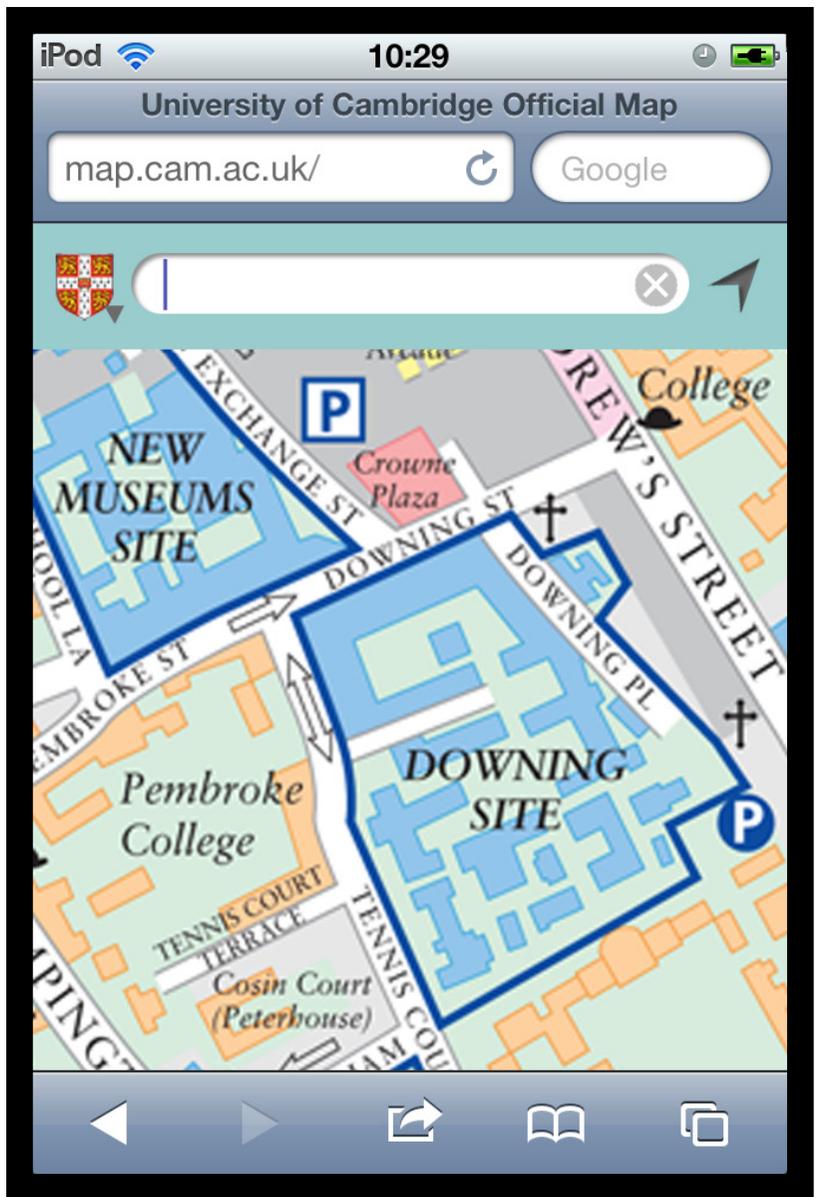


Project Drake mobile website mock-ups

Version: 1
6 March 2011
David Earl



These pages sketch the mobile version of the map website. These replace the map, indexes and department directory.

A note on the maps

The maps shown here are mildly doctored copies of the existing map, pending styling of the OpenStreetMap data. As such the presentation and typography will differ somewhat in the live application.

A specific change I propose to make will outline colleges in orange, in the same way as sites are outlined in blue (college boundaries are currently not shown, and I think this will help both the colour coding and disambiguation).

URLs

The department directory list (7) and colleges list (6) have their own URLs so links can be made to them directly. The index page (5) also has its own URL, rarely used externally.

The menu (4) does not have its own URL: it is simply a pop-up.

The detail page (10, 11) may not necessarily have its own URL, being considered as “off the screen to the right of the map”. This consideration arises from the presentation of the main (non-mobile) site (description to follow), where the information will be displayed in a collapsible panel adjacent to the map. The presentation in the mobile site is merely a consequence of limited screen space.

Geography vs institution

There is a key distinction at work here which need not be evident to the end user, but which has informed the design (and indeed, the database structure from earlier presentations, and API development), namely **geographical vs institutional** information.

Sites (including college sites), buildings and entrances are all geographic, and rooted in OSM. Institutions (departments, non-academic offices, faculties etc) are institutional and rooted in the index. There is a mapping between the two using the ‘ref’ tag in both data sets. While colleges and their sites map one-to-one more closely, this distinction is still present underneath.

