

*From Architecture Schools to the Studio:
mapping tools architects use in the Open Source age*

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Isole by Julie Polidoro

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Part I: Mapping Tools Surveys

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Premise

- Until last June, The Prince's Foundation run an MA by practice in Sustainable Urbanism in two years whereby students spent one year working with the architects and planners at the Prince's Foundation and the second year in placement with employers varying between Transport for London, architectural practices of varying size, planning departments and real estate developers. It became apparent that especially when working in small practices, the use of Open Source mapping tools was fairly widespread, and that our studio of architects and planners also used them on some specific projects, often in conjunction with purchased maps or maps provided by clients and local authorities.

Teaching and learning creatively with limited resources

- In addition, for the weekly master class practical exercises and for their dissertations, because we are a very tiny institution with no access to the resources one would take for granted in other universities such as DigiMap, our students mapping needs were often satisfied by Open Source providers. Equally, in teaching, good use was made of Open Source mapping tools.

The intrinsic value of Open Source Mapping Tools

- But apart from being free to use, Open Source Mapping Tools also present alternative views that complement traditional cartographic products.

Are we preparing future architects for a work place that might be very different from the privileged world of a large well resourced university, and wealthy architectural practices and local authorities?

- Having worked in the past in the privileged environment of a well resourced state-funded university, I thought it would be useful to take a survey to see if Open Source Mapping Tools, which are becoming increasingly popular, sophisticated and reliable, were as well publicised and supported as other subscription Mapping Tools.

A preliminary sample survey to determine relevance and need for a more rigorous study.

- With this in mind, three distinct surveys were sent to Librarians, lecturers and architects with the scope of determining the correlation between mapping tools available to students in Schools of Architecture and related disciplines, and those used in the workplace by built environment practitioners.

1- Library Survey:

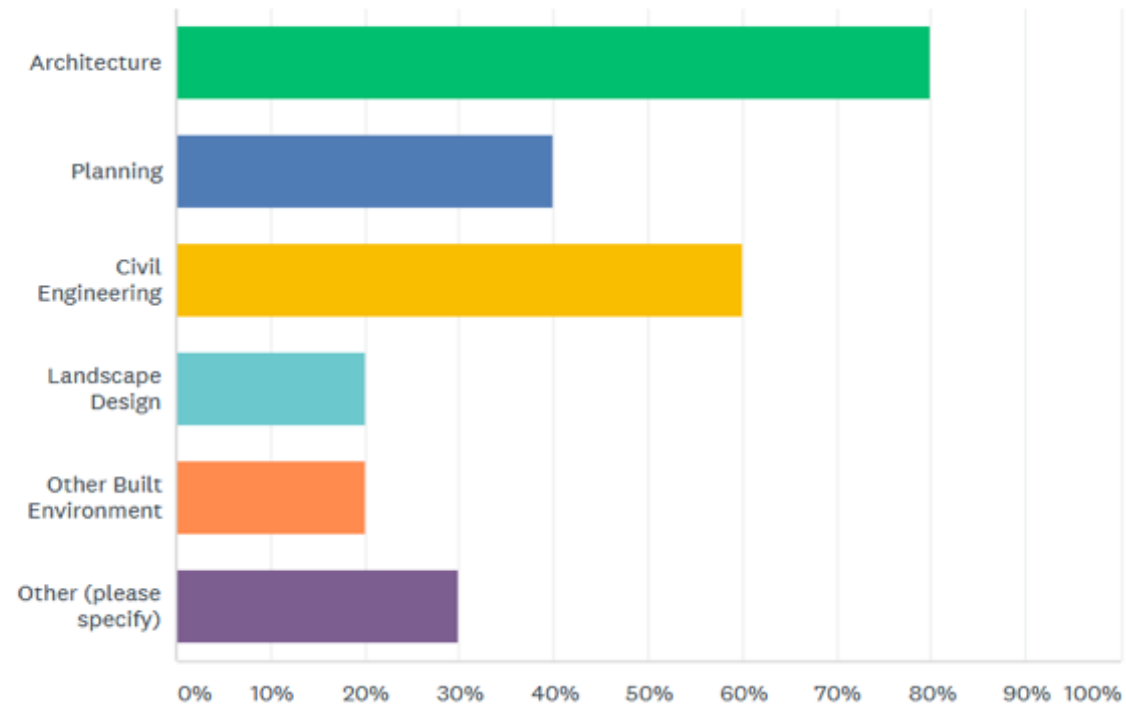
Circulated to ARCLIB Jiscmail List - 147 subscribers, 10 responses

**Architecture & Built Environment
Libraries: Mapping Tools available
to users**

Q1

Which courses are taught at your Institution?

