AQC0747

Nanopublication — Computational Image Analysis - AQC0747

by Arnaud Quercy · C Major - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0747

> K-means clustering analysis [3] (10 colors) performed on artwork C Major [1] - Research on Harmony - Variation 5 (AQC0747) [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]: 3024x4032 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		904519	17.0	orange	russet
2		C0B6A9	16.1	yellow-orange	silver
3		E1502E	13.2	red-orange	chocolate
4		262630	12.8	violet	very dark gray
5		AE5A25	12.1	orange	burnt sienna
6		714141	11.0	red-orange	russet
7		89525F	7.7	red	dimgray
8		E2C3C4	5.4	red-orange	thistle
9		ED9127	2.5	orange	goldenrod
10		F0CD7B	2.2	yellow-orange	burlywood
11		E3E7F1	0.3	blue-violet	white [Accent]
12		CCAFC1	0.3	red-violet	silver [Accent]

Color Families:

Family	%
orange	31.6
red-orange	29.6
yellow-orange	18.3
violet	12.8
red	7.7
blue-violet	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
E3E7F1	blue-violet	white	5.1
CCAFC1	red-violet	silver	14.9

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.199
Mean Local Roughness	0.012
Roughness Uniformity	0.013
Edge Density	0.038
Mean Gradient Magnitude	0.119
Gradient Variance	0.029
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.113
Pattern Repetition	1.0
Detail Frequency Ratio	0.59
Spatial Variation	0.151
Texture Consistency	0.42

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.45
Brightness Variance	0.199
Brightness Uniformity	0.559
Brightness Skewness	0.383
Brightness Entropy	7.256
Rms Contrast	0.199
Michelson Contrast	1.0
Weber Contrast	0.745
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.647
Shadow Percentage	27.071
Midtone Percentage	49.699
Highlight Percentage	23.23
Shadow Clipping	0.003
Highlight Clipping	0.004
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.019
Coarse Contrast	0.033
Multiscale Contrast Ratio	0.178
Edge Contrast	0.119
Contrast Clustering	0.58

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.773
Color Clustering	0.424

Metric	Value
Color Transition Smoothness	0.689
Transition Uniformity	0.8
Sharp Transition Ratio	0.1
Transition Directionality	0.029
Mean Saturation	0.52
Saturation Variance	0.084
Low Saturation Ratio	0.298
Medium Saturation Ratio	0.288
High Saturation Ratio	0.414
Saturation Clustering	0.999
Hue Concentration	0.759
Complementary Balance	0.03
Analogous Dominance	0.877
Temperature Bias	0.774

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 Major - Research on Harmony - Variation 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0747.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/c-major-research-on-harmony-variation-5_8aq.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)

9699d1c97972661229e17f9013be87f69f82e7b-bc55be788e410b1104916a0dc

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0244
Asset code	AQC0747
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/AQC0747-computational-image-analysis-aqc0747.pdf