

# Community Mapping and Citizen Engagement

Prof Muki Haklay

UCL Extreme Citizen Science group  
Department of Civil, Environmental and  
Geomatic Engineering

# Outline

- Delivering mapping – communicating crime statistics
- Participatory mapping and data collection
- Participatory mapping in CPC

# CamStats

- Develop as part of a data sharing partnership between Camden Council, Police and NHS (project involving Dave Ashbey and Kate Jones) in 2003
- The needs and requirement were developed through consultation with representatives of the Camden community

## Camden Borough - All Crimes by Wards for November 2003

[?](#) [Help and Frequently Asked Questions](#)

This map summarises the Home Office crime category "All Crimes" by Wards for November 2003. The symbols on the map are relative in size to the number of incidents.

Click on a Ward on the map for a breakdown of crime in that area.

Hover over the map, to see Ward name.

Click on a Home Office major crime group category for a map in this category.

### Major Home Office Crime group

All Crimes

Violence Against the Person

Drugs

Robbery

Theft and Handling

Fraud or Forgery

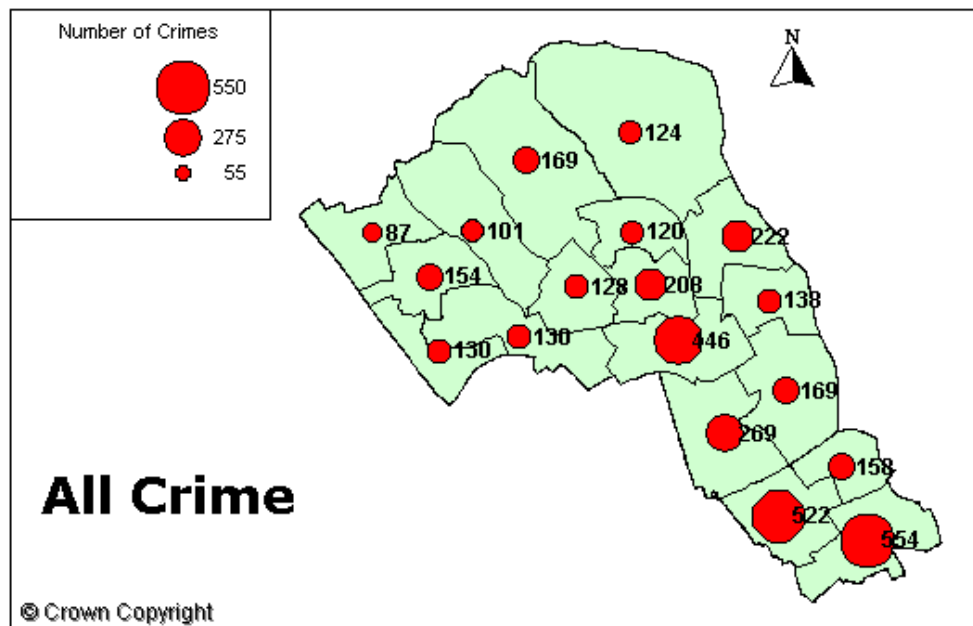
Burglary

Criminal Damage

Other Notifiable Offences

Other Accepted Crime

### Wards - November 2003



[Back to borough summary page](#)

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[Next month>>](#)

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Last Update: 1 Mar 2004

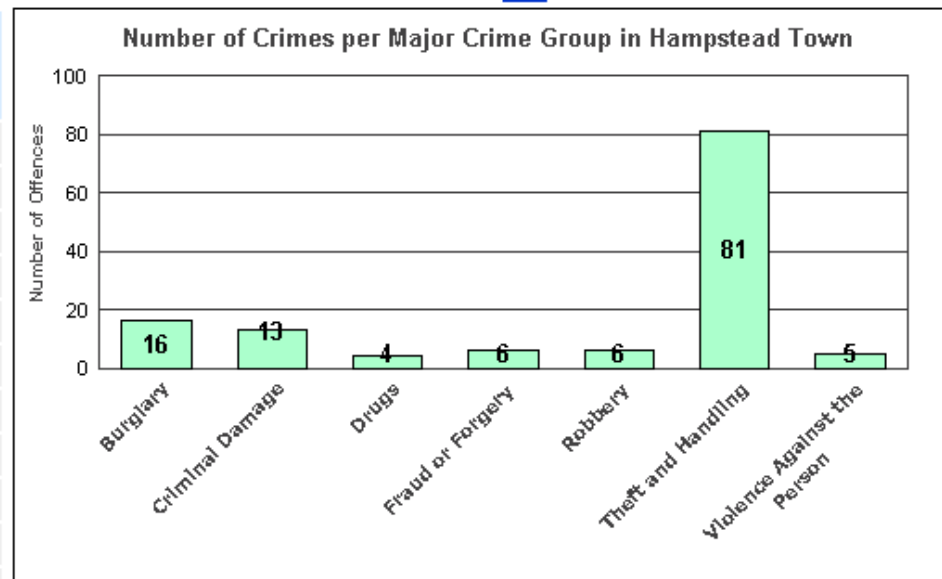
CamStats was commissioned by Camden police and was developed by [UCL Consultants](#)



## Camden Borough Crime Statistics for the Ward "Hampstead Town", December 2003

[Help and Frequently Asked Questions](#)

Home Office Major Crime	Home Office Minor Crime	Total
Burglary	Burglary in a Dwelling	8
	Burglary in Other Buildings	8
	<b>Total</b>	<b>16</b>
Criminal Damage	Criminal Damage To a Dwelling	1
	Criminal Damage To Other Bldg	2
	Criminal Damage To M/V	10
	Other Criminal Damage	0
	<b>Total</b>	<b>13</b>
Drugs	Drug Trafficking	0
	Possession Of Drugs	4
	Other Drug Offences	0
	<b>Total</b>	<b>4</b>
Fraud or Forgery	Counted per Victim	6
	Other Fraud & Forgery	0
	<b>Total</b>	<b>6</b>
Robbery	Personal Property	6
	Business Property	0
	<b>Total</b>	<b>6</b>
Theft and Handling	Theft/Taking of M/V	6
	Theft From M/V	29
	M/V Interference & Tampering	0
	Theft From Shops	8
	Snatches	2
	Picking Pockets, etc	3
	Theft/Taking of Pedal Cycles	0

[Back to borough summary page](#)



## Camden Borough - Theft and Handling by Neighbourhood Renewal areas for December 2003

[?](#) [Help and Frequently Asked Questions](#)

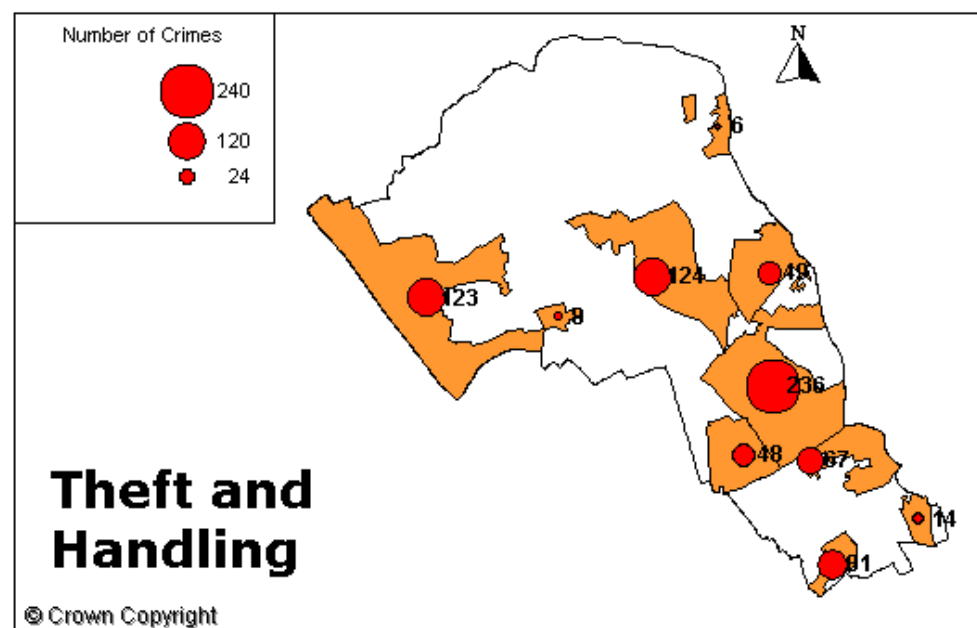
This map summarises the Home Office crime category "Theft and Handling" by Neighbourhood Renewal areas for December 2003. The symbols on the map are relative in size to the number of incidents.

