New York City College of Technology
The City University of New York
Department of Architectural Technology

ARCH 3609 Integrated Software in
the Architectural Office

This is the second part of the project called 'Data'. The "Data" stage involves the study of New York City using data analysis in order to identify and map "behavioral" city patterns. Ultimate goal is to understand the "behavior" of the city data you have selected.

Process Steps:
-        **2D ANALYSIS:** You will need to **illustrate a series of 2d diagrams** that isolate behaviors of your data maps following the discussion we had in class. During this step you may need to group your data in color information, or to desaturate your maps and reduce the color to black and white tones as a way of abstracting them. **Use lines and points** to connect data that relate to each other. **Use graphs** to abstract the data.
-        **3D ANALYSIS:** You will now see how the above 2d diagrams can be translated into space. All of the city data have 3- dimensionality. Illustrate a series of diagrams that translate the data in 3d space. Use Rhino and illustrator to achieve that goal. Experiment with the following **guidelines:**
Open your map in Illustrator and:
01.   Trace the map so you get vectors out of raster information. Experiment also with the **image trace** tool.
02.   Create a new abstracted diagram out of step 01. Find the behavior of your traced diagram.
You will achieve that if you observe the outcome of step 01 and clean it up by keeping only important information. Organise each of your steps in different layers.
03.   Create a 3d approach of your mapping:
a.   Export from illustrator the lines resulted out of step 01 as dwg.
        Import in Rhino and **Extrude** the lines in different heights or manners according to the data. Now visualize the 3d composition as a line drawing using the tools learned so far: set camera, make 2d, export as ai. Open in illustrator and work with strokes and fills. Render in Vray the same view, save as .png and overlay in Illustrator the line-drawing to the .png file.
b.   Use the command **Heighfield** in rhino. You will need to have a jpeg file of your selected map. (Preferably gray scale with intense contrast. Consider adjusting the map in Photoshop before used in rhino). Visualize the 3d landscape as a line drawing again by importing in illustrator.

References
On blackboard under Content/ Integration Project_Bustling Vacancy :
- Students Work. (see references from previous semester)
- Pattern Diagrams Reference.

Submission
Due Date: 2.00 pm Friday, March 21th.
Upload on blackboard, your files named accordingly:
01. A pdf file of your Bustling Vacancy Studies in the given Indesign Template, 22"by36" updated with all 10 studies per element (axo diagrams, **plan, elevation** and vray renderings) as well as the selected city data maps and the **abstracted 2d and 3d diagrams**. (5 boards in total)
02. Illustrator file with the 2d and 3d diagrams of your pattern map research (tracing, abstraction,3d approach).
03. A pdf file with the **updated book and its contents** (add all the new material you have been producing including the data diagrams) according to the comments & feedback on your printed material.

Bring in class **printed** your boards in 11"by17" and your updated books (**01** and **03** of the submission section).
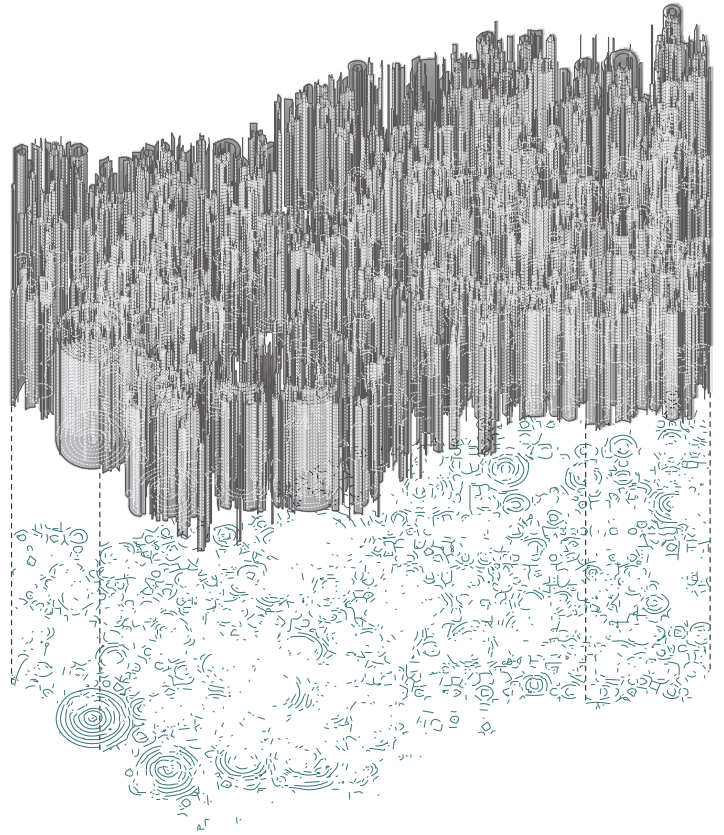
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**LIve Trace in Illustrator, Import in
Rhino, Extrude lines, Make 2d**

Heightfield in Rhino

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