

Nanopublication — Computational Image Analysis - AQC0495

by Arnaud Quercy · Unveiling the Cosmos Dawning of Reason · 2023













Claim 1: Computational Image Analysis - AQC0495

K-means clustering analysis [3] (10 colors) performed on artwork Unveiling [1] the Cosmos Dawning of Reason (AQC0495) [2] by Arnaud Quercy [2] on 2025-12-17. 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]: 1926x2560 pixels. Analysis date: 2025-12-17.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		18.4	blue-violet	very dark gray
2		16.2	blue-violet	gainsboro
3		15.7	yellow-orange	silver
4		9.0	red	darkslategray
5		8.8	red-orange	firebrick
6		8.0	gray	dusty mauve
7		6.8	red-orange	tan
8		6.6	red-orange	russet
9		5.4	red-orange	indianred
10		5.2	orange	peru
11		0.3	yellow	antiquewhite [Accent]
12		0.3	red-violet	dusty mauve [Accent]

Color Families:

Family	%
blue-violet	34.6
red-orange	27.6
yellow-orange	15.7
red	9.0
gray	8.0
orange	5.2
yellow	0.3
red-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
F4EBCE	yellow	antiquewhite	15.1
977E94	red-violet	dusty mauve	16.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.277
Mean Local Roughness	0.019
Roughness Uniformity	0.027
Edge Density	0.056
Mean Gradient Magnitude	0.14
Gradient Variance	0.083
Gradient Smoothness	0.0
Directional Coherence	0.128
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.618
Spatial Variation	0.19
Texture Consistency	0.739

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.476
Brightness Variance	0.277
Brightness Uniformity	0.418
Brightness Skewness	0.133
Brightness Entropy	7.475
Rms Contrast	0.277
Michelson Contrast	1.0
Weber Contrast	0.85
Mean Local Contrast	0.02
Contrast Uniformity	0.0
Dynamic Range	1.0
Effective Dynamic Range	0.749
Shadow Percentage	39.969
Midtone Percentage	23.841
Highlight Percentage	36.19
Shadow Clipping	0.005
Highlight Clipping	0.002
Tonal Balance	0.132
Fine Contrast	0.01
Medium Contrast	0.025
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.14
Contrast Clustering	0.261

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.699
Color Clustering	0.753

Metric	Value
Color Transition Smoothness	0.632
Transition Uniformity	0.443
Sharp Transition Ratio	0.1
Transition Directionality	0.124
Mean Saturation	0.311
Saturation Variance	0.06
Low Saturation Ratio	0.571
Medium Saturation Ratio	0.32
High Saturation Ratio	0.109
Saturation Clustering	0.999
Hue Concentration	0.524
Complementary Balance	0.145
Analogous Dominance	0.74
Temperature Bias	0.502

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). Unveiling the Cosmos Dawning of Reason — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0495.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/unveiling-the-cosmos-dawning-of-reason_5kq.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)

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