
Warwick Bar - Audible City: Site Survey

Interim Report

10 October 2006

Preface

Context for work

This report is an interim report setting out the work that we have undertaken to date as Lead Artists for the Warwick Bar Masterplan.

We have approached this stage of the research as a survey of the site from the perspective of sound. We see the next phase of our involvement in the project as developing this initial research and making proposals based on the findings in this report.

The report will be presented to the Architects Kinetic AIU at 2.00pm on 10 October 2006

Liminal will also make a presentation to the stakeholders at 4.00pm on 10 October 2006 which will include PROJECT coordinator Alastair Snow and ISIS Project Manager Nick Bird.

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Site Survey

Introduction

As lead-artists for a new urban development in Warwick Bar, Birmingham, we have been invited by MADE (Midlands Architecture and the Designed Environment) to work closely with Architects Kinetic AIU in the development of the masterplan for the area. This report will outline the research that we have carried out so far.

We have begun our contribution to this project by undertaking a survey of the site from the perspective of sound. Planners and architects have traditionally surveyed their sites focussing primarily on topography, while also acknowledging its social and historical context. Acoustical concerns, if they are considered at all, are rarely addressed outside the context of the most utilitarian issues of noise limitation and isolation. Our survey begins with the premise that soundscapes have a more important role in our urban geographies and that the sustainability of any future development is dependent on a rigorous understanding of the sonic character of the site, its history and potential for further intervention.

The Soundscape

The Warwick Bar site itself is of considerable historical significance to the industrial development of the city. It is surrounded on three sides by water; hosting the River Rea and the intersection of the Digbeth Branch Canal and the Grand Union Canal. Much of the site's sonic history is lost and largely dismissed by its current occupants but just as listed buildings are protected by the state and other aspects of the site's physical history are considered to be 'assets' by enlightened developers, we see our primary role in this initial stage of the development as raising the status of the history of the soundscape of the site to a level where it might actively influence the development of the masterplan. Any future contribution we make to the direction to the masterplan will be based on an understanding of the site gained through the work we have done here.

Soundwalking

We were keen to ensure that initial investigations of the site incorporated a rigorous historical and social perspective as well as exploring the soundscape as it now is and amongst other techniques, the practice of soundwalking presented itself as a valuable research tool. We have used soundwalking in three different ways; first as a personal investigation of the site, second as a way of introducing the architects to new ways of hearing the city and lastly as a technique that has led to a pre-recorded, downloadable programme which was presented as a work in its own right at the ArtsFest in Birmingham on 8th and 9th September 2006.

The first and second phases of our walks drew upon techniques developed by R. Murray Schaeffer and Barry Truax et al from the original Vancouver Soundscape project, involving direct participation between ourselves and those doing the walk (architects, developers and in the future, the general public). We are primarily interested in facilitating the making of a space to hear; devising appropriate cues to stimulate active listening and providing a suitable means for documenting the outcomes of the walks through sound recordings, texts and other mapping processes.

Noise Mapping

This stage of our research has also been accompanied by the use of more conventional, quantitative 'noise mapping' techniques which are being undertaken in collaboration with the city council. In 1998 Birmingham developed its own Road Traffic Noise Map in response to the EU directive on Noise, and by using the data that is available to the City Council as well as identifying the current noise levels across the site, it is possible to predict the noise levels that the future development may present to its inhabitants during the day, evening and night time periods.

Tranquility

The Warwick Bar soundscape is unique. Surrounded on 3 sides by water it is known as a distinctive, tranquil sound environment. In part, this is due to the juxtaposition of the road traffic noise from Fazeley Street and the relative quiet of the canals. When on the canal, the soundscape has a notable sense of space and clarity; individual elements of the natural soundscape can be easily identified in isolation while the louder sounds of industry are at a great enough distance not to dominate or obscure. Industrial sound is nevertheless a tangible presence around the site, but in the context of this relatively balanced soundscape, many of these sounds serve to lend a sense of place, offering valued soundmarks which contribute to the character and identity of the site. By contrast, the high level of road traffic noise on Fazeley Street masks the sounds of industry leaving the auditor isolated from the context they find themselves in.

Conclusion

By considering how the materials collected through our site analysis techniques of sensory mapping and soundwalking, we might not only identify important soundmarks that should be kept, enhanced or even reinstated, but also raise the status of sound so that it might become a principle influence on the design of the project.

