AQC0682

Nanopublication — Computational Image Analysis - AQC0682

by Arnaud Quercy · D Octaves - Reflexions 16 · 2024

Claim 1: Computational Image Analysis - AQC0682

> Computational image analysis [3] of artwork D Octaves [1] - Reflexions 16 (AQC0682) [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]: 2321x3481 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C7CBCB	26.0	white	lightgray
2		D1D6D6	22.4	white	lightgrey
3		BEC0BE	17.3	gray	silver
4		B5937A	8.5	orange	rosybrown
5		B3B1AD	8.3	gray	steel gray
6		A38269	6.2	orange	gray
7		C2A591	6.0	orange	tan
8		766C61	2.6	yellow-orange	dimgray
9		3A3533	1.5	gray	darkslategray
10		9B5C34	1.1	orange	burnt sienna
11		DCF1FB	0.3	blue	white [Accent]

Color Families:

Family	%
white	48.4
gray	27.1
orange	21.9
yellow-orange	2.6
blue	0.3

Accent Colors:

Hex	Family	Name	Chroma
DCF1FB	blue	white	8.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.124
Mean Local Roughness	0.014
Roughness Uniformity	0.016
Edge Density	0.049
Mean Gradient Magnitude	0.115
Gradient Variance	0.028
Gradient Smoothness	0.0
Directional Coherence	0.025
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.618
Spatial Variation	0.083
Texture Consistency	0.588

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.726
Brightness Variance	0.124
Brightness Uniformity	0.829
Brightness Skewness	-1.803
Brightness Entropy	6.521
Rms Contrast	0.124
Michelson Contrast	1.0
Weber Contrast	0.329
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	0.98
Effective Dynamic Range	0.365
Shadow Percentage	1.604
Midtone Percentage	21.638
Highlight Percentage	76.758
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.019
Coarse Contrast	0.029
Multiscale Contrast Ratio	0.267
Edge Contrast	0.115
Contrast Clustering	0.412

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.746
Color Clustering	0.633
Color Transition Smoothness	0.713
Transition Uniformity	0.811
Sharp Transition Ratio	0.1
Transition Directionality	0.033

Metric	Value
Mean Saturation	0.105
Saturation Variance	0.019
Low Saturation Ratio	0.865
Medium Saturation Ratio	0.132
High Saturation Ratio	0.004
Saturation Clustering	1.0
Hue Concentration	0.994
Complementary Balance	0.001
Analogous Dominance	0.997
Temperature Bias	0.998

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). D Octaves - Reflexions 16 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0682.html

[2] Quercy, A. (2024). D Octaves - Reflexions 16 - Gallery. https://artquamanima.com/en/artworks/2024/01/d-octaves-reflexions-16_7lg.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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