

6 June
2013

Smart Cities

Session 5: Lecture 1:
Digital Participation & Social Media

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<http://www.spatialcomplexcity.info/>

<http://www.casa.ucl.ac.uk/>

Outline of the Lecture

1. The Idea of Digital Participation: Public Participation
2. A Classification of Participation
3. The Woodberry Down Experiment
4. The Hackney Building Exploratory
5. Brickfields
6. Our Work with the Architecture Foundation
7. Many Projects and the Current Situation

The Idea of Digital Participation: Public Participation

In the 1960s and 1970s, various land use games were proposed and some games were linked to computer based analysis.

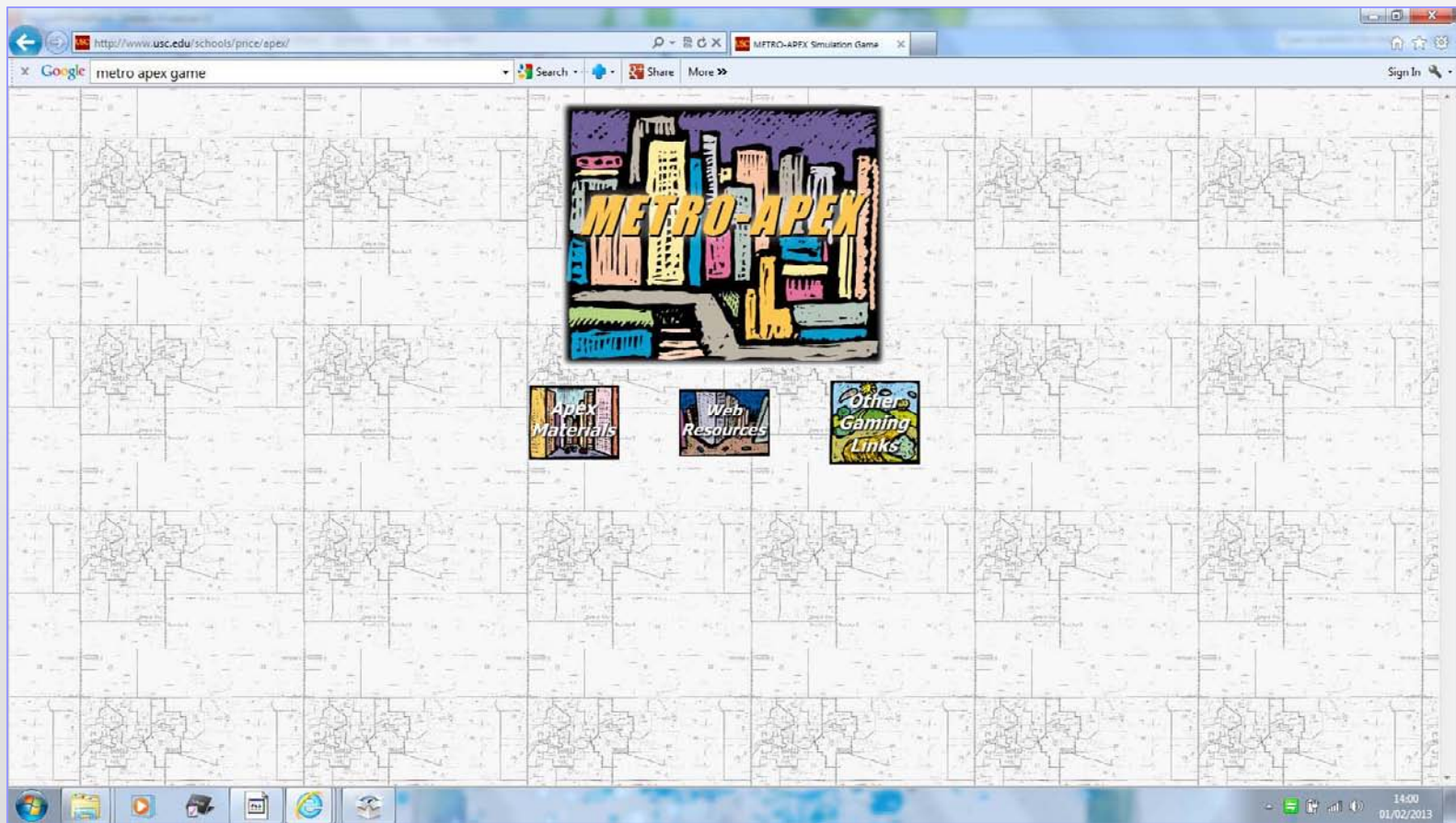
These were based on the notion that the games represented the way the city developed and different experts or stakeholders or users were given 'roles' to play out the development of the city. In some senses, modern versions of SimCity with multi-users are in the same spirit.

The users played out the development process – with roles like developers, residents and so on engaging in a pre-designed process of interaction and at the end of each time period various models were run to inform the gamers of their actions. I think the game Metropolis and Metro-Apex from Michigan were run like this.

www.simcity.com



Metro Apex ran on an IBM mainframe machine in the 1970s and was ported to an IBM-PC-AT in the 1980s. I do not know if it is still running but this web site seems to imply it might be

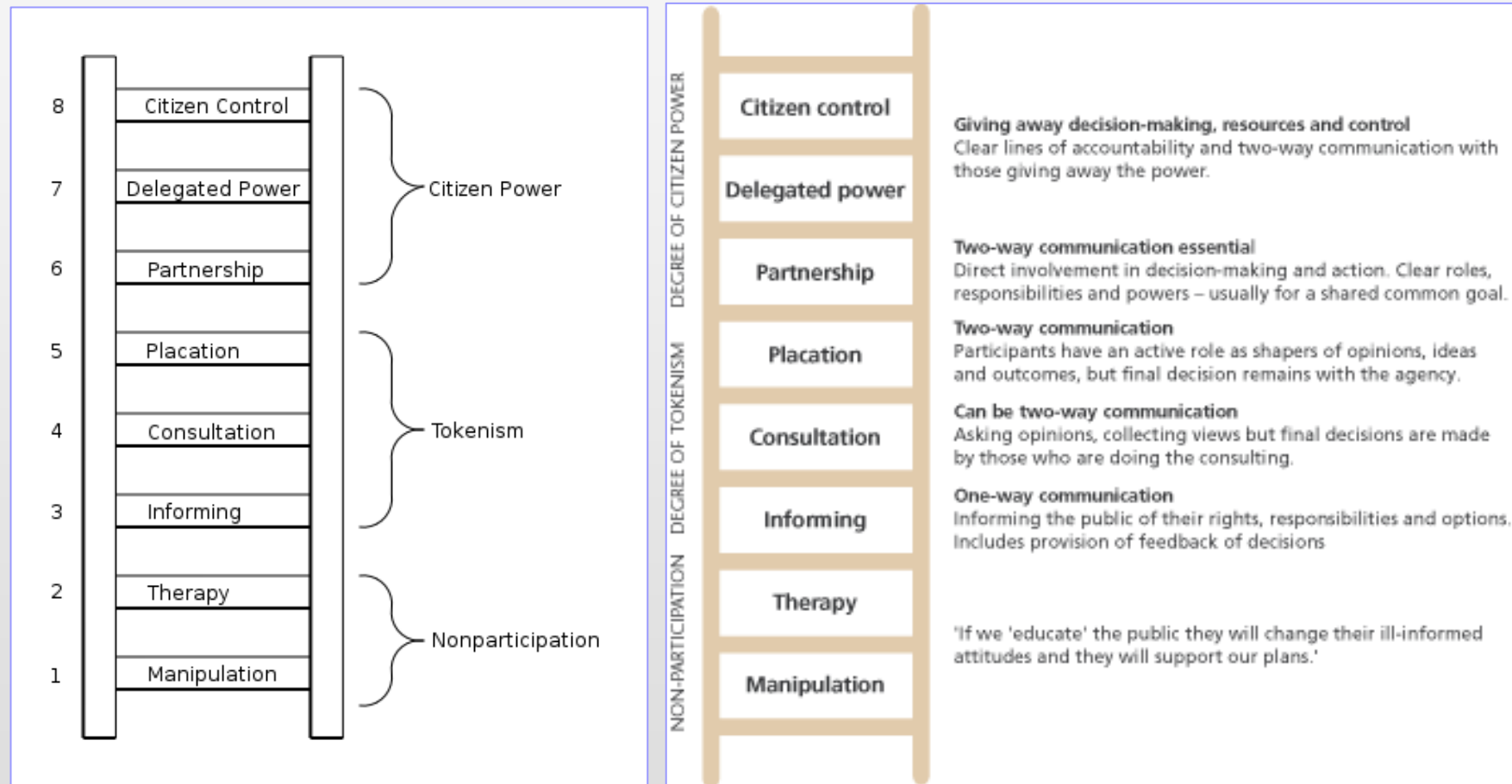


Public participation in institutionalised planning goes back a long way to the very beginnings of the planning system itself. In terms, more bottom up developments community planning began in the 1960s and developed as a grass roots movement where local community groups interacted with developers and planners.

These were often ad hoc responses and in the UK were referred to as the Community Action movement. Various attempts were made to classify these attempts and Arnstein's Ladder of Participation was widely referred to. This divides participation into 8 steps

Arnstein, Sherry R. "A Ladder of Citizen Participation," JAIP, Vol. 35, No. 4, July 1969, pp. 216-224.

