AQC0649

Nanopublication — Computational Image Analysis - AQC0649

by Arnaud Quercy · Bb Major - Research on Harmony - Variation 1 · 2024

Claim 1: Computational Image Analysis - AQC0649

> Computational image analysis [3] of artwork Bb Major [1] - Research on Harmony - Variation 1 (AQC0649) [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 2026-02-04.

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]: 2171x3256 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		6D6063	18.5	red	dimgray
2		50454A	17.6	red	dusty mauve
3		17191B	13.3	gray	black
4		8A8183	10.8	gray	gray
5		706AB3	10.0	violet	slateblue
6		343F68	7.7	violet	dusty mauve
7		B37F1C	6.0	yellow-orange	darkgoldenrod
8		D29934	5.6	yellow-orange	peru
9		9D96C6	5.5	violet	steel gray
10		D5E3EA	5.1	blue	gainsboro
11		F8A123	0.3	orange	goldenrod [Accent]
12		B2A439	0.3	yellow	peru [Accent]
13		B69191	0.3	red-orange	rosybrown [Accent]
14		B5C9CE	0.3	blue-green	lightsteelblue [Accent]

Color Families:

Family	%
red	36.0
gray	24.1
violet	23.2
yellow-orange	11.6
blue	5.1
orange	0.3
yellow	0.3
red-orange	0.3
blue-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
F8A123	orange	goldenrod	74.6
B2A439	yellow	peru	55.6
B69191	red-orange	rosybrown	14.9
B5C9CE	blue-green	lightsteelblue	7.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.195
Mean Local Roughness	0.026
Roughness Uniformity	0.027
Edge Density	0.128
Mean Gradient Magnitude	0.226
Gradient Variance	0.091
Gradient Smoothness	0.0
Directional Coherence	0.023
Pattern Complexity	0.115
Pattern Repetition	1.0
Detail Frequency Ratio	0.611
Spatial Variation	0.114
Texture Consistency	0.596

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.403
Brightness Variance	0.195
Brightness Uniformity	0.517
Brightness Skewness	0.426
Brightness Entropy	7.475
Rms Contrast	0.195
Michelson Contrast	1.0
Weber Contrast	0.811
Mean Local Contrast	0.029
Contrast Uniformity	0.034
Dynamic Range	1.0
Effective Dynamic Range	0.694
Shadow Percentage	36.623
Midtone Percentage	55.877
Highlight Percentage	7.499
Shadow Clipping	0.019
Highlight Clipping	0.025
Tonal Balance	0.174
Fine Contrast	0.015
Medium Contrast	0.037
Coarse Contrast	0.067
Multiscale Contrast Ratio	0.217
Edge Contrast	0.226

Metric	Value
Contrast Clustering	0.404

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.752
Color Clustering	0.697
Color Transition Smoothness	0.395
Transition Uniformity	0.403
Sharp Transition Ratio	0.1
Transition Directionality	0.028
Mean Saturation	0.294
Saturation Variance	0.055
Low Saturation Ratio	0.632
Medium Saturation Ratio	0.263
High Saturation Ratio	0.105
Saturation Clustering	0.999
Hue Concentration	0.322
Complementary Balance	0.207
Analogous Dominance	0.585
Temperature Bias	0.059

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 - Variation 1 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0649.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/bb-major-research-on-harmony-variation-1_78m.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)

718e5899b00c9dbcf96ebd9baaee8302c9ad95d9c9551b7b37b-c7d7860992098

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