Click on a Neighbourhood Renewal area on the map for a breakdown of crime in that area. Hover over the map, to see Neighbourhood Renewal area name. Click on a Home Office major crime group category for a map in this category.

### Major Home Office Crime group

[All Crimes](#)[Violence Against the Person](#)[Drugs](#)[Robbery](#)[Theft and Handling](#)[Fraud or Forgery](#)[Burglary](#)[Criminal Damage](#)[Other Notifiable Offences](#)[Other Accepted Crime](#)

### Neighbourhood Renewal areas - December 2003

[Back to borough summary page](#)[<<Previous month](#)[Back to calendar](#)[Next month>>](#)[Back to Camstats home](#)[Download to Excel](#)[Print](#)


Last Update: 23 Feb 2004

CamStats was commissioned by Camden police and was developed by [UCL Consultants](#)



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http://www.london21.org/map.php



## London 21 sustainability network

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### London Green Map



You can search the London Green Map by typing in a postcode, or by clicking on a borough on the map.

Full Postcode

Scale:

## London Green Map 2003





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## London 21 sustainability network

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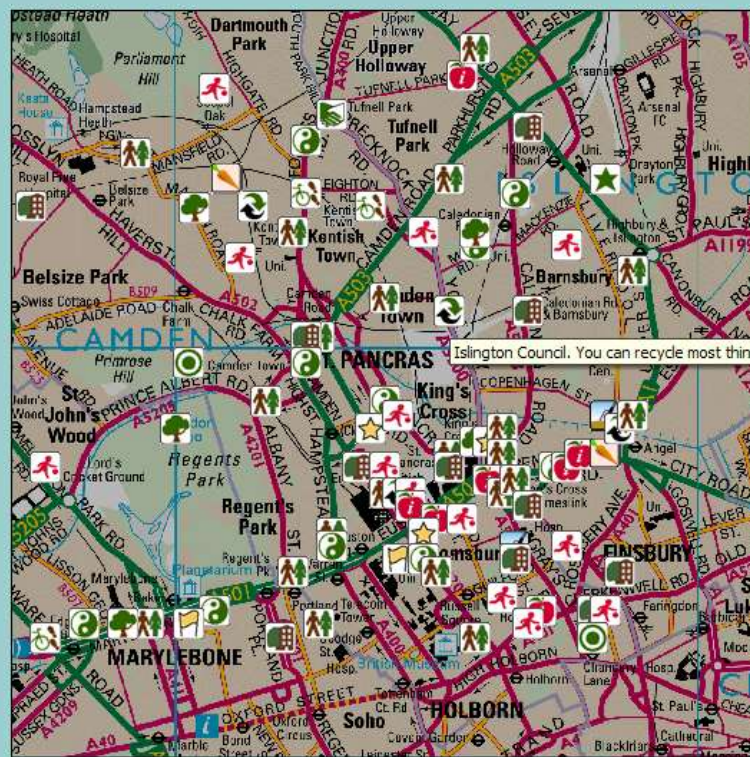
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### London Green Map

MAIN MAP

WEST NORTH SOUTH EAST





# Web mapping 2.0




UCL

Microsoft PowerPoint - [CustomerSuccess\Slide022406.ppt]

Browse by: [Crime type](#) - [Street](#) - [Date](#) - [Police district](#) - [ZIP code](#) - [Ward](#) - [Location](#) - [Route](#) - [City map](#)

## Crime map

More than 100 crimes were found -- only the latest 100 are displayed. Narrow the list using the choices below.



Map Satellite Hybrid

11700 block S. La Salle St.  
Criminal damage: Criminal damage to vehicle  
11:55 PM, September 15, 2006

### Filter crimes

All locations

All crime types

All districts

Nov. 2, 2006 to Sept. 15, 2006

Month to Next midnight

Update map

### Crime classifications key

- Person
- Person (domestic)
- Property
- Property (domestic)
- Society
- Society (domestic)

Important disclaimer: This site is not affiliated with the Chicago Police Department. This site uses crime data obtained from the CPD's [Citizen ICAM Web site](#), which is a publicly available database of reported crime. Please read the [Citizen ICAM disclaimer](#) to understand the data fully.

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Slide 2 of 24

ChicagoCrime.org - one of the first Google Maps Mashups.

Form of civic intervention in the use of geographic information held by the authorities

38 organizations mapped



[Legend](#) [Search](#) [List](#) [Help](#)

- ☒ Local Trading Project / Ethical Local Business
- ☒ Local Campaign
- ☒ Voluntary Action / Resident's Action
- ☒ Composting Project
- ☒ Green Space / Conservation
- ☒ Sustainability / Ecology Centre
- ☒ Event / Art Project
- ☒ Food Project
- ☒ Community Garden / Allotment
- ☒ Health Project
- ☒ Information / Directory
- ☒ Sustainability / Environment Forum or Network
- ☒ Heritage / Eco-Building Project
- ☒ Energy Project
- ☒ Reuse/Recycle Project
- ☒ Green / Ethical Shops
- ☒ Transport Project
- ☒ Waterway Project
- ☒ Youth / Children / School Project
- ☒ Not Classified / Undefined

Hide all

© 2006 London Sustainability Network, Website by [UCL](#). Optimized for [Mozilla Firefox](#) at 1024x768 screen resolution.

W3C XHTML 1.0



50 organizations out of 236, **RANDOMLY SELECTED**. Please **ZOOM IN** for more details



**Organization** [Aims](#) [About us](#)

**Fitzrovia Millennium Festival**

Main Category: Agenda 21  
 Subcategory 1: Community Group  
 Newsletter: NO  
 Volunteering details: Please contact for details.  
 Email: [NO EMAIL ADDRESS RECORDED](#)  
 More info [here](#)

[Directions to/from here](#) [Zoom in](#) [Discuss in the forum](#)

[Legend](#) [Search](#) [List](#) [Help](#)

Select your borough:

Find address by postcode:

Find organizations by name:

152 organizations found.  
 Sort the list by:

type	name
	<a href="#">Age Concern London</a>
	<a href="#">Alternative Therapies - Massage London</a>
	<a href="#">Angolan Community in London</a>
	<a href="#">Association of London Government</a>
	<a href="#">British Red Cross - London Branch</a>
	<a href="#">BTCV - London Regional Office</a>
	<a href="#">Business in the Community London Region</a>
	<a href="#">Cancer Research</a>

