

Nanopublication — Computational Image Analysis - AQC0810

by Arnaud Quercy · A minor - Research on Harmony - Variation 7 · 2025

Claim 1: Computational Image Analysis - AQC0810

K-means clustering analysis [3] (10 colors) performed on artwork A minor - Research [1] on Harmony - Variation 7 (AQC0810) [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]: 2355x3140 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family Name
1	E5AD8E	30.9	orange burlywood
2	EFB99C	16.3	orange tan
3	DE9B7E	14.6	orange darksalmon
4	C2997F	9.4	orange rosybrown
5	B2876E	8.6	orange ochre
6	D1876B	7.3	orange lightcoral
7	2E1D16	4.7	orange very dark gray
8	C45B0F	3.4	orange chocolate
9	A16D53	3.3	orange burnt sienna
10	4C3429	1.4	orange darkslategray

Color Families:

Family %
orange 100.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.154
Mean Local Roughness	0.022
Roughness Uniformity	0.019
Edge Density	0.127
Mean Gradient Magnitude	0.175
Gradient Variance	0.041
Gradient Smoothness	0.0
Directional Coherence	0.008
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.634
Spatial Variation	0.086
Texture Consistency	0.482

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.646
Brightness Variance	0.154
Brightness Uniformity	0.761
Brightness Skewness	-2.029
Brightness Entropy	6.657
Rms Contrast	0.154
Michelson Contrast	1.0
Weber Contrast	0.383
Mean Local Contrast	0.023
Contrast Uniformity	0.192
Dynamic Range	0.996
Effective Dynamic Range	0.592
Shadow Percentage	6.079
Midtone Percentage	34.889
Highlight Percentage	59.032
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.029
Coarse Contrast	0.042
Multiscale Contrast Ratio	0.29
Edge Contrast	0.175
Contrast Clustering	0.518

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.749
Color Clustering	0.409
Color Transition Smoothness	0.566
Transition Uniformity	0.73
Sharp Transition Ratio	0.1
Transition Directionality	0.015
Mean Saturation	0.415
Saturation Variance	0.014
Low Saturation Ratio	0.013
Medium Saturation Ratio	0.945
High Saturation Ratio	0.041
Saturation Clustering	0.999
Hue Concentration	0.998
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). A minor - Research on Harmony - Variation 7 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0810.html>
- [2] Quercy, A. (2025). A minor - Research on Harmony - Variation 7 - Gallery. https://artquamanima.com/en/artworks/2025/01/a-minor-research-on-harmony-variation-7_8z8.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

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

CHECKSUM (SHA-256)

152be6197eea505b4b9adb05ff534852413d76e7503f15b30a419a1082ad-dabc

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
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