Graphic Skills Portal

Technique Handouts

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## ANALYSING

Creating a figure-ground map using Illustrator

URBAN
GRAPHICS
SKILLS

What is a figure-ground map?

A figure-ground diagram is a mapping technique used to illustrate the relationship between built and unbuilt space in cities.

Land coverage of buildings is visualised as solid mass (figure), while public spaces formed by streets, parks and plazas are represented as voids (ground). In urban planning, this graphic tool is used to explore built form patterns and the continuity of open space, and to study the morphology of an area.
The figure-ground diagram is an important element of urban analysis. It is a great way to study the urban grain of development and the overall morphology of the city.

Along with its strong visual qualities, the figure-ground has certain limitations. It omits all information beyond the two-dimensional space like topography and building height. Those gasp should be filled by implementing the project with other analysis such as land use, ownership, economic vitality, mobility and demographic patterns to provide a deeper understanding of the city.
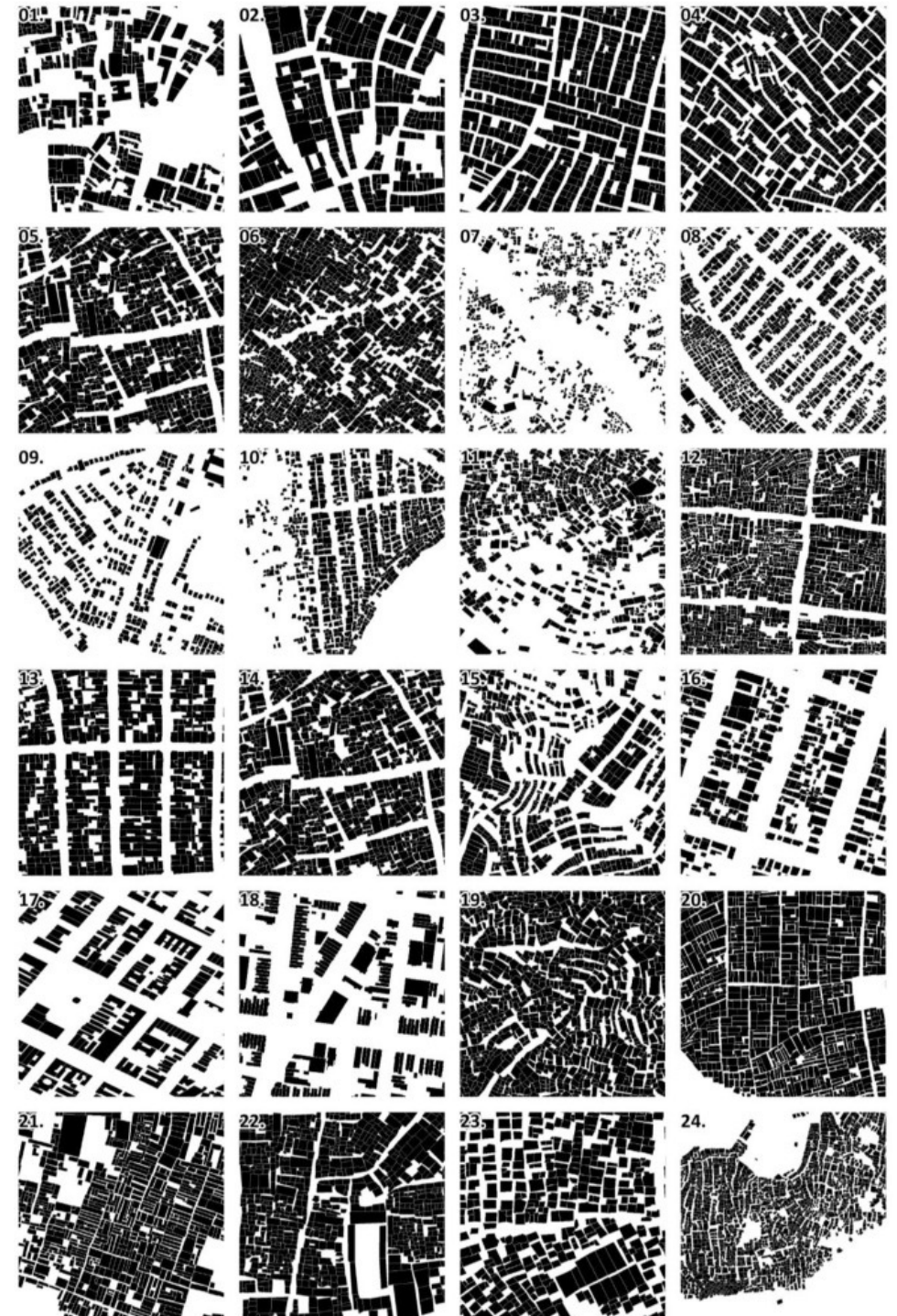
Creating a figure-ground map using Illustrator