Answered: 10 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Architecture	80.00% 8
▼ Planning	40.00% 4
▼ Civil Engineering	60.00% 6
▼ Landscape Design	20.00% 2
▼ Other Built Environment	20.00% 2
▼ Other (please specify) Responses	30.00% 3

Multidisciplinary design practice

Urban Design

RIBA – we do not teach courses
but run the extended RIBA
studio course via a franchise
with Oxford Brooks University

Q2 – Which Subscription Mapping Tools are available to your users?

- Promap
- EDINA's Digimap Jisc's Geospatial data (on trial)
- Digimap: OS, Geology, Historic, Marine, Environment, Aerial, Global, Society

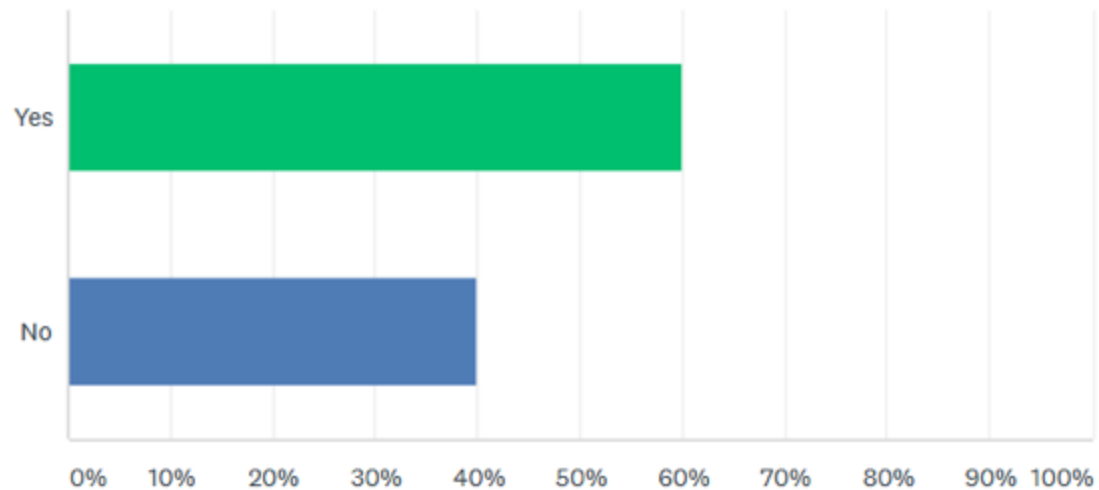
- Digimap
- Digimap, currently using the free trial of Geospatial
- ArcGIS
- EDINA Digimap Jisc Geospatial (free trial)
- RIBA Library does not subscribe to any mapping tools.
- Digimap - full package includes a beta trial of Global Digimap (using public data) We will soon have free access to the Jisc/Airbus Geospatial package now that it is being offered to the UK HE community for free

- Digimap

Q3

Does the library provide training on using subscription Mapping Tools?

Answered: 10 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Yes	60.00%	6
▼ No	40.00%	4
TOTAL		10

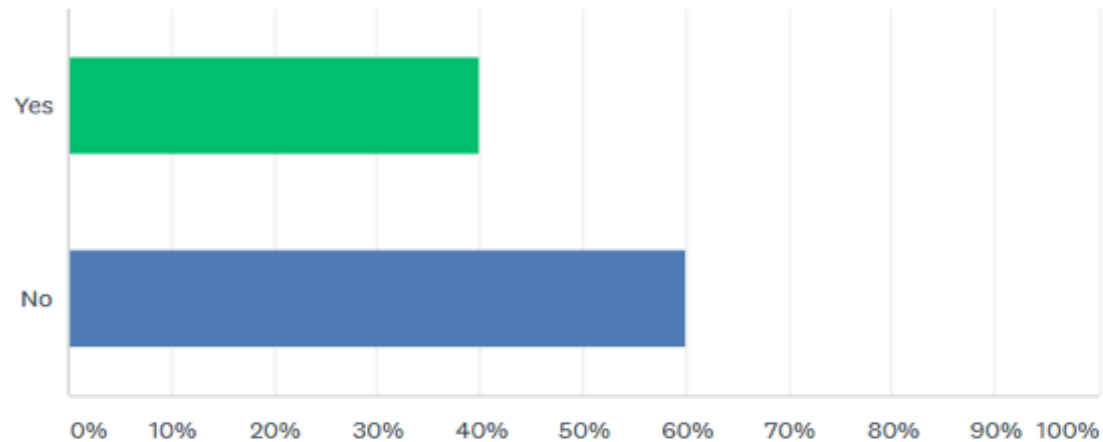
Q4 – If the library does not provide training in the use of Mapping Tools, who does?

