

Colour in, view and download data on London's buildings

#### About

How many buildings are there in London? What are their characteristics? Where are they located and how do they contribute to the city? How adaptable are they? How long will they last, and what are the environmental and socio-economic implications of demolition?

Colouring London is a data crowdsourcing platform designed to help address these questions through the collection, collation, visualisation and dissemination of data on London's building stock.

The platform is being designed and built by the Centre for Advanced Spatial Analysis (CASA), University College London and funded by Historic England. Ordnance Survey is providing building footprints required to collect the data, facilitated by the GLA, and giving access to its API and to technical support.

Colouring London builds on citizen science projects, such as Galaxy Zoo, which engage non-specialists in the collection of data for scientific research. It is also inspired

by knowledge-sourcing initiatives such as Wikipedia, and by Volunteered Geographic Information platforms such as OpenStreetMap.

Though many cities now release open property tax data, providing characteristics for all taxable buildings, in the UK these data are restricted even to academia. Colouring London offers an easy-to-use, reproducible web platform that crowdsources quantitative data on building age, use, type and size, as well as information on demolition history. The platform will also test mechanisms to increase answerability and transparency within the planning system, function as a free educational resource, and provide a visual celebration of London's buildings and of our collective knowledge.

Colouring London will launch in 2019. Over the next year we are likely to encounter many challenges. To watch our progress, or test the platform, please visit:

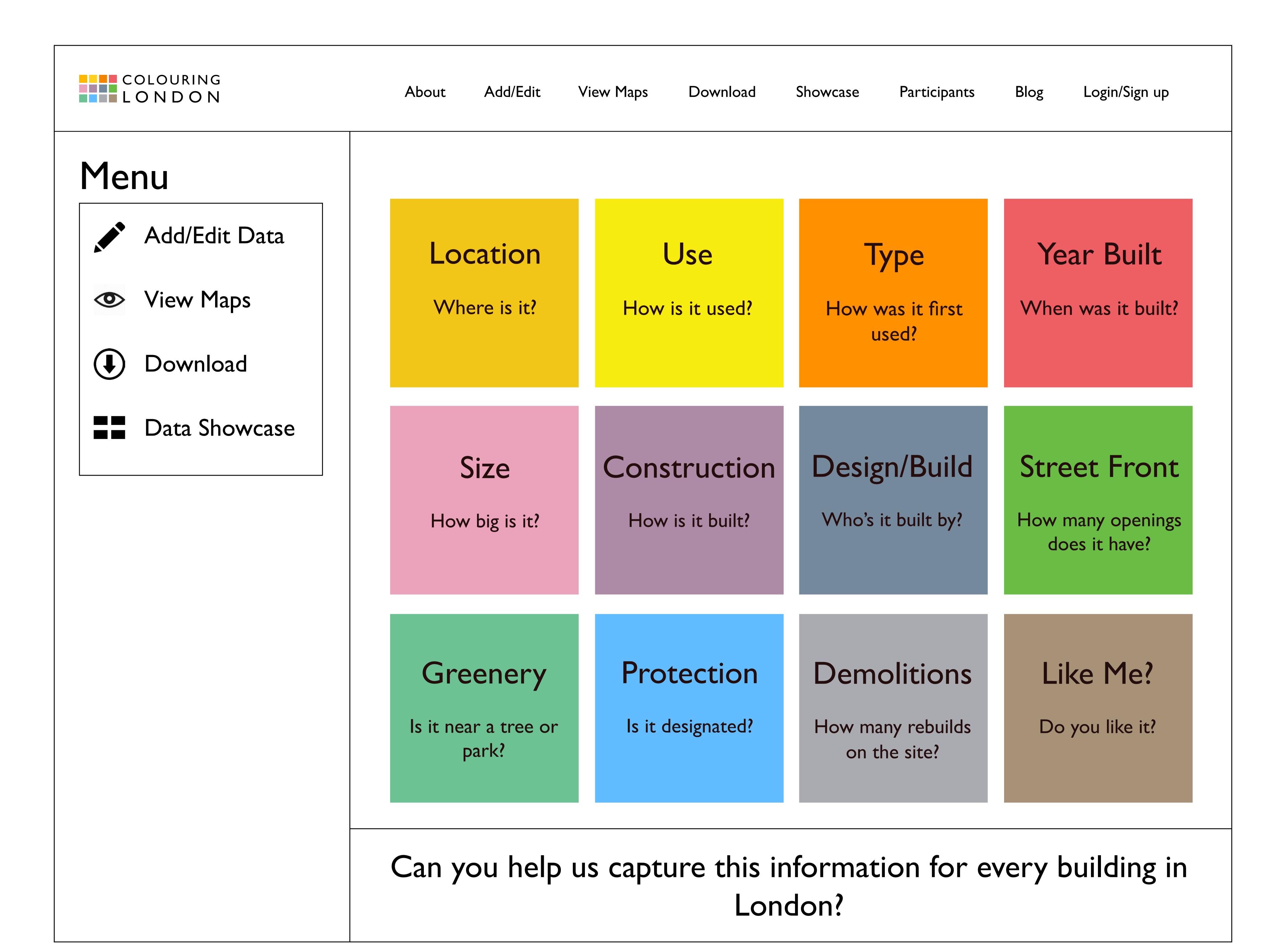
http://beta.colouring.london/











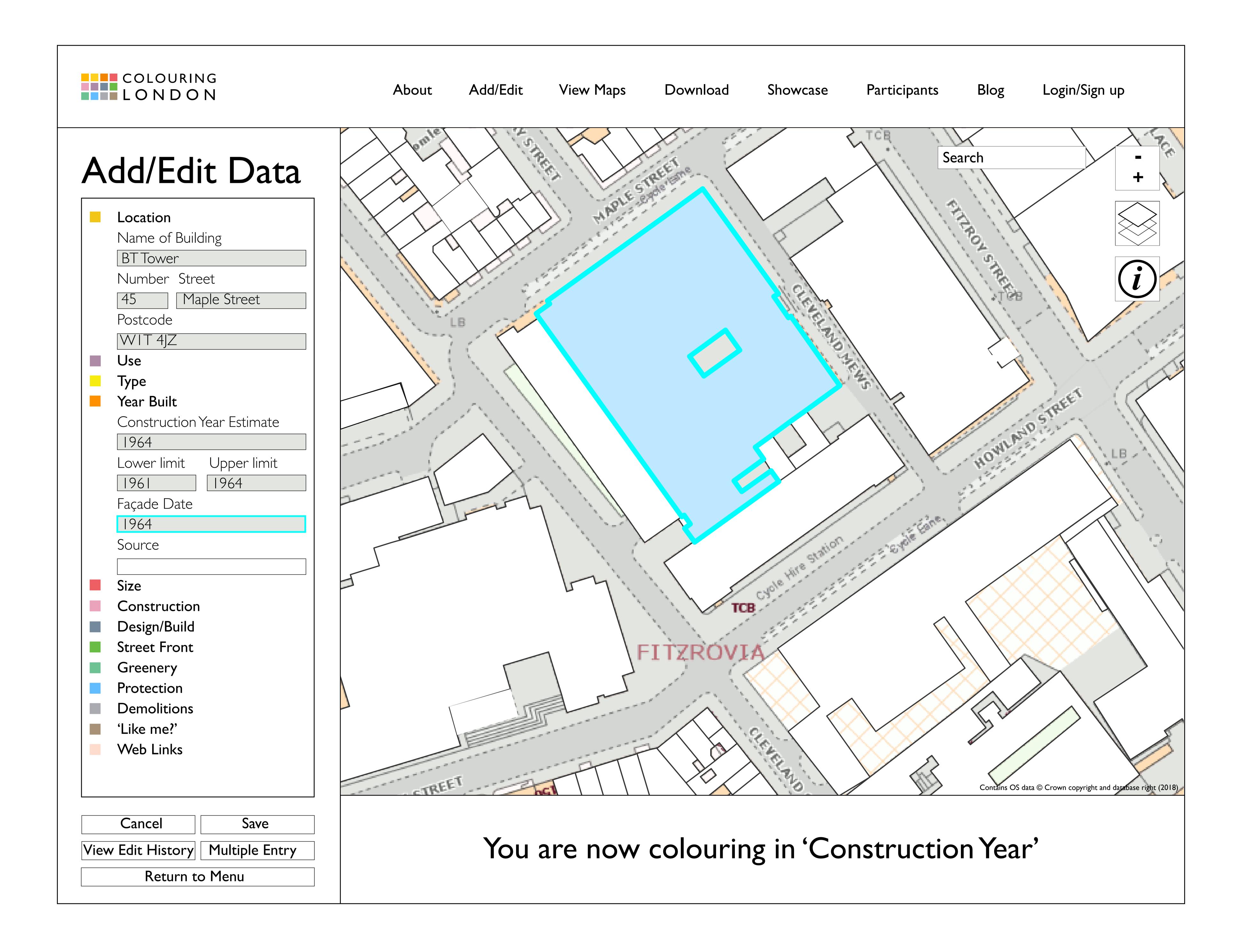
#### How it works

Colouring London invites users to upload and update twelve categories of information, for every building in London. These categories are shown in the coloured boxes above. They have been selected in consultation with UCL colleagues and specialist organisations working in energy analysis and sustainable urban design, urban science, housing, planning, conservation, urban history, urban morphology, sustainable heritage and community planning.