Ai

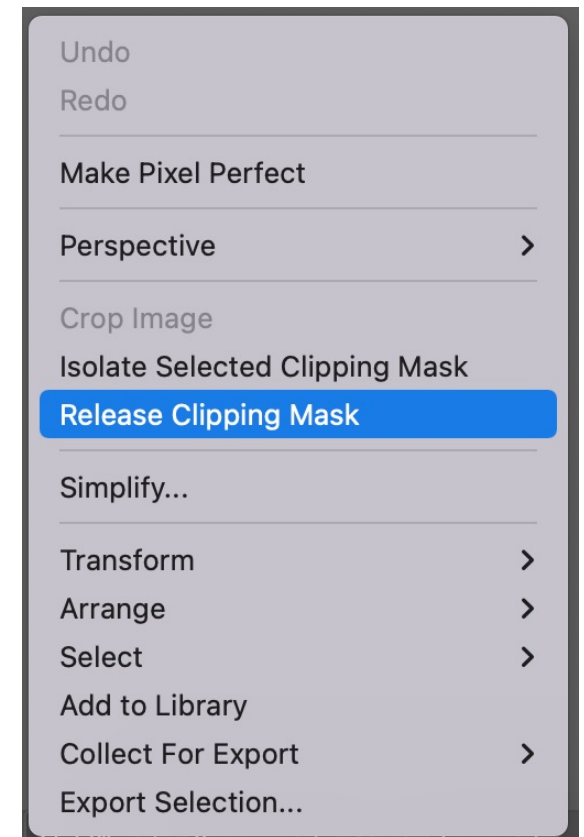**Creating a Figure-Ground Map using Illustrator**

1. Open a digimap map and **make it editable** in Illustrator by realising clipping masks

2. **Divide layers** by selecting similar objects

3. Change colours to the 'building layer'

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Open a digimap map and make it editable in Illustrator by realising clipping masks

Very often a PDF image (or any kind of vector-based image) is composed of different layers and/or overlapped images. If you want to modify/erase/separate one of those layers, firstly you should unlock it by releasing any clipping mask. To do this:

Once you open a PDF image (or any kind of vector-based image) in Illustrator, you should left-click on the element you want to release (it seems that nothing is selected by this point), such as a text or a line, then right-click on it and press **'releasing clipping mask'.**

| Undo |
| Redo |
| Make Pixel Perfect |
| Perspective > |
| Crop Image |
| Isolate Selected Clipping Mask |
| Release Clipping Mask |
| Simplify... |
| Transform > |
| Arrange > |
| Select > |
| Add to Library |
| Collect For Export > |
| Export Selection... |

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Once you release the first clipping mask (right-click), then you should deselect (or click on the grey background). When everything is deselected, then you should select with the cursor something on the map that has not been released. Once it is selected, then you right-click on it and again 'release clipping mask'.

If everything is released, by right-clicking you will not find anymore the tool 'release clipping mask'.

PS. you can do this only i) before modifying the image in PSD and ii) if it originally is a PDF image (or any kind of vector-based image).

A step-by-step tutorial is also available in the *BSP Graphic Skills Portal – Adobe Illustrator handout*

PPS. sometimes you need to **'ungroup'** the image before starting realising clipping masks. To do this, right-click on the image and press 'ungroup', then click on the grey background and, when everything is deselected, start with the 'release clipping mask' process.

When you are in this situation, it means you still have to realise some clipping mask. You can understand this if:

- The green areas' colour (green) appears only inside the boundary of the frame – it means you should realise the gardens/parks, etc.

- The buildings' colour (orange) appears only inside the boundary of the frame – it means you should realise the building layer.

- The streets' colour (grey) appears only inside the boundary of the frame – it means you should realise the streets/plots, etc. layer.