Personal Investigations of Site

Introduction

We began our exploration of the site by looking at the historical and present day Soundmarks that we could identify on the site from ordnance survey maps from 1890, 1905, 1918 and the present day.

Historical soundmarks

We identified a series of buildings and features that have been demolished, filled in or misplaced and identified the soundmarks that were associated with these places. Some of the most significant of these include:

- Fazeley Street Tramway (1918)
- Basins in Warwick Wharf (filled in)
- River Rea culvert
- Cattle drive on the cattle path from Fazeley Station and Banbury Wharf to the Bull Ring

Present day soundmarks

Soundmarks that were significant to the present day site included:

- The proof house gun testing
- The natural soundscape associated with the canals and river
- The distant sound of trains
- The sound of the cement works
- The sound of bats (although beyond our hearing)
- The sound of the Black Redhatch
- The 'silent' water of the canal
- The noise of traffic on Fazeley Street
- The bells of St Martins



Warwick Bar Soundmarks

River Rea

Flood Plain (notional)

Canals

Warwick Wharf

Fazeley Street (Tramway 1918)

Cattle Path

Great Barr Street

Listed Buildings

Proof House

FMC Building

Banana Warehouse

122 Fazeley Street

106 - 110 Fazeley Street

The Bond - Ice House

Ikou - Unitarian Chapel

Team Karting - The Mill

Demolished Buildings

Fazeley Street Station

Carriage Shed

Toll House

Existing Railway

Barbury Street Wharf

Viaduct

Soundmarks



Site boundary and river before it was culverted



Existing railway dominates the site



Elements that are now missing from the site



Original canal with basins in the Warwick Wharf



Originally there was a railway onto Banbury Wharf. The Viaduct next to Great Barr Street was never used.



Site as it currently is



Current waterways surrounding the site



Listed buildings on and around the site



Site bounded by the waterways and Fazeley Street



Demolished buildings shown in orange

Ways of Hearing - Four Points Soundwalk

Introduction

The Four Points Soundwalk was originally conceived for the picnic arranged by MADE between liminal and the architects Kinetic. Jayne Bradley asked liminal to organise a practical way of introducing the architects to our way of hearing.

The Soundwalk

The only access to the site at present is around the perimeter along the canals and Fazeley Street. For the four points soundwalk we wanted to repeat the route that the architects had originally taken us on when initially introducing us to the Warwick Bar site. This involved walking from 122 Fazeley Street (the MADE offices) to the Digbeth Branch Canal, then turning along the Grand Union Canal, crossing the river Rea and finally coming back along Fazeley street.

In our original walk around the site boundary we noticed that there were significant differences in the acoustic quality of each corner of the boundary. To introduce the architects to an alternative way of experiencing the site we proposed that they walk the site **in silence, listening** and at each corner write down all the sounds that they could hear within a five minute period. Each participant listed what they heard.



Bob	Frances	Jayne	John	Mike
Hammering Drilling Whining hum of Machinery Background hum of machinery Commercial vehicle engine noise Fan noise Coughing man Motorcycle - 2 stroke engine noise Pneumatic noise High-pitched whining noise Little kid talking Car noise Bird singing Fork-lift beeping alert High-pitched screech	Water bottle dropped Clicking/ banging Squealing to my right Low level traffic Door banging Road traffic Wheeling in distance Humming Distant conversation Coughing Female voice Motorbike approaching and passing Motorbike in distance Cars passing Industrial sound Bus in distance Cars passing Beeping Laugh/ cry Car passing Beeping/ reversing Car passing Distant talking Hydraulic brake 'psst' sound of industry Approaching conversation Approaching car passing Child talking Driving by... Horn: beep, beep, beep Reversing beeping Car passing Beep, beep beep Pressure Alarm siren Tripping steps Rumbling Person Walking past Car Stereo 'um, England..' female voice	Hammering Squeaking of metal on metal Cars going past - loud - soft Machine Talking with echo Motorbike Train - quiet - distance High-pitched noise in distance with sound of fork-lift truck Distant noise - activity - industry Pressure gun thing	Hammering Sawing Whining noise Lorry Low rhythmic hum Female voices Helicopter +...+... - train Reversing vehicle? Seagull? Child's voice? Machinery drill Beep, beep (reversing) Child's voice Bird chirps Cars passing Bird 'Doo doo' Beep beep Metal squeak Voice	Hammering Squeaking wheels? Whir of fan Truck passing Low level reverberation of vehicle idling Motorbike passing revving Single high-low bird call Vehicle reversing Pressure pump release Metal tool being dropped/ used Pneumatic drill/ tool High-pitched bird calls Pressure release or brakes Footsteps Muted car stereo Safety siren/ vehicle reversing

