AQC0695

Nanopublication — Computational Image Analysis - AQC0695

by Arnaud Quercy · Bb minor - Research on Harmony - Variation 3 · 2024

Claim 1: Computational Image Analysis - AQC0695

> K-means clustering analysis [3] (10 colors) performed on artwork Bb minor - Research [1] on Harmony - Variation 3 (AQC0695) [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]: 2766x3458 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		2E221D	17.5	orange	very dark gray
2		71A6A6	14.7	blue-green	cadetblue
3		E0BB8B	14.0	yellow-orange	burlywood
4		584546	13.8	red	darkslategray
5		3F3227	12.1	orange	darkslategrey
6		678E93	11.2	blue-green	blue gray
7		8B716F	5.8	red-orange	gray
8		C1A58A	4.6	orange	tan
9		C99F6F	4.2	orange	ochre
10		89584F	2.1	red-orange	burnt sienna

Color Families:

Family	%
orange	38.4
blue-green	25.9
yellow-orange	14.0
red	13.8
red-orange	7.9

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.218
Mean Local Roughness	0.005
Roughness Uniformity	0.011
Edge Density	0.005
Mean Gradient Magnitude	0.041
Gradient Variance	0.012
Gradient Smoothness	0.0
Directional Coherence	0.2
Pattern Complexity	0.107
Pattern Repetition	1.0
Detail Frequency Ratio	0.606
Spatial Variation	0.14
Texture Consistency	0.611

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.437
Brightness Variance	0.218
Brightness Uniformity	0.501
Brightness Skewness	0.026
Brightness Entropy	7.206
Rms Contrast	0.218
Michelson Contrast	1.0
Weber Contrast	0.794
Mean Local Contrast	0.006
Contrast Uniformity	0.0
Dynamic Range	0.988
Effective Dynamic Range	0.627
Shadow Percentage	42.12
Midtone Percentage	39.43
Highlight Percentage	18.45
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.003
Medium Contrast	0.008
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.041
Contrast Clustering	0.389

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.722
Color Clustering	0.85
Color Transition Smoothness	0.882
Transition Uniformity	0.915
Sharp Transition Ratio	0.1
Transition Directionality	0.229
Mean Saturation	0.33
Saturation Variance	0.013
Low Saturation Ratio	0.449
Medium Saturation Ratio	0.547
High Saturation Ratio	0.004
Saturation Clustering	1.0

Metric	Value
Hue Concentration	0.429
Complementary Balance	0.207
Analogous Dominance	0.714
Temperature Bias	0.43

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). Bb minor - Research on Harmony - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0695.html

[2] Quercy, A. (2024). Bb minor - Research on Harmony - Variation 3 - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-minor-research-on-harmony-variation-3_7qi.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)

a9581aba82a11e1049e9037f0cf7a37e11107e914dd47bfafab0a0559f9fb-f7e

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240718-0191
Asset code	AQC0695
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/AQC0695-computational-image-analysis-aqc0695.pdf