- Etc.
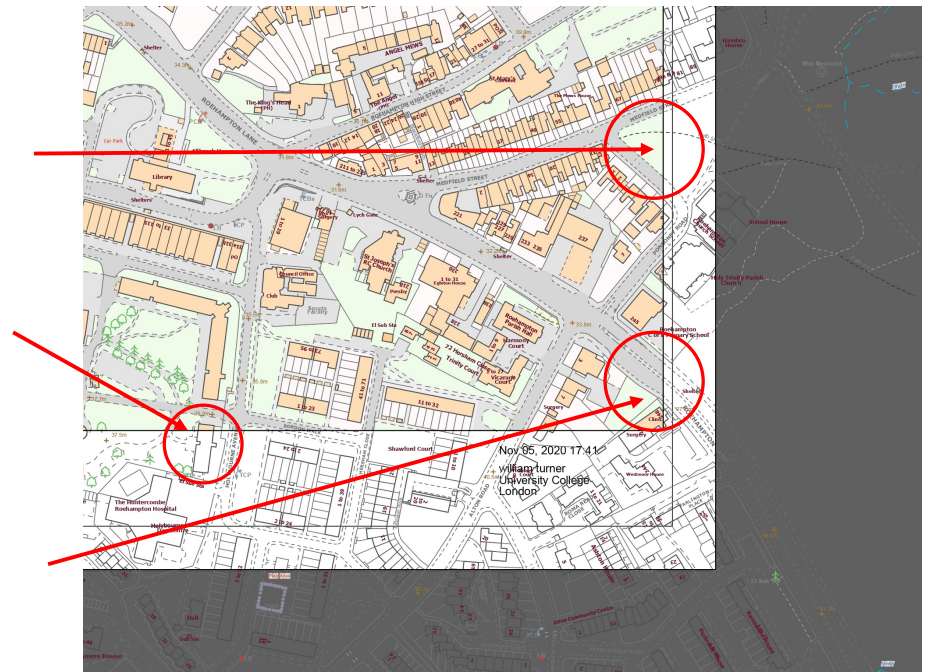
Ai When everything is realised, you will see that objects are spanned outside of the paper artboard, as well as, you will be able to select everything.
