

# Nanopublication — Computational Image Analysis - AQC0496

by Arnaud Quercy · I Too Rising Hope · 2023














## Claim 1: Computational Image Analysis - AQC0496

K-means clustering analysis [3] (10 colors) performed on artwork I Too [1] Rising Hope (AQC0496) [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]: 1906x2560 pixels. Analysis date: 2025-12-17.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1		636B70	18.0 gray	dimgray
2		371B24	17.4 red	very dark red
3		452E2D	17.0 red-orange	darkslategray
4		9AB8BD	16.4 blue-green	steel gray
5		6D787E	11.4 blue	blue gray
6		5A433F	5.0 red-orange	dark brown
7		DB985C	4.9 orange	sandybrown
8		E5BC92	3.7 orange	burlywood
9		AF4431	3.6 red-orange	burnt sienna
10		51779B	2.5 blue-violet	grayish purple
11		EDC842	0.3 yellow-orange	sandybrown [Accent]
12		EED651	0.3 yellow	sandybrown [Accent]
13		B69CAA	0.3 red-violet	steel gray [Accent]

### Color Families:

Family	%
red-orange	25.6
gray	18.0
red	17.4
blue-green	16.4
blue	11.4
orange	8.6
blue-violet	2.5
yellow-orange	0.3
yellow	0.3
red-violet	0.3

### Accent Colors:

Hex	Family	Name	Chroma
EDC842	yellow-orange	sandybrown	68.0
EED651	yellow	sandybrown	66.3
B69CAA	red-violet	steel gray	12.6

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.204
Mean Local Roughness	0.01
Roughness Uniformity	0.015
Edge Density	0.031
Mean Gradient Magnitude	0.077
Gradient Variance	0.023
Gradient Smoothness	0.0
Directional Coherence	0.216
Pattern Complexity	0.114
Pattern Repetition	1.0
Detail Frequency Ratio	0.613
Spatial Variation	0.157
Texture Consistency	0.394

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.401
Brightness Variance	0.204
Brightness Uniformity	0.492
Brightness Skewness	0.315
Brightness Entropy	6.974
Rms Contrast	0.204
Michelson Contrast	0.969
Weber Contrast	0.788
Mean Local Contrast	0.011
Contrast Uniformity	0.0
Dynamic Range	0.973
Effective Dynamic Range	0.588
Shadow Percentage	39.332
Midtone Percentage	41.237
Highlight Percentage	19.431
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.006
Medium Contrast	0.013
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.077
Contrast Clustering	0.606

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.765
Color Clustering	0.619
Color Transition Smoothness	0.784
Transition Uniformity	0.84
Sharp Transition Ratio	0.1
Transition Directionality	0.222
Mean Saturation	0.316
Saturation Variance	0.034
Low Saturation Ratio	0.516
Medium Saturation Ratio	0.454
High Saturation Ratio	0.03
Saturation Clustering	1.0
Hue Concentration	0.628
Complementary Balance	0.169
Analogous Dominance	0.823
Temperature Bias	0.661

## 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). I Too Rising Hope — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0496.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2023/01/i-too-rising-hope\\_5l4.html](https://artquamanima.com/en/artworks/2023/01/i-too-rising-hope_5l4.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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