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Digimap®

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MUD-Lab Toolkit

Digimap: Importing our Base-maps

This is a handbook about Digimap, our main base-maps source. All the maps we are going to use are downloaded from this data source. This handbook will introduce you to the website and will give you instructions on how to download a base map from Digimap and use it in your design process.

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'Manchester Urban Design LAB (2020) '***MUD-Lab Toolkit: Digimap***' accessible at www.seed.manchester.ac.uk/mudlab

Disclaimer: This handbook does not replace the practical session

Introduction

In this handout you will learn how to add variables to your analytical map. There are two ways to A base-map is simply the background settings for your work. Its aim is to provide the necessary details that you need in your analysis/design stage. Most plans, diagrams and site analysis maps that you would be doing would have been derived originally from a base-map. It provides the background of the work you are doing (e.g. locating the site; doing contextual appraisal, opportunities and constrains; showing transport or pedestrians movement...etc.), and you will need to modify it according to the message you are conveying. For this reason, you need to think carefully about the shape and the content of you basemap so it can fit the stage purpose.

Base-maps are usually derived from one of two sources:

- Aerial photography (such as from Google Earth)
- Or ordinance survey (such as Digimap)

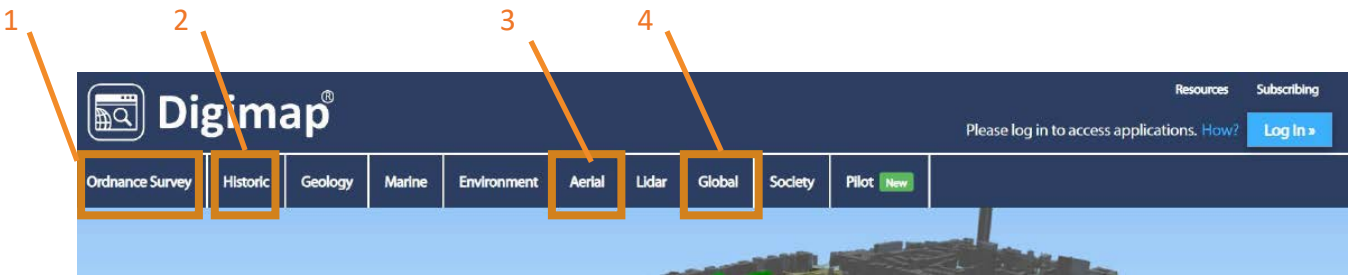
In both cases, your base-map should fulfil the requirements to convey an informative message: 1- a sensible scale and 2-clarity. In this handout we will show you how to obtain a base map from Digimap which is the preferred method. However, in case you do not have access to Digimap or other ordinance survey services, Google Earth can be used effectively. This will be introduced in Handout number (2 Base mapping: Google Earth).

Ordinance survey is the most popular source for base mapping. Digimap is a collection of EDINA services, which enables the user to access maps and geospatial data of Great Britain.
It can provide you with base-maps in a wide range of digital formats (e.g. PDF or a .dwg CAD file) and many of these formats are compatible vector formats. This makes modifying the maps with vector illustration software such as CAD and Illustrator much easier and more efficient.

In order to use Digimap you will need to register using your University email address. Simply go to Edina website: https://digimap.edina.ac.uk/ and the website will lead you to the registration form when you try to login. You should be able to register and get access within minutes.

B Digimap ROAMs

Digimap is more than simply a map source. It is a massive source of different kinds of geo spatial data including 3D data, topography, socio-economics...etc. However we are mainly going to mainly use 4 areas in digimap: Ordinance Survey, Historic, Aerial and Global roams

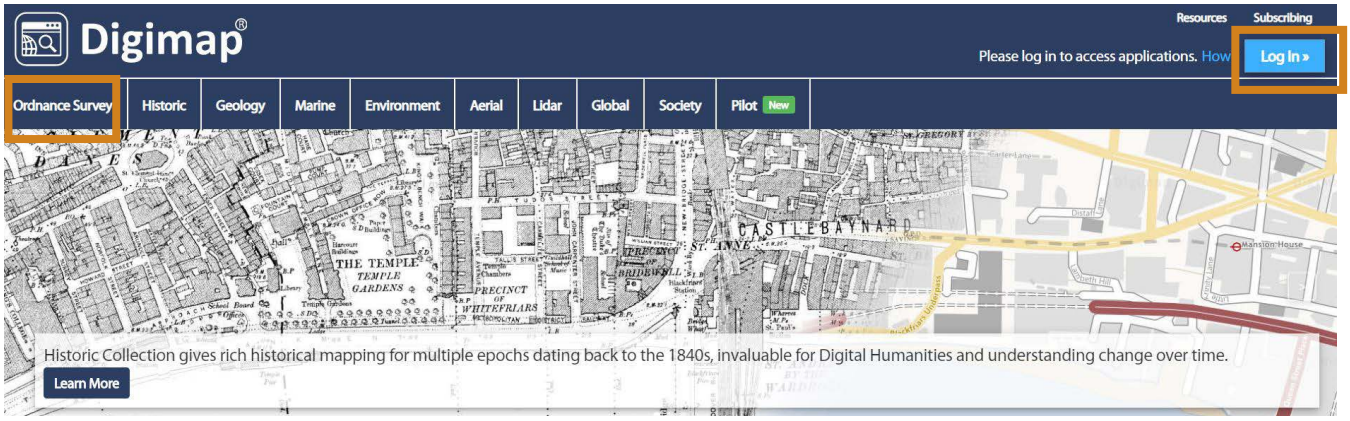


1- Ordinance Survey: To download our usual current base-maps (UK based sites)
2- Historic: To download historic maps of the UK, particularly useful for historical analysis
3- Aerial: To download high quality photographic maps (higher quality than Google Earth)
4- Global: to download maps from sites outside the UK