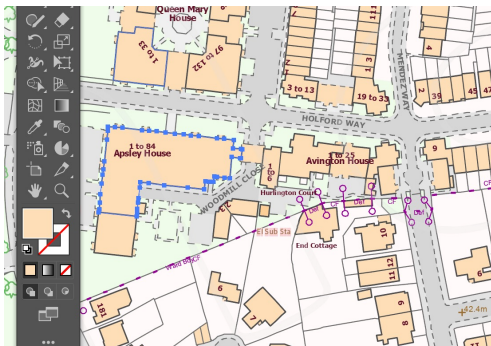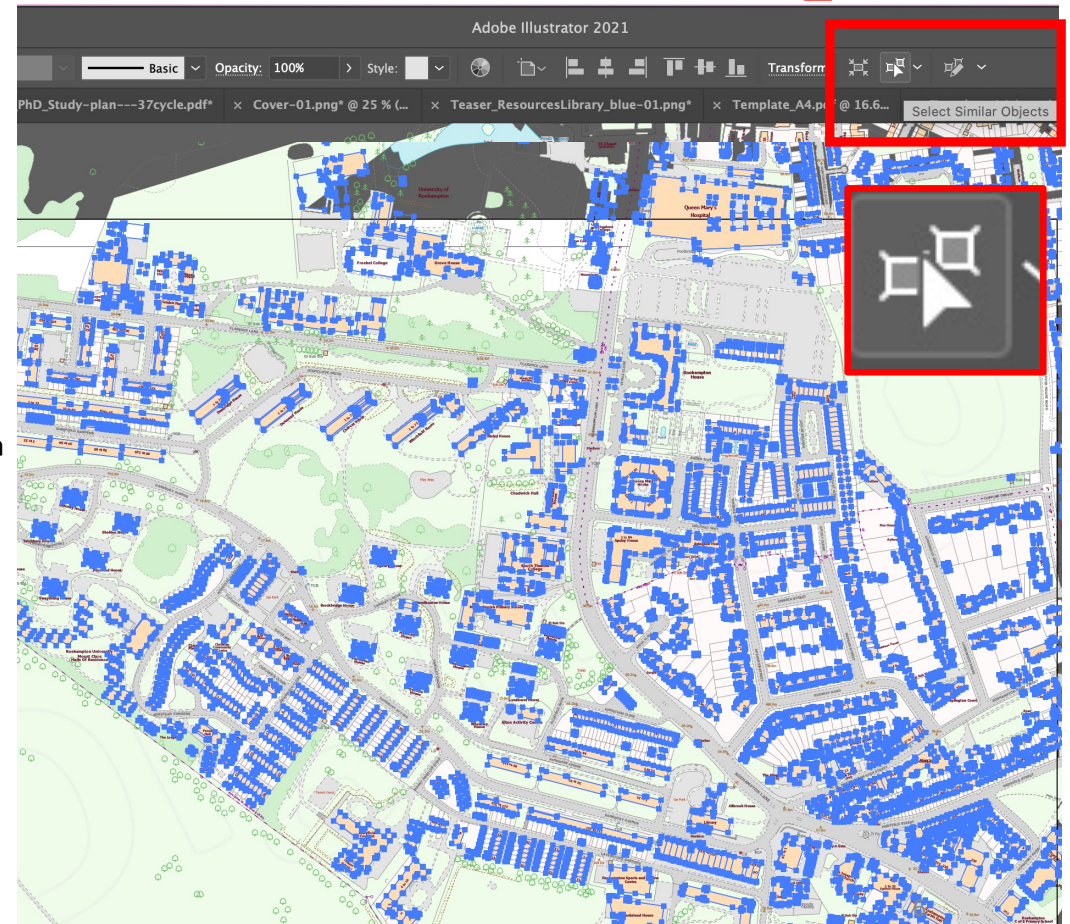
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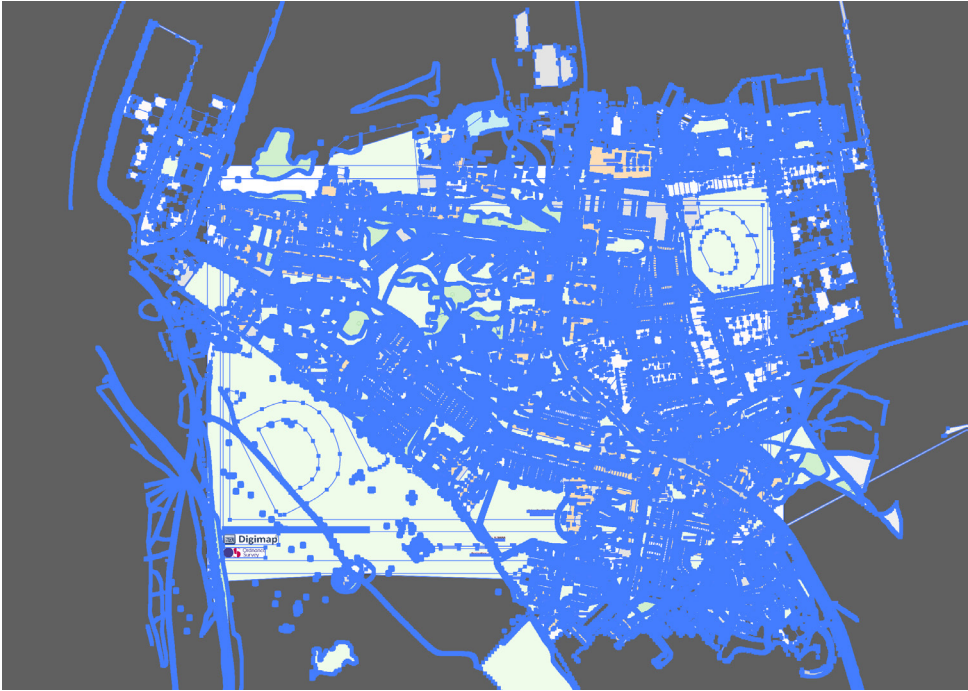
Select similar objects

