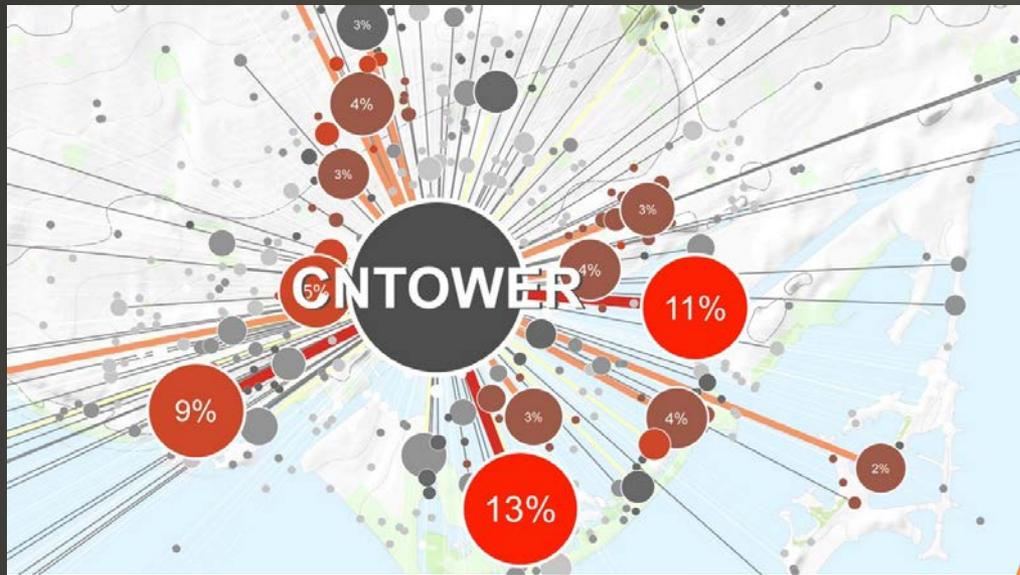




HALFDOME

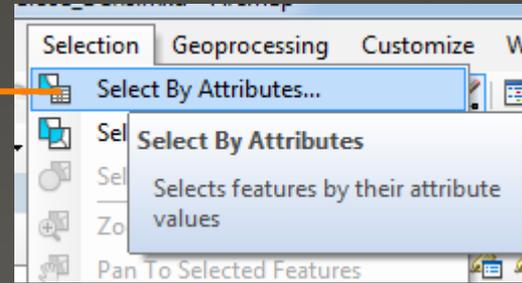
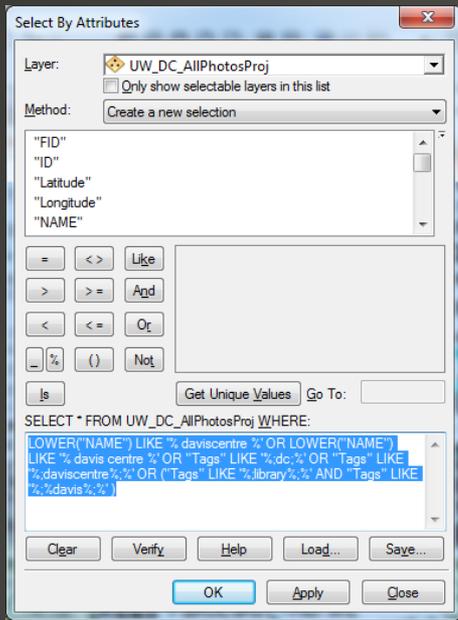
Workshop part 3: sightlines

- From where are specific characteristic aspects/elements perceived?
- What are the most important places for perceiving aspects?
- What is the ratio between a place as a vantage point and a place as a subject of photography itself?



Approach

- technique will work best for characteristic elements which can be **visually** perceived, and for areas with **high data density** (> 1000 photographs matching search criteria)
 - For tags referring to objects that can be **visually perceived**, the largest cluster is typically where the actual object **is located**
 - Surrounding smaller clusters are photographs **of** this aspect/object
- The technique will **connect low clusters** with the single densest **high cluster** and symbolize results



Data Selection

- It is possible to select data from tag cluster data (previous step)
- ..more accurate selection by carefully, manually selecting data..
 - Choose Selection > **Select by Attributes** –

