

Hunter College of the City University of New York
Department of Geography
Geography of New York State
Exercise 3 –REQUIRED

Maps of New York State and their Interpretation

This exercise is due on September 20, 2012. Late submission will be penalized.

INTRODUCTION: *Public and university libraries house a treasure of old and modern maps. Historic maps have been photographed, scanned and made available to the public via the Internet. Digital maps that can be queried are available at governmental and commercial websites.*

PURPOSE: *This exercise will introduce you to web sites where you may view historic maps and experience interactive mapping resources. You will start by looking at historic maps of the New York region. Then you will go the depositories of modern maps and navigate through their offerings. You will see changes in presentation, detail and accuracy over the 400 years of mapping New York. These sites will be useful in completing other assignments during the semester.*

ASSIGNMENT: This exercise has **THREE PARTS**, each with several subsections. Be sure to address **all bold-faced** questions and comments embedded in the text.

Please number your answers. Type the answers on separate sheets of paper. Print and **attach a copy of each map** discussed in your answers. When copying the maps, do not use thumbnail-size portrayals. The maps need to be readable; usually 3 in. x 6 in. or 2.5 in. x 5 in. maps are good sizes. Color is optional. Include the title and source citation for each map you print as a footnote.

PART I. Map Collection Websites. Search the **SUNY-Stony Brook Library Map Pathfinder** site. Look for maps that include an area of one or more of your counties. If no maps exist, use one from a nearby area.

Additional maps may be found at the Library of Congress Map Library (www.loc.gov/index.html) and its specialized pages:

Maps and Geography: <http://www.loc.gov/topics/maps.php>

Geography and Map Reading Room: <http://www.loc.gov/rr/geogmap/guides.html>

American Memory Map Collections: <http://memory.loc.gov/ammem/qmdhtml/qmdhome.html>

Also see the New York Public Library web site at <http://digitalgallery.nypl.org> and its Map Division at http://digitalgallery.nypl.org/nypldigital/dgdivisionbrowseresult.cfm?div_id=hm

1. Go to the *NYS Map Pathfinder* site at www.sunysb.edu/libmap/nypath1.htm.
2. Click on **Early Maps** (prior to 1800).
3. Select and **print** one (interesting) map. Be sure to include the date of the map.

QI-A: Comment on the map's style and portrayal of information.

4. Return to the *NYS Map Pathfinder* site and click on **Panoramic Maps**.
5. Using a NYS road map or atlas, look for maps of places within your counties. If none exists, select and **print** a panoramic map from a nearby area.

**QI-B: a) How does a panoramic map portray reality?
b) Comment on its helpfulness to you when studying the area shown.**

6. Go back to the *NYS Map Pathfinder* site and click on **Nineteenth Century Maps**.
7. Select and **print** an interesting map from the **middle 1800s**.

QI-C: Comment on the map's style and portrayal of information in comparison to the maps created prior to 1800.

8. Return again to the *NYS Map Pathfinder* site and click on **Twentieth Century Maps**.
9. Look through the maps. Select and **print** a map that was **created after 1980**.

QI-D: How does it differ in appearance from the maps of the other time periods?

PART II. Historic USGS Maps of New York State

Go to the following USGS web sites to read about topographic maps.

Reading Maps: <http://egsc.usgs.gov/isb/pubs/factsheets/fs03501.html>

Map Symbols: <http://egsc.usgs.gov/isb/pubs/booklets/symbols/topomapsymbols.pdf>

Suggestion>> You may want to print this 4 page PDF in color to help you with your map interpretation throughout the semester.

1. Go to <http://docs.unh.edu/nhtopos/NewYork.htm> or <http://www.nysgis.state.ny.us/gisdata/quads>. This will bring up the NYS index map of topographic maps by county.
2. **Locate your counties.** *NOTE: Nassau and Suffolk counties and the counties of NYC do not appear on the UNH index map. If you have Nassau or Suffolk as one of your counties use the NYSGIS index or use one of the other two counties for this exercise.*
3. Click on the boxes within your counties to bring up the map names. As the cursor arrow is moved over the grid, the name of the topographic map will appear. (*Write down names of the ones you want to visit.*)
4. Select **one** interesting map from any of your counties and **print it**. Use the **southeast corner option** as this will allow pertinent map information to show. Click the + magnifier to enlarge the image. You may want to compare maps of different years to see change. You can also use the National Map site: <http://nationalmap.gov/historical/index.html> and get the entire map.

PART II: Describe the area covered by the map by including the following:

QII-A. Indicate the map's name and date (including reprint or revision dates).

QII-B. Describe the area's topography as represented by the contour lines?

Hilly? Level? Mixed?

QII-C. Describe the land cover/land use as represented by colors and symbols?

Is it a forested, agricultural, marshy, urbanized, etc. area?

QII-D. Describe the system of roads. Is it a grid system superimposed on the landscape or do the roads generally follow the lay of the landscape or does it vary?

QII-E. Describe one feature (physical or cultural) **on the map that caught your attention.** Circle it on the map, identify it if you can and tell why you noticed it.

PART III. Government and Commercial Websites

A: READING TOPOGRAPHIC MAPS.

Go to the following USGS and NYS web sites to read about topographic maps and map scale.

