceptual space. And they're prefaces are obvious in the world of sculpture. In a way, they don't have to talk about them. It is only in the context of music where I have to somehow stretch them, or turn them or flip them. I am very much against the idea which has become a field called 'sound garden.' I think it… instead of being a means of articulating differences, it's a means of combining things which don't have any commonality. Basically, an exercise in promotion. I mean… [BLACK OUT ON VIDEO TAPE.]… Basically things which move and make sound. There's a term, there's a discipline in that area that I call [] combined with video. Video is a sound art –it has a sound component, of course, but it's not the point. I think we have to be very clear. In fact, I think music suffers from… from a dialogue – a serious dialogue – partly colored by the fact that we… we're on some level we are in the entertainment business, which means that the critic talks about the performer and the performance. We don't have the same level of discourse that other disciplines do for some reason. It allows us to be misled easily if someone is not out there saying "this, this and this." Sound art is… It says… if curators who are quite lucid and clear, somehow at the mention of the word 'sound,' they go crazy. They always say "well, I don't know anything about sound, but let's put this together." They would never create an exhibition called 'steel art', which combined bicycles, Richard Serra's sculpture -- anything made out of steel -- in the world and call it a new movement. But somehow because it's sound, it makes a thing of itself. Many people are shocked when I say, "Well, you know, sound is half of life." Part of it is that, of course, what we see is material and what we hear is immaterial. We think more consciously about what we see than what we hear. It's also reflected that… I remember twenty years ago talking about, to people outside the field, saying that I work with sound and they said "well, what about smell?" And I never could figure out, now how did you

get sound… how did you get from ear to nose? I mean, it's ninety degrees. But in later years, I realized that it's just the immateriality that somehow makes this connection. But these aren't things that are really thought out very well. They are not worth building movements about we need to articulate the differences not glom everything into one thing Long answer to a short question.

A4: [CAN'T UNDERSTAND AUDIENCE MEMBER AT ALL]. How does this feel in the space?... something about sensitivity…

MN: It's using sound to build space. Maybe it's not clear, but my last performance was thirty-five years ago, so it's been a long time since I was a performer. And these directions began about forty years ago. And so they're more me then the performer what we have been talking about here. They are more a part of my general work then being a musician. But certainly, the knowledge I gained from performing as one person in front of a large audience about what sound… how people and sound work together… is instrumental to being able to do these pieces. I know what I'm doing, even though I try not to.

A5 (Richard Lerman): I'm goint to address a few things. One of them is to go back to the notion of site. And I don't agree with everything that you said Max and, you know, that's fine. One of the things that I feel hasn't been touched on (and this perhaps appears in some of my work) is the notion of site and what kind of sound can exist at a site, has existed at a site, maybe will exist at a site. And for example, I can pick the fences that I recorded – you know, the piece from last night. And if you've been down on the border between Mexico and for example, Arizona there are these fences and they range from ten foot tall or higher steel walls, two pieces of barbed wire in the middle of the desert to nothing. And each of these places has their own sonic quality. Each piece of barbed wire, each fence, has it's own sonic quality. And so, in the way I have tried to record these things, I'm trying to get that sense of place, which is site, and also, a sense of sound, which in a sense isn't there unless you put your ear up to the barbed wire or to the wall, or you just listen to the wind because in some places, where the desert is so hostile, we don't need to have a fence. That is one thing now. To take another piece, which was a collaborative piece, which [] Japanese- American internment.(I went to MAnzanar and other Japanese-American internment camps). The barbed wire that was there, was there in 1942. And I recorded from these places. What I'm trying to get as a sound is the sense that this wire witnessed, in the sound of this perhaps apple tree that was there, which has now gone to seed and that saw everything and heard everything… And this gets into the notion of… it's not literal, but again it is literal… It's a funny grayish area in between. And for me, that becomes and area between site and sight and sound…

MN: Let me just respond to that to that part so we stay on the subject. I understand what you're saying and I know that there is activity in this area. For me, it's using the word 'site' in a little different way. You're in a way, interpreting the history of the site – building an aural tableau around that history. I'm rather brutal, the site for me is like a hunk of stone. I'm interested in completely transforming it. For instance, this work in Times Square occurred to me by accident. I happened to be walking through Times Square, I walked across one of these traffic islands, I walked across a vault covered by a grating and I knew that I would make a piece there. I didn't know what it was going to be. But, in the end, I used the vault itself as part of the sound synthesis system. But rather than thinking about well this vault is used to ventilate the subway, the history of that vault and perhaps what had been there, and perhaps how many subway trains… for me, it was a physical base. The idea of the work was not ignoring the social implications of the site at all. My idea then was to try to make a serious work for a public at large. A public, as wide group of people as I could. And it results in a invisible block of sound that sits in this business cross… this busy-ness crossroad for the world but certainly not having any feelings at all for this vault. I rigged it. But this is just… I mean… I think it is good to bring

up this distinction because there is an area of work in which you're talking about which is thinking about the history of this.