Most information will be collected as numerical data. 'Designer/Builder', which has been included for future performance tracking, is the only text-based category. A 'Like me' option is also being offered to create a simple feedback mechanism to enable communities and planners to identify (over short and long periods of time) both successful, and unsuccessful, local schemes. This builds on Panos Mavros' research at CASA into pedestrians' emotional response to the built fabric, and has been included following interest from a number of community groups. Here the colour of a building deepens the more its footprint is clicked or 'liked', with one click per building allowed for each logged-in user.

Colouring London, like Wikipedia and OpenStreetMap, is self-moderating. Most entries may be edited as long as the user has logged in, though for some large-scale uploads, such as 'Listed Buildings', data will be pre-loaded and locked, with edit queries needing to be directed to the data uploader.

Contributions are welcomed and encouraged from everyone, and from anywhere in the world. We are, however, specifically targeting four core groups: Local authorities in London holding relevant large-scale datasets; local history groups, amenity societies, community planning organisations and those working in conservation, historic buildings and architectural history, for their in-depth knowledge of specific buildings and areas, and of demolition history and building age; local schools, which in the 1930s were the principal contributors to the first British land survey, and developers and architects involved in area surveys for specific sites. Leader boards, thanking our most prolific contributors, will also be included.



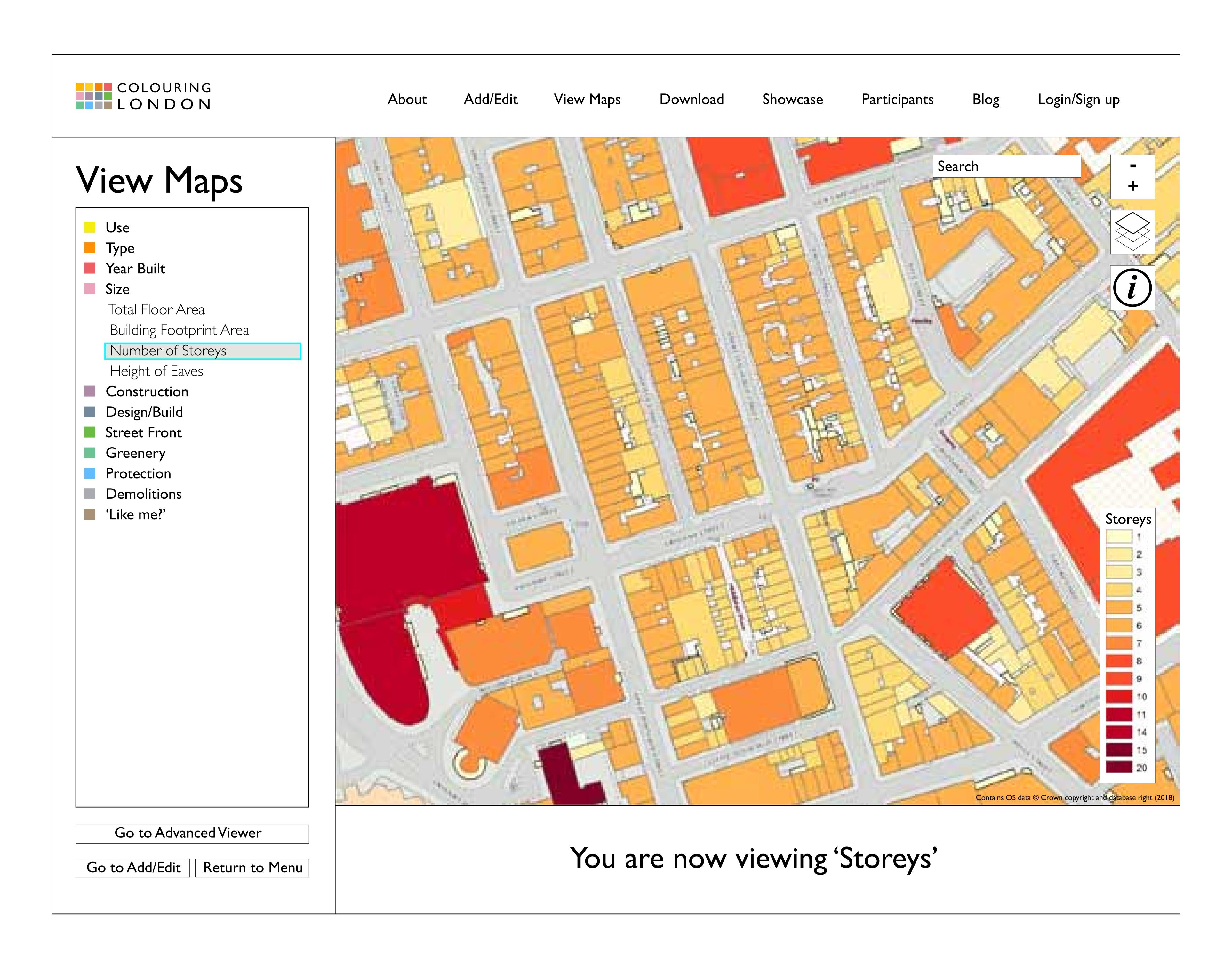
## Adding/Editing Data

To add new data to a building, or to edit or update existing data, just type an address into the search area or navigate via the zoom buttons at the top right of the screen. If you feel like changing the map background at any time, select the layer icon below the zoom button.

Click on your building of interest in the map viewer. Then choose the category of information you'd like to add or change. A dropdown menu will appear containing a number of subcategories. Subcategory questions are shown in the table to the right. Add data into the relevant box. As you type the building will automatically colour according to the subcategory key.

If you are editing an entry and want to see who last uploaded information you can go to 'View edit histories'. If you want to add or update the same information for many buildings at once, click the 'Multiple Entry' button.

Category	Sub Categories	
Location	What is the building's name and address?	
Use	What is the current land use?	
Туре	What is the original use of the building?	
Year Built	When was most of the building built? Known construction period? Date of building front/facade? Data source?	
Size	What is the ground floor area (pre-loaded)? Total floor area? Height? Storeys including attics and basements?	
Construction	What is the main construction system used? Roof type? Primary materials?	
Design/Build	Who was the architect? Builder? Developer?	
Street Front	How many doors face the street? Percentage of facade glazed (estimated)? Is there a shop front?	
Greenery	Is there a tree in front or behind the building? Is there a front garden or a back garden?	
Protection	Is the building listed (pre-loaded)? Scheduled (pre-loaded)? in a Conservation Area? Locally listed? On the Greater London Historic Environment Record? Does it have an Historic Area Assessment?	
Demolitions	Is demolition pending? What are the estimated construction and demolition dates for each previous development on this site?	
Like me?	Do you like the building? (for any reason)	
Web links	Would you like to add any web links to give further information on this building?	

