

EXPLORING THE DIGITAL CITY  
3 NOVEMBER 2006 SESSION FOUR - TAPE 1

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LORENS: A few introductory comments, someone will bring in some pitchers of water and somehow they fell out of the bottom of the net as it were, but I certainly know that I would like some water. What we're going to do is, I'd like to say a few words about the Exploring Digital Cities workshop and then a little bit about the Geddis Institute that is functioning, and then turn things over to Jane Jacobs who has very kindly agreed to chair today's session and Jane I think you're going to introduce the speakers properly. Jane, I'll just say Jane is a Professor of Geography at Edinburgh University and I know her work, I know the End of Empire book and I'm sure there's other things but that's, that's what I know, the, I guess to begin I'd like to welcome a few people here who are new faces to the group and I think its very important to welcome them because the new faces are people who are really coming from many, many, quite a broad spread of disciplines, including people from outside of the university and we have David McDougal who is, come today, who is a Senior Planner at the City of Dundee and I should say that one of our intentions with this workshop is really to get kind of people, not just from university disciplines but from any discipline that bearing on designer cities, I'm very pleased that he's here. Also I noticed that Barbara Isely is here from Planning. The Planning Department was originally involved in the setting up of the workshop and its fantastic to have you along. Also Chris Watney, who is one of our Vice Principles and Head of the College of Arts and Social Sciences this year, Chris was actually very closely, continues to be very closely involved in the setting up of the Geddis Institute and I think it's ... that he's here as well. That's probably most of the new faces, then its all the sort of usual suspects, I won't sort of go around the room and introduce, re-introduce everybody. If somebody feels that giving them a short ... I just, I'd like to say a little bit about where we've been with the, the Geddis, I'm sorry, the workshop series, just say a word about the three previous sessions because this is the fourth and final one. The first one, and party to the programme that we, you probably all have received as an email attachment, the first one was called New Media and New Space and one of the intentions with that session was to look at the impact of the media on how we use urban space, think about it, how we need it to communicate and do communicate and to energise cities, the second session was called Media Ecology and Freedom of Speech and I should just say Media Ecology is in a merging new interdisciplinary field in Aberdeen, coming out of, or at least strongly referencing the work of Marshall McLuhan and in that session we looked at the impact of digital environments on freedom of speech and freedom of expression, in the third session which was called policing and politics, we looked at how the new digital technologies are being used in, for surveillance and policing purposes and I guess then the last session which I guess I'll know what its about when it finishes but its entitled urban space and infrastructure will most probably be about how new technology is and the sort of, the infrastructures that emerge from that are also shaping our spaces in our cities. Now, I guess there is a question

about how all of these are joined up and they may seem to be kind of rather disparate, disparate topics. I don't think they're joined up in a kind of strong ... way but I think they're joined up in what I would call a weak way and weak isn't mean really as a, a pejorative its like weak the way cosmologists tell us that the weak forces in the universe are the ones that hold the universe together, I just mean weak in that they're kind of, I hope intuitive, there should be an intuitive sense of how, how they're joined up, even if to unpack them would probably take a book to do it, but just to sort of throw out it seems to me that the questions of copyright law and how that is being used to police new forms of expression, new forms of expression that digital technologies make available to us, is somehow joined up with questions of how digital media are being, or digital technologies are being used to police urban space to create, to tag probationers to in fact create virtual, virtual persons, because all of these things, whether its copyright law limiting freedom of speech or its surveillance techniques limiting and shaving the ways we can accommodate urban spaces, all of these are somehow determinates or regulators of social formations, I mean if that isn't what cities are about then what is? So I do see that a series of sessions on new media, freedom of speech and policing and urban infrastructure that they all actually are joined up in kind of myriad ways. Now, I promised to keep this short, so I'm going to finish quite quickly now, just to say that the intention with the workshop series Exploring the Digital City was really, or continues to be to create a forum for exploring, implementing new areas of interdisciplinary research in urbanism and this is perhaps partly because both Nick's and my research interests are fundamentally interdisciplinary, Nick is a cultural geographer and me whose an architect and those of you who are architects know the way architects are continually kind of grabbing ideas from all over the place but also partly because quite simply interdisciplinary is a strong part of the university's research agenda, so we're very interested in these sessions in seeking out possibilities for collaborative research projects. The workshop as I said has been sponsored by the Geddis Institute for Urban Research and that is a new institute, we were, I think I mentioned that Chris Watney is one of the people whose been very instrumental in bringing Nick and I together and sort of getting this thing off the ground. The Institute was recently, I mean really just a few weeks ago ratified by the University as a research institute, and the workshop series is in effect an inaugural act and the, the remit or the remit and our intentions with the Institute is precisely to seek out new platforms as it were for research in urbanism to sponsor research projects and to that end we have a number of specific things on our plate right now, I should just say that we are, well let me just say that I said that we're recently kind of, recently been ratified, we're in the process of forming a management group, which would be a kind of, sort of half a dozen people, mostly sort of our immediate colleagues, Nick's and mine, but also we would like to develop and advisory network for at least advisory mailing list and I, it is our intention that all of you here will be on it, you can sort of slither out if you don't want to be but we would like to consider all of the participants in this room today and in past sessions to be part of a Geddis Institute. Just to end I'd like to say that we have our next planned event really is in May, I think the week of May 14<sup>th</sup>, we've got Digler Gates[?], who is a Professor or Urban Studies at San Francisco State University and a

