

EXPLORING THE DIGITAL CITY
3 NOVEMBER 2006 SESSION FOUR - TAPE 4

LEON: ... what they describe as visualisations.

MAN: Following on your point about communication, there has to be some degree of lubricant and the reality of that is you can't segregate it, it's the point at which the location should be what people view voluntarily not deliberately in a school. That's of vital importance. It can be machined out unless we're careful. The same with staff, we never have enough coffee.

LEON: That's why I wanted to call it real and virtual and I know an awful lot of work has been done in this area in different ways but not much of it works on that link and there are still miles to go before the architectural intelligence is really contributing to virtual environments in a way in which it does to real environments but it does seem to me to be an interesting [inaudible].

MAN: That Hani Rashid connection was very interesting. Having had to do drawings for Hani, you would go into this dark room and be given a pointer and then there was a wrap around screen and wherever the pointer went something would come up and it was the difference between work, and it would have an explanation and you would hear it in your earphone, it was most amazing. No one seemed to speak to anyone else and it was like you were all in your own helmet, it was an experience, there was this amazing wrap around screen and if enough people went to the same project then you got the whole project wrapped round and you were talking about one person's project but the rest of the time there would be completely separate discussions going on in which the students would identify themselves in the dark, a voice would come out saying it's my project and then there would be a conversation of someone trying to figure out what it was. It was an amazing experience actually. He created an electronic comment that was both real and virtual and he took over that room for about two weeks to get it right and there was a massive amount of wiring and sensors and stuff, screens that you couldn't see and that was part of the design. It was a huge operation and very expensive.

LORENS: I was going to saying something which in a way goes in the opposite direction because I think, I have to say I confess something, I've had a hard time getting my head around the incredibly beautiful spaces you showed us. I'm almost finding that the aesthetic distance that it's demanding is helping me not get my mind into it but just to say that I'm struggling with the comments but I persist and I am trying to do something with it. I think you could say, you could ask the question, you could say well what's a learning environment looks like, that's the space that you take. You could equally say that this is a learning environment, this is a space, this room or some other room and there you have two completely different accounts of what a learning environment is. I'm not sure that it is easy to say quite how they are related but that seems to

be what I am struggling with, how those two environments are related and what I, my first thought was, I was thinking my goodness this is, what we're looking at is the spatial form of subjectivity because here we have this kind of study of what goes on when people start learning from each other and you want to say draw the space and then someone comes over and draws a square in the space and you say, no, no, no, that's not the space that the learning patterns are in, that's just the room you're in and you keep asking that question and you keep asking it and finally someone has a crisis and says, for Christ's sake, let's look at what's actually going on, let's try to plot it, and that's broadly what's gone on here. So then you say, this is the environment that we make when we start talking to each other and in fact although we can't see it, it may be that that environment is the shape of the environment we're in now when we're talking to each other. It may be different when you stop talking to each other or we all go and think about other things but at the moment when we are all grappling with a series of ideas that we can broadly say constitutes a topic, then you can broadly say what is going on is that learning is going on. What's happening is we are beginning to make this kind of sticky gooey shape, like what you've got, and the dimensions are dimensions that relate to the pitch of our voice, the energy that we have to use to get our points across, the total volume of questions that are going on. That's what's shaping it and obviously as you have shown it is continually changing shape because at any one point you can take another time slice through it and it is a different configuration, which obviously you would expect. But we then ... So I think that's what's happening, or at least that's how I would like to say what's happening, how I would like to understand it and I am just going to peter out here.

MAN: I just wanted to ask a related question. As an architect what do you think you are carrying through the looking glass to the other side of the screen? It is noticeable that Blackboard, as its name implies, is a board and sometimes there are windows in that board and if you look through them you can see people's films or photographs or whatever and are you conscious that you are taking three dimensional space through the looking glass? Do you see that as a limitation or a liberation? How much are you impacting on that malleable space, or maybe space is the wrong word from it, how much are you affecting that cyber world on the other side of the screen from this side of the screen where there is structure in it?

