AQC0859

Nanopublication — Computational Image Analysis - AQC0859

by Arnaud Quercy · F Major - Research on Harmony - Variation 9 · 2025

Claim 1: Computational Image Analysis - AQC0859

> K-means clustering analysis [3] (10 colors) performed on artwork F Major [1] - Research on Harmony - Variation 9 (AQC0859) [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]: 2291x3054 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		EB9780	21.9	red-orange	darksalmon
2		F1A894	18.3	red-orange	burlywood
3		E5875E	14.1	orange	salmon
4		D8764B	11.7	orange	peru
5		66377C	9.0	red-violet	darkslateblue
6		4A2163	8.4	red-violet	indigo
7		CD878A	6.2	red-orange	rosybrown
8		875393	5.2	red-violet	gray
9		4F312A	3.5	red-orange	darkslategray
10		935D57	1.7	red-orange	burnt sienna
11		2B074C	0.3	violet	very dark purple [Accent]
12		9F6A7E	0.3	red	dusty mauve [Accent]

Color Families:

Family	%
red-orange	51.6
orange	25.8
red-violet	22.5
violet	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
2B074C	violet	very dark purple	46.7
9F6A7E	red	dusty mauve	24.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.179
Mean Local Roughness	0.013
Roughness Uniformity	0.012
Edge Density	0.038
Mean Gradient Magnitude	0.116
Gradient Variance	0.021
Gradient Smoothness	0.0
Directional Coherence	0.018
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.596
Spatial Variation	0.13
Texture Consistency	0.632

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.558
Brightness Variance	0.179
Brightness Uniformity	0.679
Brightness Skewness	-0.899
Brightness Entropy	6.997
Rms Contrast	0.179
Michelson Contrast	1.0
Weber Contrast	0.661
Mean Local Contrast	0.014
Contrast Uniformity	0.115
Dynamic Range	0.976
Effective Dynamic Range	0.541
Shadow Percentage	18.821
Midtone Percentage	44.002
Highlight Percentage	37.177
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.018
Coarse Contrast	0.031
Multiscale Contrast Ratio	0.209
Edge Contrast	0.116
Contrast Clustering	0.368

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.735
Color Clustering	0.561
Color Transition Smoothness	0.701
Transition Uniformity	0.858
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.026
Mean Saturation	0.503
Saturation Variance	0.014
Low Saturation Ratio	0.026
Medium Saturation Ratio	0.943
High Saturation Ratio	0.031
Saturation Clustering	1.0
Hue Concentration	0.8
Complementary Balance	0.0
Analogous Dominance	0.778
Temperature Bias	0.783

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). F Major - Research on Harmony - Variation 9 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0859.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/f-major-research-on-harmony-variation-9_9ia.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)

5299e5bd6c9445ddf6d32da58c0fb8db9c66b206b4826d5658083d-b8f5942c3f

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20250125-0055
Asset code	AQC0859
Version	1
Published	2026-04-09

Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-09

Persistent URI: https://multimodal.institute/en/nanopubs/2026/02/AQC0859-computational-image-analysis-aqc0859.pdf