AQC0771

Nanopublication — Computational Image Analysis - AQC0771

by Arnaud Quercy · Bb Major - Research on Harmony - Variation 5 · 2024

Claim 1: Computational Image Analysis - AQC0771

> Computational image analysis [3] of artwork Bb Major [1] - Research on Harmony - Variation 5 (AQC0771) [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]: 2441x3662 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		1C1721	20.8	violet	black
2		B9A4D6	18.1	violet	lightsteelblue
3		823151	13.6	red	dusty mauve
4		4196B7	10.9	blue	steelblue
5		5CB1CC	8.2	blue	mediumturquoise
6		BFBCAE	6.8	yellow	silver
7		9E9A90	6.1	yellow-orange	steel gray
8		4A3659	5.7	violet	dusty mauve
9		AA4A78	5.4	red	indianred
10		7162A2	4.5	violet	dusty mauve
11		0D3861	0.3	blue-violet	grayish purple [Accent]
12		5E3C2E	0.3	orange	dark brown [Accent]
13		775950	0.3	red-orange	dimgray [Accent]
14		8FC1C4	0.3	blue-green	skyblue [Accent]
15		D7D9CD	0.3	yellow-green	lightgray [Accent]

Color Families:

Family	%
violet	49.2
red	19.0
blue	19.0
yellow	6.8
yellow-orange	6.1
blue-violet	0.3
orange	0.3
red-orange	0.3
blue-green	0.3
yellow-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
0D3861	blue-violet	grayish purple	28.1
5E3C2E	orange	dark brown	19.8
775950	red-orange	dimgray	14.9
8FC1C4	blue-green	skyblue	17.5
D7D9CD	yellow-green	lightgray	6.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.228
Mean Local Roughness	0.009
Roughness Uniformity	0.01
Edge Density	0.033
Mean Gradient Magnitude	0.101
Gradient Variance	0.022
Gradient Smoothness	0.0
Directional Coherence	0.035
Pattern Complexity	0.104
Pattern Repetition	1.0
Detail Frequency Ratio	0.568
Spatial Variation	0.191
Texture Consistency	0.487

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.436
Brightness Variance	0.228
Brightness Uniformity	0.478
Brightness Skewness	-0.229
Brightness Entropy	7.442
Rms Contrast	0.228
Michelson Contrast	1.0
Weber Contrast	0.857
Mean Local Contrast	0.012
Contrast Uniformity	0.0
Dynamic Range	0.992
Effective Dynamic Range	0.663
Shadow Percentage	36.892
Midtone Percentage	41.158
Highlight Percentage	21.949
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.185
Fine Contrast	0.005

Metric	Value
Medium Contrast	0.015
Coarse Contrast	0.03
Multiscale Contrast Ratio	0.151
Edge Contrast	0.101
Contrast Clustering	0.513

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.78
Color Clustering	0.726
Color Transition Smoothness	0.734
Transition Uniformity	0.85
Sharp Transition Ratio	0.1
Transition Directionality	0.048
Mean Saturation	0.392
Saturation Variance	0.041
Low Saturation Ratio	0.431
Medium Saturation Ratio	0.531
High Saturation Ratio	0.039
Saturation Clustering	1.0
Hue Concentration	0.665
Complementary Balance	0.007
Analogous Dominance	0.718
Temperature Bias	0.019

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 5 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0771.html

[2] Quercy, A. (2024). Bb Major - Research on Harmony - Variation 5 - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-major-research-on-harmony-variation-5_8k2.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)

4fb08f99953e461820cbdea79dcc88494373099f7361c-c75701154af2385fc65

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0268
Asset code	AQC0771
Version	1
Published	2026-02-03

Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-20

Persistent URI: https://multimodal.institute/en/nanopubs/2026/02/AQC0771-computational-image-analysis-aqc0771.pdf