visiting Fulbright ... he will be coming for the week of the 14<sup>th</sup> of May and running a series of seminars and we want him to do a lecture and perhaps join the School of Architecture for a number of the MR Reviews. We also intend to publish the papers from this session and right now we're exploring different opportunities for doing that. So I think I'll leave it there but just to say that Geddis, the reason why Geddis is our, our figurehead is that, is because he really has provided a model for interdisciplinary urban research. His central figure, the Valley section encompasses both sociology, ecology and town planning, I think probably that, that kind of interdisciplinary spread is one of the things that we've strived for, so. I guess maybe its time for Jane to speak. Yes, do you want to?

MAN: Can I just briefly introduce Jane to the group. Jane as Lawrence mentioned is a Professor of Cultural Geography at the University of Edinburgh and she's well known to urbanists through her research and writing about the city and Lawrence mentioned Edge of Empire, post colonialism city, she examines struggles over urban space in London, Perth and Brisbane. She also co-edited Cities of Difference which explores how contemporary theories of difference can enhance our understanding of housing and labour markets and things, but that is her most recent research which is most relevant to some of the concerns that we're going to explore today, because with a team in geography and architecture at Edinburgh and funded by the AHRC, Jane is examining the social and technical aspects of high rise housing in Glasgow and exploring sort of key moments in the life cycle of high rise developments and I mean interestingly the focus in Glasgow is the Redrow development which I'm sure some of you are familiar with which is soon to be demolished, some time demolished and which has kind of shot to international stardom through a film called Redrow which run an award at the Cannes Film Festival recently, so I think everybody will know something about Redrow soon. Anyway it's a great pleasure to have Jane here chairing today.

JANE: Okay, thanks Neilson[?] and thanks Lorens, I won't speak for a long time, I think we're all here to hear the speakers so I'll simply begin by stating that I think the ethos of today is to hear some papers and for us to have enough time to talk properly about the ideas and I think that the theme of urban space and infrastructure and I know something of the content of what's going to be discussed which is about digital infrastructures if you like is terrifically interesting and relevant, particular I think to Dundee, which is a city that is seeing digital technologies as a way forward in terms of its own development trajectories and its academic environment and I think its very important as seen. I also love talking about infrastructure because it is the thing that we always rely on and its so naturalised and its completely naturalised and then its pops up as this intensely political question every now and then and I think that that nature of the relationship we have with urban infrastructure is really important but I'm sure that the speaker today will come into that deeply embedded notion of infrastructure and its high, its momentary high profile that it has, of course the plan as an architecture you're wrestling all the time with infrastructure, they are doing the work of making it invisible and I think that work is also a very interesting thing that is under discussed in the academy, that's all I want to say, I think our

