

The background of the entire slide is a grayscale aerial photograph of a city, showing a dense grid of streets and building footprints. A solid magenta horizontal band runs across the middle of the image, serving as a backdrop for the title and subtitle.

DAYLIGHT SIGNATURE

Compliance to Experience

Santiago Torres | Giulio Antonutto | Valerio Roberto Maria Lo Verso

The background of the image is a grayscale aerial photograph of a city, showing a dense grid of streets and buildings. A solid pink horizontal banner is positioned across the middle of the image, containing the word 'COMPLIANCE' in large, bold, yellow capital letters.

COMPLIANCE

practice

Site layout planning for
and sunlight

A guide to good practice

A guide to good practice
Paul Latham, Barbara King, Geoff Hopper, David Thomas, and A.J.
Building Technology Group

bre

Site layout planning for daylight and sunlight

A guide to good practice

A guide to good practice
Paul E. Lyndon, Benjamin King, Charles Johnson, George Tschanz, and Adam Lindahl
Building Technology Group

bre

Site layout planning for daylight and sunlight

A guide to good practice

A guide to good practice
Paul J. Linstead, Suzanne King, Judith Jackson, Christine Williams, and Adam Loughall
Building Technology Group

bre

Site layout planning
and sunlight

A guide to good practice

A guide to good practice
Paul F. Lichten, Suzanne King, Owen Tye
Building Technology Group

Site layout planning for daylight and sunlight

A guide to good practice

A guide to good practice
Paul Hingleton, Raymond King, David Huxford, Graham Tinsley, and Adam Longfield
Science & Technology Group

hce



Sets the methodology for assessments



“It is purely advisory”



“[...] the numerical values within it may be varied to meet the needs of the development and its location”



“not mandatory”



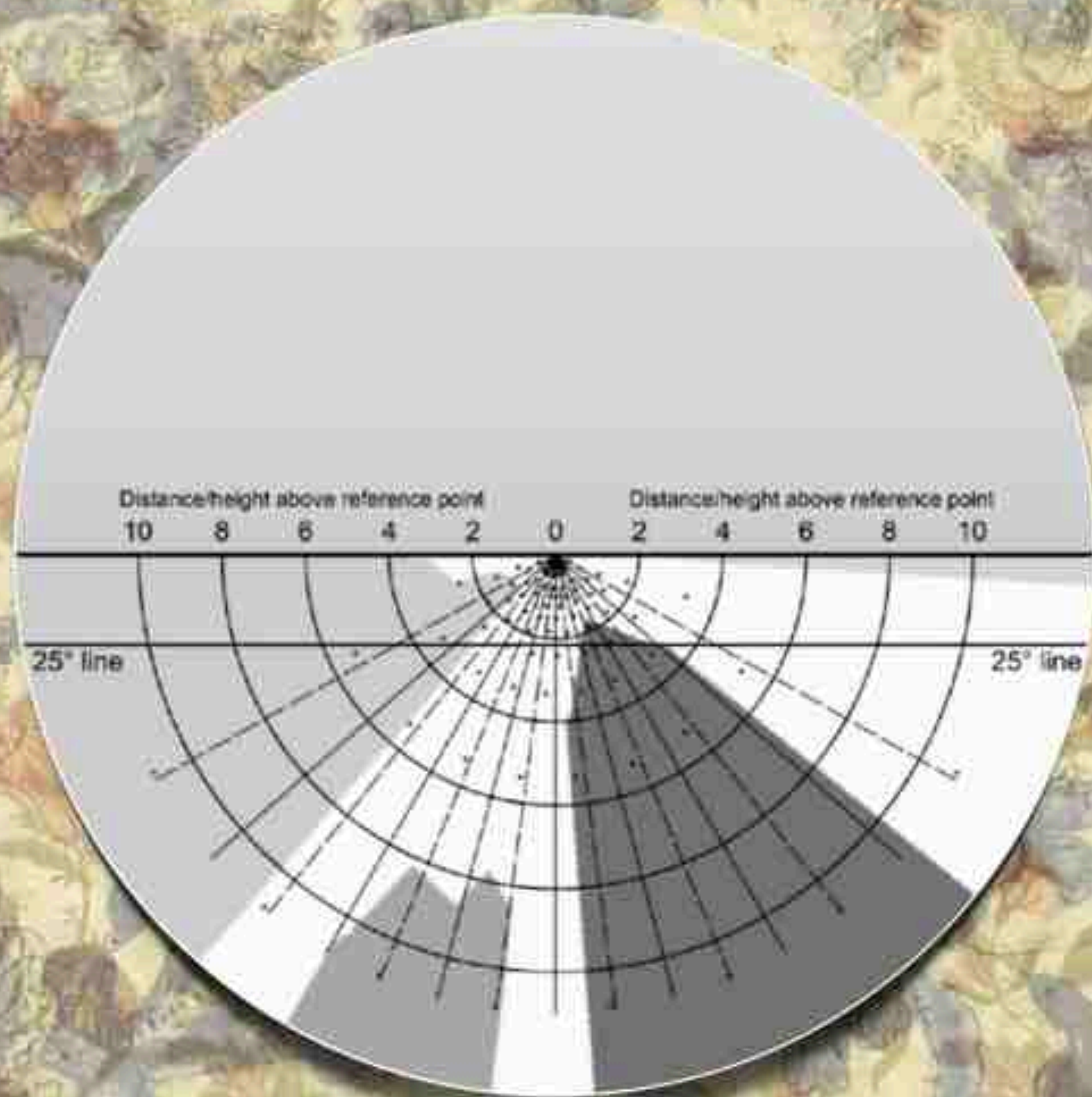
“interpreted flexibly”



“can use alternative targets”

250

27%

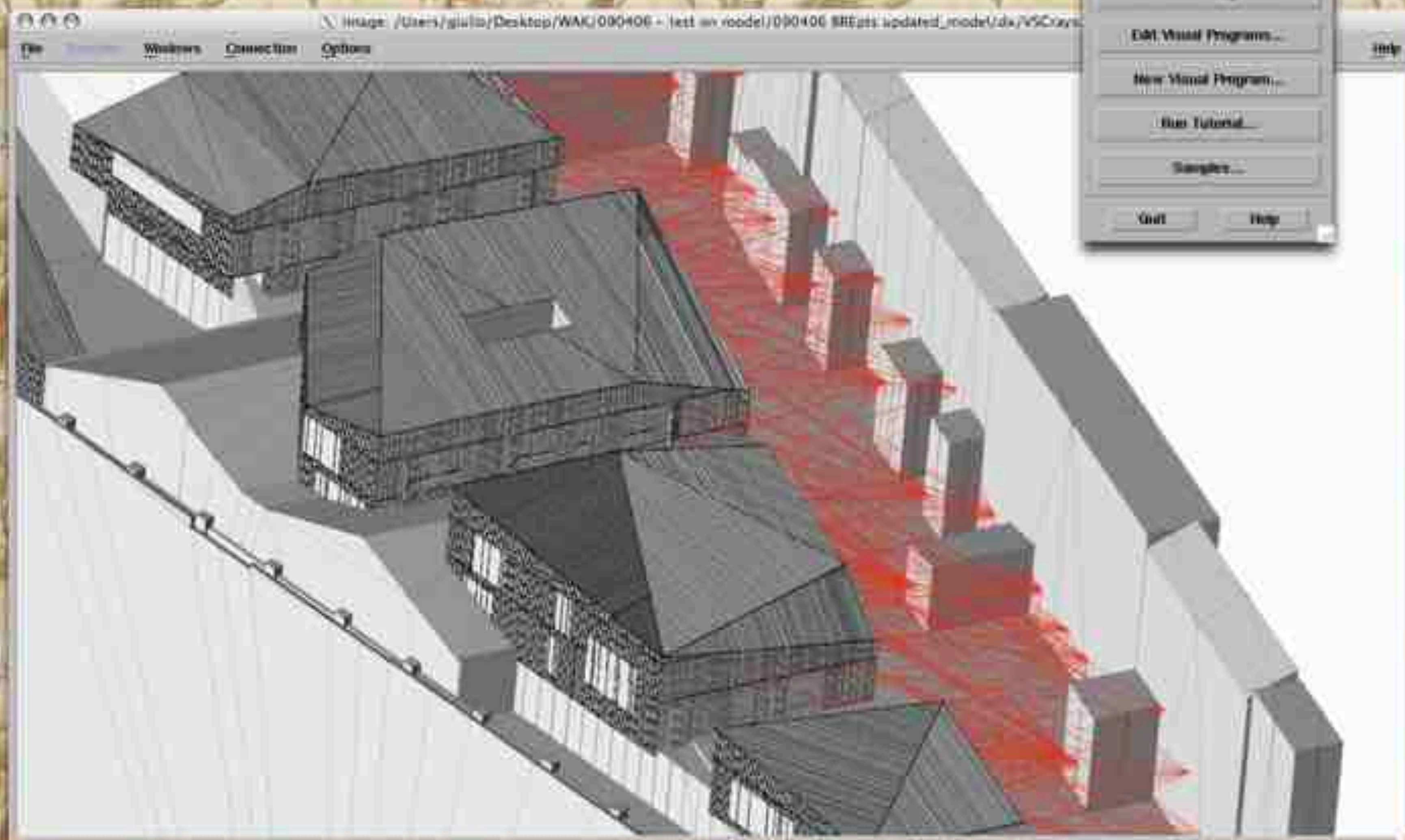




Ada Lovelace 1815-1852



Sketchpad, Ivan Edward Sutherland 1963



[illegible]



Worst case scenario logic.

An aerial photograph of a city grid, likely New York City, showing a dense network of streets and buildings. A solid pink horizontal banner is superimposed across the center of the image.

THREE FUNDAMENTAL QUESTIONS



Is compliance sufficient?



Can one decode daylight quality?

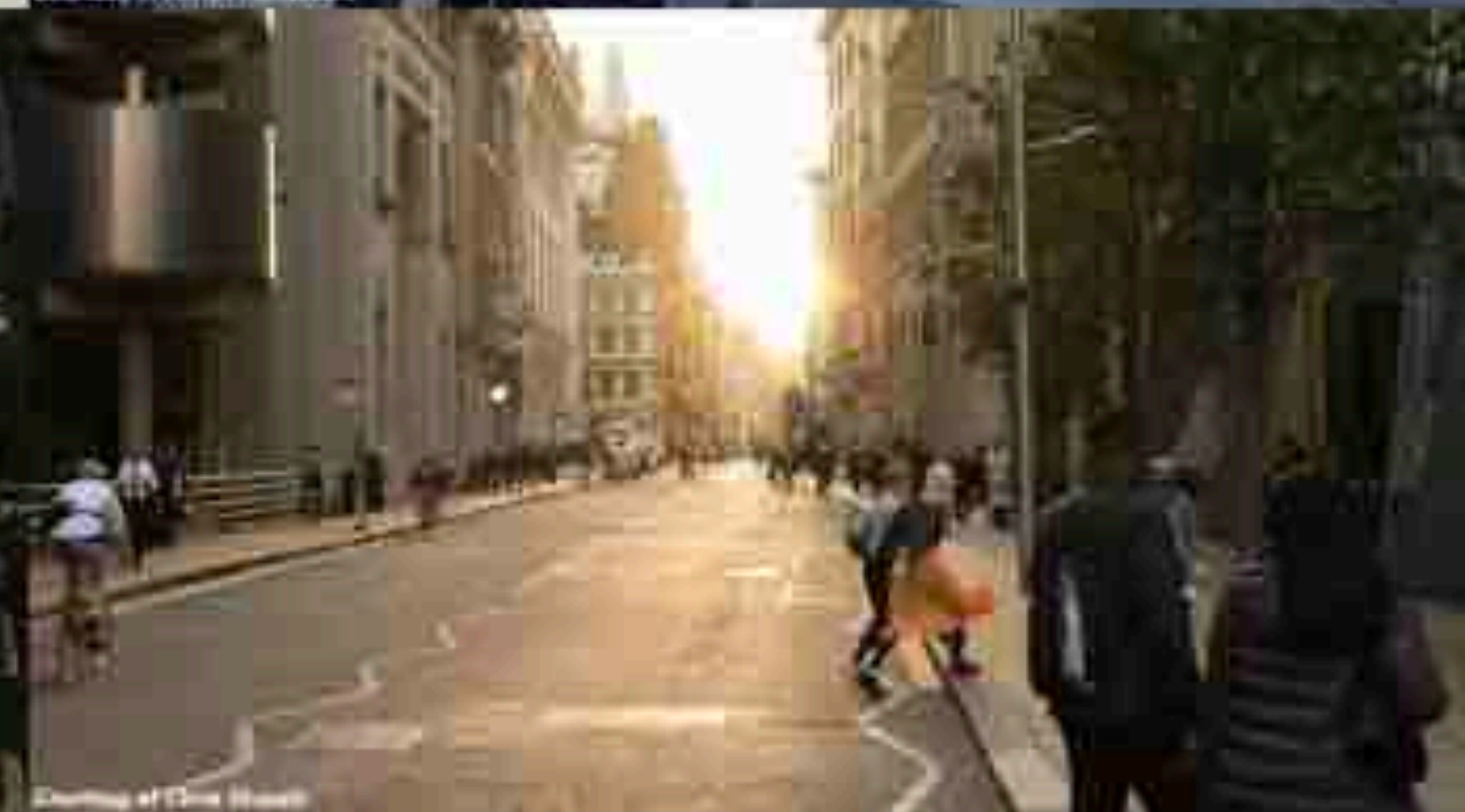
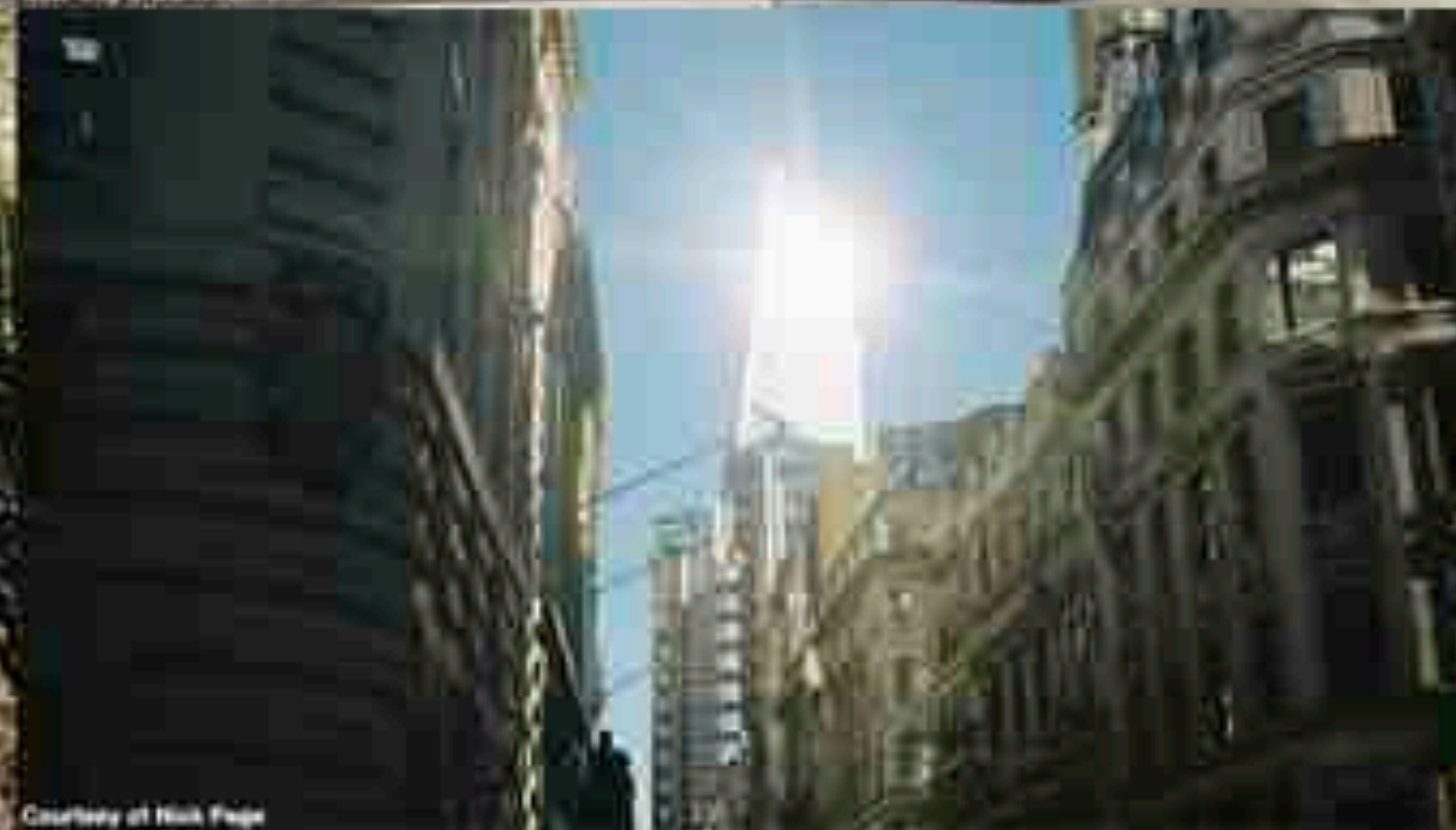


Can a design encode daylight quality?



An aerial photograph of a city grid, likely New York City, showing a dense network of streets and buildings. A bright pink horizontal banner is superimposed across the center of the image.

QUALITY IS CHARACTER



Courtesy of Julia Davies

Courtesy of Adrian Hirst

Courtesy of Simon Weston

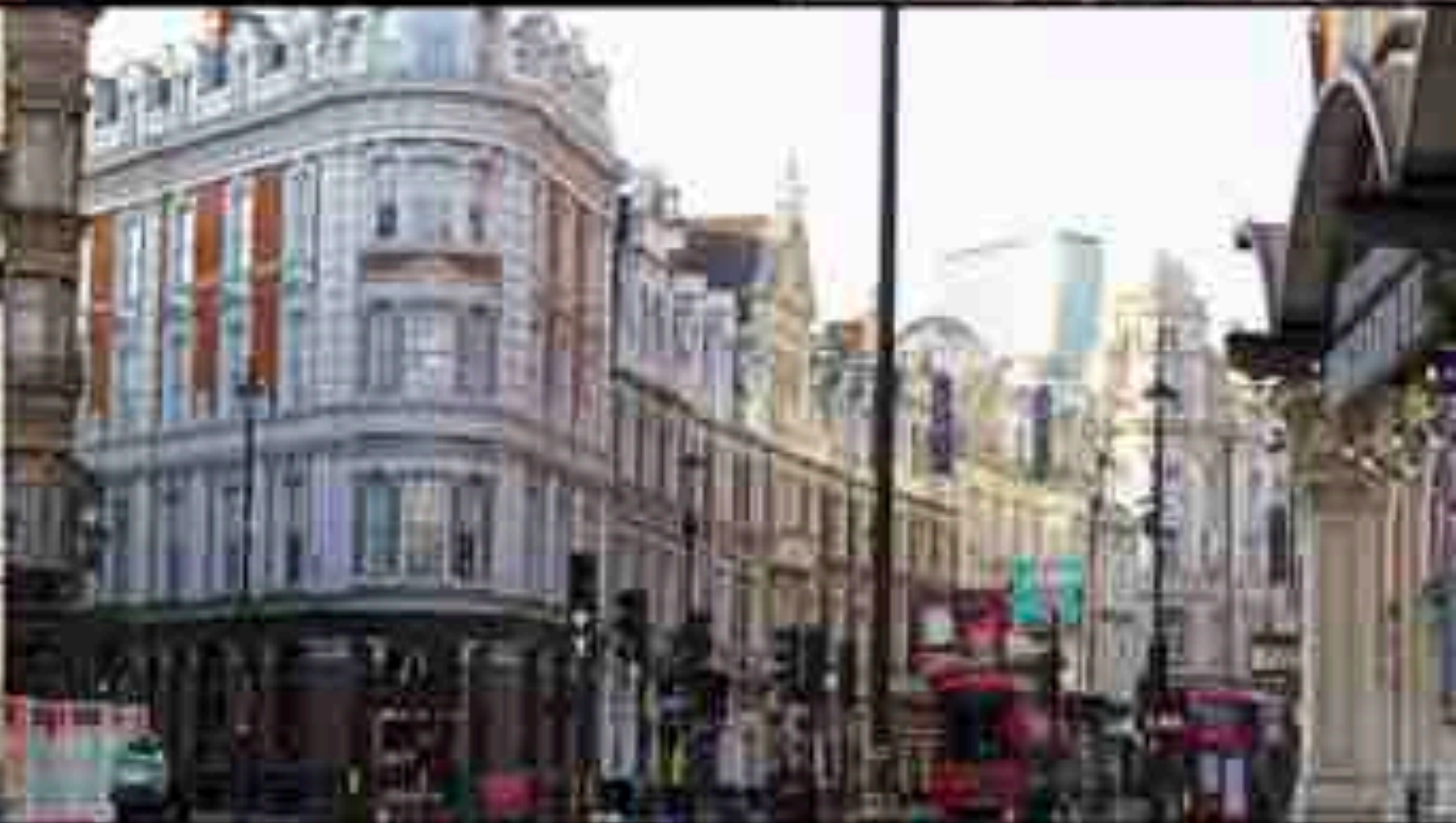
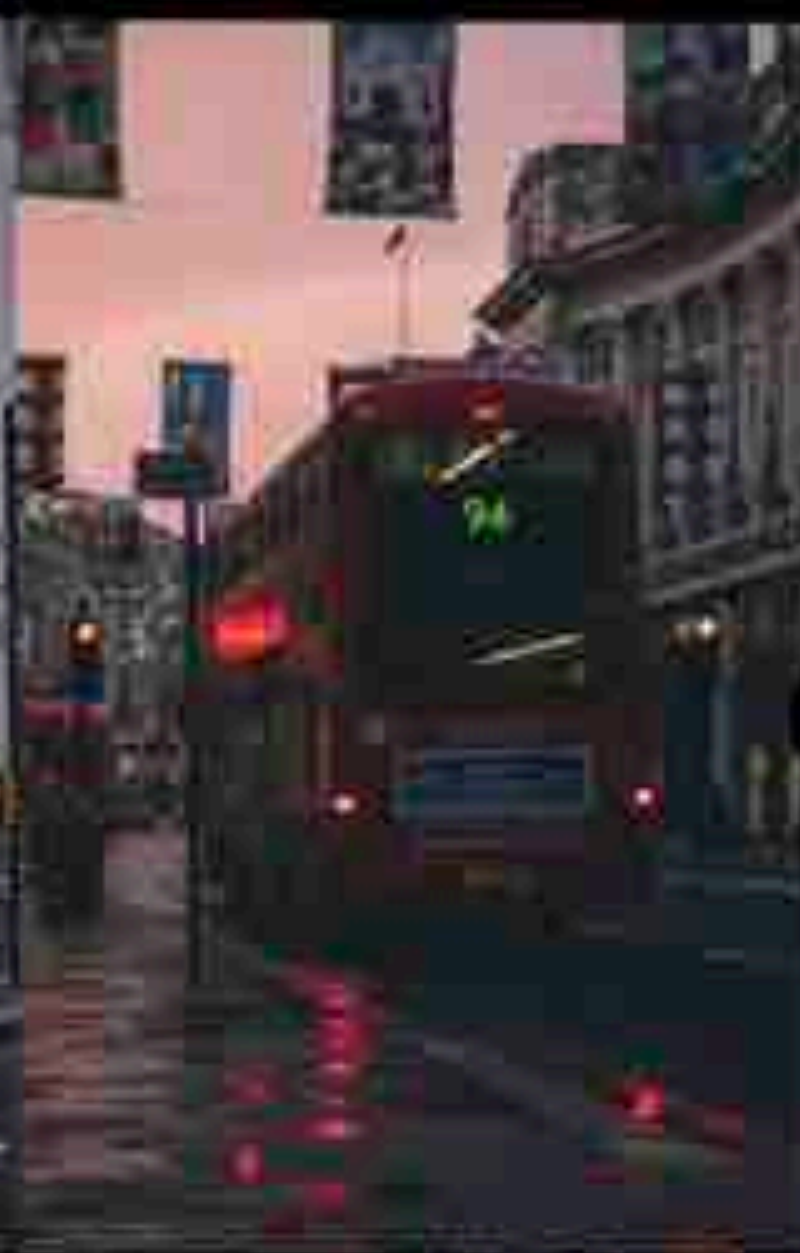
Courtesy of Nick Page

Courtesy of Chris Brown

Courtesy of Derek Hazzard

Courtesy of Chloe Evans

Courtesy of Oscar Hunt



An aerial photograph of a city grid, likely New York City, showing a dense network of streets and buildings. A solid pink horizontal banner is superimposed over the center of the image.

CHARACTER RECOGNITION



A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z



5



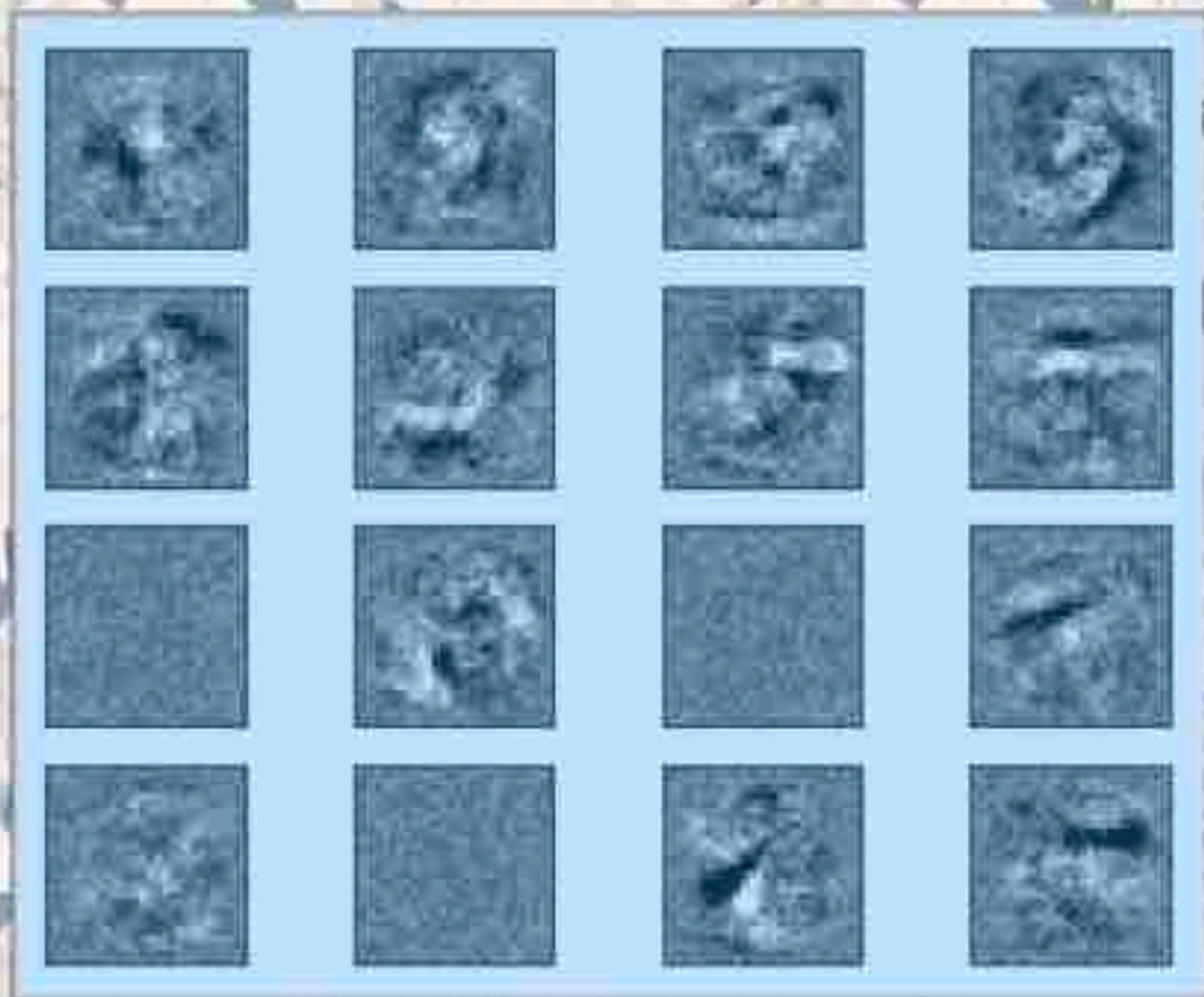
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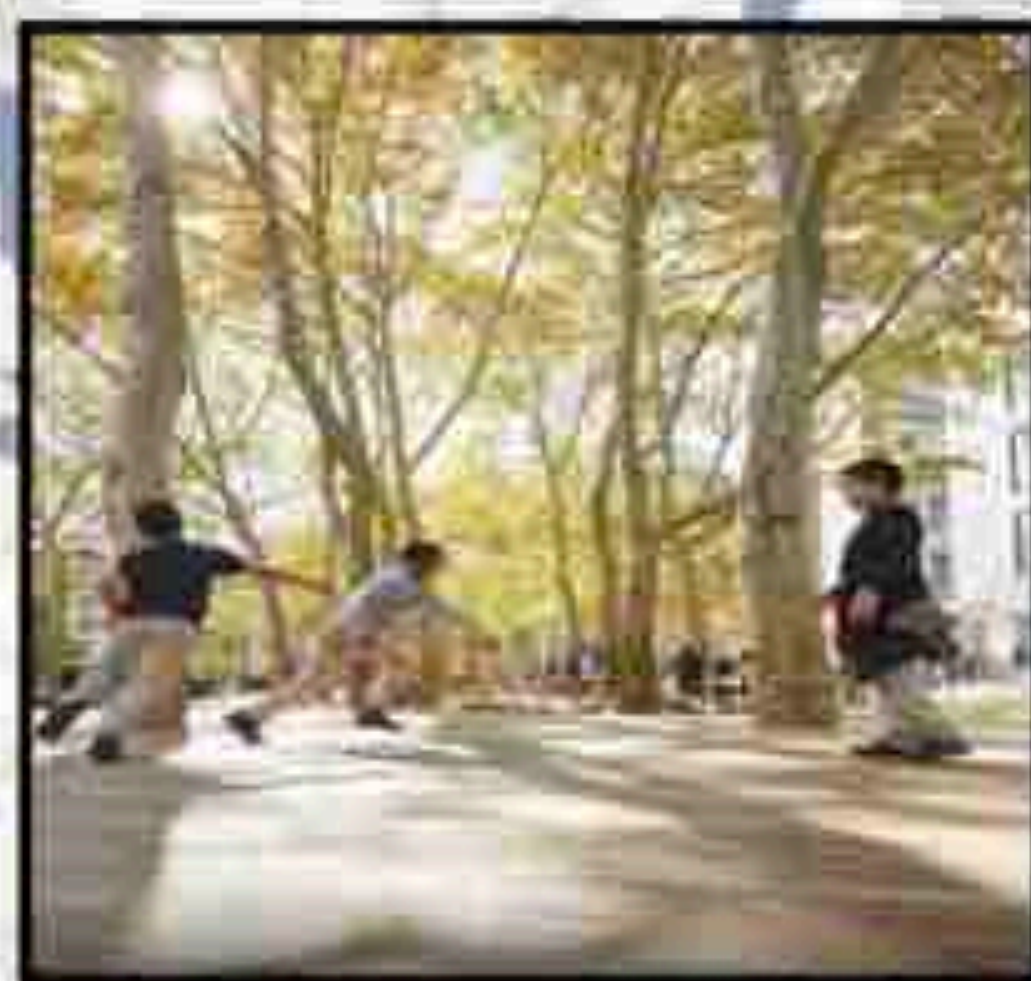
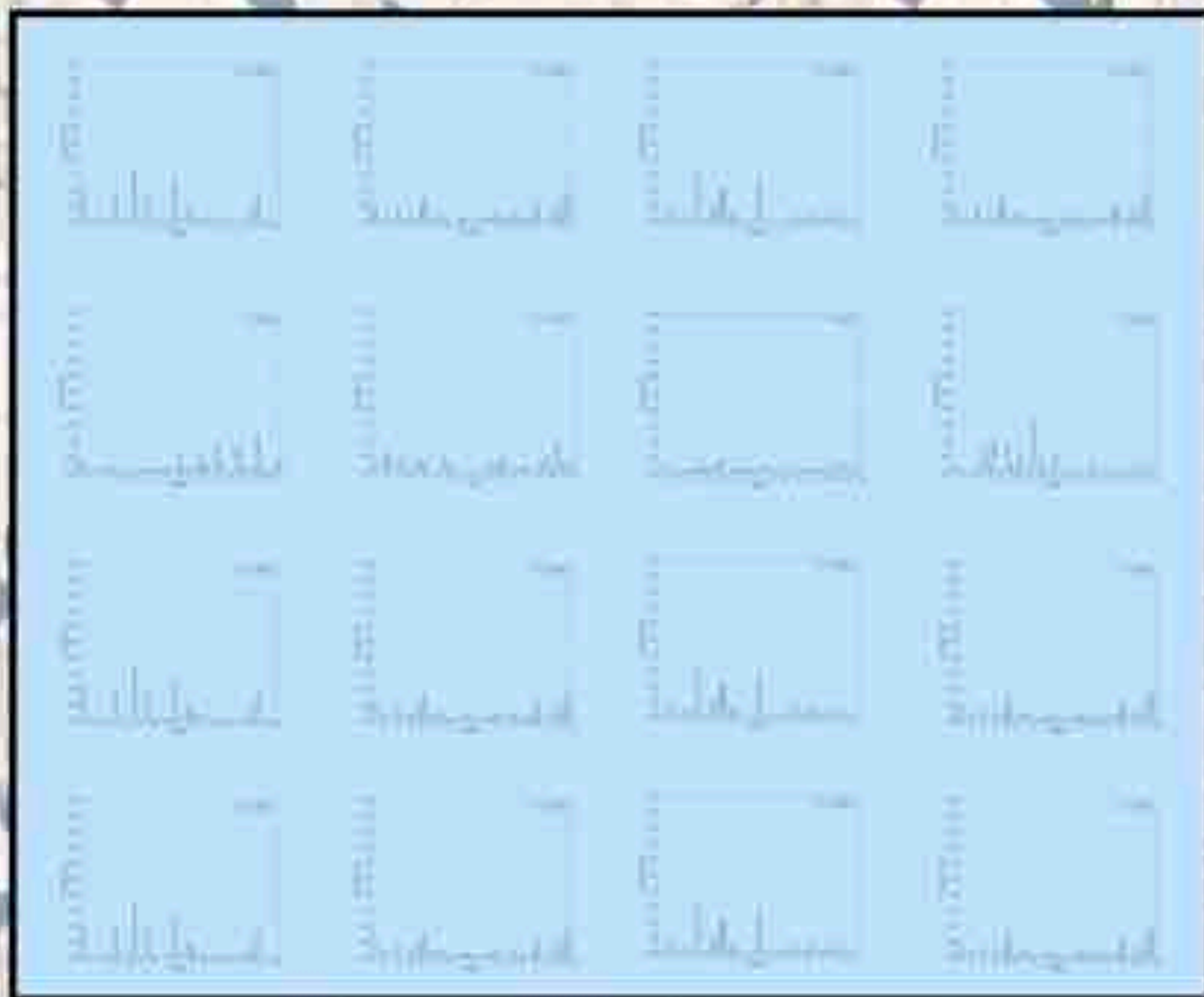
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1



