

Nanopublication — Computational Image Analysis - AQC0499

by Arnaud Quercy · Ethereal Serenade Flutes Whispering Melody · 2023












Claim 1: Computational Image Analysis - AQC0499

Computational image analysis [3] of artwork Ethereal [1] Serenade Flutes Whispering Melody (AQC0499) [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 2025-12-17.

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]: 1920x2560 pixels. Analysis date: 2025-12-17.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		23.6	orange	tan
2		16.3	violet	dusty mauve
3		13.9	violet	very dark gray
4		13.1	red-orange	brown
5		10.4	red-orange	burnt sienna
6		8.2	red-orange	firebrick
7		7.4	red	indianred
8		4.7	white	gainsboro
9		1.3	violet	dusty mauve
10		1.1	blue-violet	steel gray
11		0.3	yellow-orange	wheat [Accent]

Color Families:

Family	%
red-orange	31.7
violet	31.6
orange	23.6
red	7.4
white	4.7
blue-violet	1.1
yellow-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
EED2B2	yellow-orange	wheat	20.6

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.231
Mean Local Roughness	0.01
Roughness Uniformity	0.018
Edge Density	0.022
Mean Gradient Magnitude	0.076
Gradient Variance	0.033
Gradient Smoothness	0.0
Directional Coherence	0.28
Pattern Complexity	0.124
Pattern Repetition	1.0
Detail Frequency Ratio	0.607
Spatial Variation	0.169
Texture Consistency	0.279

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.417
Brightness Variance	0.231
Brightness Uniformity	0.446
Brightness Skewness	0.596
Brightness Entropy	6.977
Rms Contrast	0.231
Michelson Contrast	1.0
Weber Contrast	0.804
Mean Local Contrast	0.011
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.678
Shadow Percentage	47.698
Midtone Percentage	23.988
Highlight Percentage	28.314
Shadow Clipping	0.002
Highlight Clipping	0.007
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.014
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.076
Contrast Clustering	0.721

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.797
Color Clustering	0.678

Metric	Value
Color Transition Smoothness	0.804
Transition Uniformity	0.78
Sharp Transition Ratio	0.1
Transition Directionality	0.28
Mean Saturation	0.472
Saturation Variance	0.058
Low Saturation Ratio	0.221
Medium Saturation Ratio	0.531
High Saturation Ratio	0.248
Saturation Clustering	1.0
Hue Concentration	0.552
Complementary Balance	0.013
Analogous Dominance	0.695
Temperature Bias	0.526

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 (2023). Ethereal Serenade Flutes Whispering Melody — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0499.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/ethereal-serenade-flutes-whispering-melody_5ma.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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

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Artist Arnaud Quercy

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