

## **Landscape visualisation for environmental education, a case study on a native woodland afforestation project in Scotland**

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A change in forestry policy has recently led to an effort in re-establishing native woodlands in Scotland, to compensate for the almost complete loss of ancient woods. Public support is needed, however, to secure the woodlands in the long term and environmental education is therefore a main objective for afforestation projects. The potential of 3D landscape visualisation for communicating complex relations and processes on landscape level to the public suggests use of this technology for educational purposes. Based on the Darroch Wids project, a native woodland afforestation in North East Scotland, it was investigated how GIS-based visualisation can be used as a tool for landscape professionals, who are involved in public environmental education. The significance of native woods for nature conservation was analysed with a GIS. The resulting maps were visualised with the open source Virtual Terrain Project software and the visualisations were evaluated for their effectiveness as educational tools at secondary schools. In the GIS analysis it was shown that the Darroch Wids woodland will make positive contributions to the environment in terms of landscape heterogeneity, biodiversity and carbon sequestration. Landscape visualisations could be used as a means to communicate these findings to secondary school students and the evaluation indicated that these visualisations are effective tools in environmental education.