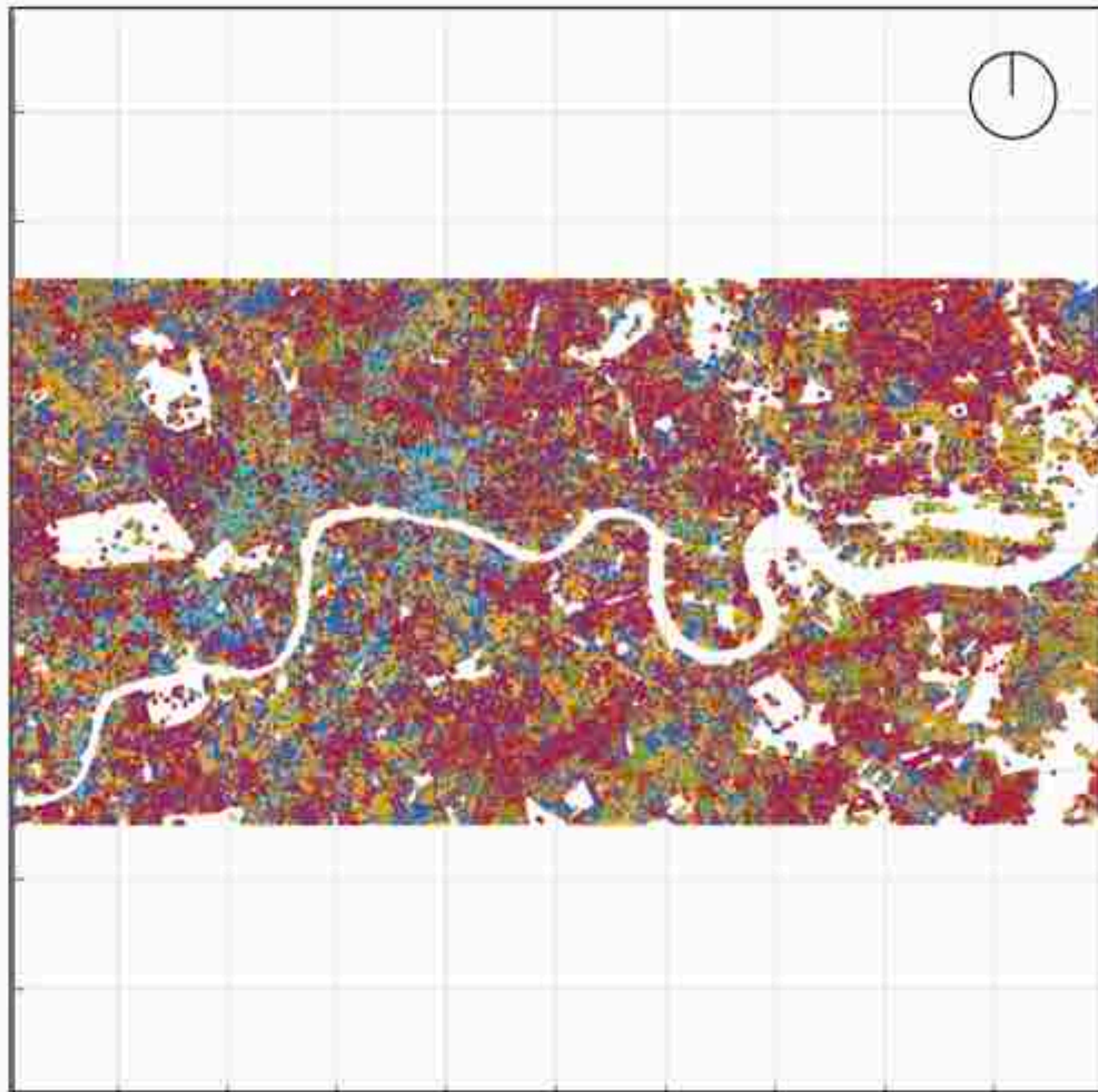




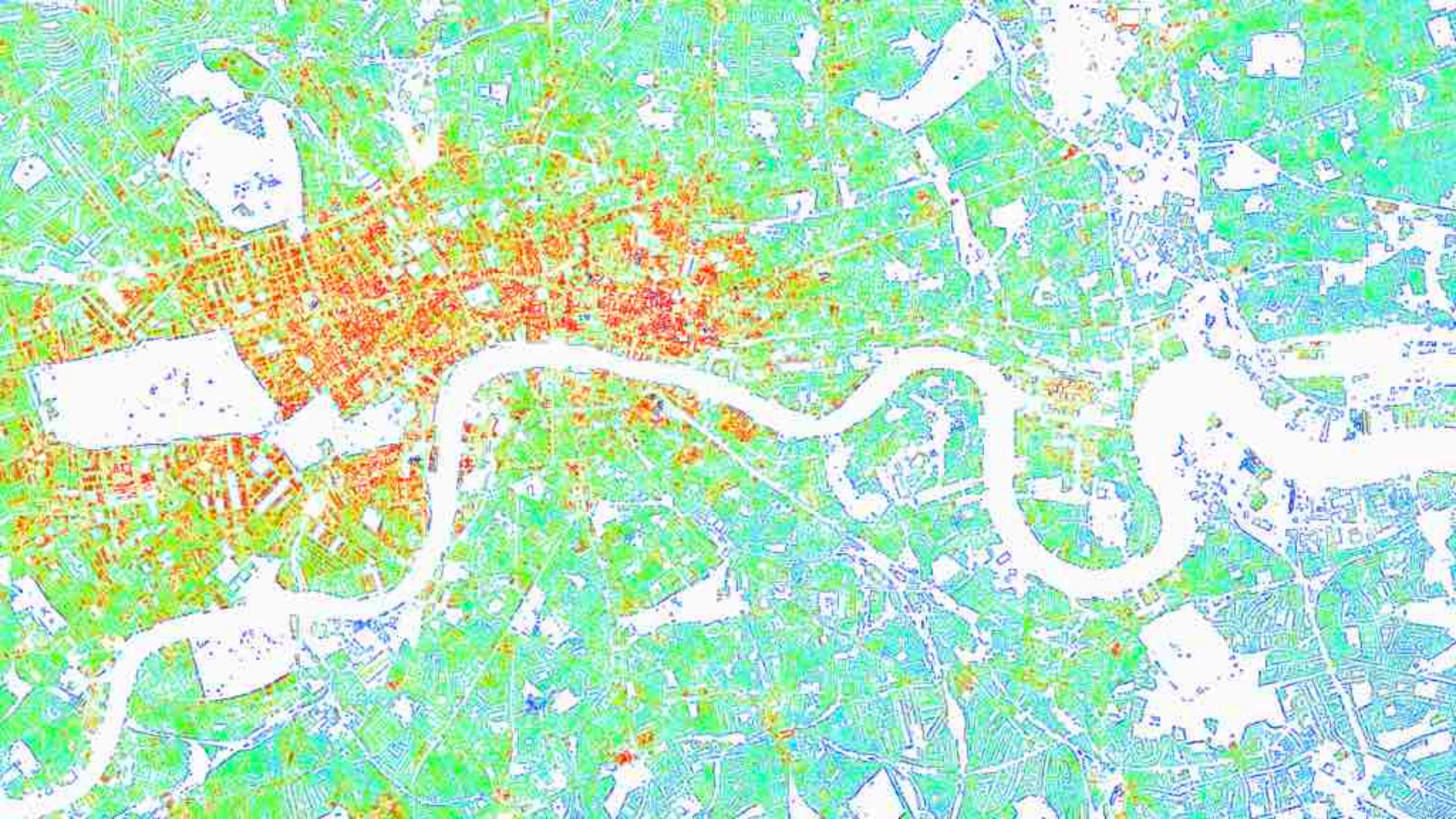
The background of the image is a grayscale aerial photograph of a city, showing a dense grid of streets and buildings. A solid pink horizontal band runs across the middle of the image, serving as a backdrop for the text.

