

# Nanopublication — Computational Image Analysis - AQC0435

by Arnaud Quercy · Bb Major - Reflexions 1 · 2023

## Claim 1: Computational Image Analysis - AQC0435

Computational image analysis [3] of artwork Bb Major [1] - Reflexions 1 (AQC0435) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	BDB9AF	19.7	yellow-orange	silver
2	AEABA4	19.6	gray	steel gray
3	9E9A93	17.5	gray	steel gray
4	998B7C	12.3	orange	gray
5	CCC8C3	9.0	white	lightgray
6	B7A48C	8.3	yellow-orange	rosybrown
7	9F7C53	4.6	orange	peru
8	8B5334	3.4	orange	burnt sienna
9	566A73	3.0	blue	dimgray
10	313635	2.6	gray	darkslategray
11	446F98	0.3	blue-violet	grayish purple [Accent]
12	11221F	0.3	green	very dark gray [Accent]
13	2D1A17	0.3	red-orange	very dark gray [Accent]
14	375458	0.3	blue-green	darkslategray [Accent]

#### Color Families:

Family	%
gray	39.7
yellow-orange	28.0
orange	20.3
white	9.0
blue	3.0
blue-violet	0.3
green	0.3
red-orange	0.3
blue-green	0.3

#### Accent Colors:

Hex	Family	Name	Chroma
446F98	blue-violet	grayish purple	27.1
11221F	green	very dark gray	8.0
2D1A17	red-orange	very dark gray	11.4
375458	blue-green	darkslategray	10.8

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.124
Mean Local Roughness	0.017
Roughness Uniformity	0.019
Edge Density	0.045
Mean Gradient Magnitude	0.142
Gradient Variance	0.042
Gradient Smoothness	0.0
Directional Coherence	0.012
Pattern Complexity	0.111
Pattern Repetition	1.0
Detail Frequency Ratio	0.624
Spatial Variation	0.048
Texture Consistency	0.693

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.629
Brightness Variance	0.124
Brightness Uniformity	0.804
Brightness Skewness	-1.441
Brightness Entropy	6.78
Rms Contrast	0.124
Michelson Contrast	1.0
Weber Contrast	0.368
Mean Local Contrast	0.018
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.412
Shadow Percentage	3.532
Midtone Percentage	52.013
Highlight Percentage	44.455
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.023
Coarse Contrast	0.036
Multiscale Contrast Ratio	0.241
Edge Contrast	0.142

Metric	Value
Contrast Clustering	0.307

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.662
Color Clustering	0.577
Color Transition Smoothness	0.637
Transition Uniformity	0.715
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.15
Saturation Variance	0.024
Low Saturation Ratio	0.876
Medium Saturation Ratio	0.116
High Saturation Ratio	0.008
Saturation Clustering	1.0
Hue Concentration	0.763
Complementary Balance	0.101
Analogous Dominance	0.884
Temperature Bias	0.765

## 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 (2023). Bb Major - Reflexions 1 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0435.html>
- [2] Quercy, A. (2023). Bb Major - Reflexions 1 - Gallery. [https://artquamanima.com/en/artworks/2023/01/bb-major-reflexions-1\\_4xe.html](https://artquamanima.com/en/artworks/2023/01/bb-major-reflexions-1_4xe.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)

71237d523d2adadc3b042f71748e13e0b37b33de-  
ce3b2f96318f6d327c544b4c

Artist	Arnaud Quercy
Date	2023
Collection	Synesthetic Explorations
Certificate	20231231-0021
Asset code	AQC0435
Version	1
Published	2026-02-03