Nanopublication — Computational Image Analysis - AQC0794

by Arnaud Quercy · Bb Octaves - Reflexions 28 · 2024

Claim 1: Computational Image Analysis - AQC0794

> Computational image analysis [3] of artwork Bb Octaves [1] - Reflexions 28 (AQC0794) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

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]: 2520x3779 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		5E468C	17.1	violet	darkslateblue
2		2A2A35	13.4	violet	very dark gray
3		795DA8	13.2	violet	slateblue
4		67539D	10.9	violet	blue gray
5		AE9ECA	9.6	violet	steel gray
6		36363D	9.0	gray	dusty mauve
7		C1B9AD	8.9	yellow-orange	silver
8		5B377D	6.7	violet	dimgray
9		BEADD9	6.4	violet	lightsteelblue
10		886DB9	4.7	violet	mediumpurple
11		836963	0.3	red-orange	dimgray [Accent]
12		3D3043	0.3	red-violet	dusty mauve [Accent]
13		82685E	0.3	orange	dimgray [Accent]

Color Families:

Family	%
violet	82.0
gray	9.0
yellow-orange	8.9
red-orange	0.3
red-violet	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
836963	red-orange	dimgray	11.4
3D3043	red-violet	dusty mauve	14.9
82685E	orange	dimgray	13.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.187
Mean Local Roughness	0.007
Roughness Uniformity	0.01
Edge Density	0.012
Mean Gradient Magnitude	0.065
Gradient Variance	0.016
Gradient Smoothness	0.0
Directional Coherence	0.061
Pattern Complexity	0.116
Pattern Repetition	1.0
Detail Frequency Ratio	0.591
Spatial Variation	0.156
Texture Consistency	0.347

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.417
Brightness Variance	0.187
Brightness Uniformity	0.551
Brightness Skewness	0.476
Brightness Entropy	6.999
Rms Contrast	0.187
Michelson Contrast	1.0
Weber Contrast	0.735
Mean Local Contrast	0.008
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.573
Shadow Percentage	35.904
Midtone Percentage	44.467
Highlight Percentage	19.629
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.004
Medium Contrast	0.01
Coarse Contrast	0.018
Multiscale Contrast Ratio	0.198
Edge Contrast	0.065
Contrast Clustering	0.653

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.785
Color Clustering	0.792

Metric	Value
Color Transition Smoothness	0.822
Transition Uniformity	0.886
Sharp Transition Ratio	0.1
Transition Directionality	0.083
Mean Saturation	0.335
Saturation Variance	0.028
Low Saturation Ratio	0.464
Medium Saturation Ratio	0.533
High Saturation Ratio	0.003
Saturation Clustering	1.0
Hue Concentration	0.978
Complementary Balance	0.0
Analogous Dominance	0.997
Temperature Bias	-0.078

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 Octaves - Reflexions 28 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0794.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-octaves-reflexions-28_8t0.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)

2683f667e5e866b97e71693cc602396003ccd7424ca83e87c7c723727c96b-cfe

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0291
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Version	1
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