- Basically we have nominated users in each office who use the software and place the order, having checked for director approval and a job number (to which to book the cost - sometimes clients do reimburse).
- Library training is basic. Departments ensure students are trained in higher level functionality and how the mapping data translates into GIS or CAD tools.
- GIS Technical Support within the faculty
- There are some individuals within the Faculty who have the knowledge and expertise to help others.
- The course team / academics and technicians
- Taught students are trained by academics and peers in the department. Researchers and staff can attend optional introductory training by the Library

Q5

Are Open Source Mapping Tools listed among online resources for your users?

Answered: 10 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Yes	40.00%	4
▼ No	60.00%	6
TOTAL		10

Q6 – If you answered yes to Q5, please provide a list of Open Source Mapping Tools

- Google Earth
- <https://www1.uwe.ac.uk/library/searchforthingsa-z/maps.aspx>
- Scribble Maps QGIS Google My Maps StoryMap JS
- Magic <https://magic.defra.gov.uk/> Know Your Place <http://maps.bristol.gov.uk/kyp/?edition=banes>

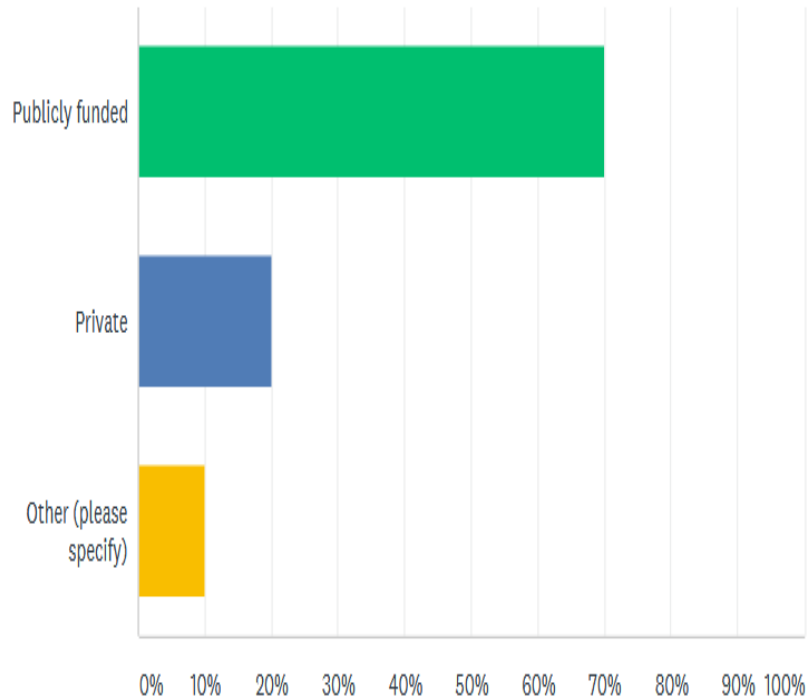
Q7 – For which Open Source Mapping Tools, if any, do you provide training for your users?

- None x 4
- - X 2
- n/a x 1
- All x 1
- None specifically - but 1:1 support on request x 1

Q8

Is your institution publicly funded or private?

Answered: 10 Skipped: 0



- 7 Publicly funded
 - 2 Private
 - 1 Student Finance
- (assume private?)

2 - Survey for Lecturers

Circulated to ARCLIB Jiscmail List (147 subscribers); 1 x ARLIS librarian not on ARCLIB List; INTBAU Chapters: International network of traditional building, architecture and urbanism; various other contacts who have distributed to personal contacts.

