AQC0765

Nanopublication — Computational Image Analysis - AQC0765

by Arnaud Quercy · A Major - Research on Harmony - Variation 4 · 2024

Claim 1: Computational Image Analysis - AQC0765

> K-means clustering analysis [3] (10 colors) performed on artwork A Major [1] - Research on Harmony - Variation 4 (AQC0765) [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]: 2543x3815 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		989281	20.1	yellow	gray
2		C58827	10.8	yellow-orange	peru
3		1C1816	10.3	gray	black
4		C7A47A	10.0	yellow-orange	ochre
5		C77110	10.0	orange	chocolate
6		B6AB9E	9.0	yellow-orange	steel gray
7		CC9555	8.3	orange	ochre
8		D7C9C0	8.2	orange	lightgray
9		744D27	7.4	orange	russet
10		468C9D	5.7	blue-green	steelblue
11		4B0F01	0.3	red-orange	very dark red [Accent]
12		6B8A94	0.3	blue	blue gray [Accent]
13		657D79	0.3	green	blue gray [Accent]
14		656C57	0.3	yellow-green	dimgray [Accent]

Color Families:

Family	%
orange	34.0
yellow-orange	29.8
yellow	20.1
gray	10.3
blue-green	5.7
red-orange	0.3
blue	0.3
green	0.3
yellow-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
4B0F01	red-orange	very dark red	34.8
6B8A94	blue	blue gray	12.0
657D79	green	blue gray	10.0
656C57	yellow-green	dimgray	13.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.186
Mean Local Roughness	0.013
Roughness Uniformity	0.012
Edge Density	0.055
Mean Gradient Magnitude	0.142
Gradient Variance	0.033
Gradient Smoothness	0.0
Directional Coherence	0.014
Pattern Complexity	0.108
Pattern Repetition	1.0
Detail Frequency Ratio	0.572
Spatial Variation	0.135
Texture Consistency	0.581

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.536
Brightness Variance	0.186
Brightness Uniformity	0.652
Brightness Skewness	-1.091
Brightness Entropy	7.119
Rms Contrast	0.186
Michelson Contrast	1.0
Weber Contrast	0.734
Mean Local Contrast	0.017
Contrast Uniformity	0.055
Dynamic Range	1.0
Effective Dynamic Range	0.694
Shadow Percentage	13.873
Midtone Percentage	66.371
Highlight Percentage	19.756
Shadow Clipping	0.004
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.021
Coarse Contrast	0.041
Multiscale Contrast Ratio	0.145
Edge Contrast	0.142

Metric	Value
Contrast Clustering	0.419

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.753
Color Clustering	0.632
Color Transition Smoothness	0.636
Transition Uniformity	0.771
Sharp Transition Ratio	0.1
Transition Directionality	0.017
Mean Saturation	0.415
Saturation Variance	0.097
Low Saturation Ratio	0.459
Medium Saturation Ratio	0.295
High Saturation Ratio	0.246
Saturation Clustering	1.0
Hue Concentration	0.793
Complementary Balance	0.037
Analogous Dominance	0.896
Temperature Bias	0.793

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). A Major - Research on Harmony - Variation 4 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0765.html

[2] Quercy, A. (2024). A Major - Research on Harmony - Variation 4 - Gallery. https://artquamanima.com/en/artworks/2024/01/a-major-research-on-harmony-variation-4_8hq.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)

147fd6c46eafddb17cf8041578931361ff395658e755bf7bc4cfd976cbeb-d3bc

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0262
Asset code	AQC0765
Version	1
Published	2026-02-03

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

Date of publication: 2026-04-20

Persistent URI: https://multimodal.institute/en/nanopubs/2026/02/AQC0765-computational-image-analysis-aqc0765.pdf