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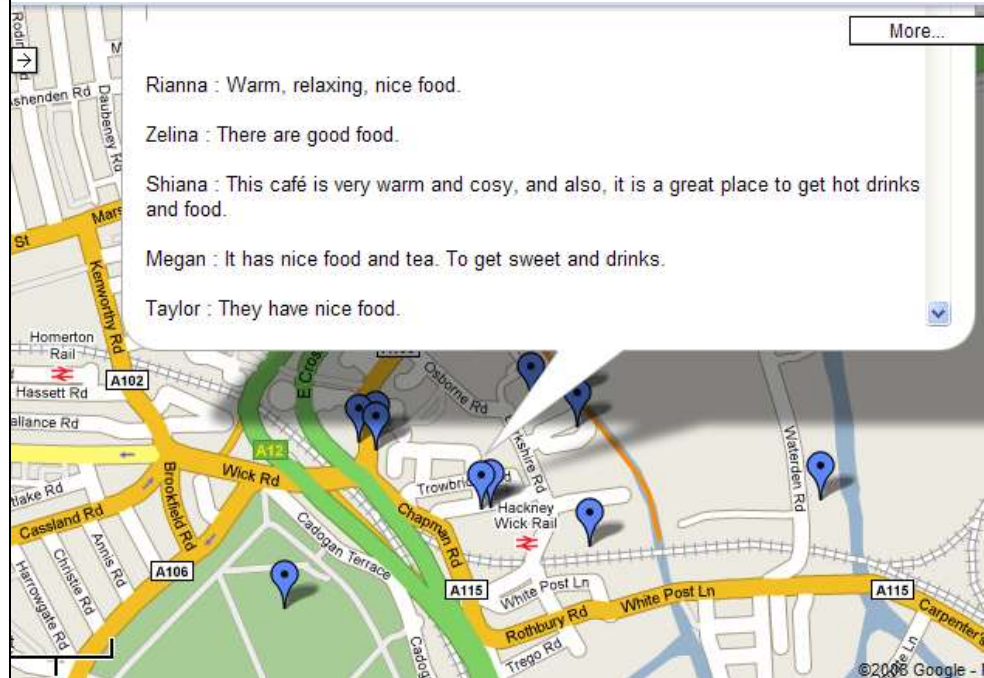
[Make London 21 your home page](#)



- ⑨ Keep small shops on Finch Rd vs antiques, Café del Parc, La Pizzeria, Fish & Bar, Little Turkish Snaps, Loop, Thruway Snaps, Indian grocers, pots shop.
- ⑩ Protect listed building on corner of Vorty Rd.
- ⑪ Keep the green spaces - Whitbyham Park, Waterlens PK, Catthorpe Hall etc. Sports grounds etc. but allotments on covered reservoirs
- ⑫ Which going on in derelict space opposite Wyndham Green? Make use of wide pavements in Sandbury - should be pavement cafes, ~~as~~ as in Belsize Park.



writing  
 (most) modest. Keep existing or architect on the way out.  
 we take most market on the island  
 south  
 k  
 Holloway



Rianna : Warm, relaxing, nice food.

Zelina : There are good food.

Shiana : This café is very warm and cosy, and also, it is a great place to get hot drinks and food.

Megan : It has nice food and tea. To get sweet and drinks.

Taylor : They have nice food.







# Rapid Appraisal Method

- In-situ, multi-temporal
- Good for accessing 'hard-to-reach' groups
- Allows rapid scoping of local knowledge, concerns and possible solutions
- Less control and discussion than focus group





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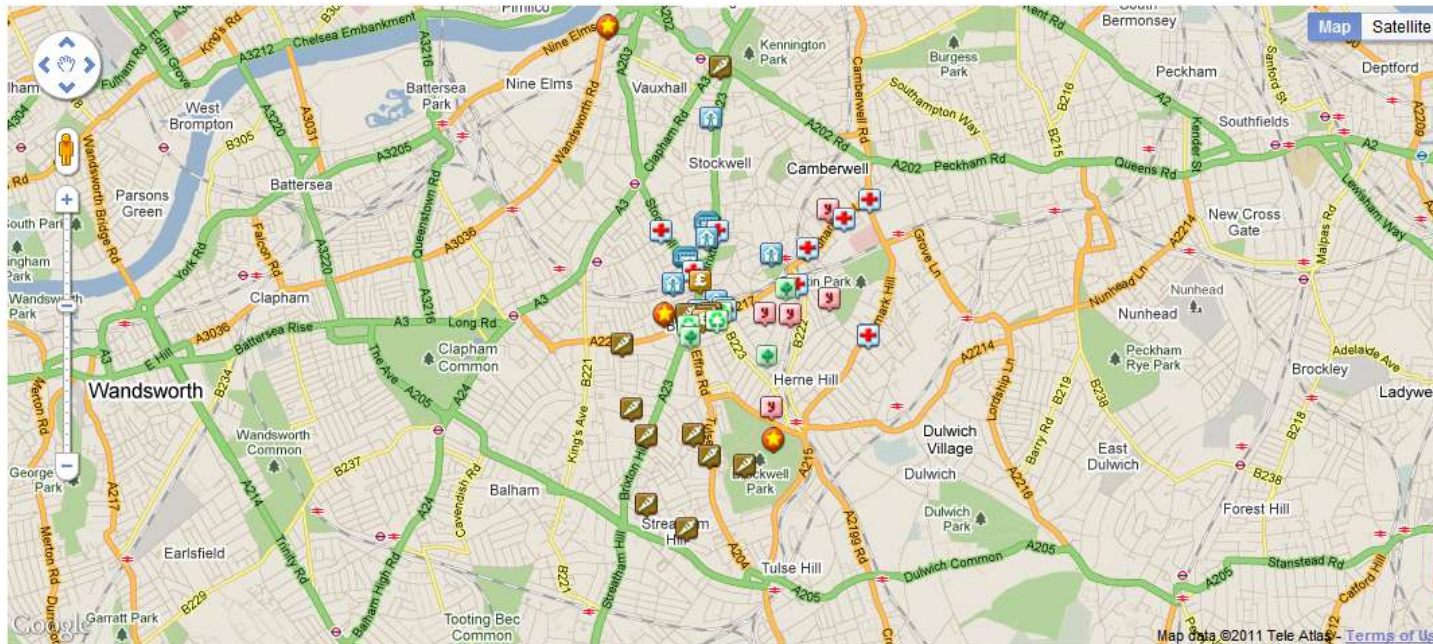






## Brixton - Community Map

A repository of local community resources, facilities and activities



### BRIXTON

- The Map
- About This Map

#### Map Legend Search Add Content Edit

##### On the map

Please use the check boxes to switch data on and off.

- ☒ All Layers
- ☒ Children and Young People
- ☒ Community Facilities
- ☒ Community Views
- ☒ Events
- ☒ Food
- ☒ Green space and Natural Environment
- ☒ Health Services
- ☒ History and Culture
- ☒ Sustainable Shops and Services
- ☒ Transport
- ☒ Waste and Recycling

