

Urban Grammar - Green Belts Capsule

Exploring the make up of Green Belts

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Introduction

This capsule¹ considers the make up of green belt areas in England using the Spatial Signatures (Fleischmann and Arribas-Bel 2022). You can see more on the data used, and how they have been combined, in the [Data Aquisition](#) section. We reserve this document to present the main results.

¹ https://figshare.com/articles/dataset/Geographical_Characterisation_of_British_Urban_Form_and_Function_using_the_Spatial_Signatures_Framework/16691575/1?file=30935050

National statistics

We begin with a table that summarises the form and function makeup of English green belts. To do this, we show the total area and the proportion of the total green belt land that is occupied by each of the 16 signature types.²

² You can see a brief description of these at <https://urbangrammarai.xyz/story/#ss>

type	Area (Sq.Km)	% of total area	% of area by signature
Urban buffer	7616.29	47.00	[REDACTED]
Countryside agriculture	7070.80	43.00	[REDACTED]
Open sprawl	828.55	5.11	[REDACTED]
Warehouse/Park land	441.63	2.50	[REDACTED]
Wild countryside	122.25	0.75	[REDACTED]
Accessible suburbia	90.12	0.56	[REDACTED]
Dense residential neighbourhoods	14.03	0.09	[REDACTED]
Disconnected suburbia	7.76	0.05	[REDACTED]
Dense urban neighbourhoods	6.50	0.04	[REDACTED]
Connected residential neighbourhoods	5.45	0.03	[REDACTED]
Hyper concentrated urbanity	0.92	0.01	[REDACTED]
Local urbanity	0.18	0.00	[REDACTED]
Gridded residential quarters	0.09	0.00	[REDACTED]

The most common class, “Urban buffer”, is hardly a surprise since the notion of green belt is worked into its very definition. From the original signature descriptions³, Urban buffer is:

“Urban buffer” can be characterised as a green belt around cities. This signature includes mostly agricultural land in the immediate adjacency of towns and cities, often including edge development. It still feels more like countryside than urban, but these signatures are much smaller compared to other countryside types.

What is a bit more interesting is how much (more than 40%) is occupied by “Countryside agriculture”, and even “Open sprawl” (+5%).

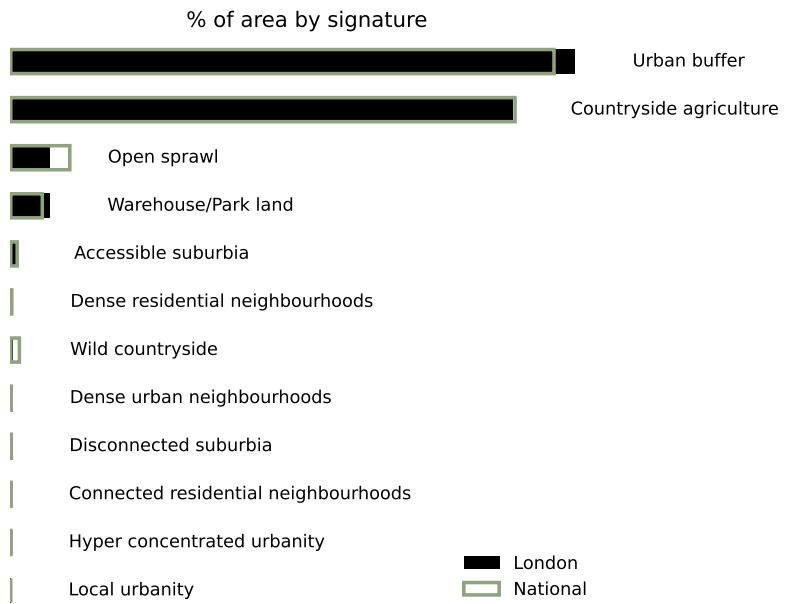
³ https://figshare.com/articles/dataset/Geographical_Characterisation_of_British_Urban_Form_and_Function_using_the_Spatial_Signatures_Framework/16691575/1?file=30935050

Regional maps

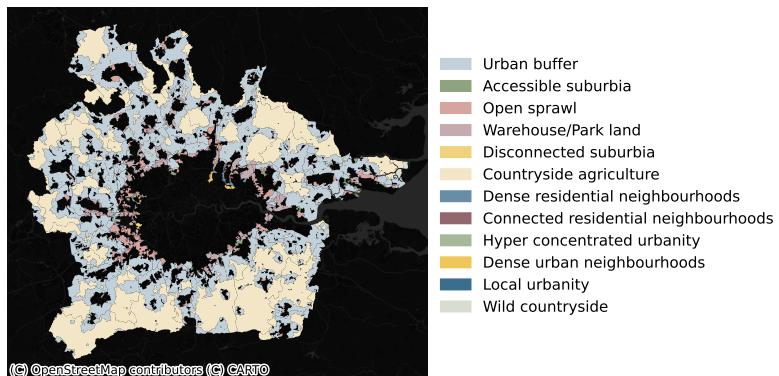
The proportions above are national aggregates, and it is possible that the signature mix varies across different urban areas. To explore this, below we present maps to explore five English cities.

