AQC0673

Nanopublication — Computational Image Analysis - AQC0673

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

Claim 1: Computational Image Analysis - AQC0673

> K-means clustering analysis [3] (10 colors) performed on artwork Bb Major [1] - Research on Harmony - Variation 3 (AQC0673) [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]: 2224x3336 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		DDC0AE	20.2	orange	silver
2		D5B095	18.8	orange	tan
3		E2CEC4	13.9	orange	lightgray
4		B9A081	10.4	yellow-orange	rosybrown
5		5B597D	7.9	violet	dusty mauve
6		A893C7	7.3	violet	steel gray
7		8070A8	6.7	violet	dusty mauve
8		434551	6.5	blue-violet	grayish purple
9		92CFE1	4.6	blue	skyblue
10		886961	3.9	red-orange	dimgray
11		402B2D	0.3	red	darkslategray [Accent]
12		C4EFFA	0.3	blue-green	paleturquoise [Accent]
13		C9B0D9	0.3	red-violet	thistle [Accent]

Color Families:

Family	%
orange	52.8
violet	21.8
yellow-orange	10.4
blue-violet	6.5
blue	4.6
red-orange	3.9
red	0.3
blue-green	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
402B2D	red	darkslategray	10.2
C4EFFA	blue-green	paleturquoise	15.6
C9B0D9	red-violet	thistle	24.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.172
Mean Local Roughness	0.014
Roughness Uniformity	0.017
Edge Density	0.059
Mean Gradient Magnitude	0.122
Gradient Variance	0.034
Gradient Smoothness	0.0
Directional Coherence	0.023
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.608
Spatial Variation	0.104
Texture Consistency	0.6

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.652
Brightness Variance	0.172
Brightness Uniformity	0.737
Brightness Skewness	-0.996
Brightness Entropy	7.048
Rms Contrast	0.172
Michelson Contrast	1.0
Weber Contrast	0.56
Mean Local Contrast	0.016
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.529
Shadow Percentage	7.353
Midtone Percentage	29.842
Highlight Percentage	62.805
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.02
Coarse Contrast	0.032
Multiscale Contrast Ratio	0.242
Edge Contrast	0.122
Contrast Clustering	0.4

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.771
Color Clustering	0.692
Color Transition Smoothness	0.685
Transition Uniformity	0.772
Sharp Transition Ratio	0.1
Transition Directionality	0.029
Mean Saturation	0.265
Saturation Variance	0.009
Low Saturation Ratio	0.649
Medium Saturation Ratio	0.35
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.379
Complementary Balance	0.175
Analogous Dominance	0.625
Temperature Bias	0.454

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 Major - Research on Harmony - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0673.html

[2] Quercy, A. (2024). Bb Major - Research on Harmony - Variation 3 - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-major-research-on-harmony-variation-3_7hy.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)

6a3a7a5edd1d8f4a8eab1d82f709ef8a2af081f2ef56866e0d1c2f921d-cd426e

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