Martin Fleischmann

[1]Urban and Regional Laboratory, Charles University, CZ
[2]Geographic Data Science Lab, University of Liverpool, UK

0000-0003-3319-3366
citations: 483 (WoS) / 998 (GS)
h-index: 10 / 12

EDUCATION

Ph.D.   Architecture, University of Strathclyde, Glasgow, 2021
The Urban Atlas: Methodological Foundation of a Morphometric Taxonomy of Urban Form

MSc.   Urban Design, University of Strathclyde, Glasgow, 2017
Measuring Urban Form: A Systematisation of Attributes for Quantitative Urban Morphology

ACADEMIC APPOINTMENTS

2024–   Charles University in Prague
Research Associate, Department of Social Geography and Regional Development

2023-24   The Alan Turing Institute
Postdoctoral Research Associate

2022-23   Charles University in Prague
Postdoctoral Researcher, Department of Social Geography and Regional Development

2020–22   University of Liverpool
Research Associate, Department of Geography and Planning

SELECTED PUBLICATIONS

2024   Fleischmann, M. and Arribas-Bel, D., 'Decoding (urban) form and function using spatially explicit deep learning' *Computers, Environment and Urban Systems* 112, 102147
doi:10.1016/j.compenvurbsys.2024.102147

2023   Fleischmann, M. 'Clustergram: Visualization and diagnostics for cluster analysis'. *Journal of Open Source Software* 8 (89), 5240. doi:10.21105/joss.05240

2023   Wang, J., Fleischmann, M., Venerandi, A., Romice, O., Kuffer, M., and Porta, S. 'EO + Morphometrics: Understanding cities through urban morphology at large scale' *Landscape and Urban Planning*, 233. doi:10.1016/j.landurbplan.2023.104691

2022   Arribas-Bel, D. and Fleischmann, M. 'Spatial Signatures: Understanding (urban) spaces through form and function' *Habitat International*, 128, (102641).
doi:10.1016/j.habitatint.2022.102641

2022   Fleischmann, M. and Arribas-Bel, D. 'Geographical characterisation of British urban form and function using the spatial signatures framework' *Scientific Data*, 9, (546).
doi:10.1038/s41597-022-01640-8

2022   Singleton, A., Arribas-Bel, D., Murray, J., and Fleischmann, M. 'Estimating generalized measures of local neighbourhood context from multispectral satellite images using a convolutional neural network.' *Computers, Environment and Urban Systems*, 95, 101802.
doi:10.1016/j.compenvurbsys.2022.101802

2021 Fleischmann, M., Feliciotti, A., Romice, O. and Porta, S. 'Methodological Foundation of a Numerical Taxonomy of Urban Form.' *Environment and Planning B: Urban Analytics and City Science* 49 (4), 1283-1299. doi:10.1177/23998083211059835

2021 Fleischmann, M., Feliciotti, A. and Kerr, W. 'Evolution of urban patterns: urban morphology as an open reproducible data science.' *Geographical Analysis* 54 (3). doi:10.1111/gean.12302

2020 Fleischmann, M., Romice, O. and Porta, S. 'Measuring urban form: overcoming terminological inconsistencies for a quantitative and comprehensive morphologic analysis of cities.' *Environment and Planning B: Urban Analytics and City Science* 48 (8), 2133-2150. doi:10.1177/2399808320910444

2020 Fleischmann, M., Feliciotti, A., Romice, O. and Porta, S. 'Morphological tessellation as a way of partitioning space: Improving consistency in urban morphology at the plot scale' *Computers, Environment and Urban Systems* 80, 101441. doi:10.1016/j.compenvurbsys.2019.101441

2019 Fleischmann, M. 'momepy: Urban Morphology Measuring Toolkit' *Journal of Open Source Software* 4 (43), 1807. doi:10.21105/joss.01807

RESEARCH INCOME

2024 *European Space Agency* 'EuroFab: European Urban Fabric Classification Using Artificial Intelligence', €250,000

2023 *Primus Research Programme, Charles University* 'Influence of Socioeconomic and Cultural Factors on Urban Structure in Central Europe', €325,000

2018 *University of Strathclyde* 'John Anderson Research Award', £60,000

INVITED TALKS AND KEYNOTES

2025 'Open by Default' University College London, UK. Online. May 16.

2025 'Urban science as a software' University of California, Berkeley. USA. Online. April 15.

2024 'From a building to a region: Scalable morphology with urban morphometrics' International Seminar on Urban Morpho-Science. Nanjing, China. Oct 26

2024 'The emergent structure of cities' 4th UrbanMetaMapping conference 'City Transition'. Saarbrücken, Germany. Sep 12.

2023 'Open by Default' Oak Ridge National Laboratory, Oak Ridge. USA. Online. June 7.

2023 'Open by Default' University of California, Santa Barbara. USA. Online. June 2.

2023 'The emergent structure of urban form and function' Space Syntax Lab Seminars, UCL, London. Online. May 18.

2023 'Urban morphology drawn and seen' NEtwoRks, Data, and Society. IT University of Copenhagen. Denmark. Online. Apr 26.

2021 'Capturing the structure of cities with data science.' Spatial Data Science Conference 2021. Online. Oct 26.

2021 'Spatial Signatures: Dynamic classification of the built environment.' Spatial Analytics and Data seminar series by University of Newcastle and University of Bristol. Online. Mar 30.