Location A: Fazeley Street and Digbeth Branch Canal
12:37 - 12:42

Bob	Frances	Jayne	John	Mike
Concrete conveyer noise Mountain bike Virgin train engine Virgin train screeching on tracks/ braking? Pneumatic pressure release noise Vibrating machine on Lafarge site Birds singing Low-pitched machine hum Rhythmic hammering noise Vehicle noise from concrete site Vehicle beeping alert Quieter virgin train - no screeching Concrete pouring noise	Bike passing Humming of train Rumble Screeching train brakes Screeching Rumble Humming 'Psst' of industry Low level rumble Runners footsteps Walking man Blown paper 'psst' Hum 'psst' hum rumble drone of approaching train 'psst' hum rumble Train passing screech on rails Hum 'psst' Truck driving 'psst' rumble Rattle Banging on stone Reverse beeping 'psst' Low-level rumble Coughing Train approaching Rustle of paper 'psst' Beep and click of camera Duck quaking Footsteps/ scrape Beep reversing 'psst' Coughing Squeaking whining industry Falling rubble	Concrete works engine noise Train slowing down brakes Bike Drilling/ deep sound - Industry sawing Concrete works - other noise Steam outlet noise Birds - faint tweeting Echo of shingle moving Loud chirp of duck	Squeaking rails Lafarge machinery Aggregate falling repetitive Train brake Tuba note (Lafarge) Tap, Tap last stone (Tuba note 'pshh' pshh) - Lafarge Wind in 'der dah' - train Train Low thud Vehicle on gravel 'pshh' Coughing Birds (Seagulls) Bird call Reversing beeps 'pshh' Squeaks Gravel release	Aggregate elevator track and gravel noise Pressure release on mechanism Train brakes/ wheels on track screeching Vibration of Joggers footfall Pedestrian Diesel engine + track noise High-pitched whistle Elevator starting up Bird-call - clicking noise Reversing siren Extractor fan drone High-pitched bird call Metal on metal friction Bird Call Camera bleep Jayne's Footsteps Pressure release

Location B: Digbeth Branch Canal and Grand Union Canal
12:45 - 12:50

Bob	Frances	Jayne	John	Mike
Commercial Vehicle Noise Car horn in distance Train noise Birds singing Duck noise High-pitched bird 'squawk' Bee/ wasp buzzing round my head! Joggers on towpath Noise of ducks in the water Baby ducks singing and splashing Vehicle bleeping alert Aircraft noise Quiet commuter train	Bird song Beeping Banging of steel Rumbling in distance Road traffic noise Crickets 'psst' Horn beeps Bird call Train - electric in front to left Beep reversing Wind in trees Bird song Beeping reversing Loud cheep cheep Falling stone Banging truck Bird Flapping paper Car horn Running footsteps on gravel Runners footsteps passing on brick Bird splashing in water Beep beep beep reversing Delicate bird cheep Distant road traffic Beep beep beep Train horn Bird song Wind in trees Lapping water Bird song Train to left Airplane above Beep beep beep reversing Low level hum Airplane above and beyond Train passing	Road noise - traffic moving in distance Train track noise Trees rustling Birds Beep beep - alarm of trucks Chirp of specific bird - not duck after all Tweeting of baby ducks Car accelerating Pigeon flapping wings Slight ripple of water Aeroplane Stillness	Wind Bird Reversing noise Distant bird calls Bird-like machinery Reversing sound Bird song Bird call Wind Paper flapping Joggers approaching, and passing, panting Distant machinery beeps, whirs and hums Birds sing Horn beeps Reversing noise Stronger wind Distant bird Water ripples Plane overhead Train passing	Vehicle reversing siren Train brake screeching Van horn Rail-track noises Tone of diesel engine Repetitive bird call Loud bird call Metal clanking (scaffold) Hammering Joggers footsteps Ducking calls Train horn in distance Loading 'knock' - single Bird wings flapping

