

Three to One

I was one of the first artists chosen for Documenta 9, I'm not sure why. Actually I remember being at a dinner in Pistoia, it could have been in 1989 or 1990...big dinner for a Mario Merz opening or something, and Jan Hoet being there. In the middle of the dinner in his outspoken way brought me up to the table and saying Neuhaus, I'm Jan Hoet. you're in it, you're in it! I was a little embarrassed.

It was lucky that Denys Zacharopolous was part of the team and knew how long it takes to make a sound work of mine and knew that I'd refuse if they called me six months beforehand.

Hoet always talked about the piece being central to his documenta and he called it the elbow. He proposed the AOK Building, but I could have done another work in a different site.

I went looking for my tree of 1977 and walked up from the park, saw this building, and then I realized it was indeed perfect... from a practical sense - all that glass to work with... but even more so in the sense of its form: these rooms on the vertical rather than the horizontal and this juxtaposition at the center.

One of the first realizations about the spaces I made - I'm not sure when -- this fascinating thing that these were the only spaces I'd ever worked in where you enter by the top of your head and your ears go in first before your eyes. You also hear each space from the bottom up because you're coming up - you gradually raise the level in the space as you come up the stairway and walk around, then walk up the next stairway, ears first into the next level, and the same with the third.

I said to Jan, I don't make temporary works anymore, and he said, well, there's no way I can at this point with all that's going on at documenta tell the AOK when they don't have the slightest idea what you do that this is a permanent piece and so I said, OK, look, we go at it as a temporary piece, I build it as a permanent piece, and you had better make sure that it doesn't get destroyed.

It was a landmark building, one of the first buildings built after the war - Kassel was flat after 1945 - so it was one of the first buildings built in this fifties style. The occupants had tried to

'modernize' the interior, though. Originally the stairway was very sparse and clean. They had added a carpet and rubber plants.

So Hoet insisted that they restore the stairway, it was in a ridiculous state because it was clear that they were fighting this space and losing, especially with the rubber plants.

The carpet turned into a big fight; documenta had to pay for the new floor, had to store the carpet; they had to take all these rubber plants out and all during documenta store them somewhere and water them. I knew that if I had the carpet it would be a lot easier because each floor would have absorbed its sound, I was game, but I said I couldn't get to work until the carpet was gone.

I came in May of 1991 with all my equipment trying to figure out how I was going to attach sound to this space - whoops, this thing is made out of cast cement, reinforced concrete - God help me!

On my first visit I had listened, but I hadn't looked, that was the next phase. These working drawings show the progression of the idea. This first one is called Entry, and it shows a head emerging into a floor. That's really where I started.

There's a series of drawings that show the struggle to find a way to attach to the space, finally I realized that if I threw it on the glass, I had it; because the source would unconsciously seem to be the glass where it couldn't possibly be -- the contradiction would make it impossible to find the source of sound -- it would disappear.

I was lucky that there was this heating system near the glass. It was too small to fit any kind of conventional speaker into, but I knew that from the heating system I could get it on the glass. I found a speaker-box designer who was obsessed with the bass reflex box, a small cult of speaker design, and I said I want you to design me a bass reflex box that has this frequency response at this

sound level but the maximum width can not be more than eleven centimeters.

Silence.

It's against all the rules of speaker design because in order to get the necessary volume you have to make the box into a long tube, and that's the last thing you want to do with a speaker box.

He did a good job though and the documenta team built them and installed them. I insisted that they be insulated from the heating system; they said, but no, documenta is only in the summer, the heating system won't be on. I said, no, I think we'd better be sure, there could be an accident, who knows what could happen here?

And then I went away all summer and prepared the palette.

I suppose I should state right now that the person writing this, is not in fact the person who made this sound work. He doesn't give interviews and he rarely speaks directly, even to me. I am his front man, his mouth piece, so to speak. My job is to oil the wheels and get things in place so that he can do what he does.

In the fall when the speaker system was installed he went in for two solid weeks to try and get this thing to happen. Acoustically it's one room because this huge opening, made by the spiral stairway connecting the centers of each space, makes it that way even though you perceive it visually as three separate spaces. So it's like making a layer cake, without anything to put the layers on.

He works by ear.

He not only had to solve the practical problem: building sounds which remained distinct on each floor without spreading, but he also had to build the work. The essence of the work, what happens when sound engages in the listeners mind, is in the nature of the sounds -- what I call their sound character.

This is the essential thing he works with when he builds a sound texture. Sound character is an unconscious language which we all understand -- in fact we all use it when we speak. It is the language we superimpose on the verbal meaning of the words as we speak them. Another layer of communication we add without thinking which tells the listener how to interpret the verbal meaning. We do it by shaping the pitch and loudness contours of our speech and also by

adjusting the timbre of our phonemes. In this case sound character is carried by the timbre of the sounds he builds.

