AQC0798

Nanopublication — Computational Image Analysis - AQC0798

by Arnaud Quercy · Dusk on the Ionian Sea · 2024

Claim 1: Computational Image Analysis - AQC0798

> K-means clustering analysis [3] (10 colors) performed on artwork Dusk [1] on the Ionian Sea (AQC0798) [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]: 2270x3405 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		7FA391	19.9	yellow-green	lightslategray
2		709381	17.3	yellow-green	blue gray
3		8DB3A3	15.2	green	darkseagreen
4		598175	9.0	green	dimgray
5		505A6D	8.8	blue-violet	grayish purple
6		9EC6B9	7.9	green	steel gray
7		384459	6.6	blue-violet	grayish purple
8		336B6C	6.0	blue-green	seagreen
9		697185	5.8	blue-violet	grayish purple
10		1B2E2E	3.4	green	very dark gray
11		85875E	0.3	yellow	gray [Accent]

Color Families:

Family	%
yellow-green	37.2
green	35.5
blue-violet	21.3
blue-green	6.0
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
85875E	yellow	gray	23.4

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.147
Mean Local Roughness	0.028
Roughness Uniformity	0.015
Edge Density	0.191
Mean Gradient Magnitude	0.23
Gradient Variance	0.04
Gradient Smoothness	0.124
Directional Coherence	0.013
Pattern Complexity	0.12
Pattern Repetition	1.0
Detail Frequency Ratio	0.625
Spatial Variation	0.087
Texture Consistency	0.776

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.508
Brightness Variance	0.147
Brightness Uniformity	0.711
Brightness Skewness	-0.529
Brightness Entropy	7.169
Rms Contrast	0.147
Michelson Contrast	1.0
Weber Contrast	0.557
Mean Local Contrast	0.03
Contrast Uniformity	0.48
Dynamic Range	0.953
Effective Dynamic Range	0.471
Shadow Percentage	14.009
Midtone Percentage	72.903
Highlight Percentage	13.088
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.017
Medium Contrast	0.037
Coarse Contrast	0.056
Multiscale Contrast Ratio	0.302
Edge Contrast	0.23
Contrast Clustering	0.224

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.691
Color Clustering	0.74
Color Transition Smoothness	0.414
Transition Uniformity	0.728
Sharp Transition Ratio	0.1
Transition Directionality	0.014
Mean Saturation	0.274

Metric	Value
Saturation Variance	0.014
Low Saturation Ratio	0.741
Medium Saturation Ratio	0.252
High Saturation Ratio	0.007
Saturation Clustering	0.999
Hue Concentration	0.85
Complementary Balance	0.003
Analogous Dominance	0.824
Temperature Bias	-0.976

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). Dusk on the Ionian Sea — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0798.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/dusk-on-the-ionian-sea_8uk.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)

55d71d81fabc434c7fab0bc1c6e53ffe1eb5d-cb2a755175f547740a47c2d2451

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