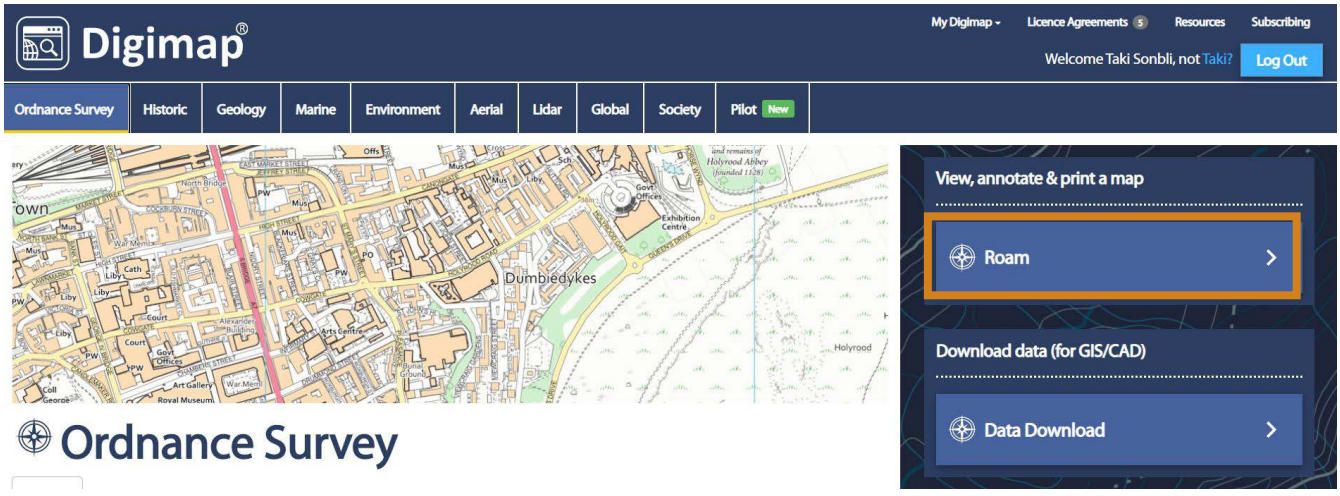
In this handbook we will focus on the Ordinance Survey Roam which is the key map source. The rest of the roams are straight forward.

Getting access to Ordinance Survey ROAM

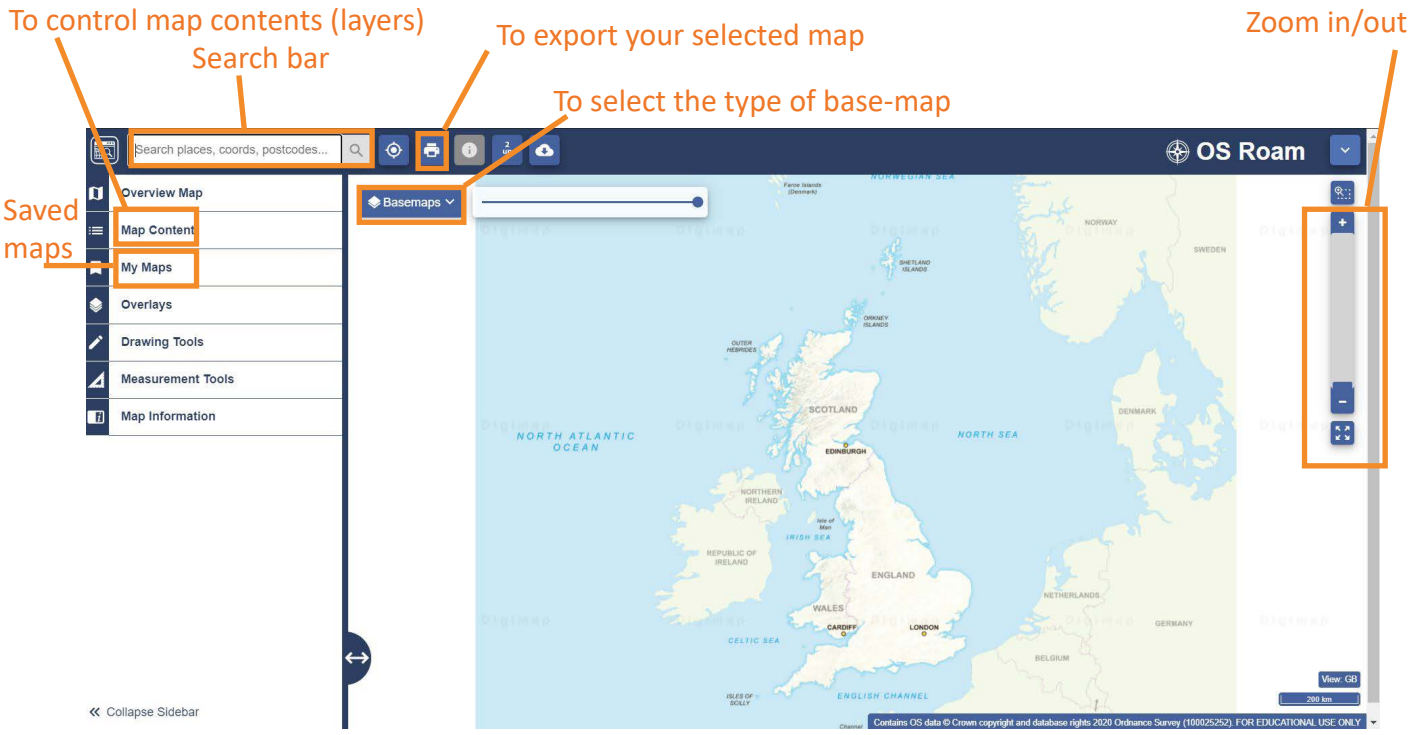
1. Go to https://digimap.edina.ac.uk/.
2. Login, select University of Manchester, and then enter your Username and Password.
3. On the Digimap Home page - Click on the Ordnance Survey Collection tab.
4. On the Ordnance Survey page - Click on Roam.
5. On the Copyright Notice page – select agree.



