

# Nanopublication — Computational Image Analysis - AQC0429

by Arnaud Quercy · A woman on the beach · 2022

## Claim 1: Computational Image Analysis - AQC0429

The artwork A woman on the beach (AQC0429) [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]: 1536x2048 pixels. Analysis date: 2026-02-04.

### COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	E0CEBC	15.7	orange	lightgray
2	9D7B6A	13.7	orange	gray
3	AC9C7E	12.8	yellow-orange	rosybrown
4	8A9B9E	11.4	blue-green	lightslategray
5	CDB297	9.7	orange	tan
6	ABBAB5	9.7	green	steel gray
7	7E5F57	9.3	red-orange	dimgray
8	483E3C	7.7	red-orange	darkslategray
9	657780	5.6	blue	blue gray
10	D28C80	4.5	red-orange	darksalmon
11	AFA953	0.3	yellow	ochre [Accent]
12	371B1F	0.3	red	very dark red [Accent]
13	405A70	0.3	blue-violet	grayish purple [Accent]
14	7D894F	0.3	yellow-green	dimgray [Accent]
15	515366	0.3	violet	dusty mauve [Accent]

### Color Families:

Family	%
orange	39.1
red-orange	21.4
yellow-orange	12.8
blue-green	11.4
green	9.7
blue	5.6
yellow	0.3
red	0.3
blue-violet	0.3
yellow-green	0.3

Family	%
violet	0.3

### Accent Colors:

Hex	Family	Name	Chroma
AFA953	yellow	ochre	46.1
371B1F	red	very dark red	15.3
405A70	blue-violet	grayish purple	16.5
7D894F	yellow-green	dimgray	32.2
515366	violet	dusty mauve	11.7

### TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.163
Mean Local Roughness	0.012
Roughness Uniformity	0.012
Edge Density	0.034
Mean Gradient Magnitude	0.104
Gradient Variance	0.019
Gradient Smoothness	0.0
Directional Coherence	0.023
Pattern Complexity	0.121
Pattern Repetition	1.0
Detail Frequency Ratio	0.602
Spatial Variation	0.094
Texture Consistency	0.72

### BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.597
Brightness Variance	0.163
Brightness Uniformity	0.726
Brightness Skewness	-0.424
Brightness Entropy	7.305
Rms Contrast	0.163
Michelson Contrast	0.944
Weber Contrast	0.537
Mean Local Contrast	0.013
Contrast Uniformity	0.069
Dynamic Range	0.918
Effective Dynamic Range	0.561
Shadow Percentage	7.61
Midtone Percentage	55.984
Highlight Percentage	36.406
Shadow Clipping	0.0
Highlight Clipping	0.0
Tonal Balance	0.091
Fine Contrast	0.006

Metric	Value
Medium Contrast	0.016
Coarse Contrast	None
Multiscale Contrast Ratio	1.0
Edge Contrast	0.104
Contrast Clustering	0.28

## SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.693
Color Clustering	0.782
Color Transition Smoothness	0.727
Transition Uniformity	0.877
Sharp Transition Ratio	0.1
Transition Directionality	0.033
Mean Saturation	0.232
Saturation Variance	0.016
Low Saturation Ratio	0.714
Medium Saturation Ratio	0.285
High Saturation Ratio	0.0
Saturation Clustering	1.0
Hue Concentration	0.681
Complementary Balance	0.127
Analogous Dominance	0.852
Temperature Bias	0.679

## 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 (2022). A woman on the beach — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0429.html>
- [2] Quercy, A. (2025). Untitled - Gallery. [https://artquamanima.com/en/artworks/2022/01/a-woman-on-the-beach\\_4v2.html](https://artquamanima.com/en/artworks/2022/01/a-woman-on-the-beach_4v2.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

<b>Claim type</b>	computational analysis
<b>Voice</b>	third person
<b>Epistemic status</b>	empirical measurement
<b>Methodology</b>	computational analysis
<b>Certainty</b>	high

## CHECKSUM (SHA-256)

fc84ab93c7333054d6f5e002bbccb5515ff f0b6d479134e92da9e0f52b-fceedf

<b>Artist</b>	Arnaud Quercy
<b>Date</b>	2022
<b>Collection</b>	Mediterranean Echoes
<b>Certificate</b>	20231231-0015
<b>Asset code</b>	AQC0429
<b>Version</b>	1
<b>Published</b>	2026-04-09