The Application of Winthropping in the Search and Location of Clandestine Burials

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OVERVIEW

Initially used for counter-terrorism in Northern Ireland in the search and location of weapons caches, winthropping is a technique of identifying movement across, as well as within, landscapes [1]. It examines the way in which prominent markers, features and boundaries motivate, influence or constrain people's behaviour [2].

CURRENT STATUS

Although methods based on winthropping are being used to direct search and location, they are not widely disseminated and have yet to be laid open to vigorous quantifiable study. Limited academic research has been conducted into this area of methodology, with almost no published data or approaches.

Cranfield University is undertaking research into winthropping, in order to identify how landscapes can influence a person's decision making process, and the significance this has for search and location, in particular of clandestine burials.

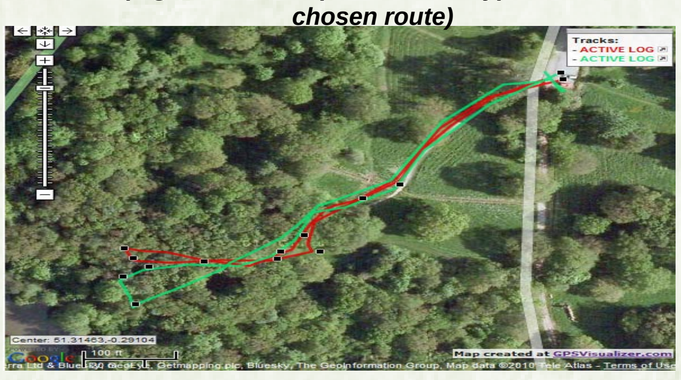
METHODOLOGY

For an initial study, participants were instructed to find a location for the hypothetical deposition of a corpse arising from murder. Participants were monitored over two locations, including the route they took (figures 1 and 2) and their reasons for doing so. Pre- and Post- questionnaires link to logged GPS data to give a rich picture of their decision making process.

Site A - Woodland

Site B – Heath land

(Figure 1 - Track points and waypoints of a chosen route)



(Figure 2 - Example of chosen routes by two different participants)

Experimental Summary

- Two locations chosen from 16 potential sites in Surrey.
- Sample population of 21 participants aged 18-70.
- Each participant completes both sites.
- Participants briefed and complete pre-practical questionnaires.
- Participants walk route to hypothetical clandestine burial point with GPS device.
- GPS records route walked (Track points) and decision points / points of interest (Waypoints).
- Experiment assistant takes photographs and records participant's reasoning at each Waypoint.
- GPS data downloaded and participant completes post-practical questionnaire.
- Track points/Waypoints verified against Google Earth.

PRELIMINARY RESULTS

Preliminary results show distinct patterns in chosen deposition sites and routes taken across landscapes – existing tracks were primarily followed, prominent features played a role in route decision even though this may have been subconscious, and many burial locations chosen were often near distinct trees or features within the landscape.

(Photographs showing examples of chosen routes and burial locations)

FURTHER WORK

This study is currently in its preliminary stages. Additional data analysis will include statistical and GIS.

Further research into the affects of differing variables (season, time of day, weight carried, differing landscapes) needs to be conducted in order to generate comprehensive behavioural models, in addition to refining the experimental methodology.

REFERENCES

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