6. Click on Roam

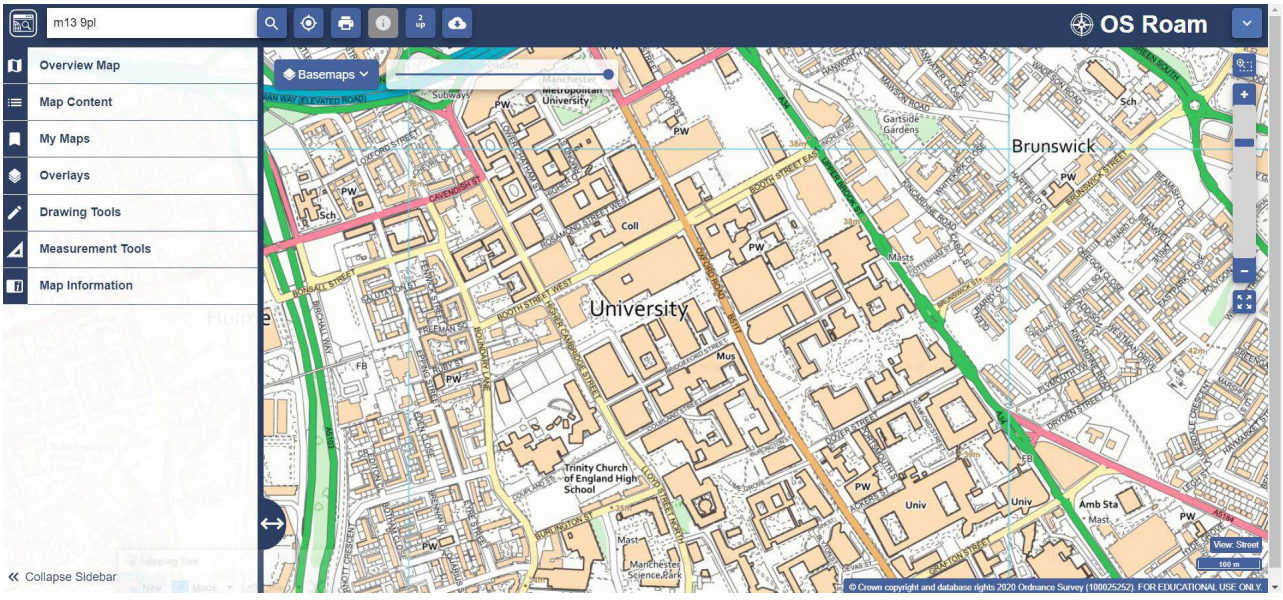


You should see the following screen. This is Digimap main space.



6. On the left, you have the tasks you can perform in the map such as modifying the map content. On the upper right corner, you have the map tools and zoom (in and out) functions.

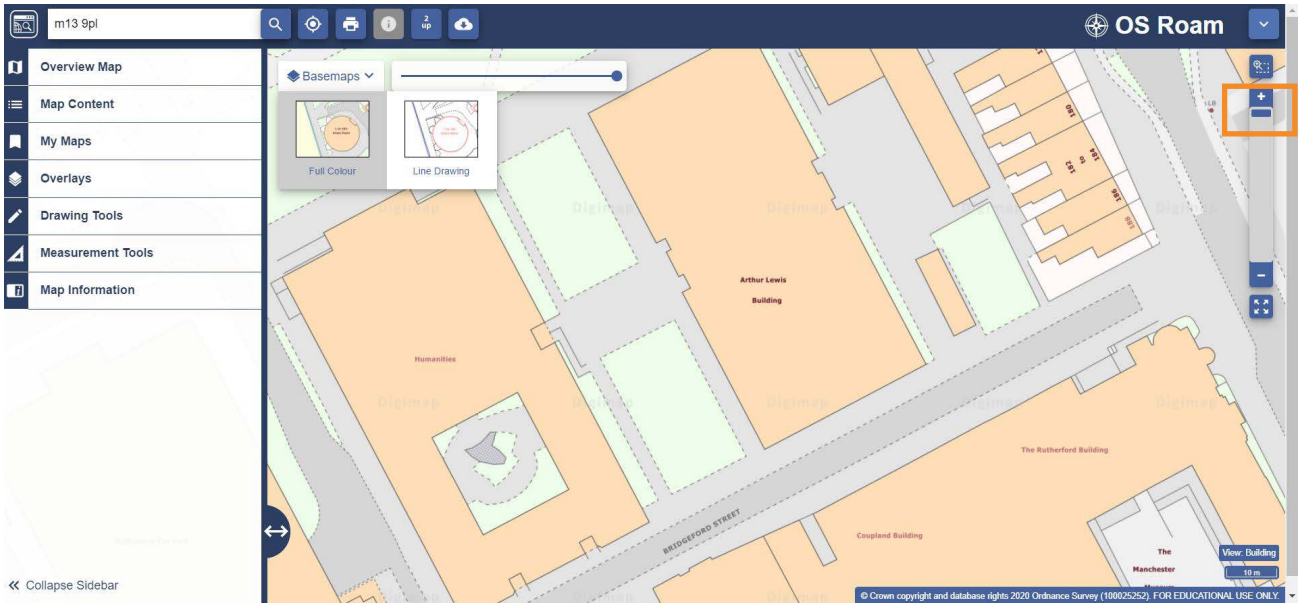
7. On the top left corner, click in the search bar and type your postcode (M13 9PL, the University postcode in this example). You should end up with this:



This image is by default a **Raster map** of the area. A Raster map is simply an image made of pixels. It might be useful for visualization purposes, but it cannot be modified by CAD or Adobe Illustrator. To create an editable map you will need to obtain a **Vector** map which is object based, rather than pixels based.

8. Click the Basemap tab on the right, and select Vector Map Local. The new map on the screen is now a Vector map. Unlike the pixel based map, this map consists of objects (buildings, streets...etc.) that can be modified with any Vector compatible software such as CAD, GIS or Illustrator.

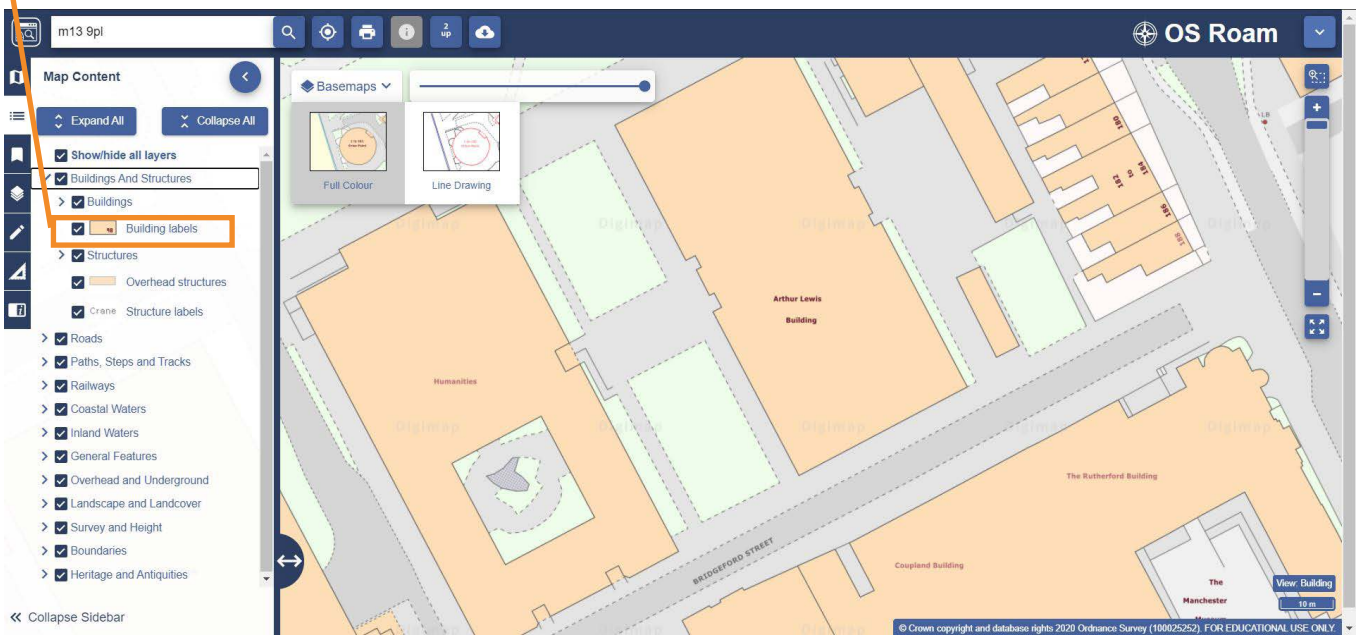
9- **Zoom all the way in** using the mouse wheel. This is what you need to download for your site and neighbourhood scale base-maps. When you do this, the base-map is automatically changed to vector if you did not do step 8.



