Methods and principles of police deployment within the "chaotic" urban structure

45

45.1

Elena Rodina¹, Vladimir Rodin² and Vladislav Dumachev³

- ¹ The Urban Chaos Research Group, USA
- ² Voronezh State University, Russia
- ³ Voronezh Institute of Police, Russia

Abstract

The first part of the following paper focuses on the discovery of fractal dimension within the all too chaotic structure of Tokyo streets, using the relation between the length of the streets and the area that they occupied. Hack's formula for the analysis of river basins was utilized, and the presence of fractal dimension was discovered in the high-density street zones branching within a limited territory. The second part of the paper explores how the measurement of fractal dimension of irregular street patterns can contribute to the development of more precise methods of the strategic police deployment within the "chaotic" urban structure.

Keywords:

"chaotic"zones with irregular streets, street order, area order, police deployment, map of valuable objects distribution, map of the fractal zones

elenarodina8@aol.com

Acknowledgements

We wish to thank Anna Sarris for her careful reading of our manuscript.