### About This Map

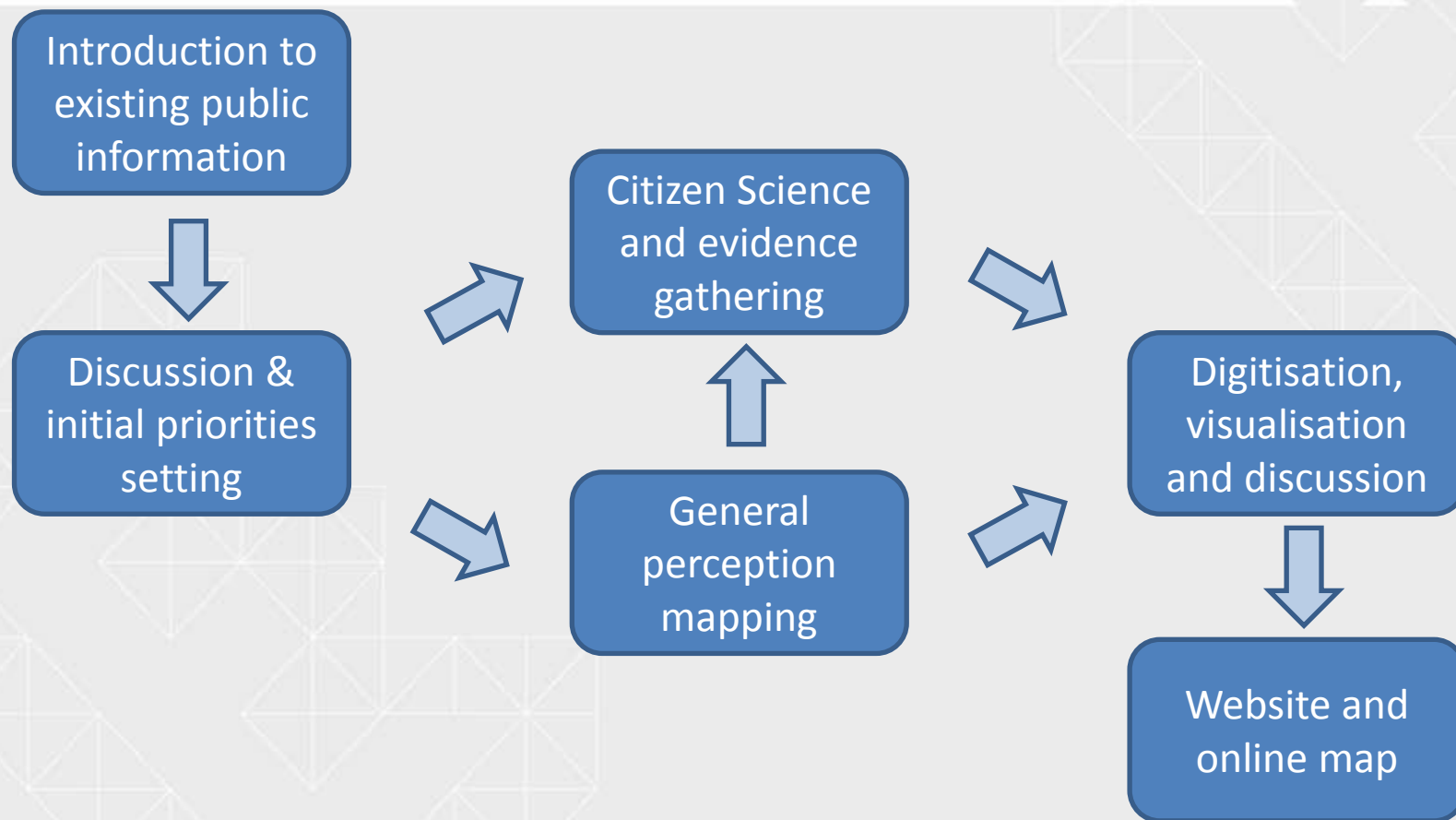
Ellul, C., Haklay, M. Francis, L. And Rahemtulla, H., 2009, *A Mechanism to Create Community Maps for Non-Technical users*, The International Conference on Advanced Geographic Information Systems & Web Services – GEOWS 2009

# Mapping for Change



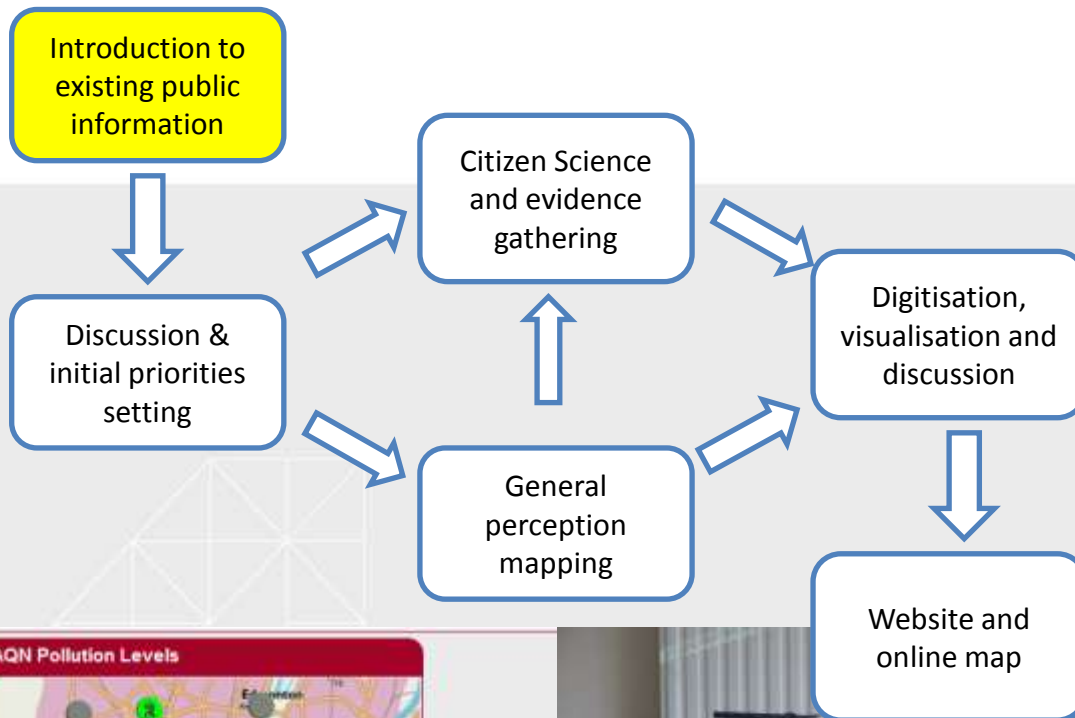
UCL

- A social enterprise owned by University College London and the charity London 21 Sustainability network
- Promoting and supporting community-based initiatives towards building more sustainable communities through the use of maps and geographic information
- Specialising in participatory mapping & GIS application and connecting online and off line community engagement
- Supporting geographical analysis in the third sector

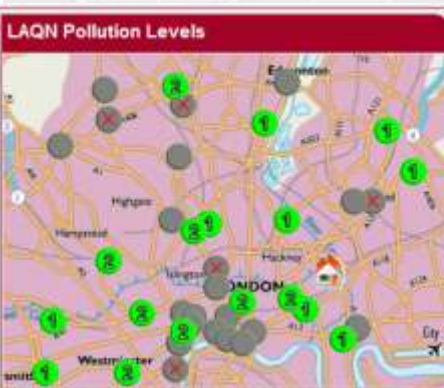


At each stage in the process various mapping methods are used ranging from paper based exercises using large OS maps, web-based maps such as Google, our own Community Map website and also GIS packages.






In each community, we start with a discussion about the official, public data that is available about their area



Air pollution levels recorded on Tuesday 4 September 2007, 08:00-09:00BST

 [RSS: Subscribe to Moderate Bulletin](#)



## London Noise Map Web Viewer

The London Noise Map Web Viewer contains maps that show calculated levels of road traffic noise across the Greater London area. The railways, aircraft, industrial or neighbour noise. One set of maps show noise from All Roads, and another set show only noise from Major Roads. You can also view the variation of noise, both from moment to moment and at different times of day. These are called Noise Indexes. You can also view the variation of noise, both from moment to moment and at different times of day. These are called Noise Indexes. You can also view the variation of noise, both from moment to moment and at different times of day. These are called Noise Indexes.

There are several ways of choosing the area of London that you wish to see in - by Post Code, by Street name, by Ordnance Survey Grid Reference or by Noise Index. For more details on how the map was created, what it shows and its limitations, see the [Important Information](#) page.

For help on using the web viewer click [here](#).

Please note: these pages require version 4 or later browsers. Mac OS users running Internet Explorer must be using version 5 or later.