speakers will say much more about it, much more, in a much more informed way than I can say things here. We've got three speakers today and they're going to come in the order of Grahame Shane to speak first and then Leon Schaik will speak second and then Richard Connor to speak third and my organisers have, Grahame will probably speak for most of the morning with discussion and then the other two speakers will speak later and Gerr Dunlop[?], if we have time, has got some lovely material that he'd like to share with us and I think it will be very pertinent to the kind of discussions we're having because I know Gerr works in digital media and thinking along these lines in a much more visual way than our speakers and so I think will add to the ... quite nicely. So that's the general scope of the day and I'm going to begin by turning to Grahame Shane who I've had the pleasure of coming to know over the last through some connections I had in Edinburgh and to know both personally and of course through his long awaited book *Recombinant Urbanism*, which was published last year, which is just a fabulous read and a book that, it's a real, it's the kind of book that can only come from not publishing too soon and I wish we all had the time to be working like that again and it says an enormous amount about the history of cities, exacting about these invisible parts of the city which are brought to life and discussed in extraordinary ways, in extraordinary detail and with extraordinary sensitivity. Grahame, apparently was trained at the AA, I didn't know all these details until just now, currently teaches, he's a Professor of Urban Design at Columbia in New York and teaches also at the Urban History Programme for Kirkby Union. He and Leon Schaik got, came together and they were unleashed on first year students at the AA and according to them taught them by allowing them to design whole cities and I think that's fabulous that first years are given the possibilities of thinking like that and of course planners are saying well that's the problem, however we are often, imagine we have such a pragmatism that actually and I think that kind of allows us to think about the whole city, so Leon and Grahame know each other from that time, I'm sure that would reduce certain kinds of conversations today. Grahame has also worked with, Grahame, a long time ago, studied under Colin Rowe and is now working and spent the summer writing a series of articles which are informing today's paper and is currently working on a new book, which will be an account of urban design since 1945 and I think is a much needed project and understands how urban designers come to so structure the way we think about cities today, in terms of management and their futures, so its my pleasure to introduce, I'll let you speak, tell everyone your own title. If you have a title, I'm just looking.

GRAHAME: Well yes.

JANE: Got one here, *Head of Tropius Evolution*, from Beauborg to Balboa and beyond.

GRAHAME: Yes, thank you Jane, very, very much for a lovely introduction, thank you Lawrence for inviting me. Thank you for Geddis Institute and everything, this is what you have to do in America, you have to say thank you to everyone, all your sponsors and its wonderful to be here and I'm going to, I do have a written paper but I was advised the other night to, not

by Lawrence but by some of the others do your thing and don't stick by the paper too much, so that's what I'm going to do and I'm going to try and make it a kind of open, its more of what I'm thinking about and what I've been working on and of course it relates to what happened in the past and it relates to ... and I will go through the slides but I thought I'd first try and give you an outline of what I've been doing and where I've come from and what I think I'm doing in the future, and how interdisciplinary meetings like this are becoming more and more important for what I do which is actually very, within the University of Columbia anyway, its quite hard to crack any institutional boundaries but when you travel you get these opportunities. And as Jane said, I've been working on some big articles, once you finish a book its like you've been in prison and all of a sudden you're let loose on the world again and can work on various things that have been suppressed and I worked with Brian McGrath whose my fellow Professor at Columbia on an issue of AD, Architectural Design London called Sent in the 21<sup>st</sup> Century City after a special issue and it actually relates very much to this meeting and its about the impact of global satellites and hand held devices on the way in which we use, conceive and model the city on a day to day basis in our regular lives and how the sort of just in time delivery system and why its characterised the shift to post modern industries is now becoming a kind of personalised service, only the wealthy used to have but now its available to the middle class everywhere and even in the slums of India or Indonesia or Asia and so there's, for me there's a technological and communications revolution on the way which is very, very exciting and over the summer I was working on three articles, one was for an old friend whose finally doing his book and it was very, very old-fashioned, Colin Rowe used to do these figure round drawings which are black and white plans of the city that highlighted the open space pattern and the built form pattern and it wasn't about activity at all, it's a straight sort of formal analysis, though he claimed to be able to tell what kind of characters lived in each type of fabric, in other words well anyway, you don't have to see that but it is an amusing idea that you could do that but anyway this friend is finally producing this enormous collection of plans of cities through time from all around the world and there's going to be this big atlas of city plans and he wanted me to write the introduction to it and I was dreading this task because it so old-fashioned and figured round are so out of fashion now in terms of reading the city and it forced me to go back and think about the whole process of drawing and drawing the city and how you drew the city plan and what you were doing in the city plan and then through that I got in, I'd done electric ... last semester and the young Professor, Martin Zogran had given me a new book as a present afterwards and I read it and it was all about the genetics and the information systems, genetics and growth, human growth, stem cell research, this kind of stuff and it was amazing because you start off with a single cell, it replicates, it changes very early markings in the cell turn into a spine, the replica, there's a very simple code that make your, the ribs off your spine and then you know the, we used to have tails but we don't and so on and so forth, we have legs and so on and it was, it was, for me a very, very interesting analysis and it started with a single cell, there was a growth direction with replication along it and then a secondary kind of satellite cell that formed and I could see being a crazy urbanist that I am, a pattern that was very interesting and then if you started