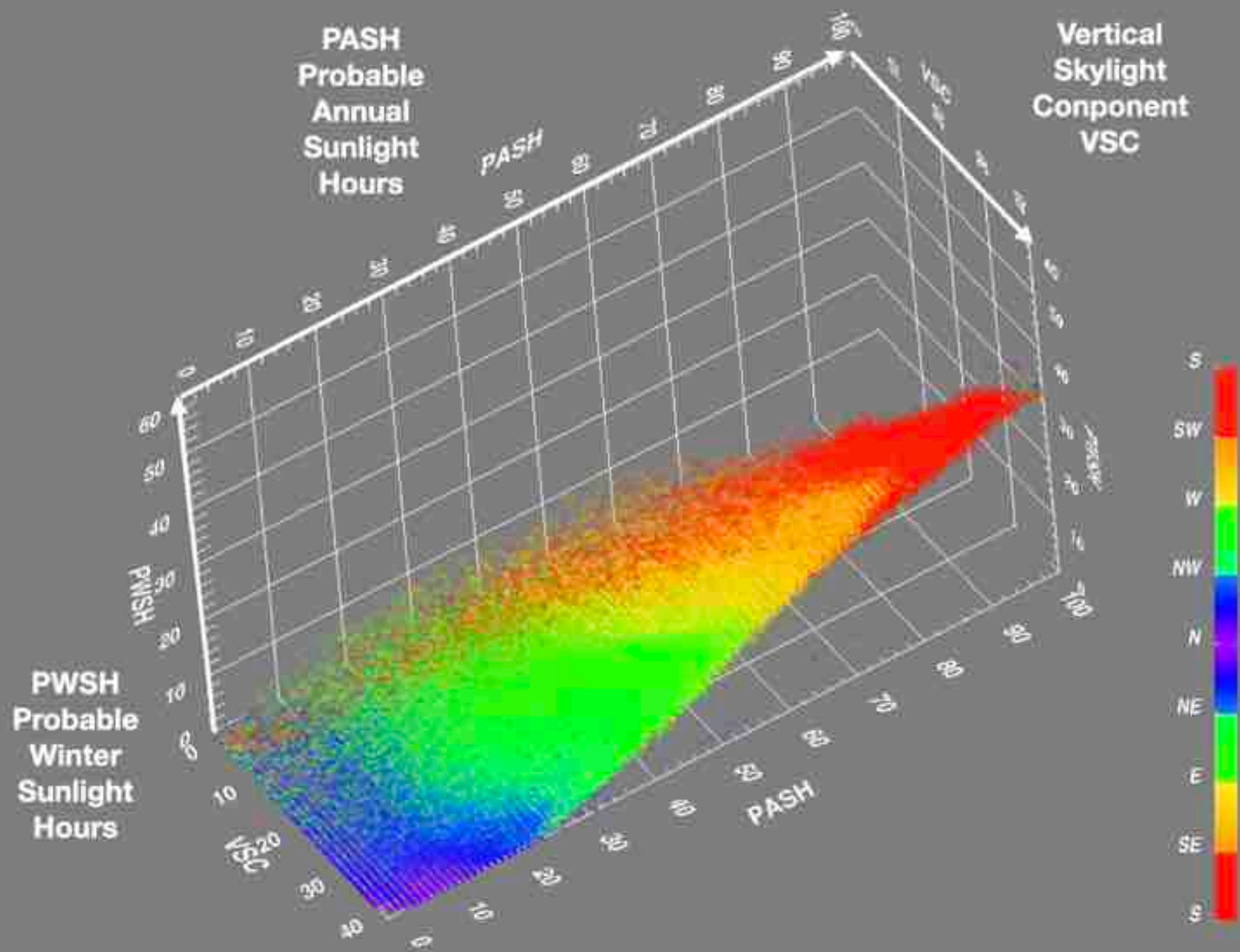
RAW DATA

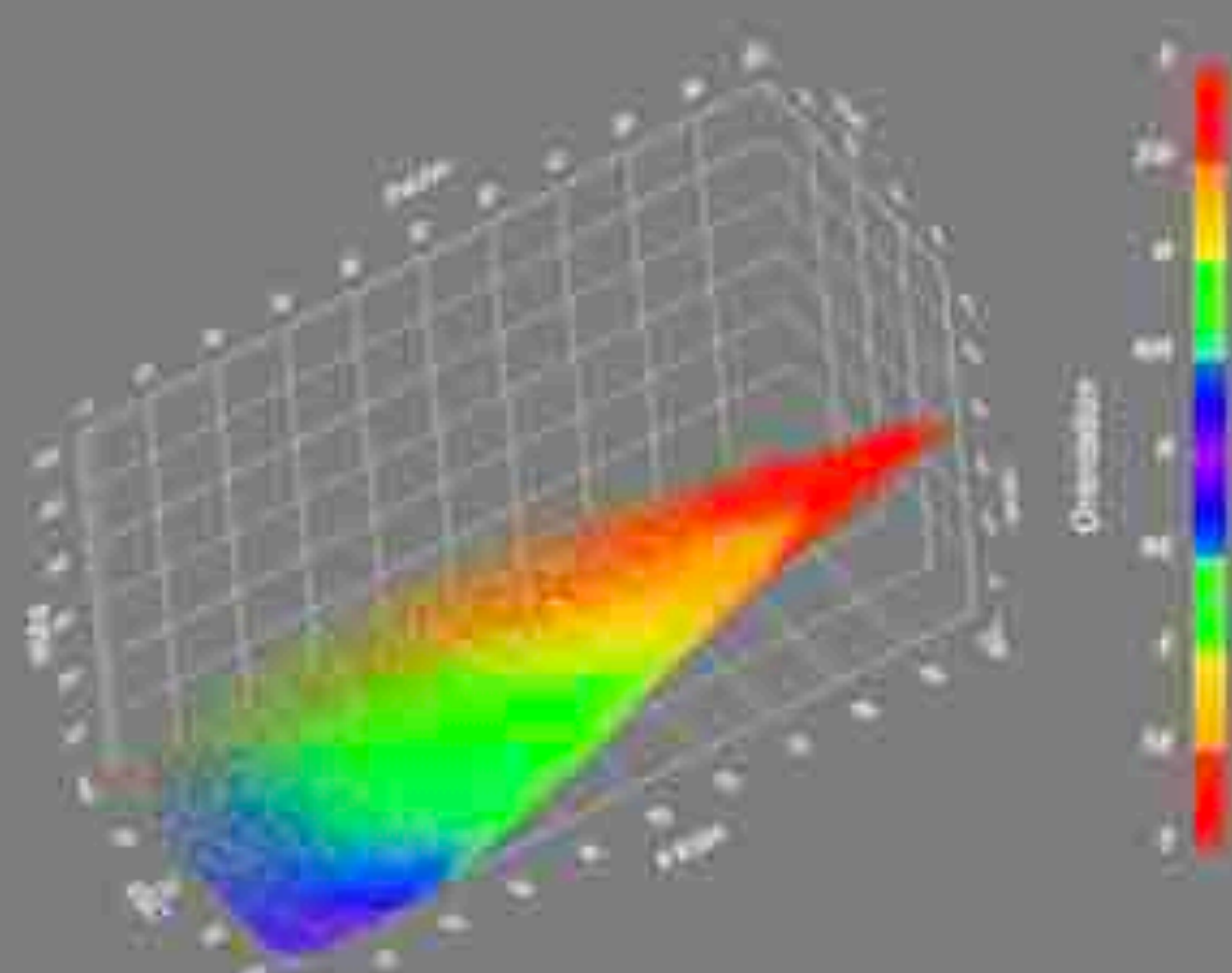
10 km



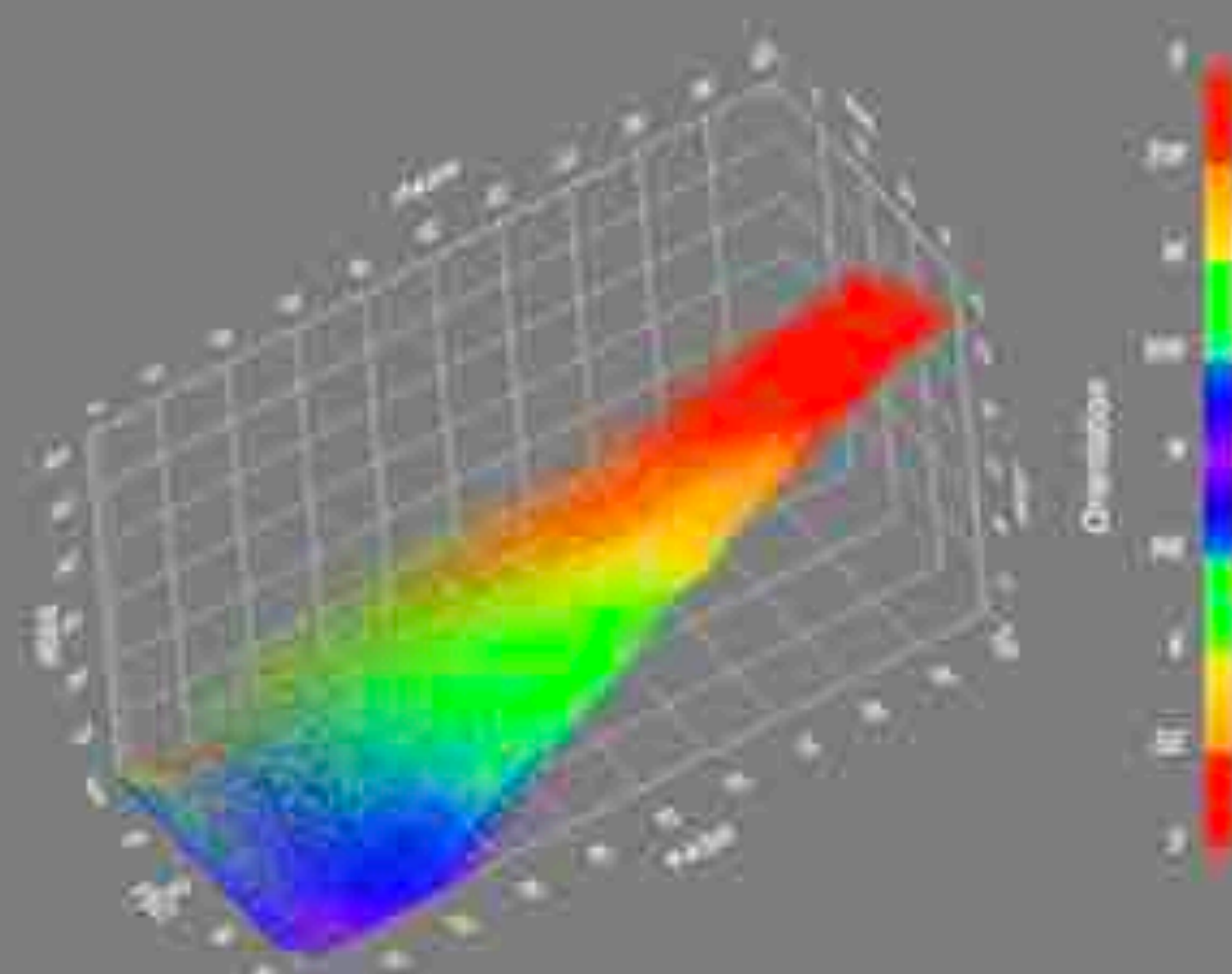
10 km



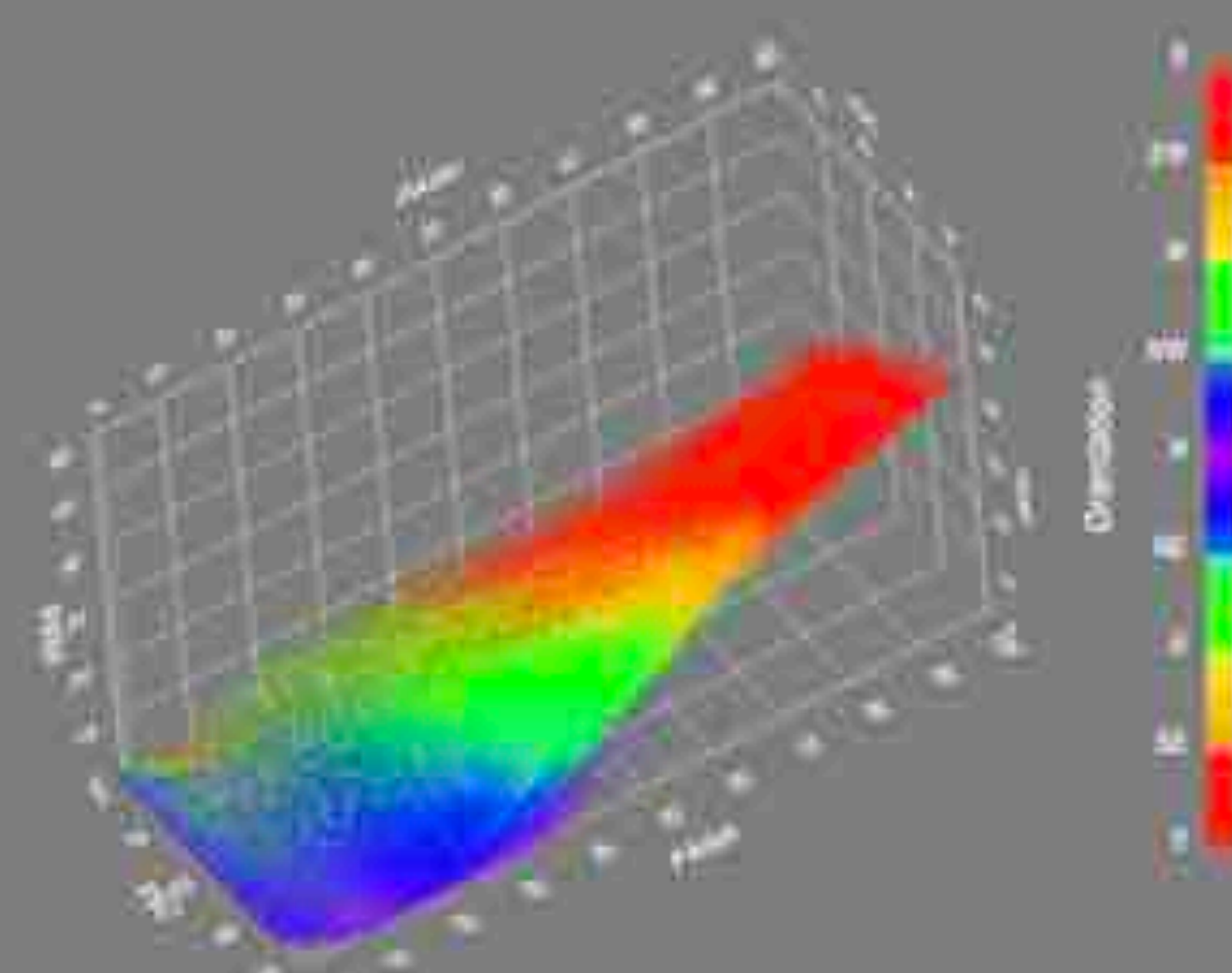




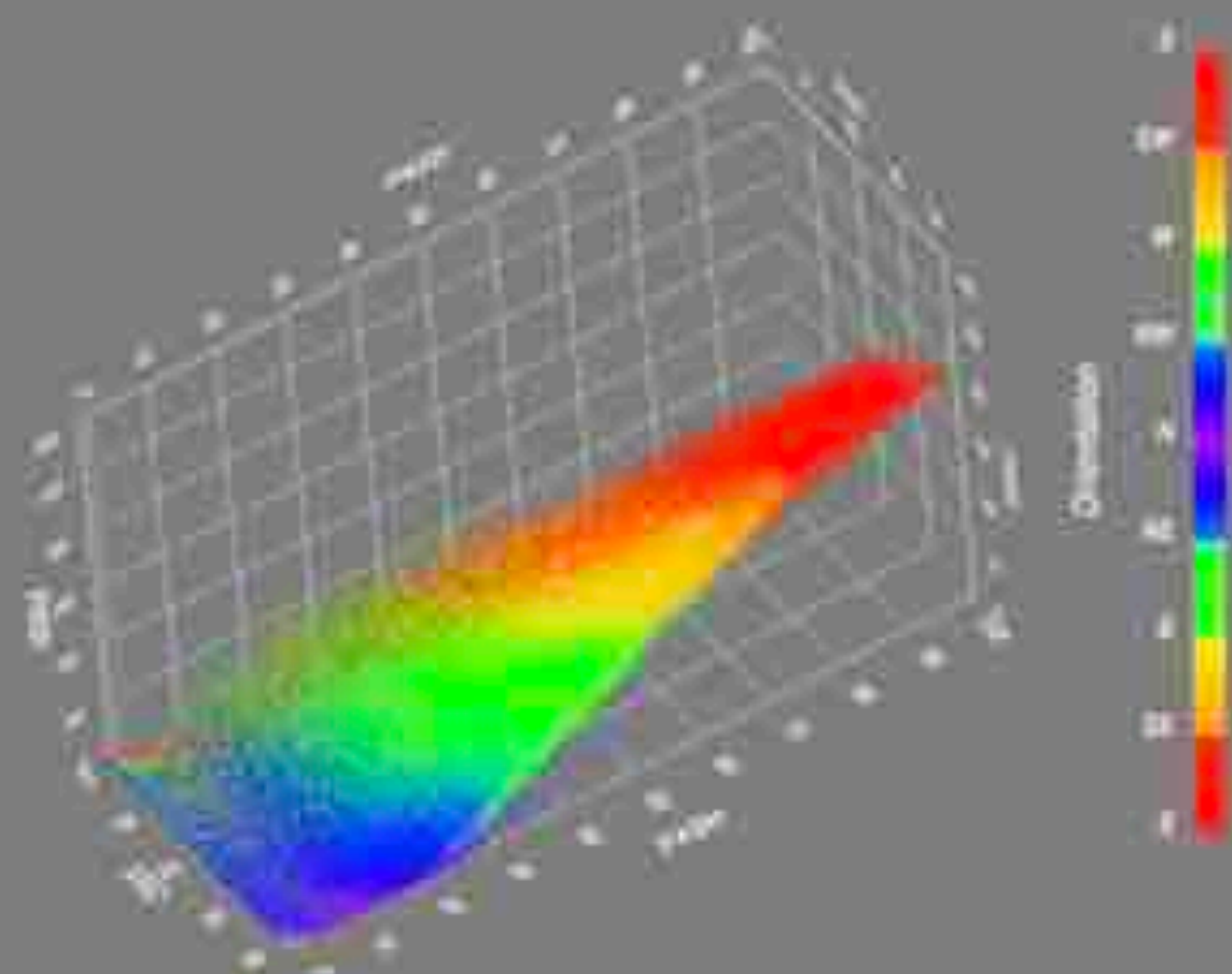
BERLIN, 52.47°N, 13.40°E



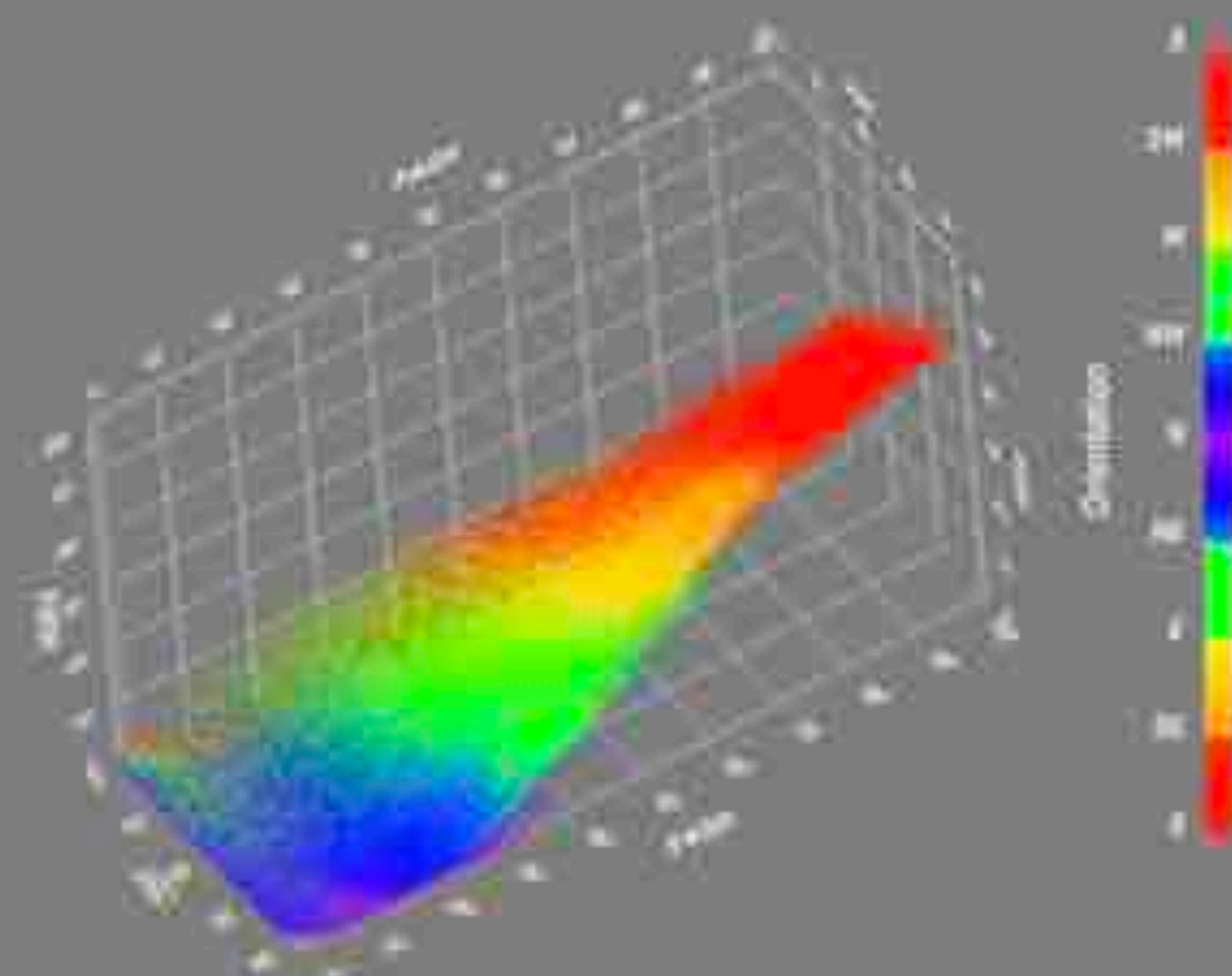
KATHMANDU_INTL_ARPT, 27.70°N, 85.37°E



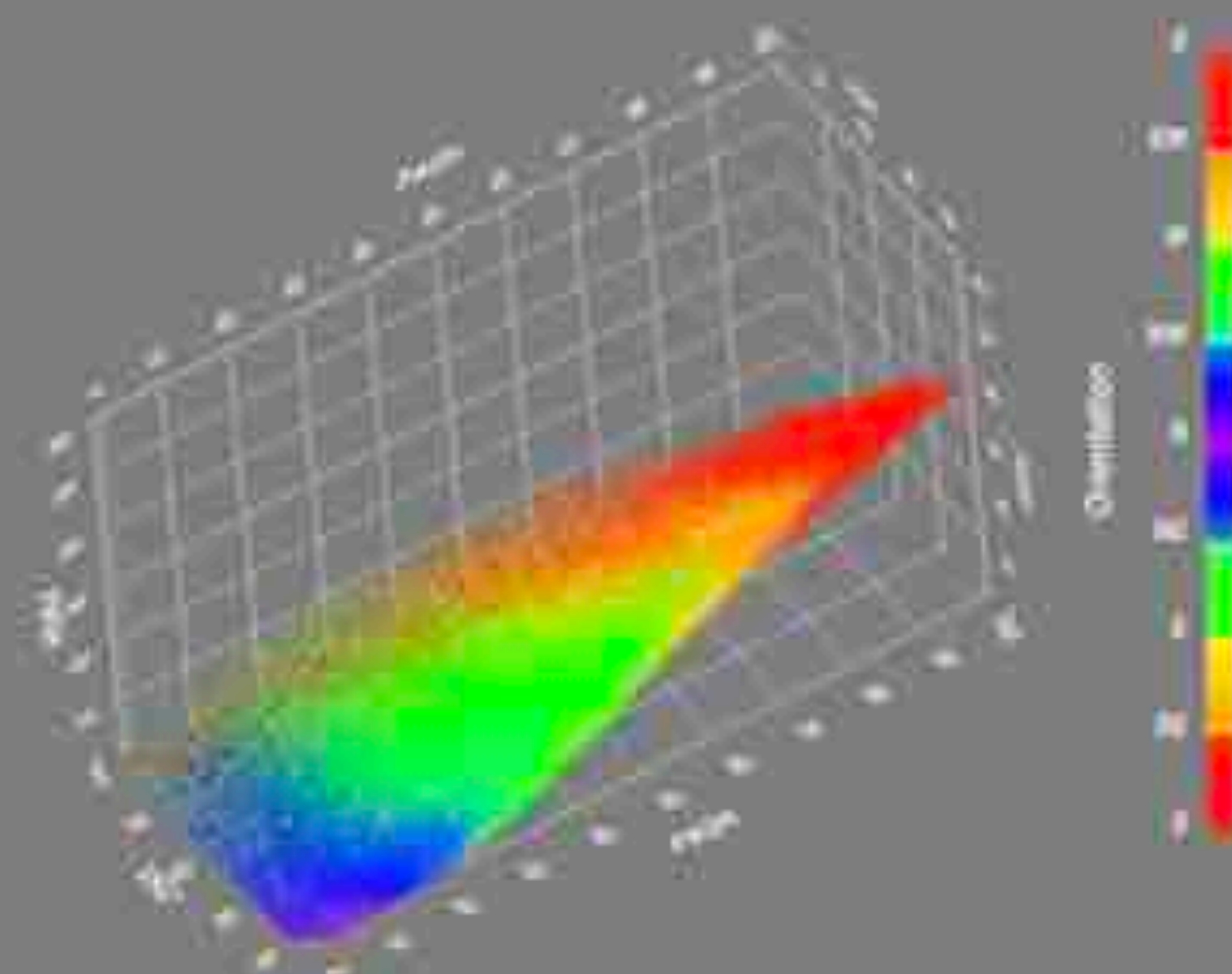
TAIPEI, 25.07°N, 121.55°E



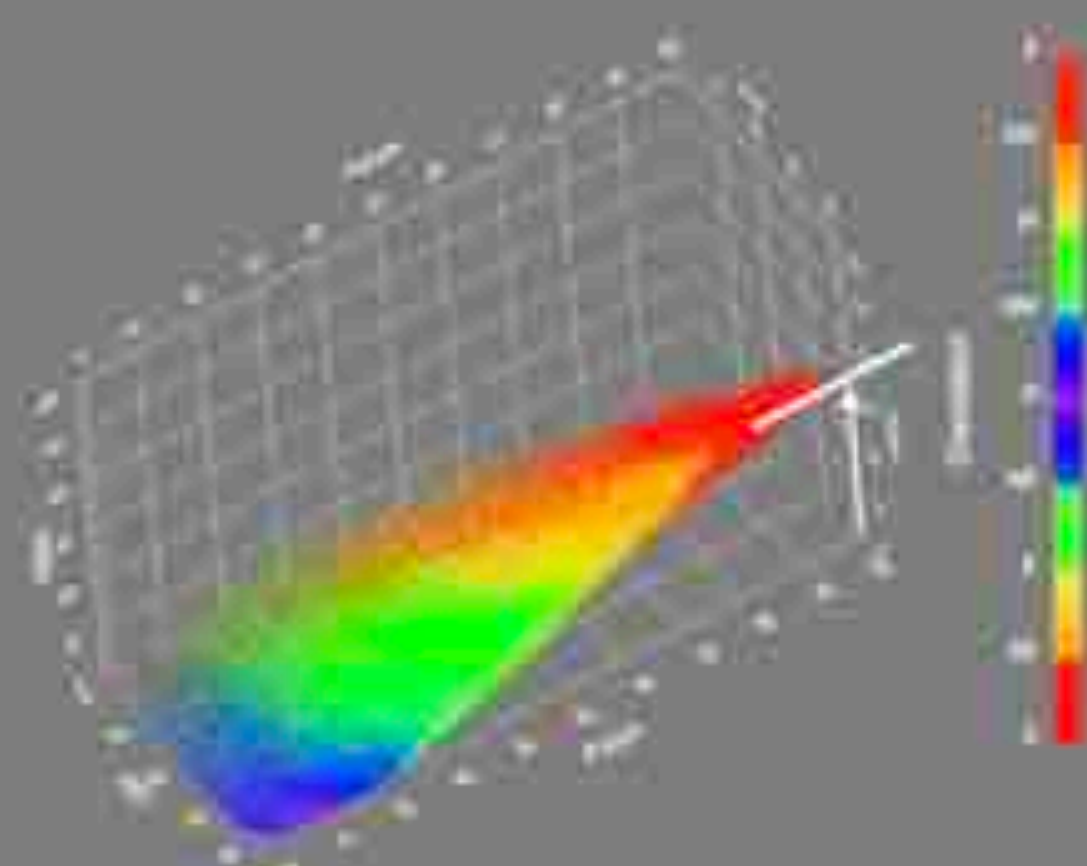
TABRIZ, 38.05°N, 46.17°E



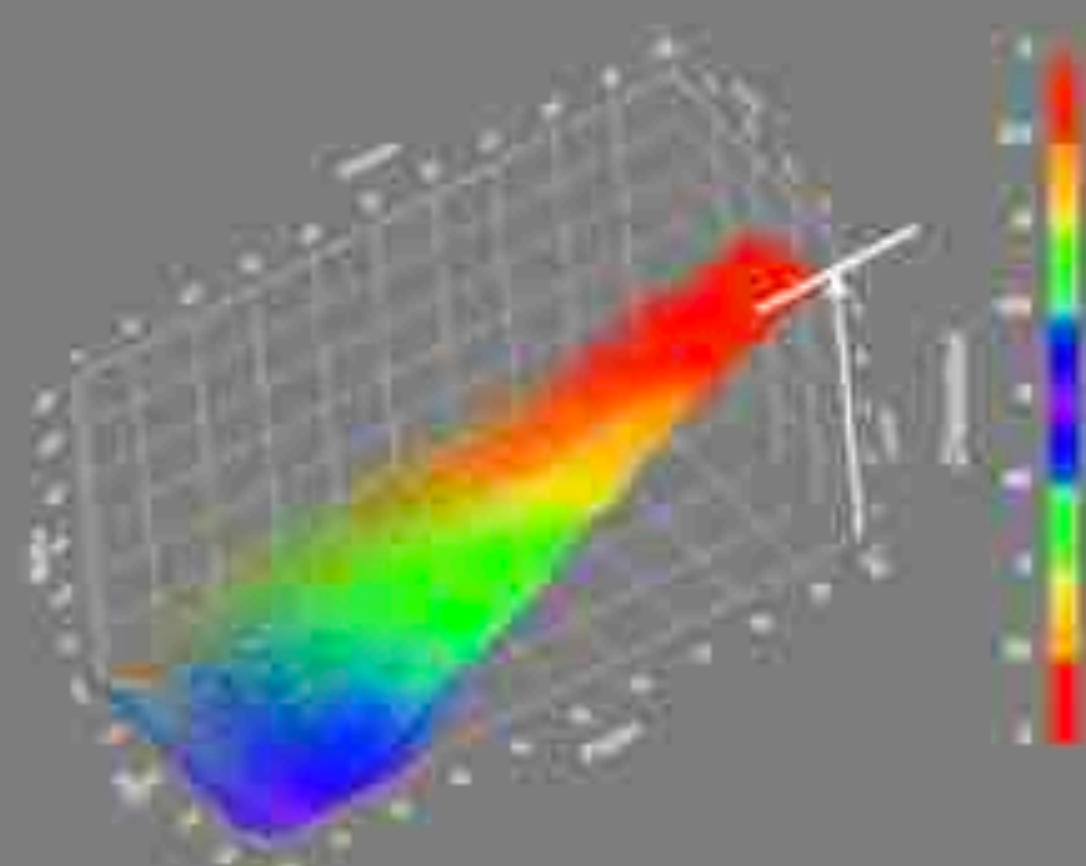
YAZD, 31.88°N, 54.28°E



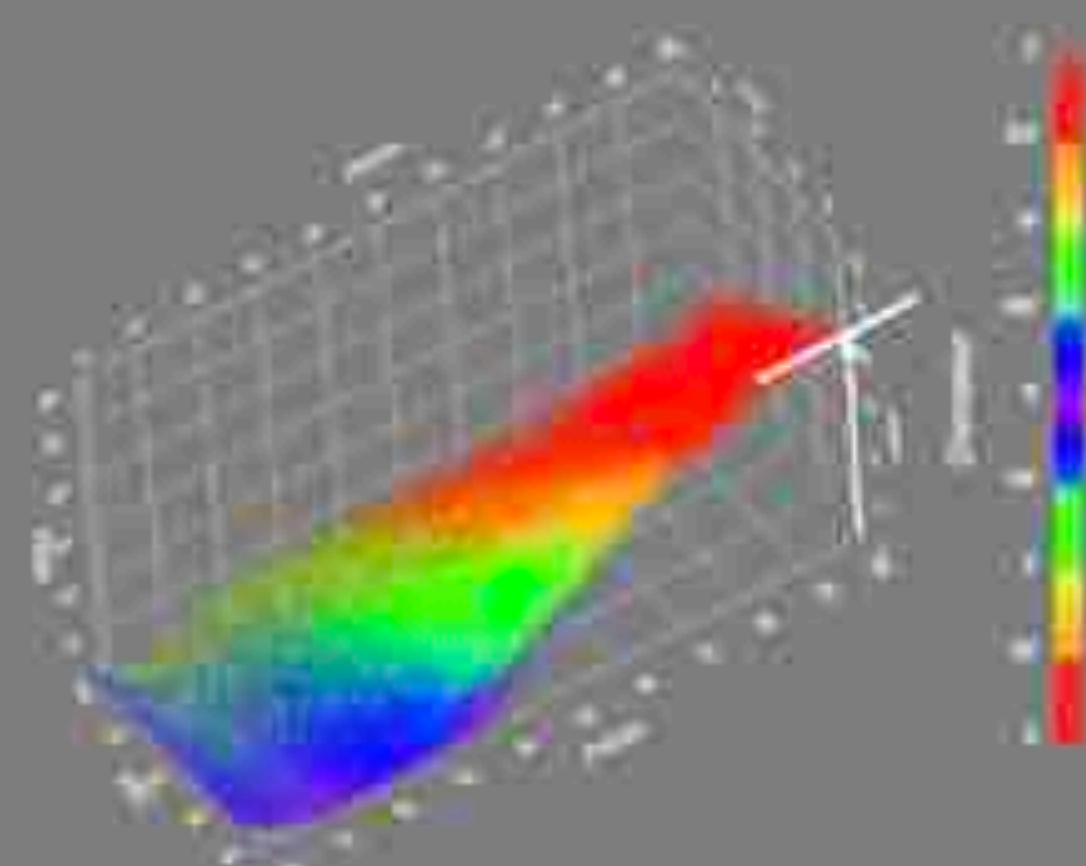
LONDON/GATWICK, 51.15°N, -0.18°E



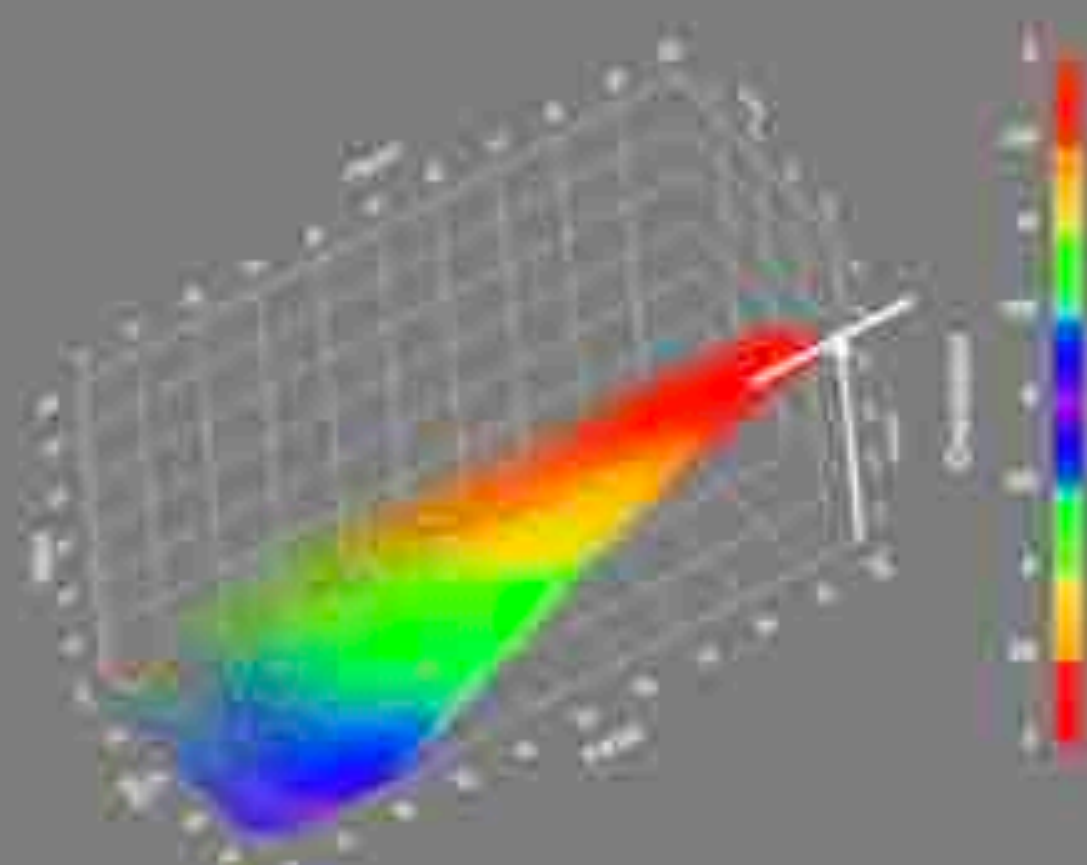
BERLIN, 52.47°N, 13.40°E



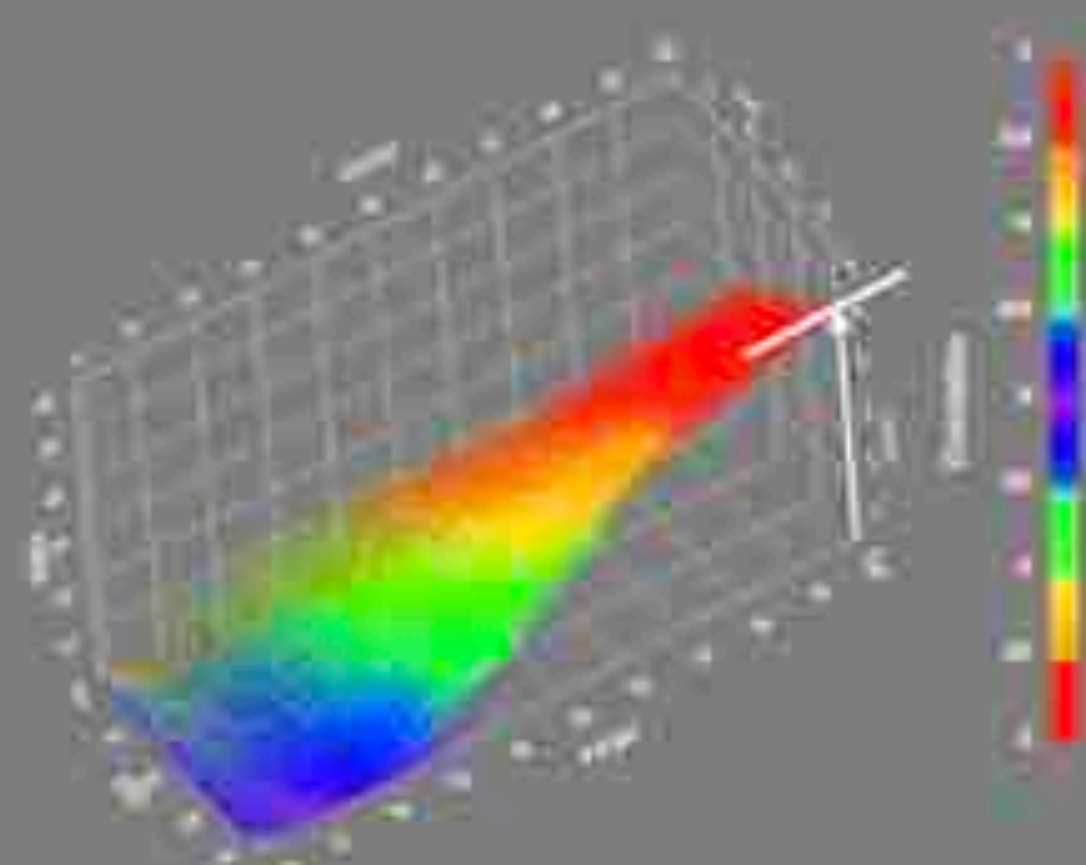
KATHMANDU_INTL_ARPT, 27.70°N, 85.37°E



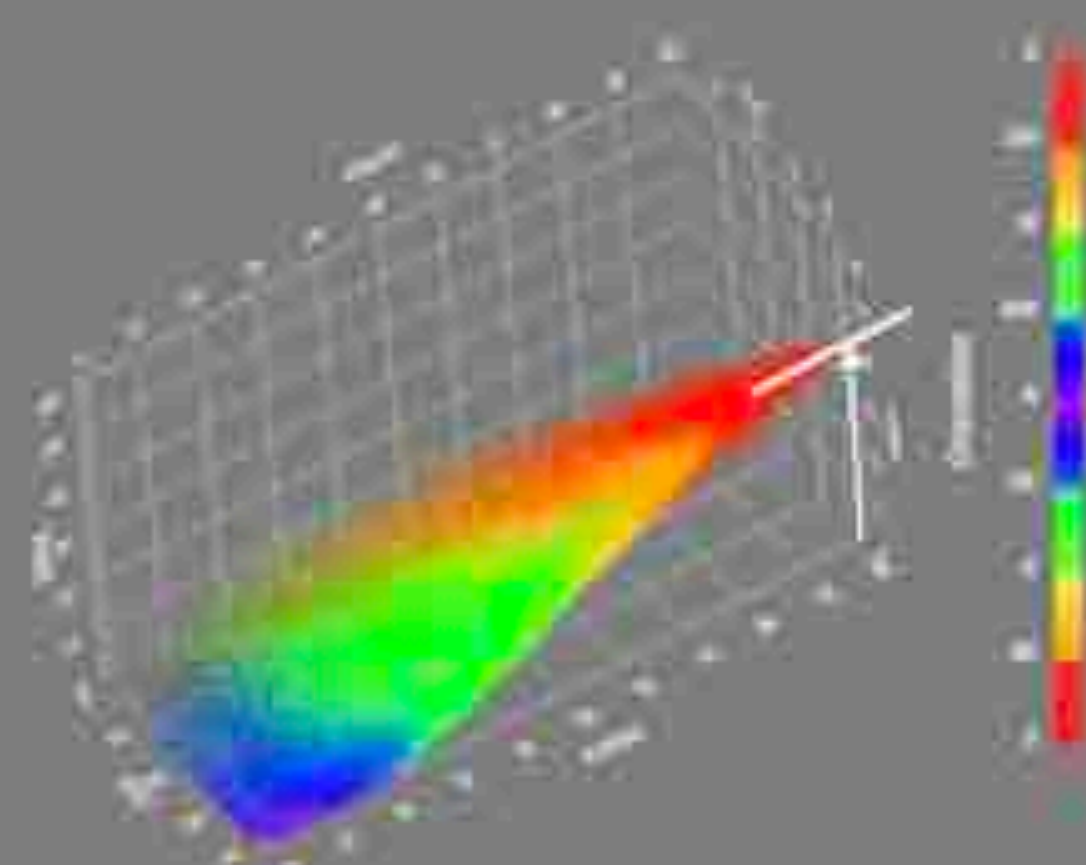
TAIPEI, 25.07°N, 121.60°E



TABRIZ, 38.06°N, 46.17°E

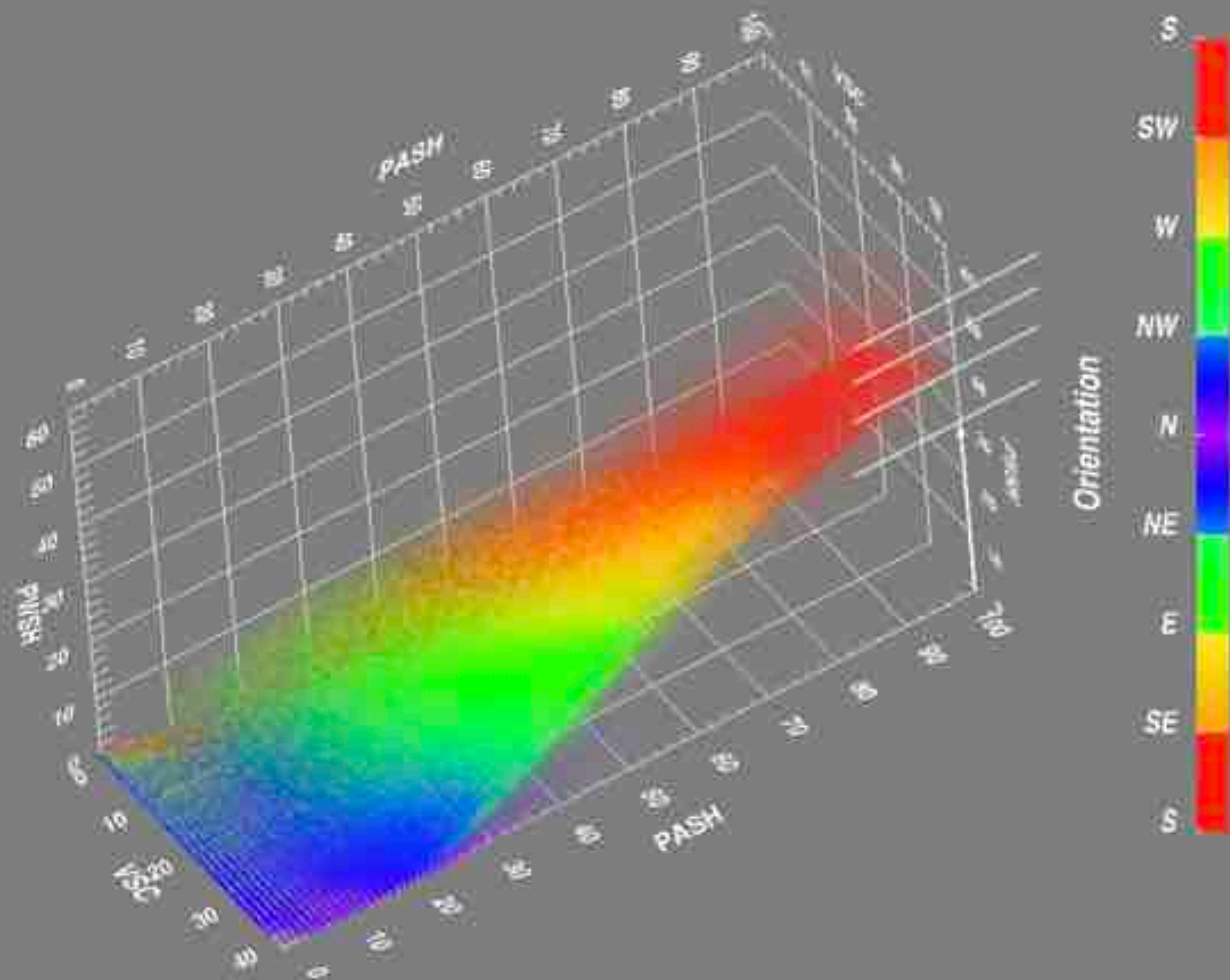


YAZD, 31.88°N, 54.20°E

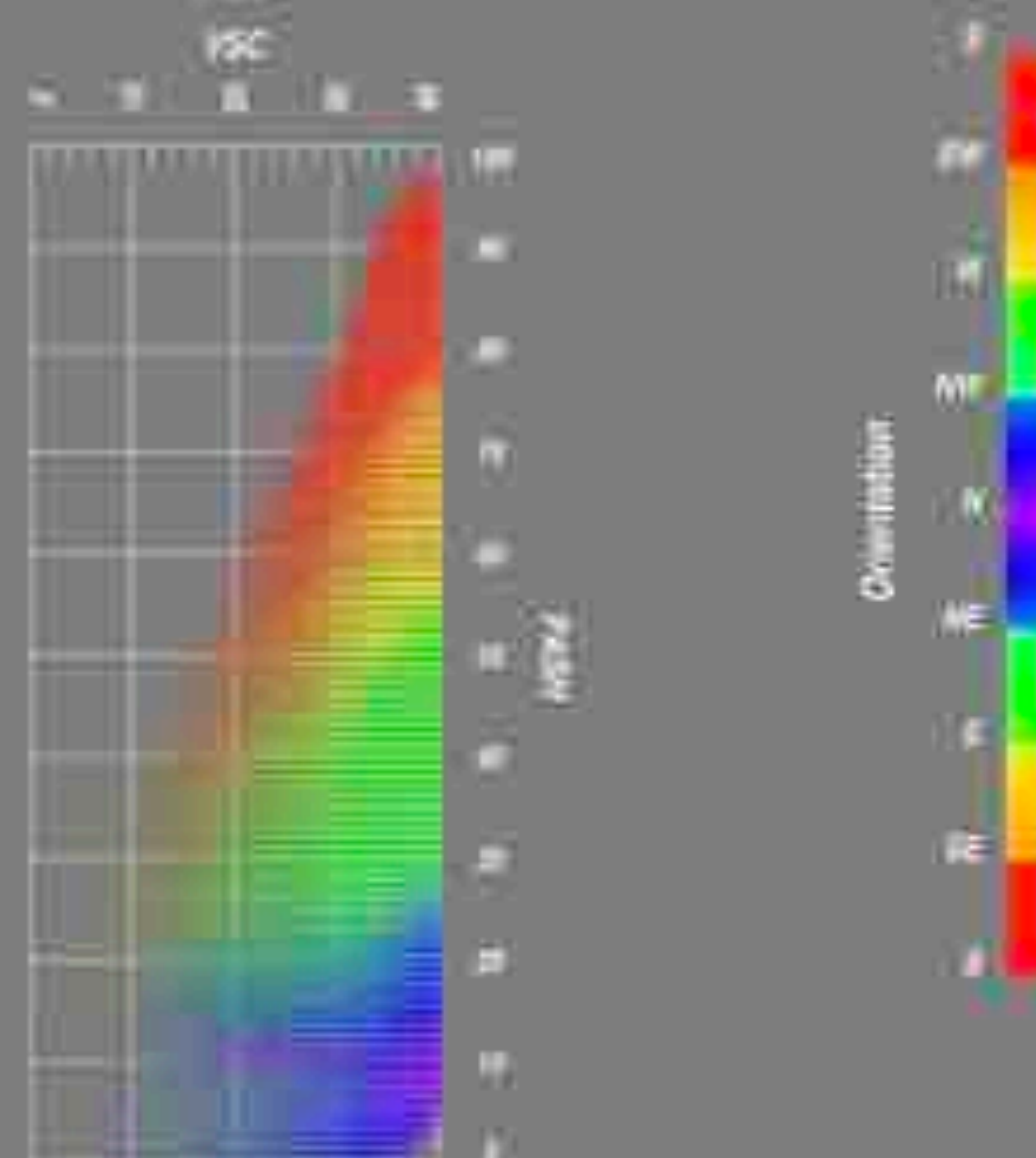


LONDON/GATWICK, 51.15°N, -0.18°E

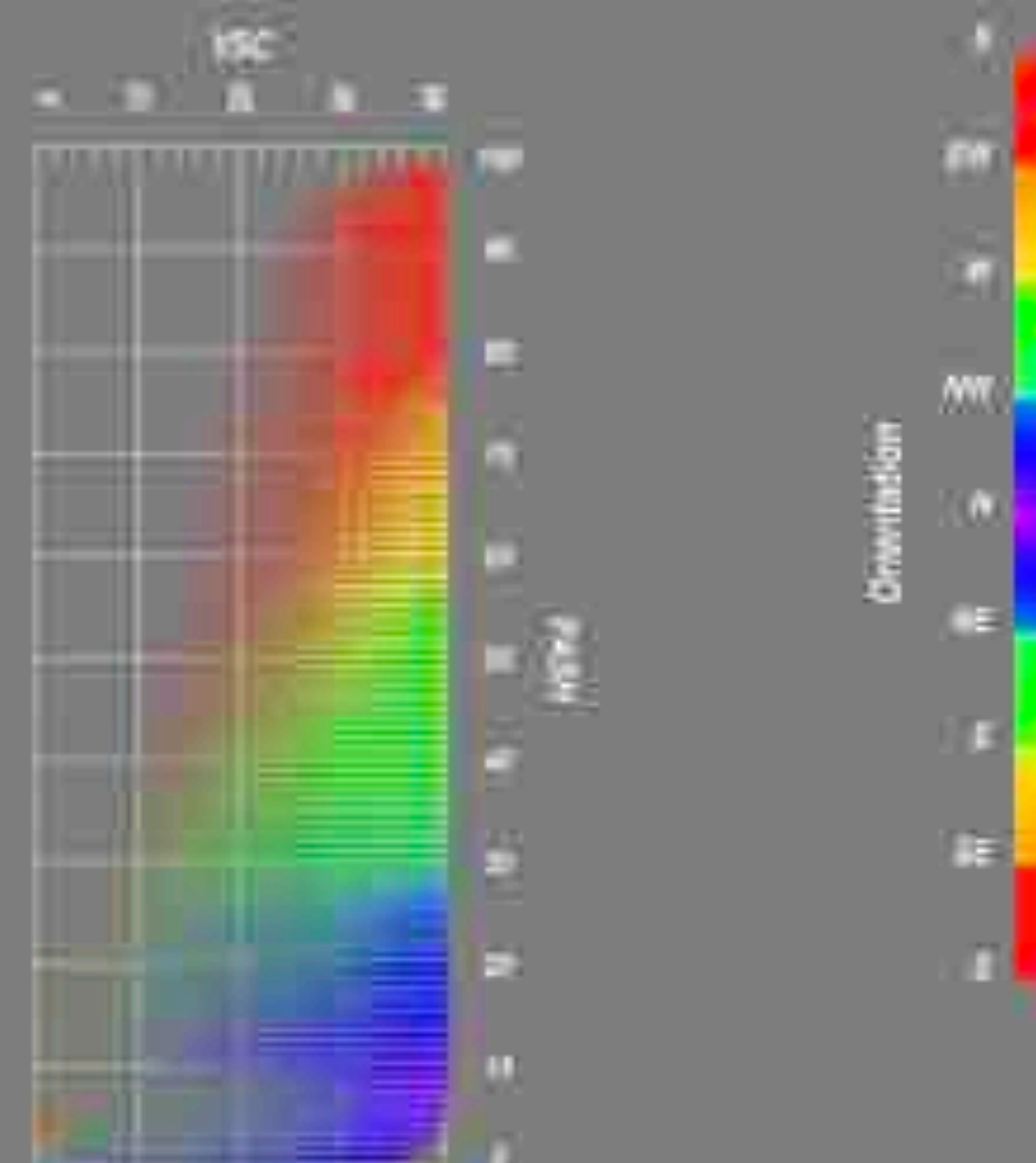
Effects of latitude (solar geometry and winter sunlight availability)