LEON: The whole question that lies behind this is that what avenues do we take through the screen that our architectural sensibilities or our approach through the screen, what changes? With all the other systems, are people using a different kind of logic? I mean just the way that the desk top itself is arranged with papers and the trash bin and I've only showed one example, we have got five years worth of these and they differ greatly. Some of them began to look like the concourse which brings Mark Oget's long place into vision and having gone through the screen have we actually failed in what we have created with the long space, but they all share this [inaudible]. What can we get when we move to an information environment and a set of tools which

are innate architecture. Going back to this morning and ... I'm not sure whether to call you David or Grahame?

GRAHAME: Grahame please.

LEON: I'm not sure about your comment but you were talking about rejection of things, created things. Part of the problem is on the other side of the screen, there is nothing to reject, nothing to push away. You can define architecture as a sort of instrument for pushing things away but you have got nothing on that side to push away. There is no gravity, there is no leather, there are no other people, there is no material.

GRAHAME: It is really interesting because Wikipedia which I have become a total addict of, my son has been banned from certain sections of it because of his subversive ... For 24 hours he was not allowed on it for his subversive activities and they identified him and he was out. Who knows what it was about.

MAN: How did they identify him?

GRAHAME: Every computer has an ID and there are people who police Wikipedia who are actually members of the Wikipedia [inaudible] and have contributed to it, not money but ...

MAN: But he could sneak across to Leon's computer instead.

GRAHAME: Well he could have got in a lot of trouble and my wife gets letters from the FBI and people.

LEON: There aren't those kind of resistances but there are different resistances and I think that's what is so interesting about it. We're only just beginning to learn what they are. The tendency for this to end up as a tube that you float through is symptomatic of not really understanding yet what the resistances are. Most of the things that make this interesting on this side of the tube is where people have been able to show how they are relating to something that somebody else has discovered and that then becomes the thing that gives shape to it.

GRAHAME: The Wikipedia model is really interesting because people contribute knowledge into a base and it gets checked and shared. I think my son got in trouble for putting false information on it consistently.

MAN: Architecturally speaking the Wikipedia model is actually just another wall model in terms of the way that things are structured. It's the same as Blackboard, my question is more towards Leon tackling this, I suppose you can call it a [inaudible], limiting this environment which is potentially multi dimensional and yet you come in with a mindset which is, or one assumes you

come with a mindset which is conditioned which is what he was implying by the constraints of being an architect into the designing of places like this and how do you tackle that? In some senses it is terrifying. I think that's partly why the students who have been involved in this enjoy it so much and find many ways of moving on from there but then when they come back out of this they start entering into a world of the problems that all of the people who are using algorithms in design encounter. You can set up the most wonderful processes but if it is going to turn into building why do you stop it now?

MAN: Maybe the solution is to pick up the point that Lorens made this morning. We don't start off being architects, it is something we covertly become services engineers or infrastructure engineers and we begin to understand the flows of a different dimension and then pursue Simon's point, to get through that wall and you can't [inaudible] it on a structural basis but you can on the basis of infrastructure at the end.

LORENS: I don't think, I think that space or those spaces are all around us all the time actually, I just don't think we are ... obviously on some level we don't see them which isn't itself particularly problematic. I mean there are plenty of things we don't see all the time, everywhere you are looking there are all the other places you are not seeing so that isn't particularly problematic. I think actually we can see them if we want to and I mean I think, I'm not sure it is about going through to the other side of a screen because if you look at a big urban space, I think Venice has been mentioned and of course Venice is always a good one because it is always a city about flows, you know, you have got the pigeons and the crowds in the Piazza di San Marco and that is a continually shape shifting environment and if you were to lay on that something which would allow you to visualise what conversations have been going on and every time someone shouts across, yo, to someone across and then you have a little huddle here and that disturbs the pigeons who are having their own conversation, I think you start to – and then the pigeons fly which becomes 3D whereas the people are 2D and the pigeons are 3D – you start to see these kind of spaces and they, there is resistance in them but what you said Leon I thought was very interesting. You said, well we're still discovering what those resistances are. I mean a baby experiences gravity but doesn't really know what it is for a couple of years and a child growing up, you could describe their whole life, you could describe the whole life of a person from birth onwards as an exploration of what the resistances are to your life and that isn't just running into a wall, it may be taking your shoes off in the line to Disney and having a heavy telling you to come and put them back on again. It could be quite simply the fact that you were in a situation so embarrassing a few days ago that you can't speak about it right now so there are sort of avoidances, resistances all over the world.