to rotate that around the centre you could get the sort of new, the satellite city plan that was made for London in 1945 and Ebenezer Howard's plan for London from 1904, so this simple modelling technique that was applied through genetic engineering could be applied to cities in a sort of analogical way, its not a direct way and so I got, that was a very useful article to me in the end, I got into organised this figured rounds, around this growth structure and the way in which the cities, some cities have grown in certain sequences and so on and so that was very, very difficult and interesting, then I did an article for architectural design on the recombinant urban landscape which was about the use of landscape in the city to transform the city from a modernist machenic model with very much a top down command structure, to what's happening now in say Dundee in making degrees, opening up the waterfront to be a leisure, pleasure place and the remodelling of the centre of the city as a, including pedestrianisation and partners and so on to be a place that is inhabitable again and not just a business centre and the landscape was a very, very important part of that shift and it also relates to the idea of the network ... that was very important in that book about how, why landscape was brought into the centre of the city was that the new growth was much more desirable in the landscape outside enabled by the car and new communication networks and so this was like re-importing the model back into the centre and again with that article I was able to use the centre, the spine and the edge network model that I developed in the ... book and then the most difficult part of the book I'd been struggling with is this Beauborg to Balboa and Beyond and poor Lawrence has had various versions of it shot at him and that's about their use of arts led development to transform the inner city in the same way that landscape does in the sort of parallel manner, all of these systems presume that there's a network city and a new distribution of multiple centres, with the centre of, the old centre of the city being one of many amongst the distributors system of information centres that are available to you and it's a privileged place because it has a history and also the central location but its not the only place anymore and its even, it can be secondary or tertiary within the network, but the thing that's interesting about Balboa and about this piece that I'd been struggling with and I'm going to sort of expand into that but just to give the gist of it, Beauborg was like a piece of the modern city miniaturised, compressed and stuck into the centre of the old Paris where it was pretty rung in quotation marks, of course the Marais was a very stark district but it was used by tailors and prostitutes and it was not an economic track in high corporate terms and they were building the big subways to cross at Les Halles Leon and I were involved in a fight to prevent Covent Garden being demolished, our friends in Paris were trying to prevent Les Halles being demolished. In New York artists were living in lofts where the highway were going to go which was also due to be demolished and so there was this whole emptying of the centre and new life coming into the centre and very sort of heterotopic set of combinations and changes happening in centre of the city, this is around 1968, 1970 and Beauborg were the competitions 1971, it was finished in 79 and it was built by our friends who were Richard Rogers partners that he'd been at school with. Mike Dennis for instance who was not, not Mike Dennis, Mike Davis sorry, who was the head sort of designer of the whole thing for most of the time, he completed his AA Diploma by frying an egg with a solar collector

