

# Nanopublication — Computational Image Analysis - AQC0967

by Arnaud Quercy · Eb major 7 - Research on harmony · 2026

## Claim 1: Computational Image Analysis - AQC0967

K-means clustering analysis [3] (10 colors) performed on artwork Eb major 7 - Research [1] on harmony (AQC0967) [2] by Arnaud Quercy [2] on 2026-03-05. 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]: 2154x2154 pixels. Analysis date: 2026-03-05.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	C2BFBB	17.9	gray	silver
2	19171B	17.0	gray	black
3	E68D71	16.1	red-orange	darksalmon
4	405D8C	11.6	blue-violet	grayish purple
5	E9DCD4	10.6	orange	gainsboro
6	CA7C5F	9.6	orange	indianred
7	3172B0	7.5	blue-violet	grayish purple
8	98A9DB	5.1	blue-violet	lightsteelblue
9	AD313F	2.8	red-orange	brown
10	F3481D	1.7	red-orange	orangered
11	F1B6BC	0.3	red	lightpink [Accent]
12	CAB88F	0.3	yellow-orange	tan [Accent]
13	FDfBE9	0.3	yellow	white [Accent]
14	FCFCF2	0.3	yellow-green	white [Accent]
15	363946	0.3	violet	dusty mauve [Accent]

### Color Families:

Family	%
gray	34.9
blue-violet	24.3
red-orange	20.6
orange	20.2
red	0.3
yellow-orange	0.3
yellow	0.3
yellow-green	0.3
violet	0.3

### Accent Colors:

Hex	Family	Name	Chroma
F1B6BC	red	lightpink	22.6
CAB88F	yellow-orange	tan	23.0
FDfBE9	yellow	white	9.2
FCFCF2	yellow-green	white	5.4
363946	violet	dusty mauve	9.5

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.255
Mean Local Roughness	0.029
Roughness Uniformity	0.022
Edge Density	0.14
Mean Gradient Magnitude	0.221
Gradient Variance	0.063
Gradient Smoothness	0.0
Directional Coherence	0.016
Pattern Complexity	0.127
Pattern Repetition	1.0
Detail Frequency Ratio	0.641
Spatial Variation	0.177
Texture Consistency	0.529

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.526
Brightness Variance	0.255
Brightness Uniformity	0.516
Brightness Skewness	-0.434
Brightness Entropy	7.647
Rms Contrast	0.255
Michelson Contrast	1.0
Weber Contrast	0.88
Mean Local Contrast	0.03
Contrast Uniformity	0.207
Dynamic Range	1.0
Effective Dynamic Range	0.804
Shadow Percentage	22.4
Midtone Percentage	42.461
Highlight Percentage	35.139
Shadow Clipping	0.007
Highlight Clipping	0.019
Tonal Balance	0.314
Fine Contrast	0.016
Medium Contrast	0.037
Coarse Contrast	0.051
Multiscale Contrast Ratio	0.313

Metric	Value
Edge Contrast	0.221
Contrast Clustering	0.471

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.766
Color Clustering	0.683
Color Transition Smoothness	0.442
Transition Uniformity	0.595
Sharp Transition Ratio	0.1
Transition Directionality	0.015
Mean Saturation	0.359
Saturation Variance	0.066
Low Saturation Ratio	0.432
Medium Saturation Ratio	0.468
High Saturation Ratio	0.099
Saturation Clustering	0.999
Hue Concentration	0.259
Complementary Balance	0.029
Analogous Dominance	0.544
Temperature Bias	0.121

## 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 (2026). Eb major 7 - Research on harmony — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0967.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2026/03/eb-major-7-research-on-harmony\\_1yo6.html](https://artquamanima.com/en/artworks/2026/03/eb-major-7-research-on-harmony_1yo6.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

<b>Claim type</b>	computational analysis
<b>Voice</b>	third person
<b>Epistemic status</b>	empirical measurement
<b>Methodology</b>	computational analysis
<b>Certainty</b>	high

## CHECKSUM (SHA-256)

d88f4e396a3376d9ef512302567d02f -  
fac91a57975d6d5f0e6484a7cee808546

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2026
<b>Collection</b>	Synesthetic Explorations
<b>Certificate</b>	20260305-0019
<b>Asset code</b>	AQC0967
<b>Version</b>	1
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