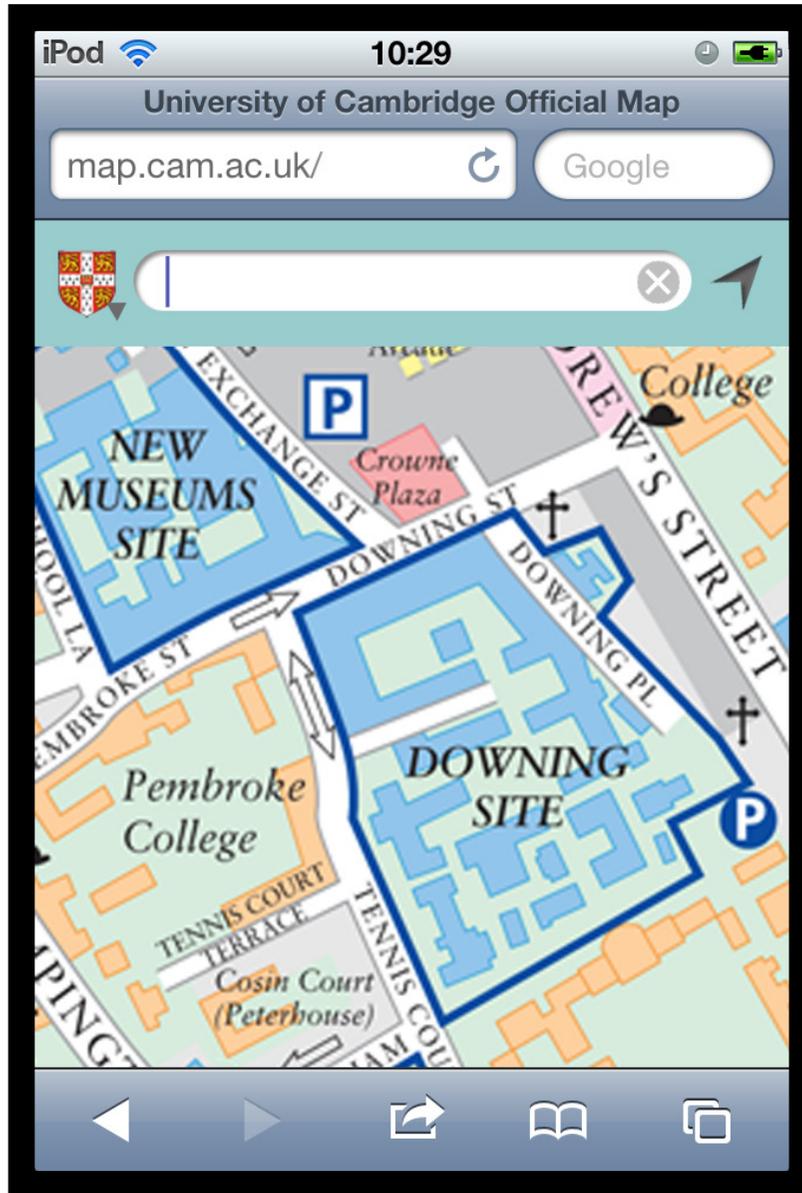
The map pages are entirely geographical. The spots highlighted on the map are locations, not institutions. When searching by institution, what is yielded on the map pages are the corresponding locations, while the detail page for each institution may cover more than one location (and be accessed from more than one location on the map).

For most purposes the distinction is moot. However, in some cases, institutions have more than one location - in which case, this corresponds to two blobs on the map and two search results - and locations house more than one institution, in which case they share a common numbered blob on the map.

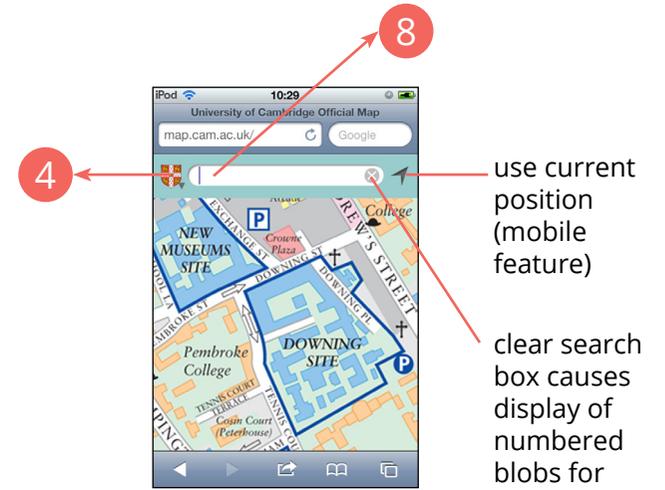
Colour coding

I have extended the colour coding (**site and university buildings**, **non-university entities**, **colleges**) from the existing map style to the index also. In doing this I’ve added three additional colours to distinguish **academic University institutions**, **lecture theatres** and **non-academic University offices**. This slightly blurs the distinction between geographical and institutional information, and for that reason, as well as existing familiarity, I’m undecided whether to replace the bright red numbered blobs with appropriately coloured blobs. These do not appear in quite the same circumstances as the existing map in any case, as there is only now conceptually a single map which is zoomed in and out.

Safari address bar (iPod/iPhone) shown for introductory illustration. Will scroll out of the way for more map area.



