EXERCISE 7

GEOGRAPH 352/592M

USING PATTERNS AND ADVANCED DIGITIZING

1. Copy the Exercise 7 folder from the web page to your desktop.
2. Open Illustrator and set the paper size to Letter/portrait, and then use File/Place to add ma.jpg from the Exercise 7 folder to the drawing and center it on the page. Use the Rectangle tool to draw a rectangle with no fill around the imported drawing, then change to the black Pointer (Pick tool) to resize it by dragging the center handles or the corners so that there is about 1/2" of space on all four sides. This is known as a neat line.
3. Lock Layer 1 by clicking on the padlock icon in Layer 1, and then create a new layer named Towns by clicking on the New Layer icon in the Layers sidebar (double click on the Layer 2 heading to re-name it.
4. Use the Pen tool to trace the top right polygon. We’ll do this by clicking every time you want the line to turn – make the points close together when the curve is small, and further apart if the curve is gentle. Straight lines don’t need any intermediate points. Make sure that you have No Fill selected so that you can see the line you are tracing. Once you have completed the first town, give it a red fill by opening the Swatches and pointing to one of the reds. Click anywhere to lose focus on the first polygon, and then change the fill back to None (the first polygon will remain red). Rather than trying to re-trace a line that is common to both polygons, we are going to overlap the second polygon over the first, and then clip out the overlapped portion. Trace the polygon to the left of first polygon, starting with the top left corner. Move the cursor to the corner of the red polygon, use the mouse roller and Alt key to zoom in a bit, click on the exact corner, then click **inside** the red polygon for the overlapped portion, then to a point near the bottom left corner of the red polygon, zoom in again and click on the exact corner and then go to the bottom left corner of the polygon you are tracing. Complete the second polygon and then give it a blue fill. Use the Pick tool to select the red polygon and then go to the Edit menu and choose copy, and then Edit/Paste in Place. Hold down the Shift key and click on the blue polygon so they are both selected.
5. Go to the Window menu and put a check mark in front of Pathfinder. You can either leave it floating, or dock it to the right tool bar by picking it up by the dark gray bar at the top and dragging it to the bottom of the right tool bar and release it when you see a short blue line at the bottom of the icon above it. Go to the Pathfinder and choose Subtract Front and the red polygon will trim the blue polygon. This can be a bit confusing the first time you do it, but will be easier each time you do one. Save the drawing as Exercise 7 now, and each time you add a new polygon just in case something crashes.
6. Follow the same procedure for the rest of the polygons, but if the new polygon is adjacent to two or more completed polygons, use the pick tool to select two or three of the completed polygons and duplicate them, select the new polygon by holding down Shift and clicking on it and trim it using the Subtract Front icon in Pathfinder. ***NOTE***: Do not use more than three adjacent polygons to trim, it will not work! If you trim a polygon and it doesn’t work correctly, use Control Z to undo and try again.
7. If you leave Hadley as the last town to digitize, you can complete it just by drawing a blob and then trim it to shape using the other towns. Be careful with your digitizing at the southwest part of Hadley where five towns all come together or else Hadley will not come out right.
8. When you have all of the polygons created, make a new black pattern for each one, and replace the fill color with a pattern. Use simple patterns like right and left diagonal or horizontal and vertical lines, dot patterns, and a gravel pattern.
9. The curved line between towns in the center of the drawing is the Connecticut River; use the Pen tool to draw a line down the river, and then make it blue and change the width of the line to 2 or 3 points. Add the other elements needed to make this a map and do a final save. Hint: one of the straight sections of the outline of Holyoke is 1.07 miles. Use Google Earth and algebra to create a line that is 1 mile long for your scale bar.