GEMS & GEMOLOGY®

THE QUARTERLY JOURNAL OF THE GEMOLOGICAL INSTITUTE OF AMERICA®

Suggested Outline for Gemstone Locality Article

You may contact G&G electronically by sending email to Editor Brendan Laurs or by telephone at 760-603-4503.

We have found that the following outline works well for most general locality articles, with more emphasis often placed on some sections than others, depending on the author's specific interests or expertise. Depending on the material, authors may choose not to address all the points below, or they may wish to provide additional subject matter.

ABSTRACT: concise statement of what was studied, methods used, and the identifying characteristics

INTRODUCTION: significance of the locality, range of sizes and qualities (color and clarity); approximately how much material has been sold thus far, through whom it has been marketed, and where most is cut—the lead photograph should show a range of samples, mounted and/or unmounted

HISTORY: generalized chronological account of the discovery, prospecting, mining, and production in the area, including ownership of the mines and how they were named

LOCATION AND ACCESS: place within the context of cities or settlements in the vicinity, and describe routes traveled (including distance, means of travel, road or trail condition, and time necessary to reach the mining area, as well as any access limitations during specific months); also document the present legal status of the mine

GEOLOGY: basic facts for the jeweler/gemologist audience, including regional and local geology of the deposits

MINING: chronological account of the mining methods used; also include any interesting or distinctive characteristics of the miners themselves

PRODUCTION AND DISTRIBUTION: size range of rough, range of qualities (color and clarity); include information on the distribution of the mined materials (i.e., where the rough is processed and cut, and who markets the rough and cut stones.)

DESCRIPTION OF THE ROUGH: basic facts for the jeweler/gemologist audience, including crystal morphology, size, and surface textures; may include a diagram and/or photo with the crystal faces labeled

MATERIALS AND METHODS: source of samples, number of samples and their description (e.g., rough or fashioned, sizes, range of colors—a photo of all or a representative group of samples is appropriate), what tests/analyses were performed on which samples and using what equipment—be specific

GEMOLOGICAL CHARACTERISTICS: include a table comparing these properties to those of stones from other localities and to synthetics

Visual Appearance: color and color zoning, diaphaneity; as seen with the unaided eye (specify lighting conditions, e.g., daylight-equivalent fluorescent light, incandescent light, etc.)

Optic Axis Orientation: where applicable, effects on appearance and weight retention

Pleochroism: according to optic axis directionnd concentrations of any possible chromophore elements should be included; data tables and/or graphs are typically supplied

Refractive Indices and Birefringence: range and typical values

Luminescence: Luminescence to visible light: e.g., “red transmission,” color filter reaction

Short-wave ultraviolet radiation: color, intensity, zoning, chalkiness

Long-wave ultraviolet radiation: color, intensity, zoning, chalkiness

Specific Gravity: range and typical value

Spectroscope Spectrum: describe features and their positions

Microscopic Characteristics: fractures; inclusions—types, appearance, phases present; structural properties—growth zoning or other growth features, twinning, color zoning; photomicrographs should be supplied with magnification and lighting conditions specified

CHEMISTRY EDXRF, SEM-EDS, and/or electron microprobe, etc.: major- and/or trace-element data, zoning, and concentrations of any possible chromophore elements should be included; data tables and/or graphs are typically supplied

SPECTROSCOPY: UV-visible, infrared, and/or fluorescence; graphs are typically supplied

TREATMENTS: heat, irradiation, fracture filling, dying, structural reinforcements, etc., and their effect on color and clarity; details of the treatment process should be supplied, along with before-and-after-treatment photos

DISCUSSION: what can be inferred from the tested properties about the distinctive characteristics of gem material from this locality; also, a comparison to the same gem material from other localities and/or separation from synthetics and simulants; how to identify treatment(s) in this material

CONCLUSION: summary of the main points, including the identifying characteristics, and future potential of the locality

REFERENCES: formatted as per G&G style

Note: Figure captions need to be complete sentences.