Topographic Maps: <http://nationalmap.gov/ustopo/history.html>

Map Scale: <http://egsc.usgs.gov/isb/pubs/factsheets/fs01502.html>

Reading Maps: <http://egsc.usgs.gov/isb/pubs/factsheets/fs03501.html>

Map Symbols: <http://egsc.usgs.gov/isb/pubs/booklets/symbols/topomapsymbols.pdf>

UTM Grid: <http://egsc.usgs.gov/isb/pubs/factsheets/fs07701.html>

Latitude & Longitude: http://nationalatlas.gov/articles/mapping/a_latlong.html

NYSGIS Maps: <http://www.nysgis.state.ny.us/gisdata/quads>

National Map Intro: <http://nationalmap.gov/ustopo/index.html> (click on Map Store)

National Map Guide:

[http://nationalmap.gov/historical/help/US Topo and Historical Topo Users Guide.pdf](http://nationalmap.gov/historical/help/US_Topo_and_Historical_Topo_Users_Guide.pdf)

QIII: Go to <http://www.nysgis.state.ny.us/gisdata/quads>. Print a portion of a 1:24,000 scale map and a 1:250,000 scale map covering the same area from one of your counties. Be sure to label each map with its name, scale and county. Use the maps to answer the following questions. Please number your answers.

QIII-A1. Comparison of Scales. Since these two scales (1:24,000 vs. 1:250,000) present information differently, consider the amount of detail shown by each series (scale). **How is each series useful to you, the map reader? Describe the benefit (level of information) provided by each scale.**

QIII-A2. Meaning of Colors and Symbols on Topographic Maps. Using the USGS key for colors and symbols, describe what you see on each map.

Consult <http://egsc.usgs.gov/isb/pubs/booklets/symbols/topomapsymbols.pdf>

QIII-A3. Spatial Interaction. Consult your maps to answer the following 3 questions:

a) **Where is this place?** Which map scale (1:24,000 or 1:250,000) gives you a better understanding of the area's political and physical location in NYS? Indicate both the political area and physical sites shown on each map in your answer.

b) **What is there?** Which map scale provides you with a sense of what it would be like to live in the area? What are the physical and cultural landscapes present locally?

c) **How is it linked with other places?** Which map scale provides you with the ability to easily find your way between any two points on the map? Describe the road network of the area: it is a superimposed grid or does it follow the topography?

QIII-A4. Coordinate systems (UTM vs. Latitude/Longitude)

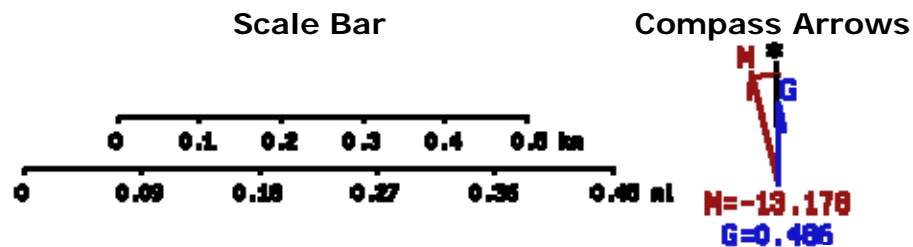
a) **What is the Universal Transverse Mercator (UTM) zone for your maps?**

b) **What is the range of latitude and longitude covered by each map?** Check the four corners. (Careful: This is not the UTM number.)

QIII-A5. How current are the topo maps for your area? What is the date of each map?

QIII-A6. Scale Representation: What is an advantage of having a scale bar instead of another representation of scale, as words or a fraction, on the map?

QIII-A7. Compass Arrows: What do the three different arrowheads (M, *, G) mean?



B: MICROSOFT RESEARCH MAPS SITE. Matching a topographic map with an aerial photograph. *NOTE: Support for this site has been discontinued by Microsoft Research but not shut down as for July 2012. It is linked to the National Map. Continue to follow the directions below.*

1. Go to the Microsoft Research Maps site at <http://msrmaps.com>.
2. **TO FIND A SITE:** Enter a place name from your one of your counties in the **upper left part of window using the City and State (NY) boxes**. Then click on **“GO.”**

Microsoft Research Maps

Home | Advanced Find | Famous Places | Web Services | About | Bing Maps

Search MSR Maps

Street

City


Tottenville

State

NY

MSR Maps

Famous Places



[Giants Stadium, The Meadowlands, New Jersey](#)

[Pentagon, Virginia](#)

[Statue of Liberty](#)

[B-52 Air-craft, Davis-Monthan AFB, Tucson, Arizona](#)

3. SEARCH RESULTS: You will be given a list of all the images that match your “place” query. Select the place that is located in your county. In the example above, I typed Tottenville in the “City” box and NY in the “State” box to get the list (below) of Aerial Photo and Topo Map of southern Staten Island, a neighborhood of NYC.

Place Name	Available Image
1 Tottenville, New York, United States	Aerial Photo 3/29/1995 Topo Map 7/1/1986

4. Choose the **TOPO MAP** option first. **Pan the map using the arrows** so the map is centered over an interesting area. Zoom in and out to find an interesting area. **PRINT THE MAP using the print button on the map border.**

5. Now click on **AERIAL PHOTO** tab for this same area. **PRINT THE AIR PHOTO.**

6. Go to the **BING MAP** link (<http://www.bing.com/maps/>) at the top right corner of the page to bring up a current (2009-2012) GPS image of the area. **PRINT THE IMAGE** using the print button. Click on EXPLORE MAP IMAGERY on the left sidebar to see different views of the area.

Q III-B1. Dates (*Be sure to write the name of the city or town next to the date.*)

- What is the **date** of your **Topo Map**?
- What is the **date** of your **Aerial Photograph**?

Q III-B2. Topographic Map vs. Aerial Photograph:

- Describe the information you get from each area portrayal.
- What are the advantages of each portrayal?
- What are the disadvantages of each portrayal?

Q III-B3. Bing Images

- Describe any changes in land use when comparing the topographic map and aerial photograph with the Bing GPS image of the area you selected.
- What advantages does a GPS image have over the standard aerial photograph?