Pinch map to zoom, swipe to pan



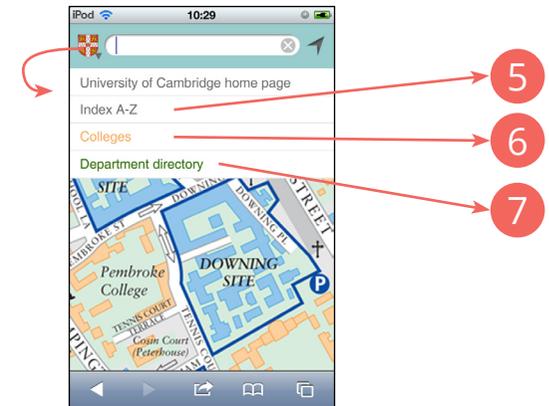
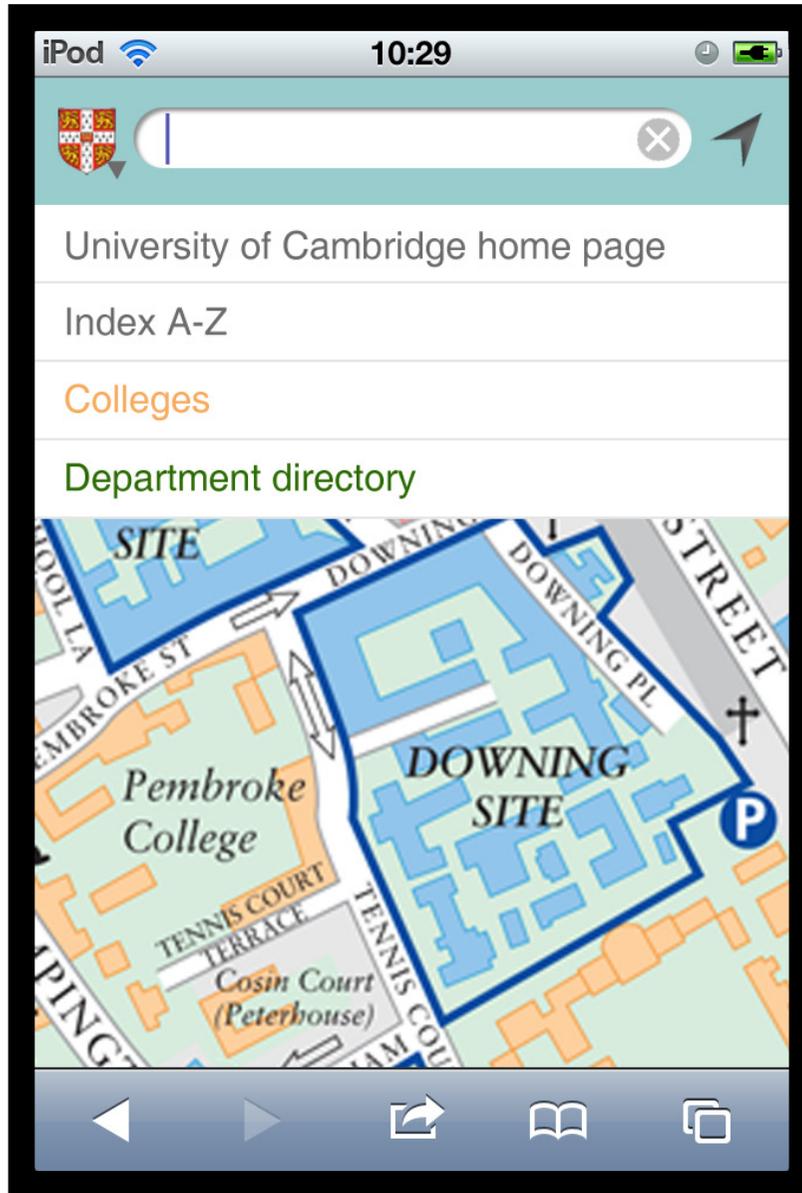
use current position (mobile feature)

clear search box causes display of numbered blobs for entities visible on current extent of map, filtered for scale

Current position button centres map on current position derived from HTML5 position api if available and within the bounds of the map, showing nearby entities (per page 8).

Touch shield to bring up master menu below

Colour coded to indicate different kinds of entity



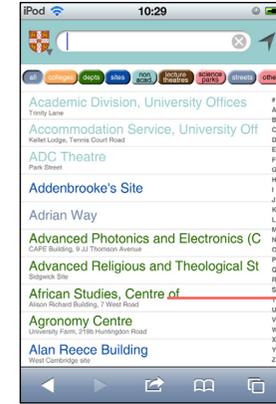
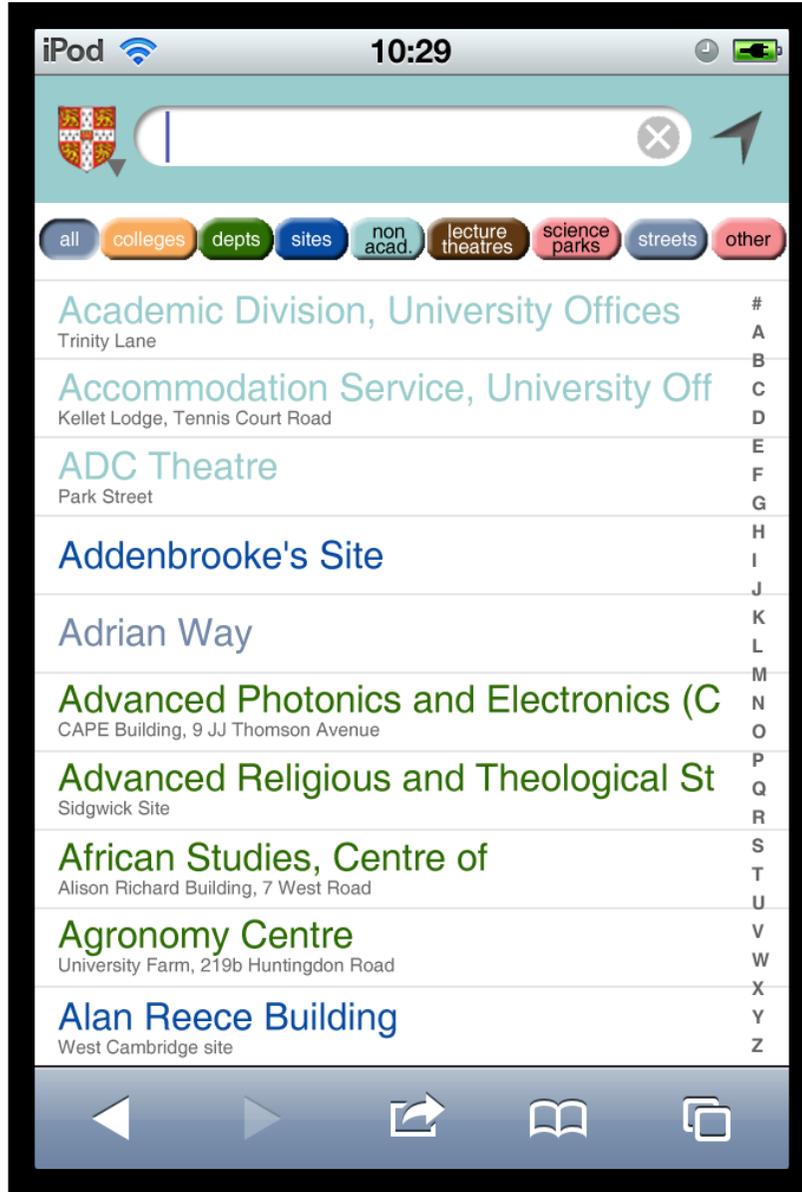
Filter by different entity types (radio-type buttons with 'all' as master control). These buttons may be a bit small, in which case we could pop-up a filter bar instead