Location C: Grand Union Canal and River Rea
12:53 - 12:58

Bob	Frances	Jayne	John	Mike
Car alarm	Car alarm	Car alarm	Siren	Car Alarm
Engine at low revs	Cars	Road traffic	Cars rush past	Squeaking brakes
Cars passing	Lorries	Truck brakes	Lorry accelerate and brakes	Hiss of engine (truck pulling out)
Vans passing	Car alarm	Bus	Cars rush past	Rattle of van
Crashing noise from machines/ press	Rumbling engine	Cars	Trucks past	Repetitive
Rhythmic machine	Lorry	Hammering in background/ rhythmic	Clanking machinery (tonal)	mechanical noise (factory)
Truck brakes squeaking	Approaching car	Trucks - 50/ 50	Cars	Squeak of brakes
Truck hydraulic noise	Approaching/ passing car	noise	Bus clatters past	Release of pressure
Car stereo	!! traffic	Beep horn of car	Cars pass	Car stereo
Motorcycle engine	Umbrella click	Speeding car	Quiet machinery noise	Brakes squeaking
Car horn	Rumble distance		Feet shuffle	John's phone
Bus noise	Approaching car passing		Voices	Two-stroke moped engine
Boy-racer car with loud exhaust	Bus Approaching/ passing		Lorry stops brake	Car horn
	Distant beep beep		Cars pass	Whir of bus engine
	Road traffic		Music playing	Dropped metal
	Rustle of paper		Motorbike rattles and chortles past	Car revving
	Distant conversation		Horn beeps	
	Cars passing both directions		Bus accelerates	
	Distant engines		Cars pass	
	Rumble of lorry approaching		Low machinery whirs	
	Brake squeaks		Car goes through gear	
	Rumble of Lorry		Seagulls	
	Reversing beep		Cars pass	
	Car stereo			
	Traffic noise			
	Rumble of brakes			
	Reversing lorry			
	Approaching lorry			
	Motorbike			
	Car horn			
	Distant quack?			
	Cars passing			
	Sniffing			
	Beeping			
	Rumble distant lorry			
	Car passing			
	Distant traffic noise			
	Scraping of feet			
	Motorbike approaching			
	Cars passing			
	Cars passing			

Location D: River Rea and Fazeley Street

11:06 - 11:11

Research Tool

We developed the idea of the Four Points Soundwalk as a research tool and extended the audience to the general public. The initial context for this was the Birmingham Artsfest weekend held on 9 - 10 September 2006.

In addition to asking the participant to walk in Silence listening we also asked them to answer 3 questions about their overall experience of the site's soundscape:

What was the most distinctive sound you heard?

What sound would you like to hear more of?

