Nanopublication — Computational Image Analysis - AQC0792

by Arnaud Quercy · C Octaves - Reflexions 26 · 2024

Claim 1: Computational Image Analysis - AQC0792

> K-means clustering analysis [3] (10 colors) performed on artwork C Octaves [1] - Reflexions 26 (AQC0792) [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]: 2424x3636 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D9B8D3	13.7	red-violet	thistle
2		6E2824	13.3	red-orange	russet
3		C39EB9	12.7	red-violet	steel gray
4		D3ADC6	12.2	red-violet	silver
5		B794A8	10.9	red-violet	steel gray
6		131220	10.0	violet	very dark gray
7		C23130	9.8	red-orange	firebrick
8		CD9FAC	8.5	red	rosybrown
9		242632	8.3	blue-violet	very dark gray
10		7C5157	0.6	red	dimgray

Color Families:

Family	%
red-violet	49.5
red-orange	23.1
violet	10.0
red	9.0
blue-violet	8.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.255
Mean Local Roughness	0.007
Roughness Uniformity	0.017
Edge Density	0.012
Mean Gradient Magnitude	0.064
Gradient Variance	0.04
Gradient Smoothness	0.0
Directional Coherence	0.105
Pattern Complexity	0.108

Metric	Value
Pattern Repetition	1.0
Detail Frequency Ratio	0.588
Spatial Variation	0.181
Texture Consistency	0.463

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.5
Brightness Variance	0.255
Brightness Uniformity	0.49
Brightness Skewness	-0.455
Brightness Entropy	6.874
Rms Contrast	0.255
Michelson Contrast	1.0
Weber Contrast	0.846
Mean Local Contrast	0.009
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.694
Shadow Percentage	31.968
Midtone Percentage	24.557
Highlight Percentage	43.476
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.004
Medium Contrast	0.011
Coarse Contrast	0.02
Multiscale Contrast Ratio	0.191
Edge Contrast	0.064
Contrast Clustering	0.537

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.749
Color Clustering	0.828
Color Transition Smoothness	0.821
Transition Uniformity	0.722
Sharp Transition Ratio	0.1
Transition Directionality	0.136
Mean Saturation	0.346
Saturation Variance	0.053
Low Saturation Ratio	0.628
Medium Saturation Ratio	0.234
High Saturation Ratio	0.137
Saturation Clustering	0.999

Metric	Value
Hue Concentration	0.658
Complementary Balance	0.001
Analogous Dominance	0.756
Temperature Bias	0.553

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). C Octaves - Reflexions 26 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0792.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-octaves-reflexions-26_8s8.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/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)

`87aa646f74fe67c5d7e7268b7fe361424c0ea443423f0bff9105c11a3c3b9736`

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0289
Asset code	AQC0792
Version	1
Published	2026-03-25