- 16 responses -

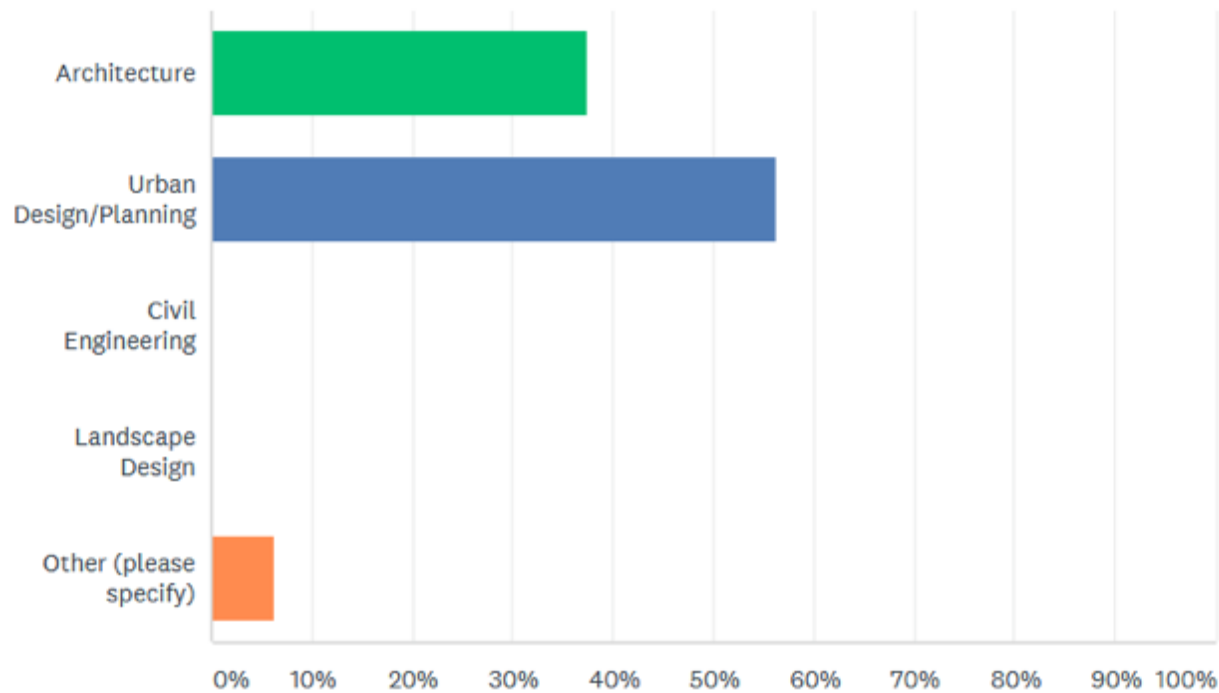
Mapping tools
used in teaching

Q1

6 x architecture - 10 x Urban design/ Planning

Which Built Environment subjects do you teach?

