

Nanopublication — Computational Image Analysis - AQC0448

by Arnaud Quercy · Three Flowers · 2023

Claim 1: Computational Image Analysis - AQC0448

Computational image analysis [3] of artwork Three [1] Flowers (AQC0448) [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]: 720x1008 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	1A0F1D	18.4	red-violet	very dark gray
2	761F12	16.8	red-orange	maroon
3	A33824	15.6	red-orange	brown
4	C84A32	11.8	red-orange	chocolate
5	C7896A	9.4	orange	rosybrown
6	AB7156	9.4	orange	indianred
7	4E4C5A	8.7	violet	dusty mauve
8	766F71	4.3	gray	dimgray
9	B2A39B	2.8	orange	steel gray
10	E4D9D0	2.8	orange	gainsboro
11	412833	0.3	red	darkslategray [Accent]

Color Families:

Family	%
red-orange	44.1
orange	24.4
red-violet	18.4
violet	8.7
gray	4.3
red	0.3

Accent Colors:

Hex	Family Name	Chroma
412833	red	darkslategray 14.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.192
Mean Local Roughness	0.009

Metric	Value
Roughness Uniformity	0.012
Edge Density	0.025
Mean Gradient Magnitude	0.068
Gradient Variance	0.017
Gradient Smoothness	0.0
Directional Coherence	0.185
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.593
Spatial Variation	0.145
Texture Consistency	0.646

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.347
Brightness Variance	0.192
Brightness Uniformity	0.447
Brightness Skewness	0.403
Brightness Entropy	7.457
Rms Contrast	0.192
Michelson Contrast	0.992
Weber Contrast	0.868
Mean Local Contrast	0.009
Contrast Uniformity	0.0
Dynamic Range	0.961
Effective Dynamic Range	0.604
Shadow Percentage	48.305
Midtone Percentage	47.292
Highlight Percentage	4.403
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.185
Fine Contrast	0.005
Medium Contrast	0.012
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.068
Contrast Clustering	0.354

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.748
Color Clustering	0.601
Color Transition Smoothness	0.806
Transition Uniformity	0.888
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.155
Mean Saturation	0.572
Saturation Variance	0.065
Low Saturation Ratio	0.178
Medium Saturation Ratio	0.382
High Saturation Ratio	0.44
Saturation Clustering	1.0
Hue Concentration	0.73
Complementary Balance	0.0
Analogous Dominance	0.781
Temperature Bias	0.742

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 (2023). Three Flowers — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0448.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/three-flowers_52g.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)

9dc207a91395c25943cb8f0450af -
b2f368260730f2be4417b479e060996c582c

Artist Arnaud Quercy

Date 2023

Collection Mediterranean Echoes

Certificate 20231231-0034

Asset code AQC0448

Version 1

Published 2026-04-09