### Contour Options

Scenario:

Combination:

Contour Options:

### Selection

Selection type:

☒ Post Code  
☐ Street Match  
☐ National Grid X,Y  
☐ NoiseMap SE Grid Reference

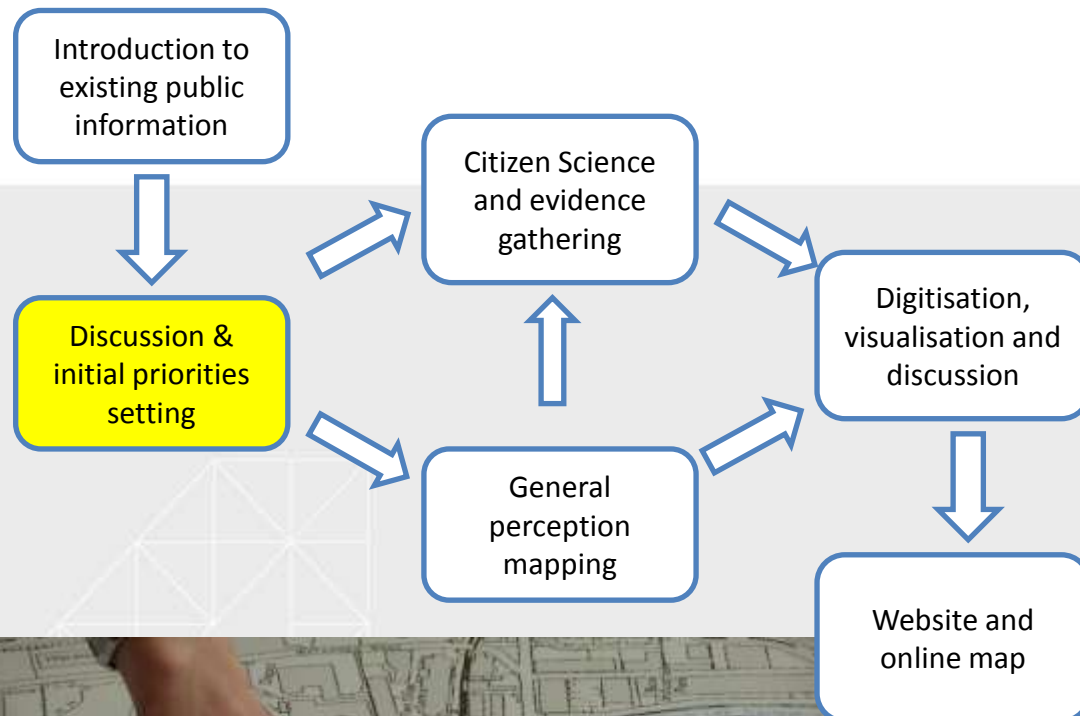
### Image Options

Size:

Tile Surround:

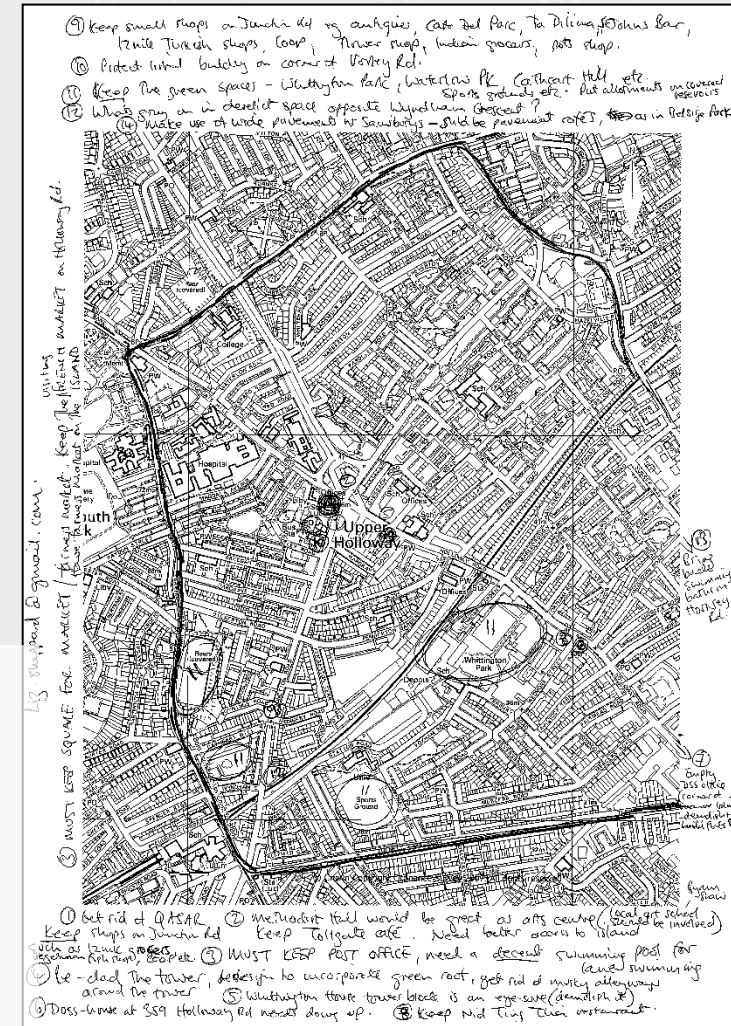
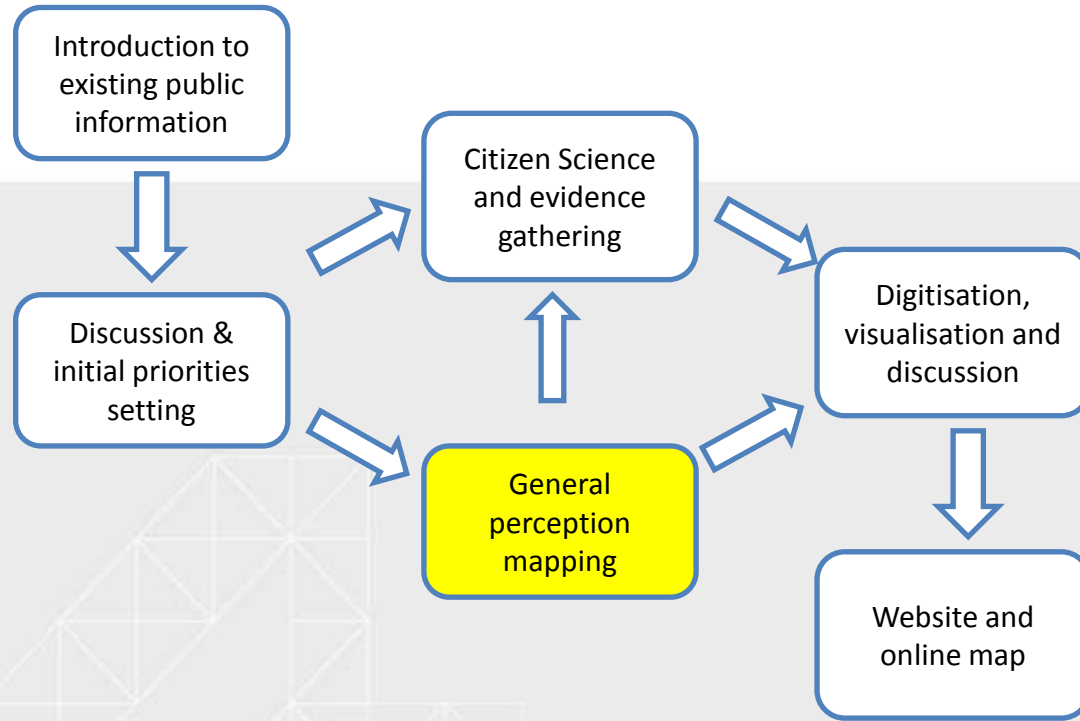


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A discussion leads to the list of issues that should be mapped and the way they will be mapped