MAN: Can I just pick up on that? Because the example of another resistance from outside being transmitted through the medium of the computer, whereas Leon said that he was just beginning to understand what the resistances were

in this cyber environment but you didn't actually stipulate what they might be. What do you get a sense of as being the resistances within the medium in which you work?

LEON: I have been trying to describe what they might be because the least satisfactory things that we produce are those that in some ways mimic real environments. The most satisfactory appear to be ones that describe the sort of stuff that Lorens has been talking about so eloquently, where people look at it with a moment of recognition and say oh goodness, yes, that's what it was like last week. It kind of produces that shape of things and it is interesting that it comes back again to the common ground, the connoisseurship, that there is some way that we assume beings as patterns and recognise them, can take a delight in patterns and can actually work with them, interpret very rich and involved patterns, much richer than we are currently able to engage in these virtual environments so the dream is that people can actually enter the virtual concourse, can actually have a much richer overview of everything that's available in a particular place and time, cluster around it in a more informed way than they do at the moment and one which doesn't simply get rid of everything that's on the screen in order to get to what's behind it, what the dynamics are. So that's the ambition.

MAN: I have a question. It seems to be implicit in what you are saying that you are applying the criteria and evaluation of what you are doing criteria and deciding whether you are successful or not in what you are doing. I just wondered if you could be a bit more specific about what those criteria are?

LEON: It's a group process. The whole group looks at what we've done, what the previous generation have done and they say has this advanced us in this pursuit or does this look like a dead end and the airport lounge does look like a dead end. I mean one looks at and says, I don't want to go there, it's not really advancing the discussion so each generation of students has access through this system to what the previous generation have done and what the previous critics have said. There are interesting people like Tom Warricker of Tomato involved in looking at this and discussing this and each generation tries to build something on what the previous has done so it is a cumulative thing but I do get the sense that there are things that they haven't found there.

JANE: I think we should stop there. There is clearly lots to say, like you say, because it's about the way we are and about what we do. Thank you very much Leon. Do people want to get up and have a quick stretch of their legs and whatever they need to do before the next block?

Richard is one of those colleagues who can do more than you can account for. He is almost always had funded research projects running on various things, he has established various masters programmes in architecture, digital media, on sound etc and I think really producing, if you like, pedagogical structures in which the kinds of questions that Simon was asking, the kind of pedagogical structures which those questions can actually start to be explored and

answered, at least provisionally answered. So he has done many things and on the way seems to turn out a book a year or so. Some of his titles include, the most recent titles include, I've just lost my notes Richard ...

RICHARD: *Interpretations in Architecture and Cornucopia Limited.*

JANE: That's right, the two latest books, that's right, here they are. His recent activities include funded projects on effective space which is about voice, sound in the city and over the last few years has been involved in projects on place, out of which has come a large grant on Branded Meeting Places, which is about virtuality, place and meaning.

RICHARD: And mobile devices.

JANE: His title today is called "Aggravating the Everyday". Thank you Richard.

RICHARD: This talk is going to build substantially on a comment that was made earlier by Lorens and that comment was 'Yo'. My theme is, I work in an architecture department but we are a School of Arts, Culture and the Environment and I work with musicians, so am involved with the music department, archaeology and also art history as well as other strands. We have started this MSc in Design and Digital Media and then we expanded that through my contacts with music and contemporary music composers in that School, to consideration of sound design, so we have a number of sound design students. So almost by necessity I have had to get involved with sound and music. Now I am not a musician or a sound designer and so it is rather fun in a way to approach sound as a provocation to my own practice focus which of course is architecture and this current project is called Inflecting Space Etc, Etc.

