

Nanopublication – Computational Image Analysis – AQC0518

by Arnaud Quercy · Promenade aux jardins du Luxembourg -variations d'été - Variation 2 · 2024



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0518

K-means clustering analysis [3] (10 colors) performed on artwork Promenade [1] aux jardins du Luxembourg -variations d'été - Variation 2 (AQC0518) [2] by Arnaud Quercy [2] on 2026-02-04. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

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]: 2258x3236 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E3D9CB	18.7	yellow-orange	gainsboro
2		7C2B20	14.0	red-orange	russet
3		332121	12.3	red-orange	very dark gray
4		E98013	10.7	orange	darkorange
5		BA3A36	9.1	red-orange	brown
6		52303D	8.8	red	dusty mauve
7		CC5556	8.0	red-orange	indianred
8		8B4F55	7.8	red-orange	burnt sienna
9		E3A681	5.3	orange	darksalmon
10		B27A80	5.3	red	rosybrown
11		6F4283	0.3	red-violet	darkslateblue [Accent]
12		FDFAEA	0.3	yellow	white [Accent]

Color Families:

Family	%
red-orange	51.2
yellow-orange	18.7
orange	16.0
red	14.1
red-violet	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
6F4283	red-violet	darkslateblue	42.4
FDFAEA	yellow	white	8.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.244
Mean Local Roughness	0.026
Roughness Uniformity	0.03
Edge Density	0.113
Mean Gradient Magnitude	0.211
Gradient Variance	0.094
Gradient Smoothness	0.0
Directional Coherence	0.028
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.629
Spatial Variation	0.126
Texture Consistency	0.589

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.468
Brightness Variance	0.244
Brightness Uniformity	0.479
Brightness Skewness	0.411
Brightness Entropy	7.572
Rms Contrast	0.244
Michelson Contrast	1.0
Weber Contrast	0.789
Mean Local Contrast	0.028
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.729
Shadow Percentage	37.314
Midtone Percentage	39.202
Highlight Percentage	23.484
Shadow Clipping	0.003
Highlight Clipping	0.006
Tonal Balance	0.257
Fine Contrast	0.014
Medium Contrast	0.035
Coarse Contrast	0.053
Multiscale Contrast Ratio	0.263
Edge Contrast	0.211
Contrast Clustering	0.411

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.721
Color Clustering	0.586
Color Transition Smoothness	0.461
Transition Uniformity	0.398
Sharp Transition Ratio	0.1
Transition Directionality	0.029
Mean Saturation	0.492
Saturation Variance	0.074
Low Saturation Ratio	0.281
Medium Saturation Ratio	0.435
High Saturation Ratio	0.284
Saturation Clustering	0.999
Hue Concentration	0.952
Complementary Balance	0.0
Analogous Dominance	0.985
Temperature Bias	0.991

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 (2024). Promenade aux jardins du Luxembourg -variations d'été - Variation 2 – Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0518.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/promenade-aux-jardins-du-luxembourg-variations-dete-variation-2_5to.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

- abstract urban forms
- acrylic on paper
- geometric composition
- earth tones
- Luxembourg Gardens series
- compact format
- City of Lights collection
- contemporary painting

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

054364838b636425d9aebc0367b738b7e259ef8a429e548200dd0b27ab38865d

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