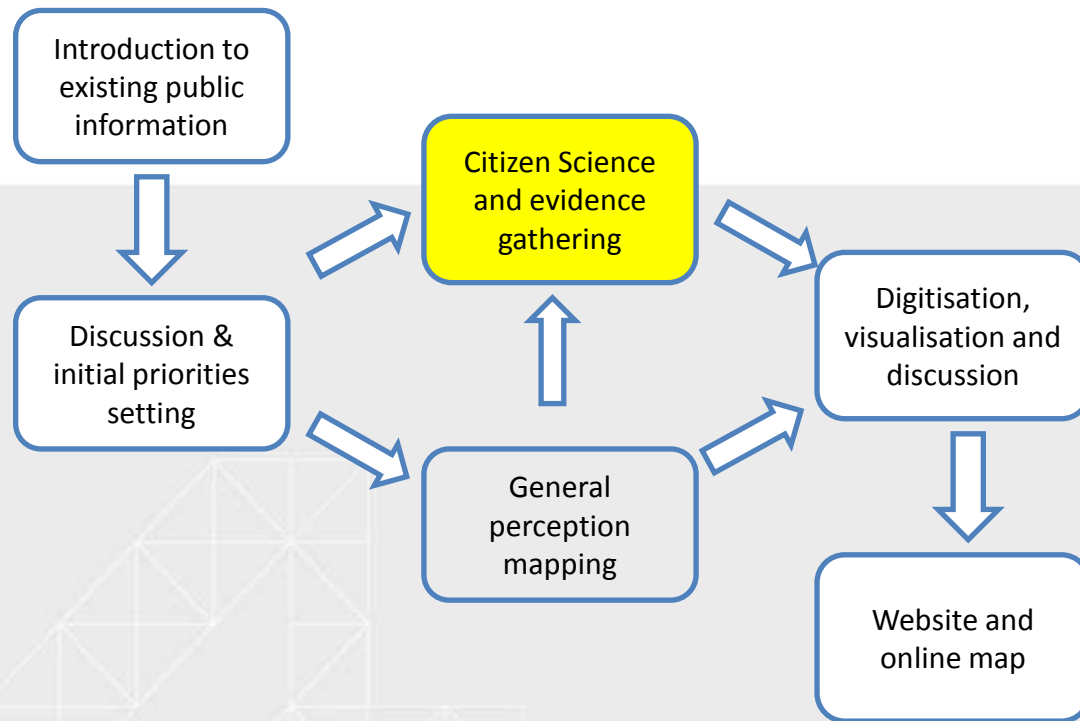


Perception mapping focuses on questions such as: what aspects of your community you like or dislike? What problems do you want to solve?





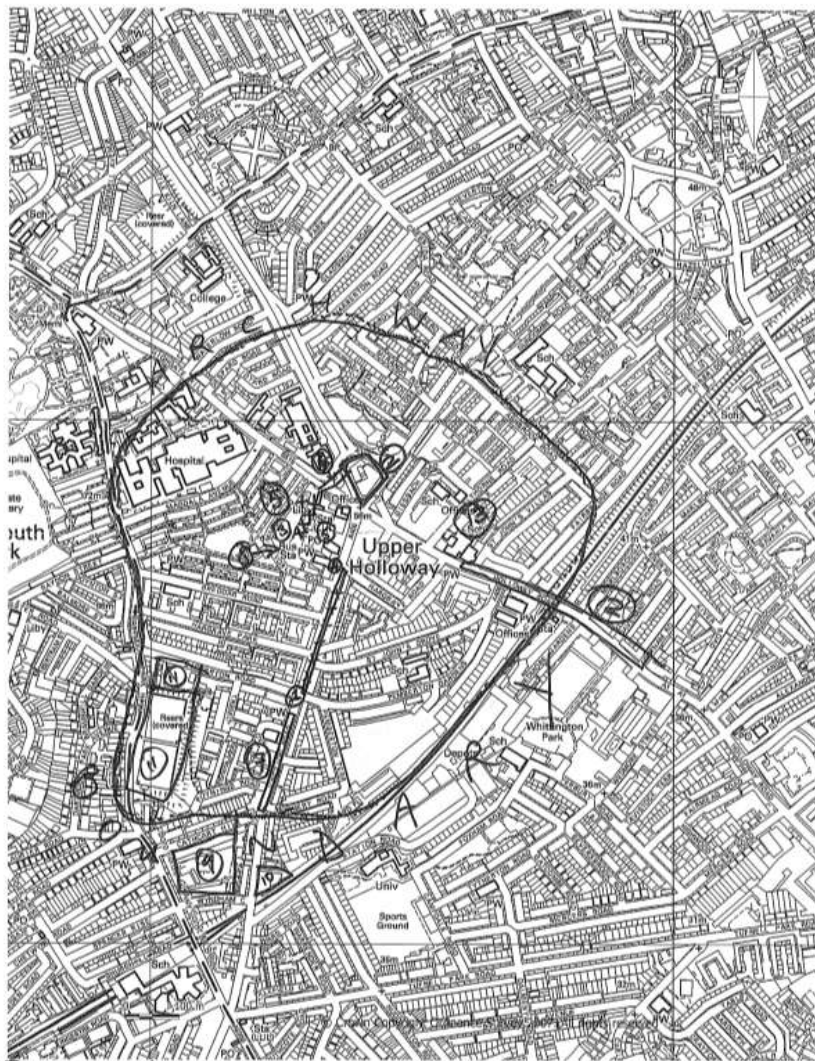
# UCL



Noise measurements

**In some cases, perception mapping leads to focused evidence gathering, in other cases this is done directly after the discussion**

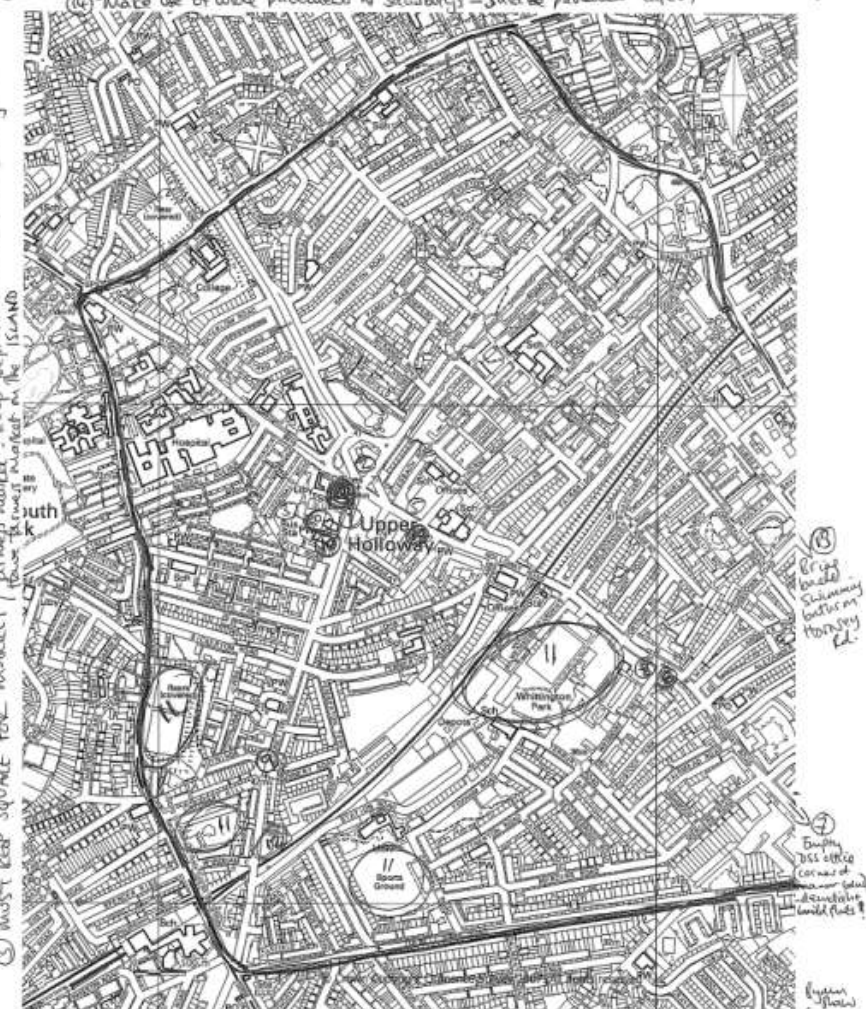




- ① No greenery (but pavement too narrow for trees) - pls cd we have planters on lamp-posts? Also greenery possible on top of co-op + Quasar buildings. Planters better than advertising poles!
- ② Methodist Church - convert to Arts Centre with gallery space (to be managed by Bryan Shaw School as annexe gallery?). Five Star Idea! for area regeneration!
- ③ Security Risk Spot - derelict, dark, dodgy pub + tunnel space where kids loiter. Needs greenery + sitting space to discourage this. Drinks kiosk wd be ok too.
- ④ Space for a tree where road widens at Nat West bank.