A Classification of Participation (from Arnstein, 1969)



Visualisation is essential to PP. Our work began on Virtual London in 1996. The development of imagery to help visualize more than the 2D map – photorealism, digital panoramas, fast CAD, 3D GIS, remotely sensed imagery, LiDAR, and so on

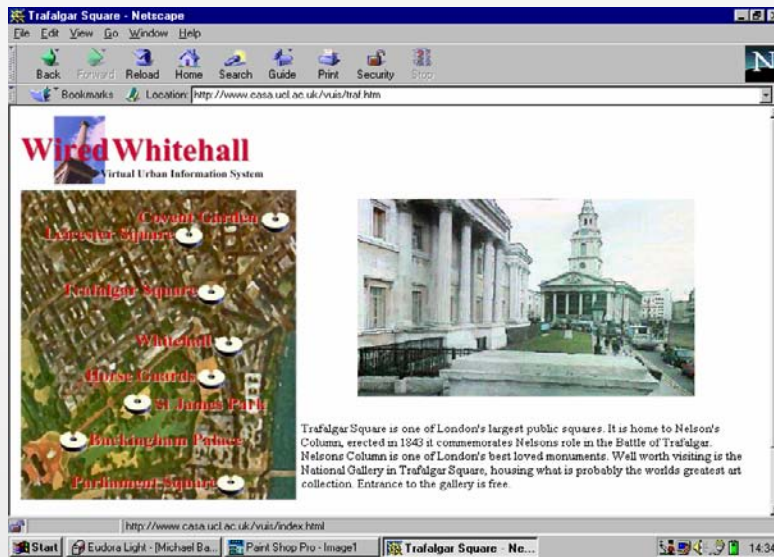
These were originally designed to help us acquire expertise in this kind of media as a complement to our mathematical models of cities and as an extension of GIS into the third dimension

These gave us the tools to begin to think about using VR and visualisation in general as a tool in participation – visualisation has proved to be as essential as any hands on real material in helping people participate in planning type decisions. Worth noting that there are many more participatory issues which are not planning but more generally governance

And the development of PP-GIS began where GIS was used as the set of tools to inform stakeholders and involve them as participants in the design process.

Internet GIS first came on stream, the idea of relaying this technology in decision theatres as here at ASU – these were key and still are to an extent although much has moved to individual machines that people own – desktop, hand held. In fact the whole crowd-sourcing movement is like PP-GIS to an extent

Computation is now so all pervasive that participation digitally mirrors all participation in society and in so far as it is different this is because of the immediacy of the technology and the power of networking. Here are some early examples.



Let us look at a modern rendition of this site

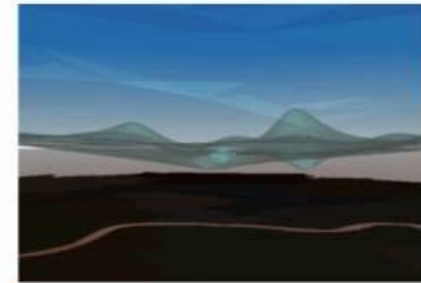
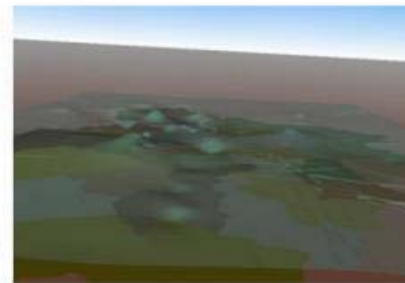
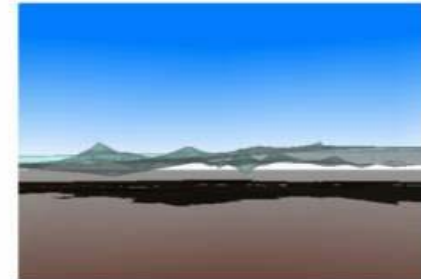
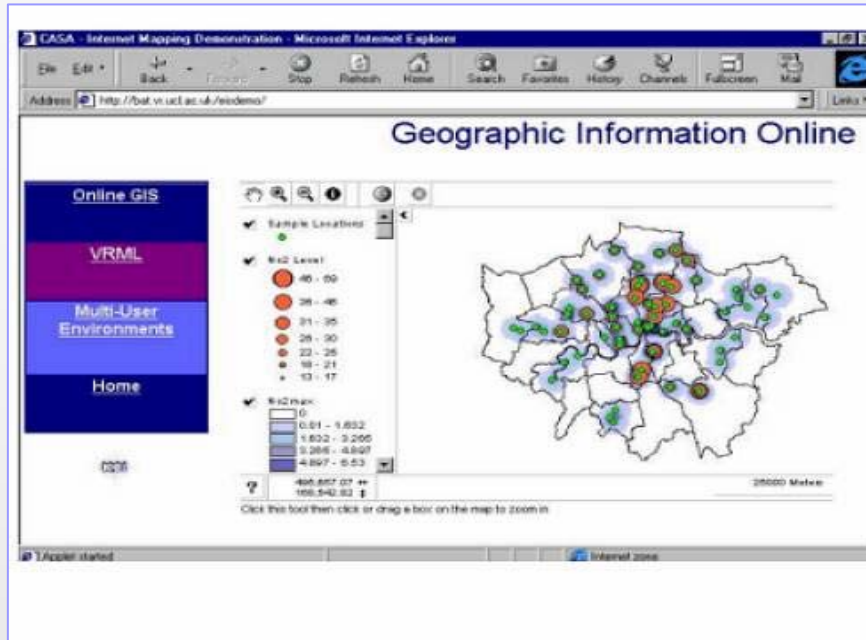
10 Downing Street

<http://www.number10.gov.uk/>

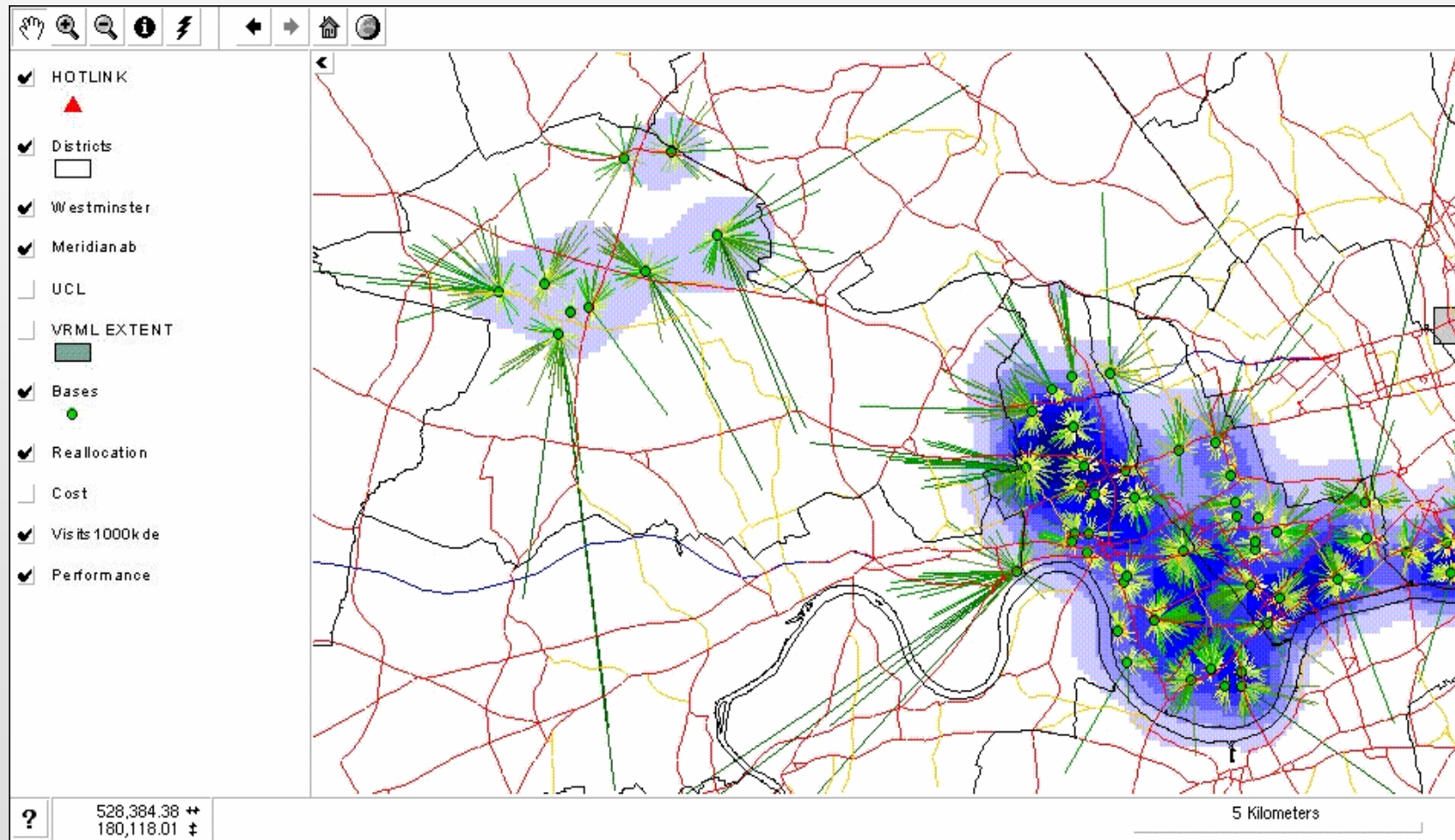
This is a portion of the front page of Number10 – passive media but you can sign petitions on the site an element of web 2



Early internet GIS delivered the map and media content as ...



