AQC0935 | NAN-COL000025

Nanopublication — Computational Image Analysis - AQC0935

by Arnaud Quercy · Eb Octaves - Research on Harmony - Reflections 42 · 2025

CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0935

K-means clustering analysis [3] (10 colors) performed on artwork Eb Octaves [1] - Research on Harmony - Reflections 42 (AQC0935) [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]: 1968x2755 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		9469B9	22.0	violet	mediumpurple
2		D5B7DF	14.6	red-violet	thistle
3		110F1E	13.5	violet	very dark gray
4		200853	13.3	violet	very dark purple
5		E8E6E1	10.3	white	white
6		9BAEF2	8.5	violet	lightsteelblue
7		2D0B72	8.1	violet	very dark purple
8		352562	5.4	violet	indigo
9		523690	3.8	violet	darkslateblue
10		A28640	0.5	yellow-orange	peru
11		B78E74	0.3	orange	rosybrown [Accent]
12		584040	0.3	red-orange	darkslategray [Accent]

Color Families:

Family	%
violet	74.6
red-violet	14.6
white	10.3
yellow-orange	0.5
orange	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
B78E74	orange	rosybrown	23.3
584040	red-orange	darkslategray	10.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.304
Mean Local Roughness	0.021
Roughness Uniformity	0.023
Edge Density	0.069
Mean Gradient Magnitude	0.159
Gradient Variance	0.065
Gradient Smoothness	0.0
Directional Coherence	0.005
Pattern Complexity	0.128
Pattern Repetition	1.0
Detail Frequency Ratio	0.625
Spatial Variation	0.257
Texture Consistency	0.526

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.432
Brightness Variance	0.304
Brightness Uniformity	0.297
Brightness Skewness	0.133
Brightness Entropy	7.26
Rms Contrast	0.304
Michelson Contrast	0.992
Weber Contrast	0.917
Mean Local Contrast	0.021
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.855
Shadow Percentage	43.136
Midtone Percentage	23.803
Highlight Percentage	33.061
Shadow Clipping	0.0
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.011
Medium Contrast	0.027
Coarse Contrast	0.041
Multiscale Contrast Ratio	0.278
Edge Contrast	0.159
Contrast Clustering	0.474

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.802
Color Clustering	0.857
Color Transition Smoothness	0.569
Transition Uniformity	0.544
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.477
Saturation Variance	0.082
Low Saturation Ratio	0.267
Medium Saturation Ratio	0.485
High Saturation Ratio	0.248
Saturation Clustering	0.998
Hue Concentration	0.956
Complementary Balance	0.005
Analogous Dominance	0.993
Temperature Bias	-0.118

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). Eb Octaves - Research on Harmony - Reflections 42 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0935.html

[2] Quercy, A. (2025). Eb Octaves - Research on Harmony - Reflections 42 - Gallery. https://artquamanima.com/en/artworks/2025/12/eb-octaves-research-on-harmony-reflections-42_1hzr.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

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping · Eb octaves · violet harmonies · synesthetic art · harmonic intervals · acrylic color study · musical visualization · octave relationships

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

8f3339473c57e8bae8bc4bb057dc296be4117a0714f13b685e1352c50b03279b

Artist Arnaud Quercy
Date 2025
Collection Synesthetic Explorations
Certificate 20251231-0130
Asset code AQC0935
Identifier NAN-COL000025
Version 1
Published 2026-01-06

ISSN: [pending — Library of Congress]

Published by Art Quam Anima Publishing New York,
an imprint of AQA PUBLISHING LLC

c/o Northwest Registered Agent, 418 Broadway Ste N
Albany, NY 12207, USA
+1 917-764-5470

publishing.artquamanima.com

Last updated: 2026-06-03

Persistent URI: https://multimodal.institute/en/nanopubs/2026/01/AQC0935-computational-image-analysis-aqc0935.pdf