Answered: 16 Skipped: 0

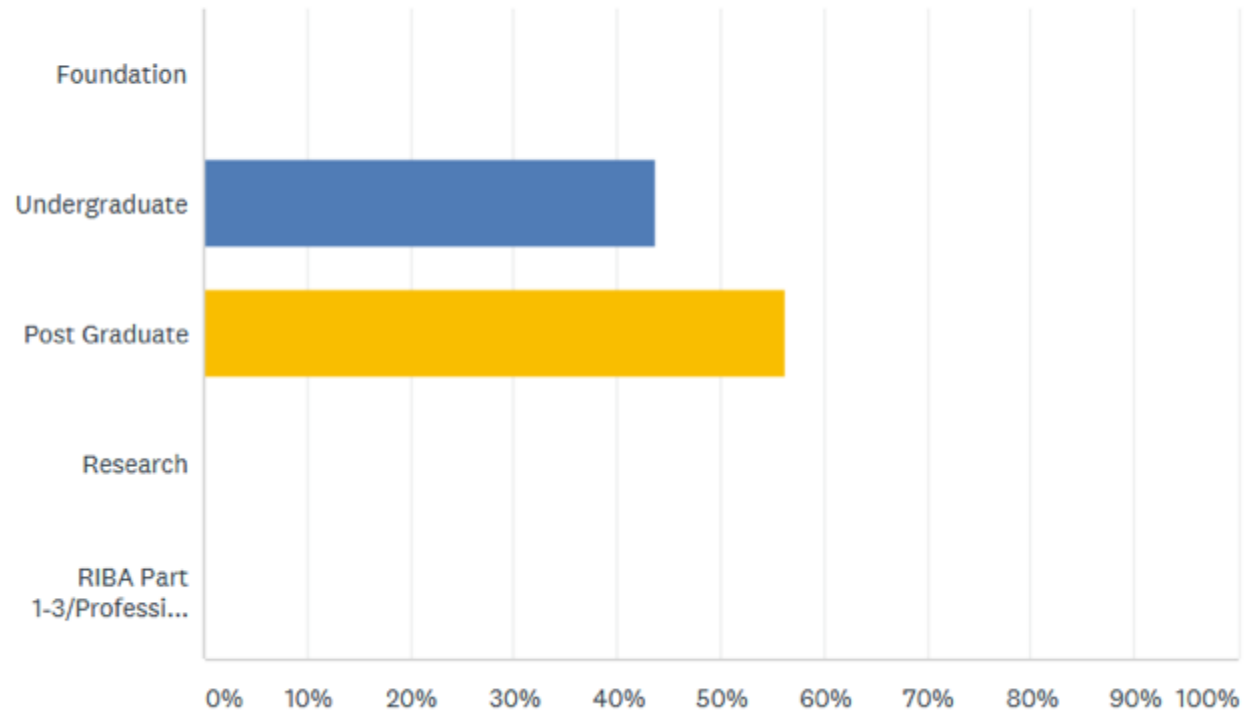


Q2

7 x Undergraduate – 9 x Post Graduate

At which level do you teach?

Answered: 16 Skipped: 0



Q3

Which Mapping Tools your institution subscribes to, do you use in your teaching?

7 x [Digimap](#)

7 x [ArcGIS](#)

3 x GIS

3 x [ESRI](#)

2 x [QGIS](#)

1 x r

1 x Geode

1 x [sketchup](#)

1 x none

Q4

Which Open Source Mapping Tools do you use in your teaching?

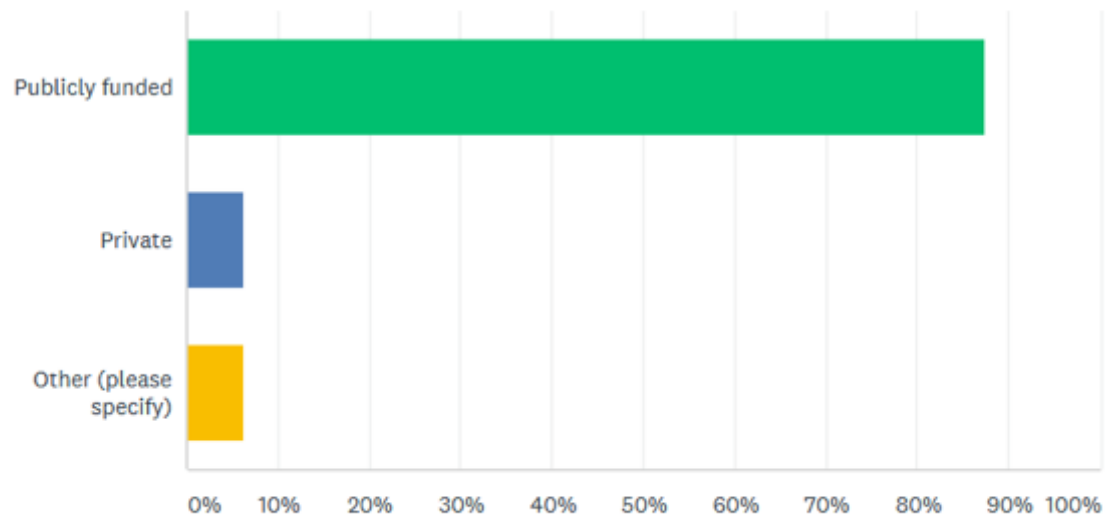
- QGIS
- qqis, geoda, r
- None
- I tried QGIS one year
- A little QGIS
- None
- None
- Google maps, open street maps
- Google Pro
- Google maps
- None
- Openstreetmap
- google maps, google earth
- google & bing

Q5

Is your institution publicly funded or private?
14 publicly funded, 1 private, 1 works for both

Is your Institution publicly funded or private?

Answered: 16 Skipped: 0



3 - Studio Survey

Circulated to the [INTBAU](#) network; 12 architects in our studio and faculty; alumni network; 4 work connected architects
- 12 responses -

Mapping Tools Used in the Studio

Q1

Which Open Source Digital Mapping Tools do you use in your workplace?