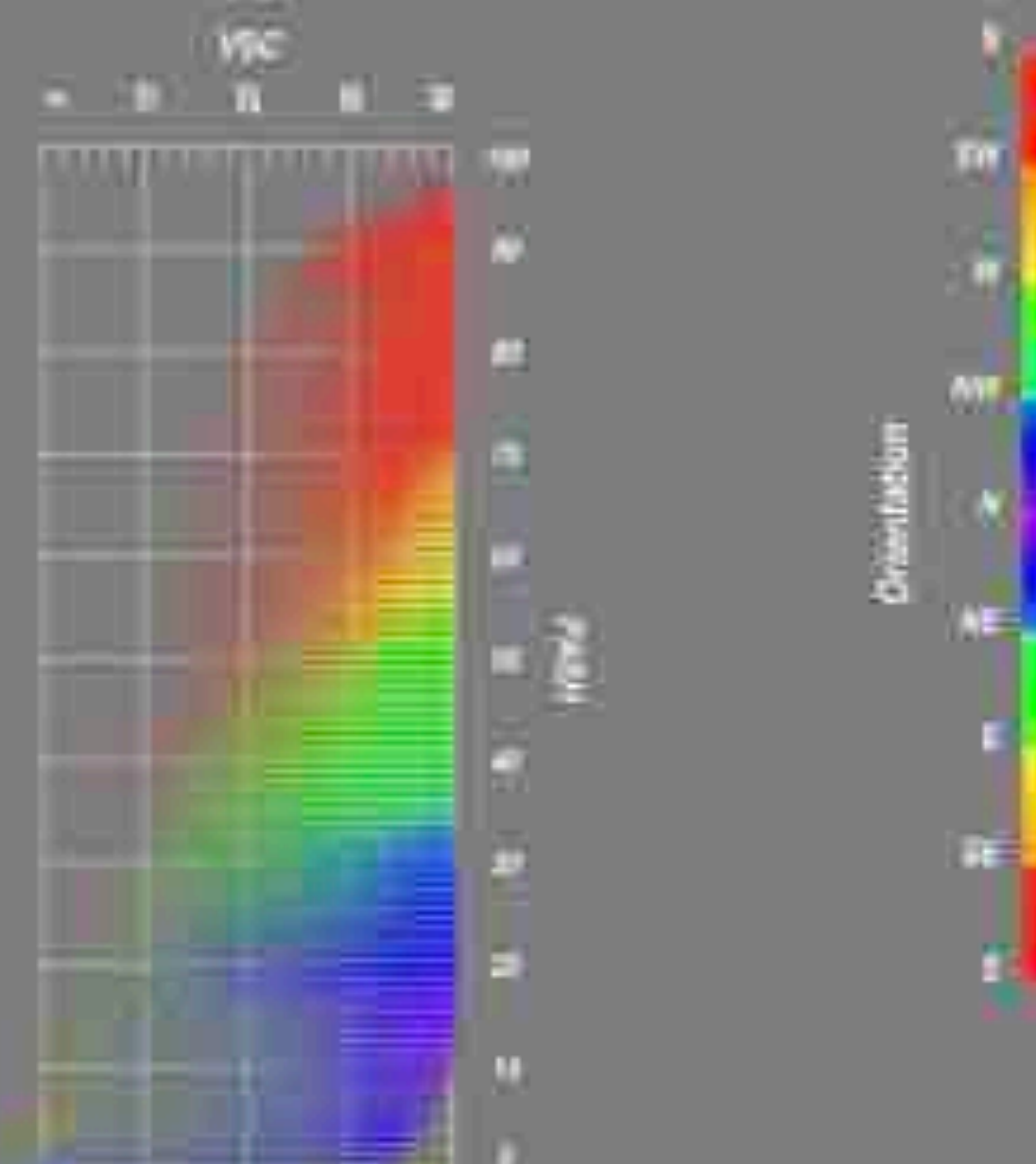
Effects of latitude (solar geometry and winter sunlight availability)



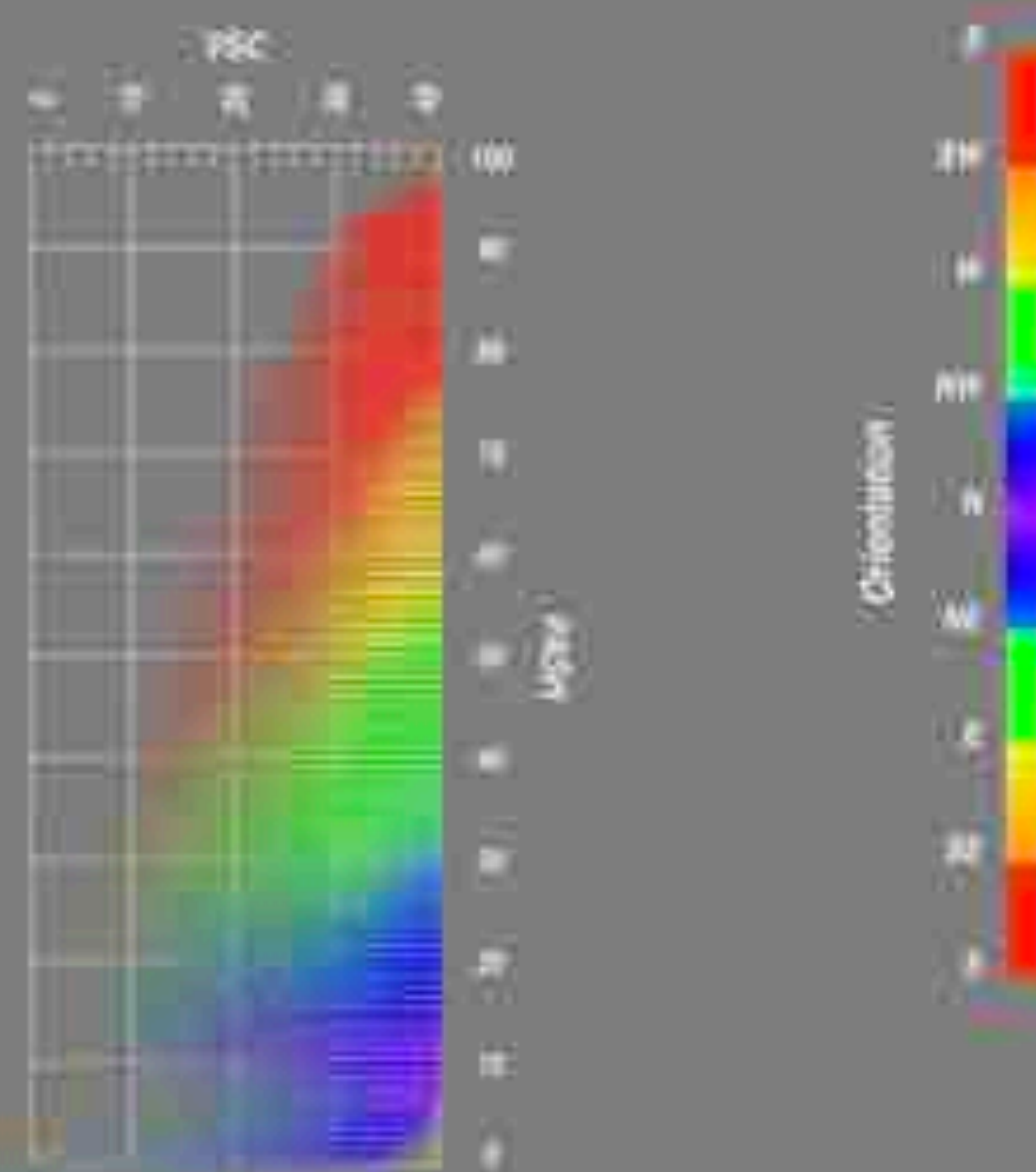
BERLIN, 52.47°N, 13.40°E



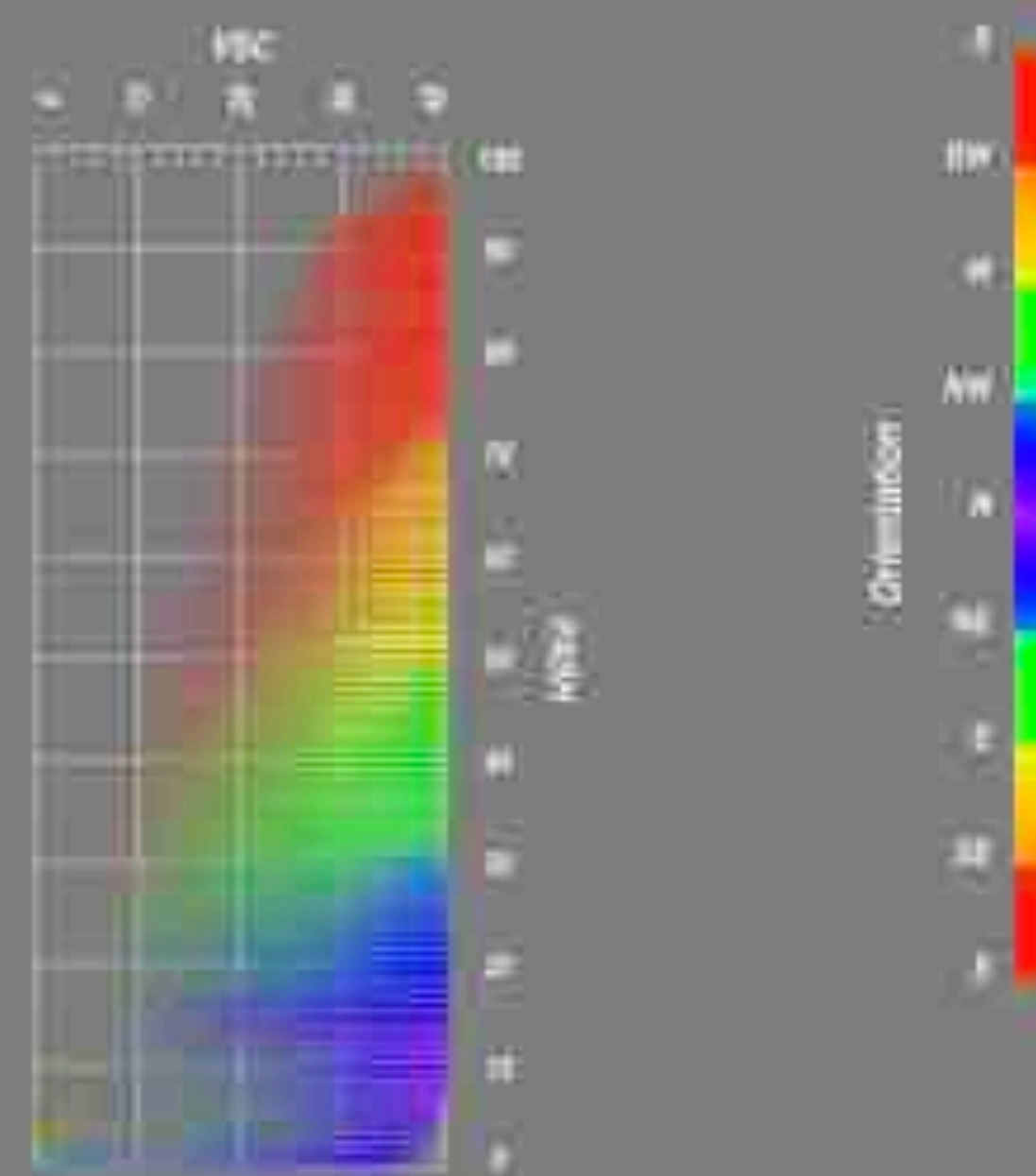
KATHMANDU_INTL_ARPT, 27.70°N, 85.37°E



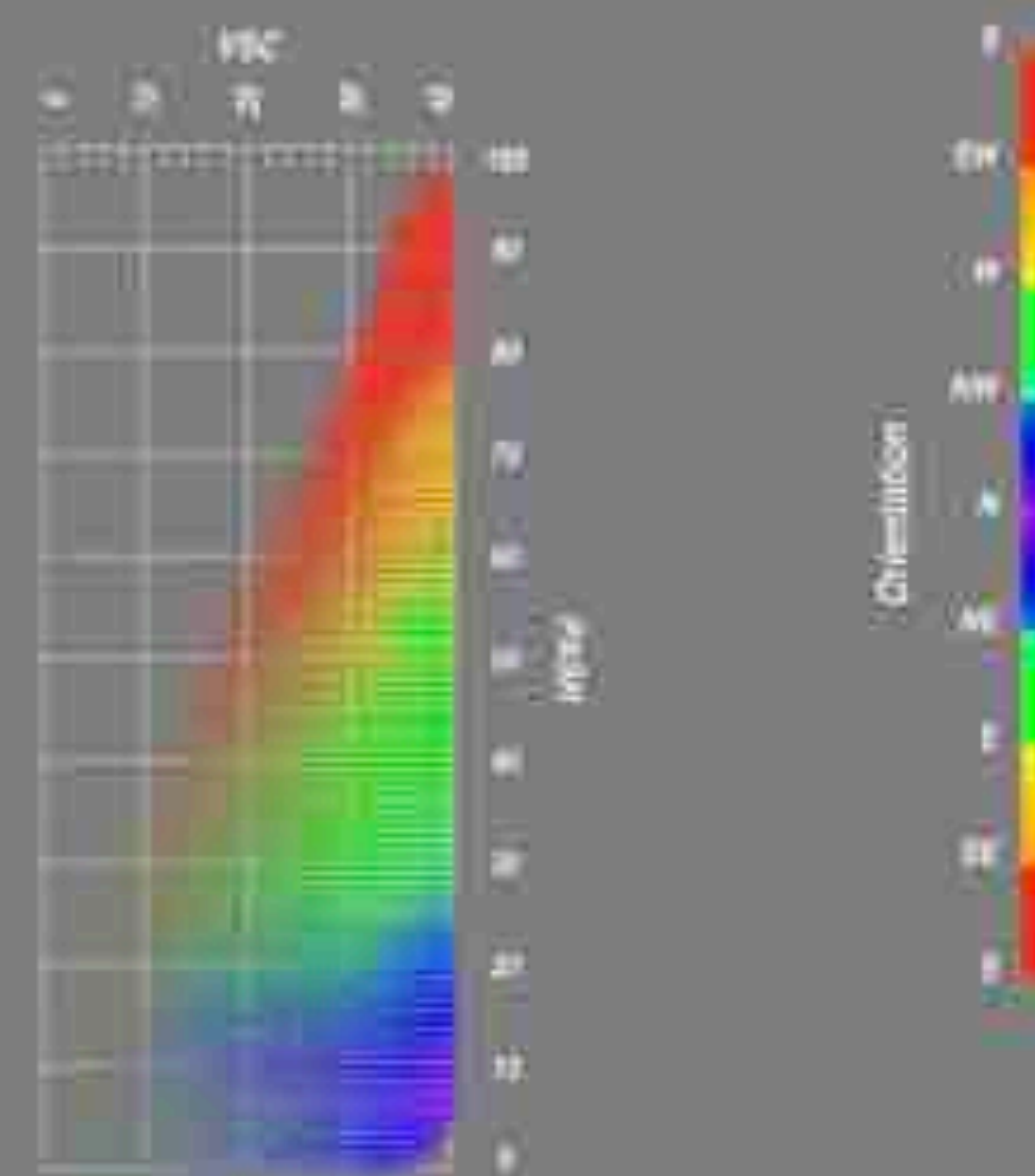
TAIPEI, 25.07°N, 121.55°E



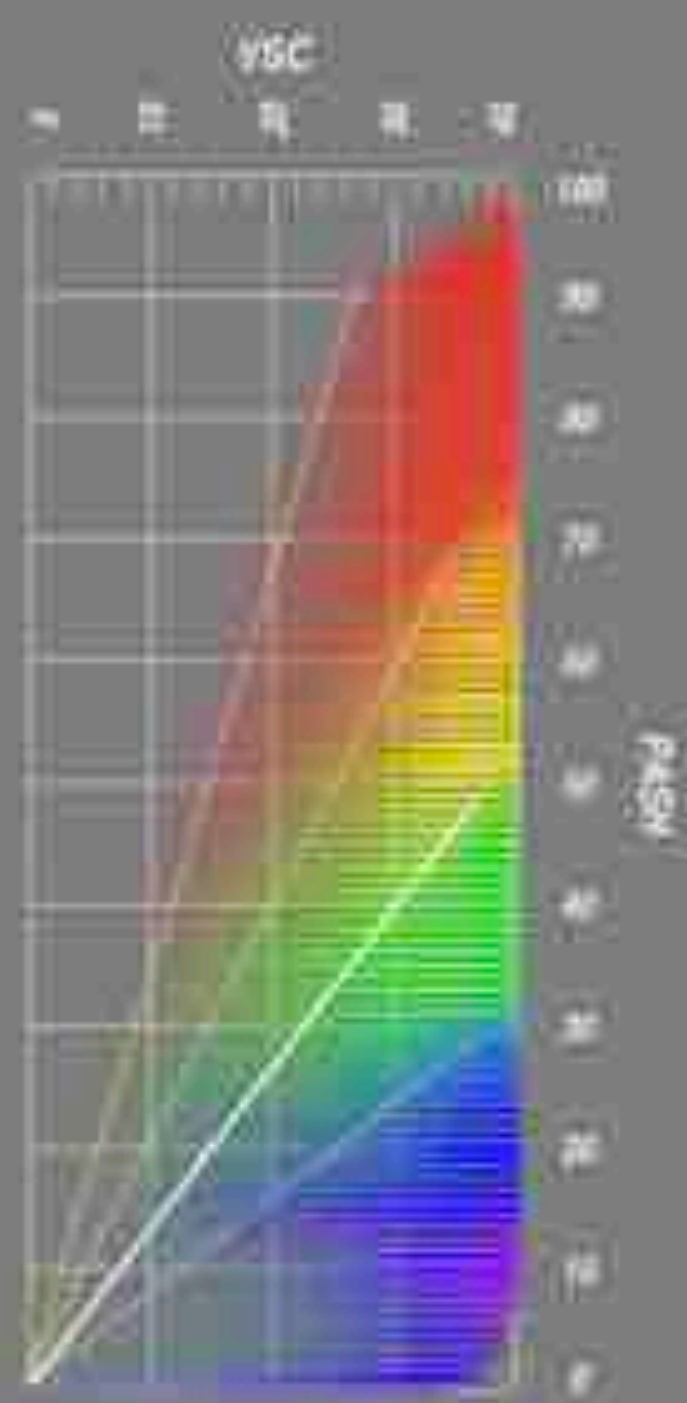
TABRIZ, 38.05°N, 46.17°E



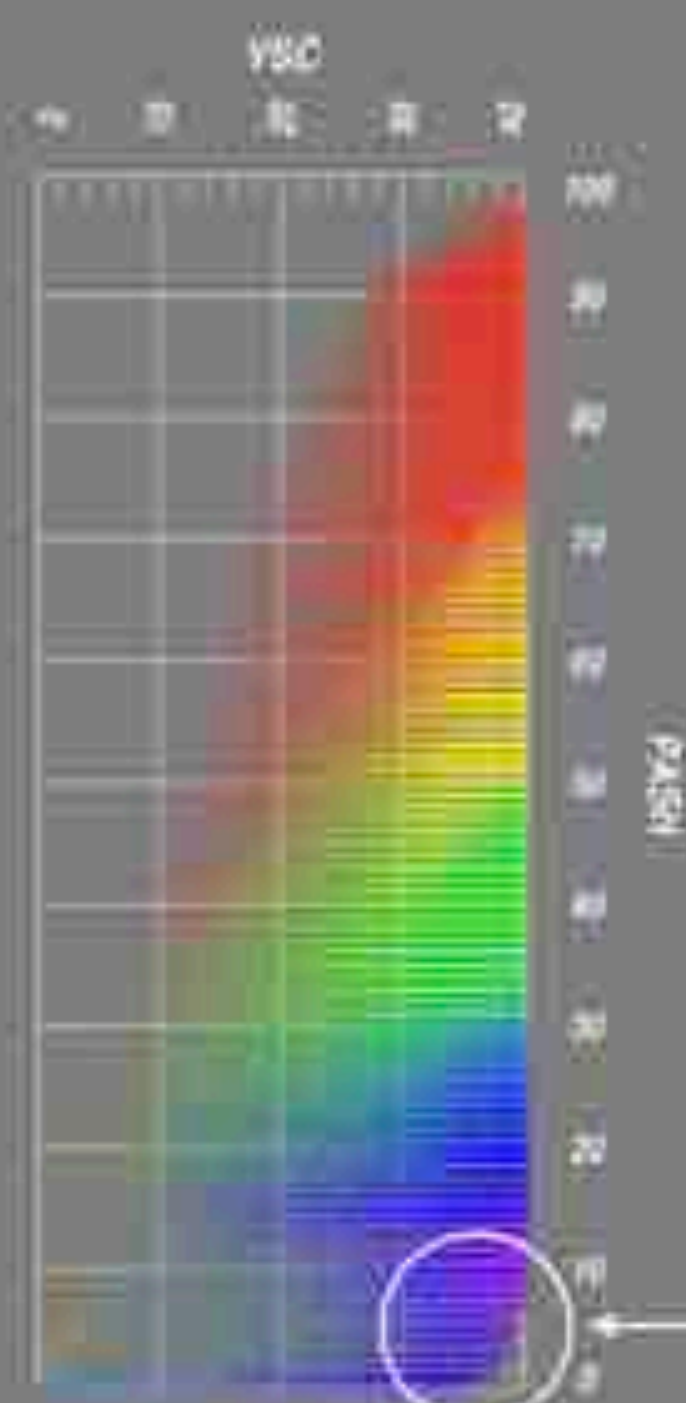
YAZD, 31.88°N, 54.28°E



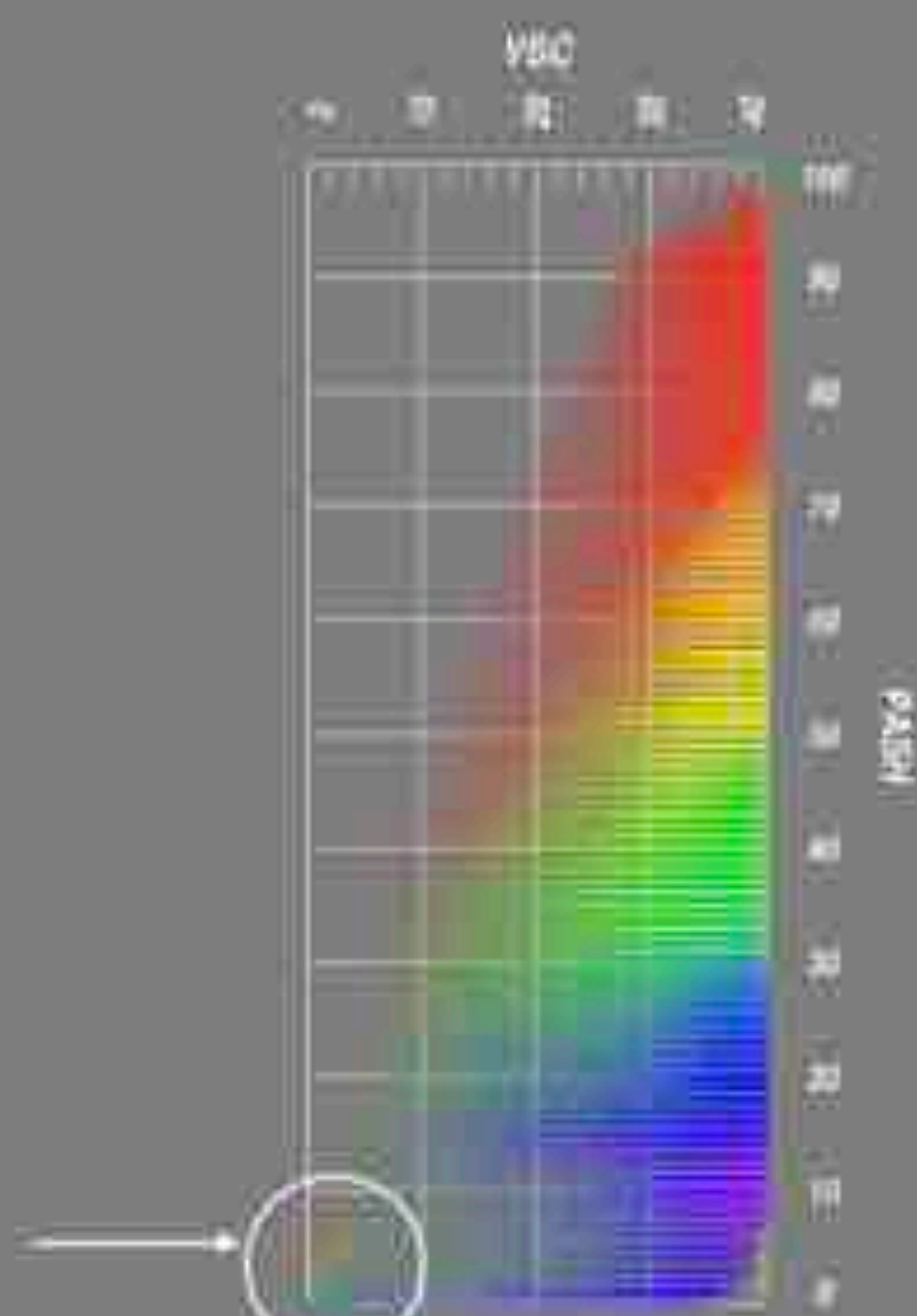
LONDON/GATWICK, 51.15°N, -0.18°E



Orientation

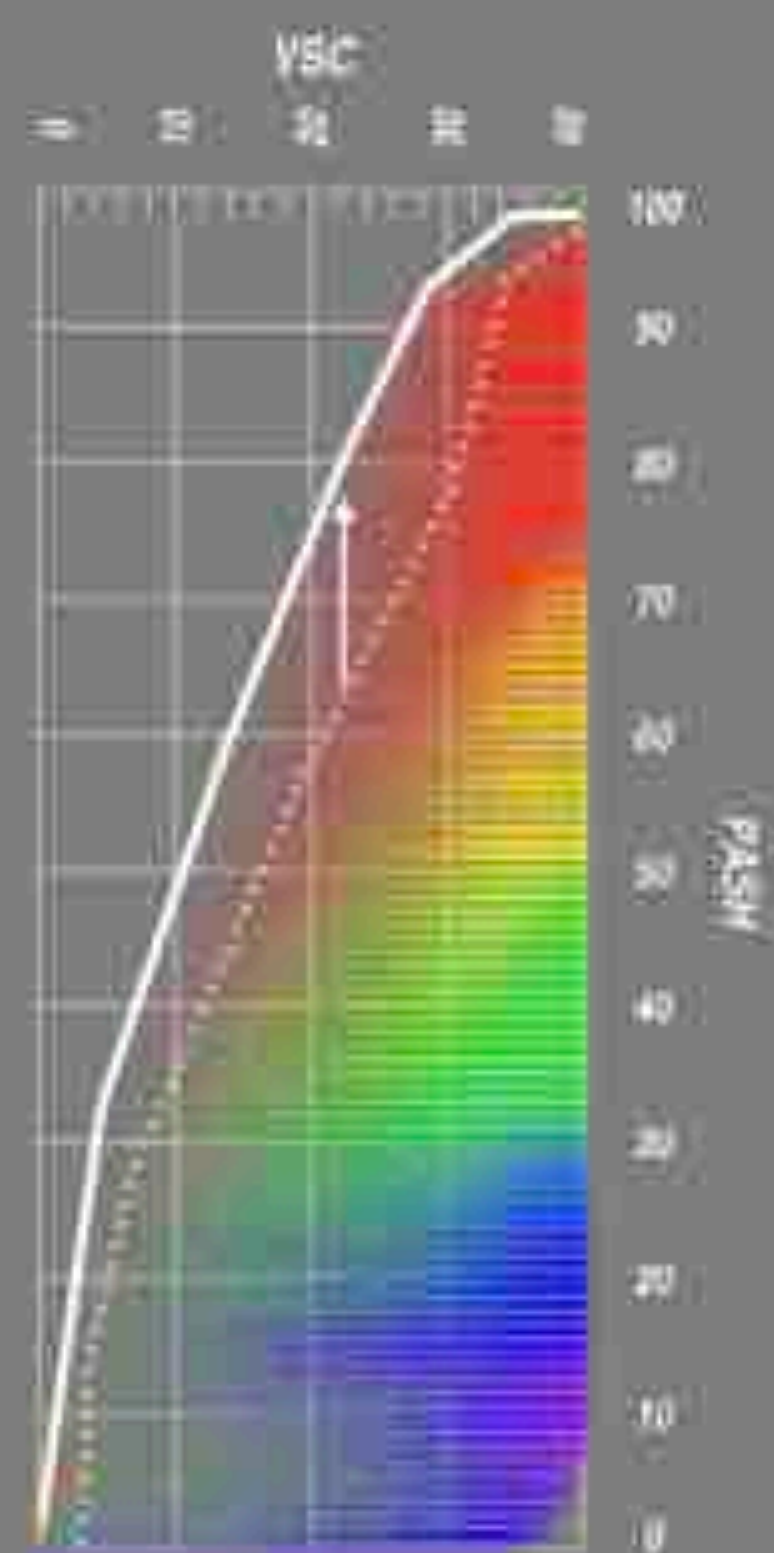


Receptors not obstructed
(Pure North)

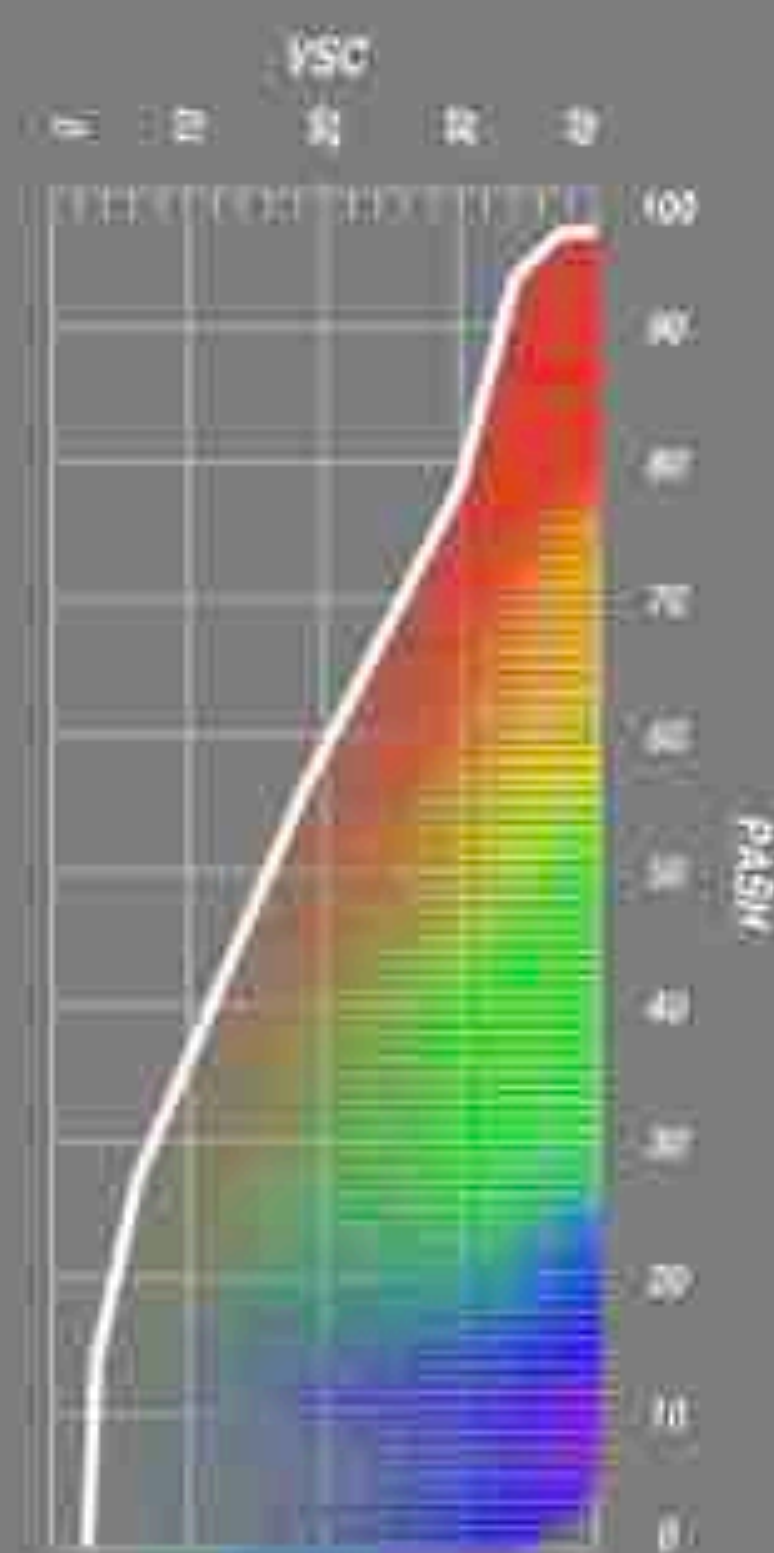


Receptors obstructed
(can be any orientation)