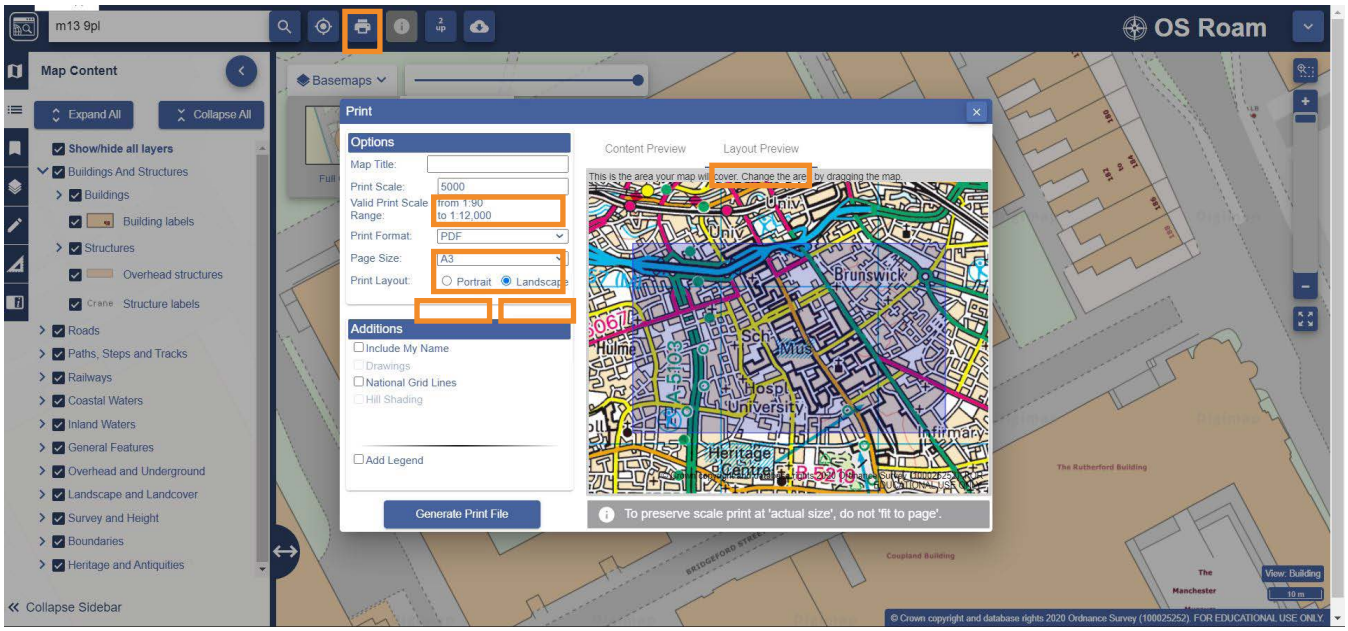
10. The map you see might be full of unnecessary details that you need to delete. This is essential to make the map lighter and smaller in size. In order to simplify the map, you will need to use the Map Contents bar to turn off all elements you do not need. **You will only be able to do this if you are zoomed in enough**. In the Map Content bar scroll down to see the different data this map contains. Zoom in and out for a different view, notice that the map content changes. Click on the check sign to customize your map by hiding the unwanted data (for examples buildings labels or road lines). This will only be available if the Vector Base-map selected or if you are zoomed as explained in the previous steps.

9. Go to each layer (i.e. Buildings, Roads, Railways...etc.) and turn off all "labels"

Turn labels off in all layers



10. Download your map from the Printer symbol. Select your scale (1:5000 at neighbourhood, 1:1000 at site scale), select A3 size, select PDF (i.e. vector) and select either landscape or portrait layout depending on your site shape. Click on layout Preview and make sure that your site is located at the middle of the blue selection (which is your A3 boundary). Click on generate printed file.