London

Proportions



Map

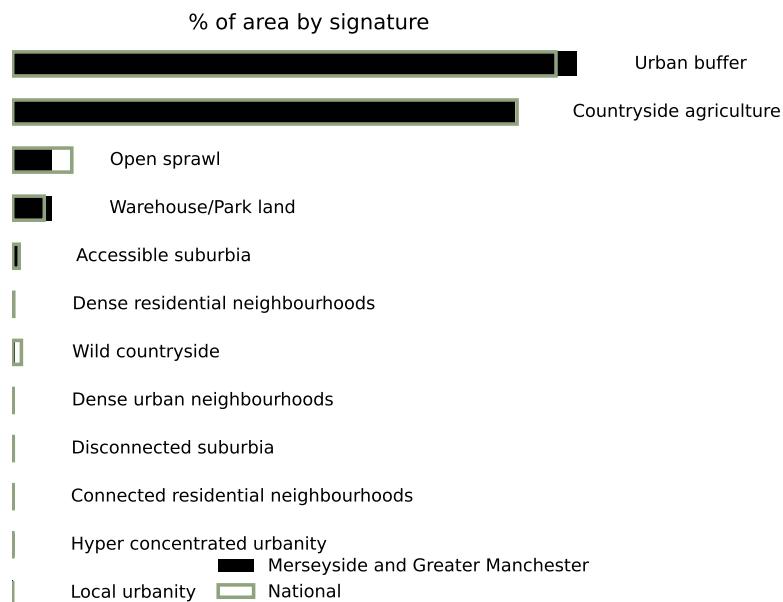


Table

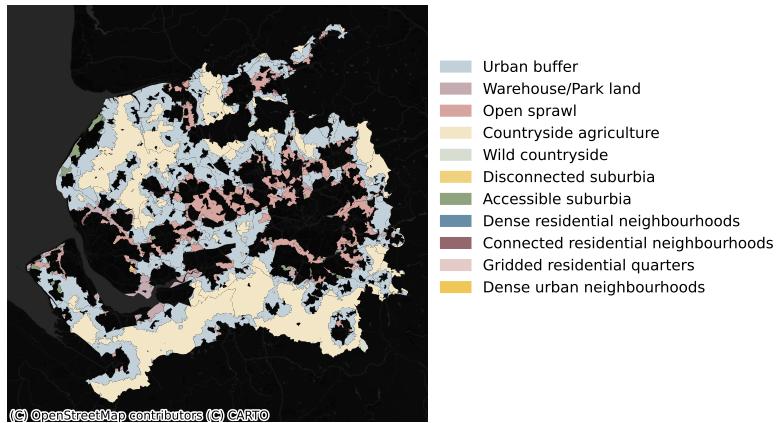
type	Area (Sq.Km)	% of total area
Urban buffer	2499.68	48.80
Countryside agriculture	2224.66	43.44
Open sprawl	173.90	3.40
Warehouse/Park land	171.94	3.36
Accessible suburbia	24.43	0.48
Dense residential neighbourhoods	8.06	0.16
Wild countryside	7.34	0.14
Dense urban neighbourhoods	5.39	0.11
Disconnected suburbia	3.77	0.07
Connected residential neighbourhoods	1.60	0.03
Hyper concentrated urbanity	0.92	0.02
Local urbanity	0.12	0.00