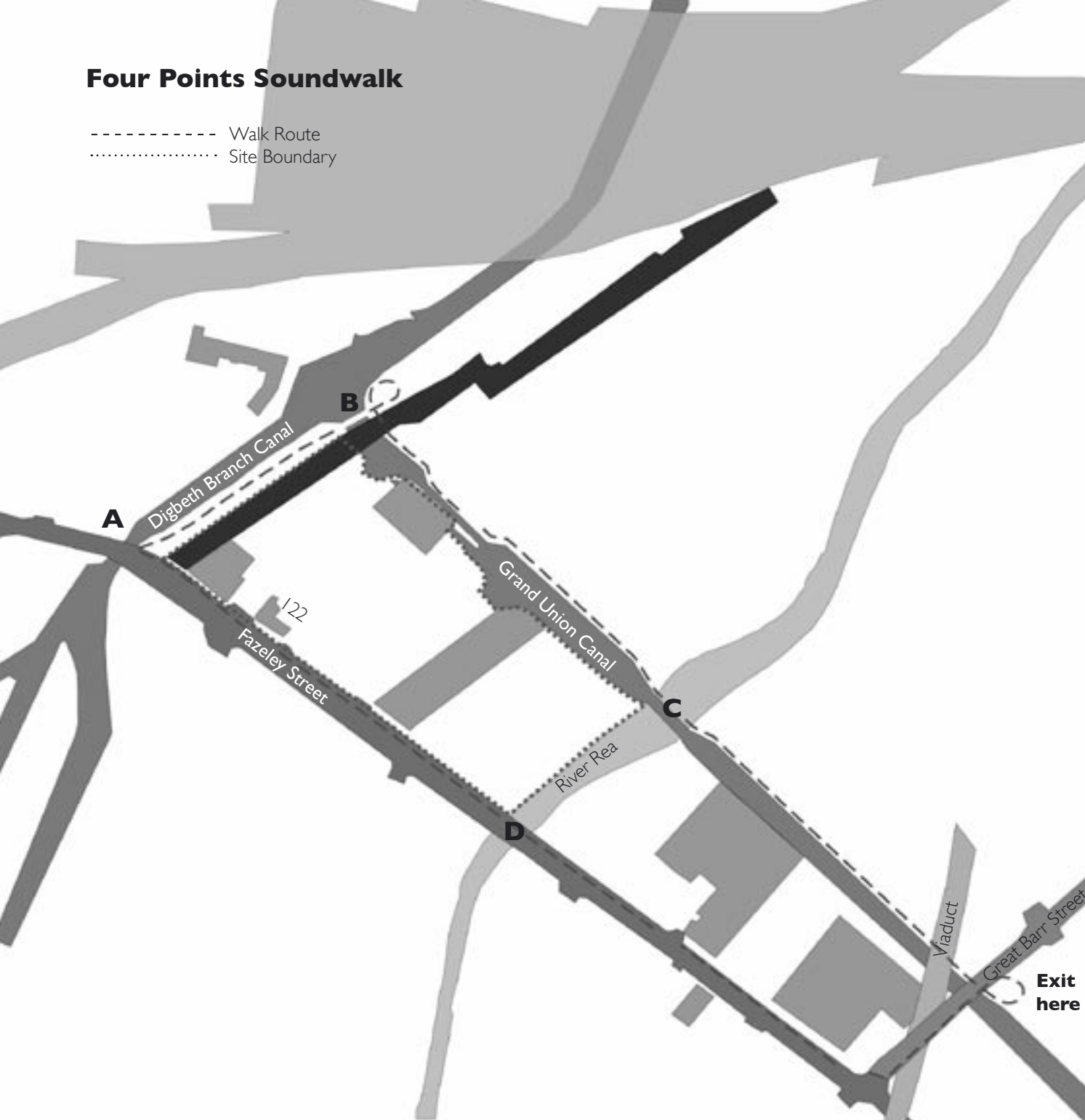
What sound would you like to hear less of?

We also asked them to qualify how tranquil/noisy the overall experience of the walk was and how tranquil/noisy they perceived each stopping point on their walk.

We received 3 responses! We are looking for an alternative opportunity to collect this data as it is our intention to quantify the information so that we can produce a noise/tranquility indicator for the soundscape across the site.

Four Points Soundwalk

----- Walk Route
..... Site Boundary



Date: _____

Start Time: _____

End Time: _____

We would like you to take a walk around the boundary of the Warwick Bar site and write down on the other side of this page all the sounds that you can hear over a 5 minute period at each of the four points marked on the site.

Listen carefully
Walk in silence

When you have finished the walk we would be grateful if you could answer the questions set out below.

Thank-you.

www.liminal.org.uk

What was the most distinctive sound you heard?

What sound would you like to hear more of?

What sound would you like to hear less of?

Make a mark on the line indicating your overall experience of the walk.

Tranquil  Noisy

A

Fazeley Street/ Digbeth Branch Canal

Start Time

End Time

What was your overall experience of the last 5 minutes.

Tranquil **Noisy**

B

Digbeth Branch Canal / Grand Union Canal

Start Time

End Time

What was your overall experience of the last 5 minutes.

Tranquil **Noisy**

C

Grand Union Canal / River Rea

Start Time

End Time

What was your overall experience of the last 5 minutes.

Tranquil **Noisy**

D

River Rea / Fazeley Street

Start Time

End Time

What was your overall experience of the last 5 minutes.

Tranquil **Noisy**

A Space to Hear – Warwick Bar Soundwalk

Warwick Bar Soundwalk


In addition to the work that we had been asked to carry out as part of our research role as Lead Artists for the Warwick Bar Masterplan, MADE asked if we would produce a piece of work for the Birmingham Artsfest weekend as part of Artsfest Eastside.

We created a pre-recorded composition that visitors to the gallery at 122 Fazeley Street could listen to on an MP3 player as they walked around the environs surrounding the development site.

A CD of the soundwalk is included in this report.



Warwick Bar eFlyer



Warwick Bar Soundwalk

As part of the Birmingham Artsfest, Liminal will present the Warwick Bar Soundwalk developed in response to their role as lead artists for the Warwick Bar masterplan. The Soundwalk can be experienced on Saturday 9th and Sunday 10th of September between 12.00 noon and 6.00 pm by picking up an MP3 player from 122 Fazeley Street.

