

Nanopublication — Computational Image Analysis - AQC0915

by Arnaud Quercy · A Minor - Research on Harmony - Variations 11 · 2025

Claim 1: Computational Image Analysis - AQC0915

Computational image analysis [3] of artwork A Minor [1] - Research on Harmony - Variations 11 (AQC0915) [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]: 1914x1914 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	DF9E62	20.2	orange	sandybrown
2	DD8B53	17.0	orange	peru
3	EA5422	17.0	orange	chocolate
4	E7B174	16.7	orange	burlywood
5	5B493A	9.3	orange	dark brown
6	EFD79C	6.5	yellow-orange	khaki
7	DDBC0	5.2	orange	silver
8	E7DBC6	4.5	yellow-orange	wheat
9	3B1008	1.8	red-orange	very dark red
10	E5C73A	1.7	yellow-orange	goldenrod
11	FDF8E4	0.3	yellow	oldlace [Accent]

Color Families:

Family	%
orange	85.4
yellow-orange	12.7
red-orange	1.8
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
FDF8E4	yellow	oldlace	10.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.169
Mean Local Roughness	0.02
Roughness Uniformity	0.025

Metric	Value
Edge Density	0.072
Mean Gradient Magnitude	0.159
Gradient Variance	0.073
Gradient Smoothness	0.0
Directional Coherence	0.009
Pattern Complexity	0.112
Pattern Repetition	1.0
Detail Frequency Ratio	0.625
Spatial Variation	0.11
Texture Consistency	0.734

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.625
Brightness Variance	0.169
Brightness Uniformity	0.729
Brightness Skewness	-0.917
Brightness Entropy	7.1
Rms Contrast	0.169
Michelson Contrast	1.0
Weber Contrast	0.577
Mean Local Contrast	0.022
Contrast Uniformity	0.0
Dynamic Range	0.996
Effective Dynamic Range	0.573
Shadow Percentage	9.191
Midtone Percentage	43.352
Highlight Percentage	47.457
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.011
Medium Contrast	0.027
Coarse Contrast	0.041
Multiscale Contrast Ratio	0.257
Edge Contrast	0.159
Contrast Clustering	0.266

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.779
Color Clustering	0.393
Color Transition Smoothness	0.606
Transition Uniformity	0.513
Sharp Transition Ratio	0.1
Transition Directionality	0.017

Metric	Value
Mean Saturation	0.548
Saturation Variance	0.043
Low Saturation Ratio	0.124
Medium Saturation Ratio	0.669
High Saturation Ratio	0.207
Saturation Clustering	0.999
Hue Concentration	0.985
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). A Minor - Research on Harmony - Variations 11 — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0915.html>

[2] Quercy, A. (2025). A Minor - Research on Harmony - Variations 11 - Gallery. https://artquamanima.com/en/artworks/2025/11/a-minor-research-on-harmony-variations-11_ife.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

Claim type computational analysis

Voice third person

Epistemic status empirical measurement

Methodology computational analysis

Certainty high

CHECKSUM (SHA-256)

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Artist Arnaud Quercy

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