

# Nanopublication — Computational Image Analysis - AQC0811

by Arnaud Quercy · B Major - Research on Harmony - Variation 7 · 2025

## Claim 1: Computational Image Analysis - AQC0811

Computational image analysis [3] of artwork B Major [1] - Research on Harmony - Variation 7 (AQC0811) [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]: 2458x3277 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	D8D2CA	18.9	yellow-orange	lightgray
2	C9C3BC	17.3	white	silver
3	95B09C	17.2	yellow-green	darkseagreen
4	A6BCAA	12.4	yellow-green	steel gray
5	8DA18A	12.1	yellow-green	lightslategray
6	7D8F77	7.8	yellow-green	gray
7	64746C	5.4	green	dimgray
8	1C2320	3.0	gray	very dark gray
9	EFE9E5	3.0	white	white
10	4A5259	2.8	blue	darkslategray
11	DCA794	0.3	orange	tan [Accent]
12	DAA695	0.3	red-orange	tan [Accent]
13	5B5485	0.3	violet	dusty mauve [Accent]

### Color Families:

Family	%
yellow-green	49.6
white	20.3
yellow-orange	18.9
green	5.4
gray	3.0
blue	2.8
orange	0.3
red-orange	0.3
violet	0.3

### Accent Colors:

Hex	Family	Name	Chroma
DCA794	orange	tan	24.0
DAA695	red-orange	tan	23.3
5B5485	violet	dusty mauve	30.0

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.164
Mean Local Roughness	0.023
Roughness Uniformity	0.021
Edge Density	0.116
Mean Gradient Magnitude	0.191
Gradient Variance	0.055
Gradient Smoothness	0.0
Directional Coherence	0.006
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.625
Spatial Variation	0.07
Texture Consistency	0.743

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.668
Brightness Variance	0.164
Brightness Uniformity	0.754
Brightness Skewness	-1.266
Brightness Entropy	7.157
Rms Contrast	0.164
Michelson Contrast	1.0
Weber Contrast	0.446
Mean Local Contrast	0.025
Contrast Uniformity	0.139
Dynamic Range	1.0
Effective Dynamic Range	0.514
Shadow Percentage	4.656
Midtone Percentage	38.709
Highlight Percentage	56.635
Shadow Clipping	0.011
Highlight Clipping	0.095
Tonal Balance	0.0
Fine Contrast	0.013
Medium Contrast	0.031
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.259
Edge Contrast	0.191
Contrast Clustering	0.257

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.668
Color Clustering	0.921
Color Transition Smoothness	0.526
Transition Uniformity	0.64
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.136
Saturation Variance	0.007
Low Saturation Ratio	0.973
Medium Saturation Ratio	0.025
High Saturation Ratio	0.002
Saturation Clustering	0.999
Hue Concentration	0.633
Complementary Balance	0.041
Analogous Dominance	0.791
Temperature Bias	-0.388

## 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 (2025). B Major - Research on Harmony - Variation 7 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0811.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2025/01/b-major-research-on-harmony-variation-7\\_8zm.html](https://artquamanima.com/en/artworks/2025/01/b-major-research-on-harmony-variation-7_8zm.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)

ba5701fbec5e4786d0e25fc1c4b540dfb2283d630b6511744e-be8665954b629

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