- **Nothing**
 - None really in the workplace apart from Google maps, Digimaps was used in University. A very good tool and skill to have
 - **None**
 - Google earth
 - **None**
 - MapServe
 - **None**
 - **none**
 - Open Source
 - Google Earth Pro
 - Google Maps, National library of Scotland, ArcGis
 - Google Earth, Apple Maps, Bing Maps
- = 5 x none
- = 5 x Google Maps/Earth

Q2

Which pay-for mapping services and GIS do you use at work?

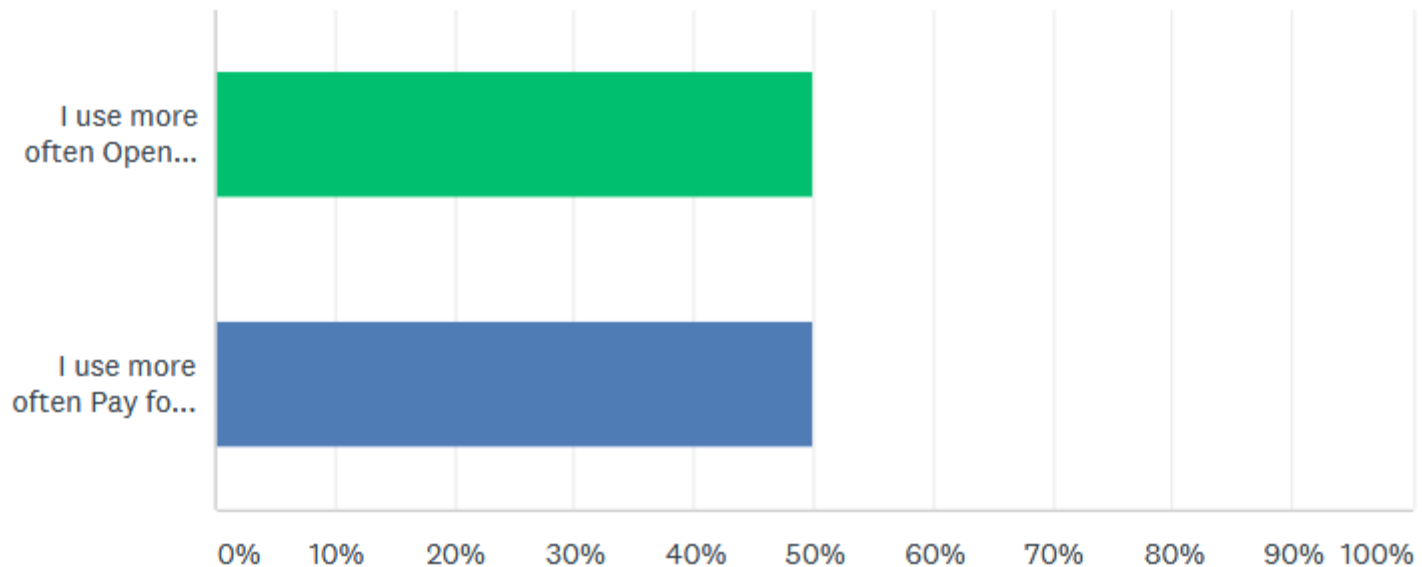
- Nothing
- None
- OS
- Promap;
Zmapping.com;
Emapsite
(occasionally for
speedy 3models)
- Stanfords Ordnance
Survey
- EMap Site
- none,
- N/A
- Emapsite
- CAD services
depending on the
projects (for example
OS VectorMap Local)

Q3

6 x Open Source; 6 x paid

Do you use more often OPEN SOURCE or PAY FOR mapping tools?