I'm sure things won't all work as planned but anyway, this is sound. [Plays different sounds] This is one of our case studies on this particular project, it is the Barras Market in Glasgow which is kind of an anarchic environment to some extent and it has a strange relationship with policing and municipality and so on with some of it changing, closing down and so on and the area around it has been gentrified, it is an interesting area. We have two others areas that will emerge as we go through this.

Recently I was at a workshop and symposium in New York of all places and this is an adaptation of the presentation I gave there but now I can do what I wasn't able to do at the conference which was to refer to their blurb and how in fact contrary my view is to their view actually. So for example you can see it is about situated technology which is mobile phones and new emerging technologies and so on, it is about ubiquitous computing and its impact on urbanism and you can see here the phrase "Computers themselves have vanished into the background." So there is kind of an assumption that it is very desirable and certainly in the description of the conference, but these devices are forerunners of something which should be quite invisible, an infrastructure

that just blends in to the rest of our existence and that that is somehow desirable, that we need to bring that into being.

So what I am arguing is that we need perhaps to look for other metaphors frankly, to get away from this idea of invisibility, things vanishing and also smoothness, that is another one of my anti themes I guess but we'll go into that. One way to do that I think is to look at sound. Stephen Connor wrote a marvellous book called *Dumb Struck – A Cultural History of Ventriloquism*. Now I must confess I haven't read right through the entire history of ventriloquism but as he puts it in his introduction is extremely telling and revealing for my work on voice and sound and space. So you can see here in this quote:

"Sound and especially the sound of the human voice is experienced as enigmatic or anxiously incomplete until its source can be identified, which is to say visualised."

So there is already something about the voice particularly which subservient somehow to vision and it breaks through somehow, it causes some sort of anxiety until we can see what's going on. Until a little while ago we heard the wind whistling around the building and I was thinking how evocative of an anxious state that was, maybe it says more about me than the condition but just when you hear sounds and you are not quite sure where they are coming from or whether it is having an effect on you and your environment and when you can't see anything it is particularly unsettling. So I like this idea of anxious incompleteness and that fits into his thesis on ventriloquism and the idea of projecting the voice and so on. So the voice is incomplete without vision and I like this idea of 'anxiously incomplete'.

Now listen to this, there are no voices. [Plays recording of sounds] With sound there is always the challenge of working out what on earth it is meant to be or to conjure up an image and work out what the image is that is meant to go with that sound. Of course in this case it is anxiety making sorts of sounds I guess and the idea of distortion is very interesting and my colleagues are pursuing that with great gusto. Now in fact what that was is the soundtrack to a visual sequence that hopefully will run in a second and the two were designed together, the sound designer working with the visual designer through an animation sequence and there are a few things that can come out of this sequence. I guess one is the notion of rendering a familiar object, in this case a computer keyboard rendering it strange by raising it to the urban scale and another theme is introducing the notion of stegophily, this is one of those subversive acts, it is lover of grooves basically, in other words young guys usually, and women actually, climbing buildings and exploring facades and buildings by virtually just simply climbing them, buildering is another term for that. We conducted a series of exercises where the students were to builderise some small object, render it as a building which you might climb. Anyway, let's see the visual ... [Plays recording of sounds].

We have about thirty of those and they are all interesting and edgy. Now that was about sound generally but what I want to focus on is the voice and Connor's notion of the voice disconnected somehow inducing some sense of anxiety but also in its own right pertaining to some notion of the cut. So just

looking at the voice as a spatial variable or determinant, I think that was the original proposals, a bit more scientific perhaps, but clearly the design of an amphitheatre as semi circular or circular, and that is about the voice, projection of the voice and its dimensions and configurations, optimal, I'd like to think there was an optimum to do with the projection of the voice and the [inaudible] says as much in that there devices and issues and so on that amplify the voice. We may think of public squares but prior to amplification they were somehow designed or some limit was set by consideration of the projection of the voice, so that in St Mark's Square you can't speak without amplification. Of course one thinks that maybe in these very large spaces there are other means of carrying the voice such as people passing messages along and there are references to that in Shakespeare on the battle front and there are devices for projecting the voice other than our current reproductive technologies, if you like.

