

Nanopublication – Computational Image Analysis – AQC0830

by Arnaud Quercy · F Minor – Research on Harmony – Variation 16 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0830

Computational image analysis of artwork F Minor – Research on Harmony – Variation 16 (AQC0830) ^[1] by Arnaud Quercy ^[2], performed according to IDS-CMP-2025 ^[3], 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 2025-10-03.

CONTEXT

Analysis performed according to IDS-CMP-2025 ^[3] includes four metric categories: (a) Color distribution via k-means (10 colors), (b) Texture analysis using Haralick features, (c) Brightness and contrast measurements, (d) Spatial pattern characterization. Source image: 2347x3129 pixels. Analysis date: 2025-10-03.

A) COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D9DCDA	28.3	white	gainsboro
2		9CA5D8	14.3	violet	lightsteelblue
3		B19F95	12.8	orange	rosybrown
4		B2B9E4	11.2	violet	lightblue
5		CAB9AD	9.9	orange	silver
6		848ECC	6.9	violet	mediumpurple
7		937F7F	6.4	red-orange	gray
8		252029	4.8	red-violet	very dark gray
9		473E42	2.8	red	dusty mauve
10		D06A3F	2.5	orange	peru
11		FEF9EE	0.3	yellow-orange	white [Accent]
12		060B18	0.3	blue-violet	black [Accent]
13		F9F5E6	0.3	yellow	white [Accent]

Color Families:

Family	%
violet	32.4
white	28.3
orange	25.2
red-orange	6.4
red-violet	4.8
red	2.8
yellow-orange	0.3
blue-violet	0.3
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
FEF9EE	yellow-orange	white	6.0
060B18	blue-violet	black	8.2
F9F5E6	yellow	white	8.1

B) TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.184
Mean Local Roughness	0.021
Roughness Uniformity	0.02
Edge Density	0.124
Mean Gradient Magnitude	0.175
Gradient Variance	0.045
Gradient Smoothness	0.0
Directional Coherence	0.009
Pattern Complexity	0.119
Pattern Repetition	1.0
Detail Frequency Ratio	0.624
Spatial Variation	0.132
Texture Consistency	0.56

C) BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.678
Brightness Variance	0.184
Brightness Uniformity	0.729
Brightness Skewness	-1.375
Brightness Entropy	7.099
Rms Contrast	0.184
Michelson Contrast	1.0
Weber Contrast	0.443
Mean Local Contrast	0.022
Contrast Uniformity	0.121
Dynamic Range	1.0
Effective Dynamic Range	0.682
Shadow Percentage	7.249
Midtone Percentage	32.597
Highlight Percentage	60.153
Shadow Clipping	0.003
Highlight Clipping	0.001
Tonal Balance	0.0
Fine Contrast	0.012
Medium Contrast	0.028
Coarse Contrast	0.043
Multiscale Contrast Ratio	0.274
Edge Contrast	0.175
Contrast Clustering	0.44

D) SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.769
Color Clustering	0.663
Color Transition Smoothness	0.562
Transition Uniformity	0.701
Sharp Transition Ratio	0.1
Transition Directionality	0.013
Mean Saturation	0.179
Saturation Variance	0.022
Low Saturation Ratio	0.819
Medium Saturation Ratio	0.165
High Saturation Ratio	0.016
Saturation Clustering	1.0
Hue Concentration	0.625
Complementary Balance	0.003
Analogous Dominance	0.781
Temperature Bias	-0.486

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 Ideamorphic Studies' computational imaging systems.

REFERENCES

[1] Quercy, A. (2025). F Minor - Research on Harmony - Variation 16 - Catalogue Raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0830.html>

[2] Quercy, A. (2025). ORCID <https://orcid.org/0009-0000-2662-7790>

[3] Quercy, A. (2026). Computational Image Analysis Standard. <https://ideamorphism.org/en/measurements/2025/09/ids-cmp-2025-computational-image-analysis-standard-5dq9.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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