AQC0928

Nanopublication — Computational Image Analysis - AQC0928

by Arnaud Quercy · A Minor - Research on Harmony - Variations 12 · 2025

Claim 1: Computational Image Analysis - AQC0928

> K-means clustering analysis [3] (10 colors) performed on artwork A Minor [1] - Research on Harmony - Variations 12 (AQC0928) [2] by Arnaud Quercy [2] on 2026-03-04. 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]: 1943x2915 pixels. Analysis date: 2026-03-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		CC8463	16.2	orange	peru
2		DB9F7A	15.8	orange	darksalmon
3		B97755	15.5	orange	indianred
4		E5A7AF	13.3	red	lightpink
5		E55B47	11.7	red-orange	tomato
6		DED3C2	9.7	yellow-orange	lightgray
7		DBC961	6.4	yellow	ochre
8		2A1E1F	5.2	red-orange	very dark gray
9		B7AB96	3.2	yellow-orange	steel gray
10		953440	3.1	red-orange	brown

Color Families:

Family	%
orange	47.5
red-orange	20.0
red	13.3
yellow-orange	12.9
yellow	6.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.165
Mean Local Roughness	0.024
Roughness Uniformity	0.022
Edge Density	0.094
Mean Gradient Magnitude	0.195
Gradient Variance	0.064
Gradient Smoothness	0.0
Directional Coherence	0.003
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.63
Spatial Variation	0.088
Texture Consistency	0.646

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.611
Brightness Variance	0.165
Brightness Uniformity	0.73
Brightness Skewness	-1.129
Brightness Entropy	7.116
Rms Contrast	0.165
Michelson Contrast	0.984
Weber Contrast	0.416
Mean Local Contrast	0.027
Contrast Uniformity	0.076
Dynamic Range	0.992
Effective Dynamic Range	0.584
Shadow Percentage	7.117
Midtone Percentage	50.297
Highlight Percentage	42.586
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.033
Coarse Contrast	0.046
Multiscale Contrast Ratio	0.261
Edge Contrast	0.195
Contrast Clustering	0.354

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.742
Color Clustering	0.441
Color Transition Smoothness	0.514
Transition Uniformity	0.578
Sharp Transition Ratio	0.1
Transition Directionality	0.003
Mean Saturation	0.443
Saturation Variance	0.033
Low Saturation Ratio	0.277
Medium Saturation Ratio	0.653
High Saturation Ratio	0.07
Saturation Clustering	0.999

Metric	Value
Hue Concentration	0.957
Complementary Balance	0.0
Analogous Dominance	0.978
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). A Minor - Research on Harmony - Variations 12 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0928.html

[2] Quercy, A. (2025). A Minor - Research on Harmony - Variations 12 - Gallery. https://artquamanima.com/en/artworks/2025/11/a-minor-research-on-harmony-variations-12_ik3.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)

39e4305304a58e53c6650b598d-d42e9ce17610f3a92103af63046d30d484ff11

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20251123-0067
Asset code	AQC0928
Version	1
Published	2026-04-09

© 2026 Multimodal Institute

Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-09

Persistent URI: https://multimodal.institute/en/nanopubs/2026/02/AQC0928-computational-image-analysis-aqc0928.pdf

Content available under Creative Commons Attribution-NonCommercial 4.0 License (CC BY-NC 4.0)