

Nanopublication — Computational Image Analysis - AQC0770

by Arnaud Quercy · Bb Minor - Research on Harmony - Variation 10 · 2024

Claim 1: Computational Image Analysis - AQC0770

K-means clustering analysis [3] (10 colors) performed on artwork Bb Minor [1] - Research on Harmony - Variation 10 (AQC0770) [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]: 2409x3614 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	715788	16.9	violet	dusty mauve
2	1D1E31	14.7	violet	very dark gray
3	8466A2	13.4	violet	dusty mauve
4	32354C	10.9	violet	dusty mauve
5	62344F	9.6	red-violet	dusty mauve
6	C3C1B7	9.5	yellow	silver
7	AEAAA0	8.0	yellow-orange	steel gray
8	4CACC4	7.6	blue	mediumturquoise
9	B1A7E7	5.3	violet	lightsteelblue
10	2E99DD	4.0	blue-violet	dodgerblue
11	8EC5D4	0.3	blue-green	skyblue [Accent]
12	D9E6E3	0.3	green	gainsboro [Accent]

Color Families:

Family	%
violet	61.2
red-violet	9.6
yellow	9.5
yellow-orange	8.0
blue	7.6
blue-violet	4.0
blue-green	0.3
green	0.3

Accent Colors:

Hex	Family	Name	Chroma
8EC5D4	blue-green	skyblue	19.1
D9E6E3	green	gainsboro	5.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.208
Mean Local Roughness	0.01
Roughness Uniformity	0.011
Edge Density	0.033
Mean Gradient Magnitude	0.116
Gradient Variance	0.026
Gradient Smoothness	0.0
Directional Coherence	0.025
Pattern Complexity	0.108
Pattern Repetition	1.0
Detail Frequency Ratio	0.565
Spatial Variation	0.159
Texture Consistency	0.51

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.425
Brightness Variance	0.208
Brightness Uniformity	0.511
Brightness Skewness	0.116
Brightness Entropy	7.501
Rms Contrast	0.208
Michelson Contrast	1.0
Weber Contrast	0.801
Mean Local Contrast	0.014
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.643
Shadow Percentage	34.691
Midtone Percentage	47.135
Highlight Percentage	18.174
Shadow Clipping	0.002
Highlight Clipping	0.0
Tonal Balance	0.235
Fine Contrast	0.005
Medium Contrast	0.016
Coarse Contrast	0.035
Multiscale Contrast Ratio	0.139
Edge Contrast	0.116
Contrast Clustering	0.49

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.765
Color Clustering	0.738

Metric	Value
Color Transition Smoothness	0.681
Transition Uniformity	0.811
Sharp Transition Ratio	0.1
Transition Directionality	0.031
Mean Saturation	0.365
Saturation Variance	0.036
Low Saturation Ratio	0.291
Medium Saturation Ratio	0.656
High Saturation Ratio	0.053
Saturation Clustering	1.0
Hue Concentration	0.792
Complementary Balance	0.006
Analogous Dominance	0.797
Temperature Bias	-0.272

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 Minor - Research on Harmony - Variation 10 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0770.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-minor-research-on-harmony-variation-10_8jo.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

050ef5b12d481cea9328fc29b5b3ad218bd58a9124b60d-f5d3f03002a6c792cc

Artist Arnaud Quercy

Date 2024

Collection Synesthetic Explorations

Certificate 20241201-0267

Asset code AQC0770

Version 1

Published 2026-03-25

© 2026 Multimodal Institute

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

Date of publication: 2026-03-27

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/03/AQC0770-computational-image-analysis-aqc0770.pdf>

Content available under Creative Commons Attribution-NonCommercial 4.0 License (CC BY-NC 4.0)