Swipe up/down to scroll

Touch alphabet to jump within list (this is a common iOS technique)

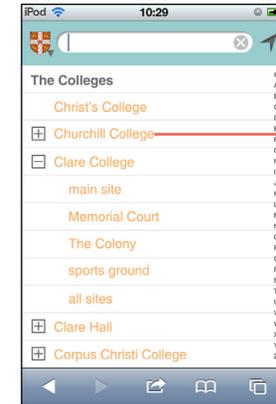
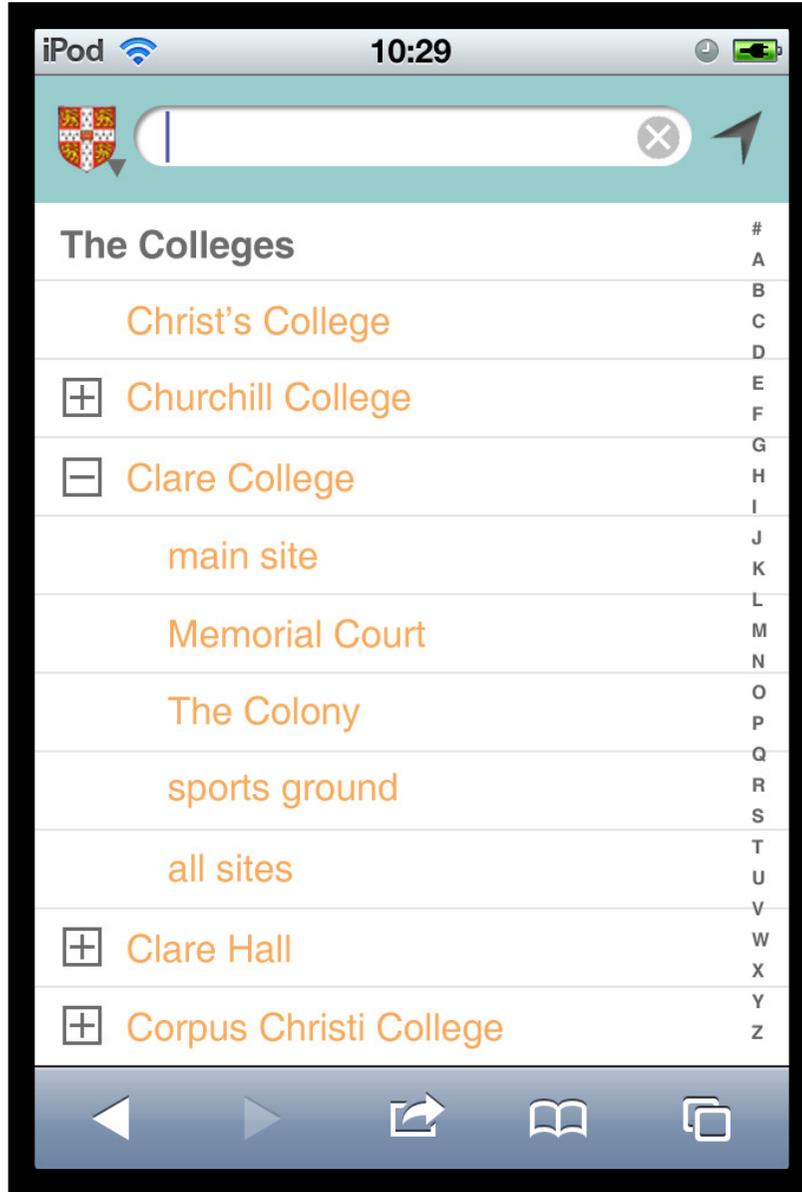
Swipe right to reveal truncated text if necessary

Touch to go to entry



Note that in the mobile site, everywhere they appear taxonomical words such as 'Department of' are always suffixed (on the main site, they probably won't be, though the sort order would be unchanged). This is to make best use of available screen space, pushing the less important information off screen requiring scrolling to see.