Manchester & Liverpool

Proportions



Map

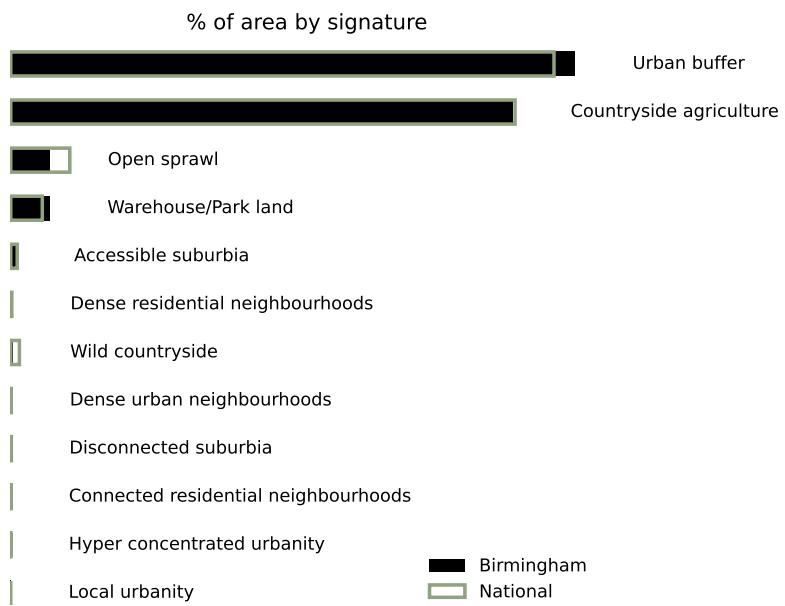


Table

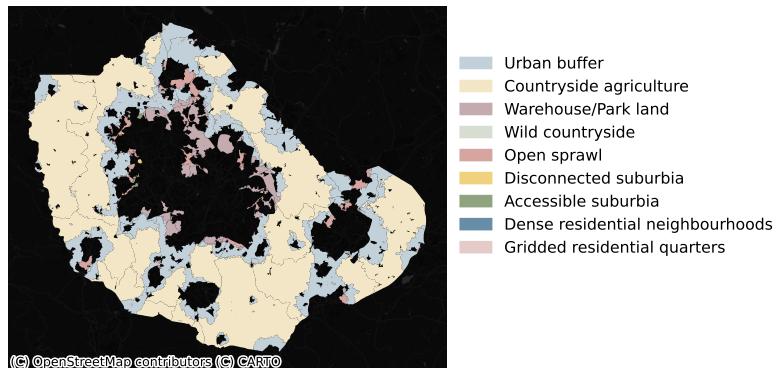
type	Area (Sq.Km)	% of total area
Urban buffer	1159.74	46.63
Countryside agriculture	949.70	38.19
Open sprawl	276.50	11.12
Warehouse/Park land	64.01	2.57
Accessible suburbia	26.22	1.05
Wild countryside	4.11	0.17
Connected residential neighbourhoods	2.88	0.12
Dense residential neighbourhoods	2.16	0.09
Disconnected suburbia	1.52	0.06
Dense urban neighbourhoods	0.03	0.00
Gridded residential quarters	0.02	0.00

Birmingham

Proportions



Map

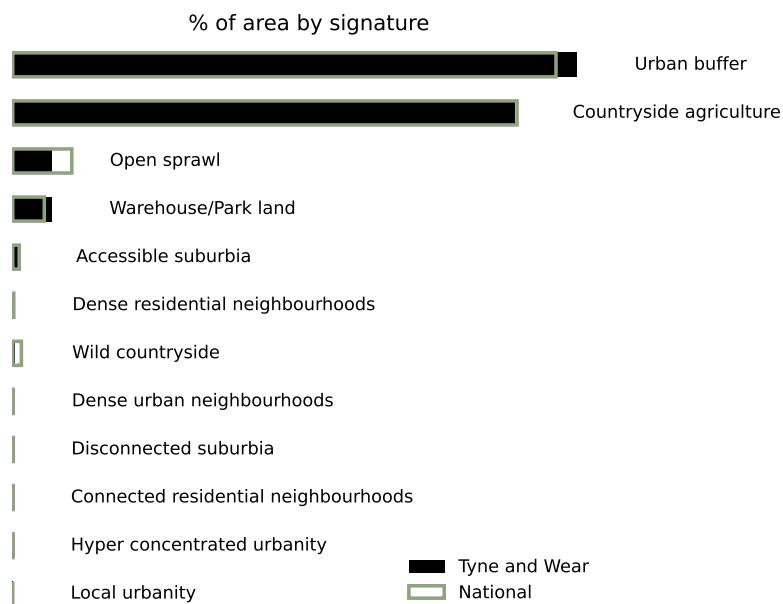


Table

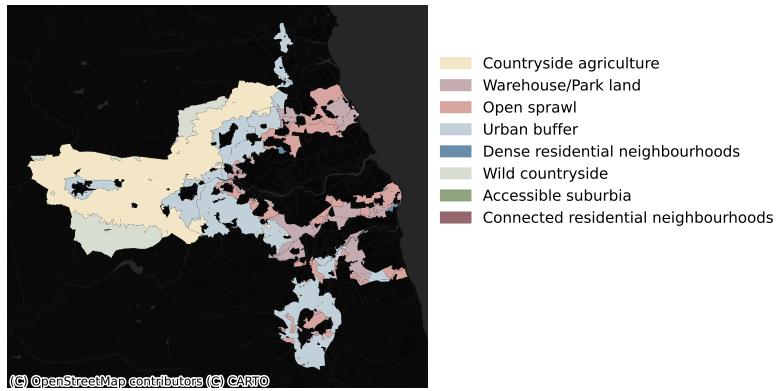
type	Area (Sq.Km)	% of total area
Countryside agriculture	1437.69	63.59
Urban buffer	663.73	29.36
Warehouse/Park land	105.94	4.69
Open sprawl	48.20	2.13
Accessible suburbia	2.70	0.12
Disconnected suburbia	1.19	0.05
Wild countryside	1.13	0.05
Dense residential neighbourhoods	0.14	0.01
Gridded residential quarters	0.06	0.00

Newcastle

Proportions



Map



Table

type	Area (Sq.Km)	% of total area
Countryside agriculture	274.99	38.12
Urban buffer	215.62	29.89
Open sprawl	82.98	11.50
Wild countryside	73.17	10.14
Warehouse/Park land	72.56	10.06
Dense residential neighbourhoods	1.72	0.24
Accessible suburbia	0.28	0.04
Connected residential neighbourhoods	0.00	0.00

References