TUTORIAL

Overlay Maps in Google Earth

GOOGLE EARTH SOFTWARE <earth.google.com> can illuminate answers to genealogy problems by combining old maps with new ones—layer them together, and you can visualize exactly how an area looked when your ancestors lived there. You'll find hundreds of historical maps spanning the globe within Google Earth, or you might download the perfect map from a website or find it in a book.

If you're working with a paper map, you'll need to convert it to a digital image. I recommend scanning it at the highest resolution your scanner allows—at least 600 dpi (dots per inch), but 1,200 dpi would be best. The higher the resolution, the closer you'll be able to zoom in on the map. Save the image to your computer as a JPG.

Once your old map is digitized, follow these steps to layer it over a modern map in Google Earth.

1 Open Google Earth on your computer. Enter the geographic location of the map in the Search box and click the Search button to "fly" to that location. In the Places panel on the left side of the screen, click My Places or a specific folder to select where you want to store your old map overlay. Click the Image Overlay button in the toolbar at top of the screen.
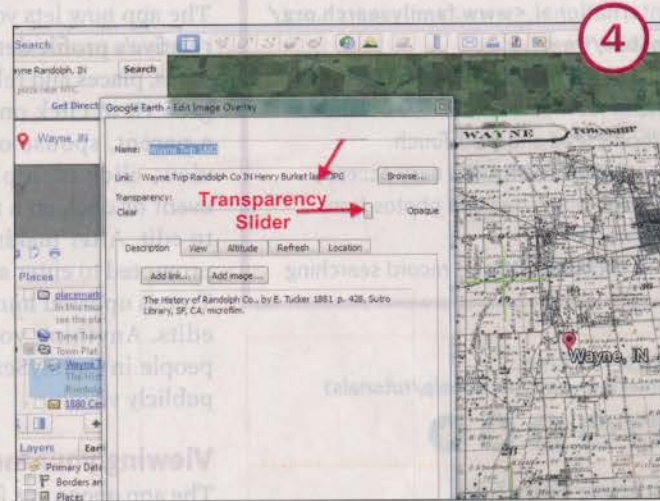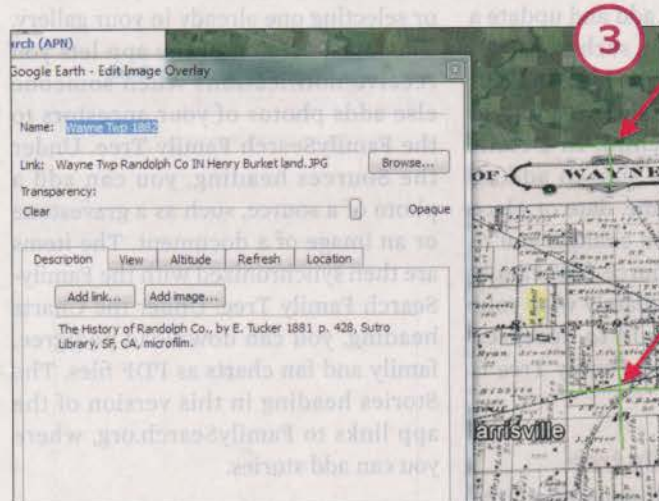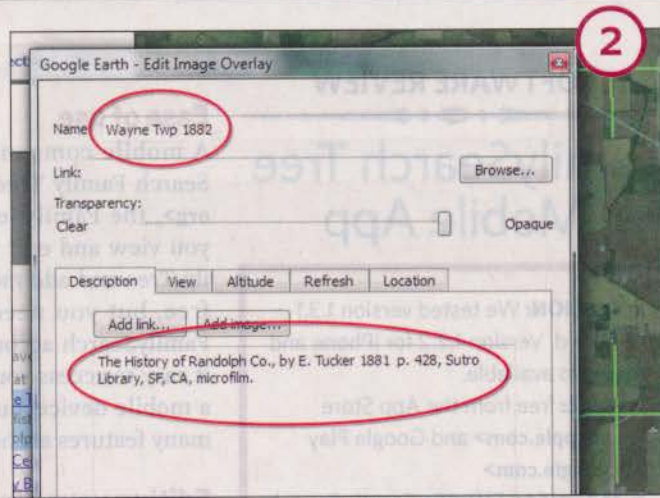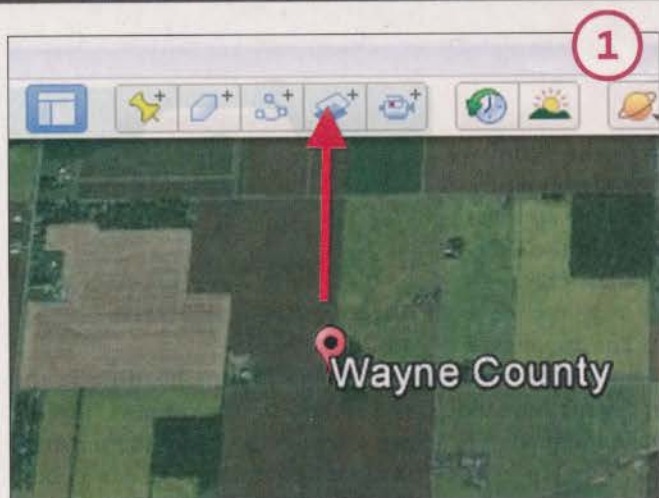
2 Name your old map in the Image Overlay box that appears. Below that, the description field is a great place to cite the source of the map.

