AQC0882

Nanopublication — Computational Image Analysis - AQC0882

by Arnaud Quercy · F# Major - Research on Harmony - Variations 7 · 2025

Claim 1: Computational Image Analysis - AQC0882

> Computational image analysis [3] of artwork F# Major [1] - Research on Harmony - Variations 7 (AQC0882) [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]: 1963x2945 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		7CE5DC	27.2	green	aquamarine
2		E9DAE0	15.1	red	gainsboro
3		A27BAB	12.3	red-violet	dusty mauve
4		856487	8.4	red-violet	dusty mauve
5		9DB8C0	8.2	blue	steel gray
6		C29ECC	7.4	red-violet	plum
7		99D680	6.5	yellow-green	lightgreen
8		7AB768	5.7	yellow-green	darkseagreen
9		4F584D	5.6	yellow-green	darkslategray
10		181B1A	3.5	gray	black
11		FDFCE7	0.3	yellow	oldlace [Accent]
12		AFEAEC	0.3	blue-green	paleturquoise [Accent]

Color Families:

Family	%
red-violet	28.1
green	27.2
yellow-green	17.8
red	15.1
blue	8.2
gray	3.5
yellow	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
FDFCE7	yellow	oldlace	10.4
AFEAEC	blue-green	paleturquoise	19.3

Metric	Value
Global Roughness	0.192
Mean Local Roughness	0.044
Roughness Uniformity	0.043
Edge Density	0.172
Mean Gradient Magnitude	0.344
Gradient Variance	0.201
Gradient Smoothness	0.0
Directional Coherence	0.003
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.651
Spatial Variation	0.055
Texture Consistency	0.775

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.662
Brightness Variance	0.192
Brightness Uniformity	0.71
Brightness Skewness	-1.09
Brightness Entropy	7.419
Rms Contrast	0.192
Michelson Contrast	1.0
Weber Contrast	0.532
Mean Local Contrast	0.048
Contrast Uniformity	0.067
Dynamic Range	1.0
Effective Dynamic Range	0.62
Shadow Percentage	6.546
Midtone Percentage	33.229
Highlight Percentage	60.225
Shadow Clipping	0.026
Highlight Clipping	0.006
Tonal Balance	0.05
Fine Contrast	0.024
Medium Contrast	0.059
Coarse Contrast	0.087
Multiscale Contrast Ratio	0.279
Edge Contrast	0.344
Contrast Clustering	0.225

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.669
Color Clustering	0.766

Metric	Value
Color Transition Smoothness	0.144
Transition Uniformity	0.0
Sharp Transition Ratio	0.1
Transition Directionality	0.003
Mean Saturation	0.314
Saturation Variance	0.025
Low Saturation Ratio	0.472
Medium Saturation Ratio	0.517
High Saturation Ratio	0.011
Saturation Clustering	0.997
Hue Concentration	0.357
Complementary Balance	0.193
Analogous Dominance	0.483
Temperature Bias	-0.326

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). F# Major - Research on Harmony - Variations 7 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0882.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/f-major-research-on-harmony-variations-7_i3u.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)

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f0-
facad66de29a127593acf483414009c473955694866c28814e3b2d25f0d0d7
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Artist	Arnaud Quercy
Date	2025
Collection	Synesthetic Explorations
Certificate	20251123-0116
Asset code	AQC0882
Version	1
Published	2026-03-25