From our VR Theatre – allocation of patients to clinics using location allocation but in concert with health decision-makers

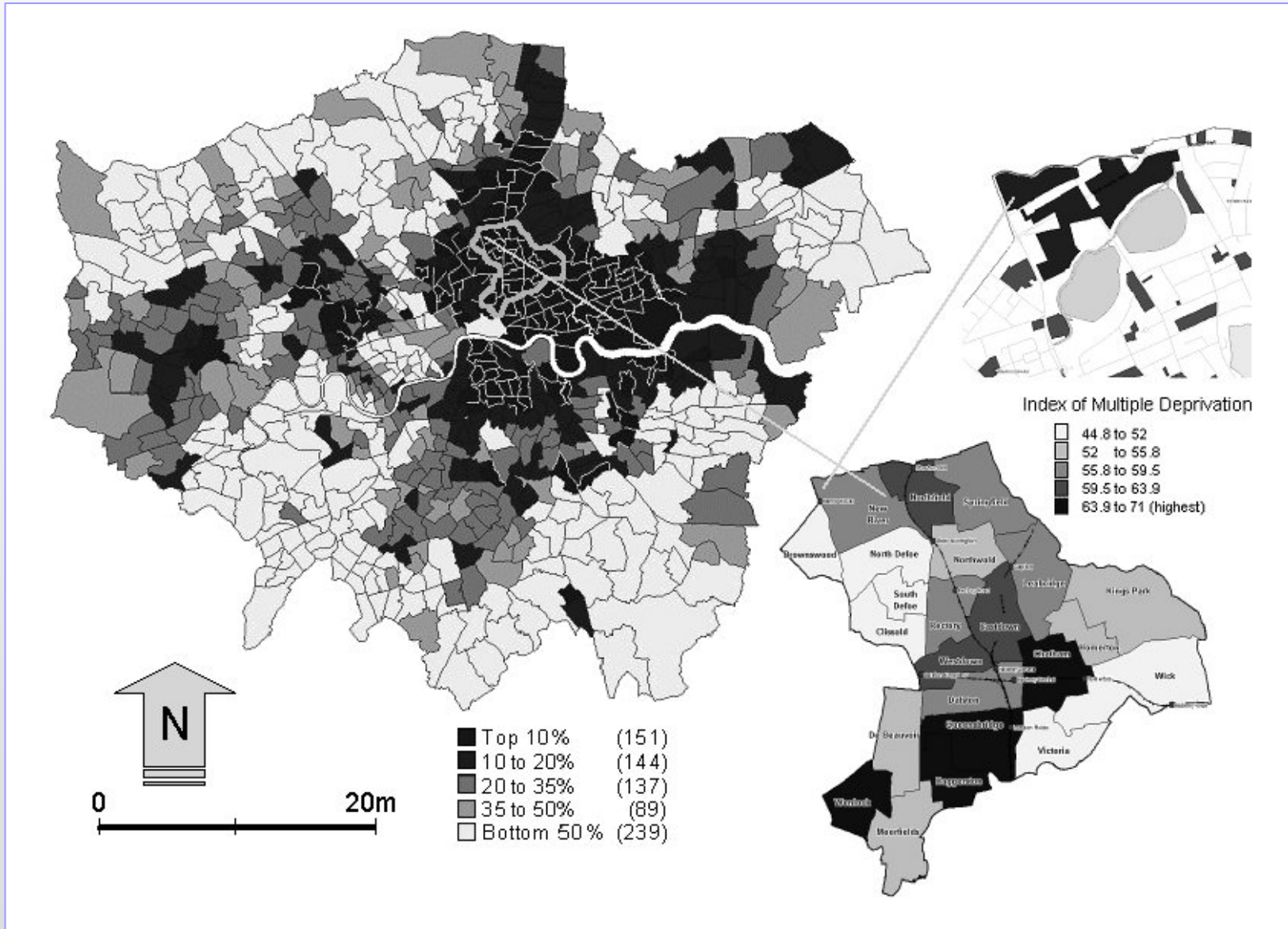


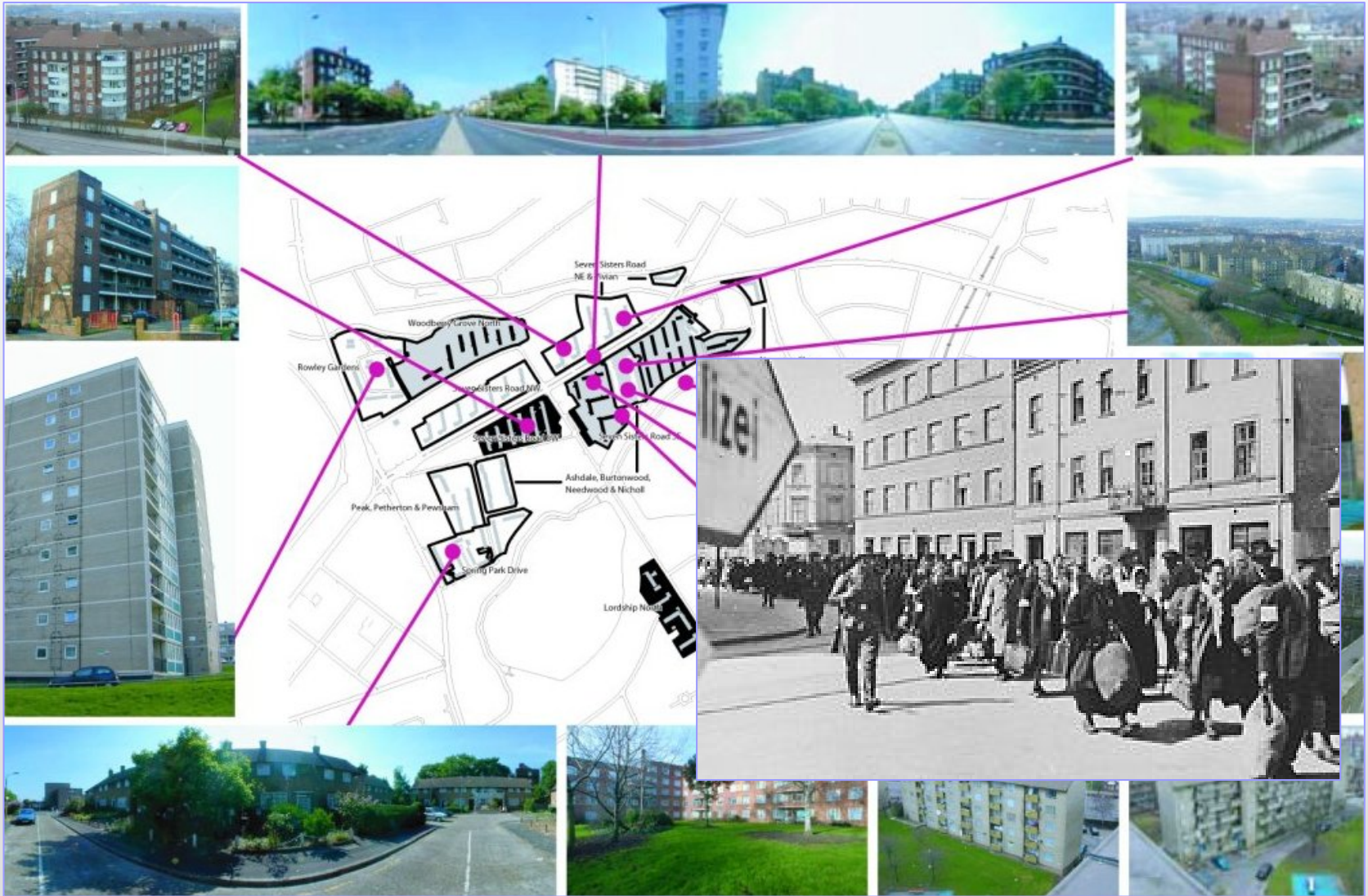
The Woodberry Down Experiment

Our first example – essentially building information infrastructure from the ground up for public participation in housing redevelopment

Our experiment brings all these ideas together - delivering information, wiring the city, helping us as planners to develop new tools, and of course Visualisation

Woodberry Down is an estate of 2500 houses built from the 1950s to the early 1970s, now run down and heavily vandalised, with high rates of crime, drugs, deprivation - all the indicators of inner city decay at its worst. A massive programme of regeneration is beginning. Biggest in western Europe in scale.







Woodberry Down Estate Regeneration - Microsoft Internet Explorer

Address: http://brownfield.lev.ucl.ac.uk/woodberry/woodberry_ims/viewer.htm?Title=Woodberry%20own%20estate%20Regeneration

Woodberry Down Estate secure server sample pages

REP	SITE_ID	MODEL	MOVIE	PANORAMA	NOTES	#SHAPE#	#IMP#
1	wd_3d1a	MODEL	MOVIE	PANORAMA	Romley Gardens area	[polygon]	1

Identify

Map: 532159.29 , 187765.66 -- Image: 397 , 93 -- ScaleFactor: 0.5967016956337989

Internet



Latest News Home

Search

Discussion Forum

What are we Planning? 3D Virtual Tour Regeneration and You Your EDC Background&Research Community & Services Youth & Kids

Welcome to Woodberry Down

- Why an EDC?
- Forming the EDC
- Constitution
- What does it do?
- When does it meet?
- Your local rep

Welcome to the website for the residents of the Woodberry Down Estate, including Woodberry Hill Court, Holmleigh Road, Lordship North, Sandford Court, and Woodberry Hill.