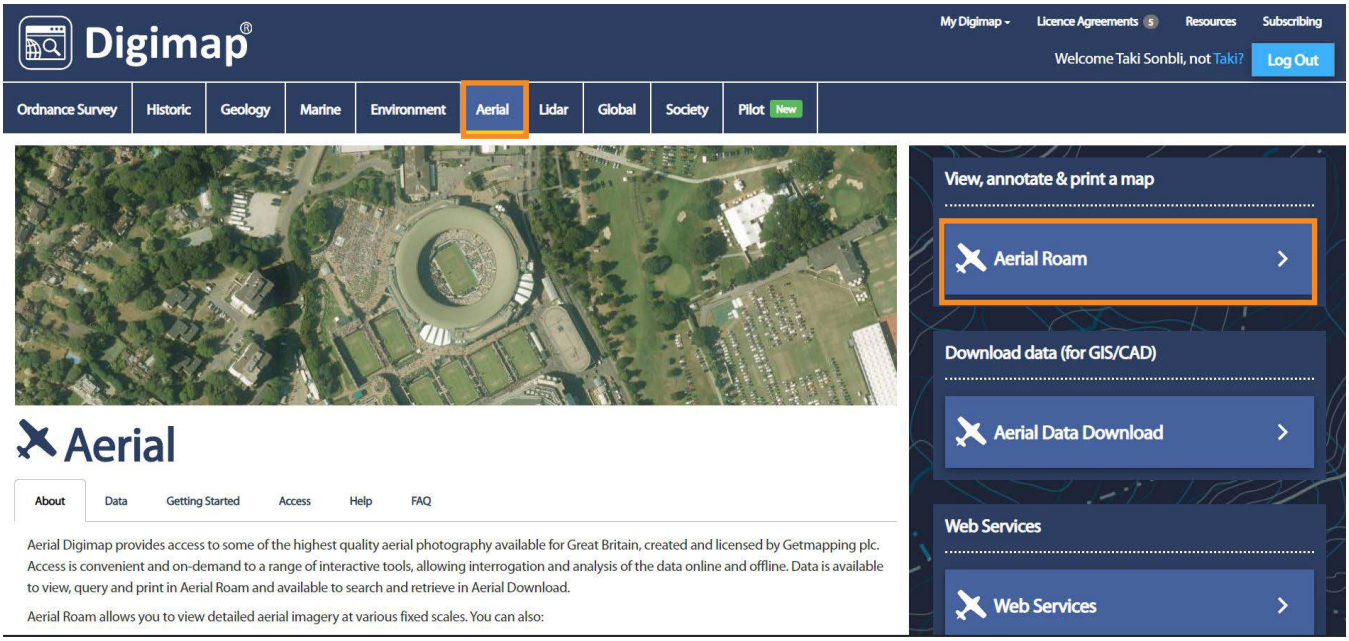


The result is a vector PDF file that contains your A3 base-map. This is ready to be used in Adobe Illustrator.

Downloading Aerial Views

An aerial view is a realistic image of the area under study that can be very informative to understand the nature of the landscape. Use this type of maps carefully as they tend to be complex. Please refer to the Google Earth handout to learn how to present the map graphically.

Digimap Aerial Views are of a higher quality than Goggle Earth images, so as long as you have access to Digimap we are expecting you to use it to source your maps.

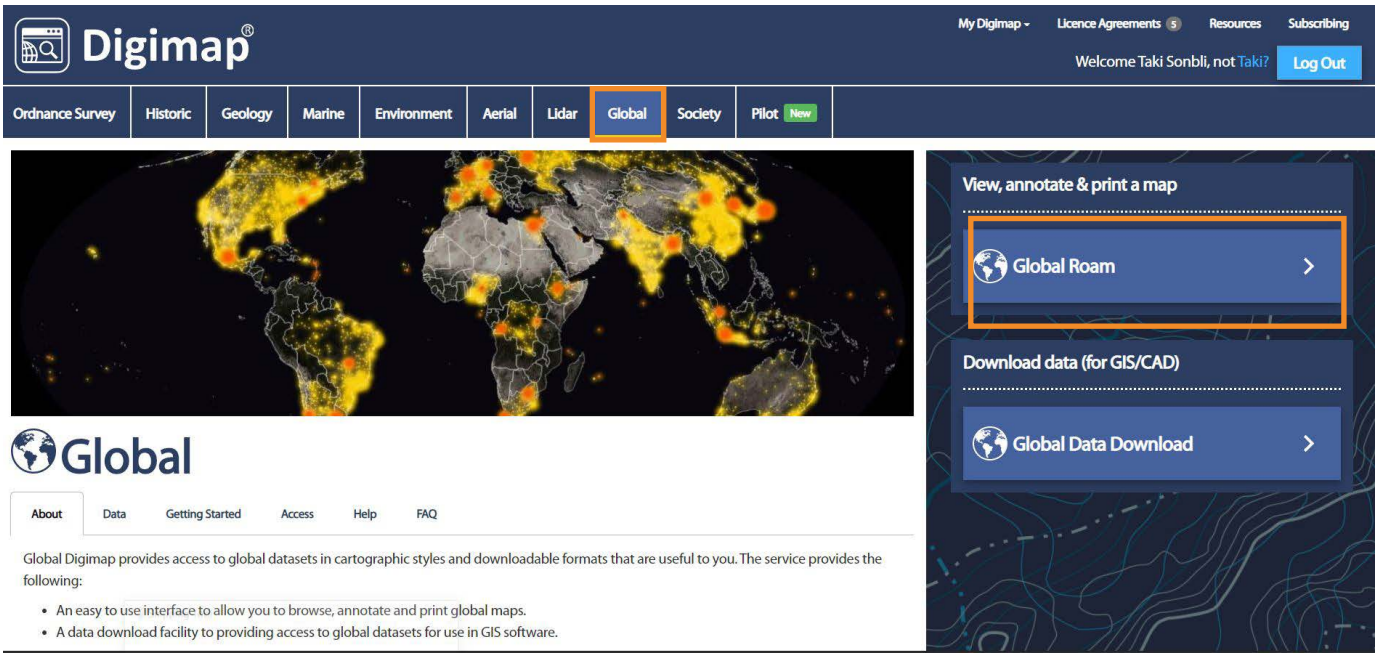


The first time you use the Aerial View Roam you will be asked to read and agree the terms and conditions. Please check the box to confirm that you did so, and select Academic from the drop window as below.

Aerial Roam layout is of similar to that in Ordinance Survey. So follow the same steps to download maps.

