AQC0825 | NAN-COL000006

Nanopublication — Computational Image Analysis - AQC0825

by Arnaud Quercy · E Major - Research on Harmony - Variation 6 · 2025

CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0825

K-means clustering analysis [3] (10 colors) performed on artwork E Major [1] - Research on Harmony - Variation 6 (AQC0825) [2] by Arnaud Quercy [2] on 2025-11-26. 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]: 2239x2985 pixels. Analysis date: 2025-11-26.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D2D0C2	22.7	yellow	lightgray
2		C5C5B3	19.0	yellow	silver
3		D4D9E3	17.9	blue-violet	gainsboro
4		B9CD89	8.7	yellow-green	tan
5		A6A79F	6.6	gray	steel gray
6		8F9084	6.6	yellow-green	gray
7		434646	5.1	gray	darkslategray
8		292C2B	4.9	gray	very dark gray
9		A2BA7A	4.8	yellow-green	darkseagreen
10		707464	3.7	yellow-green	dimgray
11		F8D1B3	0.3	orange	peachpuff [Accent]

Color Families:

Family	%
yellow	41.7
yellow-green	23.7
blue-violet	17.9
gray	16.6
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
F8D1B3	orange	peachpuff	21.9

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.19
Mean Local Roughness	0.013
Roughness Uniformity	0.015
Edge Density	0.051
Mean Gradient Magnitude	0.124
Gradient Variance	0.039
Gradient Smoothness	0.0
Directional Coherence	0.032
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.591
Spatial Variation	0.112
Texture Consistency	0.678

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.7
Brightness Variance	0.19
Brightness Uniformity	0.729
Brightness Skewness	-1.636
Brightness Entropy	6.881
Rms Contrast	0.19
Michelson Contrast	1.0
Weber Contrast	0.583
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.643
Shadow Percentage	9.538
Midtone Percentage	16.514
Highlight Percentage	73.949
Shadow Clipping	0.002
Highlight Clipping	0.004
Tonal Balance	0.0
Fine Contrast	0.007
Medium Contrast	0.019
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.19
Edge Contrast	0.124
Contrast Clustering	0.322

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.726
Color Clustering	0.901
Color Transition Smoothness	0.685
Transition Uniformity	0.74
Sharp Transition Ratio	0.1
Transition Directionality	0.039
Mean Saturation	0.128
Saturation Variance	0.011
Low Saturation Ratio	0.896
Medium Saturation Ratio	0.103
High Saturation Ratio	0.001
Saturation Clustering	1.0
Hue Concentration	0.921
Complementary Balance	0.016
Analogous Dominance	0.953
Temperature Bias	0.001

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). E Major - Research on Harmony - Variation 6 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0825.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/e-major-research-on-harmony-variation-6_952.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 · E Major chord · circle of fifths · synesthetic collection · watercolor · geometric shapes · yellow-green · Bach Violin Concerto · Jobim Este Seu Olhar · harmonic visualization · layered colors · Variation 6

EPISTEMIC PROFILE

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

CHECKSUM (SHA-256)

b00c2e48115a5437ed4296a39bff4cfaaadbd0ce0905cee7a66e913b99ef1852

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20250125-0021
Asset code	AQC0825
Identifier	NAN-COL000006
Version	1
Published	2025-11-26

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/2025/11/AQC0825-computational-image-analysis-aqc0825.pdf