The Woodberry Down Regeneration Team (WDRT) is a partnership between the London Borough of Hackney and the residents of the Woodberry Down Estate. We have been working for 2 years towards the long-term improvement of all homes in the blocks of the Woodberry Down and neighbouring estates. We will need to provide new and refurbished housing and possibly improve facilities for health, education, and other services in the area.

The website and you

This website is another way for you to find out about your local area and the plans that will affect its future, get your questions answered, exchange ideas, communicate with your EDC rep and find out what they are currently working on. It also aims to bring together residents from different parts of the estate. You can advertise and exchange information, goods, services....

So use it and make it work for you and your local area!

A new look

15th June

2001 New site structure coded.

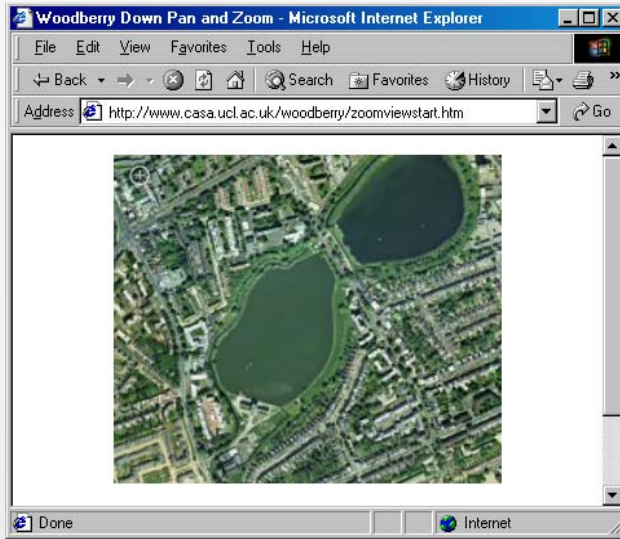


Have your say

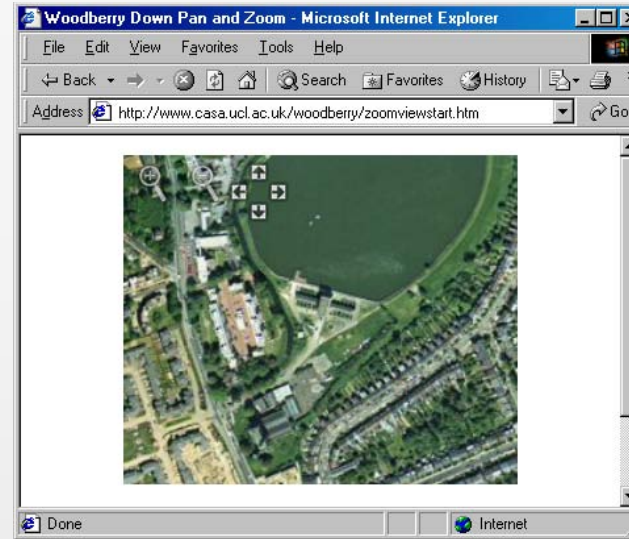
Bulletin Board currently under going refinements



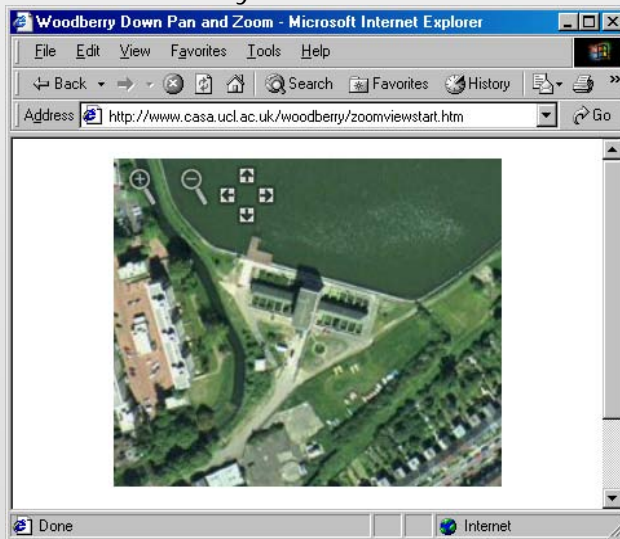
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T 020 8356 5000 fss@hackney.gov.uk



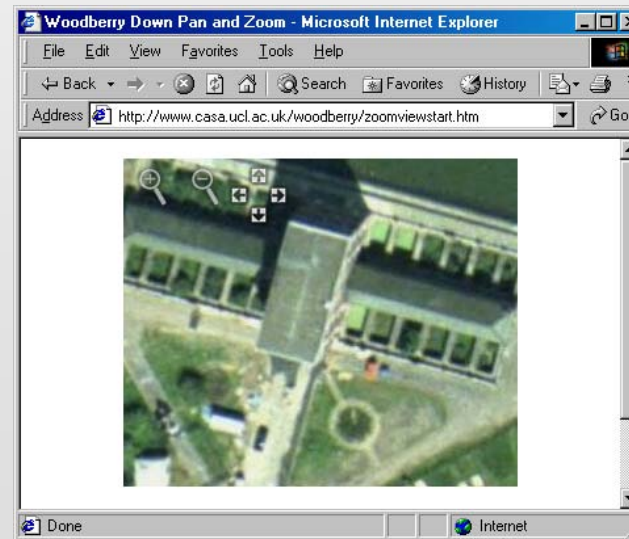
Woodberry Down zoomed out



Second Level of zoom



Fourth level of zoom



Fifth level of zoom, highest detail view

Untitled Document - Netscape

File Edit View Go Communicator Help

Instant Message WebMail Radio People Yellow Pages Download Calendar Channel

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://www.casa.ucl.ac.uk/woodberry/testmap.htm>



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What are we Planning? 3D Virtual Tour Regeneration and You Your EDC Background&Research Community & Services Youth & Role



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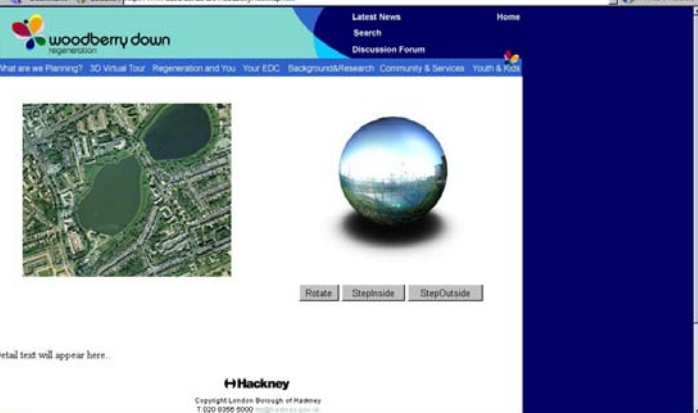
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T 020 8356 5000 fss@hackney.gov.uk

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Location: <http://www.casa.ucl.ac.uk/woodberry/testmap.htm>



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Hackney
Copyright London Borough of Hackney
T 020 8356 5000

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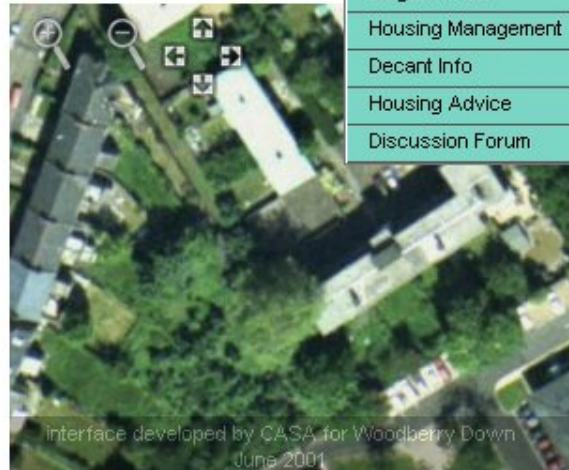
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What are we Planning? 3D Virtual Tour Regeneration and You Your EDC Background&Research Community & Services Youth & Kids

- FAQ'S
- Jargon Buster
- Housing Management
- Decant Info
- Housing Advice
- Discussion Forum



Interface developed by CASA for Woodberry Down June 2001



Rotate StepInside StepOutside

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File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Dell Home Add Link To Planet

Address <http://www.casa.ucl.ac.uk/woodberry/vision.htm> Go Links >>



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Vision for the Future

- **sustainable, inclusive, community which, with the energy, spirit and enthusiasm of local people, feels confident, safe and secure?**
- **a healthy, thriving local community which takes part in the 'technical revolution' and benefits from new lifestyle choices together with the rest of society?**
- **a good place to visit where people want to stay?**


How?

From the results of the quantitative survey and qualitative survey both carried out in 1999, we learned about the condition of your homes, and we learned about you, the residents, your likes and dislikes, aims and aspirations...

We have also heard your views at local meetings, on your doorstep and during your visits at the Robin Redmond Resource Centre. Informed by these and within the context of national, sub-regional and local policies, these are the objectives we've set ourselves to achieve this vision:

- **Supply good quality homes to modern long-term sustainable standards.**
- **Offer wider tenant choices including a range of different tenures, levels of affordability and ownership**

Planning your future


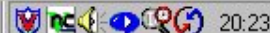


Got a view?

Express your views in our [discussion board](#).

Its easy to use an allows you to have a say in the regeneration process.

