AQC0611

Nanopublication — Computational Image Analysis - AQC0611

by Arnaud Quercy · Bb Major - Research on Harmony · 2024

Claim 1: Computational Image Analysis - AQC0611

> K-means clustering analysis [3] (10 colors) performed on artwork Bb Major [1] - Research on Harmony (AQC0611) [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]: 2768x3496 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		723148	20.1	red	brown
2		4A0B30	16.1	red	very dark red
3		5E1E3D	15.7	red	dusty mauve
4		864259	13.1	red	dimgray
5		D1550A	12.9	orange	chocolate
6		E16F27	7.3	orange	peru
7		AE3E0F	7.0	orange	firebrick
8		A25D72	4.2	red	indianred
9		7F529C	1.9	red-violet	blue gray
10		ECA286	1.6	orange	darksalmon
11		370706	0.3	red-orange	very dark red [Accent]
12		837BBF	0.3	violet	dusty mauve [Accent]

Color Families:

Family	%
red	69.3
orange	28.8
red-violet	1.9
red-orange	0.3
violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
370706	red-orange	very dark red	25.5
837BBF	violet	dusty mauve	39.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.137
Mean Local Roughness	0.042
Roughness Uniformity	0.024
Edge Density	0.252
Mean Gradient Magnitude	0.307
Gradient Variance	0.075
Gradient Smoothness	0.11
Directional Coherence	0.007
Pattern Complexity	0.139
Pattern Repetition	1.0
Detail Frequency Ratio	0.686
Spatial Variation	0.099
Texture Consistency	0.658

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.318
Brightness Variance	0.137
Brightness Uniformity	0.57
Brightness Skewness	0.55
Brightness Entropy	7.058
Rms Contrast	0.137
Michelson Contrast	1.0
Weber Contrast	0.717
Mean Local Contrast	0.043
Contrast Uniformity	0.451
Dynamic Range	1.0
Effective Dynamic Range	0.424
Shadow Percentage	57.015
Midtone Percentage	41.706
Highlight Percentage	1.279
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.025
Medium Contrast	0.053
Coarse Contrast	0.068
Multiscale Contrast Ratio	0.369
Edge Contrast	0.307
Contrast Clustering	0.342

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.707
Color Clustering	0.112
Color Transition Smoothness	0.224
Transition Uniformity	0.536
Sharp Transition Ratio	0.1

Metric	Value
Transition Directionality	0.008
Mean Saturation	0.706
Saturation Variance	0.035
Low Saturation Ratio	0.006
Medium Saturation Ratio	0.513
High Saturation Ratio	0.481
Saturation Clustering	0.996
Hue Concentration	0.915
Complementary Balance	0.0
Analogous Dominance	0.975
Temperature Bias	0.979

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). Bb Major - Research on Harmony — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0611.html

[2] Quercy, A. (2024). Bb Major - Research on Harmony - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-major-research-on-harmony_6tu.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)

b678b9dbb9424a532c26a2edcd67f738ce3993803f734e1efeed-b405653b36af

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