

Can You Spot the Differences?



http://en.wikipedia.org/wiki/File:Spot_the_difference.png

Student Handout 1: Comparing Photographs



Figure 1. Historical Photo: Puerto Peñasco, Mexico, cir. 1950.



Figure 2. Contemporary Photo: Puerto Peñasco, Mexico, April 2007.

What changes do you notice?

Term to Know: View shed – field of view of the photograph – the position and angle from which the photograph was taken.

How can view sheds (below, from Google Earth) lead to better understanding the landscape?

Perspective Matters – Why Worry About View Sheds?



Perspective is everything..



View Shed Analysis

In repeat photography, a view shed is basically the “field of view” of an image. Diagramming a view shed in repeat photography allows for finely-detailed analysis of a landscape. The illustrations below demonstrate different view shed angles and scales. There are many other combinations of angle and scale, depending on the technology used. The view shed below take advantage of Google Earth’s ability to “tilt” images. Each angle and scale offers a specific “view” for comparing.

For example, figure 5 gives a good “bird’s eye” view of the area outside the view shed, allowing a person to analyze not only the immediate view shed, but the nearby area as well.

To construct a view shed, find where your historic and contemporary images were photographed. From that point, using both images and maps, fix the outside limits of the images, and draw lines from the origin point to the outer edges of the views on each map. This will create a triangular view shed that should roughly enclose the landscape and space of your images.

Example of view shed comparison from composite satellite imagery (using Google Earth)



Figure 3. Contemporary Photo



Figure 4. View shed image. Large Scale



Figure 3. Contemporary Photo



Figure 6. View shed image, Small Scale

Student Handout 2 – Rephotography Quiz Name _____

Here is an example of rephotography. Identify whether it is a large scale or small scale view shed. Think about what other information, maps, images, etc. you would need to analyze the changes in this area.



Figure 1: Hackett House, Tempe, AZ 2019
<https://www.facebook.com/hacketthouse.org>



Figure 2: Historical Photograph:
Craig House (Hackett House), Tempe, Arizona 1908
Old Settlers Collection (Original Number OS-54
Catalog #1987.1.2737) Tempe Historical Museum

Describe what you notice in these two images:



Arrow points to Hackett House

Is the a large scale or small scale view shed?

Explain your answer:

What other information would you want to have about this image or place.

Student Handout 3: Rephotography Project and Scoring Guide

Now you are ready to try some rephotography of your own.

Your task is to use the historical image provided, create a contemporary photography, and create a rephotography display demonstrating your knowledge of rephotography principles.

When writing up your observations be sure to state whether this image is mostly a human landscape or a physical landscape. Describe what you see in the photograph. Describe any changes you notice between the historical and historical view, other observations of the area. Consider some of the possible reasons for the changes. Explain the angle and direction of how the photograph was obtained.

When you create your display, make sure your description of observation and captions are both clear and large enough to see from at least two feet way. When creating your view sheds, be sure you have explained whether it a small or large scale view shed.

Use the following Scoring Guide to clarify what you need as you create your project:

Scoring Guide

Content	Points Possible	Points Earned
Historical Photograph – titled, labeled, source identified.	6	
Contemporary Photograph – titled and labeled.	4	
Written Description of Observations (half page, well-written, at least 5 observations are included, shows attention to writing conventions)	15	
View Sheds – Both large and small scale view shed for the image. Titled and correctly identified. May include additional maps/satellite images. (extra credit)	10	
Project is visually appealing – easy to see and read.	10	
Total	45	

Additional Information on Large Scale and Small Scale

From: <http://eps.mq.edu.au/courses/GEOS264/maps/mapch2/lscale.htm>

Confusion is caused by the two terms "large scale" and "small scale". "Large scale" refers to maps on which objects are relatively large, "small scale" to maps on which objects are relatively small. Large scale and small scale are subjective terms. For example a town planner who is used to working with plans at 1:1000, may consider 1:25 000 a small scale map, while an atlas compiler commonly working with maps of scales 1:5 000 000 would consider 1:25 000 a large scale map.

To understand the use of the terms, first think about the ratio method of showing map scale:

- the ratio 1:10 000 - means that the size of objects on the map is 1/10 000 of their size on the ground.
- the ratio 1:250 000 - means that the size of objects on the map is 1/250 000 of their size on the ground.

1/10 000 is a larger fraction than 1/250 000, so 1:10 000 is the large scale map.

(In the same way that 1/2 of an apple is a larger piece of apple when compared to 1/8 of an apple).

For Practice

Which of these is the large scale map?

1 inch equals 100 miles

1 inch equals 1 mile

1 inch equals 100,000 miles

1 inch equals 1,000 miles

1 inch equals 1 block of the city

1 inch equals 1 mile of the city