

Nanopublication — Computational Image Analysis - AQC0893

by Arnaud Quercy · C Major - Research on Harmony - Variations 14 · 2025



Claim 1: Computational Image Analysis - AQC0893

Computational image analysis [3] of artwork C Major [1] - Research on Harmony - Variations 14 (AQC0893) [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]: 1897x2845 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		E1A773	23.5	orange	darksalmon
2		E8B37E	18.0	orange	burlywood
3		EC8210	18.0	orange	darkorange
4		D79965	12.0	orange	sandybrown
5		524A44	9.4	orange	darkslategray
6		E7DCD1	8.6	orange	gainsboro
7		E6A79F	5.0	red-orange	tan
8		CD3A42	3.3	red-orange	crimson
9		3E251A	1.7	orange	very dark orange
10		8A5229	0.5	orange	burnt sienna
11		9E903A	0.3	yellow	peru [Accent]
12		B9B1A8	0.3	yellow-orange	steel gray [Accent]

Color Families:

Family	%
orange	91.8
red-orange	8.2
yellow	0.3
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
9E903A	yellow	peru	46.4
B9B1A8	yellow-orange	steel gray	6.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.162
Mean Local Roughness	0.016
Roughness Uniformity	0.021
Edge Density	0.036
Mean Gradient Magnitude	0.122
Gradient Variance	0.047
Gradient Smoothness	0.0
Directional Coherence	0.021
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.628
Spatial Variation	0.094
Texture Consistency	0.601

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.64
Brightness Variance	0.162
Brightness Uniformity	0.747
Brightness Skewness	-1.144
Brightness Entropy	6.708
Rms Contrast	0.162
Michelson Contrast	1.0
Weber Contrast	0.589
Mean Local Contrast	0.017
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.584
Shadow Percentage	10.597
Midtone Percentage	30.85
Highlight Percentage	58.553
Shadow Clipping	0.0
Highlight Clipping	0.0

Metric	Value
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.021
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.122
Contrast Clustering	0.399

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.774
Color Clustering	0.451
Color Transition Smoothness	0.694
Transition Uniformity	0.68
Sharp Transition Ratio	0.1
Transition Directionality	0.03
Mean Saturation	0.504
Saturation Variance	0.065
Low Saturation Ratio	0.2
Medium Saturation Ratio	0.582
High Saturation Ratio	0.218
Saturation Clustering	0.999
Hue Concentration	0.989
Complementary Balance	0.0
Analogous Dominance	1.0
Temperature Bias	1.0

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). C Major - Research on Harmony - Variations 14 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0893.html> <https://arnaudquercy.art/fr/catalogue-raisonne/AQC0893.html>
- [2] Quercy, A. (2025). C Major - Research on Harmony - Variations 14 - Gallery. https://artquamanima.com/en/artworks/2025/11/c-major-research-on-harmony-variations-14_i7t.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 <https://multimodal.institute/en/publications/2025/10/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)

1205009128f309ae6a6bd36391a63945d4d9bef8903c6afa958d9e-f44825b425

Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20251123-0085
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