Done Internet

Start  Untitled Document - ...  20:23

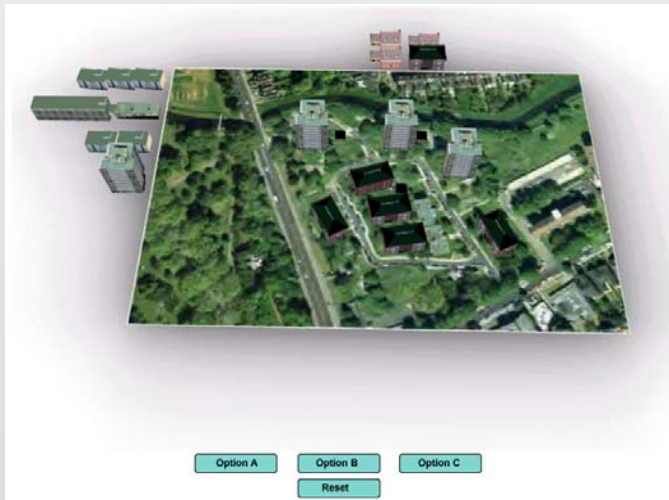
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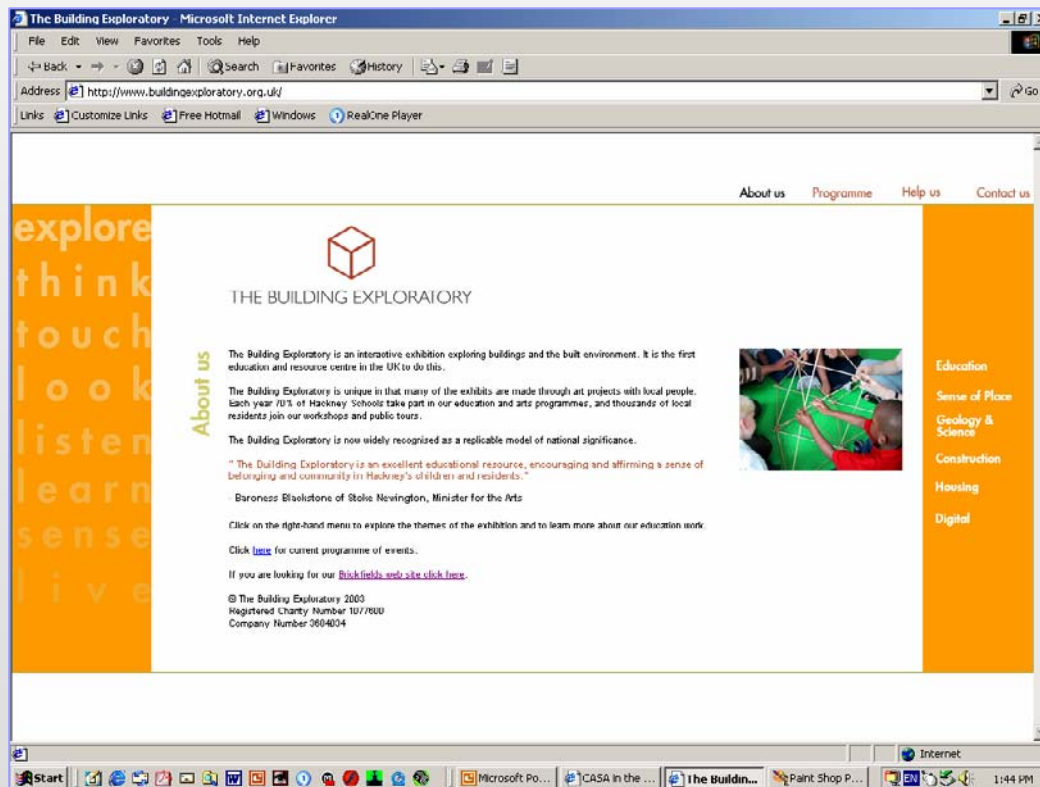


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The Hackney Building Exploratory

Children learning about their environment – underprivileged children and aided by ICT. Here is the old web page and then the new

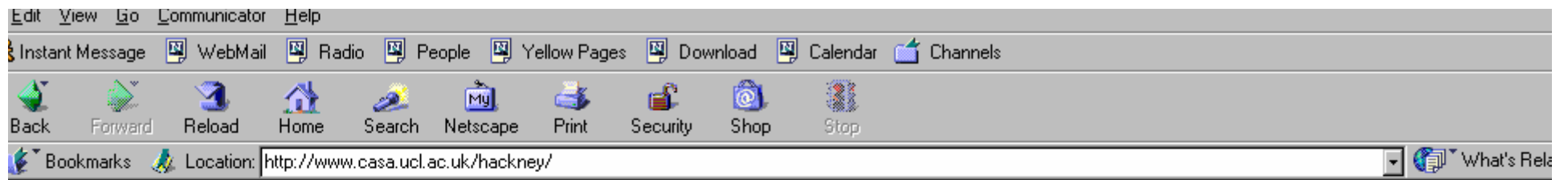






*Children Playing
in the Exploratory*





Home Housing Panoramas Geographic

Hackney Building Exploratory - Interactive!

Welcome to the Building Exploratory Interactive!

A Web Site from [CASA](#) to explore the use of internet based visualisation to aid the design process of urban morpholgy. Want to know [more](#)?

To use this site you will need a 4.0+ browser and a [Plugin from Metastream](#) to view the 3D Models. You can get the plugin from [here](#). The web site includes features such as [Drag & Drop Town](#) and [Virtual Housing](#)! To explore these and more features use the navigation tabs above.

Any comments or questions? Email [Andy Smith](mailto:asmith@geog.ucl.ac.uk) (asmith@geog.ucl.ac.uk)



The Web Version of the Desktop Building Exploratory Interactive 



Home Housing **Panoramas** Geographic


Housing


Click and Drag with the Mouse to Rotate the Building 

Details




Home Housing **Panoramas** Geographic


Click and Drag with the Mouse to Rotate around the Scene 

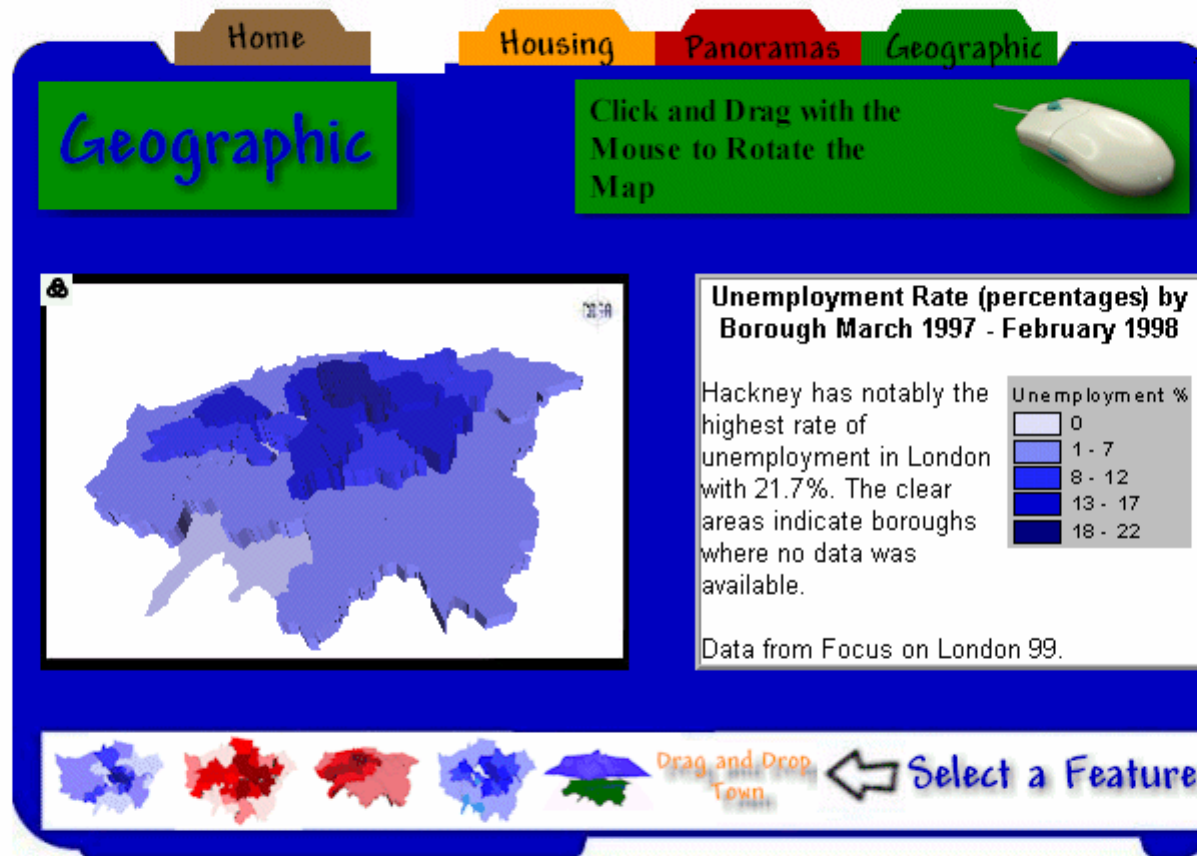
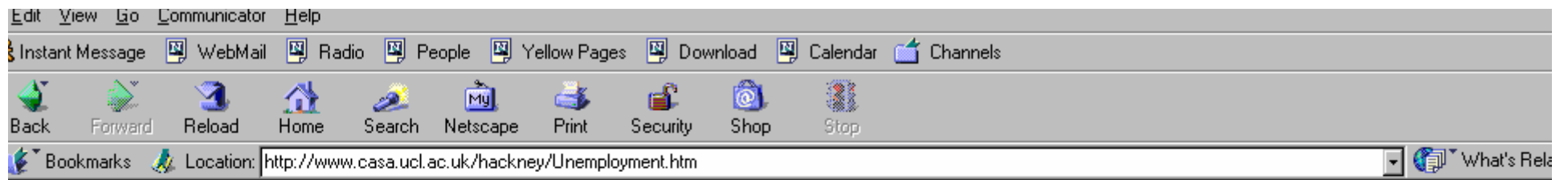