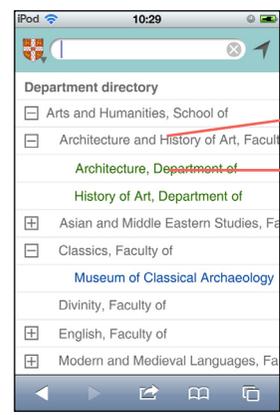
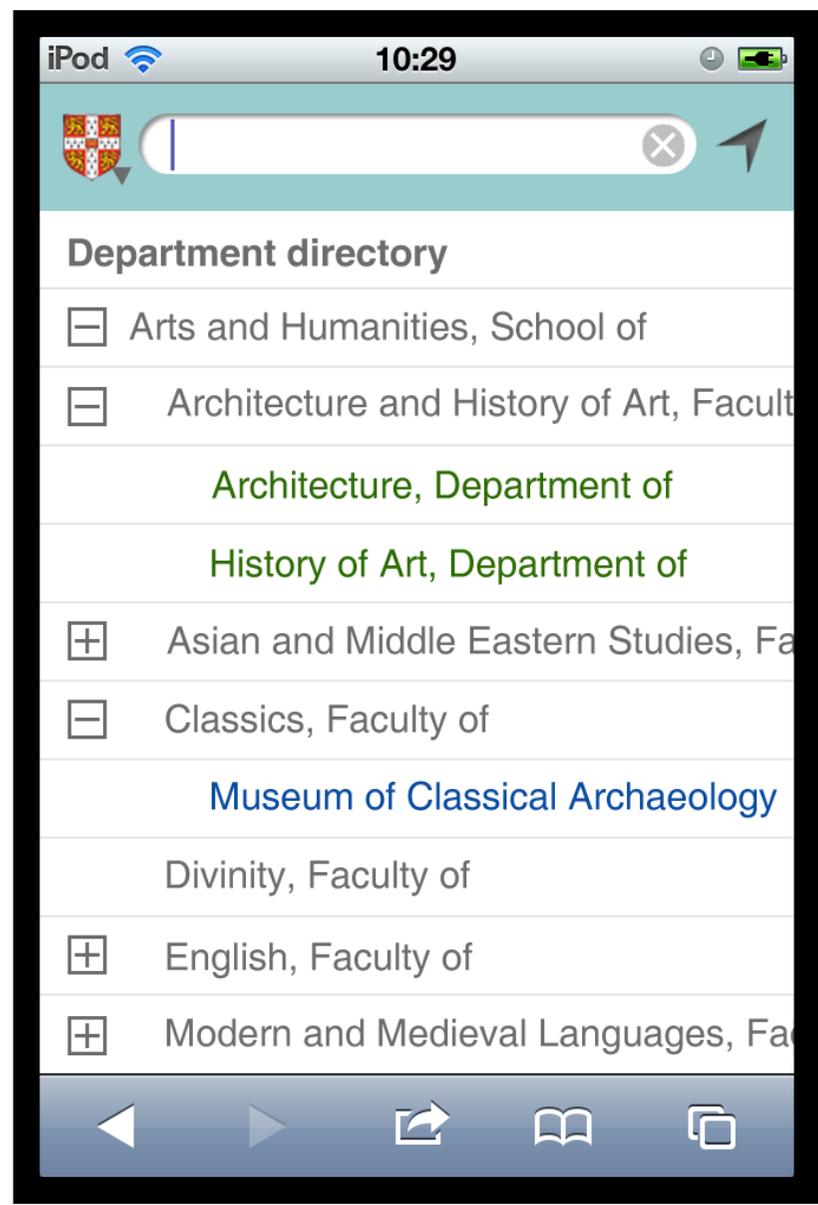
- Swipe up/down to scroll
- Use +/- buttons to reveal/hide subsites where relevant
- Touch alphabet to jump within list
- Touch to go to entry. If the college has subordinate entries, touching the headline entry jumps to main site (not all sites, for which there is an explicit entry)



Swipe up/down to scroll

Use +/- buttons to reveal/hide hierarchy (multi-level).

Touch to go to entry. For higher level entities, this will show the aggregate results (possibly widely distributed on their map). For example, *Faculty of Mathematics* would show three blobs, for *Applied Mathematics and Theoretical Physics*, *Pure Mathematics* and *Mathematical Statistics* and *Statistical Laboratory*. *Faculty of History of Art* would in principle show two blobs (for *Architecture* and *History of Art*), but as these are both in the same building, in fact there will only be one - they both map to the same location.



