AQC0932

Nanopublication — Computational Image Analysis - AQC0932

by Arnaud Quercy · Bb Minor - Research on Harmony - Variations 12 · 2025

Claim 1: Computational Image Analysis - AQC0932

> K-means clustering analysis [3] (10 colors) performed on artwork Bb Minor [1] - Research on Harmony - Variations 12 (AQC0932) [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]: 1975x2764 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		9968A1	21.3	red-violet	dusty mauve
2		8CA6B2	21.2	blue	steel gray
3		60DDD3	11.8	green	mediumturquoise
4		794E8D	10.3	red-violet	dimgray
5		EE518B	9.6	red	palevioletred
6		110C12	7.3	black	black
7		D06F9B	6.9	red	rosybrown
8		612D47	5.7	red	dusty mauve
9		E9E1E2	5.4	white	gainsboro
10		AE7A33	0.4	orange	peru
11		164444	0.3	blue-green	darkslategray [Accent]
12		343246	0.3	violet	dusty mauve [Accent]
13		45525C	0.3	blue-violet	grayish purple [Accent]
14		490916	0.3	red-orange	very dark red [Accent]

Color Families:

Family	%
red-violet	31.6
red	22.2
blue	21.2
green	11.8
black	7.3
white	5.4
orange	0.4
blue-green	0.3
violet	0.3
blue-violet	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
164444	blue-green	darkslategray	15.8
343246	violet	dusty mauve	13.9
45525C	blue-violet	grayish purple	8.2
490916	red-orange	very dark red	32.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.196
Mean Local Roughness	0.023
Roughness Uniformity	0.031
Edge Density	0.059
Mean Gradient Magnitude	0.165
Gradient Variance	0.097
Gradient Smoothness	0.0
Directional Coherence	0.002
Pattern Complexity	0.125
Pattern Repetition	1.0
Detail Frequency Ratio	0.641
Spatial Variation	0.088
Texture Consistency	0.48

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.523
Brightness Variance	0.196
Brightness Uniformity	0.624
Brightness Skewness	-0.616
Brightness Entropy	7.388
Rms Contrast	0.196
Michelson Contrast	1.0
Weber Contrast	0.665
Mean Local Contrast	0.023
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.753
Shadow Percentage	13.409
Midtone Percentage	66.387
Highlight Percentage	20.204
Shadow Clipping	0.001
Highlight Clipping	0.001
Tonal Balance	0.032
Fine Contrast	0.014
Medium Contrast	0.03
Coarse Contrast	0.045
Multiscale Contrast Ratio	0.301
Edge Contrast	0.165

Metric	Value
Contrast Clustering	0.52

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.755
Color Clustering	0.647
Color Transition Smoothness	0.575
Transition Uniformity	0.344
Sharp Transition Ratio	0.1
Transition Directionality	0.005
Mean Saturation	0.417
Saturation Variance	0.034
Low Saturation Ratio	0.286
Medium Saturation Ratio	0.685
High Saturation Ratio	0.029
Saturation Clustering	0.998
Hue Concentration	0.5
Complementary Balance	0.006
Analogous Dominance	0.646
Temperature Bias	0.026

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 Minor - Research on Harmony - Variations 12 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0932.html

[2] Quercy, A. (2025). Bb Minor - Research on Harmony - Variations 12 - Gallery. https://artquamanima.com/en/artworks/2025/12/bb-minor-research-on-harmony-variations-12_1hxu.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)

afddfdae23da8887fbf3f2c79b41a6a1486e84a2db09323cdf75bcf8af34f-b25

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