Panoramas Featured:

Hackney
[Murray Grove](#)
[Hoxton Street /Stanway Street](#)
[Hoxton Square](#)
[Wenlock Street](#)

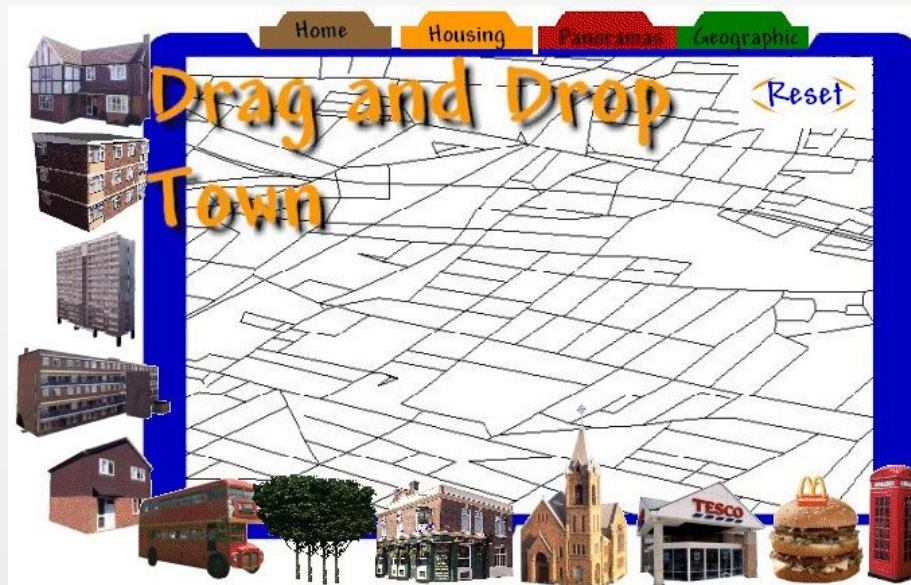
London at Large
[Covent Garden](#)
[Leicester Square](#)
[Whitehall](#)

 Location: Hoxton Street/Stanway Street, Hackney



All kinds of media are being used in this package - from digital panoramas to 3D block models to 2d and 3d GIS - here is an example of 3d GIS being used so you can pan and zoom across the London Borough to see how the unemployment rate varies





Here kids can place the objects on the map and with the teacher, can discuss why 'McDonald's' should or should not go next to the 'Church'



This lets kids learn about the things that are good and bad in the environment as well as the fact that we all differ in our environmental preferences

Brickfields



<http://www.brickfields.org.uk/>

Brickfields

Victorian Hackney About the Building Exploratory Search About this site
Homes Through Time Kingsland Road Hackney Trail of the Month

The landscape of what is now the London Borough of Hackney has changed dramatically from Roman times. From the woodland through which the Romans carved the first road, now Kingsland Road, the land remained predominantly agricultural until the Victorian period. The green fields gave way to the brickfields of housing developments and industry, which still characterise Hackney today.

This site graphically explores the events and people that fuelled this transformation. The main body of the site is for anybody interested in Hackney from Roman times to the present day. In addition there are two sections aimed at family learning: Homee through Time and Victorian Hackney. These are for adults and children to learn together and they contain activities and games.

The forum is for anyone who has a Hackney query or memory they would like to share.

'Brickfields', C. H. Matthews c.1830, @ London Metropolitan Archives

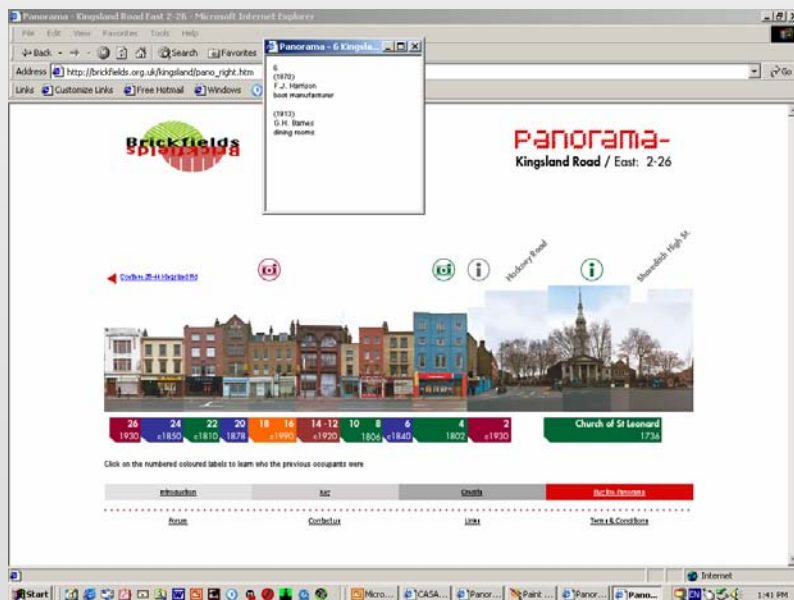
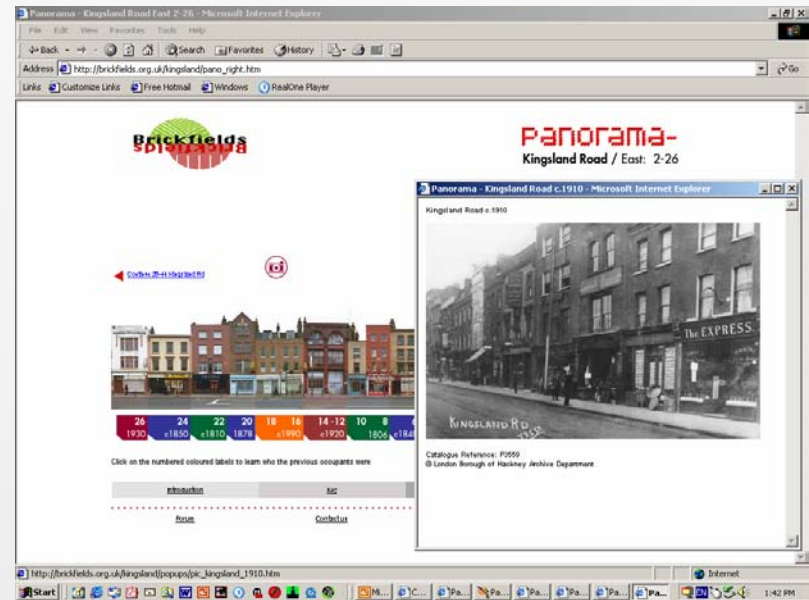
timeline

norman middle ages stuart regency edwardian world war I world war II present day

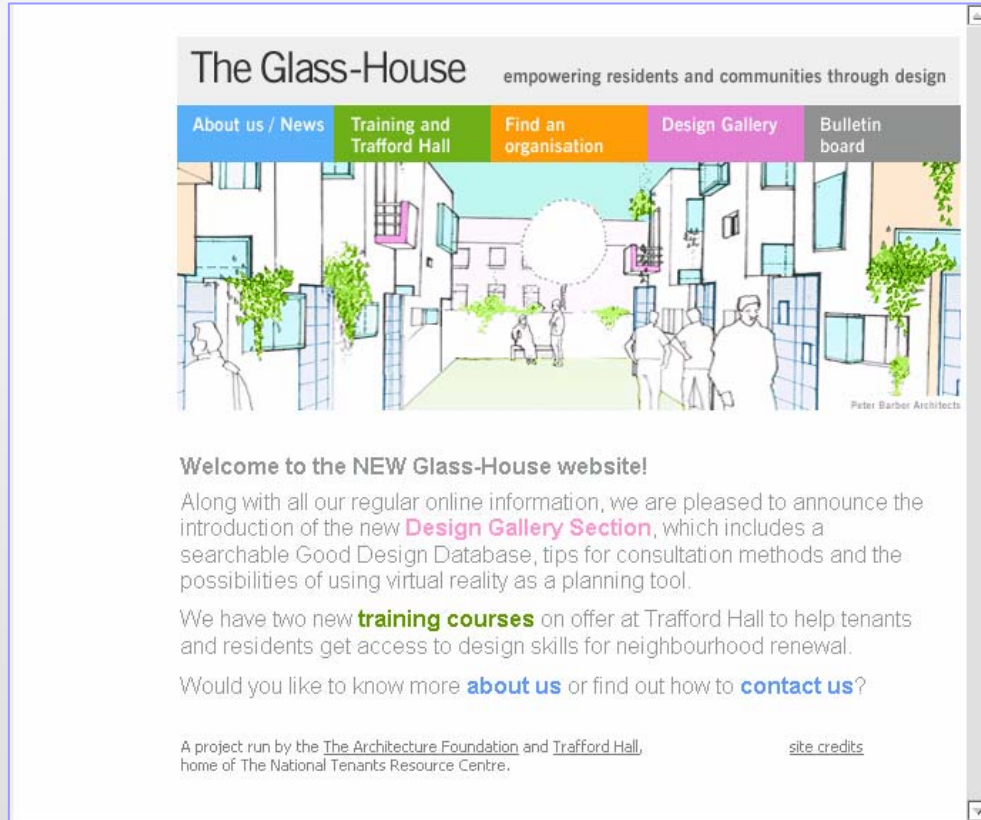
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Roman Medieval Tudor Georgian Victorian Early 20th C Late 20th C