Our other target domain is the Stock Exchange which has proved to be very difficult to get into. In fact we have talked to people who are ethnographers of such environments. The idea of Open Outcry which has been in decline since what they called the Big Bang in the late 80s when things went electronic but nonetheless there is persistence of this method of trading still in certain markets and apparently where the products are the least tangible, so the futures markets apparently are the environments where Open Outcry seems to be the best means of trading. But also the Open Outcry system does have an electronic equivalent. Apparently there are these things called Voice Boxes that sit on the traders desks even in the office environment and the voice is still important and it is crucial that immediately you press a button, you get something back. Also participating is a community aspect of bargaining and trading. Anyway, the voice seems to be implicated in the shape of these spaces where is always activity and a lot of gesturing, affecting the shape and sizes of these spaces as well. So what we are trying to do obviously is look at urbanism through the lens or to use a more accurate metaphor, the ear piece of the voice rather than the eye.

An obvious correlation between voice and space is through the notion of shape and I think this is one of Connor's themes as well where he talks about the idea of volume so an amphitheatre is an early space and some of the figures and shapes that Leon was showing, shapes that are rolling, some are shaped like the ear, they suggest curves, scrawls and volumes and there are loads of examples of that so when architects like to suggest environments that are something to do with sound or voice such as concert halls, they resort to those sorts of configurations and shapes, by analogy, by metaphor but also obviously through function to some extent. Recently I was at the Tate and I saw Carson Hiller's spiralling slides and it was interesting to reflect on those as classic volume shapes that pertain to sound but at least in the programme notes and the blurb, there was no reference to sound in particular but when you are there it is very interesting. You might expect the most interesting sounds would perhaps be people screaming or squealing as they slide down these slide shapes but what you actually hear is the rattle as they come down which is an interesting sideline aspect of the sort of qualities of these things. I

think this is also brought out by Connor and something we picked up, well not only Connor but loads of others. Sure, voice suggests something very smooth, in terms of urbanism, it endorses the idea of smooth urbanism if you like but also the cut is really crucial, certainly in the production of the voice so not only the tongue, the organ of smoothness that rolls, lolls and caresses words and issues vowels with great smooth gusto, but also the teeth as you can see there. So these vowels have to be cut, the inflection of the tongue has to be truncated by the teeth.

Apart from that, it seems like a formal consideration but various theorists have picked up on the notion of the voice as somehow the first evidence that there is something about our human being that can be cut off from us so if you think about what it is to use one's voice and prior to amplification and storage devices, what is it to be in an environment where you are constantly talking and listening and hearing sounds. Perhaps if you reflect on that you will agree that there is a condition where you think maybe the voice is separate from me, the fact that I can hide my body and myself behind a screen, and also of course the idea of the [inaudible]. But here we are in the late 1500s so Rëville talking about this excursion by these mad explorers into lines of giants or whatever, they encounter this environment where there are frozen words hovering in space, like sweets of different colours and then this character warms them in his hands and they melt like snow and then you hear them, you hear these words and they strike you as strange and barbarous, so it was before clearly any technologies for reproduction of voice but thinking of it as a separate entity, used to good effect in this parody. And the way in which the scholarly article behind it was, it was a piece by [inaudible] in Foucault which is known to some of you, but anyway this is about the object voice and reference is made there to Echo and the myth of Echo and Narcissus – I'm not going to do a deep analysis of this but the Narcissist myth if you like is about vision and seeing your own reflection, being enamoured by it and captured somehow to the extent of self-destruct. Echo's narrative is slightly different and she persists actually as an echo so her penalty for this is only being able to utter the last word she heard back, that is her survival in the long term. Anyway, with the notion of Echo there is clearly some separation of voice from time, events, space and so on.