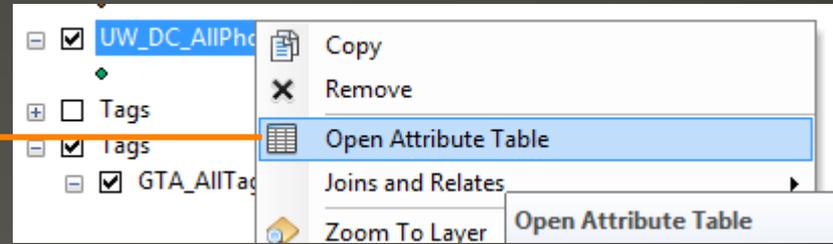
Search Criteria Example - Davis Centre Library Waterloo:

`LOWER("NAME") LIKE '% daviscentre %' OR LOWER("NAME") LIKE '% davis centre %' OR LOWER("NAME") LIKE '% davis %' OR "Tags" LIKE '%;dc;%' OR "Tags" LIKE '%;daviscentre;%' OR ("Tags" LIKE '%;%library%;%' AND "Tags" LIKE '%;%davis%;%)`

Note: **blank spaces** before and after Field-"Name" tag selection

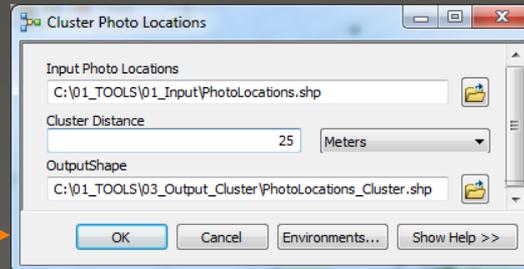
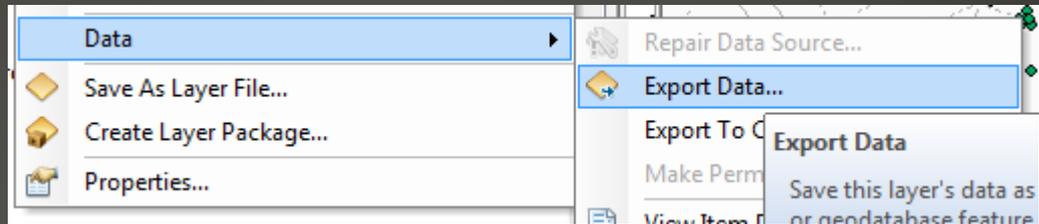
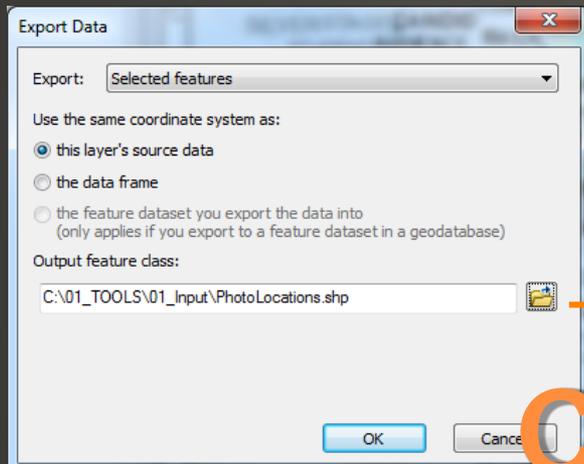
- % = **wild-cards**
- **Case Sensitive** (Lower...)
- Goal: selecting all tags related to the analyzed aspect/element

URL
https://farm9.staticflickr.com/8534/8874908710_0e7c592c4f_m.jpg
https://farm9.staticflickr.com/8066/8239416979_069a0eb7fa_m.jpg
https://farm9.staticflickr.com/8004/7149765269_523c83fb7d_m.jpg
https://farm8.staticflickr.com/7168/6765986607_c99b128796_m.jpg
https://farm6.staticflickr.com/5291/5443738449_bb0e2e82eb_m.jpg
https://farm5.staticflickr.com/4153/4833464532_8201c5ce61_m.jpg
https://farm5.staticflickr.com/4068/4582168675_9e4782965c_m.jpg
https://farm4.staticflickr.com/3368/4575930025_81fbc133bc_m.jpg
https://farm5.staticflickr.com/4066/4576421868_f967881c3b_m.jpg
https://farm4.staticflickr.com/3290/2962164008_5cf675abcb_m.jpg
https://farm4.staticflickr.com/3287/275574524_41df5e98d3_m.jpg
https://farm3.staticflickr.com/2150/2129569654_649885f905_m.jpg
https://farm3.staticflickr.com/2280/1849432218_d4f032eb7f_m.jpg
https://farm3.staticflickr.com/2264/1863887197_8b338e4746_m.jpg
https://farm2.staticflickr.com/1197/1268949780_7aae80542f_m.jpg
https://farm2.staticflickr.com/1289/1268950584_e07ca01149_m.jpg
https://farm3.staticflickr.com/2200/2090362758_cfa5a6ea03_m.jpg
https://farm3.staticflickr.com/2312/2087461347_99d309c588_m.jpg