on the bar while people took bets about whether he could do it or not, so, I mean these were, it was using solar collector out on the school roof to bring the power down to this little heater that fried the egg, so these, this was the kind of atmosphere that we were in at that time, it was a big sense of change and I have the same sense of change now in terms of communication networks and of course Beauborg was built, I call it a heterotopia evolution and I'm going to talk about it because three categories of heterotopias and I'll try and give you a definition because heterotopias, there is a Professor of Philosophy here, so I have to be careful, but I just, Beauborg was this huge machine that sort of floated into the centre of the city and had these galleries, concrete galleries that were absolutely gigantic, 600 feet long and a 120 feet wide and it was supposed to have these platforms that hung from the ceiling and could move around and put down and I had a, and can be recombined to make a recombinatory area that you could put up a very fluid and flexible exhibitions in, because each department subdivided the place and then hired their own interior designer and put up walls and it never was what it was meant to be but on the roof of the original drawings they had this incredible satellite dishes, very early big sort of down kind of satellite dish which was symbolic of the communications revolution which was about to take place and they also on the original design had very big video type screens on the front of the, and ticker tape, you know letter things so its meant to be an electronic communications device that would bring the archaic feudal archicheta which means the old city of central Paris into the 21<sup>st</sup> century via this space and it did transform but not quite in a way they expected. It was attacked by Boderea, famous Professor of Semiotics and communication theory as being the ... that imported Disney and Disneyland into Central Paris and it was anti-art and it was trying to freeze the culture and art of French society into this sort of deep freeze inside this machine and very, very violently attack, he described that as the Beauborg affect which was quite, seen as a very negative affect and yet he was, Boderea himself was a very, very avid theorist of post ... theory of communications and was always writing about the ecstasy of communication and the, he borrowed stuff from Wagner in terms of the fluidity of the floating signifier and the way in which things combine and recombine, he's very excited about poetry that could be enabled through new technologies and media, but at the same time he saw this machine as being a sort of fatal localisation and was very opposed to it and described that as a Beauborg affect. We're much more familiar with the Balboa affect, which is where you bring in a museum and Beauborg actually was very successful, it brought in six million people a year, beating the move which was forming and Beauborg brings in one point nine million people, not Beauborg, sorry Balboa brings in one point nine people a year. The Tate Modern brings in four million people a year, this is looking at museums and art galleries and their urban attractors and in the face of it it's much longer, I talk about Disney and I pick up the thread that, of how Disney organisation was one of the first organisations to really capitalise on the communications revolution and television and there's three cities I talk about, the archicheta is the stone city like now in Dundee, the cinicheta[?] is the railway, cinema, mobile, communicating, bipolar city where you live in one place and work in another and there's the telecheta[?] which is what we're heading towards

where telecommunications enables you to live work and do whatever you want to do, wherever you are, you don't necessarily have to move, you move for pleasure and leisure if you want to and you use a whole means of communication, your model of the city is much, much more complex and multilayered and multifaceted in the telecheta and your means of accessing that information is much, much more complex but Disney was the first to realise that television arriving in the home was something very different than the radio and that radio advertising was one thing but the television was going to be another and then to make the flip that this network system was going to need nodes and attractors and that the nodes and that the nodes and attractors would be as powerful as the distribution system, in other words the drive to the next city of, which is global and the drive to centres with complimentary and opposite and equal power, and he made this deal in 1954 with NBC one of the first big TV networks in America that they would finance Disneyland and it brought 12 million people a year and still gets 12 million people a year, they've just added one of the world's largest car parks to it, so that they can redevelop the car park to make another theme park and it's a kind of museum of culture and when I went there with my kids they were totally bored, they are the digital generation you know that's used to video games and these rides are just pathetic and slow and there was, under an island, there was this huge video arcade which is where even my daughter wants to go, so you know Disney has a problem coming, I'm wandering around a bit but, so these attractors are very, very important, they're plugged into these networks and they're heterotopias of illusion and so Balboa, I just want to talk about Balboa very briefly, if you think of Beauborg as these big trays of space with this articulated circulation on the, up to the view over the city that reintegrates the view of the city, all the fragments can be reintegrated to this one platform, its success was that it was free for the Japanese tourist to come up, go up the ramp to the top of the Beauborg and see it and then go out, since this, you have to pay now under the new refurbishment since 99 and its dropped behind the Louvre, the Louvre was also aided by, this is what's so weird, the Da Vinci Code that the Louvre went over eight million people because the Da Vinci Code, extra two million people came, I wanted to write the Da Vinci Code verbalism for a long time, bestseller, okay, sorry. Are there any questions? I've only just begun, is there? Is it okay? Yes, okay, yes. So I've got the slides but they're not about Beauborg and Balboa so I want to do Balboa, my analysis of Balboa would be, it only gets one point nine million people a year which is relatively pudy, its, and the thing about Balboa, Beauborg was a national brand of art galleries, just like the Tate Modern, set up a national system, Balboa is an international brand modern directly on Disney, whereas Boderea accused Beauborg of being Disney, I don't thin that the people that set up were, in a way it was an apology for the demolition of Les Halles to the '68 generation, alternative around in a different way, but kind of towards leisure and pleasure and not so much to be functional, mono functional work space. Balboa is something else, its first of all it's a global brand and Krens who established, became a Director in '89 I think, was hired to form a global brand of galleries, which, I mean the list of where they are is just mind boggling, doing research for this thing well there's Pay Guggenheim on the Grand Canal, public '79, the Edith Masmoka before Krens, before he came into,



