

Nanopublication – Computational Image Analysis –
AQC0880

by Arnaud Quercy · F Major – Research on Harmony – Variations 10 · 2025



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS - AQC0880

K-means clustering analysis [3] (10 colors) performed on artwork F Major [1] – Research on Harmony – Variations 10 (AQC0880) [2] by Arnaud Quercy [2] on 2025-12-11. 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]: 2031x3047 pixels. Analysis date: 2025-12-11.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D79A3C	20.7	yellow-orange	peru
2		E9AAB0	18.7	red	lightpink
3		E2AD5C	14.1	yellow-orange	sandybrown
4		5F463E	9.8	red-orange	dark brown
5		E96377	7.0	red-orange	lightcoral
6		EED8D0	6.9	orange	gainsboro
7		E32C26	6.8	red-orange	crimson
8		BC5E57	6.2	red-orange	indianred
9		CD838D	5.0	red	rosybrown
10		331914	4.7	red-orange	very dark red
11		FDFAEB	0.3	yellow	white [Accent]

Color Families:

Family	%
yellow-orange	34.8
red-orange	34.6
red	23.7
orange	6.9
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
FDFAEB	yellow	white	8.2

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.19
Mean Local Roughness	0.021
Roughness Uniformity	0.021
Edge Density	0.085
Mean Gradient Magnitude	0.183
Gradient Variance	0.058
Gradient Smoothness	0.0
Directional Coherence	0.007
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.616
Spatial Variation	0.112
Texture Consistency	0.816

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.593
Brightness Variance	0.19
Brightness Uniformity	0.68
Brightness Skewness	-0.833
Brightness Entropy	7.399
Rms Contrast	0.19
Michelson Contrast	1.0
Weber Contrast	0.615
Mean Local Contrast	0.024
Contrast Uniformity	0.084
Dynamic Range	1.0
Effective Dynamic Range	0.62
Shadow Percentage	12.056
Midtone Percentage	45.965
Highlight Percentage	41.979
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.013
Fine Contrast	0.011
Medium Contrast	0.03
Coarse Contrast	0.049
Multiscale Contrast Ratio	0.231
Edge Contrast	0.183
Contrast Clustering	0.184

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.729
Color Clustering	0.484
Color Transition Smoothness	0.537
Transition Uniformity	0.597
Sharp Transition Ratio	0.1
Transition Directionality	0.004
Mean Saturation	0.506
Saturation Variance	0.051
Low Saturation Ratio	0.305
Medium Saturation Ratio	0.465
High Saturation Ratio	0.23
Saturation Clustering	0.999
Hue Concentration	0.946
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). F Major - Research on Harmony - Variations 10 - Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0880.html>

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2025/11/f-major-research-on-harmony-variations-10_i34.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>

WHERE THIS WORK LIVES

THEMATIC ELEMENTS

chromesthetic mapping

F Major triad

synesthetic explorations

harmonic relationships

acrylic on paper

piano studies

color correspondence

geometric composition

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

2632ecbb892477b1a1dbf070f0ca655a3d53d08f5994bd5da472d2aea5c201dd

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