12pm - 6 pm, Saturday 9th September – Sunday 10th September, 122 Fazeley Street, Birmingham, B5 5RS

liminal <http://www.liminal.org.uk> **MADE***
122 Fazeley Street, Birmingham, B5 5RS

Warwick Bar Soundwalk

Please return this map with your MP3 player once you have completed the walk.

WARNING: Using headphones can be disorienting.

Site Boundary
Walk Route -----
Track Number ④

Warwick Bar Soundmarks

River Rea

Flood Plain (notional)

Canals

Warwick Wharf

Fazeley Street (Tramway 1918)

Cattle Path

Great Barr Street

Listed Buildings

Proof House

FMC Building

Banana Warehouse

122 Fazeley Street

106 - 110 Fazeley Street

The Bond - Ice House

Ikon - Unitarian Chapel

Team Karting - The Mill

Demolished Buildings

Fazeley Street Station

Carriage Shed

Toll House

Existing Railway

Banbury Street Wharf

Viaduct



Visitor Numbers	Day	Event	Total Visitor Numbers	Soundwalk
	Friday 8 September	Preview	14	12
	Saturday 9 September	Public	130	57
	Sunday 10 September	Public	50	13
TOTAL for Event			194	77

"I thought it was a real eye (I mean ear) opener. Hitherto, I thought all this 'sound art' stuff was just too abstract for a developer philistine like me. But the Soundwalk was genuinely fascinating, and to that end it is a true work of art."

Nick Bird ISIS Project Manager in email 19 September 2006



Warwick Bar Soundwalk - Developments

Spot Radio

Liminal also discussed the work and presented extracts from the soundwalk on Spot Radio during the ArtsFest. Canadian based artist Germaine Koh invited the local community to operate Spot Radio – “a low power FM radio station stored in a suitcase to provide a mobile tool for the public to air their views and opinions.” (<http://www.vivid.org.uk/projects.php?work=34>)

Building Design

The project was made reference to in Spotcheck:West Midlands (page 7) in the 22 September 2006 edition of Building Design

Resonance FM

An edited version of the Soundwalk will be broadcast on Resonance FM on the provisional date of 24 October 2006.

BBC Radio 3

We have been invited by radio 3 to submit a proposal to create a programme for 'between the ears' based on the initial research for the Soundwalk.

Desire Lines

We have been invited to present the Warwick Bar Soundwalk as an exhibition, at Desire Lines, the second international Arts & Ecology symposium at Dartington College for the Arts, Devon. 25-27 October (www.desirelines.org.uk)

Sound As Art

We have been invited to present a paper 'Soundwalking as a Research Tool: Some thoughts on the use of Soundwalking in the Warwick Bar development project' for the Sound As Art: Blurring of Boundaries conference, part of Aberdeen's 'Urban November' season. 24 - 26 November: (<http://www.urbannovember.org/conference/>)

Situation Leeds '07

We are currently in discussions with Situation Leeds about the possibility of presenting this project as part of the Situation Leeds '07 festival.



Noise Mapping

Context

By using quantitative 'noise mapping' techniques it is possible to consider the likely influence that a development may have on the existing soundscape of the Warwick Bar area. Currently Birmingham City Council have only modelled noise levels from traffic, but by looking at the Decibel levels of road traffic noise from Fazeley Street, Great Barr Street and the other roads in the area it is possible to see the current affect of the noise levels on the site (see map on next page).

Andrew Jellyman, acoustician for the Birmingham City Council explains that:

The map has been calculated using predicted road traffic flows and speeds from the West Midlands transportation model 'PRISM' and is for the daytime period of 0700-1900 hours. LAeq is the A Weighted Equivalent Continuous Sound Level and is effectively an 'average' noise level commonly used to describe environmental noise.

It takes into account the screening effects of all buildings over 25m² and includes true building height information. The data 'freeze' date was 2004 so any buildings built or demolished after that will not be taken account of." (email 16/08/06)

By using the data that is available to the City Council it is possible to predict the noise levels that the future development may present to its inhabitants during the day, evening and night time periods.

Andrew Jellyman has shown an active interest in our work and has committed to provide a noise map for the current evening and night-time noise levels.

