Nanopublication — Computational Image Analysis - AQC0848

by Arnaud Quercy · Bb Octaves - Reflexions 34 · 2025

Claim 1: Computational Image Analysis - AQC0848

> K-means clustering analysis [3] (10 colors) performed on artwork Bb Octaves [1] - Reflexions 34 (AQC0848) [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]: 2416x3222 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		9C79D0	21.8	violet	mediumpurple
2		AD8CDE	19.8	violet	plum
3		8865C1	17.1	violet	slateblue
4		C1A2EB	13.2	violet	lightsteelblue
5		6E48B0	7.4	violet	darkslateblue
6		DCC2ED	5.3	violet	thistle
7		52435E	4.5	violet	dusty mauve
8		582073	4.1	red-violet	indigo
9		765B81	4.0	red-violet	dusty mauve
10		241530	2.8	violet	very dark purple
11		D9A59B	0.3	red-orange	tan [Accent]
12		FBEAF1	0.3	red	white [Accent]

Color Families:

Family	%
violet	91.9
red-violet	8.1
red-orange	0.3
red	0.3

Accent Colors:

Hex	Family	Name	Chroma
D9A59B	red-orange	tan	22.2
FBEAF1	red	white	7.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.161
Mean Local Roughness	0.043
Roughness Uniformity	0.019

Metric	Value
Edge Density	0.307
Mean Gradient Magnitude	0.331
Gradient Variance	0.056
Gradient Smoothness	0.287
Directional Coherence	0.001
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.663
Spatial Variation	0.091
Texture Consistency	0.714

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.534
Brightness Variance	0.161
Brightness Uniformity	0.699
Brightness Skewness	-0.564
Brightness Entropy	7.335
Rms Contrast	0.161
Michelson Contrast	1.0
Weber Contrast	0.576
Mean Local Contrast	0.045
Contrast Uniformity	0.599
Dynamic Range	1.0
Effective Dynamic Range	0.545
Shadow Percentage	11.879
Midtone Percentage	68.44
Highlight Percentage	19.681
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.033
Fine Contrast	0.026
Medium Contrast	0.055
Coarse Contrast	0.07
Multiscale Contrast Ratio	0.364
Edge Contrast	0.331
Contrast Clustering	0.286

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.672
Color Clustering	0.61
Color Transition Smoothness	0.169
Transition Uniformity	0.642
Sharp Transition Ratio	0.1
Transition Directionality	0.001

Metric	Value
Mean Saturation	0.412
Saturation Variance	0.018
Low Saturation Ratio	0.181
Medium Saturation Ratio	0.784
High Saturation Ratio	0.035
Saturation Clustering	0.999
Hue Concentration	0.984
Complementary Balance	0.0
Analogous Dominance	0.993
Temperature Bias	0.009

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 Octaves - Reflexions 34 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0848.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/01/bb-octaves-reflexions-34_9e0.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/10/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)

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044e6baf3db7e09d1212230facc6c7ac4f417d1a0361fb-
d5155c9322d0f8501a
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Artist	Arnaud Quercy
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