Clicking the Browse button in this box will let you attach the old map that's stored on your computer's hard drive. But then the overlay will work only when viewed on your computer. If you want to share your map and always have the overlay appear, the map image must be hosted on the cloud. Upload it to a free photo sharing website such as Photobucket at <www.photobucket. com>, which gives the image a unique URL that you can then use in the overlay. When viewing your uploaded image in Photobucket, click the Direct URL link to copy the link to your computer's clipboard. Back in Google Earth, click inside the Link field in the Edit Image Overlay box and paste the URL you just copied. After a few moments, the map will appear on the screen within the green placeholder lines.

3 Now, you'll georeference the overlay to match up with the modern day Google Earth map. In the Overlay box to the left, slide the transparency lever so you can see the current landscape beneath the historical map. Look for unique features on the historical map, such as railroads, towns and rivers. Most locations have some type of distinct element that will help identify a starting point for positioning the map. By adjusting the transparency tool back and forth, you can see both maps until you get them aligned at a selected point.

If you're fortunate enough to know the land coordinates for the area, you can use Earth Point's Convert Township and Range tool <www.earthpoint. us/TownshipsSearchByDescription.aspx> to plot the outline of the town or specific section of land, making it easier to place a local area map.

Once the maps are lined up at a particular point, you'll notice that much of the rest of the map doesn't match up. To resize the overlay map until everything lines up, hover your mouse over a green crosshairs line (indicated by red arrows above) and the hand icon will turn into a pointer finger. Use the pointer to grab that spot and manipulate the overlay. (If you hover your mouse over the map in an area without a green line, your mouse pointer becomes a hand, allowing you to move Google Earth and your overlay together.)
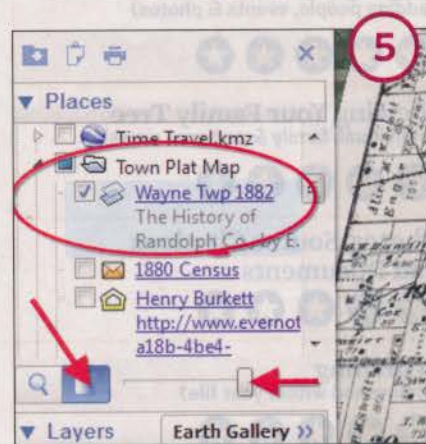
To resize just the overlay, go to a corner, grab the green line and pull the overlay. Play with it, pulling the various corners until all the landmarks line up.

4 Keep using the transparency lever to check your progress. The goal is to line up all the landmarks throughout the map. Things may look lined up with the railroad, but the river in the corner might still be out of alignment. In the end, if the historical map you're working with is accurate, it should line up adequately with Google Earth.

When complete, drag the transparency lever all the way to the right so that your old map is opaque. Click OK to close the box. Now you can see your map in Google Earth.

5 If you want to turn this overlay off so it's invisible, look in the Places panel and uncheck the box for the map overlay. When the overlay is activated, you can adjust the transparency of the map using the Transparency button at the bottom of the Places panel. Click the button and a lever will

appear. Slide the lever to adjust the transparency of the map you're displaying on Google Earth. Now you see what the land of your ancestors looked like compared to the same place today.

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