New Opportunities Fund funded



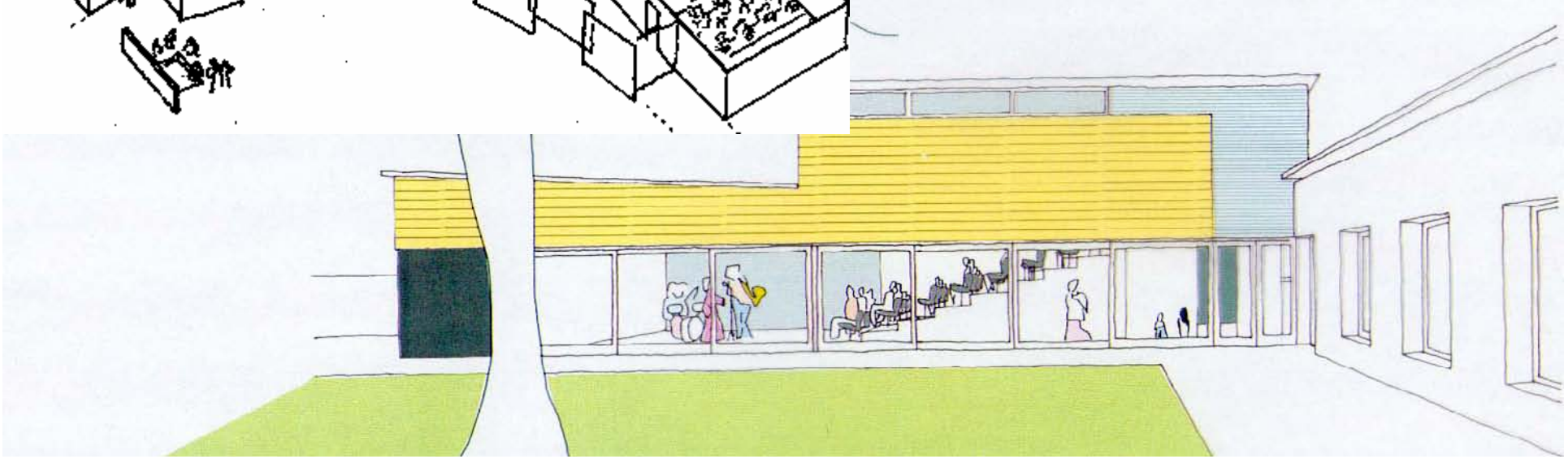
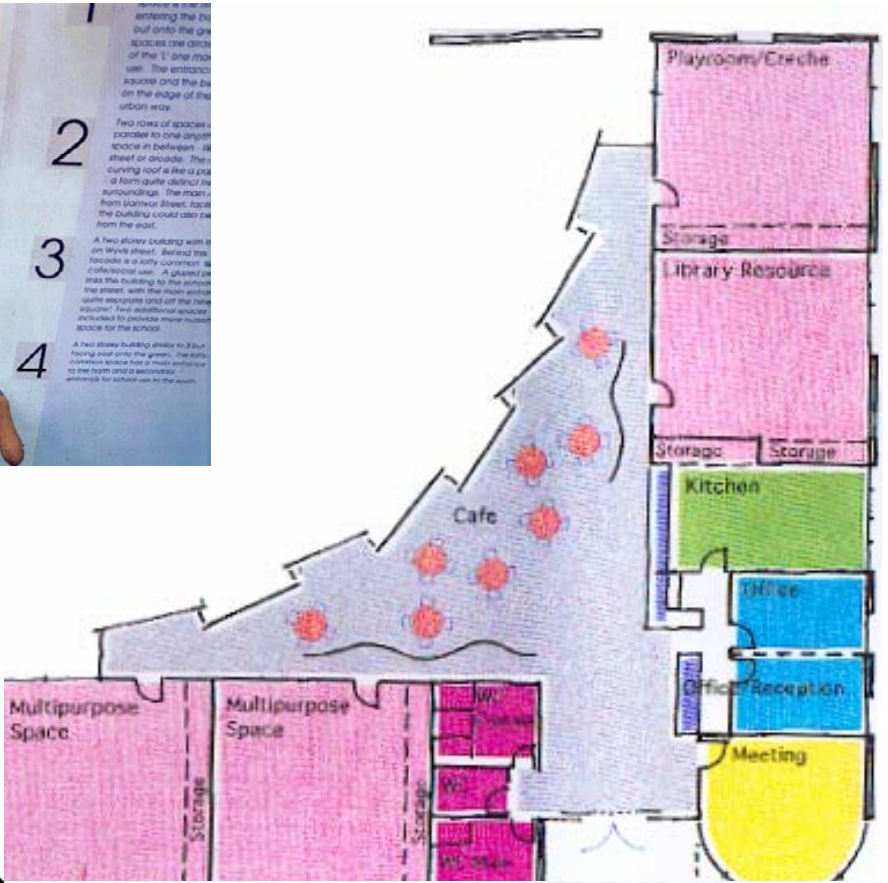
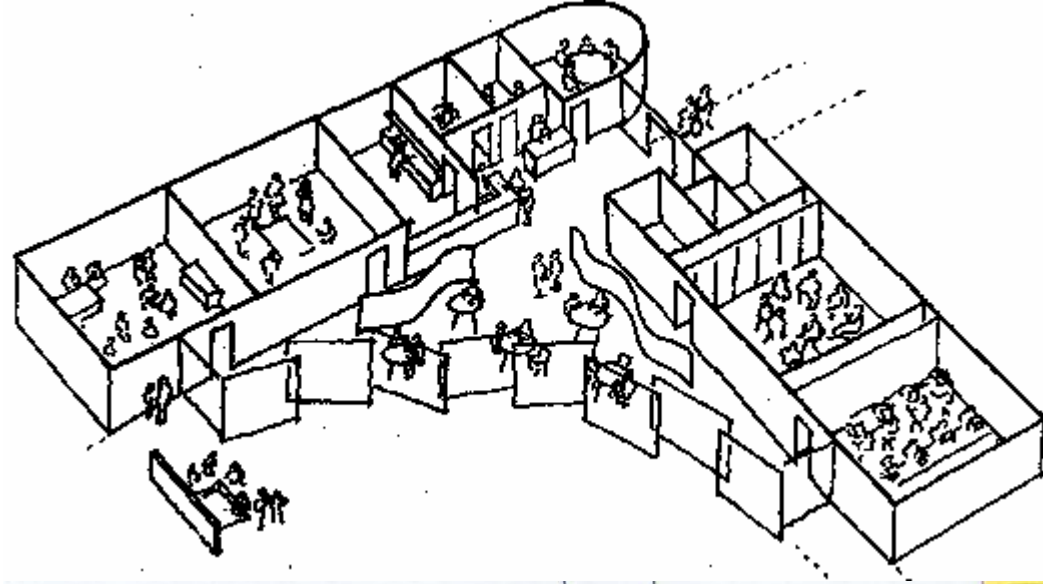
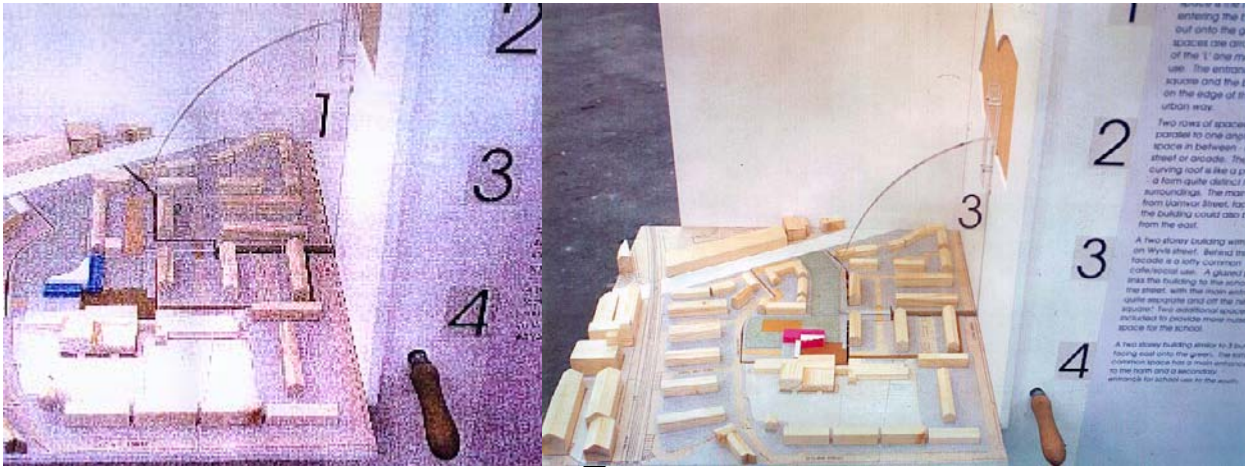
The Teviot Centre: Community Design Work with the Architecture Foundation