Afterwards I started to try and figure it out, to analyze how he got it to work. At this point I usually do some drawings. I look back at the terrain covered and examine it and then make maps of the journey and structure of the work.

There is a pair of drawings about what I call the interlock. One deals with the spatial aspect; the sound on each floor and how each one spills to its adjacent floor - the images of the spill - the middle floor gets the spill of the top and bottom floors: red and the blue in this case. This showed me where the interaction was taking place.

The other drawing shows the spectrum of the three sounds, and in there I found that there were common frequencies in the spectrum of each of these three sounds. There's one frequency that goes through all three; and there're several others which go between adjoining ones. I was really surprised.

I should probably explain this idea of spectrum. The voices of two men, for instance, have the same frequency range, but yet the two voices don't sound the same. The difference is, that even though we may have many of the same pitches making up the sound of our voices, the relative amplitudes of those common pitches or frequencies are what determines how we read the timbre: the fact that I can tell the difference between one voice and another. So it's a shape; if you make a graph with frequency on the horizontal axis and you make a line for each frequency that's in the sound and you make the height of the line represent its loudness you get a shape. Like this. And that's really what we're hearing; that's what the brain is decoding. And the common frequencies in Three to One of course, because the sounds were completely different on each floor, had different meanings on each because they were part of a different spectral shape on each floor.

In fact what he had done was take the things that spread and give them completely new meanings in each place, within our sense of spectrum - how we hear.

The title came months after he actually made the piece... going back and I had to add a balancing system so that no matter how many people were in there the level balance was always constant. And during that phase I noticed myself that after a while - I mean the first time it happened I was really terrified because I thought something had changed - these distinctions

disappeared because your mind learns what's going on, it learns the game actually, and then it jells into one space, it becomes a terrain; so it starts off as three separate layers, textures, and as your experience grows with it, it becomes a terrain.

Writers have described their experience of the work in many different ways.

Some of that is about terminology really. Of course everybody experiences everything differently, especially in this work where he is not playing the sound for people to listen to; he is really evoking your auditory cortex to - that's a little too technical - he's evoking something in your mind but not at all trying to evoke the same thing in your mind as in my mind - you look at that pillar and see one thing; I look at the pillar and see another thing; we both call it a pillar. German speakers all call yellow orange and orange yellow. In this case it's the opposite, it's hard to find words to attach to sound.

Some people say they are terrified that they won't be able to actually hear one of his/my pieces. It's not acuity of hearing, I think it's acuity of attention. Many people walk in the ground floor of Three to One, where there is no sound and hear the piece; hear that there is a sound work there, probably people that have heard works of mine before; they sense that something is there. And other people go up the stairs, go into the first layer, and hear nothing, probably because they can't separate the sound of the work from what they expect to be the 'room' sound. In this case the sounds really are - not the nature of the sounds so much but the level - which was crucial, the loudness here - make it almost plausible as a room sound; and many people, I can see them struggling to separate - they know there has to be a sound there, but all they can hear is the room, and they have this struggle on the first floor but when they go to the second floor the difference between what they thought was the room sound and the sound of the work becomes clear, all of a sudden they go into it.

Some people have asked me about why I - it must be perhaps the nature of the space - used three sounds rather than mixed two to make three as in Turin.

It was hard enough to do with three, but I don't think I or he thought of that. First of all, it was a different idea in Turin: two into three.

There was a possibility - even though there were three levels - to make two ...but, it was not the time to play games! I suppose that's what gave me the idea is this about spillage and then to interlock, though. In fact he did that, but on a much more complex level; he did it in spectrum.

Once you are in it, once you hear it, these sounds are not plausible at all there, once you hear the difference in them. They have a strong harmonic structure that musicians sense immediately; they have a harmonic relationship that's very clear - that not everybody senses, but anybody who has been trained musically and thinks that way it hits them. But I think that was his way of, in a way, distracting them; it was an attempt to finally get musicians to be able to hear one of my pieces - they didn't hear music of course; but that harmonic relationship - I got a number of postcards calling me the master of harmony, and so I knew he had struck home... it was a way of distracting those people so that the piece could work, distracting them with something familiar so that the real structure of the piece would work for them. The focus of someone involved in music - they were too good listeners, so he gave the too good listeners something to listen to... to distract them so that the work could work. A nonmusical person, a person not trained in music wouldn't consciously hear that structure, it's more sensed - I mean the top floor is really open; all of a sudden you come up there and you're on the Great Plains, the texture on each floor has a completely different density.

The idea of the lower levels is not to prepare you for the top one, though. During Documenta people all walked up, but I knew that later the people who would use the building would be entering it at different places ... It's not a progression, it's three layers of different density, of different sound character, which fuse into one.