Fazeley Street - Predicted day noise level (LAeq)



Noise Map for Daytime
LAeq

Courtesy of Birmingham City
Council, Regulatory Services
Department, EPU Acoustics'
data is based on Ordnance Sur-
vey Mapping.

Predictive Noise Mapping

As part of our input to the masterplanning process we are interested in exploring the potential of creating specific acoustic characteristics for different areas in the overall development.

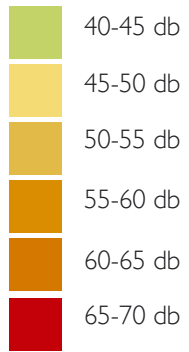
To start this process we have created two illustrations of noise maps that demonstrate what the influence of the noise from traffic has on the overall noise levels on the site. The first map is based on Kinetic's proposed layout (F100 revision C) created on 2 August 2006. We have proposed an alternative layout that brings more of the water into the site, exploring the possibility of creating more quiet areas within the main development. We have not taken into account economics, profit margins or the use of the buildings but have only considered the proposal from the perspective of controlling the ingress of road traffic noise.

Both the noise maps have been generated without the use of the Birmingham City Council's noise mapping programme and are indicative only. It would be possible for future proposals from Kinetic to be modelled for actual predicted noise levels with the assistance of Birmingham City Council.

Future Developments

A future development of this way of working would be for liminal and Kinetic to devise a strategy for the types of sound qualities that we would like across the site, looking initially at the simple continuum of noisy to quiet. This initial qualification could then be developed to look at more qualitative ideas of 'busy', 'tranquil', 'buzzy', 'calm', 'stimulating' etc.

KEY

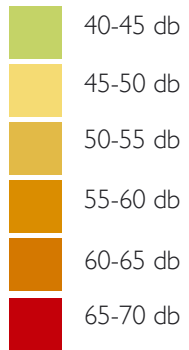


Noise Map 01

This noise map is indicative only and based on Kinetic's proposed layout as shown on F100 revision C



KEY



Noise Map 02

This noise map is indicative only and based on a proposal by liminal which reintroduces the filled in basins. The proposal is directed by concerns for controlling noise from road traffic and does not take into account use of buildings, economics or profit margins.



Perception of Noise

Noise mapping is only one way of quantifying the experience of noise on the site as this exchange of emails between us and Andrew Jellyman demonstrates.

“In our personal experience of the site, the road traffic is perceptibly much louder at the point where the river Rea crosses Fazeley street than at the point where the Birmingham Canal meets Fazeley street, which obviously can not be picked up on this map.” (extract from email

from Frances Crow to Andrew Jellyman on 16 August 2006)

“...some variations in noise level may be masked by the 5dB bands. Also, the limitations of the calculation model may not show everything exactly as it is... It's validity at relatively low traffic flows is not guaranteed. Because of this limitation we have set all roads that fall outside the validity range to the lowest valid traffic flow. Fazeley Street is not one of these, but I think the roads running onto it may be. This may have the effect of over predicting noise levels which is in line with the precautionary principle in EC environmental legislation...

It might be worth pointing out that a change in noise level of 3dB is only just noticeable whereas a change of 10dB is a doubling or halving of subjective loudness. Bear in mind that doubling the traffic flow will only increase the noise level by 3dB. The relationship to speed is rather more significant as increasing/decreasing traffic speed by a factor of 2 will result in a 9dB change in noise level or nearly a doubling/halving of subjective noise level. There are validity range issues with this as well as reverse relationships with air pollution, but then that is getting a bit complicated.....! (extract from email from Andrew Jellyman 16 August 2006)

References

Sound Concious Urban Design factsheets, GLA <http://www.london.gov.uk/mayor/strategies/noise/index.jsp>

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Morgan, P.A. (July 2006) Photovoltaic Noise Barriers; scope for demonstration schemes on London's Main Roads. GLA (not yet published)

Watts, G.R & Morgan, P.A. (August 2005) Noise Barrier Review. GLA (not yet published)

Watts, G.R. Abbott, P.G. and Nelson, P.M. (August 2005) Traffic Noise Reduction Toolkit, GLA (not yet published)

What next...