Downloading international maps from Digimap Global Roam

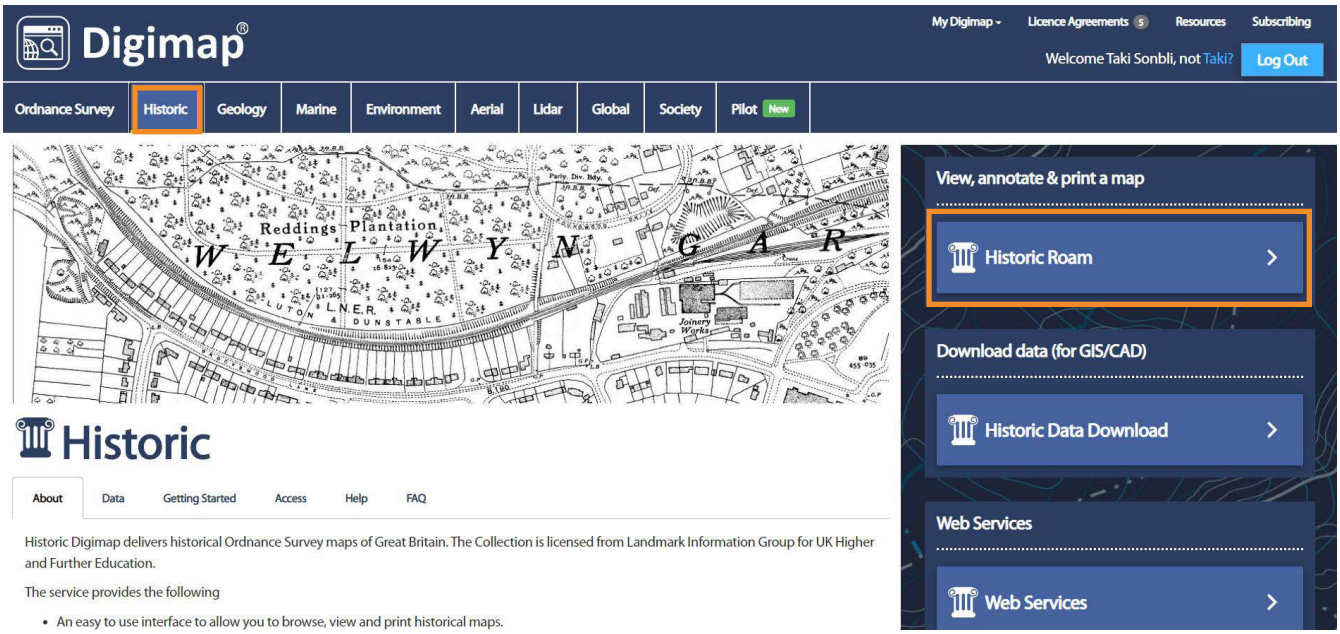
You can download vector maps for international locations from Digimap. This is particularly useful for your Design Dissertations or International Urban Design assignments. Again follow the same steps to access the Global Roam and download the maps. Unfortunately these maps are not fully accurate and full, however they are more useful than Google Earth as they are vectors and can be edited.



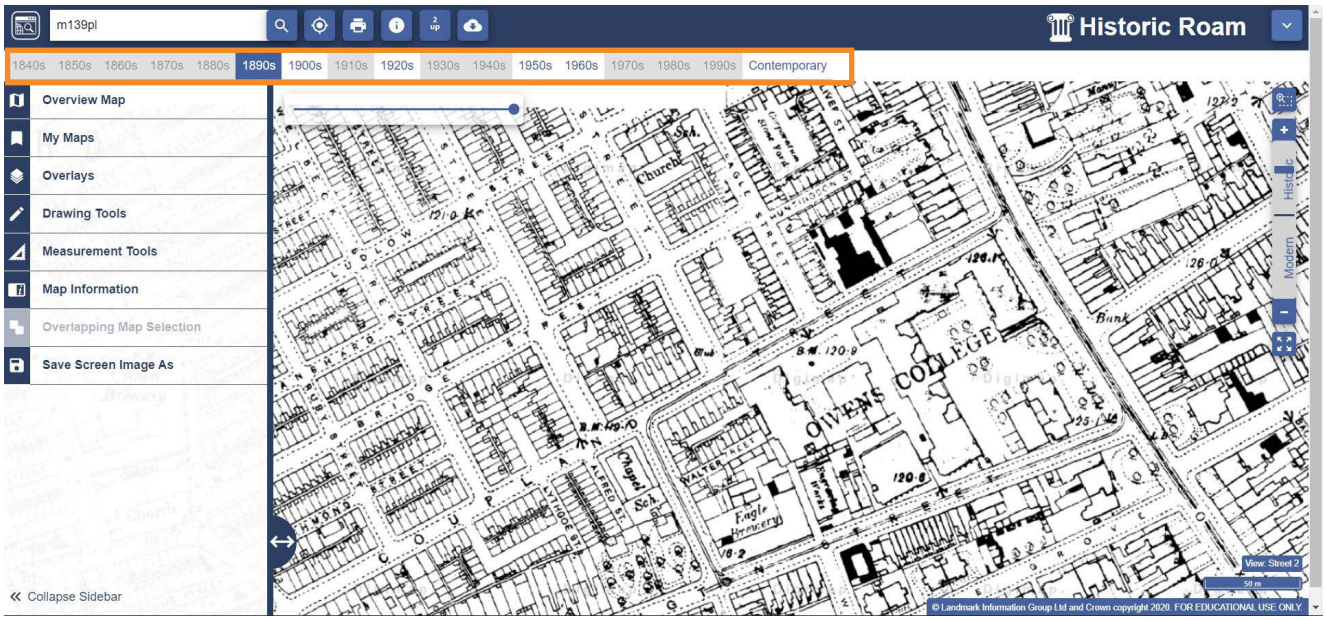
Downloading historical maps from Digimap

You need to register in Digimap Ancient Roam in order to get access to the Historic maps. Please refer to Digimap handout to learn how to register.

1-Go to Digimap website and select Historic and then click on Historic Roam

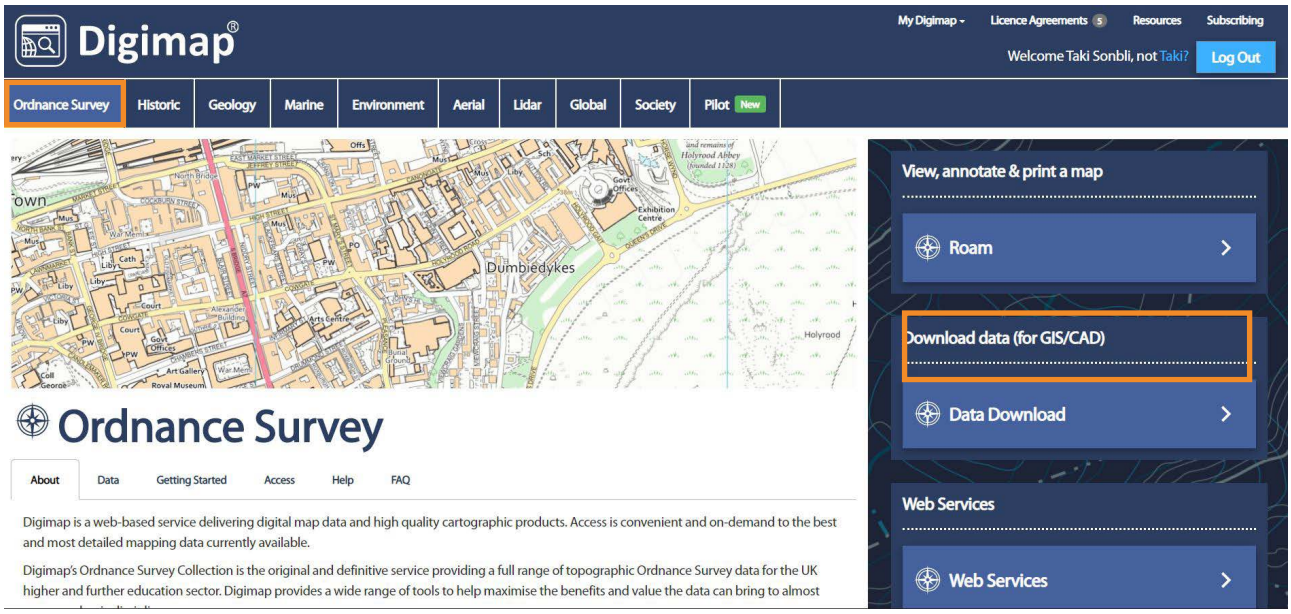


2- Put a postcode in the search bar, and use the Time-line bar to change the date of the map. Notice that not all dates available for certain scales, try to zoom in/out in this case and see if the map changes. Please note that these are scanned images and so they are not Vectors.



