



Virtual Peatland Pavilion – a content ‘cheat-sheet’

Richard Lindsay
University of East London

The **Peatland Pavilion Tour mock-up** does not currently use all facilities available on the 3DVista virtual tour platform. This ‘cheat-sheet’ aims to provide a summary of what is possible. It also considers various other issues associated with creation of the virtual mock-up. The following is a summary of actions possible.

- Each 'room' or Pavilion dome is based on a 360 degree panorama. Within a panorama it is possible to initiate an action simply by, for example, entering the panorama (or delay an action for a specified period of time);
- More usually, however, actions are controlled by '**hotspots**' placed within a panorama (all actions controlled by hotspots can also be controlled by actions associated with the panorama itself);
- **Triggered actions** by hotspots or panorama actions include:
 - Opening another panorama stored in the tour (i.e. moving to another location);
 - Opening a collection of images stored in the tour ('photo album');
 - Opening a video, a 360 degree video or an audio file (e.g. narration) stored in the tour;
 - Opening various forms of media in a 'popup' window using a weblink or other form of link to something not stored within the tour;
 - Open a URL in another tab (to go to another linked tour, for example);
 - Download a file;
 - Include interactive e-learning actions which can be scored (or linked to an external LMS) (<https://www.youtube.com/watch?v=c138akjCDGc>)
 - Execute Javascript;
 - Note that background sounds can be made directional, controlled by the direction of view of the visitor
- Some of the Menu buttons at the bottom of the screen and at top right have not been activated. As examples, however, the '**Credits**' tab works, as does the '**Mute**' button in the drop-down menu at top-right.

Content stored as *weblinks* or *embedded weblinks* mean that the tour file-size is kept relatively small. The speed of the link to any given content will then depend on the capacity and bandwidth of the server hosting the content.

Content (e.g. video files, 3D models, photographs) stored *within* the virtual tour file system will substantially increase the file size of the tour. It may also cause the tour to run more slowly if being viewed from a hosting server (rather than as the stand-alone executable file on a local PC), depending on the capacity and bandwidth of the server.

In general, it is **better to employ links** than to store file content within the tour.

Using links, it is also possible to have tours which link to other tours, so there could be many linked Peatland Pavilions, for example, each Pavilion devoted to a particular theme, with the possibility of moving seamlessly from one Pavilion to another.

The 3DVista platform currently used for the Peatland Pavilion mock-up allows virtual tours to be distributed or shared in three ways:

- **hosted on the 3DVista server**, with either a link or an embedding code which can be shared - this is the method currently used for the Peatland Pavilion mock-up;
- **hosted on an external server of choice**, with access determined by the server host;
- **stand-alone executable file** which can be loaded and run on any stand-alone device such as a laptop or desktop computer or a VR headset.

Panoramas, 3D and 360 degree content are all **created externally** to the tour using, for example, 360 degree VR cameras such as the Ricoh Z1, Insta360 or 3D modelling software such as Blender or Unreal Engine. Hotspots and other forms of interaction listed above are then attached to or linked to appropriate features within the tour - thus a 3D display cabinet containing a feature of interest may be created externally and then incorporated into the panorama image. It may then have a hotspot applied to it, giving visitors information or displaying further aspects using hotspot actions.

In summary

- The fabric and visible content of the Pavilion are created using external software (or hardware in the case of 360 degree site panoramas);
- Hotspots are then attached to this fabric and visible content;
- Hotspots trigger actions that inform or illustrate in a variety of ways, or take the visitor to another location (including, potentially, one or more other Pavilions).

14th March 2021