Validate Selection

- Open **Table View** and limit View to **Selected Data**:
- Scroll to Column **[URL]** and copy some of the URLs to web browser to **check**, whether the selected photos actually include the **Davis Centre Library Waterloo or related aspects**
- Revise Selection Script to exclude any obvious, false entries



Cluster Selection

- Export selected features to Shapefile and Cluster Photo Locations by using **Cluster Photo Locations-Tool**:
 - Choose Cluster Distance based on Map Scale and Display/Paper Size

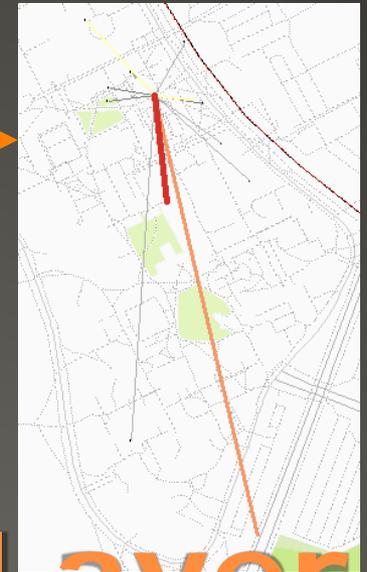
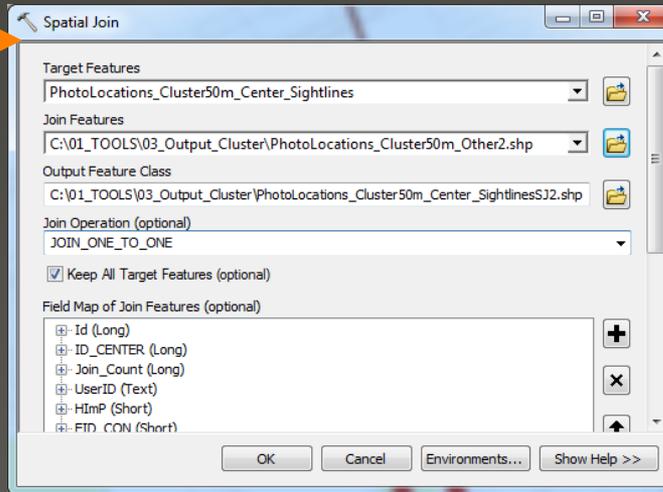
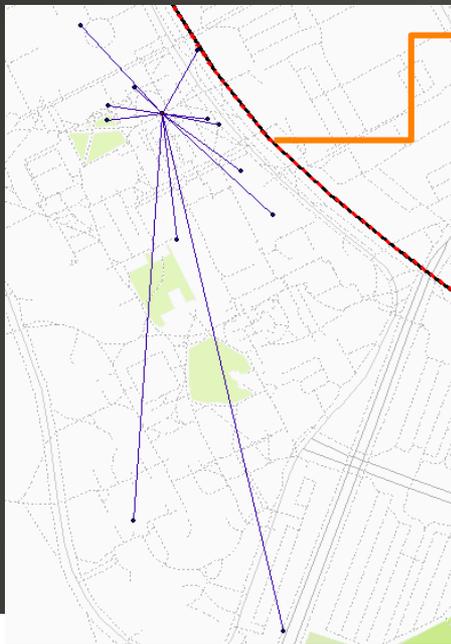
The image shows three windows from a GIS application:

- Spider Tool:** A configuration window with fields for 'Input center', 'Field center', 'Input border', 'Field border', and 'Output line FClass'. It includes a slider for 'Relative length of the line %' set to 100.
- Table:** A data table titled 'PhotoLocations_Cluster50m' with columns: FID, Shape, Join_Count, UserID, and HImP. The table contains 13 rows of data.
- Add Field Dialog:** A small dialog box for adding a new field. It shows 'Name: FID_CON', 'Type: Short Integer', and 'Field Properties' with 'Precision' set to 0.

Orange arrows indicate the flow of information: from the Spider tool's 'Field center' and 'Field border' dropdowns to the 'Add Field' dialog, and from the 'Add Field' dialog to the 'Table' window.