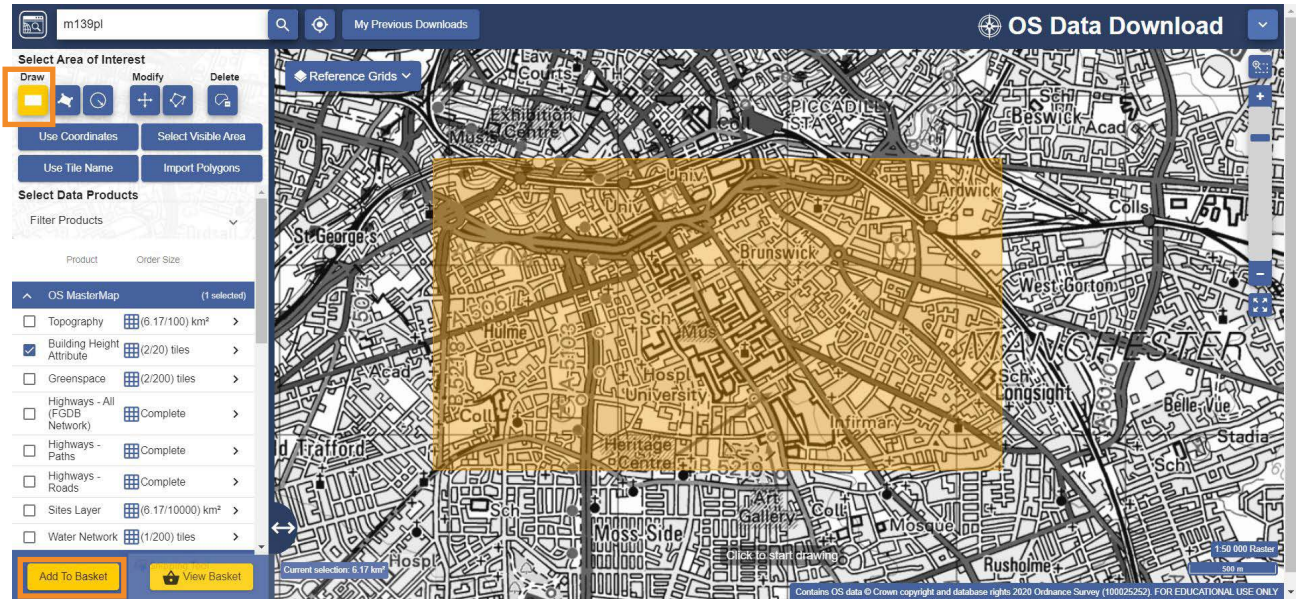
Downloading data from Digimap (Advanced step)

You can download spatial data such as contour lines, building heights and CAD drawings from Ordinance Survey / Data download. These are more advanced techniques that will be explored at the end of the year as you need to use AutoCAD and SketchUP to see the data downloaded. However below is a quick overview on how to download some data from Digimap.

