

Nanopublication — Computational Image Analysis - AQC0005

by Arnaud Quercy · Les Toits de Paris · 2020

Claim 1: Computational Image Analysis - AQC0005

Computational image analysis [2] of artwork Les Toits de Paris (AQC0005) [1] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2025-12-09.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [2] 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]: 2048x2048 pixels. Analysis date: 2025-12-09.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	CDCBC7	23.6	white	lightgray
2	000000	20.2	black	black
3	C6B9AF	14.3	orange	silver
4	BFA598	11.4	orange	rosybrown
5	B28E7F	7.1	orange	ochre
6	6F3E36	6.3	red-orange	russet
7	552C25	4.9	red-orange	russet
8	83574F	4.8	red-orange	dimgray
9	937470	4.7	red-orange	gray
10	B3654B	2.7	red-orange	indianred
11	947FA0	0.3	violet	dusty mauve [Accent]
12	94779A	0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
orange	32.8
white	23.6
red-orange	23.4
black	20.2
violet	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
947FA0	violet	dusty mauve	20.5
94779A	red-violet	dusty mauve	23.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.302
Mean Local Roughness	0.006
Roughness Uniformity	0.019
Edge Density	0.008
Mean Gradient Magnitude	0.067
Gradient Variance	0.035
Gradient Smoothness	0.0
Directional Coherence	0.402
Pattern Complexity	0.094
Pattern Repetition	1.0
Detail Frequency Ratio	0.535
Spatial Variation	0.14
Texture Consistency	0.663

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.498
Brightness Variance	0.302
Brightness Uniformity	0.393
Brightness Skewness	-0.63
Brightness Entropy	6.104
Rms Contrast	0.302
Michelson Contrast	1.0
Weber Contrast	1.0
Mean Local Contrast	0.006
Contrast Uniformity	0.0
Dynamic Range	0.82
Effective Dynamic Range	0.808
Shadow Percentage	30.471
Midtone Percentage	24.014
Highlight Percentage	45.515
Shadow Clipping	19.332
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.003
Medium Contrast	0.008
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.067
Contrast Clustering	0.337

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.689
Color Clustering	0.919

Metric	Value
Color Transition Smoothness	0.819
Transition Uniformity	0.757
Sharp Transition Ratio	0.1
Transition Directionality	0.396
Mean Saturation	0.177
Saturation Variance	0.041
Low Saturation Ratio	0.76
Medium Saturation Ratio	0.225
High Saturation Ratio	0.016
Saturation Clustering	0.998
Hue Concentration	0.972
Complementary Balance	0.004
Analogous Dominance	0.985
Temperature Bias	0.983

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 (2020). Les Toits de Paris — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0005.html>
- [2] 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

Claim type computational analysis

Voice third person

Epistemic status empirical measurement

Methodology computational analysis

Certainty high

CHECKSUM (SHA-256)

5bbd58cfc9eed34c94a5e1a94092268172e54aebefce8e-b13b6cb5790e6b1f4

Artist Arnaud Quercy

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