

GEOSPATIAL TECHNOLOGY IN THE FIELD AND LABORATORY

Using Global Navigation Satellite Systems and Geographic Information Systems to Enhance the Student Learning Experience in GGY2002: Landscapes & Geographic Information Systems, and Beyond!

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Stage 1: students familiarise themselves with their area (south Belfast).



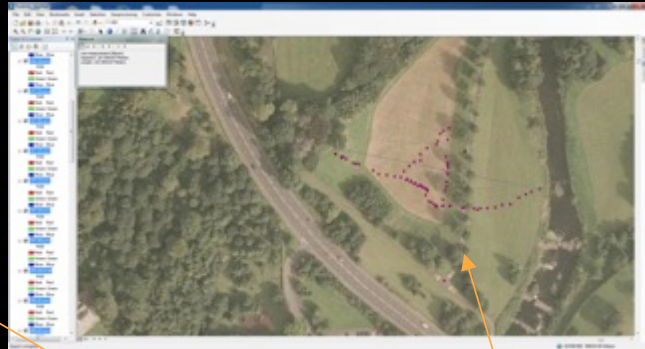
Stage 2: students explore the area (Clement Wilson Park, Malone Road). ©Crown copyright and database rights MOU203



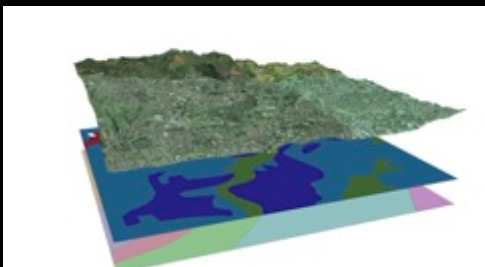
Stage 3: students explore how the area has changed through time using Land & Property Services data. Desktop Study Stage.



Stage 4: students make their way to the site and collect spatial and height data (in groups) using Garmin Handheld GNSS (GPS) receivers compared to survey grade GPS. Green transport encouraged.



Stage 5: in the lab, students use the data to create profiles, measure flooded areas and bring their waypoints into ARC GIS to compare to other data.



Stage 6: data includes geology, soils, historical land use, infrastructure, flood risk; all combined in a professional standard research portfolio.

Module leads onto:



Modelling the St Sorlin Glacier, GGY2052 Climate & Earth Surface Processes



Modelling slope instability with airborne LiDAR data, GGY3060 Advanced GIS

