

Nanopublication — Computational Image Analysis - AQC0628

by Arnaud Quercy · Eb Major - Research on Harmony - Variation 2 · 2024

Claim 1: Computational Image Analysis - AQC0628

Computational image analysis [3] of artwork Eb Major [1] - Research on Harmony - Variation 2 (AQC0628) [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]: 1800x2700 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	423E4D	21.4	violet	dusty mauve
2	5F5560	13.3	red-violet	dusty mauve
3	0B0E16	12.9	blue-violet	black
4	A16226	12.6	orange	burnt sienna
5	C28144	11.3	orange	peru
6	45567E	9.5	blue-violet	grayish purple
7	714012	6.1	orange	russet
8	E8A96D	5.3	orange	sandybrown
9	7D8499	4.4	blue-violet	grayish purple
10	C2DCEB	3.2	blue	powderblue
11	E6D5BE	0.3	yellow-orange	wheat [Accent]
12	E4FBFF	0.3	blue-green	white [Accent]
13	93534F	0.3	red-orange	burnt sienna [Accent]

Color Families:

Family	%
orange	35.4
blue-violet	26.8
violet	21.4
red-violet	13.3
blue	3.2
yellow-orange	0.3
blue-green	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
E6D5BE	yellow-orange	wheat	13.2
E4FBFF	blue-green	white	8.1
93534F	red-orange	burnt sienna	29.5

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.195
Mean Local Roughness	0.052
Roughness Uniformity	0.039
Edge Density	0.238
Mean Gradient Magnitude	0.412
Gradient Variance	0.178
Gradient Smoothness	0.0
Directional Coherence	0.017
Pattern Complexity	0.117
Pattern Repetition	1.0
Detail Frequency Ratio	0.659
Spatial Variation	0.126
Texture Consistency	0.713

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.365
Brightness Variance	0.195
Brightness Uniformity	0.465
Brightness Skewness	0.48
Brightness Entropy	7.451
Rms Contrast	0.195
Michelson Contrast	1.0
Weber Contrast	0.862
Mean Local Contrast	0.057
Contrast Uniformity	0.333
Dynamic Range	1.0
Effective Dynamic Range	0.71
Shadow Percentage	48.411
Midtone Percentage	43.826
Highlight Percentage	7.764
Shadow Clipping	0.115
Highlight Clipping	0.013
Tonal Balance	0.084
Fine Contrast	0.029
Medium Contrast	0.071
Coarse Contrast	0.101
Multiscale Contrast Ratio	0.288
Edge Contrast	0.412
Contrast Clustering	0.287

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.741
Color Clustering	0.633
Color Transition Smoothness	0.0
Transition Uniformity	0.0
Sharp Transition Ratio	0.1
Transition Directionality	0.018
Mean Saturation	0.466
Saturation Variance	0.073
Low Saturation Ratio	0.381
Medium Saturation Ratio	0.386
High Saturation Ratio	0.233
Saturation Clustering	0.993
Hue Concentration	0.168
Complementary Balance	0.148
Analogous Dominance	0.506
Temperature Bias	0.1

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). Eb Major - Research on Harmony - Variation 2 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0628.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/eb-major-research-on-harmony-variation-2_70g.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)

853f1cae4e8bad97ae50346363282f5c7d57ba01e6335f547c3-ab605417e87d1

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20240615-0124
Asset code	AQC0628
Version	1
Published	2026-04-09

© 2026 Multimodal Institute

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

Date of publication: 2026-04-09

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/02/AQC0628-computational-image-analysis-aqc0628.pdf>

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