

REVOLUTIONARY RECOVERY: GPR INVESTIGATIONS AT THE BATTLE OF BROOKLYN

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The Battle of Brooklyn, formally known as The Battle of Long Island, occurred in August 1776. The main Battle took place on the Heights of Guana, located between what is now Brooklyn and Flatbush, New York. The present-day Prospect Park is at the confluence of roads which served as arteries for movement of British and American forces over 240 years ago. In the summer and fall of 2017, Cadets (students) from the United States Military Academy partnered with the Brooklyn Commissioner of New York City Parks to conduct a field survey of the area, aiming to identify potential mass grave sites from the Battle of Brooklyn. Cadets collected Ground Penetrating Radar (GPR) data, using a Sensors & Software LMX200, during two surveys. Initial data analysis was inconclusive on any subsurface features resembling mass graves, however a building foundation was identified. Subsequent historical research correlates the foundation with the location of the Valley Grove House, where wounded Soldiers were potentially kept during the conflict. Our case study combined exploratory GPR surveys with a detailed photogrammetry survey and georeferenced historical maps and current satellite imagery. The location is an attractive survey site because the land in Prospect Park has not experienced modern construction or land modifications since the 18th century. This study demonstrates the potential for near-surface geophysics student research in support of public outreach and parks operations. Future work aims to continue recovering details of this Revolutionary War battlefield site.