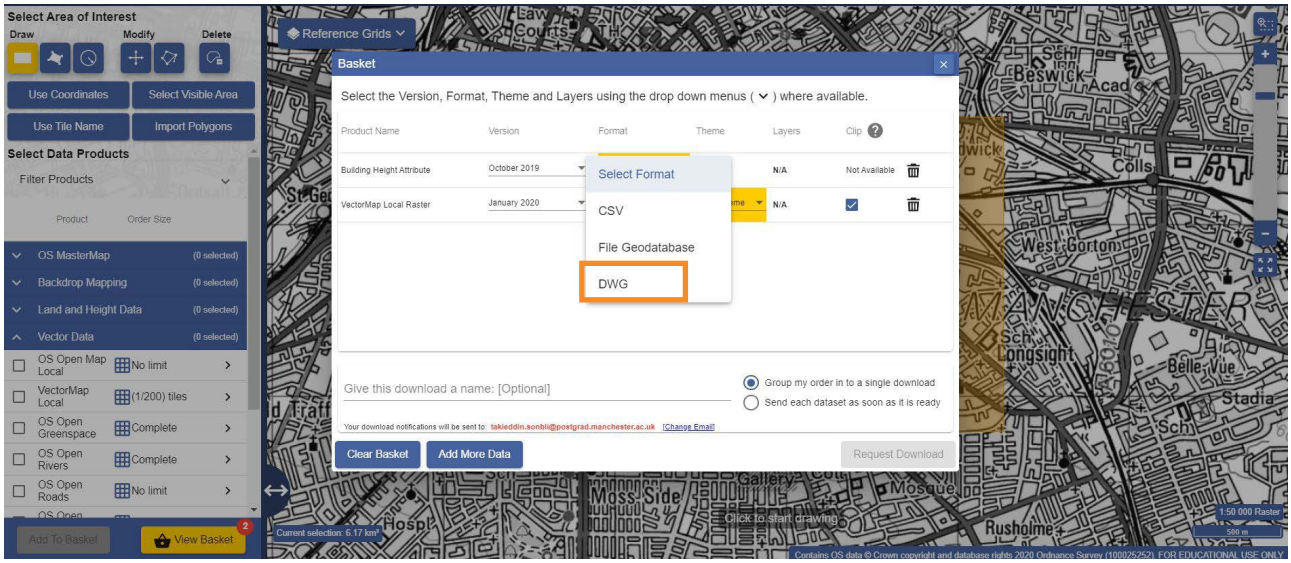


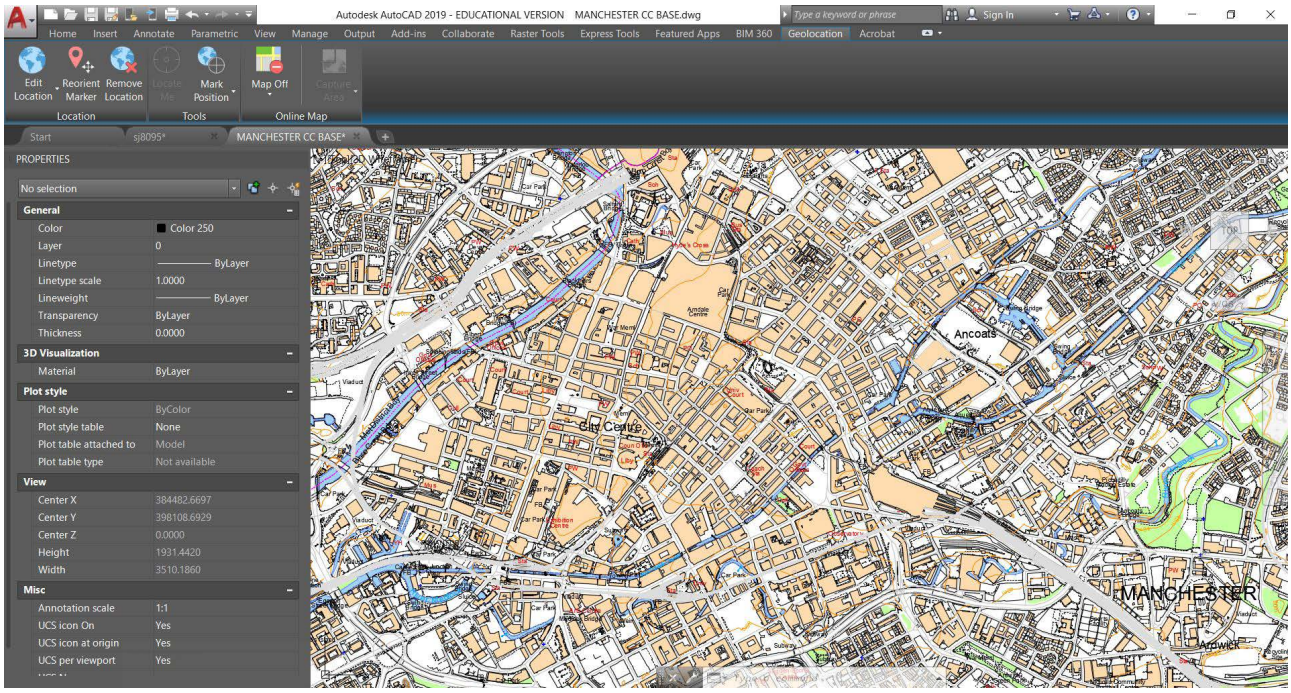
1- Enter a postcode and select the area of interest from the rectangle tool

2- Go to **OS MasterMap** and check Building Heights Attribute. Then click on **Backdrop Mapping** and check Vector Map Local. Go to **Vector Data** and check Vector Map Local. The click Add to Basket.

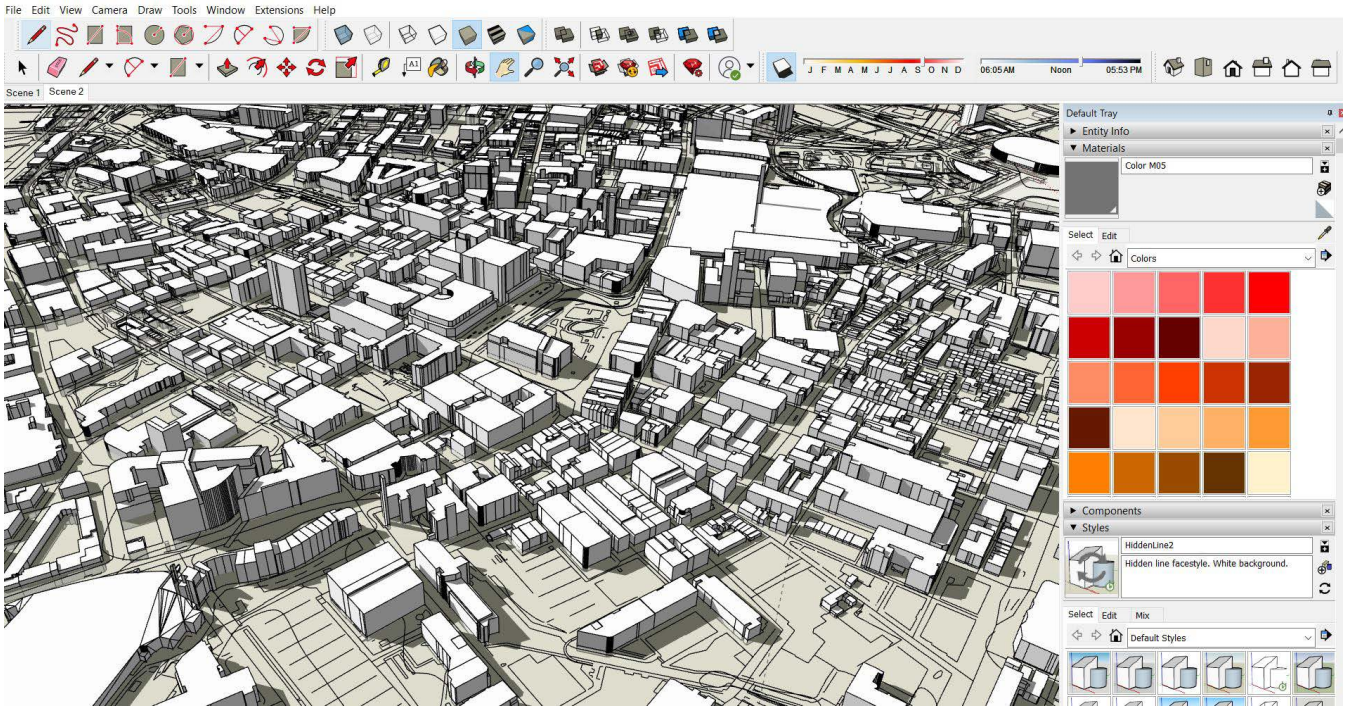


From the basket window, select DWG as download format. You will receive an email from Edina with a link to the requested data. The data would be two DWG files of the map and the 3D buildings that need to be merged together in order to get 3D view of Manchester. The model will then be exported to SketchUp.





DWG data downloaded from Digimap and imported to AutoCAD



DWG data downloaded from Digimap and imported to CAD then to SketchUp

Note:

Do not use this method to download data for the first semester. We will be in a better position to explore these further later in the year when we feel comfortable to use AutoCAD and SketchUP.