RL: And then part of the point… the notion of persons working in visual arts and persons working in music… I think that the problem that you raised here…I think exists in the way that we were all taught in school. You are allowed to make your own picture in art class, and you are never allowed to compose. [MN: Good point!] And if you think about that, it means that people, when they look at abstract art, they've grown up with it and think that it's o.k. and even the person in music, if you will, can understand that. But once you get into the finer points of composition and make these higher kinds of music, there are just simply isn't a basis for it because music is PR for the school system to show parents how much the kids are doing.

MN: Yes

RL: That's a tough one But that is what I think it has been.

MN: Indeed. Or music as we know it, perhaps not the nature of music itself. If we go by the premise that we are all born with the innate sensibility for creating music, it just means that there is a tremendous difference between drawing on a piece of paper and… but I think that is also changing. We have a revolution in means that is absolutely incredible… the fact that there are synthesis programs on the device that everybody has got and that more and more people have and your children have got… a one year old can play a musical automaton with a computer game, which was… when we were children, wasn't there. But it's also strange… it's hard to tell if it's an innate tendency. If you look at the difference between the way the audience dresses at a concert and the way the audience dresses at an art opening, usually people who are really serious about sound are a little like blind people – they dress strangely. They don't think about colors, they don't think about []. And on the other hand, people at art shows don't think about sound in any way. It's less obvious and visible. They just don't have the same.. I mean, I don't want to name any names, but some very very famous visual artists, the stuff that they listen to in the studio when they are really working, what gives them energy is… []

RL: appalling

MN: appalling is the word I was looking for, yeah

RK: We're actually… in the back..

Andrew Dewar: It's sort of a brief question. I was wondering when you first developed the network pieces in the sixties, if you were aware of at that time… you probably were… but the teleharmonium and how that affected the development of that network?

MN: I'm still not sure… I don't remember completely what a teleharmonium is?

RK: Thaddeus Cahill made the system. I don't think that history was written until much later.

AD: So, it was totally lost at that point

RK: Yeah, I don't think it was known. it was essentially a precursor of a Hammond Organ before there was amplification. So, you have these tone wheels generating huge electro-magnetic currents. The problem was that they were generating enough that you didn't really need to be connected to the system to get it… you know, basically, you have this great big transmitter going out… so it fails, as a business at the turn of the century around 1898…

AD: But I just thought... I mean obviously, you couldn't have heard of it then. But since it was typed through the phone lines… and the idea was to type this ambient music into people's homes…

MN: Yeah, there is this funny. But in a way, 'The Networks' are completely opposite the net. There is this tendency that surfaces as Muzak in early ways of music. I don't know where it comes from Muzak was started by an army band leader as a business and there's this idea of piping music to people… as distribution… maybe it's a tendency to recordings too, but… it's the opposite side of the coin of saying that everybody has the capability of being a musician and make your own.

AD: Yeah, obviously your work is totally interaction… but I was just wondering about the technological aspect…

MN: I just saw… It came as a flash. "Bang! I could put these two things together!" It was wonderful. I just heard, for the first time, a recording of it, two months ago, which was after good god, forty some odd years?

MT: This one is for Tone. There was one thing that was missing, or maybe I just momentarily passed out or something. But there was a recording… 'Harpsichord'…put out by Nonesuch that's from the seventies, or that's at least that when I bought it. And that included a program called ['Knobs']. And you would take this out, and it gave you instructions… I think there is a copy for each one and it would give you instructions to play… []

Tone: I knew that, but it's so primitive

A7: Yeah, but still, it's a example of Cage using a recording… the recording medium as an instrument.

RK: Or []

MN: This was in the seventies?

MT: I recall a record back around 1948 or '49, which was… we had multiple bands and you would drop the needle and you would get different stories as it changed where it landed. I wish I still had it but it's gone.

RK: O.k., well thank you all for coming…

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Table des matières

Partie III : Design sonore et environnement

- Listen, 1990
- La propagande contre la pollution sonore nuit à votre santé – le bruit vient de la propagande anti-bruit, 1974
- Le design sonore, 1994
- Sirène, un design de l'écoute, 1993
- Unissons, 1994/2006
- Time Piece – Silent Alarm Clock, 1980
- Entretien avec Hans-Ulrich Obrist, 1995
- Border Bell, 1994
- Un ordinateur qui répond aux conditions météorologiques, 1967
- Propositions pour les jardins sonores, des espaces sonores uniquement formés par la topographie et les plantes. Notes sur la méthode I-V, 1988/2004
- Tokyo Time Piece, 1982
- Proposition pour le lac de Genève – Time Piece, 1983
- Freeway Stack – À l'intersection des autoroutes de San Diego et de Santa Monica, c.1983
- Contrairement à la croyance populaire, Max Neuhaus peut être joint par téléphone, c. 1970
- Dessins pour le lac de Lucerne, 1990

Partie IV : Réseaux et communauté aurale

- Les œuvres radio et Audium, 1994
- Public Supply, WBA Version, 1966
- MaxFeed, 1966
- Drive-In Music, 1967-68
- Telephone Access, 1968
- Audium, un projet pour le monde comme espace d'écoute, 1990
- Entretien avec Ron Kuivila, 2002
- Conversation avec William Duckworth, 1994
- Entretien avec Carolyn Christov-Bakargiev, 2000
- Auracle, 2005