KAMPALA HEAT ATLAS · 3D URBAN CLIMATE MODEL

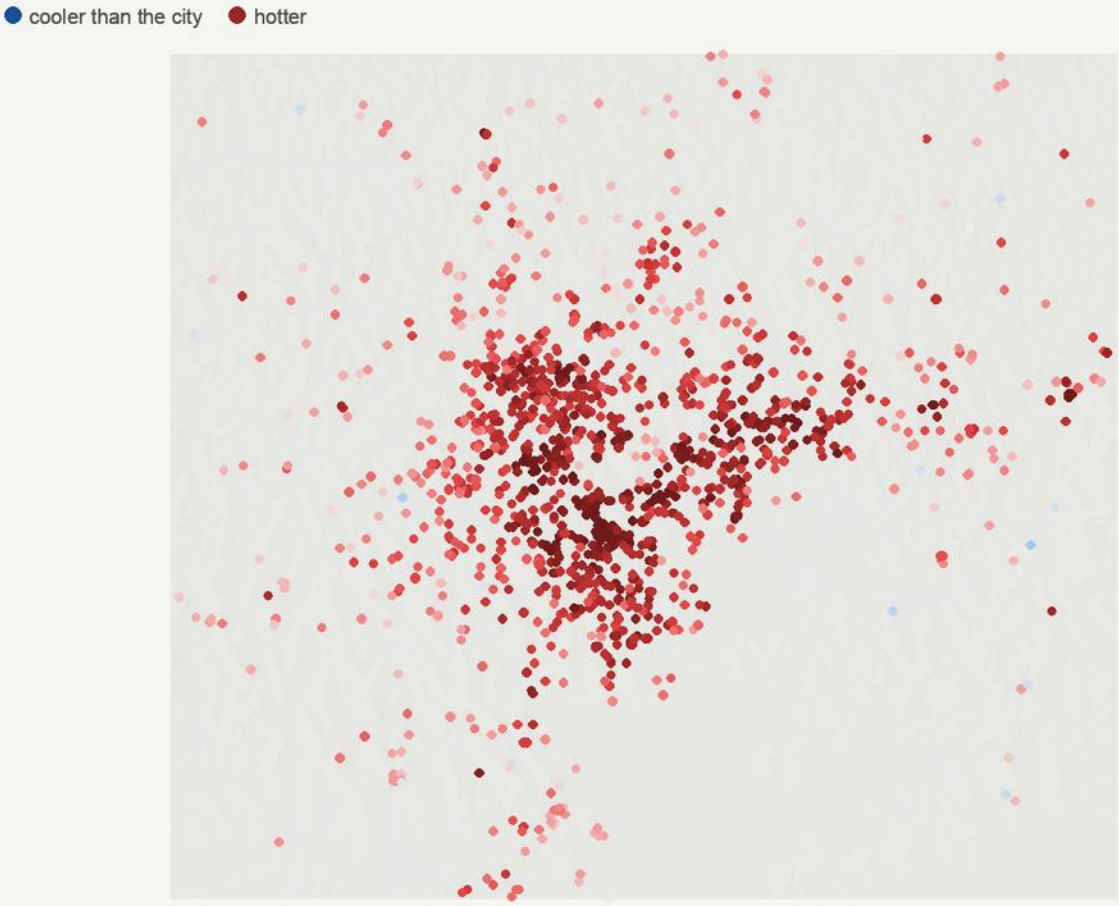
Hotter by design

Kampala's most tightly packed blocks are its hottest, and the ones that packed in fastest warmed most. A 3D model shows why. Swipe →