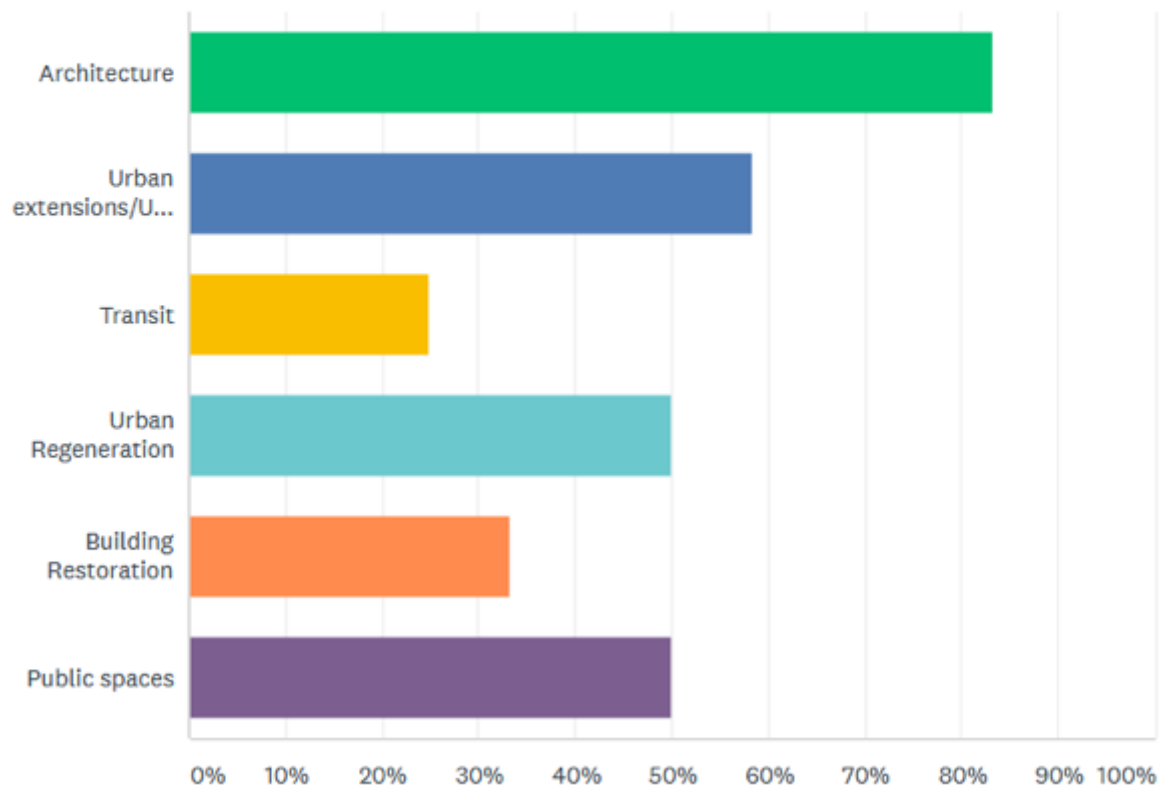
Answered: 12 Skipped: 0



Q4

Please indicate the activities you use digital mapping tools and GIS for. You can select any number of options.

Answered: 12 Skipped: 0



Responses by numbers:

- **10 x Architecture**
- **7 x Urban design/Urban development**
- **3 x Transit**
- **6 x Urban Regeneration**
- **4 x Building Restoration**
- **6 x Public Spaces**

Q5

Where did you study Architecture/ Planning?

- Politecnico Milano - Bovisa
- Manchester School of Architecture
- University of Nottingham
- I am not an architect but I do coordinate the mapping around the practice
- University of Bath, Technische Universiteit Delft, University of Westminster
- Bath and London Metropolitan
- Norway
- Harvard University GSD and University of Havana
- Bath University and Oxford Brooks
- University of Adelaide
- University of Notre Dame Harvard University Graduate School of Design
- Polytechnic University of Bari and The Prince's Foundation for building Community

Q6

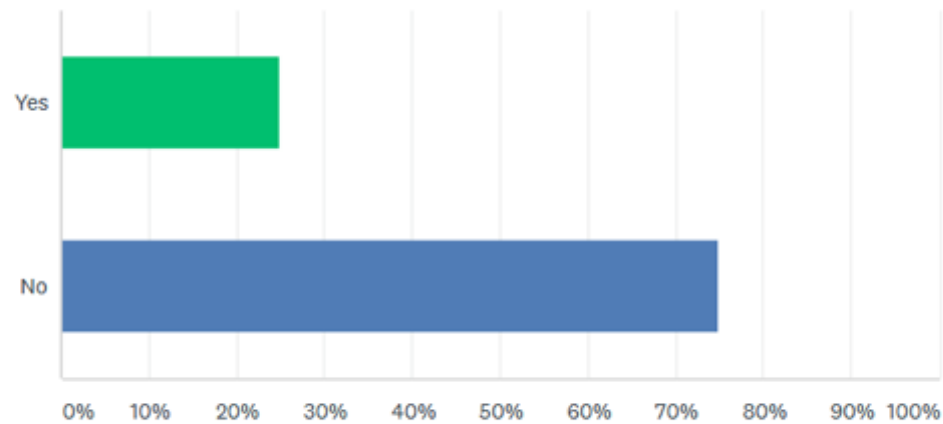
Which Digital Mapping Tools and GIS did you use at your University?

