AQC0941

Nanopublication — Computational Image Analysis - AQC0941

by Arnaud Quercy · D Octaves - Research on Harmony - Reflections 43 · 2025

Claim 1: Computational Image Analysis - AQC0941

> Computational image analysis [3] of artwork D Octaves [1] - Research on Harmony - Reflections 43 (AQC0941) [2] 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 2026-02-04.

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]: 1989x2785 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		ECE0CA	26.0	yellow-orange	bisque
2		ED8612	18.2	orange	darkorange
3		1F1D1C	14.8	gray	very dark gray
4		D3A36A	11.7	orange	ochre
5		E4D5B8	10.8	yellow-orange	wheat
6		D9DBDD	9.4	white	gainsboro
7		DFB179	4.2	orange	burlywood
8		EF9934	3.6	orange	goldenrod
9		5A3E2B	0.7	orange	dark brown
10		97845A	0.6	yellow-orange	gray

Color Families:

Family	%
orange	38.4
yellow-orange	37.4
gray	14.8
white	9.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.258
Mean Local Roughness	0.01
Roughness Uniformity	0.017
Edge Density	0.008
Mean Gradient Magnitude	0.079
Gradient Variance	0.037
Gradient Smoothness	0.0
Directional Coherence	0.016
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.592
Spatial Variation	0.192
Texture Consistency	0.473

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.666
Brightness Variance	0.258
Brightness Uniformity	0.613
Brightness Skewness	-1.218
Brightness Entropy	6.53
Rms Contrast	0.258
Michelson Contrast	1.0
Weber Contrast	0.863
Mean Local Contrast	0.011
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.792
Shadow Percentage	15.332
Midtone Percentage	24.68
Highlight Percentage	59.988
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.005
Medium Contrast	0.013
Coarse Contrast	0.023
Multiscale Contrast Ratio	0.215
Edge Contrast	0.079
Contrast Clustering	0.527

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.749
Color Clustering	0.625
Color Transition Smoothness	0.794
Transition Uniformity	0.742
Sharp Transition Ratio	0.1
Transition Directionality	0.019
Mean Saturation	0.354
Saturation Variance	0.106
Low Saturation Ratio	0.609
Medium Saturation Ratio	0.173
High Saturation Ratio	0.218

Metric	Value
Saturation Clustering	1.0
Hue Concentration	0.996
Complementary Balance	0.0
Analogous Dominance	0.999
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). D Octaves - Research on Harmony - Reflections 43 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0941.html

[2] Quercy, A. (2025). D Octaves - Research on Harmony - Reflections 43 - Gallery. https://artquamanima.com/en/artworks/2025/12/d-octaves-research-on-harmony-reflections-43_1i3l.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)

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