Just looking through the literature, Michel Chion, a marvellous theorist on the voice in cinema and other aspects of cinema, also talks about the voice off stage, the idea of the ubiquitous voice perhaps, the all powerful voice that we can't see but we can hear that has a particular effect that he talks about in terms of authority, one of our earliest understandings of voice is through cinema, that we can emotionally detach the voice from an image. When I gave this talk at this event a few weeks ago, there was some suggestion that silence was the order of the day and I don't know if they were trying to keep me quiet but it just seems that when you talk about the voice and the cut and its separation from the body, one of the big urban conditions that we have to deal with is either how to achieve silence or what is silence, what is it to be struck dumb? There are lots of sources and theoretical insights we can get in this notion, the spectacular spaces taking our breath away rendering us

speechless, the idea of the sublime which is a silencing and an impetus where we are struck dumb somehow, that Kant, in talking about the sublime interestingly describes it as a movement, especially in its inception compared to a vibration that wraps an alternating repulsion from an attraction in the same object. I think that's interesting because it is about a gap and there is a vibration in that gap and of course that vibration resonates with notions of sound.

I guess a lot could be said about that and certainly avant-garde contemporary music, understanding John Cage's [inaudible] is still talked about musical colleagues as being innovative and really interesting and of course recently was a production at the Proms in London, we saw it on television. Interesting, I'm not connected to it at the moment, but this guy, Regowski, has written two minutes fifty seconds silence, that is the duration, it is like the 32,000 or whatever, certain numbers keep cropping up don't they? But yes, he did this in 2003 and I could more or less play the piece, well no, I couldn't really, what it is, it's a piece subtitled *The Drums of War* and what it is, using contemporary technologies of the kind that radio stations use for chopping out bits of supposed silence or spaces between dialogue in a radio play but he has applied this – in radio it is done to condense a piece, so for example the Archers Omnibus that you hear on a Sunday is actually shorter, as everybody knows, don't they? It is shorter than the piece during the week and apparently a lot of that is due to simply cutting out the silences or cutting them down and there are algorithms that do this automatically apparently. But anyway, Regowski takes this speech by George Bush, it is when he is more or less declaring war on Iraq and what you hear is just the silences and it sounds like drums, there is a certain rhythm to it which is scary. There you go, that's about silence, or at least the lack of talk.

If you think about urban environments these are the things that come to mind, these are the technical problems – active sound cancellation devices in areas that are silent through signage, context sensitive white noise, quiet coaches, the whole idea of a docile architecture from the point of view of silence. I hadn't realised that the Panopticon has voice tubes in it, that's great, I must look into it. But anyway, Foucault's idea that society configures itself somehow to placate itself, there isn't just one agency in control, society does this so there isn't mayhem everywhere, there are various systems and practices and so on to keep ourselves docile but a lot of that draws on notions of keeping people quiet and silent, perhaps.

This also, this set of ideas perhaps, a bit of a rag bag here at the moment but these are exciting similar notions I think about the relationship between sound and sight and this came through in that earlier seminar here. The idea of the ear and the eye, these great epochs. There is the epoch of the ear which was prior to writing and well prior to press and to print, so the culture of the ear which is seen as a kind of a smooth existence, where we are at one with one another and wear each other under our skin, as our tribal ancestors did and sight is about [inaudible] and there are notes about tribe and civilisation, a disconnect both local and global. So there is an alignment between these two organs and various cultural themes, that should add to this classical versus

carnival, there are lots of other parallels that are perhaps aligned to these notions of the senses.

Just as a bit of a break, since we are in to pedagogy here, I'll just play you this sequences and see if you can see what it is. [Plays recording of sounds] It is a very poor quality recording. We teach digital media and sound design, it is all very techy, it all involves computers but on this occasion we employed one of our music colleagues, Dee Isaacs, who runs a Music in the Community programme and we had this afternoon project. It is a bit Bauhaus, I can say to this assembly here, I don't think the music people would have related it to that, but it is the idea of getting into things almost in a tribal sort of way and she took us through a series of activities that surprisingly began with the voice, that wasn't my understanding of how it would proceed but some relaxation exercises, deep breathing, the use of vocalisation as a way of getting us into a particular mode and mood and this was an activity, after about an hour of this I suppose and it involved relating sound to gesture. I won't do it here but one of these days I'll pluck up the courage. What it involves is me scribbling in space, gesturing, and actually vocalising that gesture to you and then I'd pass it on the Leon and he would pick it up and do the same and it would go around the room, to much hilarity of course because we're inebriated with the context, nothing else. But anyway, there is something there about gesture and speech and a way of exploring it in a pedagogic situation. It was also an annulus, it was going around the environment related to this activity. It took about three hours, it involved music so at various stages we had, under the direction of Dee Isaacs, we had students tracing lines on this canvas while other students who were reasonably competent with instruments, were playing to the composition. It is about voice, it is about performance and so on.