which is an enormous factory which he converted to an art gallery he started in '86, it opened after he left in '96, he did the Berlin Guggenheim in '97 and the Las Vegas Guggenheim in the Venetian Casino, not talking about casinos, but they're heterotopias too, 2001, 2003, Krens proposed branches in Rio de Janeiro, Brazil, John Novelle 2002, Quataharo in Mexico, Enrique Norton 2005, Abu Dubai, I like this one, 2006, so, and he wanted one in Hong Kong designed by Foster, Taiwan designed by Zaha Adid, but in 2005 Peter B Lewis, the guy whose paying for it all, the Chairman of the Board and the largest donor in the museum's history resigned and he put out a press release saying that he expressed opposition to the global brand, saying that he wished the museum would concentrate more on New York and less on being scattered all over the world, it turned out the New York building had got these cracks in it and were literally falling apart, so you know its kind of interesting, but my analysis of Balboa is that it's a tripartite scheme. The interior has two parts, one is an enormous shed like Beauborg with some of these I guess, one is an enormous shed like Beauborg and sort of this big open plan and this has proved very difficult to put things in and only big steel sculptures can work in it, Sera. Yes, Richard Sera, but, so they've become, they're very heavy, so they sort of in part but that's like a piece of Balboa kind of sliced in underneath this big open plan hanger, then upstairs there's like a piece of the Guggenheim spiral ramp dropped in as a vertical atrium with these galleries around it and all these little small galleries added on to it and then over, so you have this two part thing and a ramp down into the base and then the upstairs part, its very important that its split, it's a splintering system and then over the whole thing you have this kind of icing on, of this big plate, these steel titanium plates that unify into a single image which works in the scale of the landscape and the family and the very tight mountains around it, so you get this view down on to it, am I going on too long?

JANE: No.

GRAHAME: No, its okay. So its an amazing piece of image making on a very deliberate international brand making scale and at the same time inside it reflects a split within art making, one of which, part of which is very intimate and to do with the individual moving to a circuit and having control of that circuit which is the equivalent of us moving to the city using our blackberries and telephones to meet each other in the city and is a sort of very personal individualised experience and then downstairs there's this kind of mass market appeal thing that this vast space, which is still there left over and in the article I kind of extend this analysis and then its all integrated into this global image and I sort of extend that, it's a reach but I try to extend that out into the analysis of the city in terms of the telecheta as an integrated image and then these two very different telechetas within it, one of which is the sort of privilege world that we belong to of movement and fluidity and global capital and so on and then the other of which is the you know the, what is it, one third of the world living, one third of the world's population, half the world's population is urban and one third of that sort of is three billion people, one and a half billion urban now, this has been this last 15 years, there's been this mass movement to the cities, and of that

