AQC0946

Nanopublication — Computational Image Analysis - AQC0946

by Arnaud Quercy · Bb Major - Research on Harmony - Variations 9 · 2025

Claim 1: Computational Image Analysis - AQC0946

> K-means clustering analysis [3] (10 colors) performed on artwork Bb Major [1] - Research on Harmony - Variations 9 (AQC0946) [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]: 1942x2718 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E8D4B5	16.9	yellow-orange	wheat
2		F39532	14.4	orange	goldenrod
3		765298	12.4	violet	blue gray
4		CE71AE	12.1	red-violet	palevioletred
5		8D65C2	12.1	violet	mediumpurple
6		140916	10.7	red-violet	black
7		C2B0E2	6.5	violet	lightsteelblue
8		C55490	6.4	red	indianred
9		7D4B56	6.0	red	dimgray
10		E1E4E6	2.7	white	white
11		E77783	0.3	red-orange	lightcoral [Accent]

Color Families:

Family	%
violet	31.0
red-violet	22.7
yellow-orange	16.9
orange	14.4
red	12.3
white	2.7
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
E77783	red-orange	lightcoral	46.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.234
Mean Local Roughness	0.014
Roughness Uniformity	0.017
Edge Density	0.023
Mean Gradient Magnitude	0.114
Gradient Variance	0.053
Gradient Smoothness	0.0
Directional Coherence	0.003
Pattern Complexity	0.128
Pattern Repetition	1.0
Detail Frequency Ratio	0.593
Spatial Variation	0.138
Texture Consistency	0.73

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.545
Brightness Variance	0.234
Brightness Uniformity	0.572
Brightness Skewness	-0.577
Brightness Entropy	7.314
Rms Contrast	0.234
Michelson Contrast	1.0
Weber Contrast	0.843
Mean Local Contrast	0.015
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.82
Shadow Percentage	11.992
Midtone Percentage	57.749
Highlight Percentage	30.258
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.017
Fine Contrast	0.008
Medium Contrast	0.019
Coarse Contrast	0.033
Multiscale Contrast Ratio	0.233
Edge Contrast	0.114
Contrast Clustering	0.27

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.756
Color Clustering	0.672
Color Transition Smoothness	0.699
Transition Uniformity	0.624
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.006
Mean Saturation	0.468
Saturation Variance	0.047
Low Saturation Ratio	0.291
Medium Saturation Ratio	0.525
High Saturation Ratio	0.183
Saturation Clustering	0.999
Hue Concentration	0.628
Complementary Balance	0.0
Analogous Dominance	0.666
Temperature Bias	0.578

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). Bb Major - Research on Harmony - Variations 9 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0946.html

[2] Quercy, A. (2025). Bb Major - Research on Harmony - Variations 9 - Gallery. https://artquamanima.com/en/artworks/2025/12/bb-major-research-on-harmony-variations-9_1i6s.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)

19f02b15c0c5b0633d4bc49edc6723a0b-b2c38053f39059f38ed7463505cacdf

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