

# Nanopublication — Computational Image Analysis - AQC0891

by Arnaud Quercy · B Minor - Research on Harmony - Variations 6 · 2025

## Claim 1: Computational Image Analysis - AQC0891

Computational image analysis [3] of artwork B Minor [1] - Research on Harmony - Variations 6 (AQC0891) [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 2025-12-11.

### 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]: 2045x3068 pixels. Analysis date: 2025-12-11.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		E97A2A	34.0 orange	chocolate
2		696E5D	14.7 yellow-green	dimgray
3		514A3B	13.0 yellow-orange	dark brown
4		EBDAC8	12.5 orange	bisque
5		898E7D	7.2 yellow-green	gray
6		D5C5B2	6.7 yellow-orange	silver
7		BACE12	3.9 yellow	yellowgreen
8		859E50	3.7 yellow-green	olivedrab
9		C6CF66	3.0 yellow	ochre
10		2B1E12	1.5 orange	very dark gray

### Color Families:

Family	%
orange	47.9
yellow-green	25.5
yellow-orange	19.7
yellow	6.8

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.184
Mean Local Roughness	0.027
Roughness Uniformity	0.027
Edge Density	0.125
Mean Gradient Magnitude	0.213
Gradient Variance	0.072
Gradient Smoothness	0.0
Directional Coherence	0.006

Metric	Value
Pattern Complexity	0.123
Pattern Repetition	1.0
Detail Frequency Ratio	0.653
Spatial Variation	0.133
Texture Consistency	0.541

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.567
Brightness Variance	0.184
Brightness Uniformity	0.675
Brightness Skewness	-0.023
Brightness Entropy	7.282
Rms Contrast	0.184
Michelson Contrast	1.0
Weber Contrast	0.633
Mean Local Contrast	0.029
Contrast Uniformity	0.054
Dynamic Range	1.0
Effective Dynamic Range	0.608
Shadow Percentage	12.356
Midtone Percentage	61.754
Highlight Percentage	25.89
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.016
Medium Contrast	0.036
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.321
Edge Contrast	0.213
Contrast Clustering	0.459

### SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.762
Color Clustering	0.524
Color Transition Smoothness	0.456
Transition Uniformity	0.518
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.453
Saturation Variance	0.1
Low Saturation Ratio	0.494
Medium Saturation Ratio	0.123
High Saturation Ratio	0.383

Metric	Value
Saturation Clustering	0.999
Hue Concentration	0.941
Complementary Balance	0.0
Analogous Dominance	0.995
Temperature Bias	0.793

## 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 Minor - Research on Harmony - Variations 6 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0891.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2025/11/b-minor-research-on-harmony-variations-6\\_i73.html](https://artquamanima.com/en/artworks/2025/11/b-minor-research-on-harmony-variations-6_i73.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)

1a5ff4b032883d1cfd14d00940314d38a0b0c99f3ba8af092115ee0f8e-fe886b

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2025
<b>Collection</b>	Synesthetic Explorations
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