one and a half billion, half a billion slouse, this is from the United Nation figures, slouse meaning self-build and where the satellite system is not a two way system, it's a propaganda model as opposed to what we have in the West where you have much more flexibility and individual control of what you get and what you pay for, so the telecheta I have a fragmenting of the telecheta into this sort of tripartite move. So now I'm going to very quickly do a Foucault heterotopia sort of illusion travesty of philosophic discussion which I apologise for, but Foucault was very, very important to me and because I was brought up in the 60s and 70s and when I went to school planning and urbanism and a lot of geography was all about printed, punch cards and computers coming and these massive analyses of figures that were totally non-spatial and there's sort of ... and the whole reaction against that in the LA School and David Harvey in Britain, that took Foucault as their hero because he made, he was about an absolute local place space and there was, so you could have as many utopian numbers of patterns you like but if it didn't come down to an actual place where urban actors had power over other urban actors and there was a sort of pattern or urbanism that developed it didn't count and in my book I sort of took that theory and turned it into this theories that are plugged into sociology and then I also out of that took the idea of this commons, this space that was shared within a network, that is the node where people meet and share symbolic intermediaries so that they can form communities and have discussions and Leon's work to me is very, very beautiful analysis of that in terms of Asian and other cities so I'm really, I knew it very early on when I was a younger teacher with Leon and I've seen him develop it over many, many years and admire it very, very much, so and its very inspirational but anyway to get back to Foucault, the heterotopia is in quotation marks, the state of the other. Now, what does that mean? It means that whatever system you're in and he was a Professor of Systems, systems of thought, whatever system you're in there will be a blind spot of garbage pails, when you think of your desktop you've got your garbage pail, its always going to be a spot where you put the things you don't want that don't fit your structure, your pattern, your construction that you're making and so Foucault, his way of analysing the dominant power of any period was to look at what they threw out, this kind of reverse mirror function working to see what was thrown out, to then understand what was built and it's a very beautiful and simple idea but its, you know the way he described it, its impossible there's just one article, there's an introduction to the thing about ... but there's almost nothing is written, but its sort of basic to what he's talking about, and there's, for me, the initial, he has, he has many heterotopias but I characterise them into three very simple types which are related to his basic organisational mental maps or spacious systems that he describes. One is a system of emplacement which is the sort of traditional feudal city if you know, the pre-industrial city and in that the heterotopia is hidden inside the city, it's the alms house for the poor, its very small hidden inside the fabric of the city. Then, and so the, and the, okay, well we're not going to talk about infrastructure but you have to remember that every heterotopia is a node inside a network and its this dustbin if you like, a place where you put the things you don't want and then the second heterotopia is when the professionals come in and scientific revolution and you move these non-conforming elements outside the city, the

professionals do, in order to study them and develop a body of knowledge about them, professional body of knowledge and its also the time when we architects and planners move to new towns outside the city, so you get this bipolarity within the system, Foucault describes that as a bipolar system, a system of extension because you move outside and its also linked to Galileo and the idea of infinity and modern space and you get his symbolic representation of that particular heterotopia, the heterotopia dealings of course because you are corrected thereby professional so that you're conformative and be a modern person, the heterotopia of deviance, his model for that was the famous Out ... prison, the jailor in the centre and all the cells around the outside edge, I think you probably all know that. And then his third heterotopia, which he didn't write about very much was called the Heterotopia of Immersion which if the rules in the heterotopia opellius, the prison, were very rigid and very fixed and very top down, the rules in the heterotopia evolution were super flexible, very fast changing and also bottom up and it was amazing, just through the 1964, the first version of 68, its an amazing piece of writing and he's into cybernetics, he's into electronics and so on, and he calls that system the system of relationships and it could mobile, moving through a flow system and the idea that it is, you know the way we talk through cell phones, he'd completely anticipated how we could organise a meeting between three people, to be in the same place at the same time, using cell phones and information systems, so it's a very, very beautiful set of analyses and the, he had, in terms of what heterotopia was when it was on the ground it had, it flipped the code from the dominant act, it was a reverse code, so if, if you were sent to prison its because you couldn't be orderly in a required manner, it was also a miniature of the cini like a prison or an alms house, it had its own little hostel with its own little chapel and so on and it was multiple, it wasn't single or finery, it was more than two, it was multiple cells and because it had multiple cells it was able to handle new immigrants, port cities for these under these sort of heterotopia category because they can handle and so on because of the multiple subdivisions with the city and I don't know, I should go to slides now I think, you've had enough right? So that gives you my idea of heterotopia and this is from the book, its very briefly go to one of the slides and then very briefly to another and have an amusing movie at the end, but. Okay, so these are my little diagrams of, sorry. So this is the system in placement with a single centre, there's my diagram of systems, or the archicheta and this would, and obviously made the early settlement of Dundee would be looking like that, then the extension of the city maybe with the clocks or the railway station on the edge and setting up, its also can go to a new suburb where the wealthy people live maybe and docks might be on the other side of the city and the heterotopia with its multiple centre, its many different types of coding, this is a linear organisational device, this is a single centre organisational device and this is the multiple centre organisation device, so when I see Leon's drawings of the multiple anchors on the stage or in the frame, I'm seeing heterotopia, sorry about that, and then this is ancient analysis of, from my thesis for Colin Rowe in '71, just looking at how the image of the city of a particular kind of renaissance space, this is a centering device, gets implanting into the edge of London by landlord, a great lord of London which the church sort of terminal device on the cross axis, there was originally a central column in