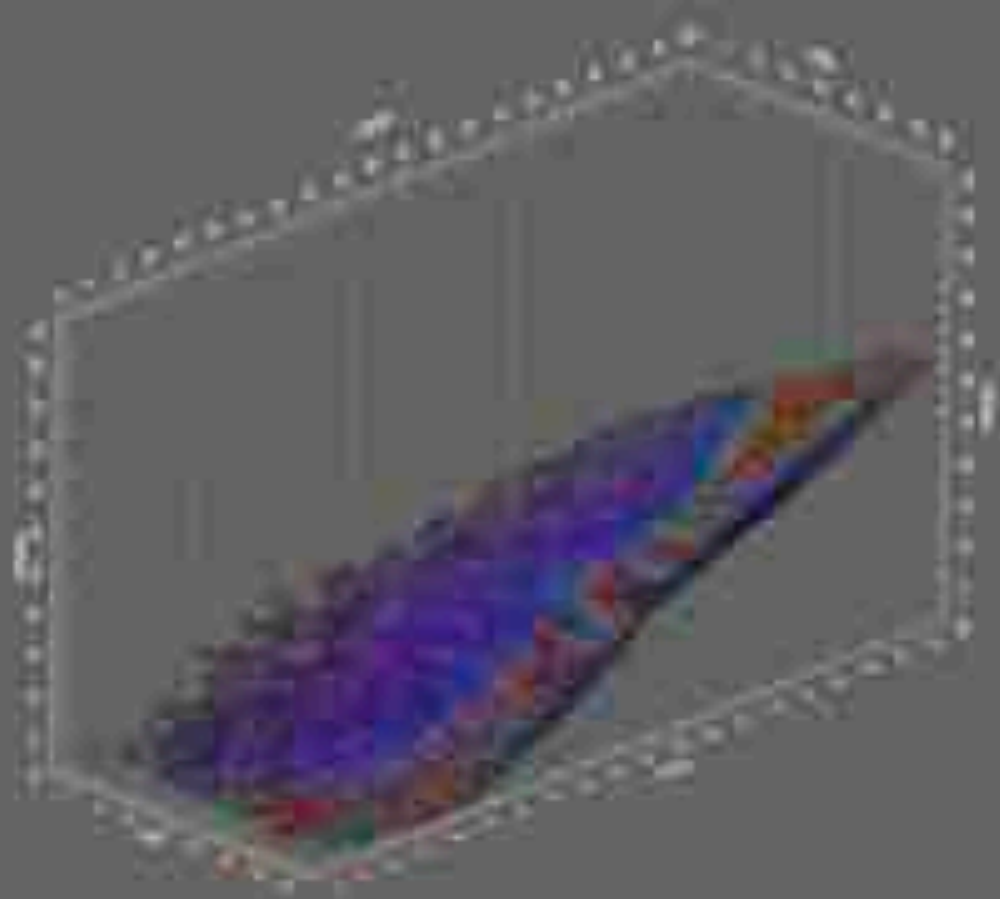
Towards the equator



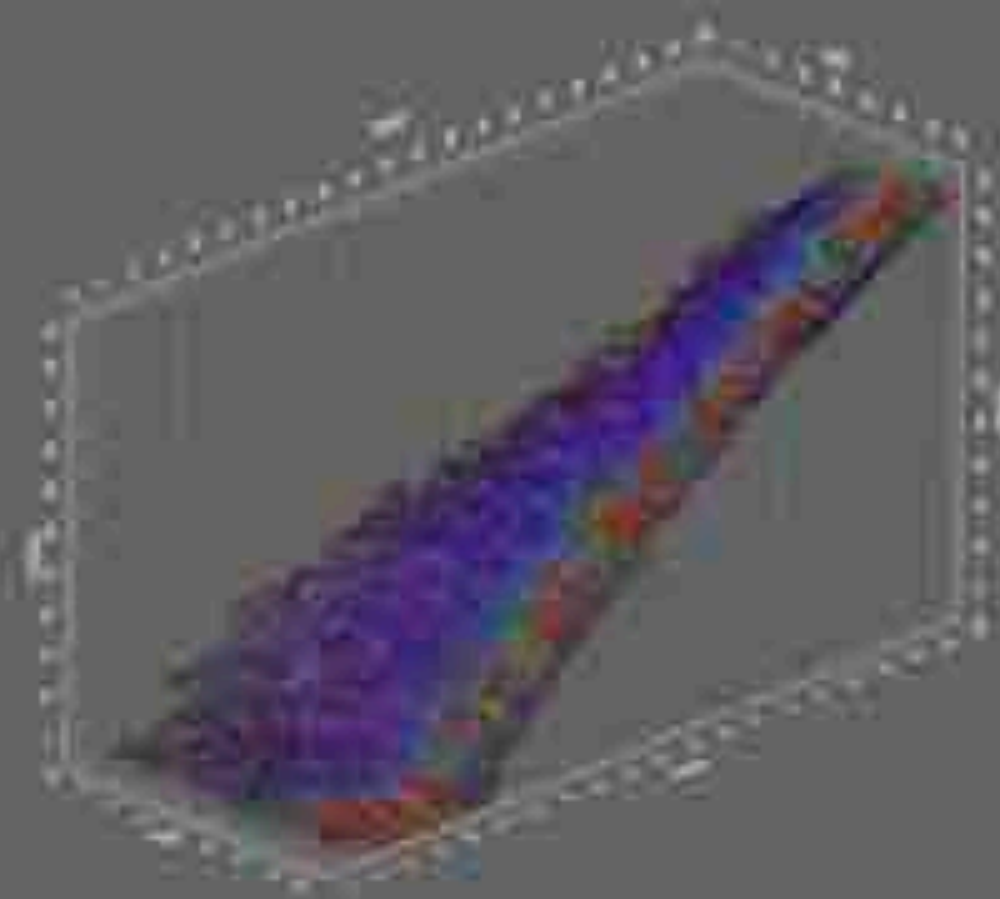
Far from the equator



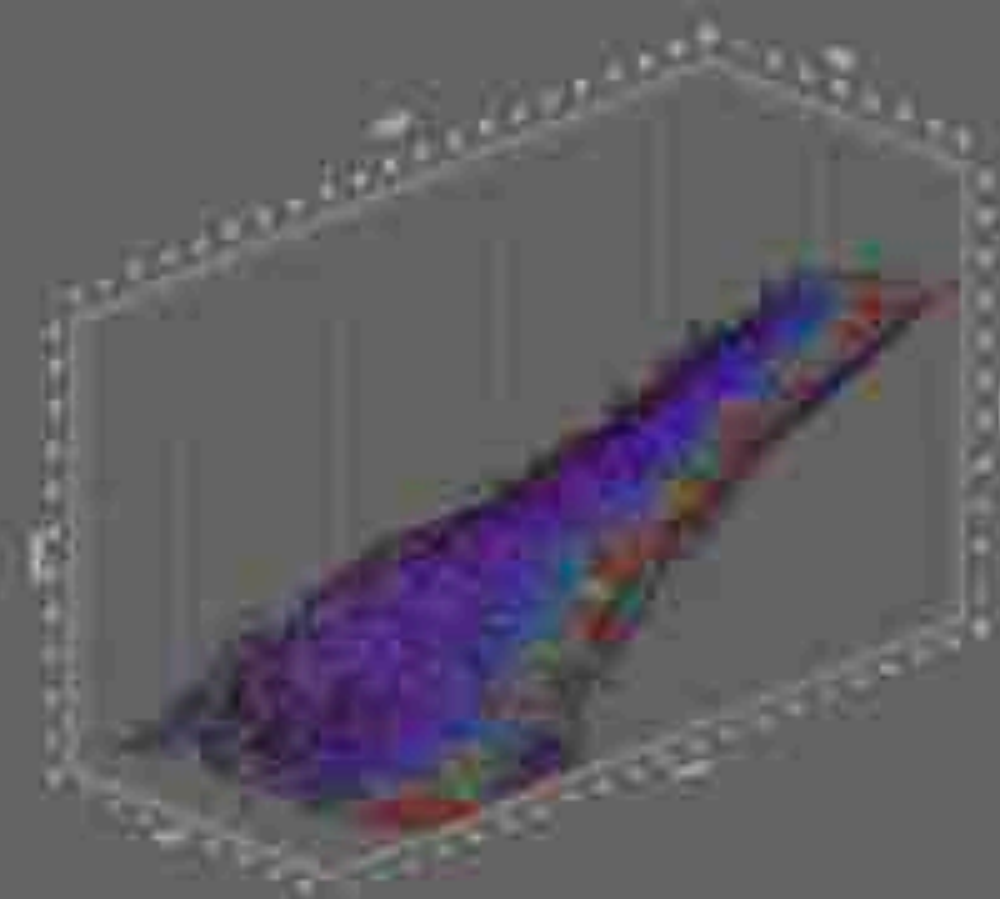
Effects of latitude / weather patterns



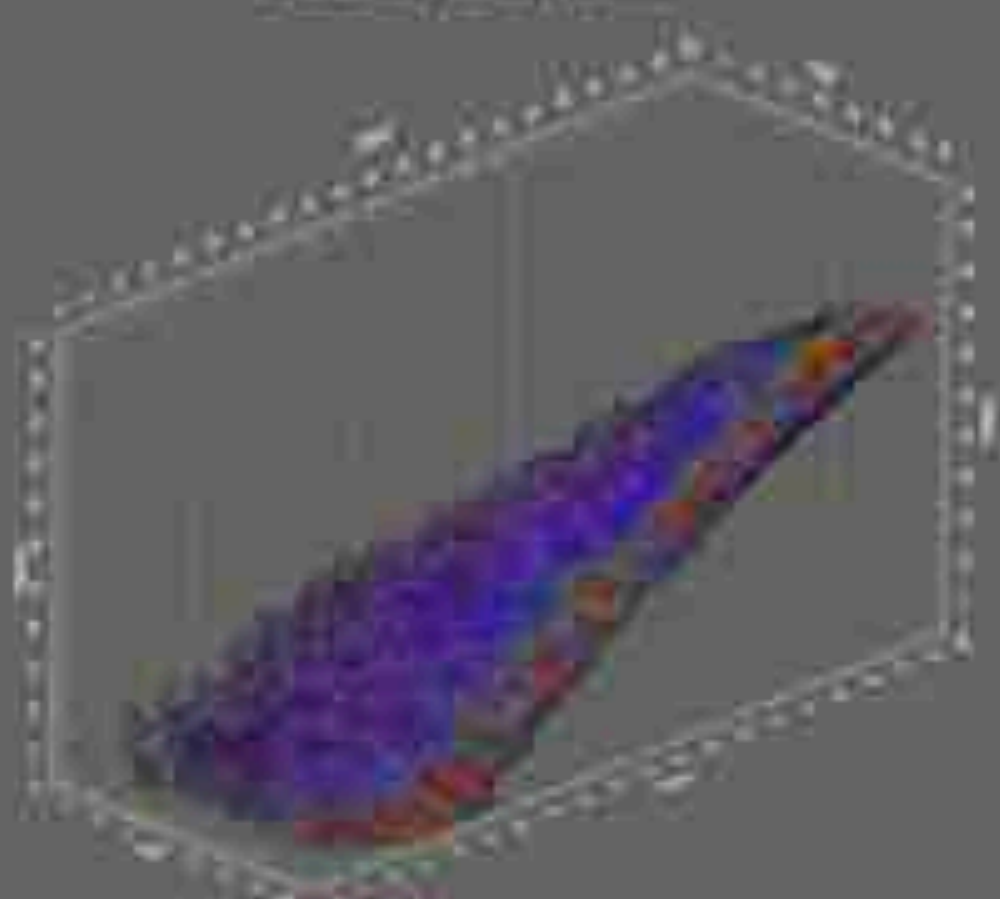
BERLIN, 52.47,13.40



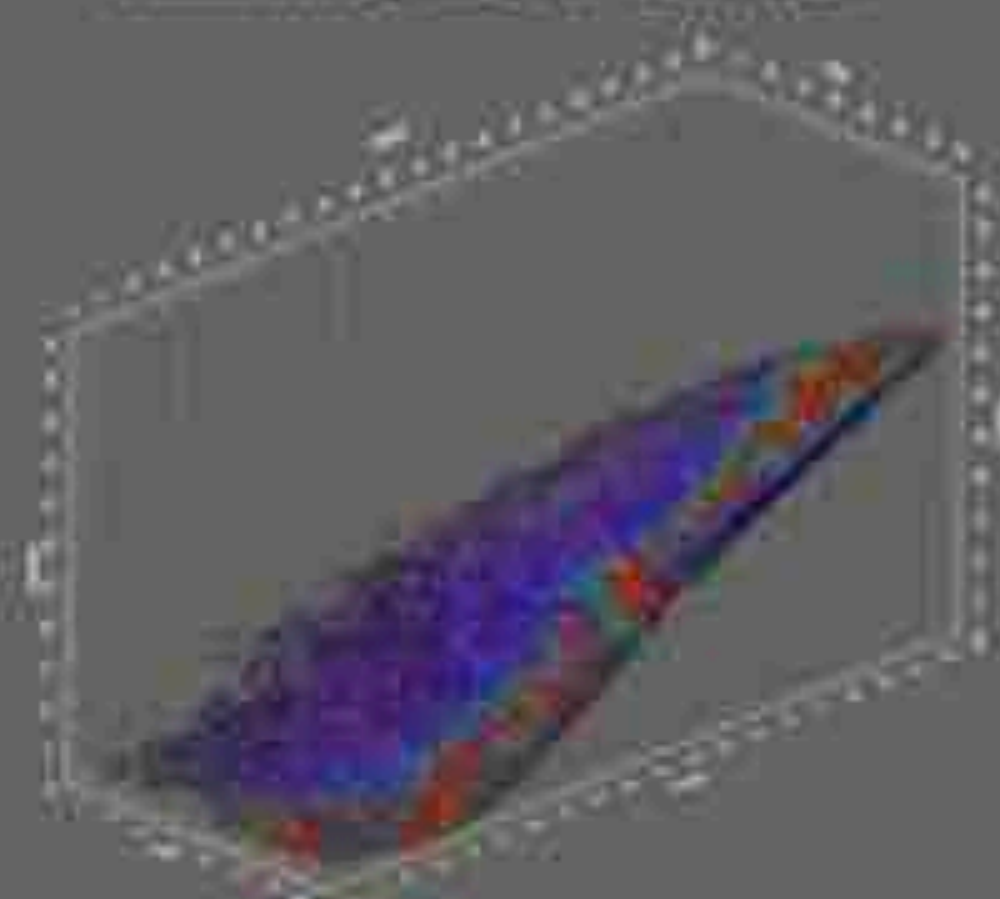
KATHMANDU_INTL_ARPT,27.70,85.37



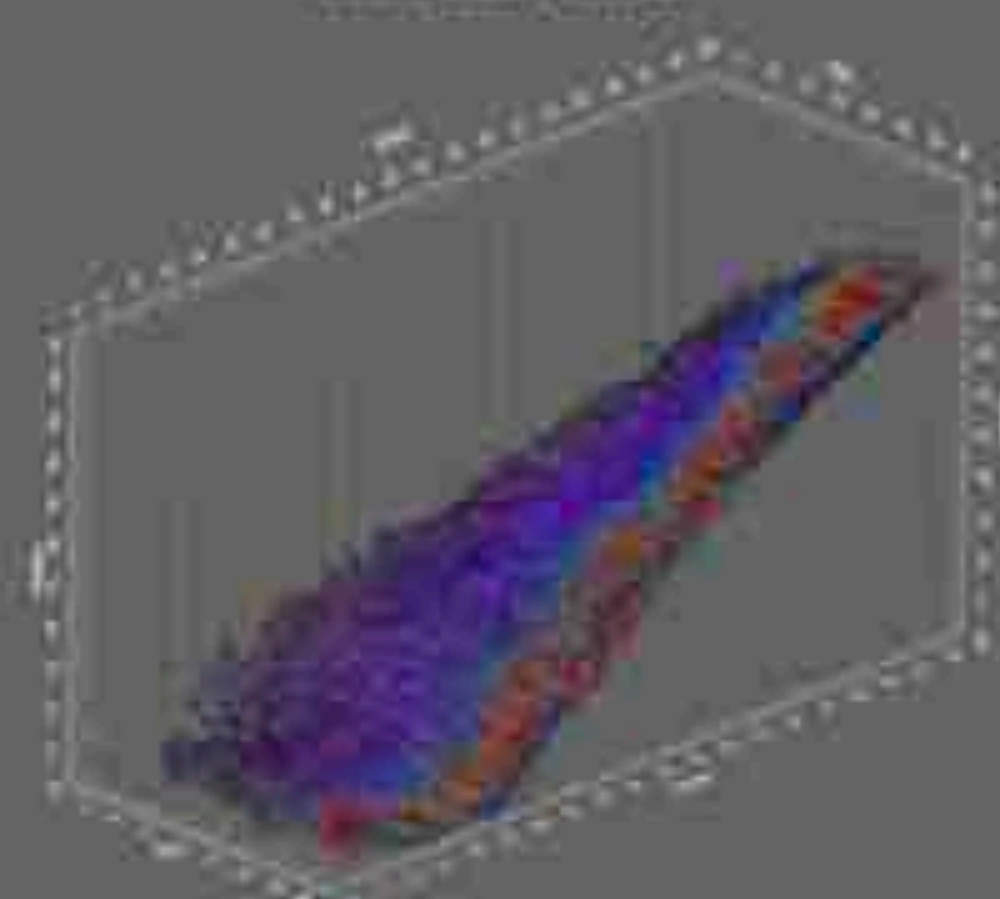
TAIPEI,25.07,121.58



Tabriz,38.05,48.17



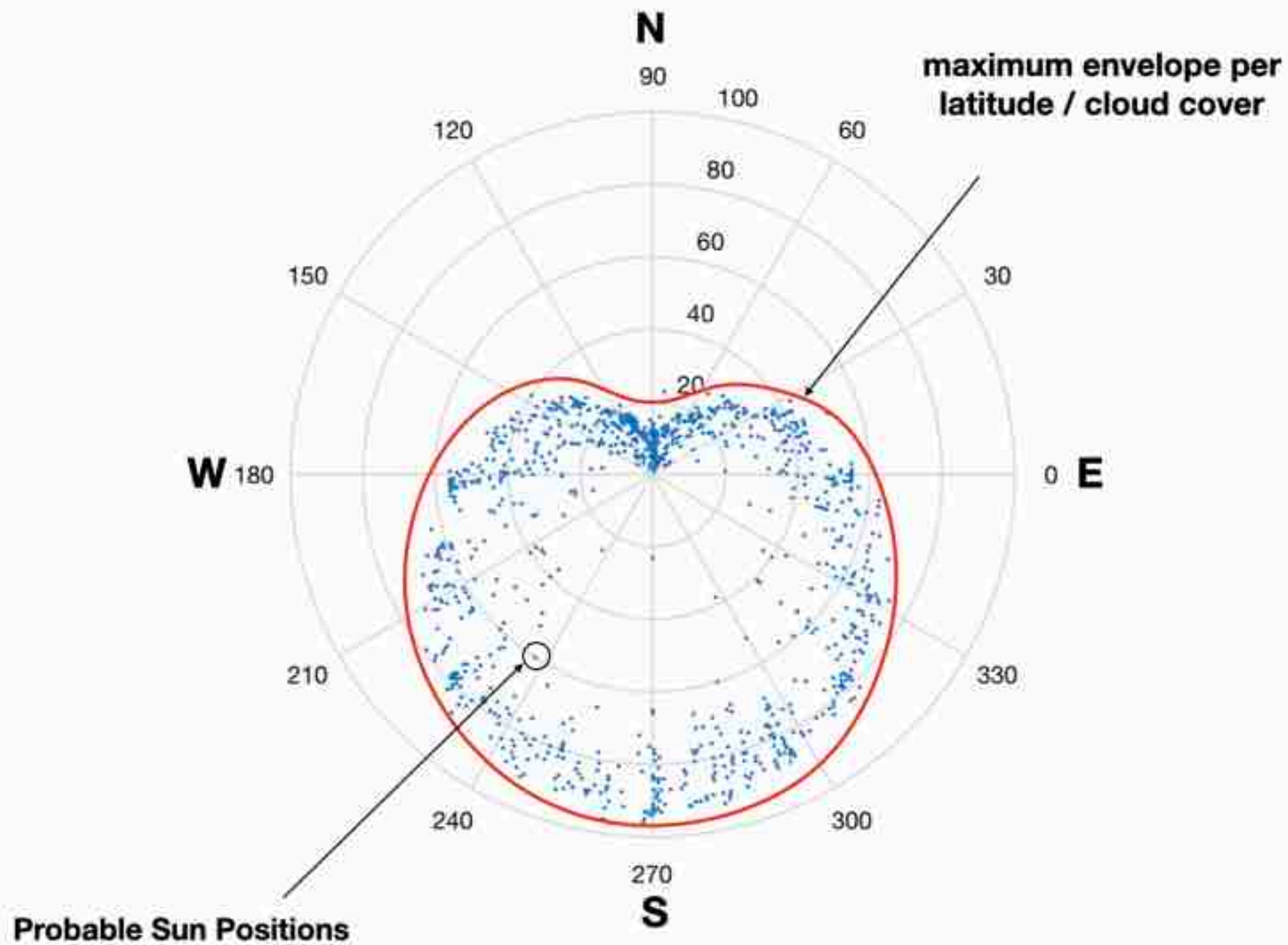
Yazd,31.88,54.28



LONDON/GATWICK,51.15,-0.18

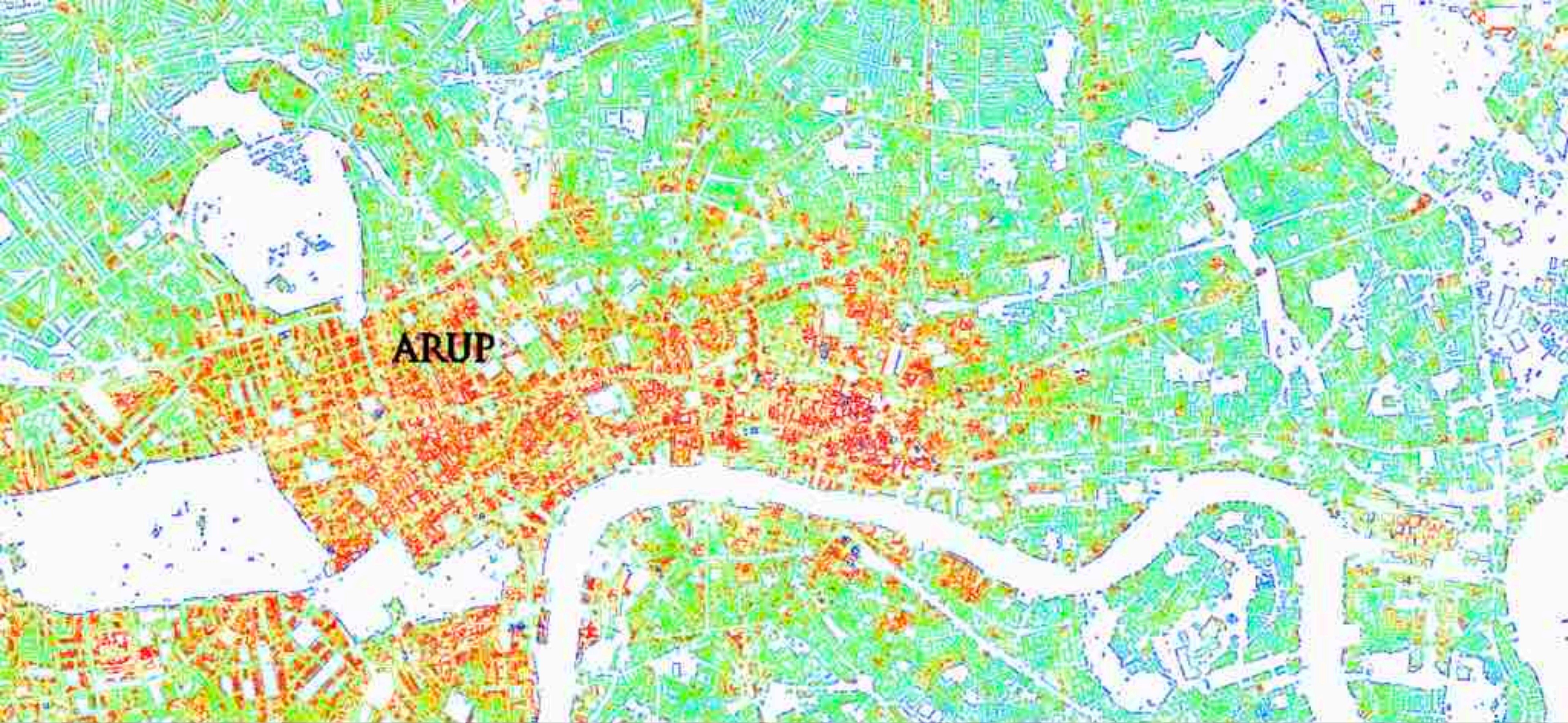


How many receptors fall within a value range.
This represents how dense a city is.
It is invariant with latitude and weather
(as it is to do with VSC).



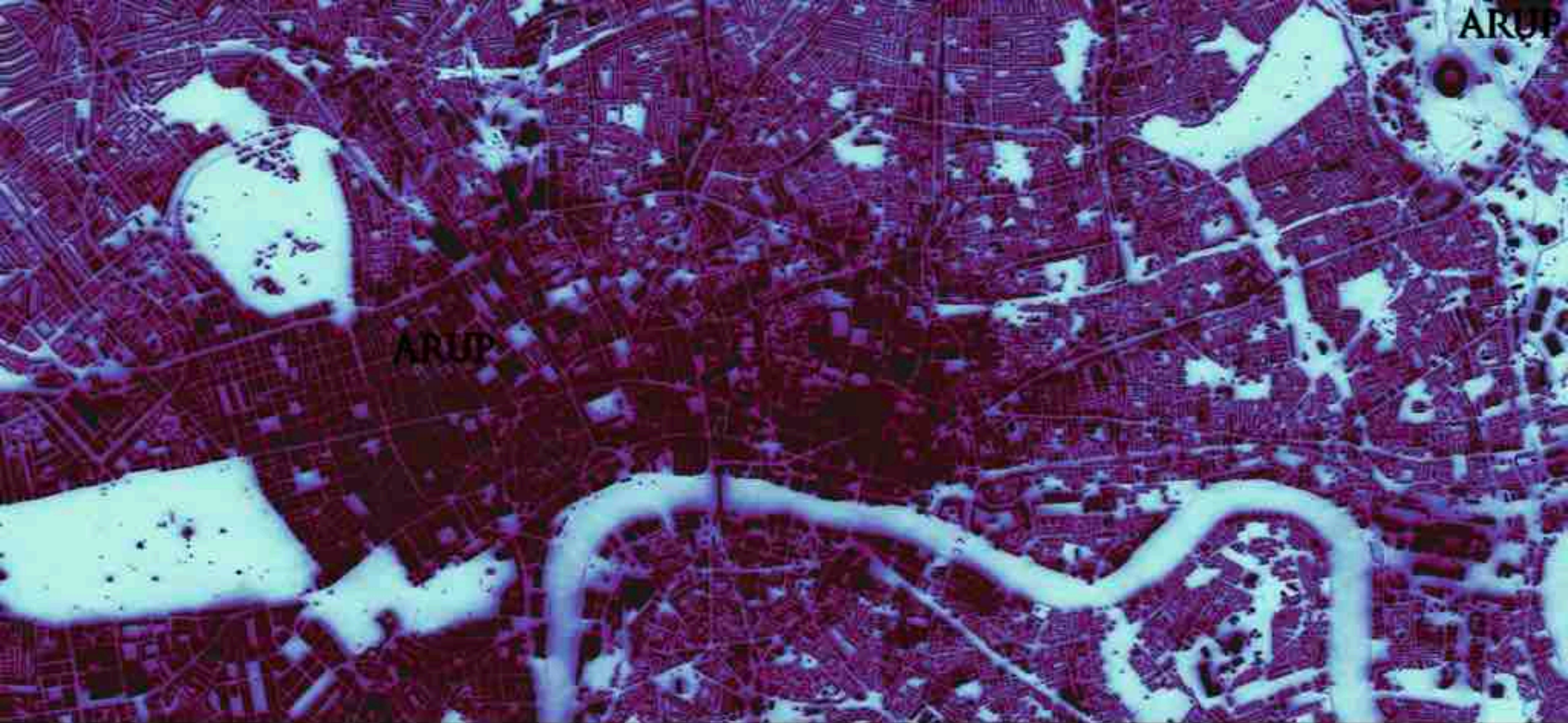
The background of the image is a grayscale aerial photograph of a city, showing a dense grid of streets and buildings. A solid pink horizontal band runs across the middle of the image, serving as a backdrop for the text.

ANY DATA



ARUP

Daylight/Sunlight



Sunlight on the ground



ARUP

Position, orientation, adress, ...

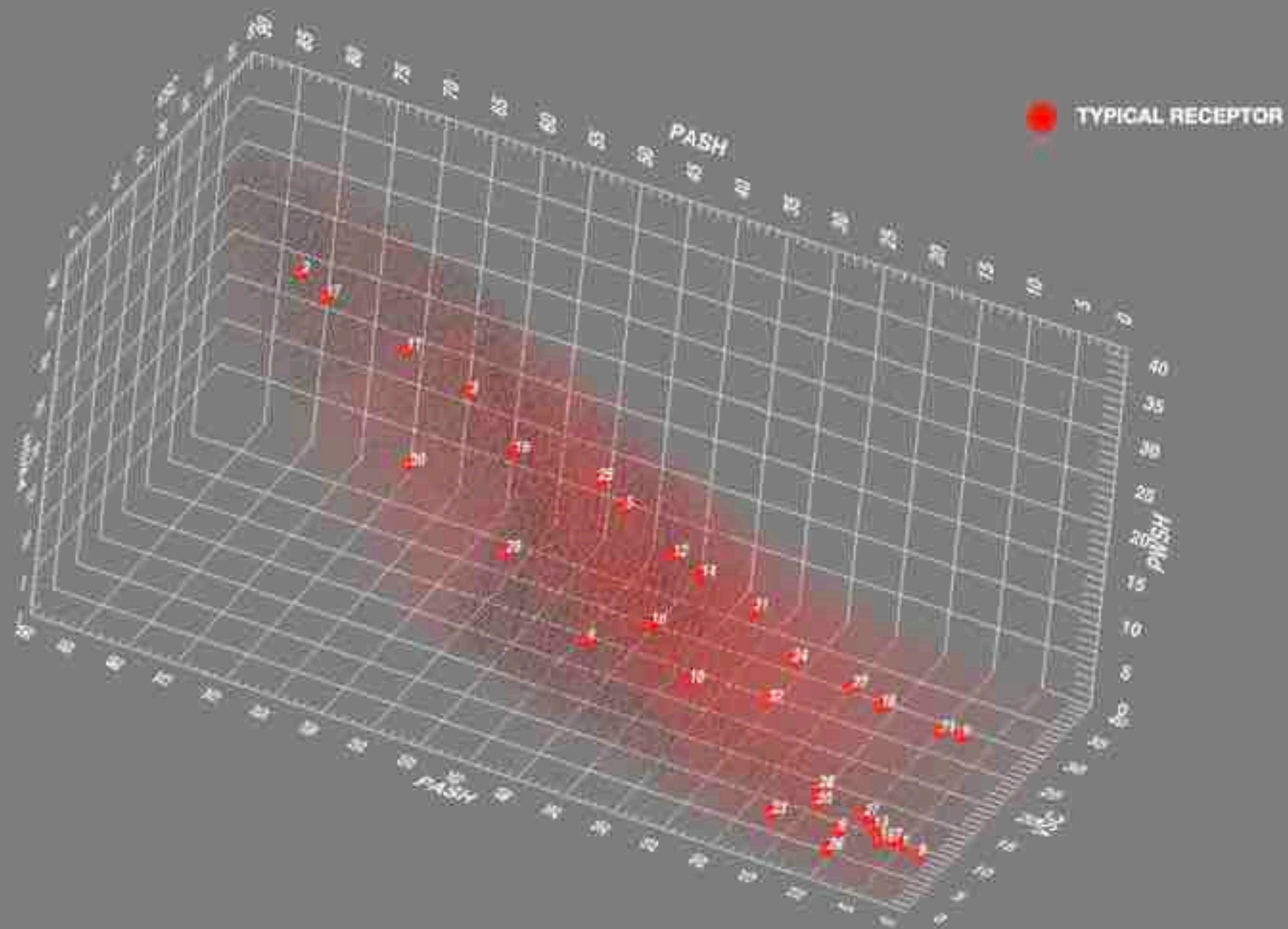


Density

An aerial photograph of a city grid, likely New York City, showing a dense network of streets and buildings. A solid pink horizontal banner is superimposed across the center of the image.