By Gava Charles

Kampala's surface heat follows its buildings

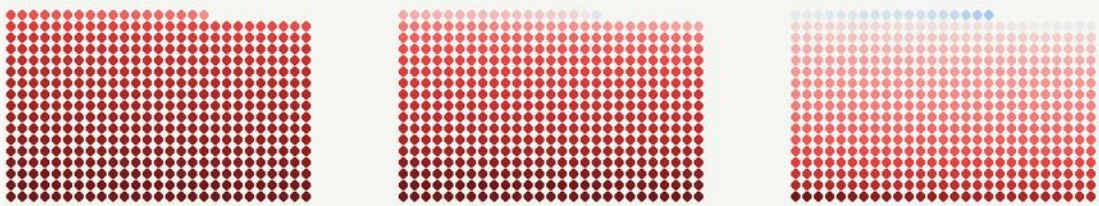


236 km² in the hottest class

dry-season surface temperature, 2025 · each dot is a 90 m block

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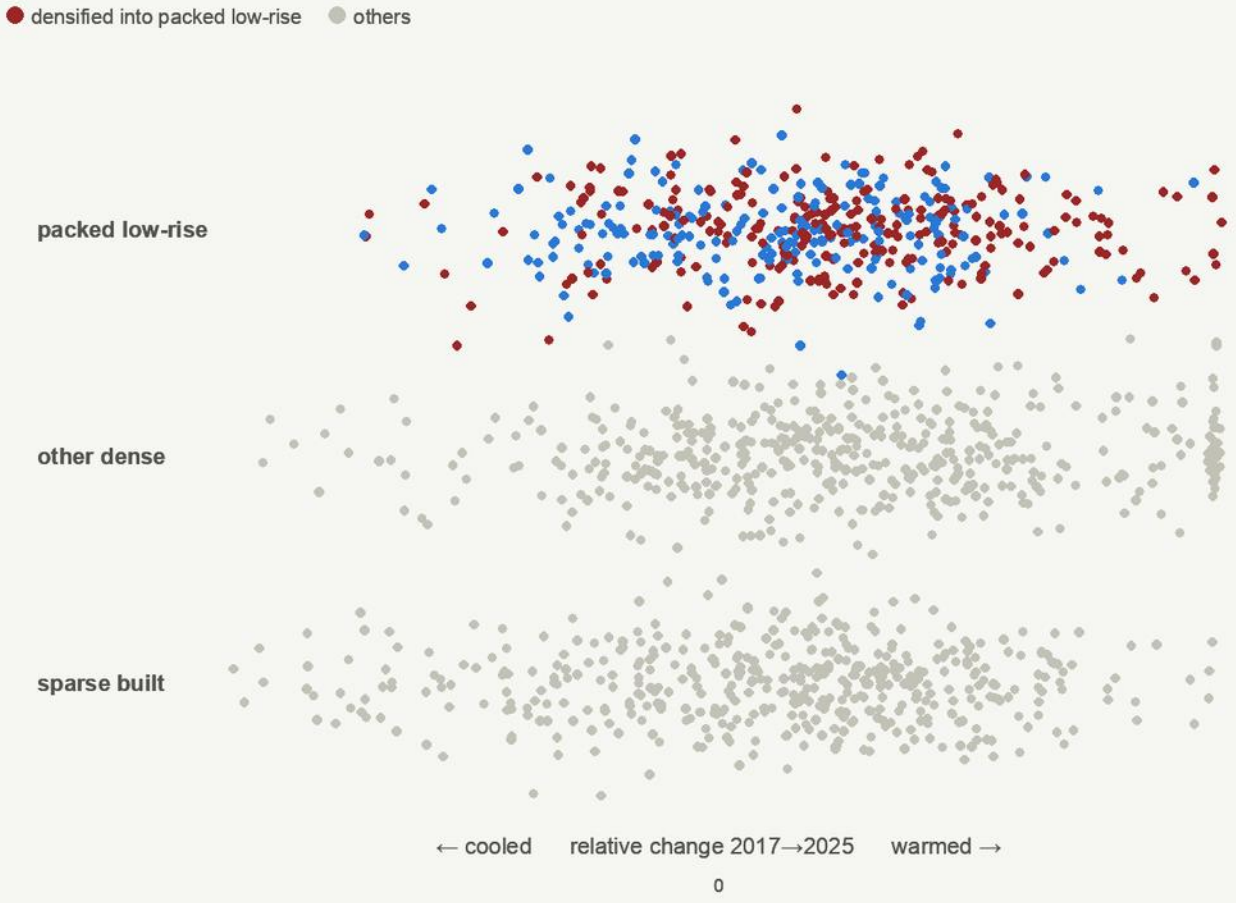
Small, tightly packed low-rise blocks run hottest