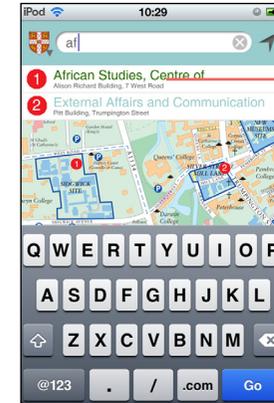
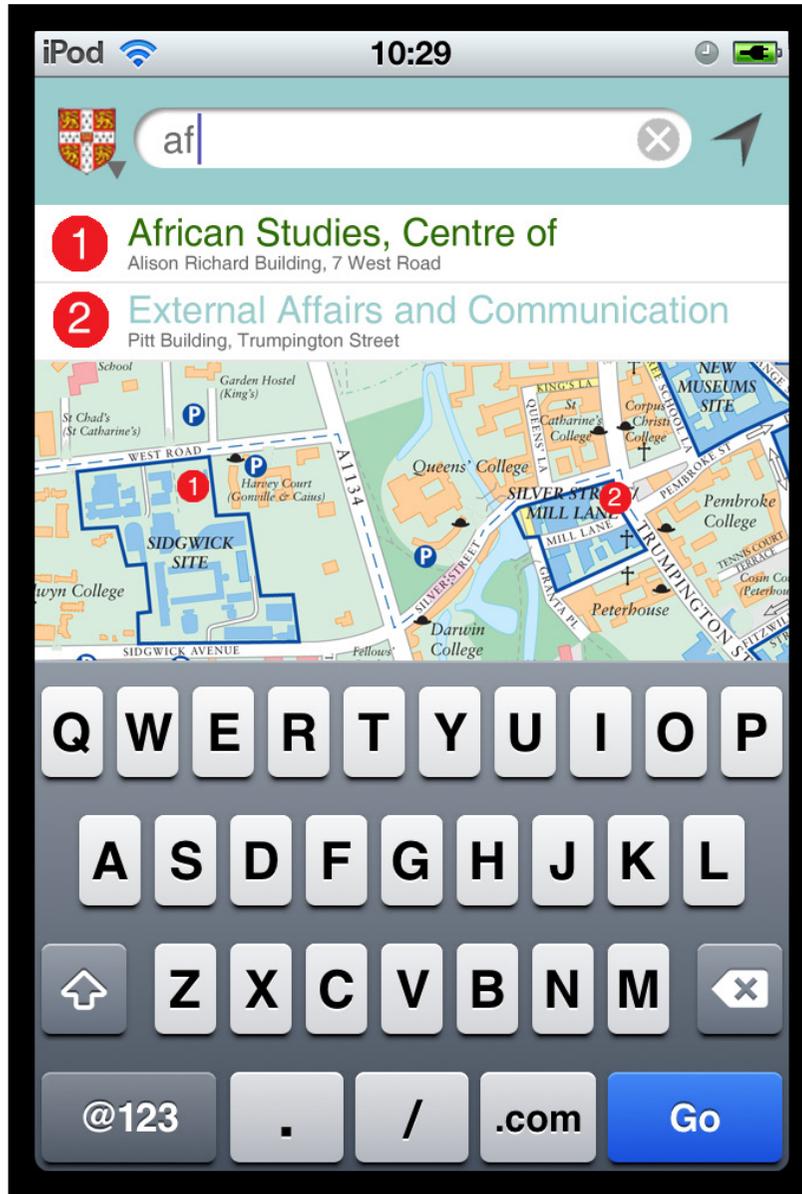
note that an alphabetic jump list isn't appropriate on this page because once expanded the alphabetic order is a jumble

Start typing to search incrementally. Results start to be displayed on second character (first character would produce overwhelming number of results).

Map overlaid with incremental results represented as numbered blobs (red? or in the colour coding?), adjusting position and zoom as necessary.

Note that blobs on map are geographical locations and may refer to more than one occupant. Touch blob (here or elsewhere) to select just that or those occupants.

Touch search result to narrow to just that one result (also dismisses keyboard) - see p9



Results are yielded for case-insensitive matches to word stems, hence 'af' matches 'African' but not 'Safety'.

Results yielded in alphabetic order of substantive part (i.e. 'Department of' isn't sorted under D).

Equivalences and synonyms are also matched, hence typing 'rd' matches 'road'.

Taxonomic words like 'department', 'centre', 'office' and trivial words like 'the', 'of' and 'and' are matched. However, entries matched solely because of these words will be displayed after