TYPICAL RECEPTORS

K-MEDOIDS CLUSTERING

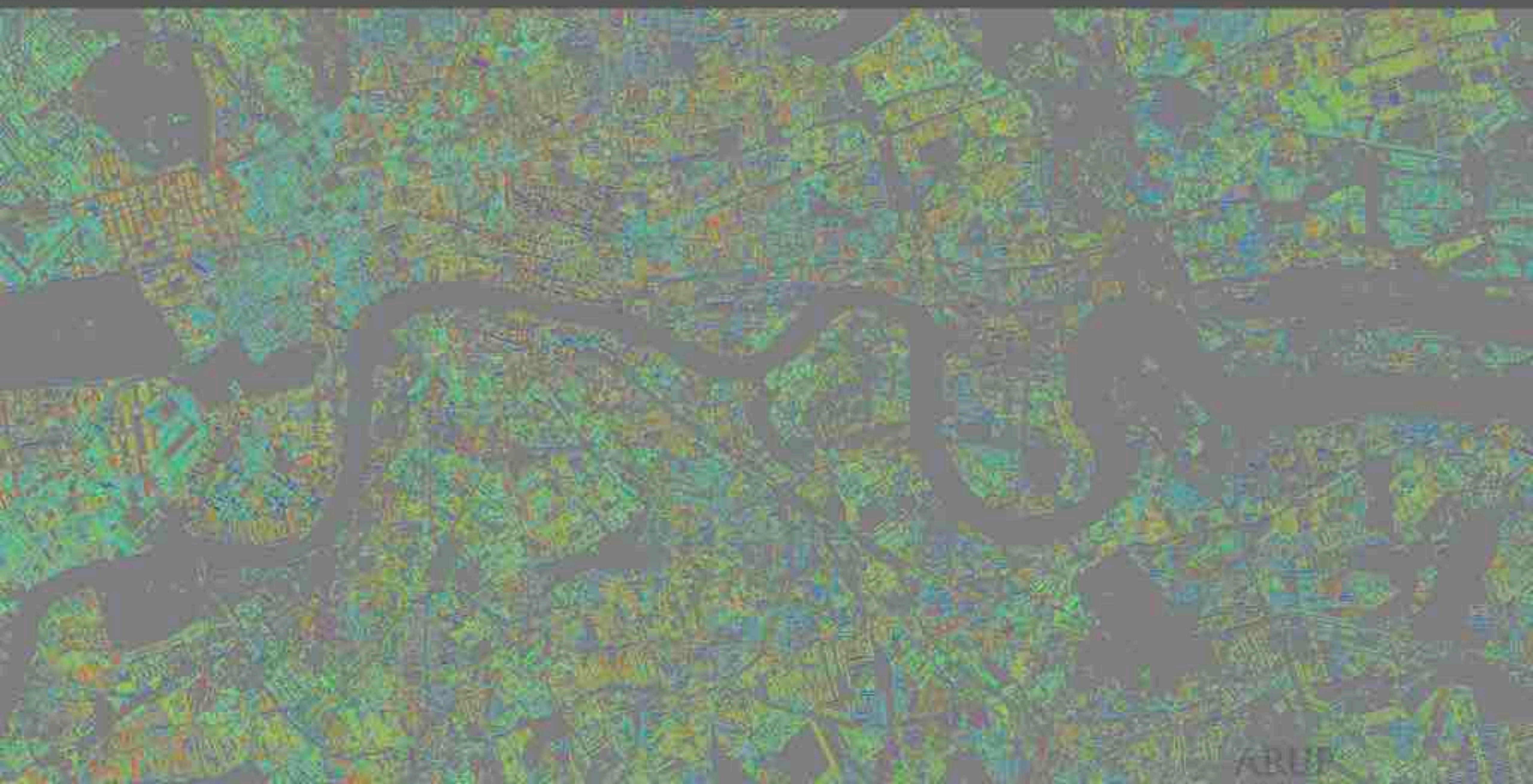


WHAT IS A TYPICAL RECEPTOR

Within a cluster of receptors, the typical receptor is one which has a close orientation, exposure to sunlight, exposure to daylight.

- A highly obstructed corner location
- A completely unobstructed penthouse
- The middle of a large building block
- ...

CLUSTER DISTRIBUTION



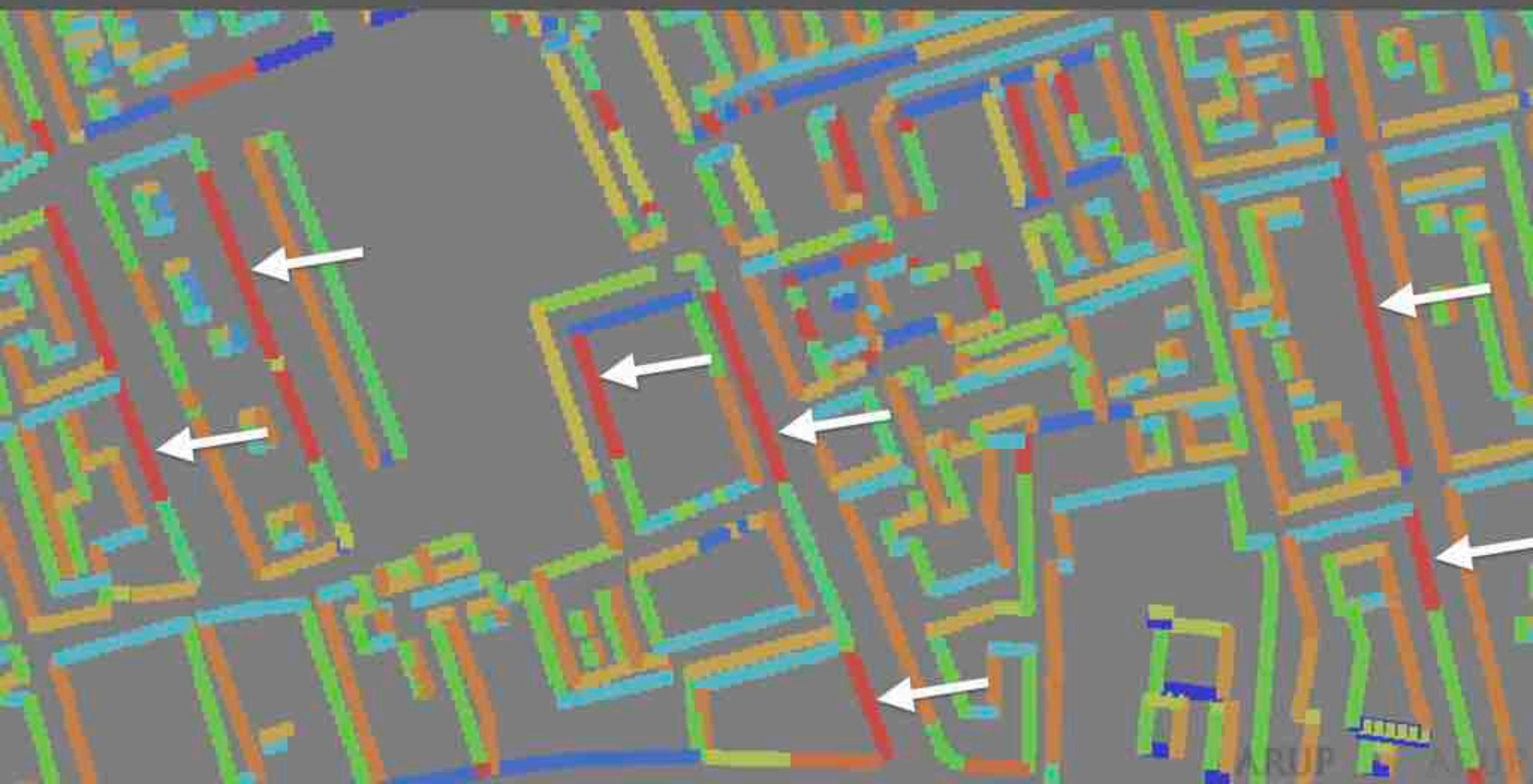
CLUSTER DISTRIBUTION



CLUSTER DISTRIBUTION

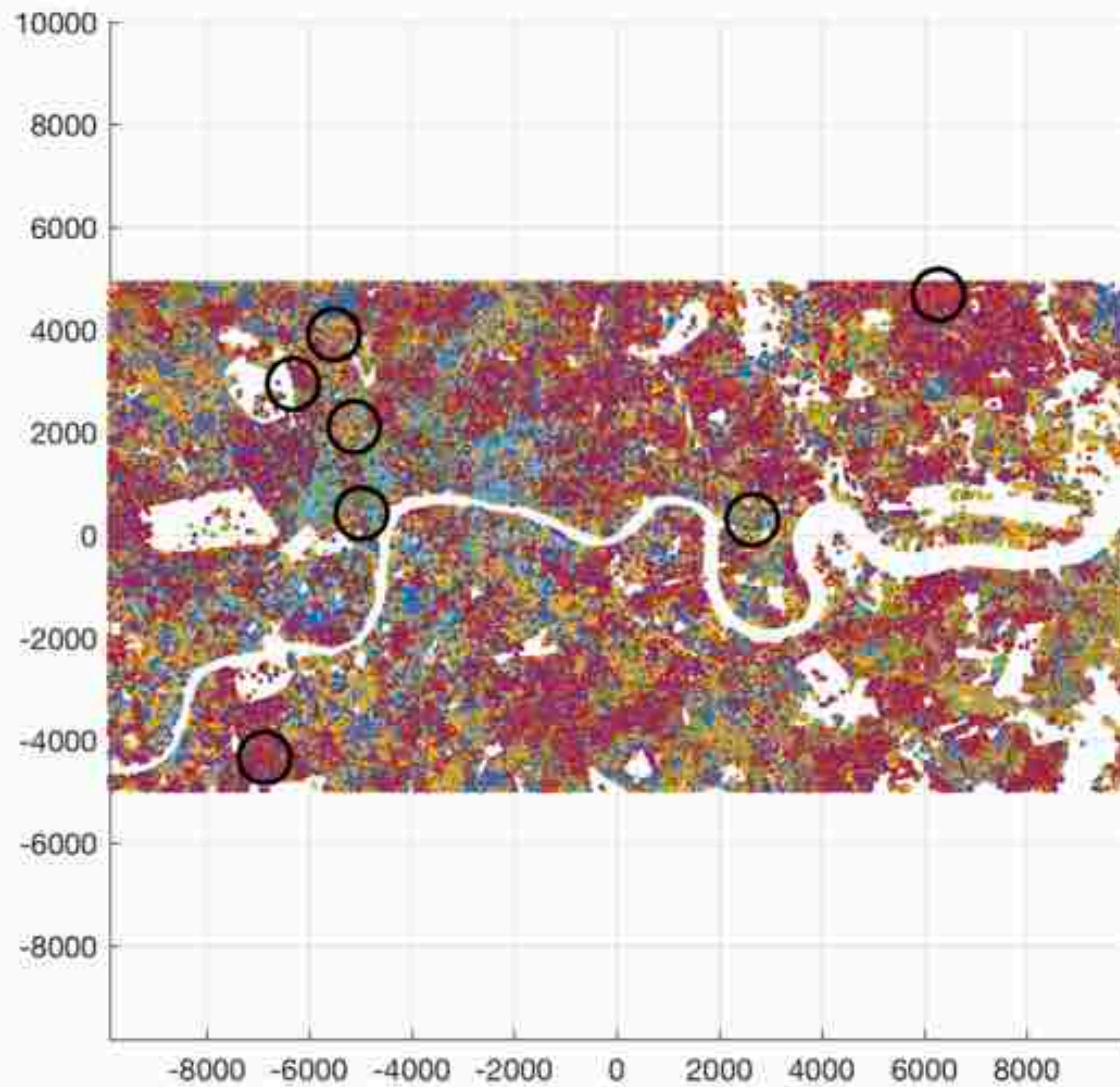


CLUSTER DISTRIBUTION

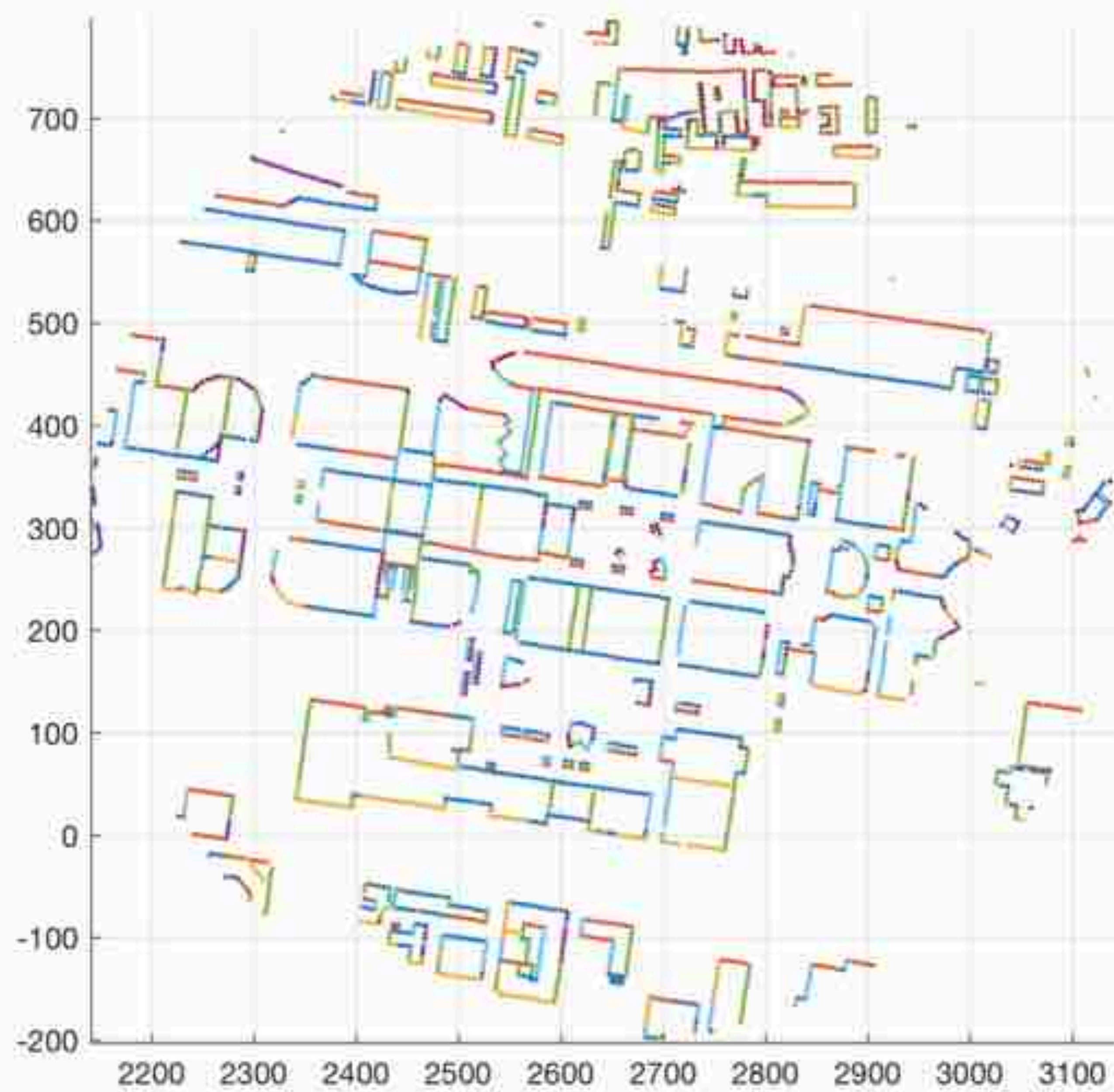


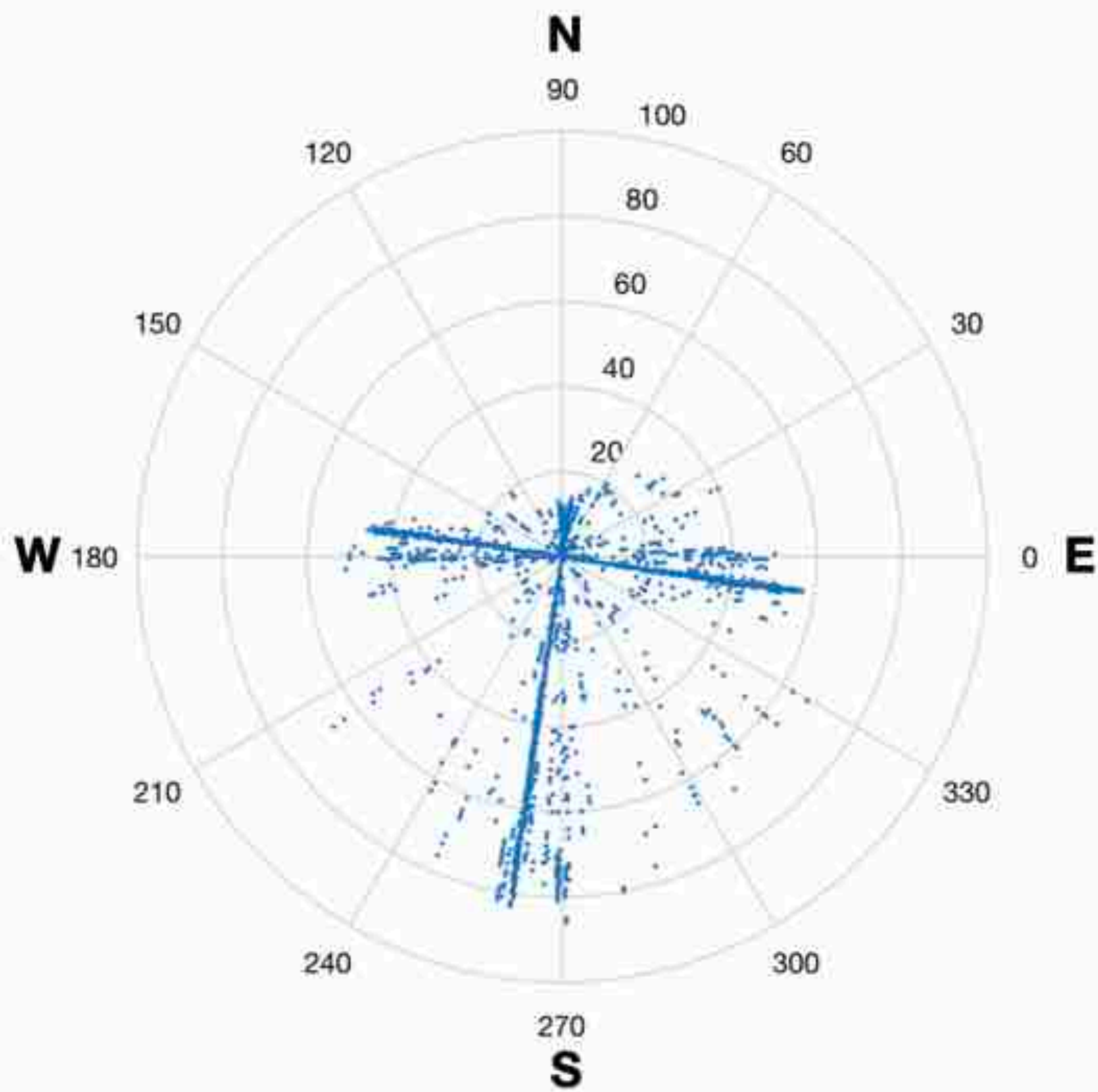
An aerial photograph of a city, likely New York City, showing a dense grid of streets and buildings. A prominent pink banner is overlaid horizontally across the center of the image. The text "TYPICAL AREAS" is written in large, bold, yellow capital letters on the banner.