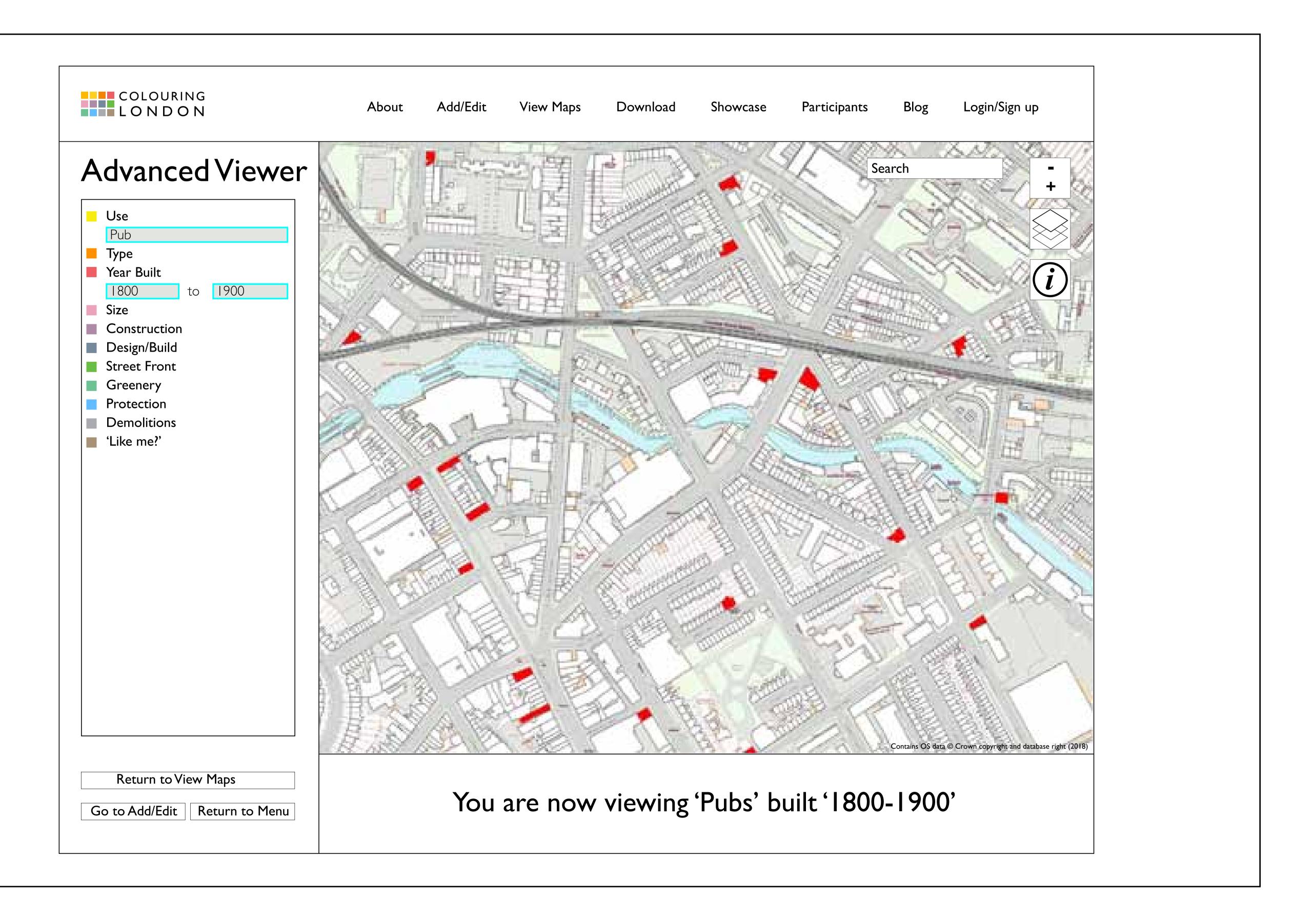


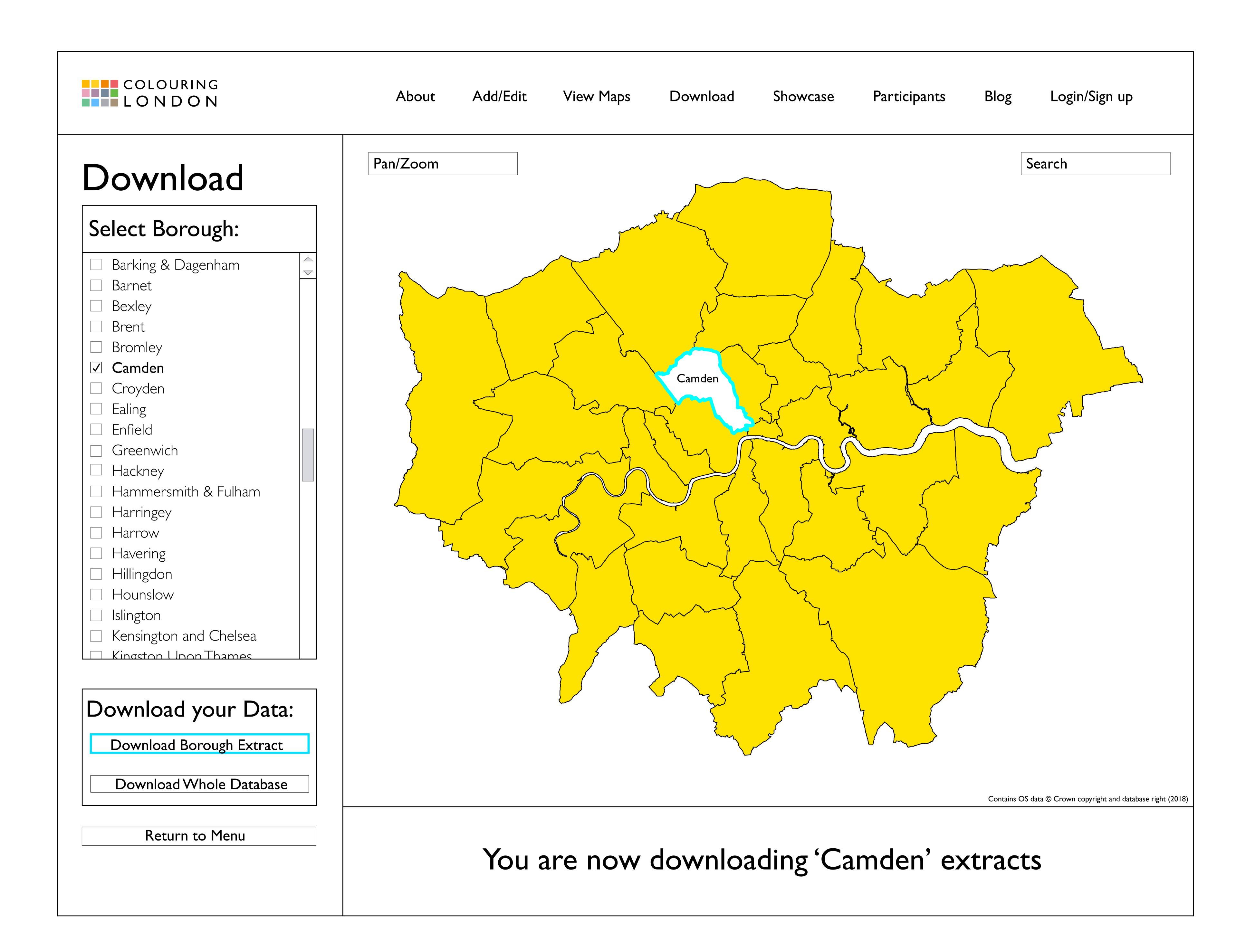
## Viewing Maps

To view the data just go to the 'View Map' page and click the category you are interested in, as shown above.

If you decide you want to add some data, or see something you want to change, click the 'Add/Edit Data' tab to go to the 'Add/Edit' page. If you want to view combinations of data you can create a query by going to the 'Advanced Viewer'. To the right we have selected pubs built in central Camden, 1800-1900.

Initiallywewill only beable to visualise a selection of the data collected, however in the longer term visualisations for most subcategories will be available. As building attribute data has never been collected in this way before for London, it is difficult to anticipate how quickly areas and categories will be coloured. Any help you may give in uploading data onto the site during the platform development phase would be greatly welcomed, once our mapping facilities become active later in the year.





#### Downloading Data

While the database is still small, downloads will be available either by borough, or for the database as a whole. As more data are collected our aim is to offer an advanced selection facility.

Ordnance Survey MasterMap (OSMM), OS's premium mapping product, provides the building footprints that enable our data to be collected. Though in the 2017 Autumn budget the government announced that it was considering increasing access to OSMM, at present large-scale OS data is used under licence (free at the point of use for universities and all public sector bodies).

Working with OS we have ensured our attribute tables can be released as open data. These will contain the crowdsourced number, address and post code for each building entry (all required fields) and importantly the UPRN (Unique Property Reference Number) which will facilitate the connection to third party data sets (including OpenStreetMap).

#### Download Files example:

Date	Name		
April 2018	london-buildings.zip		
March 2018	london-buildings.zip		

## Metadata example:

Attribute name	Description	Sample Values
Build_date	Construction Year	1995, 2001
Landuse_order	NLUD order	Residential, industrial

