**Introduction.**
Chimney Point has been the "Gateway to Vermont" from New York for over two centuries. The width of Lake Champlain is narrowest from Crown Point, NY to Chimney Point, VT, enabling efficient passage over the water via ferry or, since 1929, the iconic Champlain Bridge (rebuilt this past year). Although this site was historically critical for trade and defense, it currently provides visitors with an exceptional view of Adirondacks across the lake and of the Green Mountains of Vermont.

**Application.**
A site rooted in the history of the region and a critical passage through the landscape, Chimney Point is an ideal location for an important structure in Vermont which references the surrounding scenery and draws visitors to the area. The Senior Architecture Studio at Middlebury College is faced with designing an "interpretive center" at Chimney Point that acknowledges the history, geology, ecology, and nature of the site. As a critical component of the site is the views of the surrounding mountainous landscape, most students will design a space specifically designated for viewing the mountains in the area.

But how high should one build in order to optimize views without interrupting the landscape?
This study analyzes the change in visible peaks in the Adirondacks and Green Mountains from Chimney Point with a change in elevation, (presuming that, with an increase in height provided by a "viewing platform," one can see more peaks).

**Hypothesis:** As the elevation increases, the number of visible peaks should increase proportionately.

**Results.**
As predicted, the extent of the viewshed widens as one increases the elevation of the "viewing platform" or point of origin at Chimney Point. The relationship between visible peaks and elevations, however, is not directly proportional. As apparent in the graph, the factor at which the number of peaks increase diminishes from elevations after 10-15m. It, therefore, may not be worthwhile to build over 15 m (50 ft), as the increase in visible peaks may be insignificant while still creating an imposing feature on the landscape that will certainly have an effect on the viewshed from other locales in the region.

**Key.**
- Viewshed
- Chimney Point
- Visible Peaks
- Nonvisible Peaks

**Sources.**
- Land/Cover Data from USGS Seamless Warehouse
- D8s and Vermont features from Middlebury College Server
- Mountain Peaks from ArcGIS Online
- State Map from KicoBase