TYPICAL AREAS

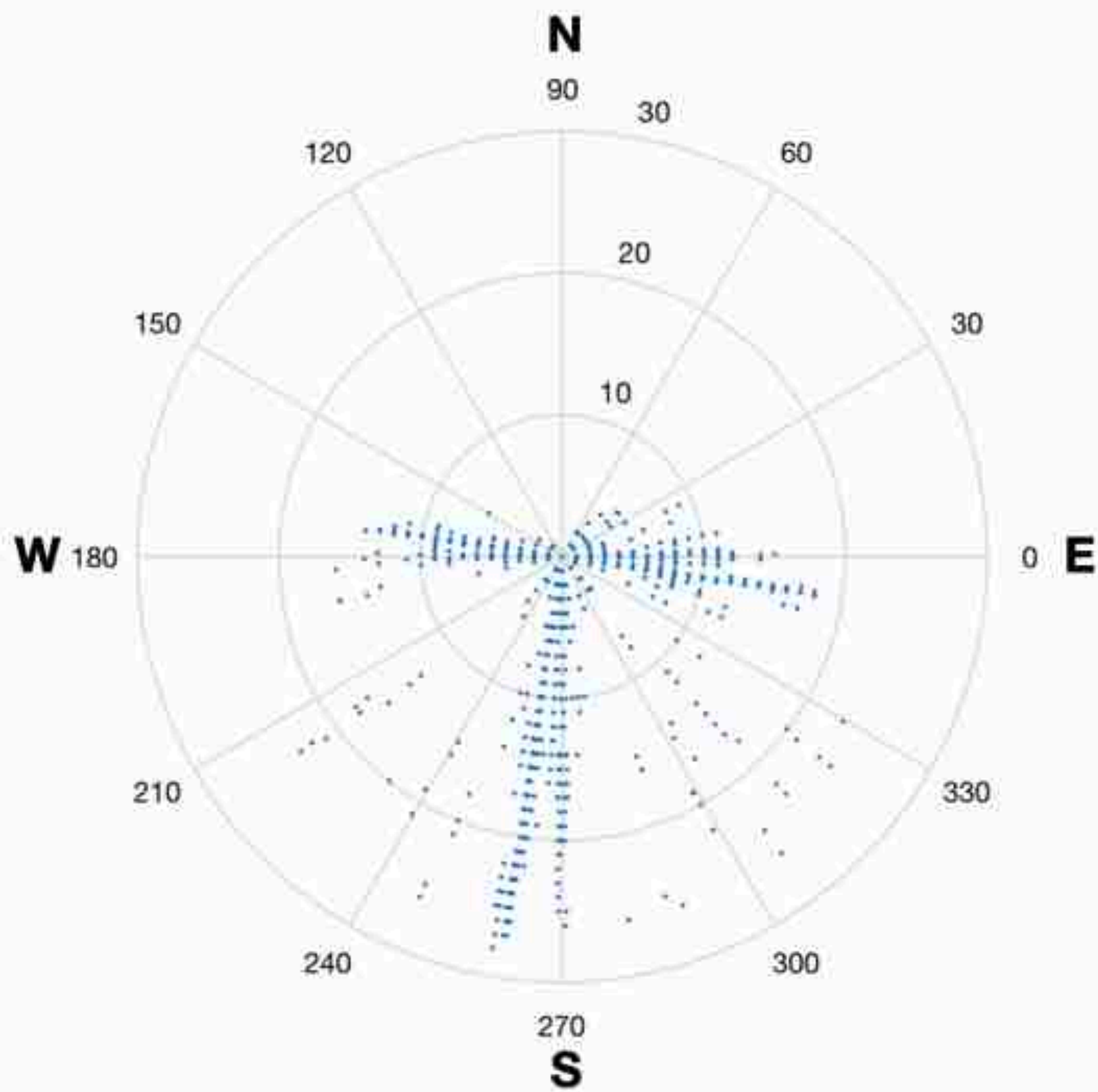


Characterisation of 5 areas

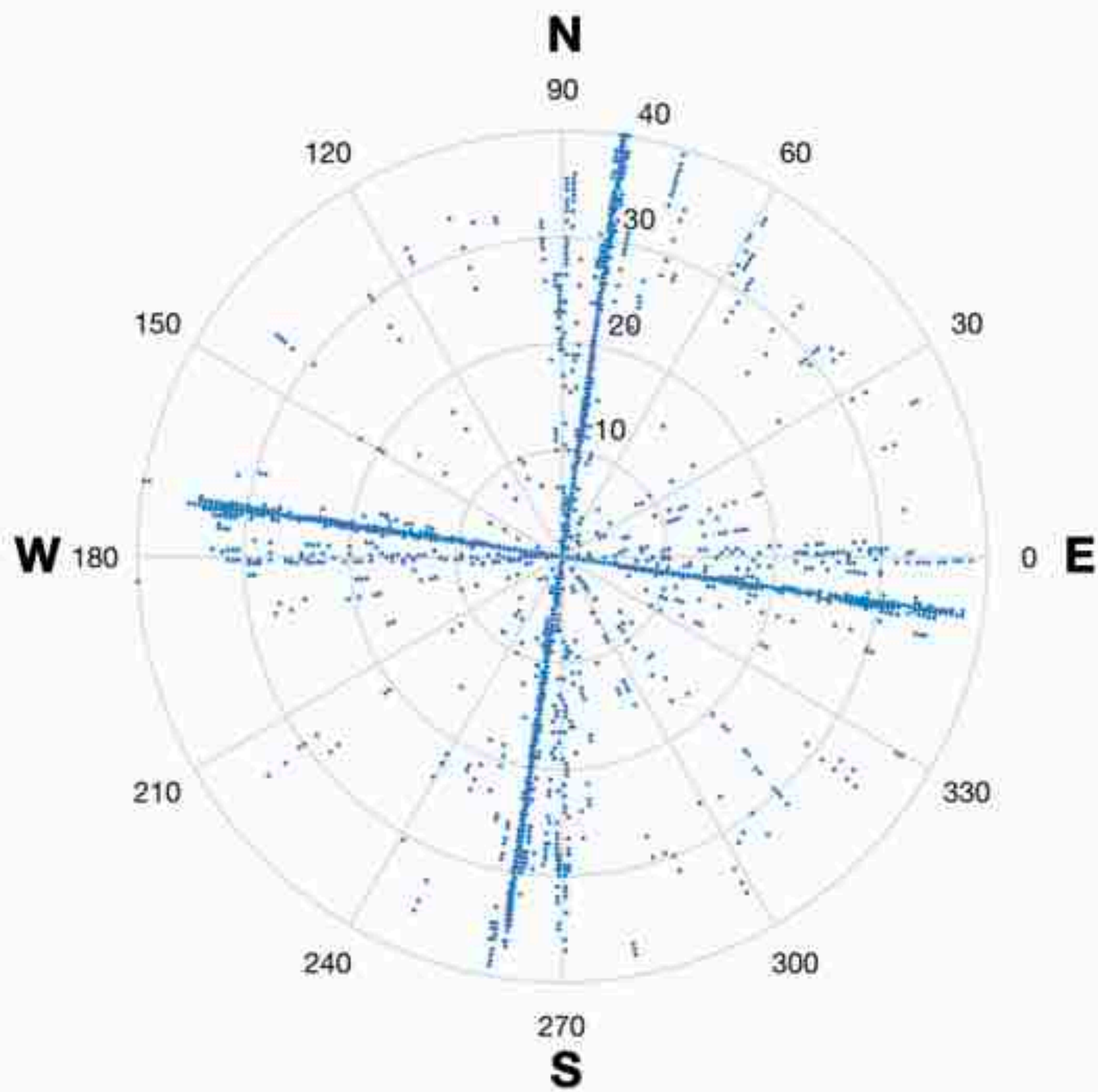




PASH
Area 6



PWSH
Area 6



VSC
Area 6



Fitzrovia



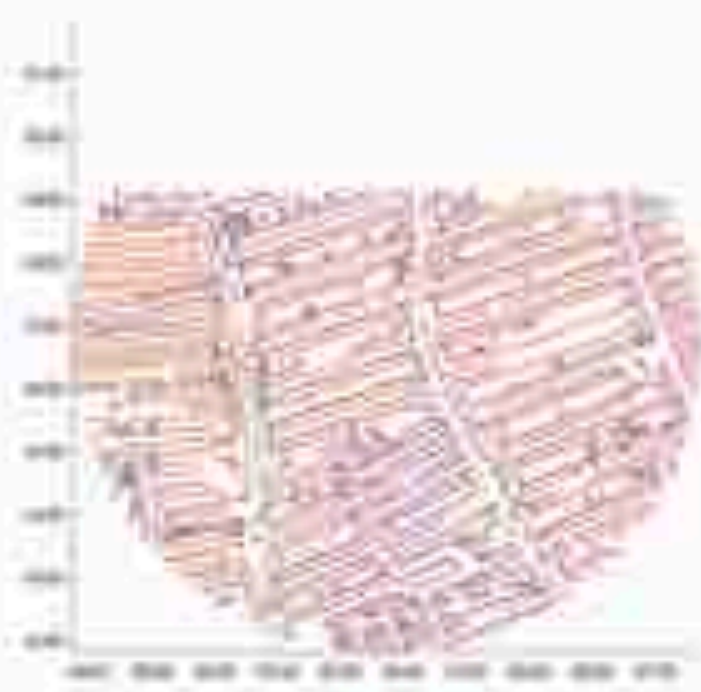
Regent's Park



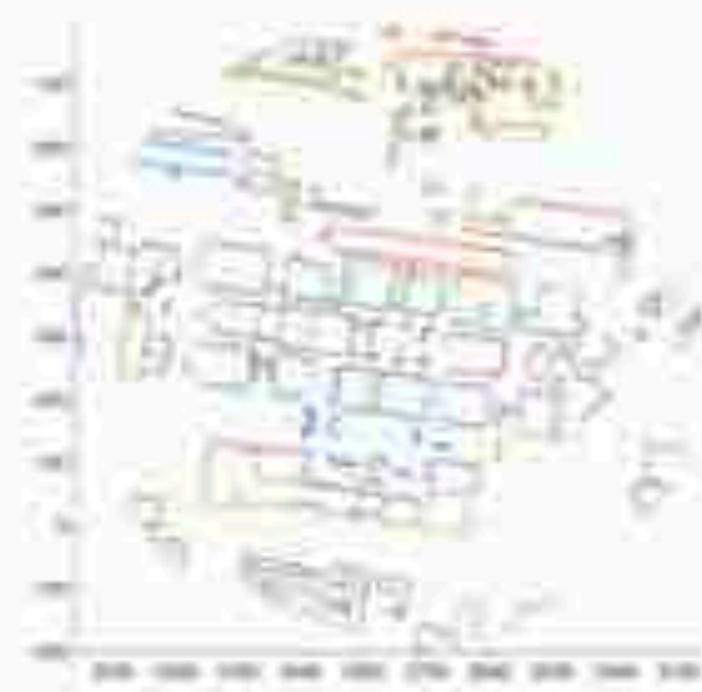
Camden



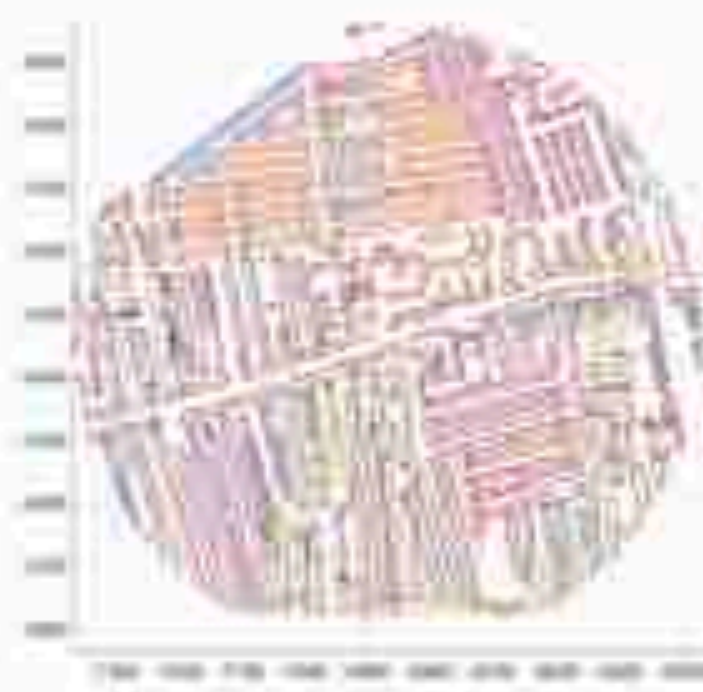
Trafalgar



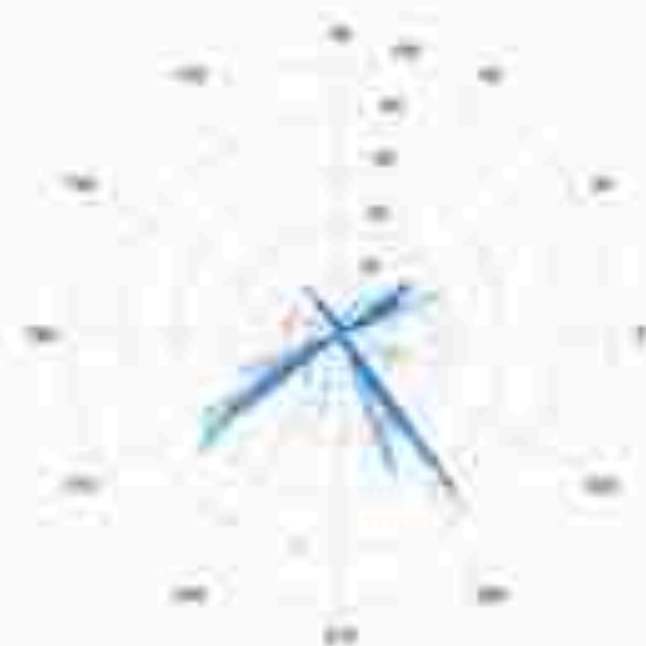
North East



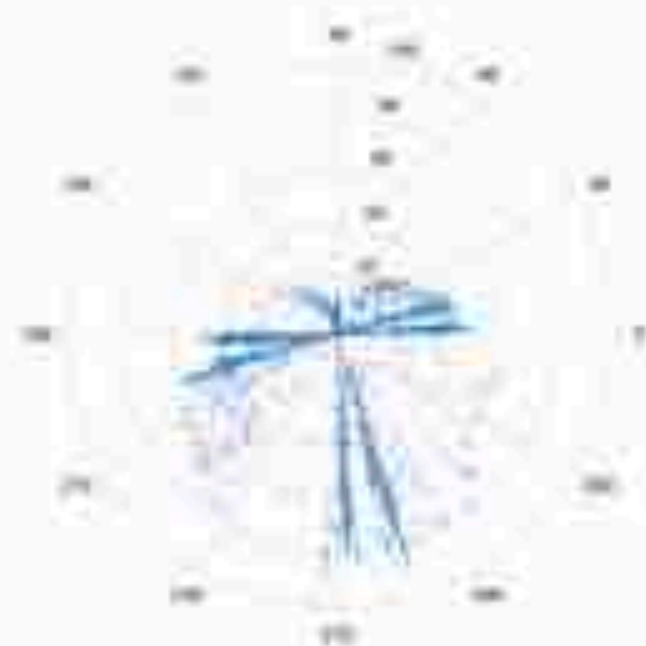
Canary Warf



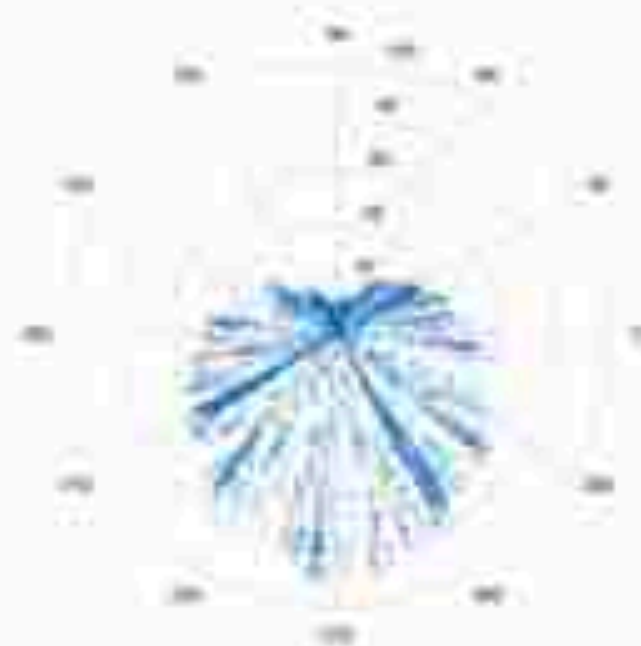
South of Battersea



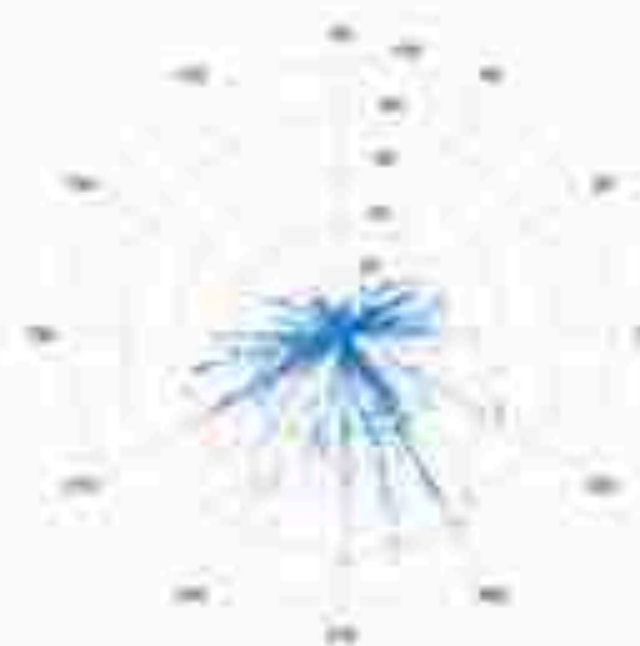
Fitzrovia



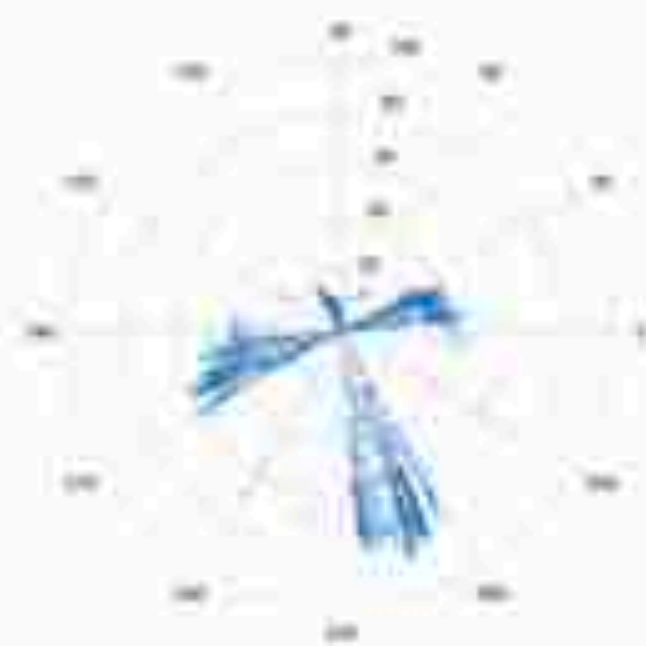
Regent's Park



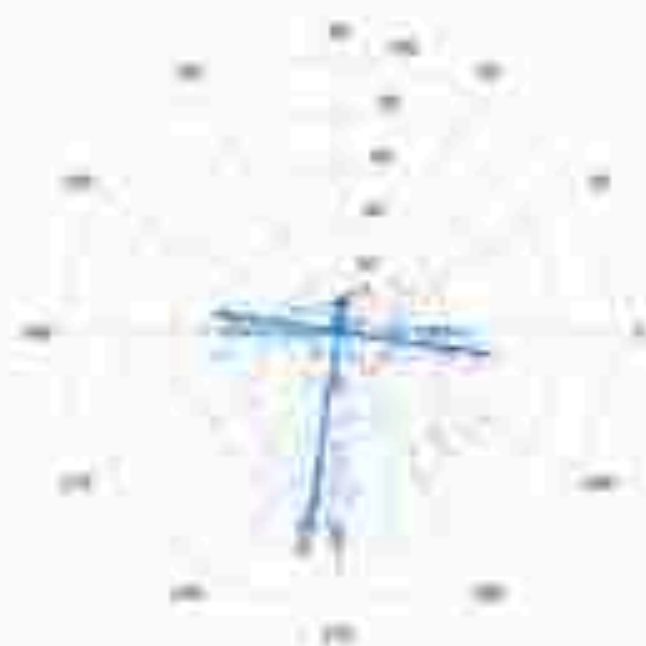
Camden



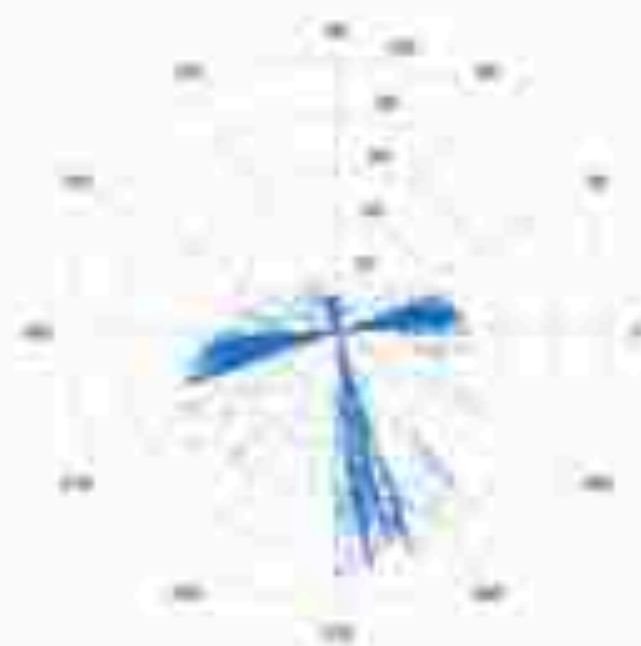
Trafalgar



North East



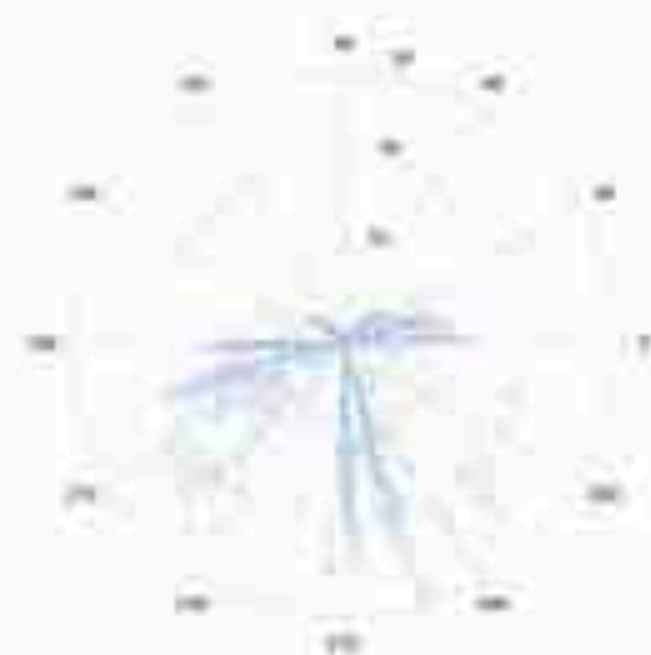
Canary Warf



South of Battersea



Fitzrovia



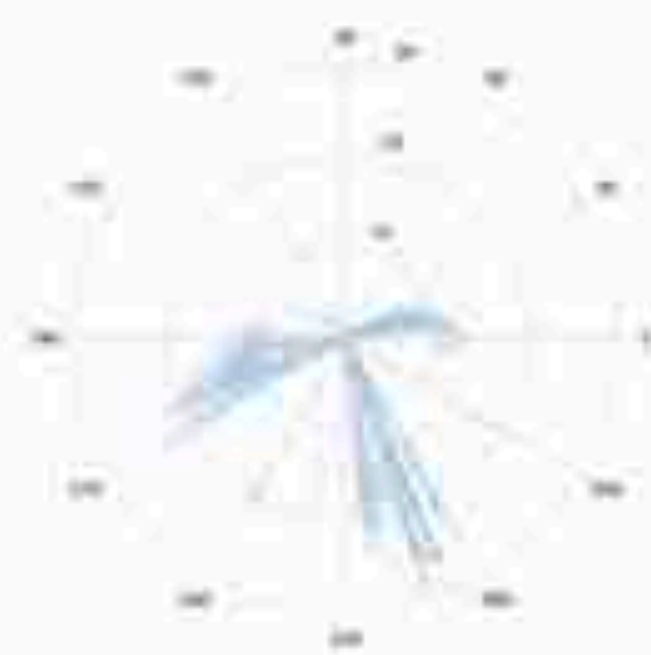
Regent's Park



Camden



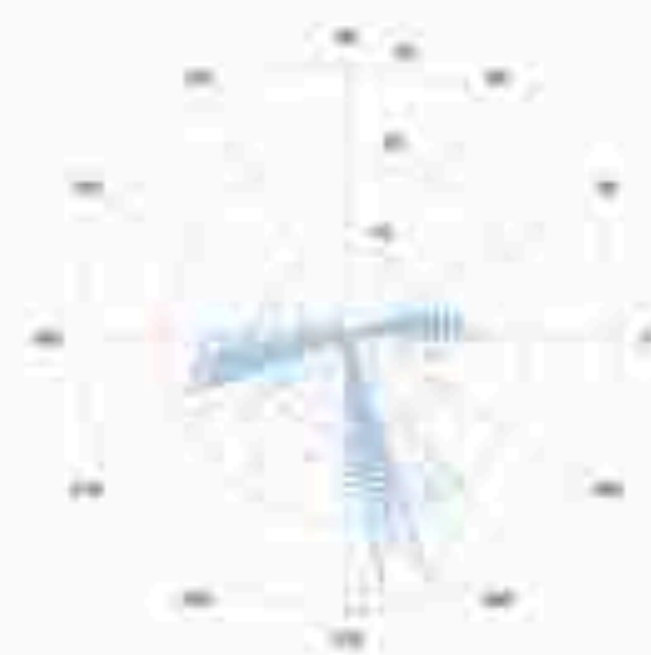
Trafalgar



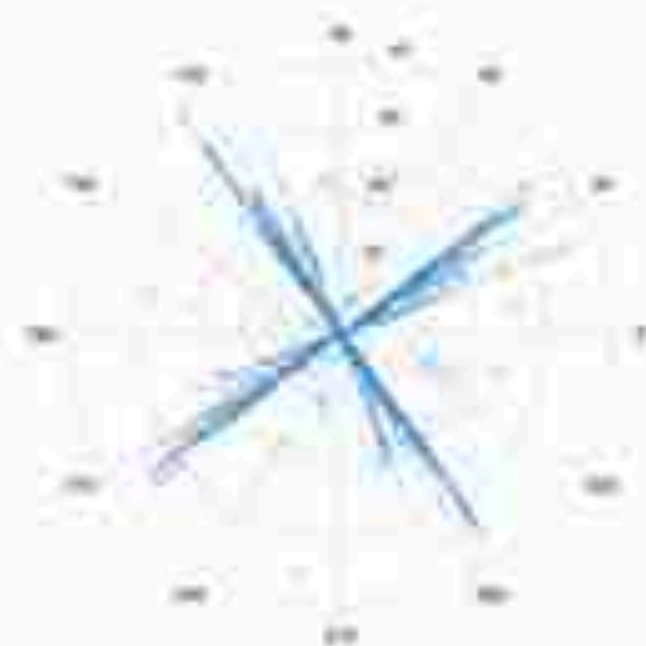
North East



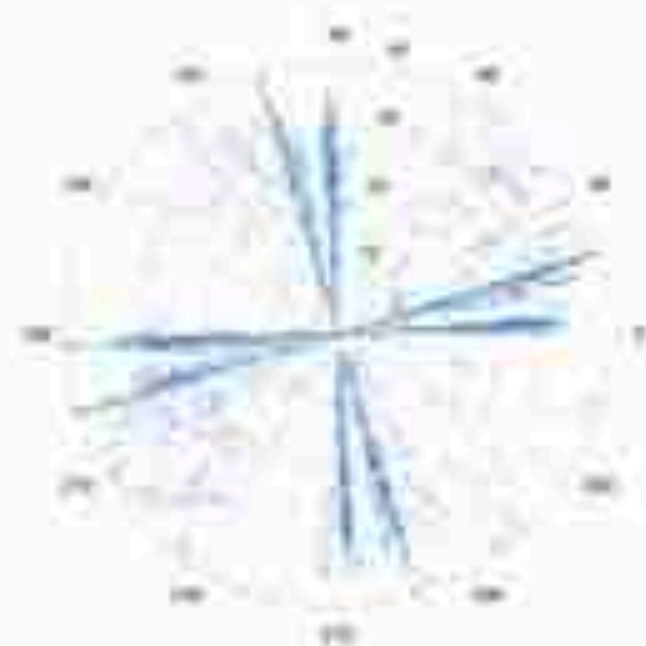
Canary Warf



South of Battersea



Fitzrovia



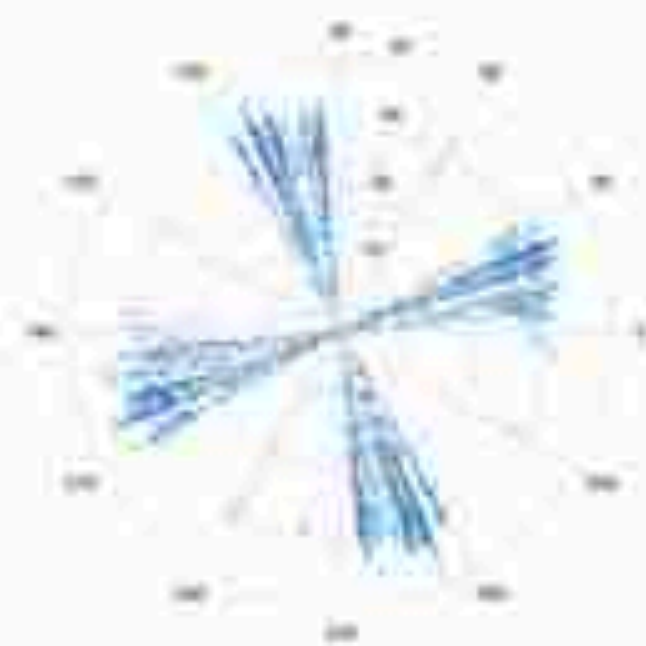
Regent's Park



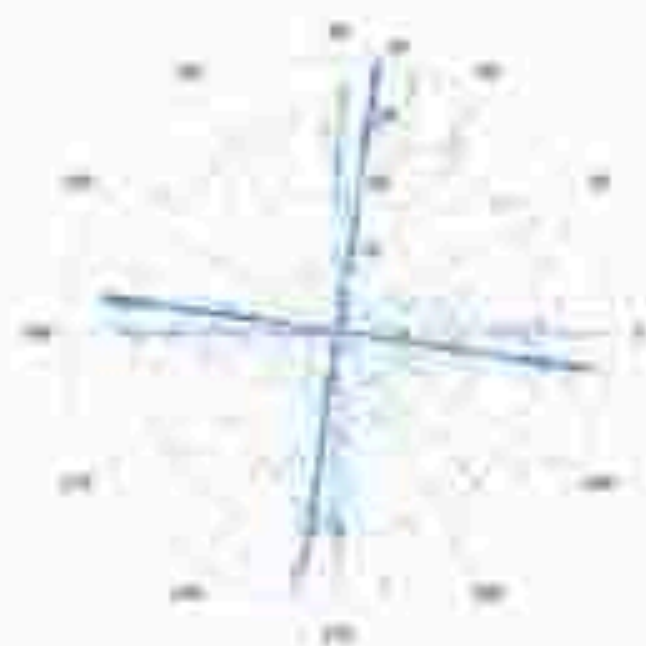
Camden



Trafalgar



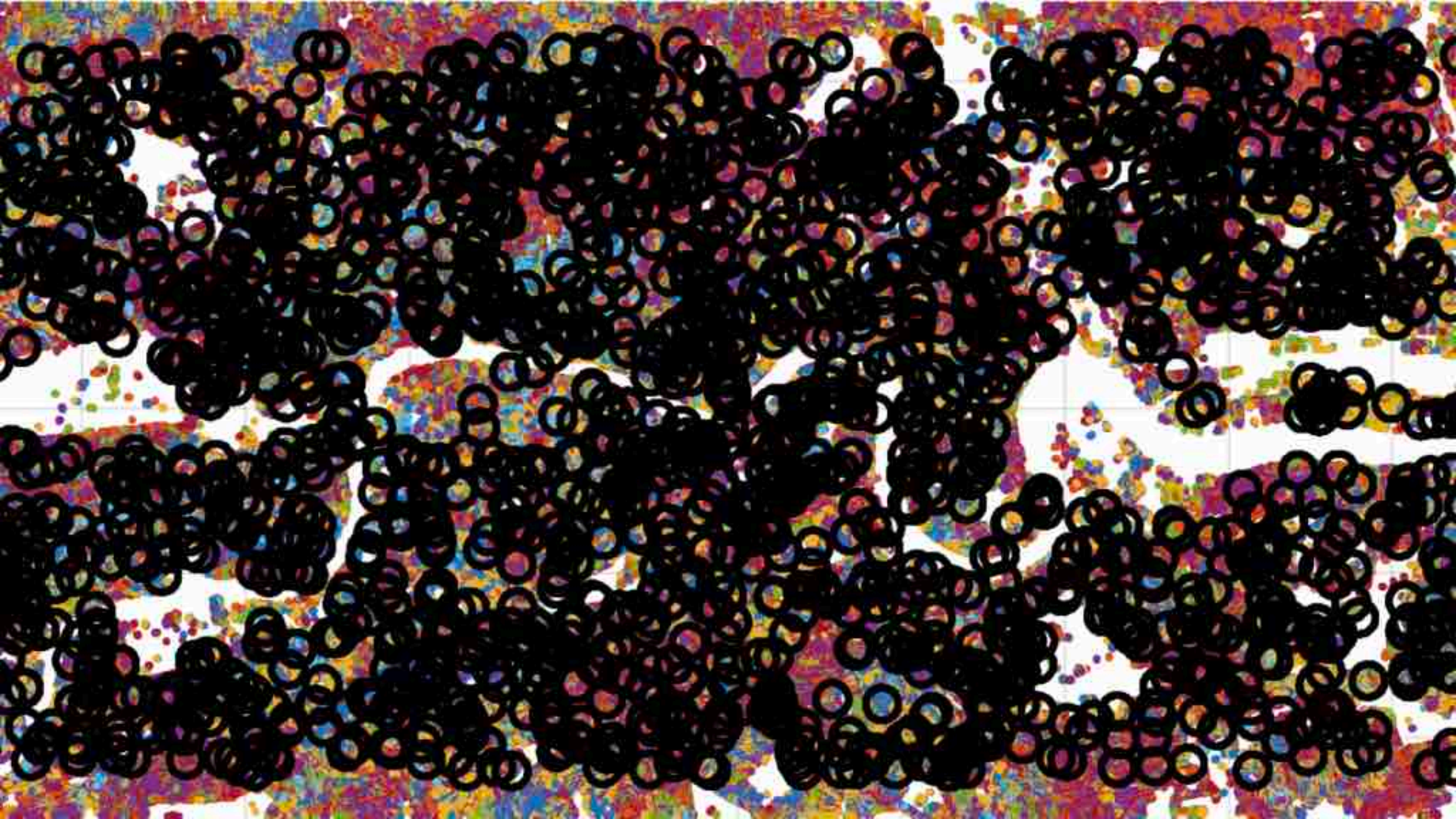
North East



Canary Wharf



South of Battersea





An aerial photograph of a city grid, likely New York City, showing streets, buildings, and parks. A solid pink horizontal banner is centered across the image.

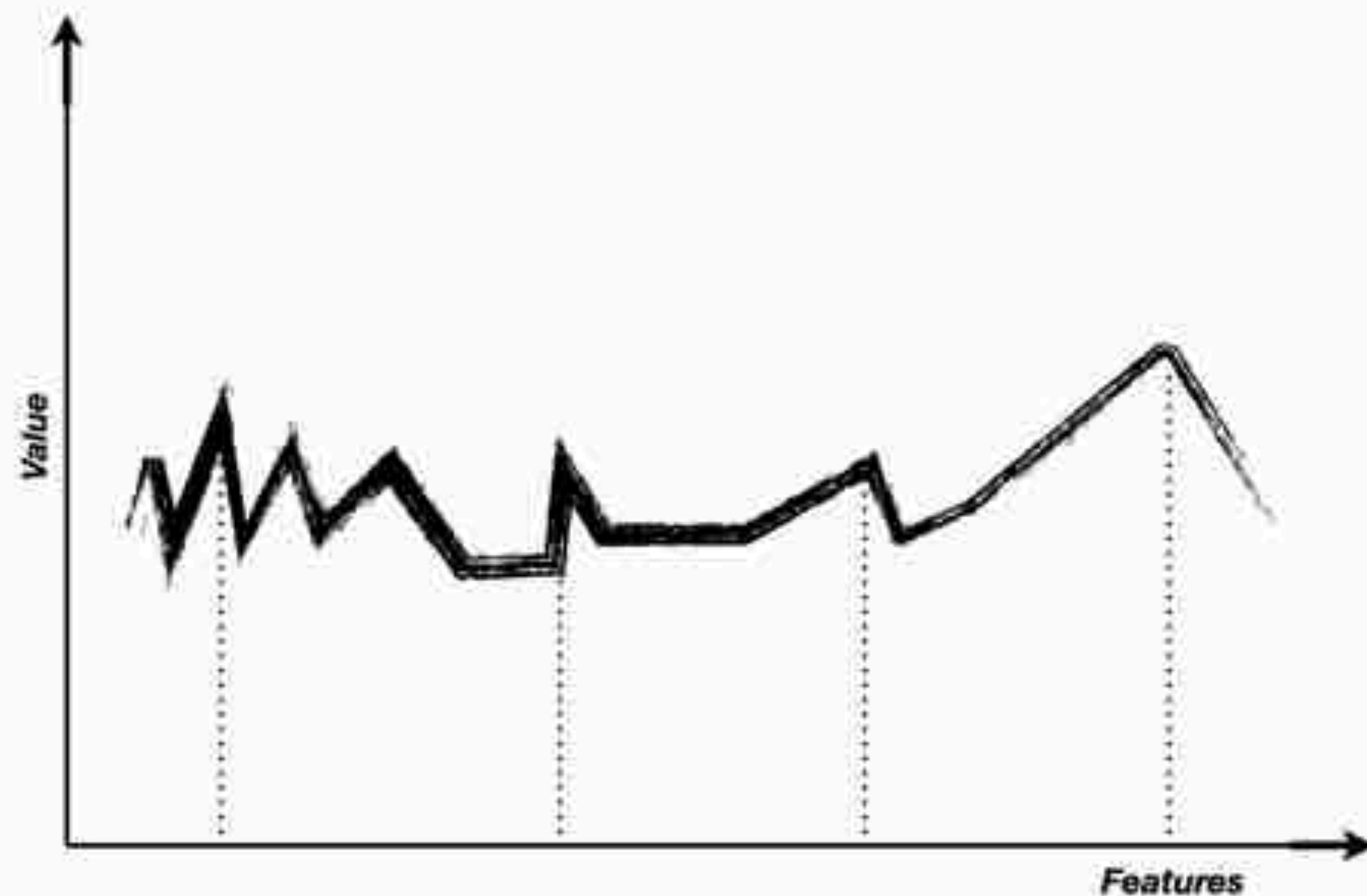
DAYLIGHT SIGNATURE



Place

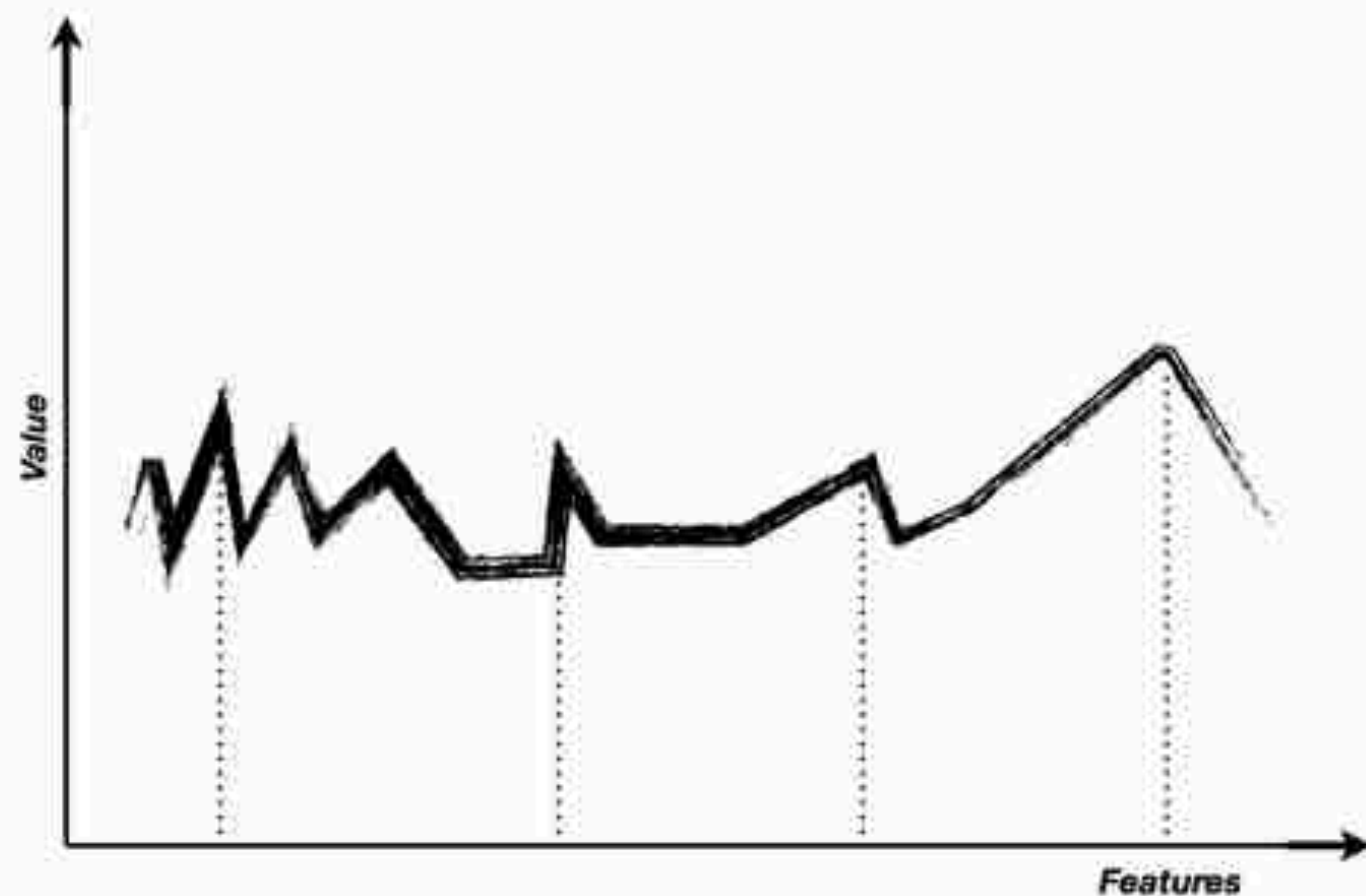
**Sunlight
Daylight
Orientation
Density
Value
Amenities
...**