+6.3 °C above the city

other dense +5.3 °C · sparse +2.6 °C (2025)

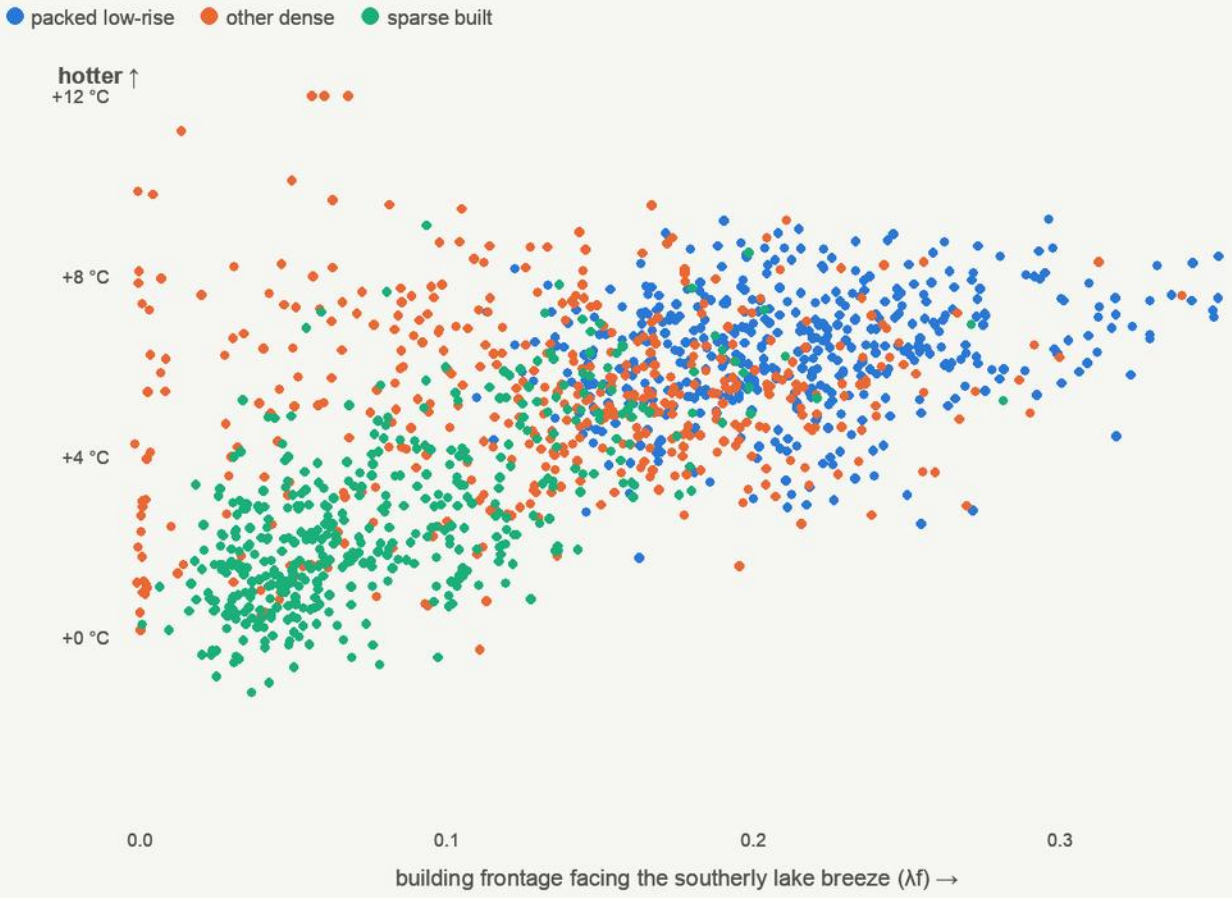
Blocks that packed in since 2017 warmed fastest