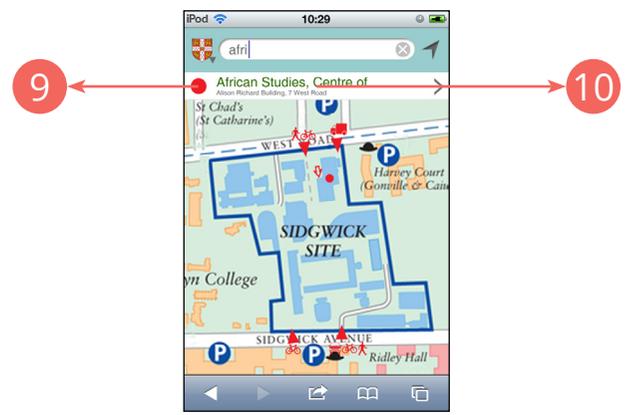
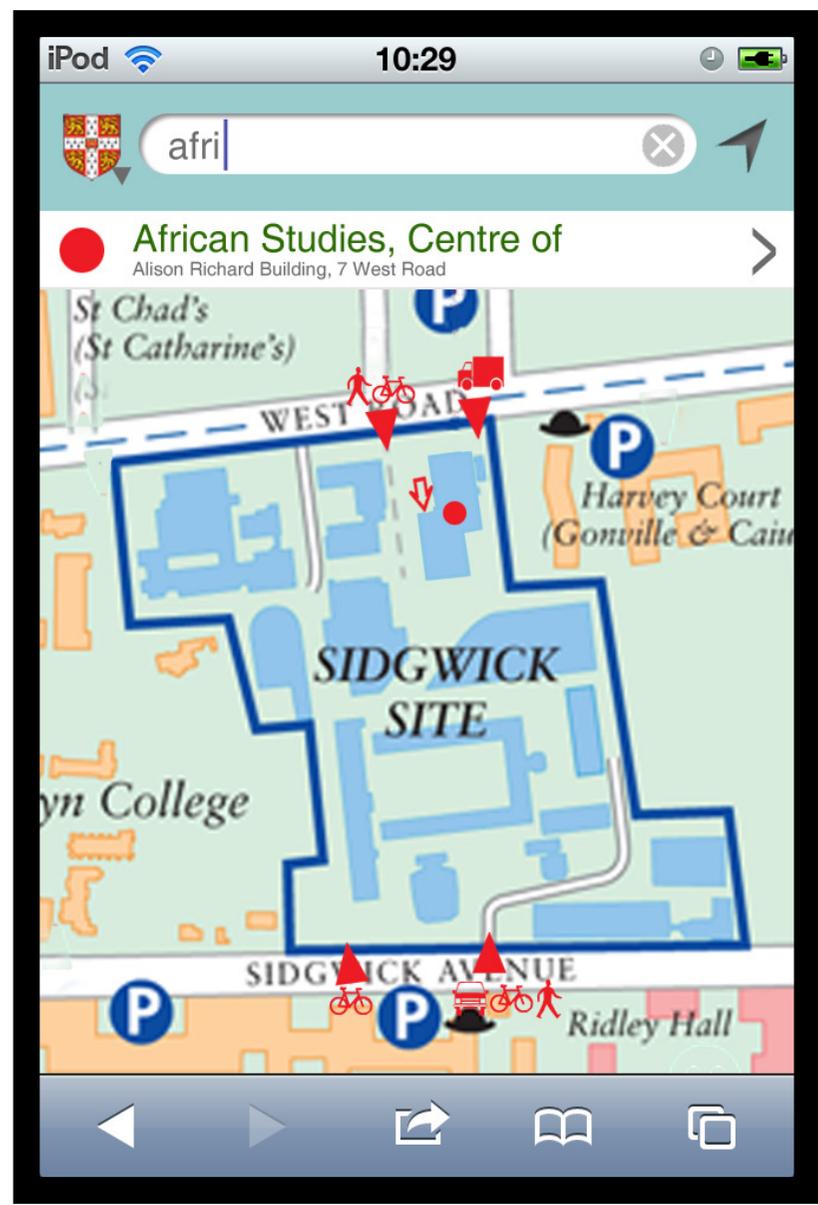
all the more specific matches. This quickly resolves itself with one or two more characters. This means that if someone types 'affairs and comm' we get a proper match, while emphasising less trivial matches when there are some.

Each term in the search string is treated as a separate stem and not required to be in order (so if someone can't remember whether it is *Department of German & Dutch* or *Department of Dutch & German* they still find it if they type the whole thing in the wrong order).

A single result (whether by typing sufficient characters, touching one of multiple results, linking from one of the textual pages, or clicking on a blob respresenting a single entity) displays location plus entrances

Touching red(?) blob in name panel to re-center map

Touch name (or additionally swipe to left in name panel?) to reveal detail



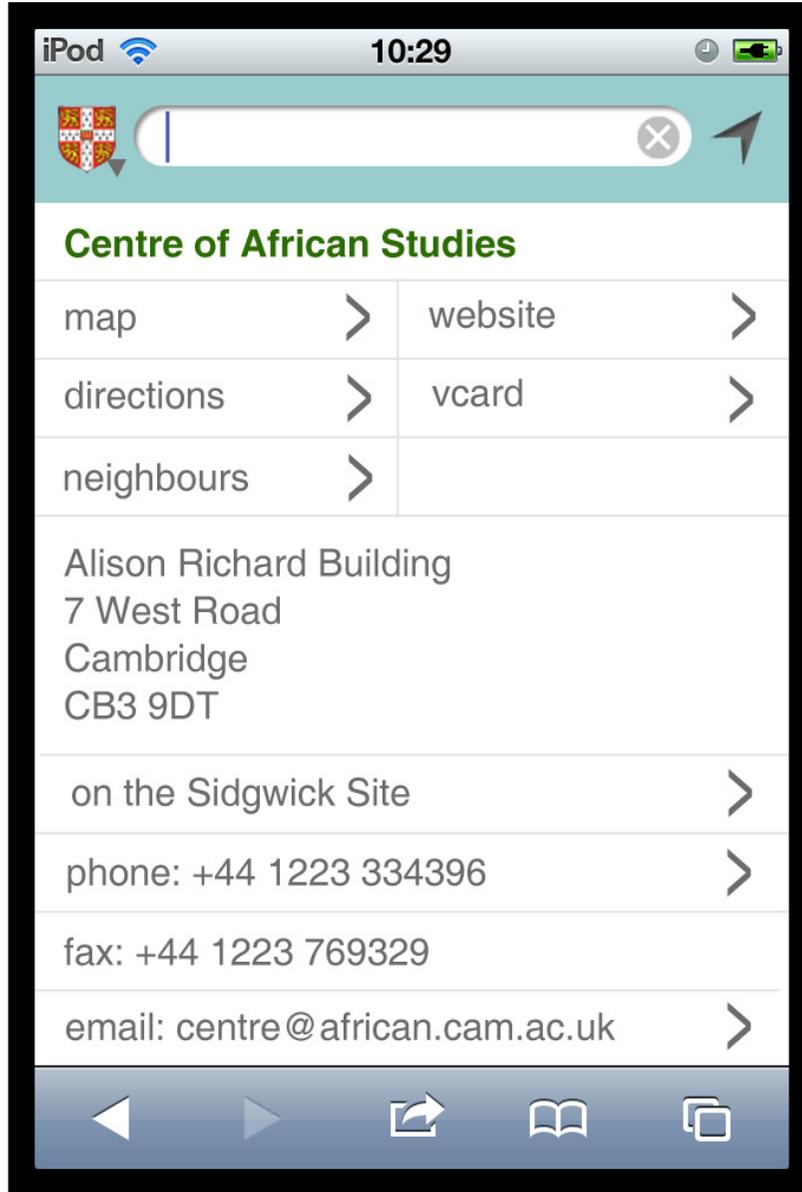
detail contact information

swipe up/down to scroll (see p11)

touch to do relevant operation (on smart phone, calls number for phone, opens email on email address etc)

swipe left or touch headline to return to map (same as map link) (or headline jumps to website?).

directions is an additional mobile function (allowing for spoken or textual directions from key locations such as bus station, and possibly directions within building to reception, depending on departmental participation).

