

Nanopublication – Computational Image Analysis – AQC0456

by Arnaud Quercy · Tritone (D, G#) – Reflexions 8 · 2023



CLAIM 1: COMPUTATIONAL IMAGE ANALYSIS – AQC0456

K-means clustering analysis [3] (10 colors) performed on artwork Tritone [1] (D, G#) – Reflexions 8 (AQC0456) [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]: 788x1092 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		A3A3A4	15.6	gray	steel gray
2		F67430	13.6	orange	tomato
3		7B7B7D	13.2	gray	grayish purple
4		E55C1A	12.6	orange	chocolate
5		173847	12.3	blue	darkslategray
6		5B5F5E	9.7	gray	dimgray
7		295D79	8.0	blue	darkslategrey
8		C6C9C2	7.4	white	silver
9		5EB5BC	5.6	blue-green	mediumaquamarine
10		8F551B	2.1	orange	russet
11		001424	0.3	blue-violet	very dark gray [Accent]
12		6B3021	0.3	red-orange	russet [Accent]
13		00201E	0.3	green	very dark gray [Accent]
14		634504	0.3	yellow-orange	russet [Accent]
15		F0F6DA	0.3	yellow-green	beige [Accent]

Color Families:

Family	%
gray	38.5
orange	28.3
blue	20.3
white	7.4
blue-green	5.6
blue-violet	0.3
red-orange	0.3
green	0.3
yellow-orange	0.3
yellow-green	0.3

Accent Colors:

Hex	Family	Name	Chroma
001424	blue-violet	very dark gray	13.2
6B3021	red-orange	russet	33.3
00201E	green	very dark gray	13.2
634504	yellow-orange	russet	39.6
F0F6DA	yellow-green	beige	14.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.17
Mean Local Roughness	0.035
Roughness Uniformity	0.027
Edge Density	0.175
Mean Gradient Magnitude	0.215
Gradient Variance	0.059
Gradient Smoothness	0.0
Directional Coherence	0.01
Pattern Complexity	0.128
Pattern Repetition	1.0
Detail Frequency Ratio	0.681
Spatial Variation	0.117
Texture Consistency	0.626

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.49
Brightness Variance	0.17
Brightness Uniformity	0.653
Brightness Skewness	-0.278
Brightness Entropy	7.412
Rms Contrast	0.17
Michelson Contrast	1.0
Weber Contrast	0.659
Mean Local Contrast	0.031
Contrast Uniformity	0.208
Dynamic Range	1.0
Effective Dynamic Range	0.557
Shadow Percentage	19.979
Midtone Percentage	66.483
Highlight Percentage	13.538
Shadow Clipping	0.01
Highlight Clipping	0.001
Tonal Balance	0.122
Fine Contrast	0.025
Medium Contrast	0.039
Coarse Contrast	0.046
Multiscale Contrast Ratio	0.55
Edge Contrast	0.215
Contrast Clustering	0.374

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.767
Color Clustering	0.516
Color Transition Smoothness	0.451
Transition Uniformity	0.583
Sharp Transition Ratio	0.1
Transition Directionality	0.009
Mean Saturation	0.447
Saturation Variance	0.122
Low Saturation Ratio	0.444
Medium Saturation Ratio	0.179
High Saturation Ratio	0.377
Saturation Clustering	0.997
Hue Concentration	0.049
Complementary Balance	0.361
Analogous Dominance	0.516
Temperature Bias	0.033

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 (2023). Tritone (D, G#) - Reflexions 8 - Catalog raisonn  . <https://arnaudquercy.art/en/catalogue-raisonne/AQC0456.html>

[2] Quercy, A. (2023). Tritone (D, G#) - Reflexions 8 - Gallery. https://artquamanima.com/en/artworks/2023/01/tritone-d-g-reflexions-8_55k.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)

0a7200f096902ad7a7434affbf3f627926d9753239c5bf13187a7906396f92ee

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