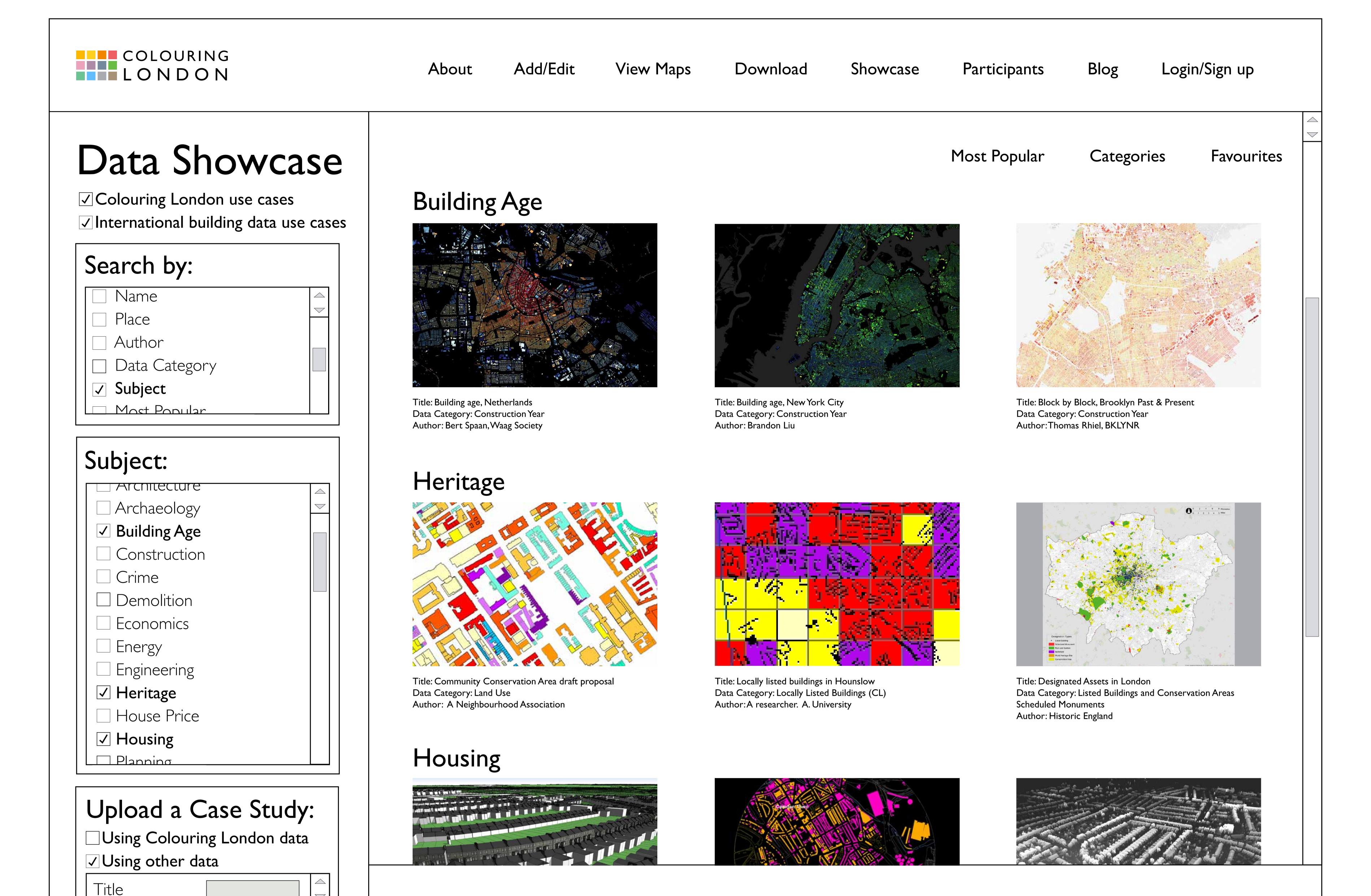
### Attribute Table example:

et Name	Postcode	Land Use Order	<b>Land Use Group</b>	Land Use Type	Construct
				1 1 1 1	Year
rsholt Street	NW1 1AD	Residential	Dwellings	Terraced House	1820
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
e Street	NW1 1JY	Residential	Dwellings	Cottage	1955
enix Road	NW1 1HB	Community Services	Education	Primary School	1960

#### License:

License Type:
Open Data Commons (ODC) Open Database License (ODbl)

How to Credit: 'Colouring London'



