## Title:

A Geospatial Analysis of the Crime Commission Process of Sexual Murderers

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## Abstract:

While there are numerous empirical studies on sexual murderers (see James & Proulx, 2014), little attention has been given to the geospatial analysis of their sexual homicides. Thus, unlike most other types of criminals, sexual murderers journey longer distances during the commission of their crimes (Martineau & Beauregard, 2015). Although the purposes of their mobility is not clearly established (ex.: avoid police detection, carry out a specific sexual rituel), it has been suggested that criminals who premeditated their crimes, or had deviant sexual fantaisies (Davies & Dale, 1995; Hazelwood & Warren, 1990) - which are the typical characteristics of serial sexual murderers (SSM; James & Proulx, 2014, 2015), travel greater distances. The aim of this study is to verify the hypothesis that geospatial sequence of SSMs' crimes differs from those of nonserial sexual murderers (NSMs) in terms of distances and multiplicity of locations (contact scene, attack scene, murder scene, body dump site). Informations of 110 sexual murderers (SSMs = 25, NSMs = 85) having committed a total of 174 homicides in France between 1960 and 2013 will be analyzed (Chi<sup>2</sup>, ANOVA). Geospatial (e.g., places of crime, places of residence, anchor points, indoor/ outdoor locations, vehicle involvement), situational (e.g., time of day, accomplice, routine activities), and victimologic variables (e.g., gendre and age of the victim, level of risk, victim/offender relationship) will be analyzed in order to consider all the dimensions that can influence criminal mobility (Rossmo, Lu, & Fang, 2011). Results will help to improve investigation techniques in sexual homicide cases such as identify priority areas of inquiry, prioritize police interrogation of suspects, perform comparative analysis of sexual homicide unsolved cases in order to identify series.

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