AQC0786

Nanopublication — Computational Image Analysis - AQC0786

by Arnaud Quercy · F Minor - Research on Harmony - Variation 15 · 2024

Claim 1: Computational Image Analysis - AQC0786

> K-means clustering analysis [3] (10 colors) performed on artwork F Minor [1] - Research on Harmony - Variation 15 (AQC0786) [2] by Arnaud Quercy [2] on 2026-02-04. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

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]: 2435x3652 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		29222A	28.8	red-violet	very dark gray
2		BC78A3	20.9	red-violet	rosybrown
3		3E88DF	16.5	blue-violet	royalblue
4		574477	9.7	violet	dusty mauve
5		342B60	6.3	violet	dusty mauve
6		5864A3	4.8	violet	dusty mauve
7		993952	4.6	red	brown
8		B54A6D	4.5	red	indianred
9		DCB2C1	2.2	red	thistle
10		C8442F	1.9	red-orange	chocolate
11		8C7B3A	0.3	yellow-orange	olivedrab [Accent]
12		5A3C2A	0.3	orange	dark brown [Accent]

Color Families:

Family	%
red-violet	49.6
violet	20.7
blue-violet	16.5
red	11.3
red-orange	1.9
yellow-orange	0.3
orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
8C7B3A	yellow-orange	olivedrab	37.1
5A3C2A	orange	dark brown	19.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.178
Mean Local Roughness	0.007
Roughness Uniformity	0.009
Edge Density	0.021
Mean Gradient Magnitude	0.083
Gradient Variance	0.016
Gradient Smoothness	0.0
Directional Coherence	0.047
Pattern Complexity	0.108
Pattern Repetition	1.0
Detail Frequency Ratio	0.564
Spatial Variation	0.138
Texture Consistency	0.356

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.366
Brightness Variance	0.178
Brightness Uniformity	0.513
Brightness Skewness	0.054
Brightness Entropy	7.049
Rms Contrast	0.178
Michelson Contrast	1.0
Weber Contrast	0.757
Mean Local Contrast	0.01
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.482
Shadow Percentage	43.094
Midtone Percentage	54.728
Highlight Percentage	2.178
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.004
Medium Contrast	0.012
Coarse Contrast	0.025
Multiscale Contrast Ratio	0.152
Edge Contrast	0.083
Contrast Clustering	0.644

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.788
Color Clustering	0.63

Metric	Value
Color Transition Smoothness	0.773
Transition Uniformity	0.889
Sharp Transition Ratio	0.1
Transition Directionality	0.066
Mean Saturation	0.435
Saturation Variance	0.041
Low Saturation Ratio	0.275
Medium Saturation Ratio	0.554
High Saturation Ratio	0.171
Saturation Clustering	1.0
Hue Concentration	0.668
Complementary Balance	0.006
Analogous Dominance	0.633
Temperature Bias	0.214

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 (2024). F Minor - Research on Harmony - Variation 15 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0786.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/f-minor-research-on-harmony-variation-15_8pw.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)

f07f059b248e619998ba120ce90ff03c2308675ad62b2245589764b-f449ff9c8

Artist	Arnaud Quercy
Date	2024
Collection	Synesthetic Explorations
Certificate	20241201-0283
Asset code	AQC0786
Version	1
Published	2026-04-09

Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-09

Persistent URI: https://multimodal.institute/en/nanopubs/2026/02/AQC0786-computational-image-analysis-aqc0786.pdf