Martin Fleischmann

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EDUCATION

Ph.D. Architecture, University of Strathclyde, Glasgow, 2021

MSc. Urban Design, University of Strathclyde, Glasgow, 2017

ACADEMIC APPOINTMENTS

2024– Research Associate, Dept. of Social Geography and Regional Development, Charles University

2023-24 Postdoctoral Research Associate, The Alan Turing Institute, UK

2022-23 Researcher, Dept. of Social Geography and Regional Development, Charles University

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

HONORARY APPOINTMENTS

2022– Fellow, Dept. of Geography and Planning, University of Liverpool

RESEARCH INCOME

Awards

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

2023 *NumFOCUS* 'Create a more consistent geometry API through the feature parity between low-level (Shapely) and high-level (GeoPandas) packages', $8,000

2020 *NumFOCUS* 'Improvement and modernization of GeoPandas documentation', $5,000

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

PUBLICATION ACTIVITY

17 papers indexed in Web of Science, 2 papers in other peer-reviewed journals, 5 policy reports
Web of Science: 363 citations, H-index: 9, Google Scholar: 774 citations, H-index: 11

Selected publications not included in Part D2

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

2024 Fleischmann, M., and Vybornova, A., 'A shape-based heuristic for the detection of urban block artifacts in street networks' *Journal of Spatial Information Science* 28. doi:10.5311/JOSIS.2024.28.319

2023 Calafiore, A., Samardzhiev, K., Rowe, F., Fleischmann, M., and Arribas-Bel, D., 'Inequalities in experiencing urban functions. An exploration of human digital (geo-)footprints' *Environment and Planning B: Urban Analytics and City Science* 0 (0). doi:10.1177/23998083231208507

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

2022 Rowe, F., Calafiore, A., Arribas-Bel, D., Samardzhiev, K., and Fleischmann, M. 'Urban exodus? Understanding human mobility in Britain during the COVID-19 pandemic using Meta-Facebook data' *Population, Space and Place*, e2637. doi:10.1002/psp.2637

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 Venerandi, A., Feliciotti, A., Fleischmann, M., Kourtit, K., Porta, S.'Urban form character and Airbnb in Amsterdam *NL*: A morphometric approach' *Environment and Planning B: Urban Analytics and City Science* 50 (2), 386-400. doi:10.1177/23998083221115196

2022 Samardzhiev, K., Fleischmann, M., Arribas-Bel, D., Calafiore, A., Rowe, F. 'Functional Signatures in Great Britain: A dataset.' *Data in Brief*, 108335, doi:10.1016/j.dib.2022.108335

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. 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 Dal Cin, F., Fleischmann, M., Romice, O. and Costa, J.P. 'Climate Adaptation Plans in the Context of Coastal Settlements: The Case of Portugal.' *Sustainability* 12 (20). doi:10.3390/su12208559

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

RESEARCH SOFTWARE DEVELOPMENT

2023– geodatasets: spatial data examples. (author and maintainer)

2022– Xvec: vector data cubes for Xarray. (author and maintainer)

2021– xyzservices: source of XYZ tiles providers. (author and maintainer)

2020– clustergram: visualization and diagnostics for cluster analysis (author and maintainer)

2020– PySAL: Python Spatial Analysis Library (core developer)

2019– GeoPandas: an open source project to make working with geospatial data in python easier (core developer)

2018– momepy: Urban Morphology Measuring Toolkit (author and maintainer)

EDITORIAL APPOINTMENTS

2021– Journal of Open Source Software

HONORS AND AWARDS

2024 Dean's Award for Early Career Researcher, Faculty of Science, Charles University

2023 Michael Breheny Prize, Environment and Planning B: Urban Analytics and City Science

TEACHING

2024– Spatial Data Science in Python (micro-credentials), Charles University

2023– Spatial Data Science for Social Geography, Charles University

MEMBERSHIPS

2021– Royal Geographical Society (Fellow)

2019– International Seminar on Urban Form (Member)

Updated April 2025