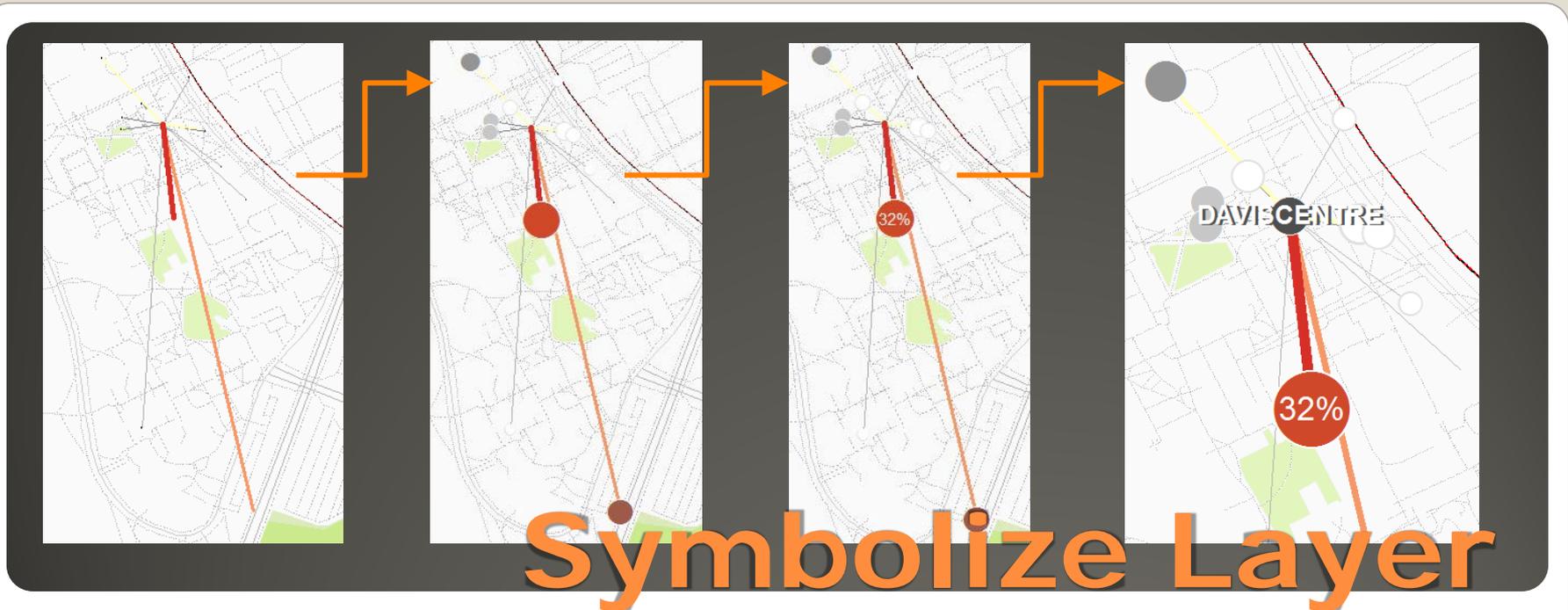
Create Lines

- Select and export largest Clusterto Shapefile #1:
 - **HImP = 1 > Largest Cluster**
- Select and export all other Clusters to Shapefile #2
 - **HImP = 0 > All other Clusters**
- **Add Field FID_Con to Shapefile #2 (Short Integer)**
 - **Load Tool "Spider"**
 - (Script > Right-Click > Properties > **Source** must link to ...\01_TOOLS\Scripts\Spider.py)
- Choose **FID** as Field center & **FID_CON** as Field Border



Symbolize Layer

- Spatial Join back number of photos to Lines:
- Open **Spatial Join Tool** (Analysis Tools > Overlay)
 - Target Features = Sightlines from previous Step
 - Join Features = Clustered Photo Locations (Without Center)
 - Use existing Layers for Symbolization: Layer "SpiderLines" > Properties > Source > **Set Data Source...**
 - Recalculate Symbol Classification or ..manually set **Break Values**



- Run a **Hot Spot Analysis with Rendering** for Photo Location Clusters (see Workshop Part 2)
 - Edit Label Expression for **percentage Display**:

```
Function FindLabel ( [Join_Count] )
if [Join_Count] > 5 then
FindLabel = "<FNT name='Arial' size='' & 8+round([Join_Count]/
(34/100),0)*1.3 & "">" & round([Join_Count]/ (34/100),0) & "%" & "</FNT>"
end if
End Function
```

'(5 = Minimum Cluster Size for Labels, 34 = Sum of photographs (100%), *1.3 = Modify Size of Text)