

Nanopublication — Computational Image Analysis - AQC0629

by Arnaud Quercy · Eb minor - Research on Harmony - Variation 1 · 2024















Claim 1: Computational Image Analysis - AQC0629

K-means clustering analysis [3] (10 colors) performed on artwork Eb minor - Research [1] on Harmony - Variation 1 (AQC0629) [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]: 2229x3343 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		4C4B5A	17.5	violet	dusty mauve
2		3B3A47	16.2	violet	dusty mauve
3		656D9F	15.8	violet	dusty mauve
4		7B83AE	14.4	violet	dusty mauve
5		78CC6B	11.3	yellow-green	darkseagreen
6		201C13	9.2	yellow-orange	very dark gray
7		656773	7.7	violet	dusty mauve
8		989FC7	5.5	violet	steel gray
9		E0E8DF	1.9	yellow-green	white
10		D2A058	0.5	yellow-orange	sandybrown
11		C0A38B	0.3	orange	rosybrown [Accent]
12		B3AF9F	0.3	yellow	steel gray [Accent]
13		B88783	0.3	red-orange	rosybrown [Accent]
14		81A799	0.3	green	darkseagreen [Accent]

Color Families:

Family	%
violet	77.1
yellow-green	13.2
yellow-orange	9.7
orange	0.3
yellow	0.3
red-orange	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
C0A38B	orange	rosybrown	17.5
B3AF9F	yellow	steel gray	9.1

Hex Family Name Chroma

B88783 red-orange rosybrown 20.6

81A799 green darkseagreen 16.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.185
Mean Local Roughness	0.036
Roughness Uniformity	0.032
Edge Density	0.18
Mean Gradient Magnitude	0.297
Gradient Variance	0.122
Gradient Smoothness	0.0
Directional Coherence	0.008
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.636
Spatial Variation	0.123
Texture Consistency	0.668

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.409
Brightness Variance	0.185
Brightness Uniformity	0.549
Brightness Skewness	0.317
Brightness Entropy	7.471
Rms Contrast	0.185
Michelson Contrast	1.0
Weber Contrast	0.71
Mean Local Contrast	0.039
Contrast Uniformity	0.225
Dynamic Range	1.0
Effective Dynamic Range	0.588
Shadow Percentage	39.649
Midtone Percentage	50.586
Highlight Percentage	9.766
Shadow Clipping	0.032
Highlight Clipping	0.037
Tonal Balance	0.161
Fine Contrast	0.019
Medium Contrast	0.05
Coarse Contrast	0.081
Multiscale Contrast Ratio	0.24
Edge Contrast	0.297
Contrast Clustering	0.332

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.707
Color Clustering	0.752
Color Transition Smoothness	0.209
Transition Uniformity	0.179
Sharp Transition Ratio	0.1
Transition Directionality	0.009
Mean Saturation	0.31
Saturation Variance	0.022
Low Saturation Ratio	0.514
Medium Saturation Ratio	0.467
High Saturation Ratio	0.018
Saturation Clustering	0.998
Hue Concentration	0.474
Complementary Balance	0.132
Analogous Dominance	0.704
Temperature Bias	-0.259

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). Eb minor - Research on Harmony - Variation 1 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0629.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/eb-minor-research-on-harmony-variation-1_70u.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

cf0131630cb54f71a4ea32e01f43a0a40857a47a813930e623c7fda1ec5e-f2f8

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240615-0125
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