- ⑨ Keep small shops on Finch Rd eg antiques, East Del Aire, Ta Diliwa, Johns Bar, Kwik Turkin shops, Coop, Thrive shop, Indian grocers, pots shop.
- ⑩ Protect liberal building on corner of Vortey Rd.
- ⑪ Keep the green spaces - Whitington Park, Waterlows Pk, Carthart Hill etc. Sports grounds etc. but allotments on council properties
- ⑫ What can an i derelict space opposite Whitington Green?
- ⑬ Make use of wide pavements w/ Samurys - shld be pavement cafes, as in Belgis Park

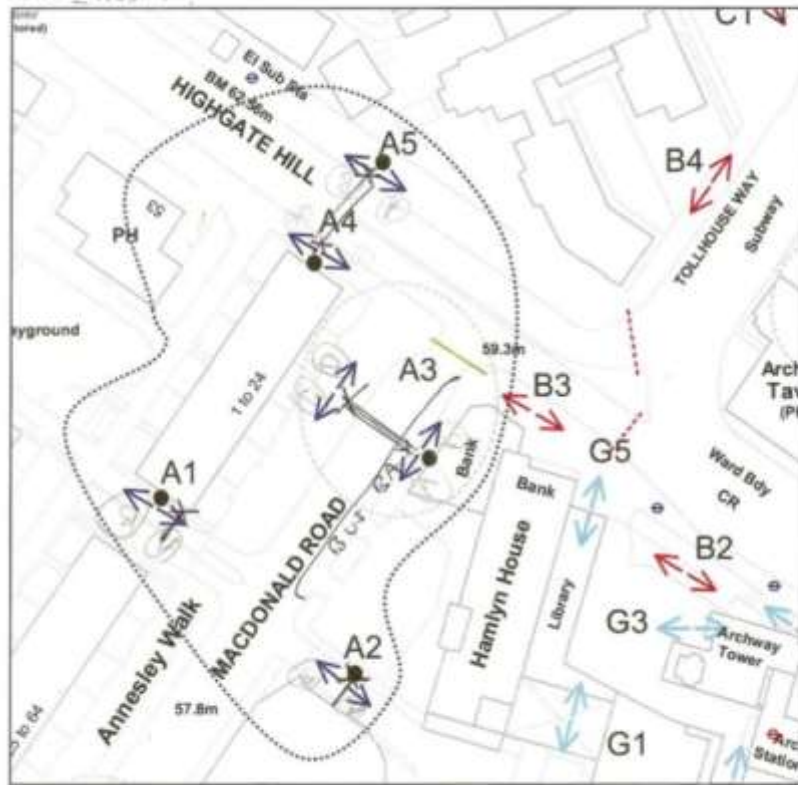
using  
L3 Shopped Signal. can't  
MUST KEEP SQUARE FOR MARKET / firm market. Keep the present market on Holloway Rd.  
Have primary market on the island



- ① Get rid of QASAR. Keep shops on Finch Rd. Keep Tollgate cafe. Need better access to island
- ② Methodist Hall would be great as arts centre (local art school should be involved)
- ③ MUST KEEP POST OFFICE, need a decent swimming pool for (and swimming ing)
- ④ Be-clad the tower, redesign to incorporate green roof, get rid of murky alleyways around the tower
- ⑤ Whitington tower tower block is an eye-sore (demolish it)
- ⑥ Doss-house at 359 Holloway Rd needs doing up. ⑧ Keep Mid Ting Chen restaurant.







## Space Syntax

ARCHWAY

Gate observations

## ZONE A

Where two arrows are circled please count pedestrians on both sides of the street



● Observer's position

Thursday M

Archway Pedestrian Surveys were carried out in collaboration with Space Syntax who specialised in pedestrian movement analysis

13.03.13

Observer: J. Allen

13.03.13

Observer: J. Allen

GATE: 1		GATE: 2	
Please mark observer position on sheet		Please mark observer position on sheet	
Male/boys		Male/boys	
Women/girls		Women/girls	

GATE: 3		GATE: 4	
Please mark observer position on sheet		Please mark observer position on sheet	
Male/boys		Male/boys	
Women/girls		Women/girls	

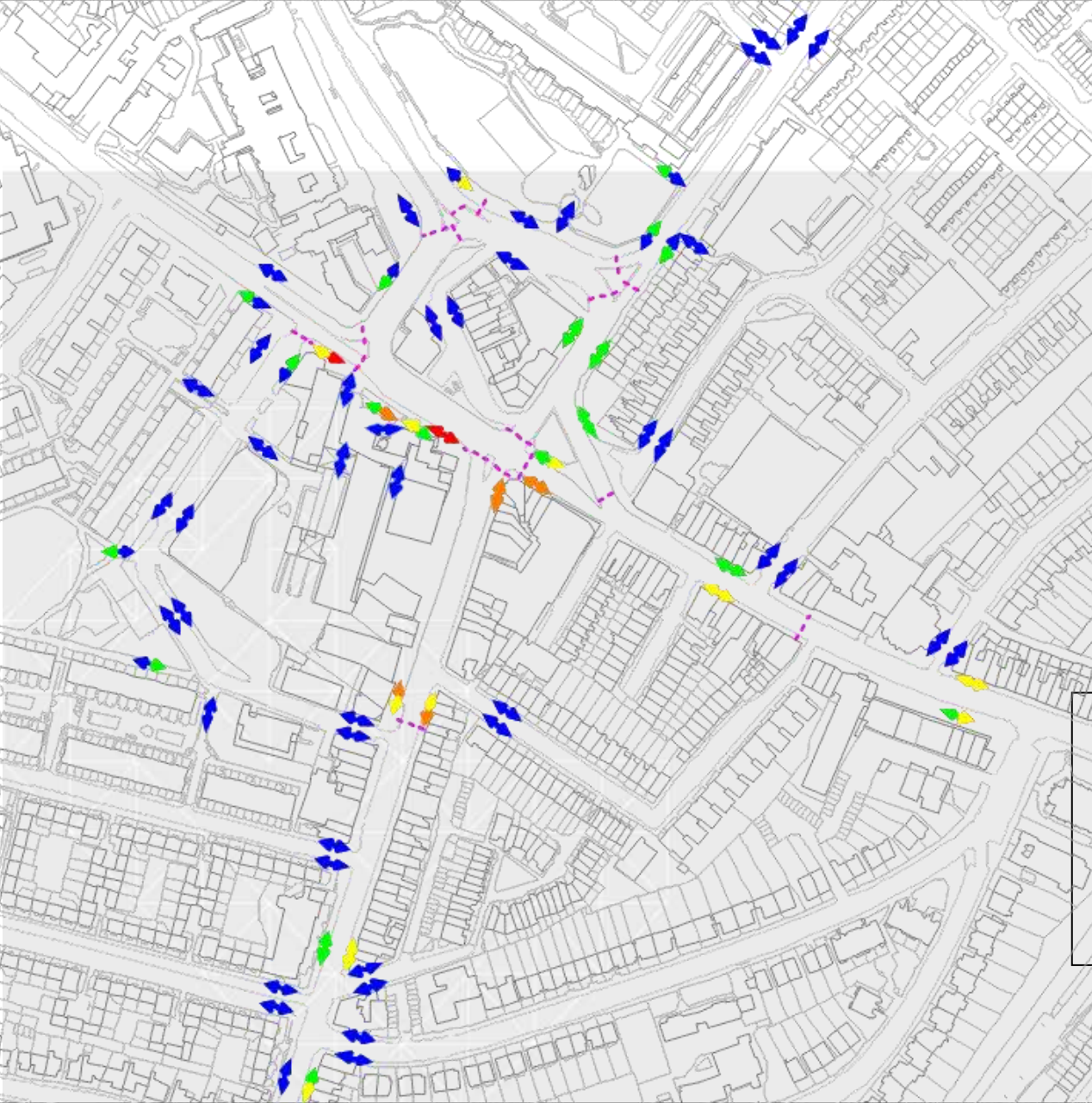
Archway  
Zone A  
13.03.13





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Saturday 12:00 to 14:00





# UCL

Introduction to  
existing public  
information

Discussion &  
initial priorities  
setting

Citizen Science  
and evidence  
gathering

General  
perception  
mapping

Digitisation,  
visualisation and  
discussion

Website and  
online map

The paper maps from the perception mapping or from the evidence gathering are digitised. That is done either offline – with a GIS – or online, on our community mapping site.