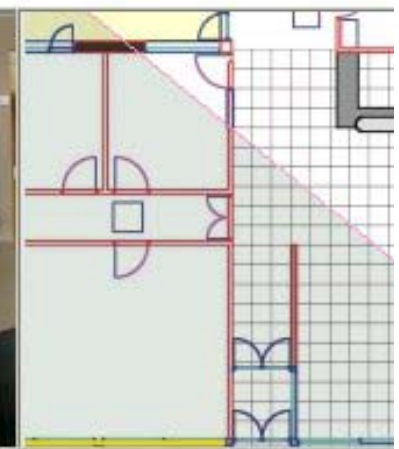
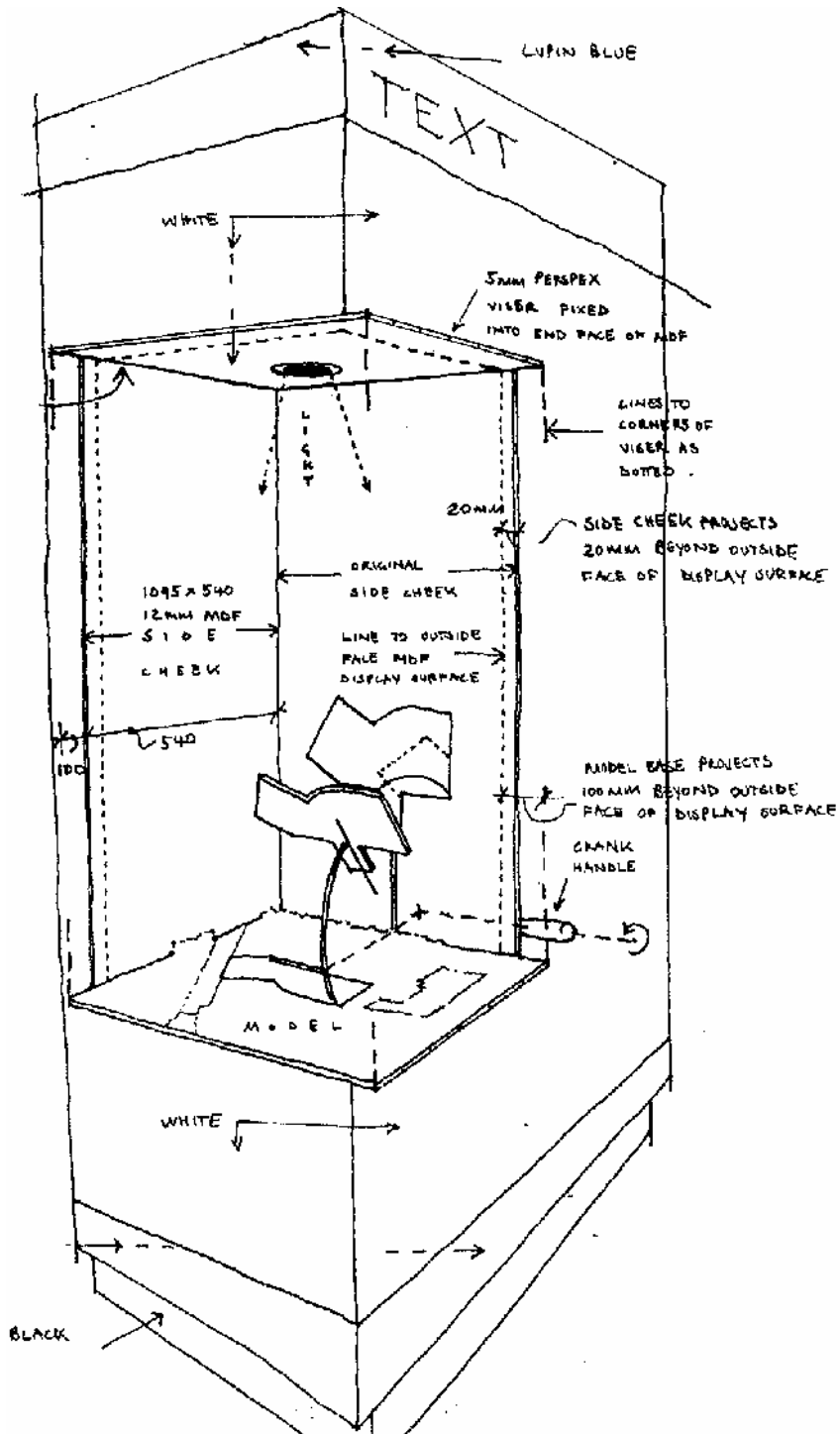


*The Architecture Foundation, Trafford
House & CASA*

www.theglasshouse.org.uk



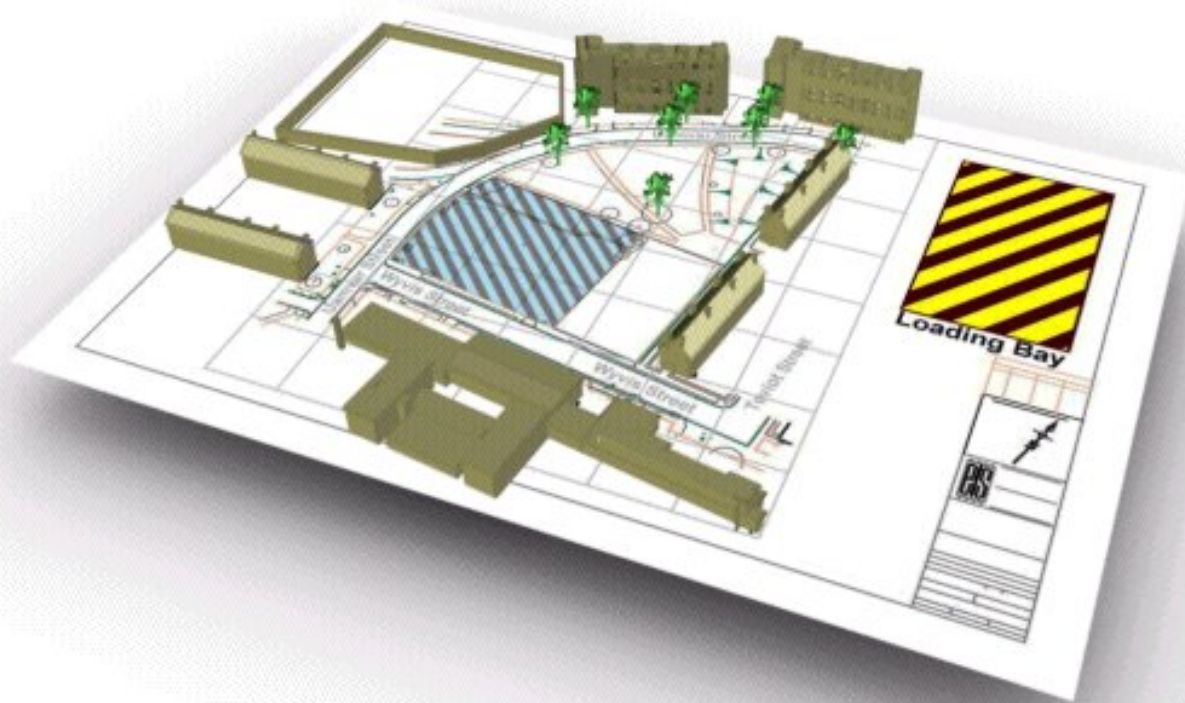




Entrance

Navigation: Click and Drag the mouse in either the site plan to navigate. To 'zoom in' drag tl

Instructions



Instructions



Option 2

Option 2

Two rows of spaces are arranged parallel to one another with the social space in between - like a covered street or arcade. The building with its curving roof is like a pavilion in the park - a form quite distinct from its surroundings. The main entrance is from Larne Street facing west but the building could also be entered from the east.

Instructions

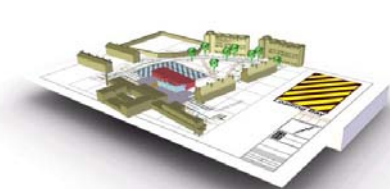


Option 1

Option 1

A single storey 'L' shaped building with a cafe in the crook of the 'L'. The cafe is the first place you come to on entering the building and from here the building opens onto a garden at the rear, and a new square at the front. The entrance to the building is opposite the school, on Wynn Street.

Instructions



Option 3

Option 3

A two storey building with its facade on Wynn street. Behind this glazed facade is a soft common space for cat/social use. A glazed passage links the building to the school across the street, with the main entrance quite separate and off the new square. Two additional spaces are included to provide more nursery space for the school. A fourth 'sub' option was developed, similar to 3 but facing east onto the green.

Select an Option from the list

The Options

Make a s
options v
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was avail



Click and drag with the mouse to navigate the model

Instructions



Centre for Adv

Many Projects and the Current Situation

Recently we have developed a number of exhibits that participants can actually work with – analogy renditions of digital media

Let me finish by showing some of these. There is the London Data Table that essentially projects digital media onto a physical map rather than a screen and PigeonSim that develops digital media in a fly through capacity in terms of 3D cities where the user controls his or her flight path

We also look at a model of riots which is on our touch table where physical icons of police etc interact with the media to control their spread





UCL CENTRE FOR ADVANCED SPATIAL ANALYSIS
THE BARTLETT

UCL

Pigeon Sim



Pigeon Sim harnesses 3D vision and rendering technology to provide an interactive fly-through of London (and beyond), augmented with real-time data as it is sensed throughout the city. It gives a bird's eye view of tides, pollution levels, traffic and more.

casa

Pigeon Sim - SE 90m

CASA Smart Cities
Now: Keyword Search - 0.3.3
Next: Under stations / London 2 network / show all cities



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Thanks, Any Questions?

Look at our web site

<http://www.casa.ucl.ac.uk/>

Our Blogs

<http://blogs.casa.ucl.ac.uk/>

And for 3D content

<http://www.digitalurban.org/>