From this initial survey we believe that Warwick Bar has the potential to be an exemplary development in terms of its sonic character. We hope the project will become well known for what it achieves in this area

Following the feasibility sign-off, we understand that the next stage of the proposals will be developed between December 2006 and March 2007. We envisage our role in this process to include the following:

Soundmarks

- Listing soundmarks in the Eastside area that effect the Warwick Bar Development
- Making proposals for the reinstatement of historic soundmarks
- The addition of new sound-sources within the masterplan as 'place-makers'

Environmental acoustic design

- Further exploration of noise mapping with Kinetic and ISIS and Birmingham City Council
- Research into existing environmental acoustic design techniques

Biological Sound Design

- Explore the potential of what we are referring to as 'Biological Sound Design' – i.e. the strategic use of planting schemes that might actively effect the sonic character of a site – by the sounds of the plants themselves, the other sounds they mask, the sounds of the wildlife they attract and possible changes in human behavior they suggest. This research would require close collaboration with both Kinetic and Latz and Partners landscape architects.

Orientation

- Explore the use of sound as a navigational aid

Artistic Intervention

- Suggest possible models for artistic intervention in the later stages of the project

Dissemination

- Through publications, presentations, broadcasts and events

References

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Kang, J. Yang, W. & Zhang M. (2004). Sound Environment and Acoustic Comfort in Urban Spaces. in Editor: Nikolopoulou, M. *Designing Open Spaces in the Urban Environment: a Bio-climatic Approach*, RUROS. European Commission.

Graham, C. (2004) *Considering Sound in Restorative Landscapes*, University of Guelph PhD Thesis.

Appendix I - Sound Material on CDs

- CD 01 Warwick Bar Soundwalk
- CD 02 Audio recording of Picnic conversation between liminal and Kinetic on 19 July 2006
- CD 03 Audio recording of Picnic Four Points Soundwalk on 19 July 2006

Appendix 2 - Visitor Book Comments

<u>Name + email</u>	<u>Comment</u>
Martin Ball mb@kinetic-ziv.com	
Sandra Helli sanda@livearts.co.uk (fiction arts) 07970.22706 local.	→ I'll be here Sunday. we meet in the kitchen! see often.
Jenny Put	
Kathy James	
OLIVER CLARK ocl@fcm.co.uk	- Great, a voyage of discovery.
Alexandra Taylor alex@alexandrataylor.co.uk	
Michael Wollers Michael@wollers.co.uk	Fantastic - I have never enjoyed a 45 minute walk more! Looking forward to the second one. Great experience fantastic experience.
Mark Hudson mark.hudson@case4free.net	
Colin Pease	A lovely experience of travelling with guides & all the sound of the

Name + Email	Comment
Michael & Wendy Prior michael.prior@tiscali.co.uk	Both sound-walkers were very pleasurable. MP3 commentary v. informative
Judith Owens jrovens@donetel.com	Appreciate the concept + Walker but had trouble with technology of MP3 tracking.
Pete Bannister p.j.e.bannister@gmail.com	Really great! Information and enjoyable. Esp the unpicked subject - didn't know about that.
Stef + Grett kiwell.burden@ shugonker.co.uk	What an excellent idea. We had great fun listening to see the mp3 players but once we'd sorted it it was very entertaining & informative.
Andrea & John spirals@mindsofish.com	Have lived here all my life & never been down to that part of the coast... We loved the sense of journeying through different time lines - history, nature, favourite moments - the birds! Really

Name + email	Comment
Sallie Blanks. sblanks@bristol.gov.org.uk	A beautiful part of local history brought to life in <u>sound</u> .
Iain Armstrong iain@phonoscope.co.uk	Strange but great to hear your voice in Brun again David! Nice to discover a new part of Brun in such a lovely way.
Pony p.sneppord@darlington.ac.uk	Love the idea really like using sound to create space!
YH agent.whiteman@hotmail.com	INTERESTING IDEA NOT FEELING THE RADIO 4 VIBE. THANKS
JEFF + JACQUE jeff@essen147.freemove.co.uk	A RANGE OF CONTRASTS, VERY INTERESTING SOUND, COME ALIVE WITH THE BBC MAPS.

Name + Email

Abigail Davey
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Comment

- Good emphasis on the sounds that are around us, so that when the sounds end you do become more aware.
- Creepy moments of people walking behind you or speaking in your ears.
- Nice use of historical info but not overloading the tour.

Very interesting. Learned some things that I would otherwise have missed.

Very interesting piece of work. It amazes me what you can learn on a short walk in this way. Excellent.

I found out a lot about an area that I thought I knew well. A great way to present local and industrial history.