AQC0899

Nanopublication — Computational Image Analysis - AQC0899

by Arnaud Quercy · C Minor - Research on Harmony - Variations 13 · 2025

Claim 1: Computational Image Analysis - AQC0899

> Computational image analysis [3] of artwork C Minor [1] - Research on Harmony - Variations 13 (AQC0899) [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]: 2043x2043 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		DCBF9B	24.7	yellow-orange	tan
2		E1A37E	16.1	orange	darksalmon
3		F0551E	15.0	orange	chocolate
4		4D3C3B	10.3	red-orange	darkslategray
5		EEB7B9	9.0	red-orange	lightpink
6		CA7B1F	8.9	orange	darkgoldenrod
7		E1E2DF	4.9	white	gainsboro
8		D22F3F	4.2	red-orange	crimson
9		94A4E0	3.9	blue-violet	lightsteelblue
10		5280CE	3.0	blue-violet	steelblue
11		3F1221	0.3	red	very dark red [Accent]
12		262531	0.3	violet	very dark gray [Accent]

Color Families:

Family	%
orange	40.0
yellow-orange	24.7
red-orange	23.4
blue-violet	7.0
white	4.9
red	0.3
violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
3F1221	red	very dark red	24.0
262531	violet	very dark gray	8.9

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.183
Mean Local Roughness	0.018
Roughness Uniformity	0.025
Edge Density	0.038
Mean Gradient Magnitude	0.137
Gradient Variance	0.065
Gradient Smoothness	0.0
Directional Coherence	0.015
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.632
Spatial Variation	0.112
Texture Consistency	0.702

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.621
Brightness Variance	0.183
Brightness Uniformity	0.705
Brightness Skewness	-0.675
Brightness Entropy	7.083
Rms Contrast	0.183
Michelson Contrast	1.0
Weber Contrast	0.585
Mean Local Contrast	0.019
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.569
Shadow Percentage	9.993
Midtone Percentage	36.648
Highlight Percentage	53.359
Shadow Clipping	0.003
Highlight Clipping	0.016
Tonal Balance	0.0
Fine Contrast	0.009
Medium Contrast	0.024
Coarse Contrast	0.036
Multiscale Contrast Ratio	0.263
Edge Contrast	0.137
Contrast Clustering	0.298

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.756
Color Clustering	0.52

Metric	Value
Color Transition Smoothness	0.656
Transition Uniformity	0.568
Sharp Transition Ratio	0.1
Transition Directionality	0.024
Mean Saturation	0.464
Saturation Variance	0.077
Low Saturation Ratio	0.364
Medium Saturation Ratio	0.356
High Saturation Ratio	0.28
Saturation Clustering	0.999
Hue Concentration	0.811
Complementary Balance	0.05
Analogous Dominance	0.916
Temperature Bias	0.833

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 Minor - Research on Harmony - Variations 13 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0899.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/c-minor-research-on-harmony-variations-13_i9z.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 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)

36167f2116ec15ceff2e83c1e4eca13382388dc1e3b59d1a5dc93e-f087d9b0c7

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