- Positive
- Youth or ASB
- Litter/Rubbish/Graffiti
- General Maintenance
- Safety
- Traffic/Transport/Parking
- Facility Improvements
- Other





# UCL

Introduction to  
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General  
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Website and  
online map

**The online map can  
continue and evolve over  
time. They are controlled  
by the community.**



**COLUMBIA SCHOOL**

- The Map
- About This Community
- Community News

**Map Legend** Search Add Content Edit

On the map

Please use the check boxes to switch data on and off.

☒ All Layers

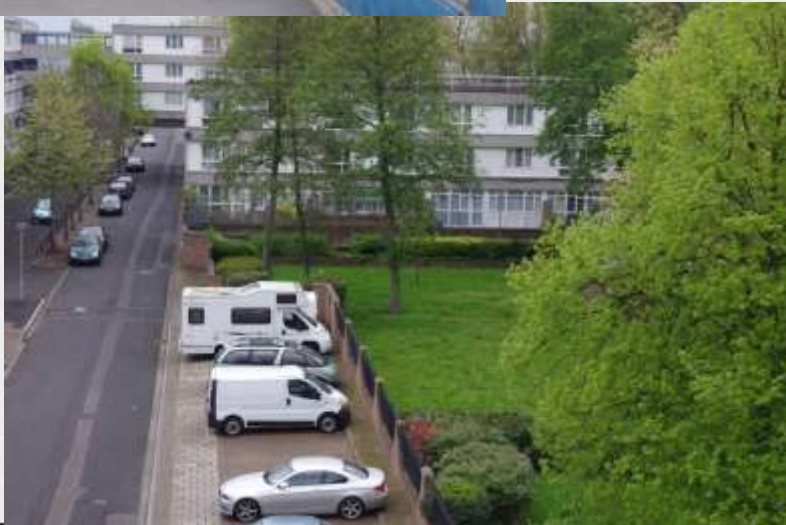
- ☒ Answer
- ☒ Interesting Places
- ☒ My Memories
- ☒ Our Environment
- ☒ Question
- ☒ Things we do not like
- ☒ Things we love
- ☒ We Wish

**SPONSORS**

# Active CiTizenship and Social Housing



The aim of this project is to explore which kind of informal learning contribution, in the context of social housing, could help to reinforce "social cohesion, active citizenship, intercultural dialogue, gender equality and personal fulfilment.



# Thamesmead mapping

Thamesmead first began to take shape in the early 1960s when the then London County Council (LCC) first published its plans to build 25,000 homes on Erith & Plumstead marshes.



Mainly social housing developments built from the late 1960s onwards mostly on former marshland on the southern banks of the River Thames between the more established towns of Woolwich and Belvedere. Originally planned to have 60,000-100,000 residents, it is now estimated to be on target for a final population of around 50,000 people























## Thamesmead - Community Map

This interactive map can help you find out about the Thamesmead Community from those that live and work in the area. The map has a range of icons: each one of these represents an organisation, community project, a local service provider or generally useful information. You can add new entries or search for other activity.

### THAMESMEAD

- ▶ The Map
- ▶ About This Map



### Map Legend Search Add Content Edit

#### On the map

Please use the check boxes to switch data on and off.

- ☒ All Layers
- ☒ Children and Young People
- ☒ Community and Voluntary Organisations
- ☒ Community Facilities
- ☒ Community Views
- ☒ Events
- ☒ Green Spaces and Our Environment
- ☒ Health and Wellbeing
- ☒ Housing
- ☒ Leisure
- ☒ Transport

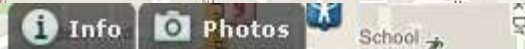


## Thamesmead - Community Map

This interactive map can help you find out about the Thamesmead Community from those that live and work in the area. The map has a range of icons: each one of these represents an organisation, community project a local service provider or generally useful information. You can add new entries or search for other activity



### THAMESMEAD



#### We Wish



#### Title

Maram Way Flats

Blocking the footbridge to

◀ Previous

Next ▶

#### We Wish



◀ Previous

Next ▶



## EpiCollect stopandsearch

[Instructions](#)

A project under the auspices of City YMCA and Femi Adekunle

[View Data](#)

Company	Price
Google	\$75.00
Apple Inc	\$26.00
Yahoo Group Inc	\$22.00
American Express Company	\$62.00
American International Corp	\$54.00
AT&T Inc	\$21.00

[Browse Project Data](#)



[Show Map](#)

[Project Administration](#)



[Create or Edit Project Form](#)



[Update Homepage description and picture](#)

[View form definition](#) | [Logout](#)

Hosted and Developed at Imperial College London | [Contact us](#)

Source: Femi Adefemi Kingsley Adekunle UCL Geography

EpiCollect

### EpiCollect

[New Entry](#)

[List Entries](#)

[Display Map](#)

[Select Project](#)

demoproject

Project URL is:

<http://www.epicollect.net/project.html?name=demoproject>

[Help](#)



## Extreme Citizen Science (ExCiteS)

- Home
- Team Members
- Partnerships
- Publications
- Related Projects
- News and Events
- Contact Us

## Extreme Citizen Science: ExCiteS

UCL's interdisciplinary research group on Extreme Citizen Science



Intelligent Maps

contribute to the guiding  
a Citizen Science project  
rdisciplinary research  
any user, regardless of their  
ation by using adaptable

provides a useful  
coming decades: how to  
n technologies are  
nted scale, and where



EXCITES  
UCL\_ExciteS

**UCL\_ExciteS** Jerome Lewis  
Thursday 16/02 launching our  
research group at London Citizen  
Cyberscience Summit bit.ly/ABika1  
#LCCS2 #citizenscience  
7 hours ago · reply · retweet · favorite

**UCL\_ExciteS** You Already Own the  
Next Most Important Transportation  
Planning Tool - your cell phone! >>  
theatlanticcities.com/technology/  
yesterday · reply · retweet · favorite

**UCL\_ExciteS** Muki Haklay  
@mhaklay Thursd. 16/02 launching  
our research group at London  
Citizen Cyberscience Summit  
bit.ly/ABika1 #LCCS2  
#citizenscience  
yesterday · reply · retweet · favorite



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# Credits



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**Support for the research kindly provided by:**

UCL Graduate School Research Fund,

ESRC 'Conserving Biodiversity That Matters: The Value of Brownfield Sites' project

Wandsworth council (pathfinder for e-government scheme)

RGS/IBG Small Research Grant

UrbanBuzz: Building Sustainable Communities (HEFCE)

London Sustainability Exchange (LSx)

London 21 Sustainability Network

EPSRC Challenging Engineering Award 'Extreme Citizen Science'

EPSRC Adaptable Suburbs project

EU FP7 EveryAware project

Google Research Awards

Amazon Web Services Education Grants

**Special thanks to the participants and the communities that work with us**

**And our partners: Royal Geographical Society, ESRI, Helveta and U-Blox**