

Nanopublication — Computational Image Analysis - AQC0441

by Arnaud Quercy · B minor - Reflexions 6 · 2022

Claim 1: Computational Image Analysis - AQC0441

K-means clustering analysis [3] (10 colors) performed on artwork B minor - Reflexions [1] 6 (AQC0441) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		AC9379	15.3 orange	rosybrown
2		DAAE84	13.8 orange	burlywood
3		8C7B64	13.4 yellow-orange	gray
4		80533B	12.0 orange	burnt sienna
5		5D3A23	10.8 orange	russet
6		5E5D52	9.0 yellow	dimgray
7		8C4D1C	8.4 orange	russet
8		AB5E35	6.8 orange	burnt sienna
9		D89642	6.4 orange	peru
10		2F1B0D	3.9 orange	very dark orange
11		A62D1C	0.3 red-orange	brown [Accent]
12		6C647C	0.3 violet	dusty mauve [Accent]
13		343F42	0.3 blue-green	darkslategray [Accent]

Color Families:

Family	%
orange	77.6
yellow-orange	13.4
yellow	9.0
red-orange	0.3
violet	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
A62D1C	red-orange	brown	61.8
6C647C	violet	dusty mauve	14.4
343F42	blue-green	darkslategray	5.0

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.164
Mean Local Roughness	0.008
Roughness Uniformity	0.009
Edge Density	0.015
Mean Gradient Magnitude	0.089
Gradient Variance	0.015
Gradient Smoothness	0.0
Directional Coherence	0.011
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.568
Spatial Variation	0.097
Texture Consistency	0.662

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.468
Brightness Variance	0.164
Brightness Uniformity	0.65
Brightness Skewness	-0.052
Brightness Entropy	7.319
Rms Contrast	0.164
Michelson Contrast	1.0
Weber Contrast	0.618
Mean Local Contrast	0.01
Contrast Uniformity	0.006
Dynamic Range	0.882
Effective Dynamic Range	0.525
Shadow Percentage	20.968
Midtone Percentage	64.583
Highlight Percentage	14.449
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.114
Fine Contrast	0.004
Medium Contrast	0.012
Coarse Contrast	0.026
Multiscale Contrast Ratio	0.163
Edge Contrast	0.089
Contrast Clustering	0.338

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.683
Color Clustering	0.522

Metric	Value
Color Transition Smoothness	0.756
Transition Uniformity	0.894
Sharp Transition Ratio	0.1
Transition Directionality	0.013
Mean Saturation	0.469
Saturation Variance	0.052
Low Saturation Ratio	0.268
Medium Saturation Ratio	0.532
High Saturation Ratio	0.2
Saturation Clustering	1.0
Hue Concentration	0.977
Complementary Balance	0.002
Analogous Dominance	0.996
Temperature Bias	0.995

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 (2022). B minor - Reflexions 6 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0441.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2022/01/b-minor-reflexions-6_4zq.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)

87f9c5381663adc23f62f4d616dbc895cb066aa2913ef85d3afa328029079c-cd

Artist Arnaud Quercy

Date 2022

Collection Synesthetic Explorations

Certificate 20231231-0027

Asset code AQC0441

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/AQC0441-computational-image-analysis-aqc0441.pdf>

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