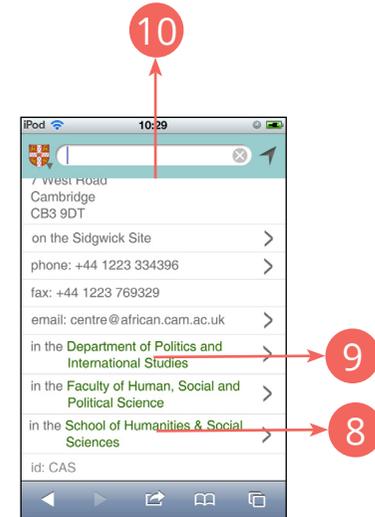
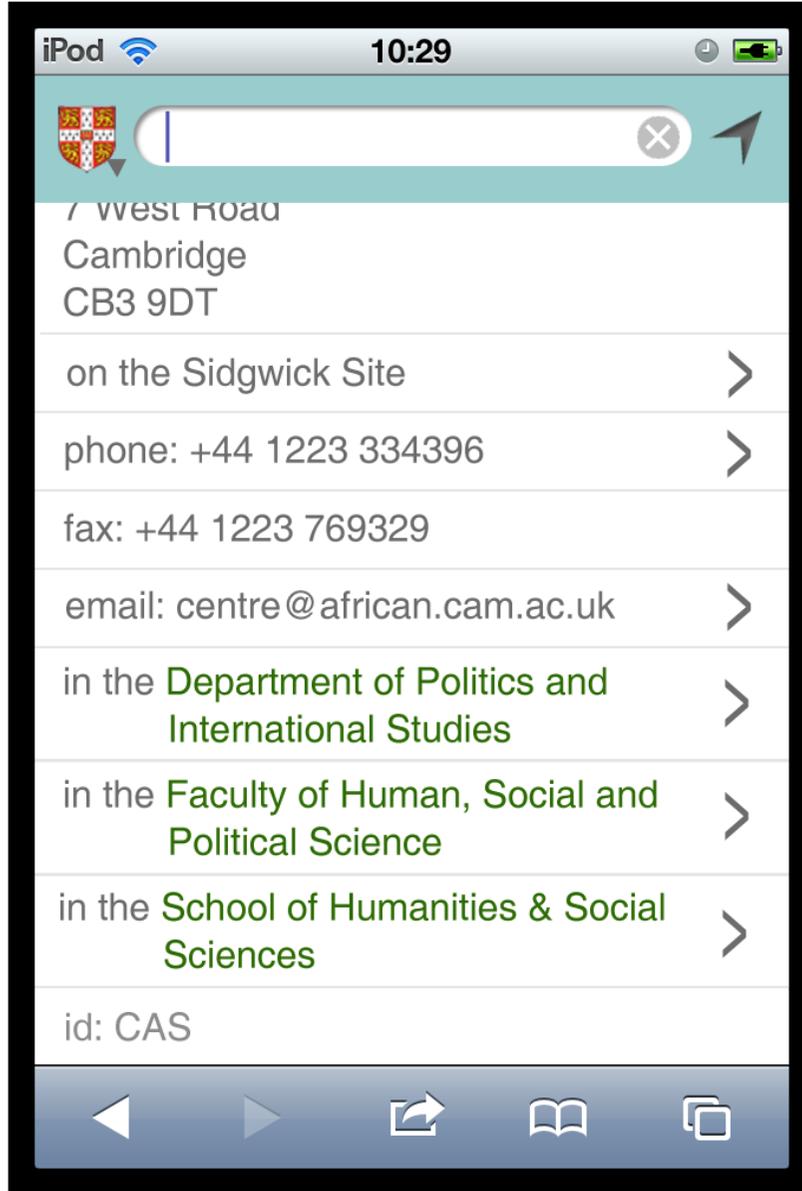


neighbours displays map display as if by searching but for nearby entities

the site link here (not relevant for all entities) same as searching for site

subsidiary information also shown here as appropriate (additional websites, multiple addresses etc)

departmental hierarchy links same as touching entry in departments page (7), selecting single or multiple entries on map as appropriate



note on multiple locations: this page displays multiple addresses where an entity occupies more than one location equally (not in a hierarchical relationship), in which case, going to the map will show two results. You might get to this page from either.

For example Dept of Biochemistry lists two addresses Hopkins Building on Downing site and Sanger Building on Old Addenbrooke's. This page would list both addresses. Touching **map** (etc) will produce two results.

Where the relationship is hierarchical, cross references to subordinates are displayed; where the relationship is more than one level deep, there will be expansion controls.

In summary, the map shows geographical locations for one or more entities, while this detail page displays institutional information.