

Nanopublication – Computational Image Analysis – AQC0813

by Arnaud Quercy · B Major – Research on Harmony – Variation 6 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0813

K-means clustering (10 colors) performed on artwork B Major – Research on Harmony – Variation 6 (AQC0813) [1] by Arnaud Quercy [2] on 2025-10-03, according to IDS-CMP-2025 [3]. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

CONTEXT

Analysis performed according to IDS-CMP-2025 [3] includes four metric categories: (a) Color distribution via k-means (10 colors), (b) Texture analysis using Haralick features, (c) Brightness and contrast measurements, (d) Spatial pattern characterization. Source image: 2447x3262 pixels. Analysis date: 2025-10-03.

A) COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		ACC9AE	17.8	yellow-green	silver
2		D1CEC2	16.9	yellow	lightgray
3		99B897	15.1	yellow-green	darkseagreen
4		AAC577	9.9	yellow-green	ochre
5		89A275	9.7	yellow-green	gray
6		E4DFD5	9.5	yellow-orange	gainsboro
7		3C3F3B	6.8	gray	darkslategray
8		222521	6.2	gray	very dark gray
9		687A64	5.2	yellow-green	dimgray
10		464172	2.7	violet	dusty mauve
11		E0B19D	0.3	orange	tan [Accent]
12		D0A69A	0.3	red-orange	tan [Accent]

Color Families:

Family	%
yellow-green	57.9
yellow	16.9
gray	13.0
yellow-orange	9.5
violet	2.7
orange	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
E0B19D	orange	tan	22.0
D0A69A	red-orange	tan	18.4

B) TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.214
Mean Local Roughness	0.022
Roughness Uniformity	0.019
Edge Density	0.124
Mean Gradient Magnitude	0.189
Gradient Variance	0.043
Gradient Smoothness	0.0
Directional Coherence	0.005
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.626
Spatial Variation	0.117
Texture Consistency	0.598

C) BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.639
Brightness Variance	0.214
Brightness Uniformity	0.666
Brightness Skewness	-1.144
Brightness Entropy	7.299
Rms Contrast	0.214
Michelson Contrast	1.0
Weber Contrast	0.72
Mean Local Contrast	0.025
Contrast Uniformity	0.219
Dynamic Range	1.0
Effective Dynamic Range	0.694
Shadow Percentage	15.005
Midtone Percentage	22.726
Highlight Percentage	62.27
Shadow Clipping	0.0
Highlight Clipping	0.024
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.03
Coarse Contrast	0.045
Multiscale Contrast Ratio	0.26
Edge Contrast	0.189
Contrast Clustering	0.402

D) SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.73
Color Clustering	0.878
Color Transition Smoothness	0.53
Transition Uniformity	0.731
Sharp Transition Ratio	0.1
Transition Directionality	0.008
Mean Saturation	0.193
Saturation Variance	0.015
Low Saturation Ratio	0.826
Medium Saturation Ratio	0.173
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.747
Complementary Balance	0.052
Analogous Dominance	0.84
Temperature Bias	-0.18

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 Ideamorphic Studies' computational imaging systems.

REFERENCES

[1] Quercy, A. (2025). B Major - Research on Harmony - Variation 6 - Catalogue Raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0813.html>

[2] Quercy, A. (2025). ORCID <https://orcid.org/0009-0000-2662-7790>

[3] Quercy, A. (2026). Computational Image Analysis Standard. <https://ideamorphism.org/en/measurements/2025/09/ids-cmp-2025-computational-image-analysis-standard-5dq9.html>

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

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