I guess what we are trying to do here, that was a research project, is come to terms with voice in a spatial context and another handle I'm getting on this theme is through the notion, which you can see there, of sub-architectures which I think is coined by Ravel in a collection of essays by installation artists. Another term that is used by Jonathan Hill is immaterial architecture, so I guess it is thinking about architecture, space and urbanism other than just in terms of walls and floors and ceilings and so on. It is interesting to contemplate to what extent you can use these sub-architectural elements such as voice and maybe light is another one, smell and other sensory objects, and bring them into our architecture as though they were architectural [inaudible]. I think that is the kind of challenge and it is totally true to the point that it is easy enough to recognise at a cocktail party the configuration of sub-architectural where food is important but also voice is crucial in terms of how people configure themselves in spaces. The architect normally provides space where these things can happen but to actually see these activities as constructed through the sub-architecture is fascinating way of looking at things and maybe something that sound introduces to us. At the same time I went to a performance at the Witney a couple of weeks ago and it was interesting there, suddenly everything is about voice when you are thinking about a certain project you become obsessed, but here we are at a Steve Wright performance, musicians, but it was interesting to think how this space was configured quite

deliberately in terms of I guess sub-architectures. I don't know to what extent an interior designer or an architect was involved but certainly sound people, the microphones in different places, the speakers, there is something about the configuration of space determined by sound and the voice which is perhaps a bit different to how you would normally think of these spaces, these architectural designs. So it is something to contemplate but the major question is, is there something different or is it just the same?

There is also this image from Times Square, not only this accidental shot of somebody wearing the ubiquitous devices that obviously colour their environment, but I was just thinking apart from that, of the nature of light as a possible equivalent of [inaudible] or something that resonates with how sound is used, maybe light or maybe we can learn about sound by the way light is deployed in some of these sort of spaces, Las Vegas comes to mind. So there is a kind of ephemerality and transience about those kind of illuminated environments and maybe sound has a part in it.

I guess on a more serious level, we can think of communications devices and their ubiquity in surveillance and it occurred to us as we were talking to you about these issues, that surveillance of voice is in a different category to surveillance in the visual area. It is one thing to have cameras pointing at you but to have someone recording your voice ... I mean arguably it is important or significant to us because the voice arguably is meant to be a carrier of meaning so people listening to what we mean to say is tapping in to our minds when they hear what we say so listening to just voice per se being picked up strikes us as a more sensitive issue than our appearance. Anyway it is just to remind us of the importance of communication devices for the mobile times. It is interesting taking a random photograph in any urban context with lots of people, spotting the electronic devices. This was actually during the G8 summit, it became a non place, that was my opinion when taking these pictures and how the whole thing was mediated by these technologies as one encounters the inhabitants of the city communicating their distress and misgivings, shock, whatever, to one another and also the police have similar devices. So in this environment again people are creating their own local worlds with mobile phones.

One issue that crops up for us is how on earth do you study these things in a way that is going to satisfy the requirements of a funded research project? Well there are various challenges for designers. One message is that control is very much a visual thing and I'm sure design is a sort of control thing, it is about adding shape and control of environments, how do you create spaces for certain things to happen, it is all about control. It is very difficult to control voice, it is very difficult to control sound and environments for these things, not least because sound is incredibly mobile and certainly the sounds we utter as voices are mobile and the apparatus for picking up the sound, namely our ears, are totally mobile as well.

END OF TAPE FOUR