Now, you may want to separate different layers via selecting similar objects:

1. Click once on the fill colour of a building (NB. you can check that the selection is right when the fill colour is orange in the left-side bar).

2. Choose **Window** > **Select similar objects**, and choose a preset from the **Preset** drop-down menu.
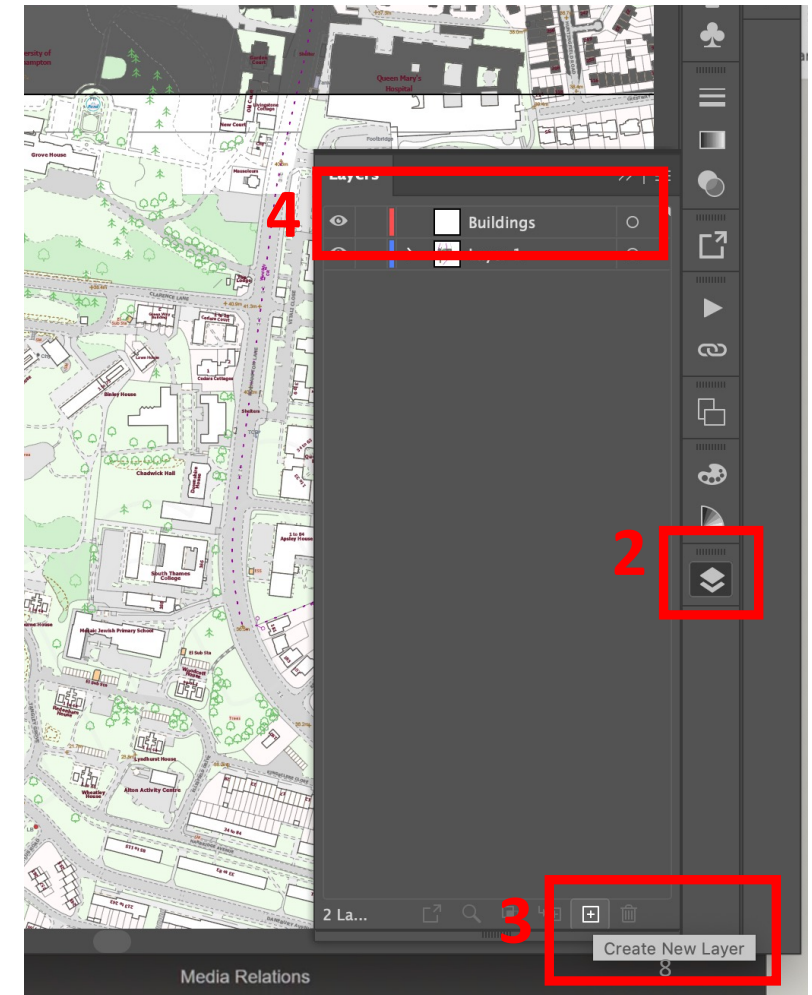
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![Ai]

Create a separate layer

Now, all the buildings are selected. To 'separate' them from the other objects, and move them to a different layer:

1. Edit > Cut
2. Before pasting, go on the right-sidebar > open layers
3. On the bottom, click on '+' to create a new layer
4. Rename it as 'Buildings'

Create a separate layer

Once you have created the layer 'Building':

1. Select the new layer created
2. Edit > paste in place
3. Now, all the buildings on your map are on a separate layer. To change colour, select all the object on that layer at once by clicking the **small dot** close to the layer's name.
4. Change colours to all the selected buildings by using the left-sidebar: double-click on the fill colour > pick the black colour > ok
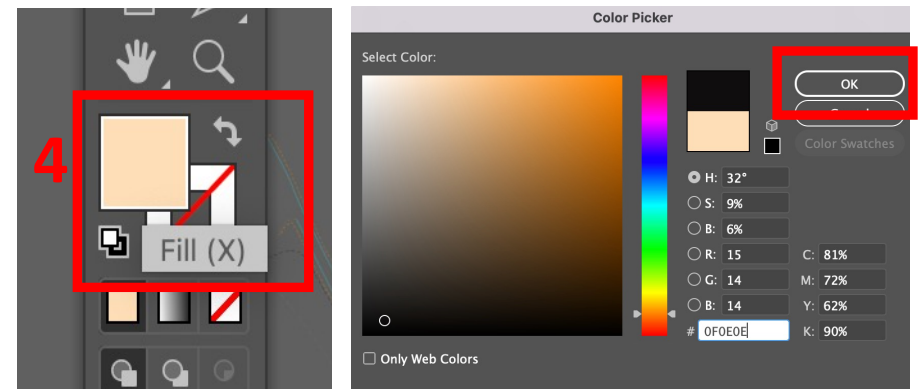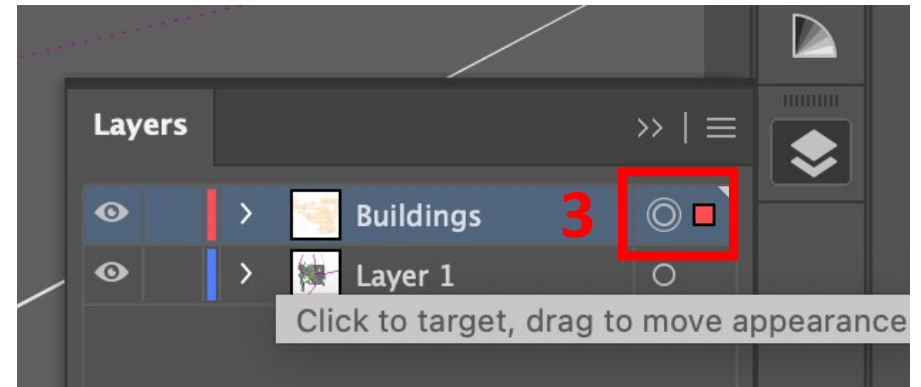
Create a separate layer

All the buildings are now black. To have them as a Figure-ground map, switch off the other layer(s)

1. Open the layers window > toggles visibility