Digital approaches for identifying, documenting, and reconstructing linear archaeological and past landscape features

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Linear archaeological sites and monuments comprise old roads, canals, dykes, and boundary fortifications including the Great Wall of China, Roman defence or delimiting systems such as the Germanic Limes or the World War II defending structures known as Siegfried Line or Westwall in the west of Germany, but also smaller features such as defensive ramparts close to the borderline of historical territories. Often, these features are in danger, because they are only partly known and therefore only partly protected. To address this issue, this session invites contributions that use digital technologies for recording and reconstructing the initial extent of linear sites or discuss the limits and potential of digital technologies for this purpose. Many of the linear sites are not adequately recorded in the data bases of monument protection agencies that focus on buildings, settlements, and cemeteries. Therefore, these sites are often neglected in planning projects. This session offers the opportunity to discuss methods for storing both the verified and the hypothesised site sections in appropriate archaeological data infrastructures that also take relationships between the sites into account, e.g., a small canal joining a larger one. Landscape features such as river courses and coastlines served as natural boundaries and formed part of trade and communication networks, therefore, studies are welcome that address landscape reconstruction in this context.

The session especially welcomes presentations

- that combine several digital methods for filling the gaps between known feature sections, e.g., geophysical surveys, rectification of old maps, use of remote sensing data e.g., aerial photographs and/or Lidar data,

- that assess the reliability of old or the newly found reconstructions by applying mathematical methods or simulation

- that discuss standards for recording linear features taking the reliability of the reconstructed sections into account as well as relationships between linear features.

#linear features #roads #canals #linear fortifications #landscape archaeology