AQC0819

Nanopublication — Computational Image Analysis - AQC0819

by Arnaud Quercy · C Minor - Research on Harmony - Variation 8 · 2025

Claim 1: Computational Image Analysis - AQC0819

> K-means clustering analysis [3] (10 colors) performed on artwork C Minor [1] - Research on Harmony - Variation 8 (AQC0819) [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]: 2348x3131 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		EAB08E	27.6	orange	burlywood
2		E2A07C	15.2	orange	darksalmon
3		EEBCA0	15.1	orange	tan
4		C69F85	11.8	orange	rosybrown
5		D5AC93	11.4	orange	ochre
6		B69072	9.5	orange	ochre
7		A27C62	5.7	orange	gray
8		DA7C3B	1.3	orange	peru
9		6F5340	1.2	orange	dark brown
10		3A2117	1.1	orange	very dark orange

Color Families:

Family	%
orange	100.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.101
Mean Local Roughness	0.01
Roughness Uniformity	0.012
Edge Density	0.024
Mean Gradient Magnitude	0.09
Gradient Variance	0.023
Gradient Smoothness	0.0
Directional Coherence	0.04
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.597
Spatial Variation	0.051
Texture Consistency	0.534

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.689
Brightness Variance	0.101
Brightness Uniformity	0.854
Brightness Skewness	-2.408
Brightness Entropy	6.292
Rms Contrast	0.101
Michelson Contrast	0.984
Weber Contrast	0.263
Mean Local Contrast	0.011
Contrast Uniformity	0.0
Dynamic Range	0.984
Effective Dynamic Range	0.271
Shadow Percentage	1.604
Midtone Percentage	25.809
Highlight Percentage	72.587
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.014
Coarse Contrast	0.026
Multiscale Contrast Ratio	0.194
Edge Contrast	0.09
Contrast Clustering	0.466

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.719
Color Clustering	0.243
Color Transition Smoothness	0.773
Transition Uniformity	0.85
Sharp Transition Ratio	0.1
Transition Directionality	0.054
Mean Saturation	0.378
Saturation Variance	0.006
Low Saturation Ratio	0.114
Medium Saturation Ratio	0.875
High Saturation Ratio	0.012
Saturation Clustering	1.0
Hue Concentration	0.995
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

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 (2025). C Minor - Research on Harmony - Variation 8 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0819.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/c-minor-research-on-harmony-variation-8_92q.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

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

a0eec16880a5c2b03ff8c62cc965c07ae1d0fff156d-baf8b9548f1c55602a0b1

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