# Showcasing data uses

### Ways data can be used

Showcase Data

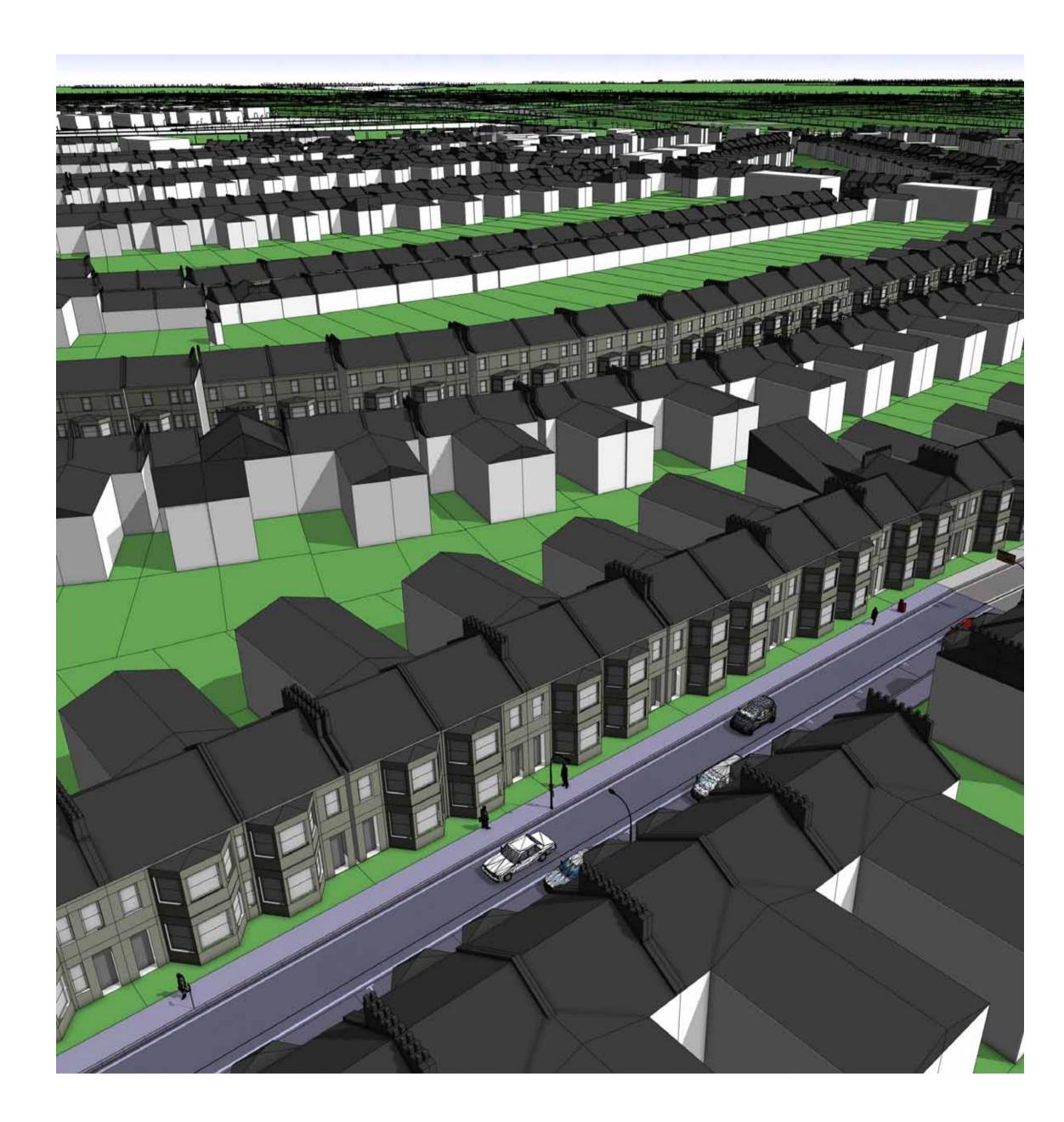
Author

Τασς

Our Data Showcase enables individuals and organisations to upload case studies in which Colouring London data are used, or to highlight international applications of similar data.

To upload a case study, click on either the 'Colouring London data' or 'International application' option. Enter a title, author details, short description, web page link to further information, and an image or film. Then tag it to allow it to be found by those interested in your field, and click upload.

We don't know how quickly Colouring London case studies will be generated, as this will depend on the rate of colouring-in and the relevance to research of the areas and categories coloured. It is hoped that the UK Valuation Office Agency will make their property tax database available for public use. In the meantime, age, land use and building type data for 20,000 buildings in Camden, will be uploaded by CASA to inspire experimentation.



Title: Procedural modelling using age data

Showcase Data: Construction Year

Data Source: Colouring London

Author: Flora Roumpani. Centre for Advanced Spatial Analysis,

UCL

Tags: procedural modelling, housing, victorian buildings,

planning, smart cities, 3D digital models, parametric modelling, city engine, urban analytics, historic building,

conservation, heritage, sustainability

**Description:** The use of urban analytics, planning regulations and

age data to generate Victorian building 'models' which enable different types of planning intervention to be tested. The implications of setting precedents can also

be viewed across the city.

Production Date: 2017

Uploader: Flora Roumpani

Web Link: http://www.casa.ucl.ac.uk/