

A Look into Geologic Changes of the Burlington Landscape

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Two hundred years ago, there was a massive settling of the eastern United States. Ships from Europe came over transporting goods and people to the so-called, “New World. In this settling period, the landscape saw rapid changes with the increase in population. As we have learned throughout this semester, the state of Vermont was greatly altered by deforestation for farming. The remarkable reforestation over the past 60-100 years seems unreal.

In more recent history, urban sprawl and city growth has impacted the landscape. The city of Burlington has seen dramatic changes in land alterations. To investigate these alterations and the potential effects they have on the landscape, a historical geologic study could be performed along with a present day survey.

Our plan is to look at as many decades of change in Burlington dating back as far as historic maps will allow (early 19th century for insurance maps, early 20th century for topographic maps) and look at the changes as Burlington grows and changes over time. One of the largest changes in the Burlington landscape is the Burlington waterfront, and the College Street gully that was filled for development purposes. A time change analysis can be performed on the Burlington waterfront using these maps and also of an archive of photographs that are kept in special collections in the Bailey Howe library. A volume calculation estimate can also be performed on the College Street gully to estimate the amount of fill that underlies many of Burlington’s most prominent buildings, including that of the Waterman building and the hospital adjacent. This volume estimate can be performed along with a present day survey using survey equipment and current USGS topographic maps.

If at all possible and through permission of local institutions and private residences, it may be beneficial to see if soil samples can be taken in the areas in which the gully was filled and if property damage over time has occurred due to this occurrence. One the broad scope, this project will focus on the evolution of an industrial city, into a flourishing college city, filled with what are now considered “historic buildings”. This project will help bring historic geology into a geomorphic application; How the landscape changes through development and settlement.

Possible equipment needed:

- GPS unit to locate particular areas and study sites for a “then/now” comparison.
- Survey equipment for assessing the college street gully in present conditions
- USGS topo maps, present and historic. Available at the Bailey Howe library.