

# Nanopublication — Computational Image Analysis - AQC0434

by Arnaud Quercy · The neighbourhood · 2022

## Claim 1: Computational Image Analysis - AQC0434

The [1] artwork The neighbourhood (AQC0434) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2026-02-04. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

### CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 1536x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D7A068	13.9	orange	darksalmon
2	AE8F77	13.2	orange	rosybrown
3	8A6858	12.7	orange	dimgray
4	D4B396	12.5	orange	tan
5	67493B	10.3	orange	dark brown
6	BC7849	9.6	orange	peru
7	40627A	7.4	blue	grayish purple
8	7693A3	7.4	blue	lightslategray
9	D7D2C9	6.7	yellow-orange	lightgray
10	252A30	6.4	blue-violet	very dark gray
11	2E0A03	0.3	red-orange	very dark red [Accent]
12	092055	0.3	violet	very dark purple [Accent]
13	E3D071	0.3	yellow	burlywood [Accent]
14	15170E	0.3	yellow-green	black [Accent]
15	204B54	0.3	blue-green	darkslategray [Accent]

#### Color Families:

Family	%
orange	72.2
blue	14.7
yellow-orange	6.7
blue-violet	6.4
red-orange	0.3
violet	0.3
yellow	0.3
yellow-green	0.3
blue-green	0.3

#### Accent Colors:

Hex	Family	Name	Chroma
2E0A03	red-orange	very dark red	21.5
092055	violet	very dark purple	38.1
E3D071	yellow	burlywood	49.4
15170E	yellow-green	black	5.4
204B54	blue-green	darkslategray	15.6

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.184
Mean Local Roughness	0.046
Roughness Uniformity	0.033
Edge Density	0.254
Mean Gradient Magnitude	0.334
Gradient Variance	0.11
Gradient Smoothness	0.006
Directional Coherence	0.005
Pattern Complexity	0.127
Pattern Repetition	1.0
Detail Frequency Ratio	0.662
Spatial Variation	0.07
Texture Consistency	0.878

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.535
Brightness Variance	0.184
Brightness Uniformity	0.656
Brightness Skewness	-0.334
Brightness Entropy	7.543
Rms Contrast	0.184
Michelson Contrast	1.0
Weber Contrast	0.634
Mean Local Contrast	0.044
Contrast Uniformity	0.306
Dynamic Range	1.0
Effective Dynamic Range	0.608
Shadow Percentage	15.048
Midtone Percentage	58.27
Highlight Percentage	26.683
Shadow Clipping	0.012
Highlight Clipping	0.005
Tonal Balance	0.257
Fine Contrast	0.028
Medium Contrast	0.056
Coarse Contrast	0.071
Multiscale Contrast Ratio	0.393

Metric	Value
Edge Contrast	0.334
Contrast Clustering	0.122

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.653
Color Clustering	0.662
Color Transition Smoothness	0.145
Transition Uniformity	0.252
Sharp Transition Ratio	0.1
Transition Directionality	0.005
Mean Saturation	0.387
Saturation Variance	0.039
Low Saturation Ratio	0.345
Medium Saturation Ratio	0.597
High Saturation Ratio	0.057
Saturation Clustering	0.997
Hue Concentration	0.6
Complementary Balance	0.19
Analogous Dominance	0.806
Temperature Bias	0.616

## Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence

and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

## REFERENCES

- [1] Arnaud Quercy (2022). The neighbourhood — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0434.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2022/01/the-neighbourhood\\_4x0.html](https://artquamanima.com/en/artworks/2022/01/the-neighbourhood_4x0.html)
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

## EPISTEMIC PROFILE

<b>Claim type</b>	computational analysis
<b>Voice</b>	third person
<b>Epistemic status</b>	empirical measurement
<b>Methodology</b>	computational analysis
<b>Certainty</b>	high

## CHECKSUM (SHA-256)

4332344d650865e144e36694cf8702b6f5fc8ad01cf5b0c86da51141626b-cf08

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2022
<b>Collection</b>	City of Lights, Shadows of Thoughts
<b>Certificate</b>	20231231-0020
<b>Asset code</b>	AQC0434
<b>Version</b>	1
<b>Published</b>	2026-04-09