Raw Data



Signature

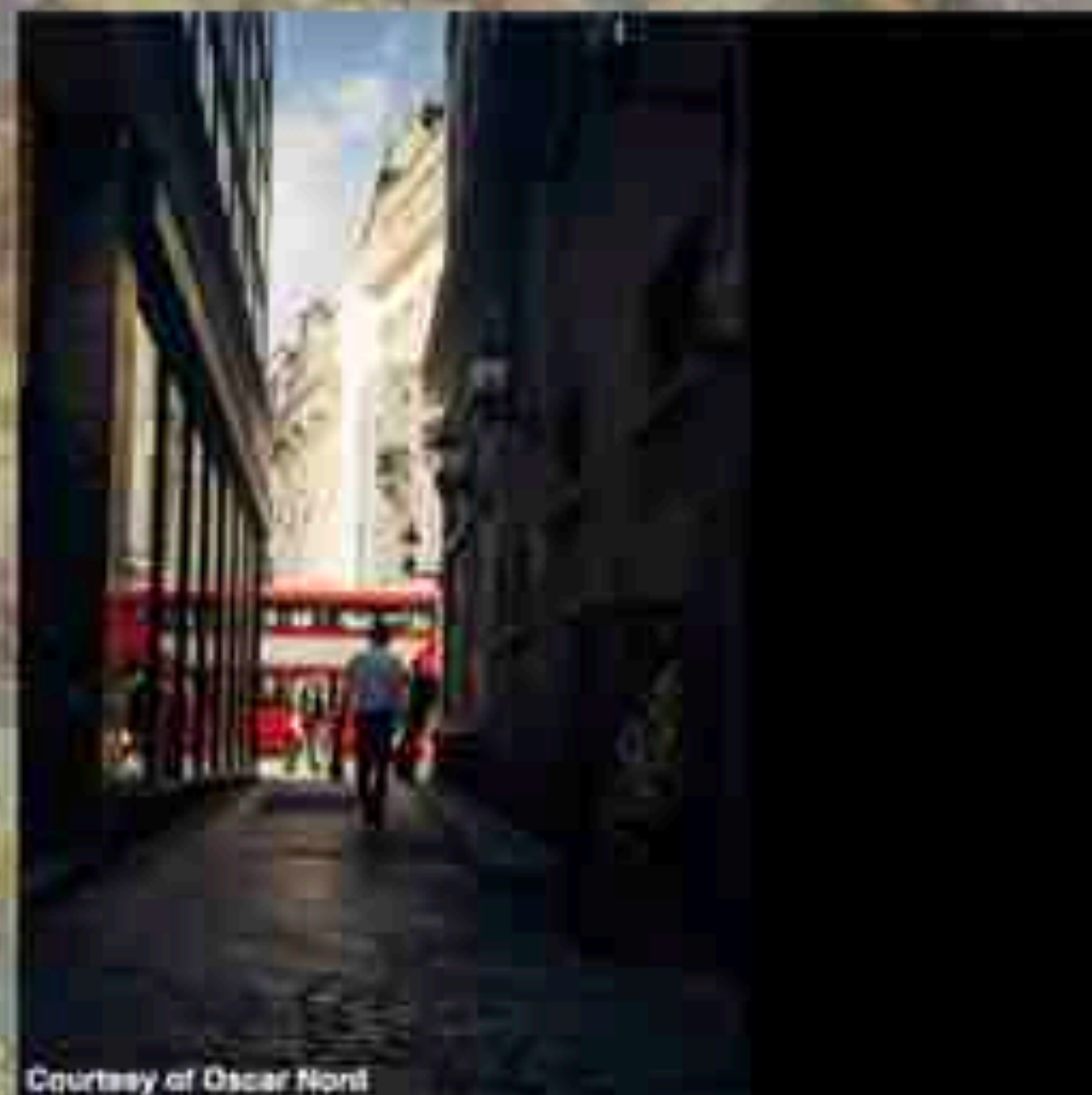
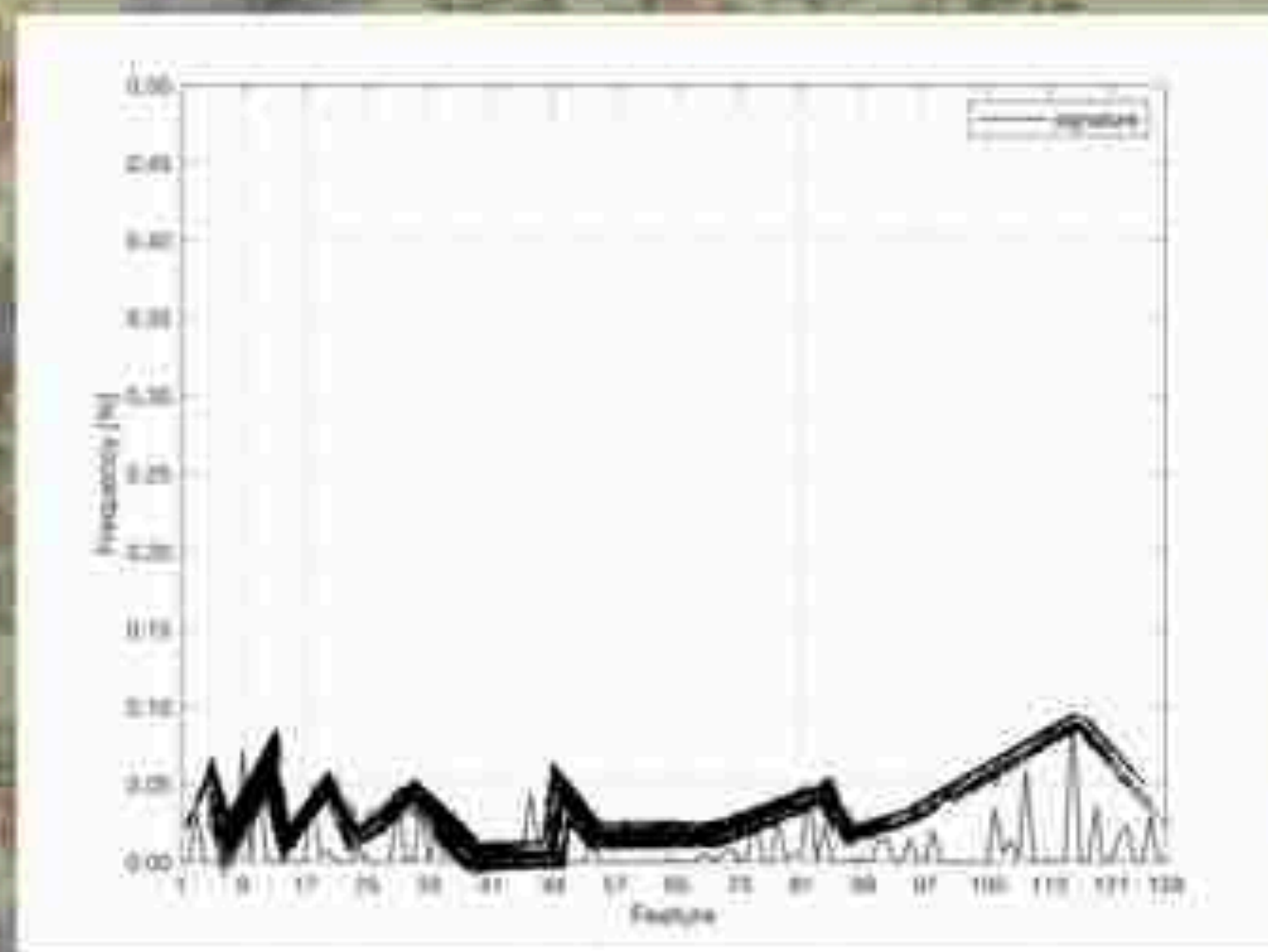
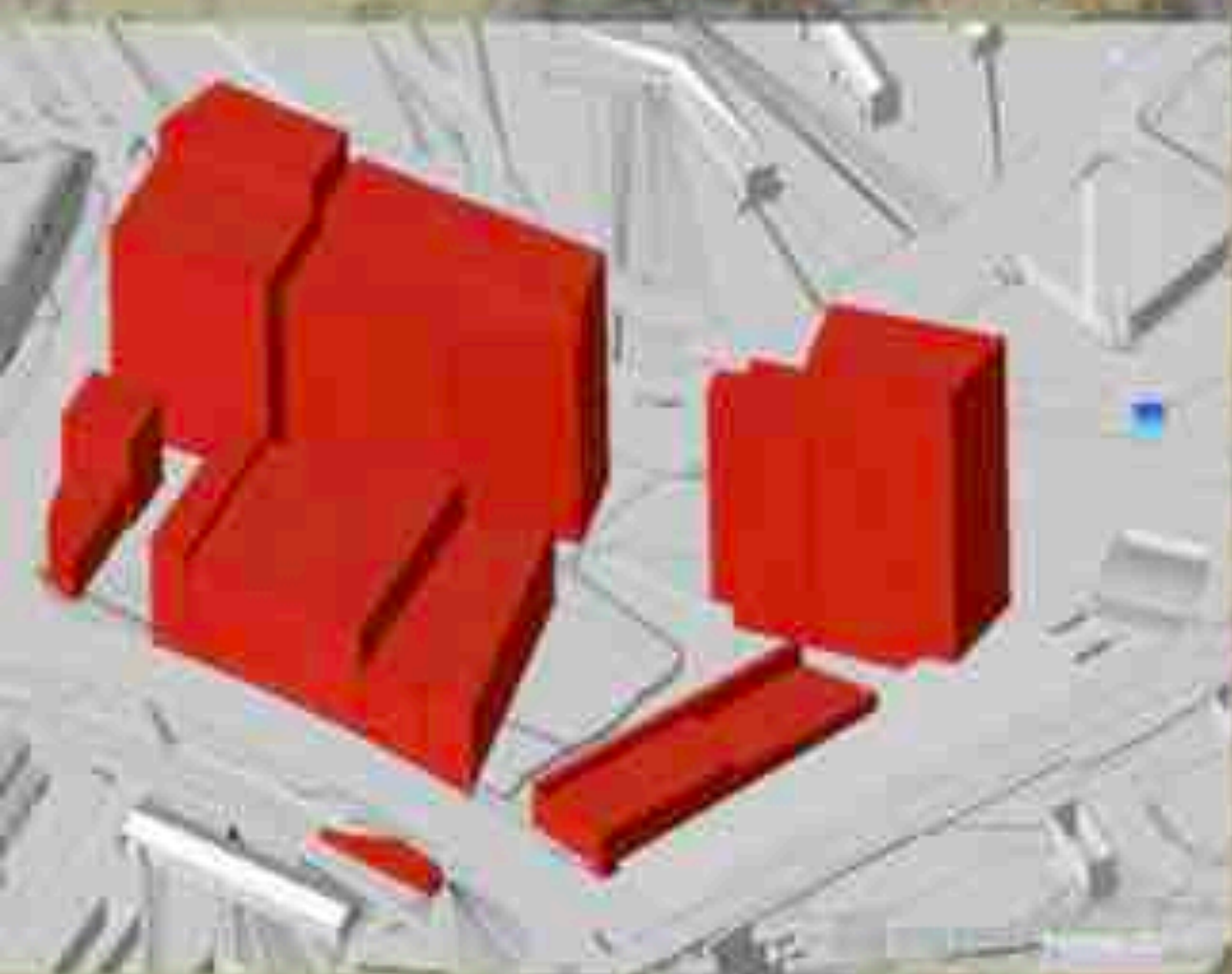
Sunlight
Daylight
Orientation
Density
Value
Amenities
...



Raw Data

Signature

Place



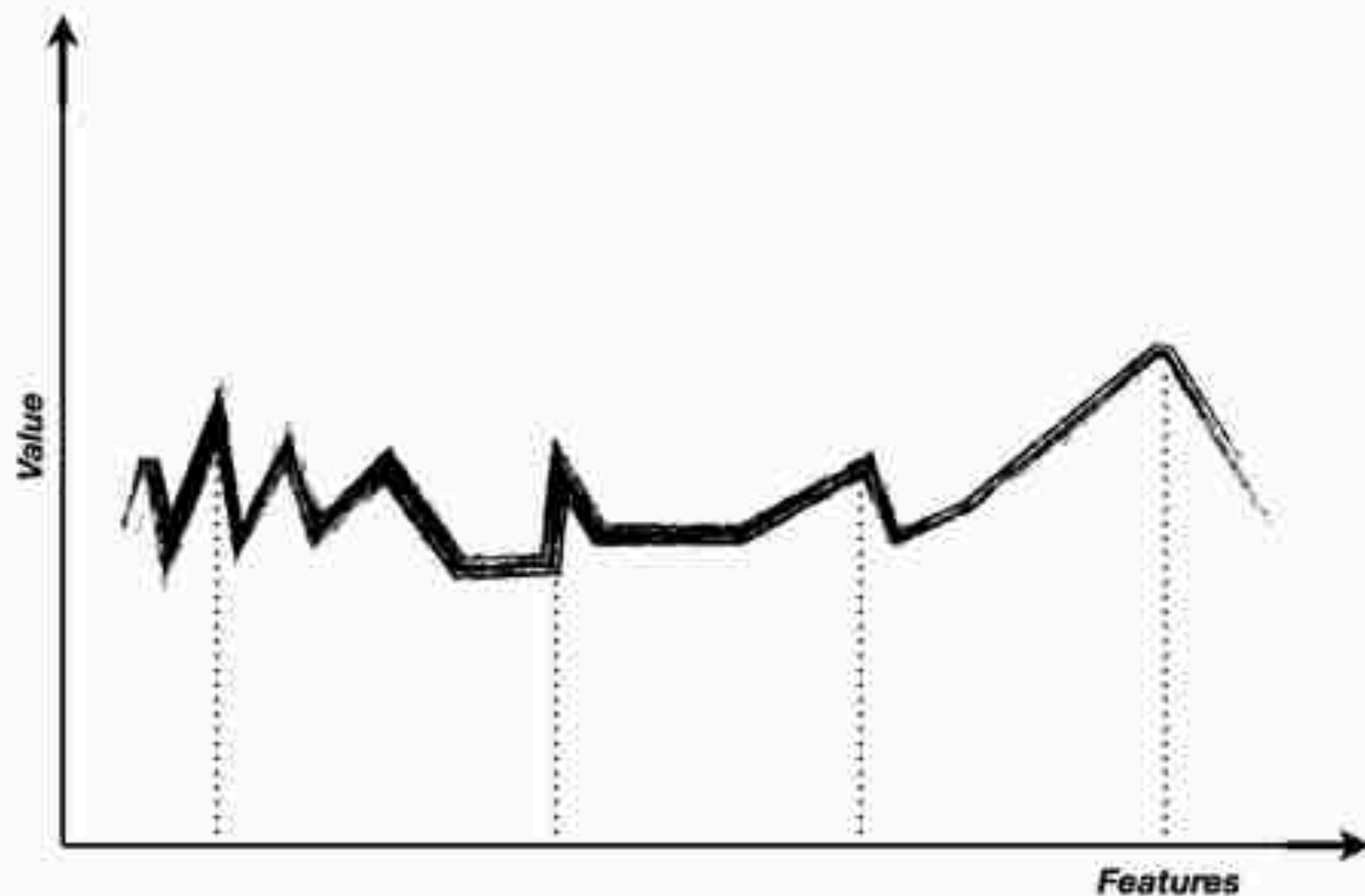
massing

signature

place



Place



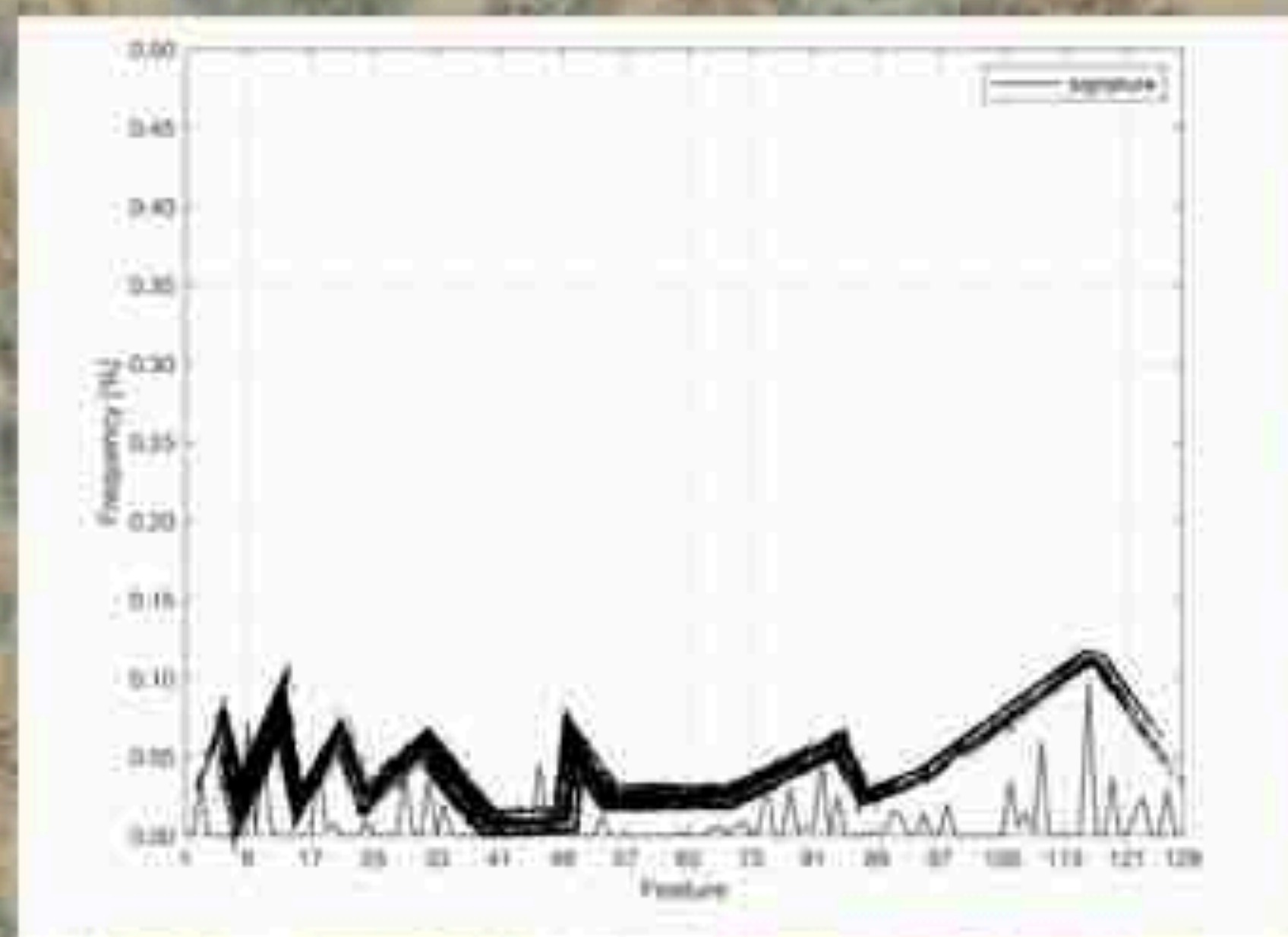
Signature

Sunlight
Daylight
Orientation
Density
Value
Amenities
...

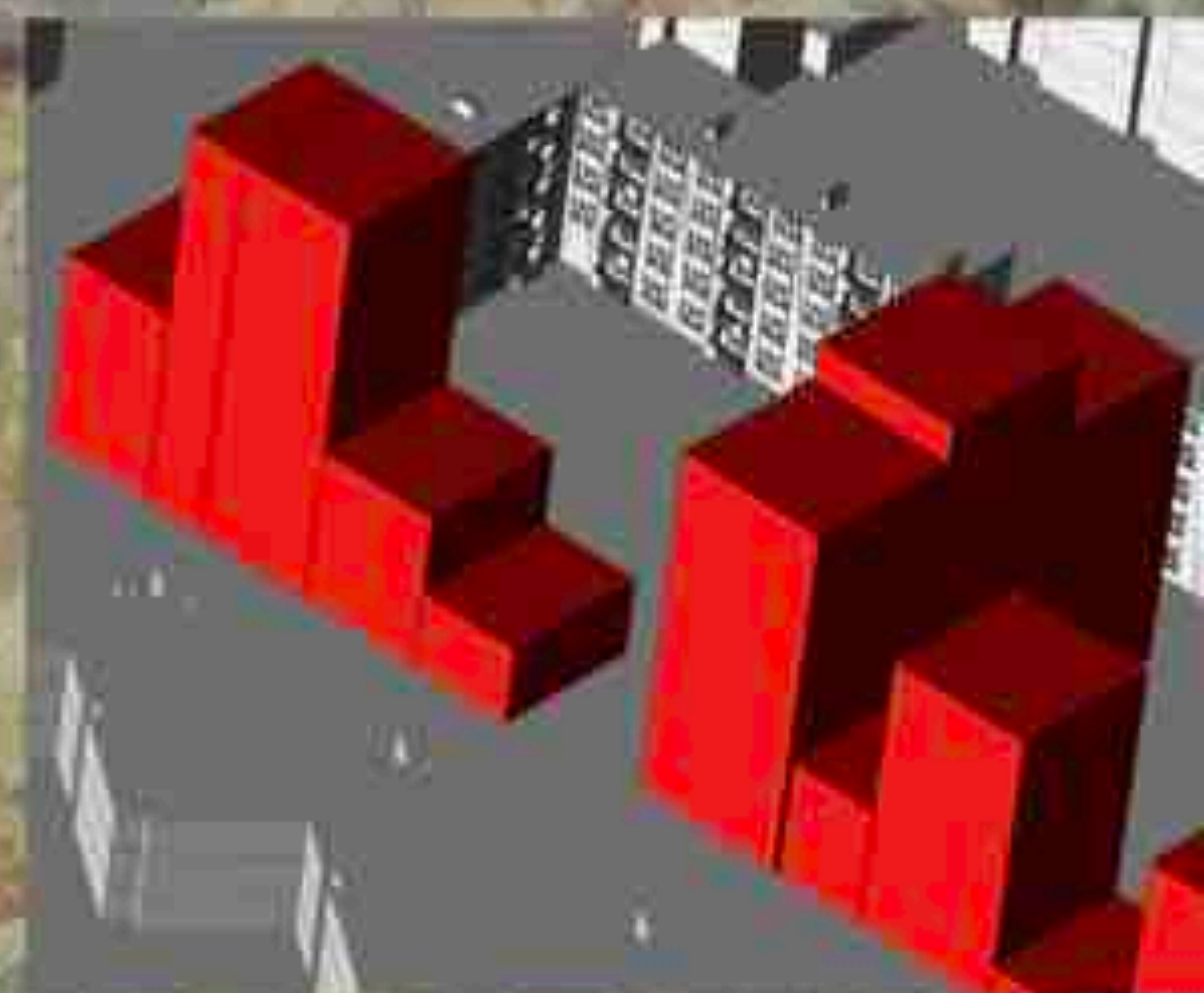
Raw Data



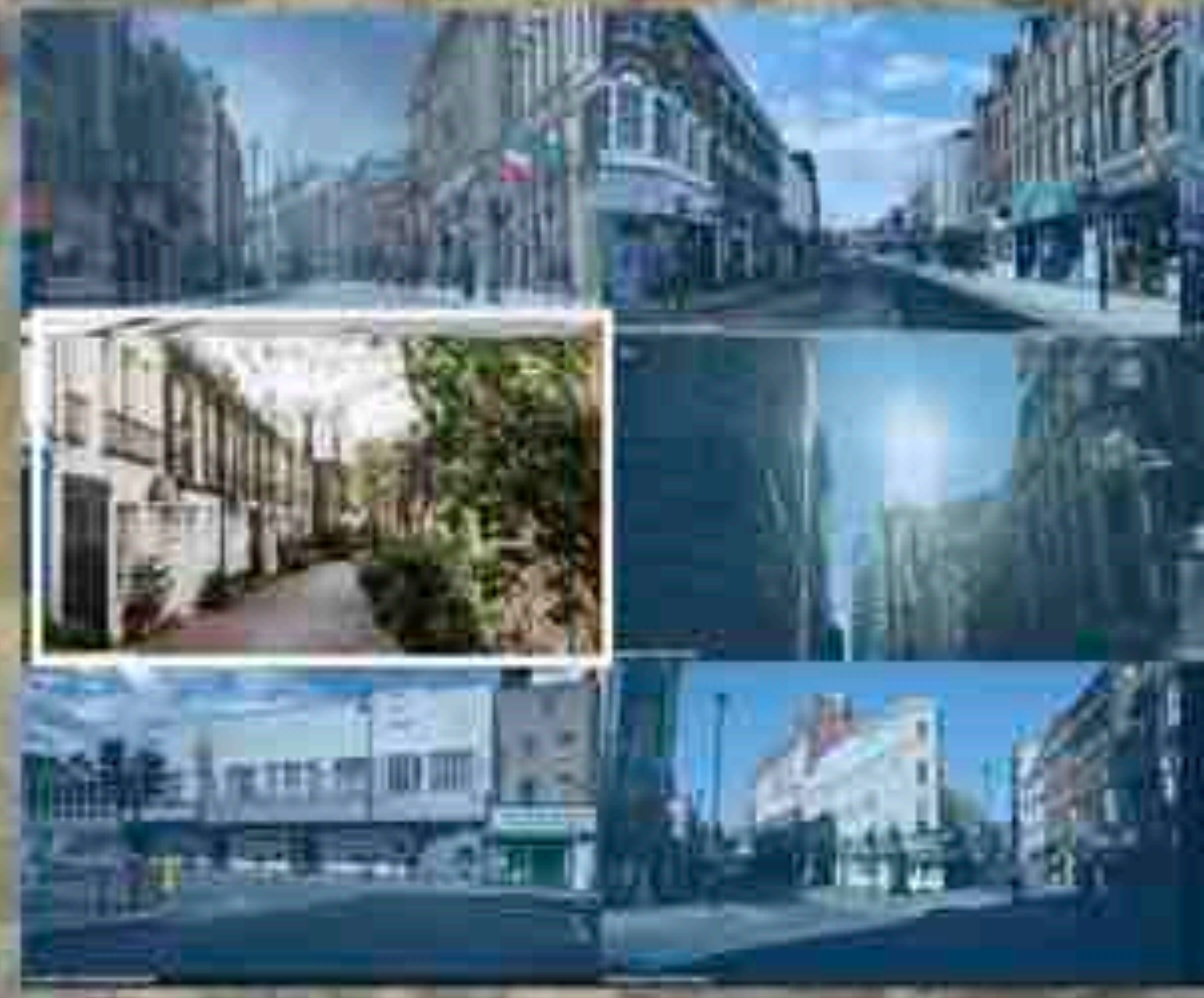
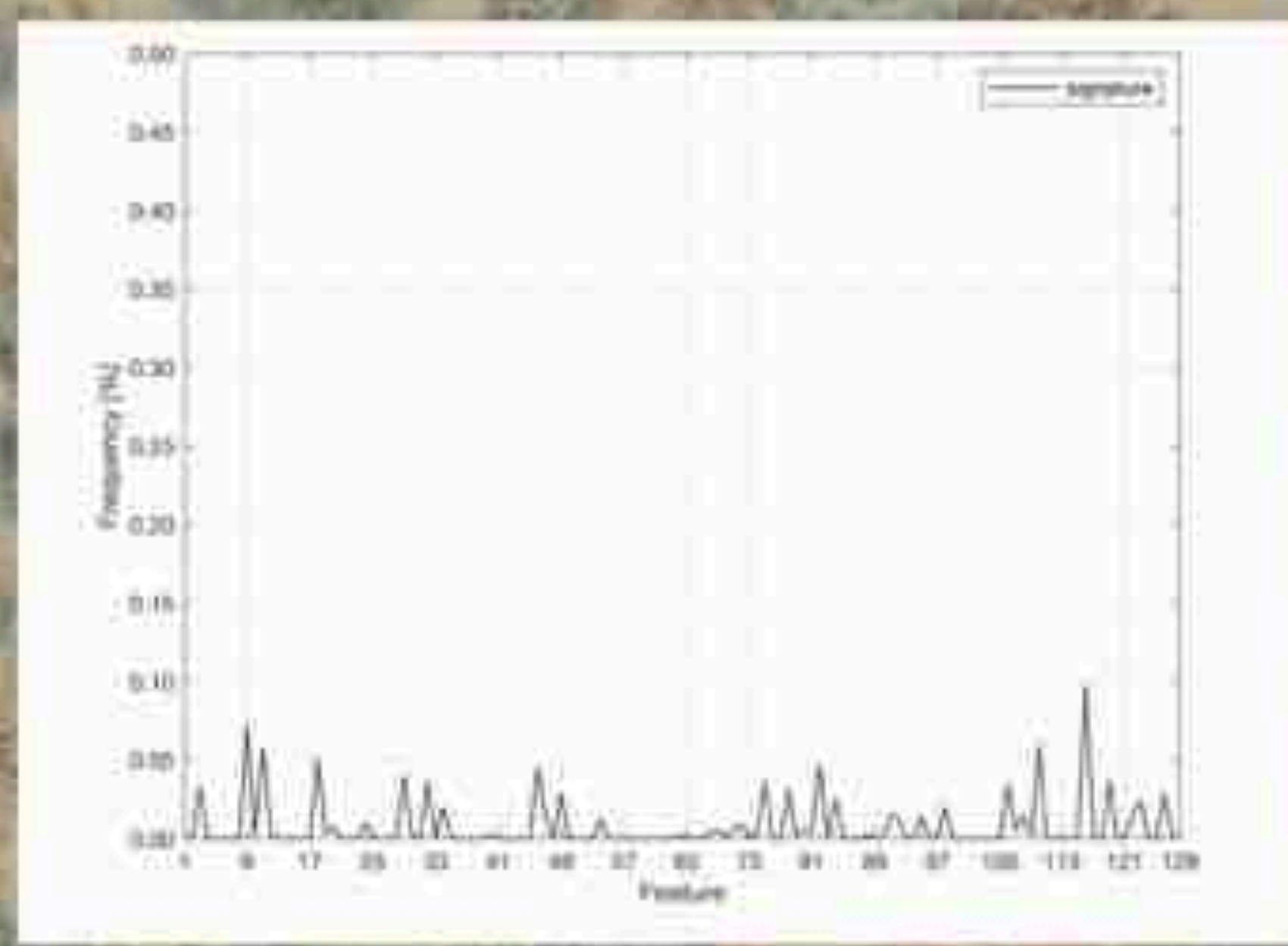
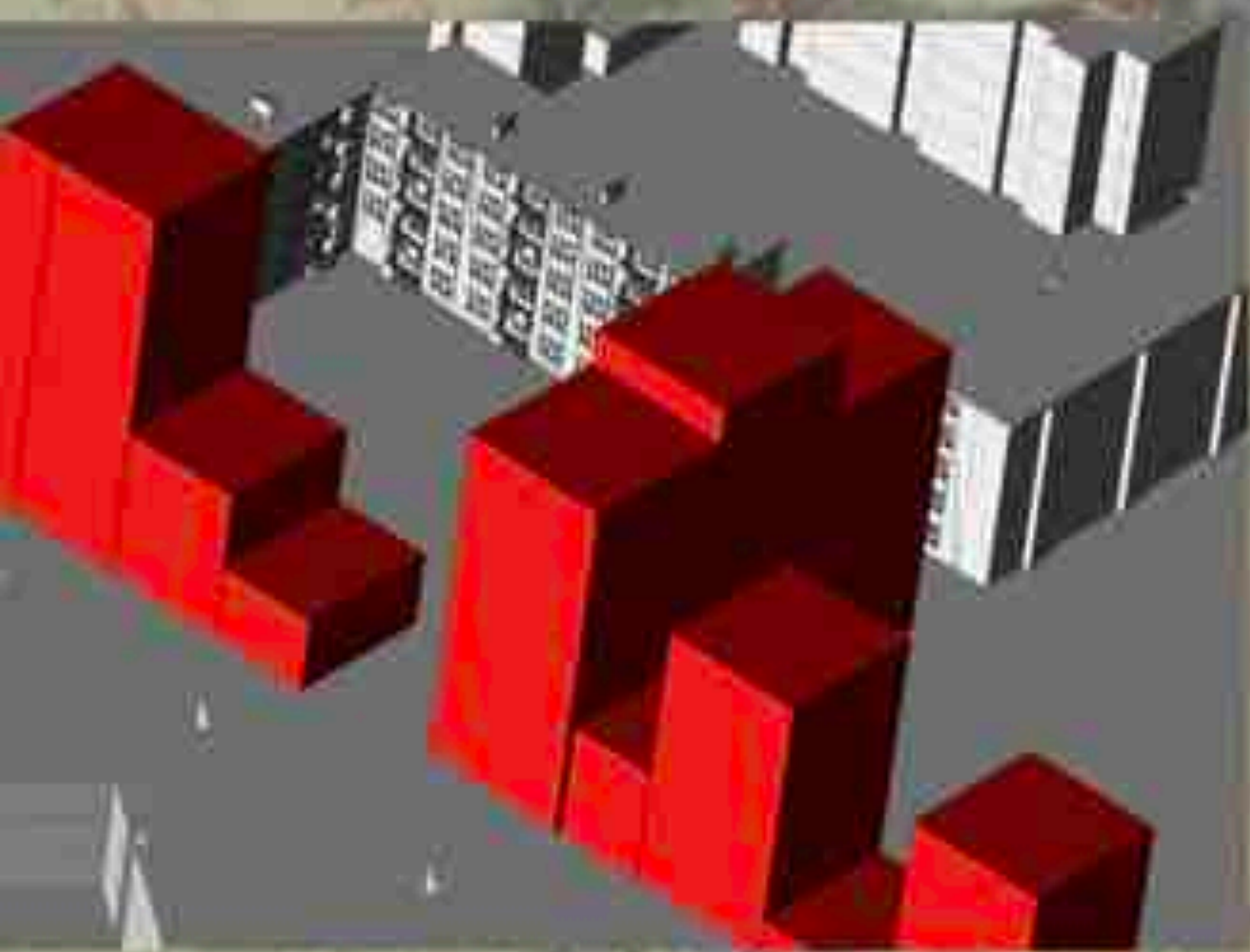
place



signature



massing



massing

signature

place

The background of the slide is a grayscale aerial photograph of a city, showing a dense grid of streets and buildings. A solid pink horizontal band runs across the middle of the image, serving as a backdrop for the title text.

CONCLUSIONS

Compliance is not sufficient

25°



Courtesy of Julia Connors



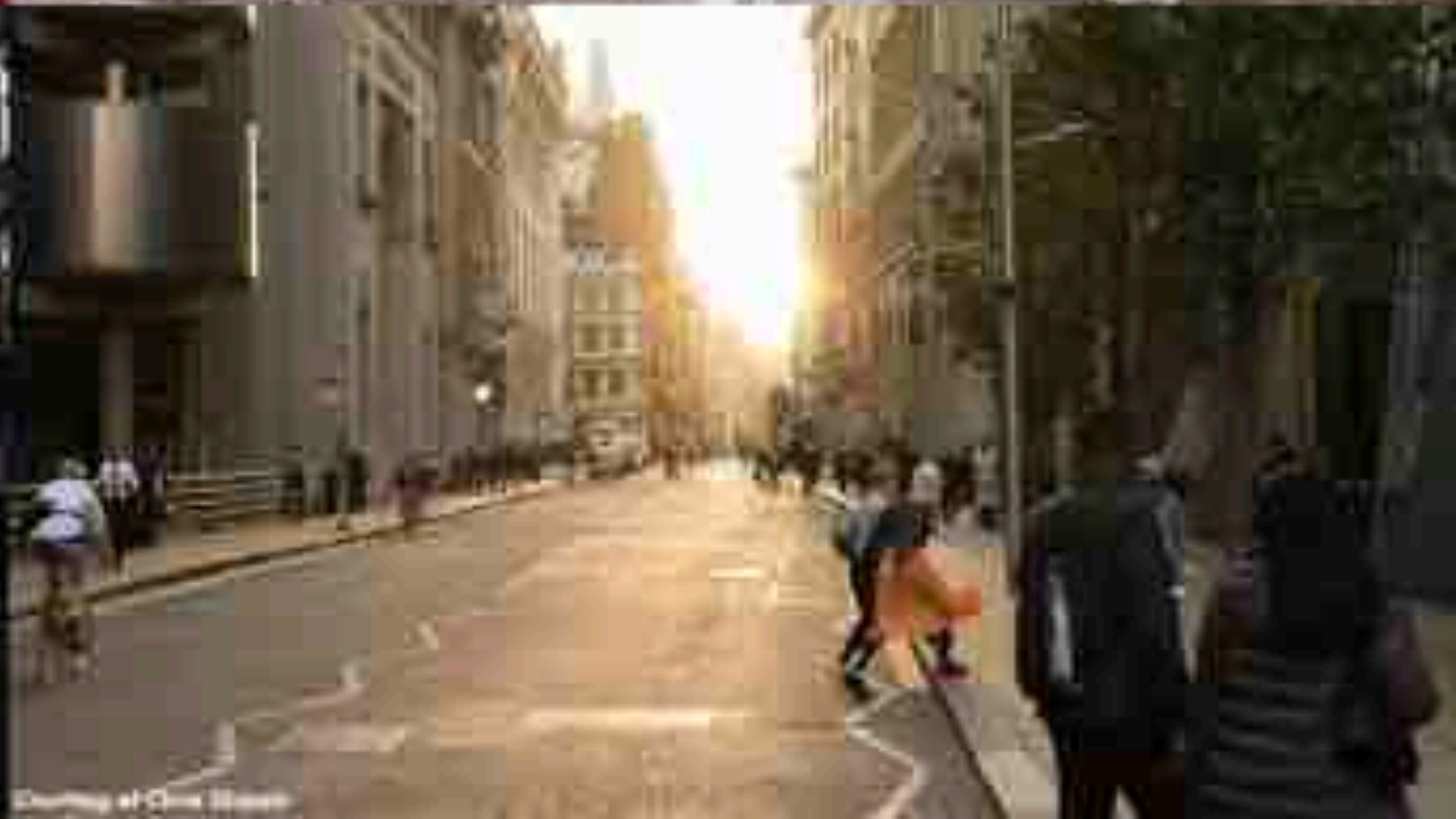
Courtesy of Adrian Heston



Courtesy of Helen Brown



Courtesy of Chris Evans



Courtesy of Chris Evans



Character is value