the centre of the plaza and then its gets invaded by the fruit and vegetable market which then later in the 1830s gets this very early glass roof, so you'd have a piece of the Industrial Revolution and so it has this sort of heterotopic career from the aristocracy residential area to the red light district to the theatre district to the flower district and now to the festival moor, always playing this kind of weird heterotopic role in the city, in what was, it was the edge of the city but now it's the centre of the city and this is from my book again, just to show Covent Garden is like way down the centre here and they replicate it, that same pattern like ... bigger and bigger and bigger scale, this is the Duke of Westminster, the richest man in England owns Pimlico and Belgravia, richer than the Queen and he's actually redeveloping the centre of Liverpool right now but anyway when I was talking about the centre of London, this is the Roman centre, they had this Roman road out and they replicated kind of Covent Garden systems along that road, like the ribs, a fractural system replicating the ribs at right angles to the flow and then the sort of big attractor of the parks on the edge of the city, the railway station trapped on the edge of that development and this is something that we use when we first started teaching about urban design in London in the 70s, this is a part of what we did and we were in the AA so this is an enclave system, you know, I was born a couple of blocks from there, Rockefeller Center is in the enclave with an armature leading into it with a tower on the axis, so the church and you can go back into Paris, Place de Voges, back into many of the city's and so on and on into post modern cities with the new urbanists making their village greens and all the rest of it. So you can do a lot with this and then this is also picking up on Mike Davis with all the enclave systems that he's making, sort of paranoid Police state that he reads, LA to B, which is you know one way to see it and then this is the armature which is the really ... sorting device, every time you go to an airport and you find your gate, you've just gone through a ... sorting device, every time a letter gets delivered to your house, its gone that same route and this, so this is a mental conceptual model, but its also, could be the old town to the new town or the old town to the dock and then I apply it to Las Vegas with the stretching of the armature, there's the original main street coming to the railway station in Dessoek, it belonged to the Mormons and then extending out to the airport strip, the switch from, the code switch from the dense urban centre of linear streets to the pavilioned system ... blocks, which you can see down at the waterfront in Dundee and the roads, so its two different modes of making the city there and then the compressed model which is the more model, the six hundred foot standard armature which is also could be in the centre of the ... so those, looking at armatures and enclaves and armatures can be stretched as railway lines as well as by Los Angeles and just very briefly, I'm flying through this, these can, my book's about how these can be combined and recombined by urban actors in different places around the world and different ways and I use two other students that we taught, Katrina and Peter Wilson's project on Munster Library as my sort of test case and example, which I think is a very beautiful project and ... and then there are other ones, I mean if you look at Piazza St Marco in Venice it has a street armature leading into it, Bath you can see there's a sort of enclave and armature and but half enclave, opening up the landscape very beautiful sequence and just again modern and post modern examples. And these

are, sorry these are going to go very fast, I'll play it again, I haven't mastered, this is from my thesis of 1971.

END – I hour