

Nanopublication — Computational Image Analysis - AQC0576

by Arnaud Quercy · Lake Tahoe · 2024

Claim 1: Computational Image Analysis - AQC0576

The artwork Lake [1] Tahoe (AQC0576) [2] by Arnaud Quercy [2] underwent comprehensive computational analysis [3] on 2026-02-04. Method: k-means clustering with 10 colors extracted. Metrics documented: color distribution, texture analysis, brightness/contrast, spatial patterns.

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]: 1366x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	A3CBD8	14.5	blue	lightsteelblue
2	88B7C2	13.4	blue-green	steel gray
3	59B8C1	11.7	blue-green	mediumturquoise
4	399DA8	11.6	blue-green	steelblue
5	CADAE2	11.5	blue	lightgray
6	A3958A	11.3	orange	rosybrown
7	BBB5AF	10.3	gray	silver
8	729695	6.5	blue-green	lightslategray
9	716866	5.2	gray	dimgray
10	1A767B	4.0	blue-green	teal
11	12B4A9	0.3	green	lightseagreen [Accent]
12	C49F6F	0.3	yellow-orange	ochre [Accent]
13	475949	0.3	yellow-green	darkslategray [Accent]
14	9C945E	0.3	yellow	gray [Accent]
15	CE9694	0.3	red-orange	rosybrown [Accent]

Color Families:

Family	%
blue-green	47.2
blue	26.0
gray	15.5
orange	11.3
green	0.3
yellow-orange	0.3
yellow-green	0.3
yellow	0.3
red-orange	0.3

Accent Colors:

Hex	Family	Name	Chroma
12B4A9	green	lightseagreen	40.3
C49F6F	yellow-orange	ochre	30.8
475949	yellow-green	darkslategray	12.2
9C945E	yellow	gray	30.4
CE9694	red-orange	rosybrown	22.8

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.133
Mean Local Roughness	0.016
Roughness Uniformity	0.012
Edge Density	0.062
Mean Gradient Magnitude	0.135
Gradient Variance	0.018
Gradient Smoothness	0.019
Directional Coherence	0.012
Pattern Complexity	0.131
Pattern Repetition	1.0
Detail Frequency Ratio	0.62
Spatial Variation	0.068
Texture Consistency	0.758

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.641
Brightness Variance	0.133
Brightness Uniformity	0.793
Brightness Skewness	-0.357
Brightness Entropy	7.073
Rms Contrast	0.133
Michelson Contrast	0.961
Weber Contrast	0.43
Mean Local Contrast	0.017
Contrast Uniformity	0.318
Dynamic Range	0.965
Effective Dynamic Range	0.443
Shadow Percentage	1.611
Midtone Percentage	52.761
Highlight Percentage	45.628
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.008
Medium Contrast	0.022
Coarse Contrast	0.032
Multiscale Contrast Ratio	0.265

Metric	Value
Edge Contrast	0.135
Contrast Clustering	0.242

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.691
Color Clustering	0.496
Color Transition Smoothness	0.665
Transition Uniformity	0.893
Sharp Transition Ratio	0.1
Transition Directionality	0.012
Mean Saturation	0.316
Saturation Variance	0.049
Low Saturation Ratio	0.591
Medium Saturation Ratio	0.345
High Saturation Ratio	0.063
Saturation Clustering	1.0
Hue Concentration	0.839
Complementary Balance	0.06
Analogous Dominance	0.92
Temperature Bias	-0.854

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). Lake Tahoe — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0576.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/lake-tahoe_6g8.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <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)

1c-
c9ec80b3cf11431ca55590be5f4a3c996c29b933795b40416a867c2917cf47

Artist	Arnaud Quercy
Date	2024
Collection	American Voyage
Certificate	20240512-0072
Asset code	AQC0576
Version	1
Published	2026-04-09

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Published by: Art Quam Anima Publishing New York LLC — publishing.artquamanima.com

Date of publication: 2026-04-09

Persistent URI: <https://multimodal.institute/en/nanopubs/2026/02/AQC0576-computational-image-analysis-aqc0576.pdf>

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