+1.0 °C since 2017

vs +0.4 °C where blocks were already dense (red = densified)

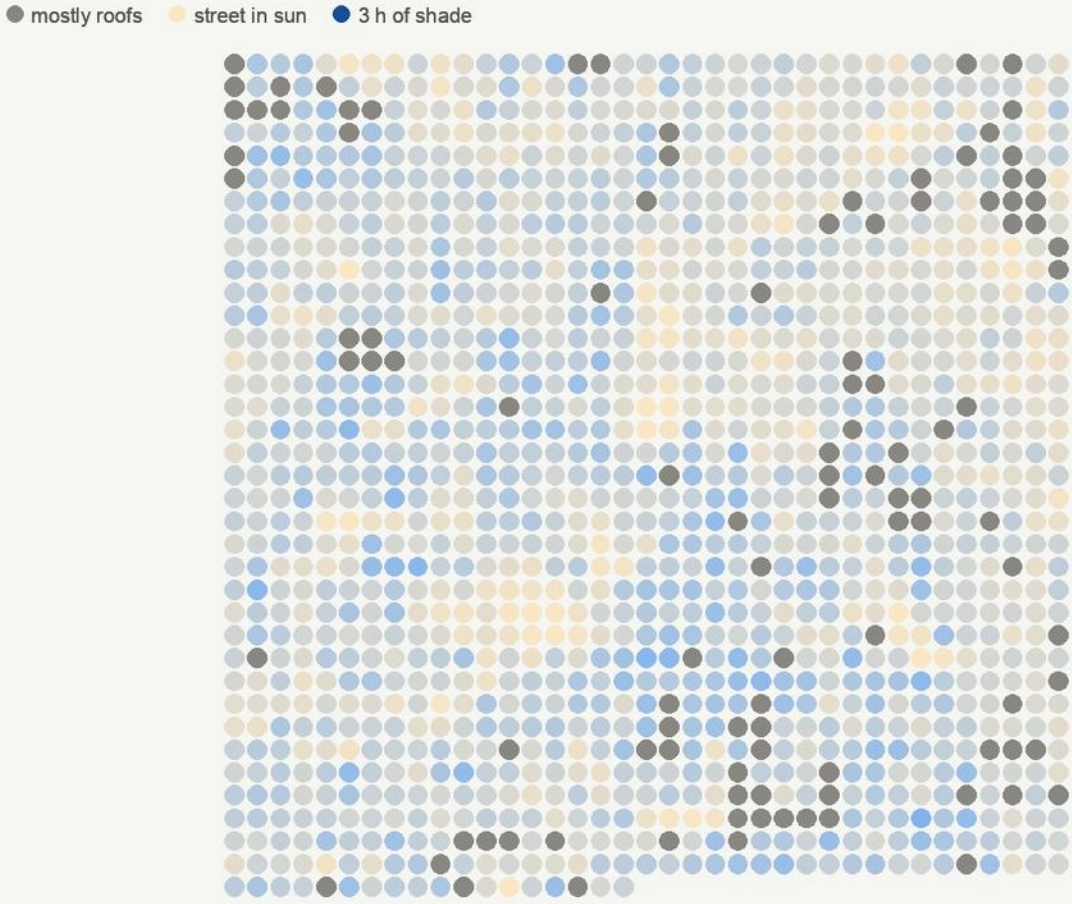
Packed blocks stop the lake breeze



+0.5 → +6.8 °C

surface heat rises with the building frontage facing the wind

And at midday there is almost no shade



0.6 hours a day

of shade, 10:00–16:00, on Kawempe's streets (3D model, 2 × 2 km)

Gava Charles

Explore it yourself

gavacharles.github.io/kampala-heat-atlas

maps, the 3D model and every figure