# Nereus Lithological Framework: Field Taxonomy Edition

> ***Expedition Archive 11B — Nereus System***
> *Recovered Field Data — Year 2471 AE*

The following document outlines the standardized planetary geology classification system employed by the **Stargazer Expedition's xenogeological team** to categorize surface and subsurface formations discovered on **Nereus**. It blends geological science with artistic and narrative intent, serving both as a reference for visual development and a field taxonomy for research continuity.

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## Nereus Lithological Classification Framework

*(Geological & Design Taxonomy for the Planet's Rock Formations)*

### I. Primary Morphological Classes

*(Scale and structural role within terrain composition)*

| Class | Geological Analogue | Typical Scale | Description / Function |
|---|---|---|---|
| **Macroformations** | Mountainic / Structural Massifs | 40–200 m | Major geological features shaped by the plasma cataclysm — fused basalt towers, vitrified cliffs, and tectonic extrusion points. Anchor the landscape composition. |
| **Mesoformations** | Outcrops / Monoliths / Spires | 6–40 m | Distinct sculptural features shaped by erosion and vitrification cycles — the most visually expressive forms (ideal for hero silhouettes). Often resemble petrified remains or architectural relics. |
| **Microformations** | Boulders / Debris / Spalls | < 6 m | Ground-level features — fractured plates, glassy shards, weathered crusts, efflorescent mineral pockets. Populate scene detail and realism. |

### II. Morphogenetic Sub-Categories

*(Formation origin and evolution pathway — this defines the story of each rock type)*

| Sub-Category | Description | Visual Cues |
|---|---|---|
| **Vitriform Structures** | Formed during the plasma event through instantaneous melting and flash-cooling of silica-rich rock. | Glossy obsidian or glass seams, translucent cyan reflections, flow-like surfaces. |
| **Erosiform** | Carved by millennia of extreme wind, | Layered/striated planes, |

| | | |
|---|---|---|
| **Structures** | acid rain, and mechanical abrasion. | blade-like edges, windward smoothness, leeward decay. |
| **Tectomorph Structures** | Result of post-event crustal deformation — uplift, fracture, or compression zones. | Angular thrusting shapes, fault lines, tension cracks, crystalline shears. |
| **Xenomorphic Structures** | Hybrid formations exhibiting alien/biomimetic geometry; may fuse with ancient Nerean architecture or biological remnants. | Insectoid silhouettes, symmetrical curvature, skeletal traces, mineral-organic fusion. |
| **Hydromorph Structures** | Emerged during the centuries of condensation and rainfall post-event — chemical precipitation and reformation. | Porous stone, mineral drips, stalactitic growths, blue-green efflorescence. |

### III. Erosional-Transformation Index (ETI)

*(Pseudo-scientific scale describing how "corrupted" or "alien" a structure appears — useful for naming and presentation)*

| ETI Level | Descriptor | Geological State | Visual Character |
|---|---|---|---|
| **E** | Pristine | Structurally stable; minimal erosion. | Sharp edges, intact glass layers, minimal discoloration. |
| **E** | Transitional | Early corrosion and weathering present. | Mixed surfaces: matte erosion patterns against smooth glass. |
| **E** | Advanced | Heavy weathering, spalling, and mineral deposition. | Cyan efflorescence, flaked vitrified crusts, fragmented silhouette. |
| **E** | Ruinous | Near-complete deformation; tends toward organic/skeletal appearance. | Twisted, hollow, almost "insect-on-its-back" geometry. |

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## IV. Folder-Based Classification Framework

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NEREUS_LITHOLOGICAL_FRAMEWORK/
│
├─ MACROFORMATIONS/          (Large-scale tectonic & cataclysmic structures)
│  ├─ VITRIFORM/             → E1 / E2 / E3 / E4
│  ├─ EROSIFORM/             → E1 / E2 / E3 / E4
│  ├─ TECTOMORPH/            → E1 / E2 / E3 / E4
│  ├─ XENOMORPHIC/           → E1 / E2 / E3 / E4
│  └─ HYDROMORPH/            → E1 / E2 / E3 / E4
```

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│
├─ MESOFORMATIONS/           (Mid-scale spires, arches, narrative focal points)
│  ├─ VITRIFORM/             → E1 / E2 / E3 / E4
│  ├─ EROSIFORM/             → E1 / E2 / E3 / E4
│  ├─ TECTOMORPH/            → E1 / E2 / E3 / E4
│  ├─ XENOMORPHIC/           → E1 / E2 / E3 / E4
│  └─ HYDROMORPH/            → E1 / E2 / E3 / E4
│
└─ MICROFORMATIONS/          (Ground-level geological & mineral textures)
   ├─ VITRIFIED_DEBRIS/      (Obsidian shards, glass crust fragments)
   ├─ EROSIONAL_SEDIMENT/    (Ash, sand, pulverized basalt deposits)
   ├─ HYDROMINERAL_DEPOSITS/ (Cyan sulfate crusts, mineral drips)
   └─ COMPOSITE_CRUSTS/      (Mixed materials; transition zones)
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## V. Example Breakdown — `Meso_Xenomorphic_E3`

**Path**
`NEREUS_LITHOLOGICAL_FRAMEWORK/MESOFORMATIONS/XENOMORPHIC/E3_Advanced/`

**DESCRIPTION.txt**
“Meso_Xenomorphic_E3 formations represent medium-scale alien structures partially eroded and deformed by millennia of high-velocity wind and acidic precipitation. These formations often resemble fossilized insect carapaces or collapsed organic arches, their surfaces a contrast of matte erosion and remaining vitrified veins.”

**GEOLOGICAL_NOTES.txt**

- Composition: Silicate-basaltoid core with fused organic residues.
- Coloration: Greyscale matrix with cyan mineral bloom at fracture points.
- Formation Process: Partial surface vitrification followed by chemical corrosion during the Long Rain era.
- Environmental Distribution: Common in equatorial storm corridors and former tectonic uplift zones.

**VISUAL_REFERENCE/**

- `sketches/` — A, B, C variations
- `materials/` — `basalt_reference`, `vitrified_surface`, `cyan_efflorescence`
- `palette.png` — color data

**DESIGN_NOTES.txt**
Lighting: diffuse overcast, blue-grey ambient.
Material: ~60% matte basalt, ~30% vitrified seams, ~10% mineral bloom.
Symbolism: represents the duality between life and decay — the remnant “skeletons” of a fallen world.

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## VI. Naming Convention (for sheets/assets)

`[Scale]_[MorphogeneticType]_E[1–4]`
Examples: `Macro_Xenomorphic_E4`, `Meso_Vitriform_E2`, `Micro_Hydromineral`.

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*End of recovered field dossier.*