- SIT
- Digimaps
- Digimaps
- n/a
- Digimap
- ProMap, DigiMap (Edina)
- ProMap
- Google maps, mostly. We have no education in how to find and use correct map-information at my university of Architecture
- GIS
- N/A - they didn't exist then
- Google Maps
- Google Earth, Bing Maps, ArcGis, National Library of Scotland website

Q7

Did you receive induction and support on how to use digital mapping tools and GIS from the library?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Yes	25.00% 3
▼ No	75.00% 9
TOTAL	12

Q8

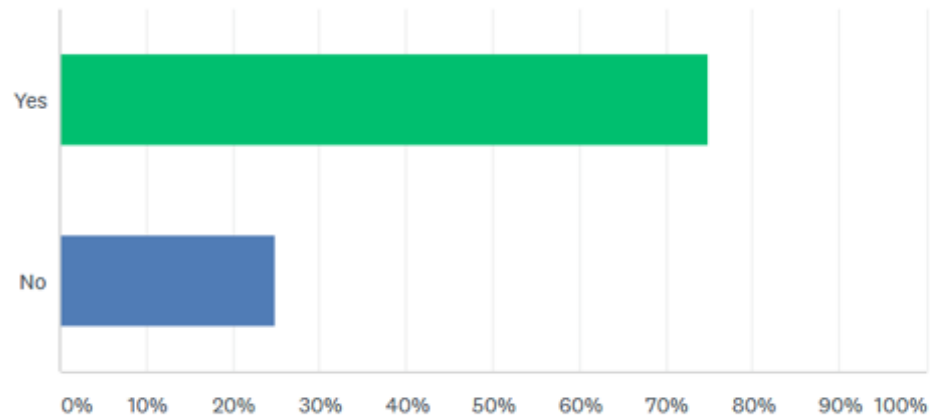
If you responded NO to the above, who provided you with instruction and support in the use of Digital Mapping Tools?

- An introductory session was ran by masters students in first street to understand the basics of Digimap. Over time like with anything, you teach yourself.
- n/a
- n/a Learnt in the workplace
- Digimap's own online guide
- CAD tutorials at university and at my previous workplace one member of staff was taught by the provider itself (ProMap) and relayed the guidance to everyone else.
- At work - another colleague in the team gave me the login details and an initial direction as to how to use it. At university - other colleagues and also I seem to remember initial guidance from a studio tutor or online tutorials
- If you want to get access to correct and updated information in Norway, it is solely up to the individual student to find and use this information in an accurate way.
- I responded yes
- N/A
- colleagues, self-taught
- Tutors
- Q9

Q9

Are the mapping tools you learned to use at university useful in the workplace?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES
Yes	75.00% 9
No	25.00% 3
Total Respondents: 12	

Q10

Are there any Mapping Tools you would have preferred to learn how to use?

- -
- -
- n/a
- n/a
- Lidar!
- I'm afraid it was too long ago to recall!
- Not that I can think of at the moment! It would be good to have better aerial mapping access particularly for rural areas, where we often have project
- I would like to know what GIS is and how to use it. In my architecture School I see diploma?masterstudents, including myself, relying on very inaccurate information like screenshots from google earth and norgeskart.no as a basis for their projects. PS: Please not that answers to question 3 and 4 are only answered to be able to submit the survey, as you failed to supply any alternative for those of us who use mapping tools
- I responded YES
- Web-based GIS
- always interested in learning more
-
- Integrated use of GIS and BIM

Conclusions

This project generated much dialogue, ideas and suggestions

- Revise Mapping Tools instruction for RIBA Part 1-3 - perhaps one of the future ARCLIB INFO LIT sessions?
- More dialogue with practices
- More Open Source
- Look at what Libraries provide and measure against perception
- A global, more scientific and comprehensive and collaborative study with the UK, US, ITALY, EUROPE and further afield, most crucially regions in the world that are less represented in and can most benefit from Open Source Mapping Tools.