Sample: *3(128)*

Grain 1:
Grain colour/transparency:
- Pink/Transparent

Grain shape/texture:
- Sub-angular
- Sub-spherical
- Angular fractures, polished

Modal abundance and grain size (estimated):
- ~40%, 1.0 mm

Mineral/rock identification:
- Garnet (mineral)

Other features:
- Some grains demonstrate euhedral crystal shape of garnet. Many are broken.
- Some garnet grains have small black inclusions of basalt

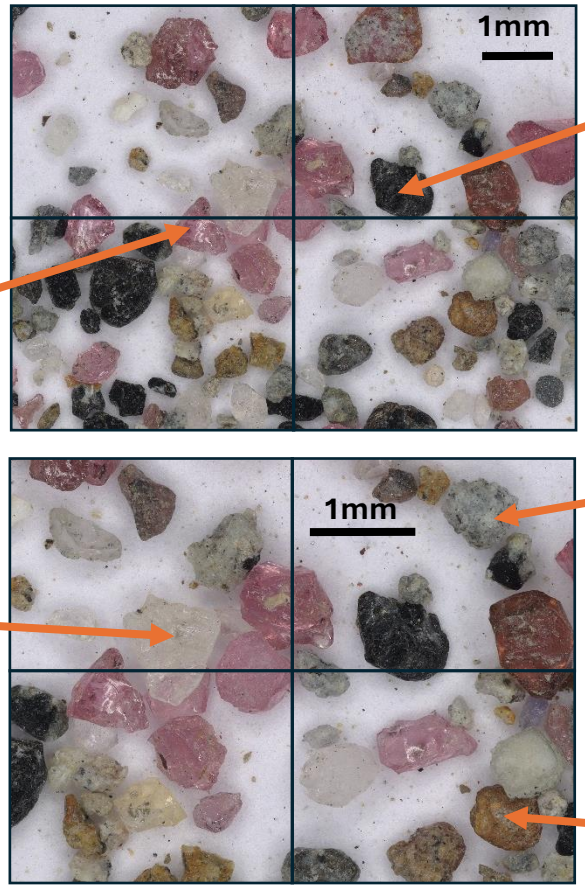
Grain 2:
Grain colour/transparency:
- Colourless/Transparent

Grain shape/texture:
- Sub-angular
- Sub-spherical
- Angular fractures, polished

Modal abundance and grain size (estimated):
- ~20%, 1.0 mm

Mineral/rock identification:
- Quartz (mineral)

Other features:
- Some quartz grains have small black inclusions of basalt



Images courtesy of Jordan Poole
The University of Liverpool

Grain 3:
Grain colour/transparency:
- Black/Opaque

Grain shape/texture:
- Sub-rounded, Sub-spherical
- Mostly pitted surface. Some polished edges. Sharp fractures.

Modal abundance and grain size (estimated):
- ~20%, 0.8mm

Mineral/rock identification:
- Basalt (rock)

Grain 4:
Grain colour/transparency:
- White/opaque

Grain shape/texture:
- Sub-angular
- Spherical
- Angular fractures

Modal abundance and grain size (estimated):
- 10%, 0.8mm

Mineral/rock identification:
- Feldspar (mineral)

Grain 5:
Grain colour/transparency:
- White/Brown/grey/opaque

Grain shape/texture:
- Sub-angular, Spherical, Angular fractures

Modal abundance and grain size (estimated):
- 10%, 0.8mm

Mineral/rock identification:
- Lithics (rock)

Summary:
Sediment maturity:
- Texturally moderately immature: the grains are generally angular and spherical with some polished edges. Mineralogically immature: several grain types – garnet, quartz, basalt, feldspar and lithics.

Provenance:
- Moderately proximal to the source: grains are texturally and mineralogically immature.

Transport history:
- Non-abraded surfaces demonstrate likely fluvial transport. Varied grain size 0.2 – 1.0mm: transport via variable flow velocity.

Source:
El Hoyazo de Nijar, south east Spain (Almeria)
Garnet placer deposits. The almandine garnets are derived from an erupted volcanic rock transported by river to depositional location.

Formal grain sample name:
Poorly sorted, mineralogically and texturally moderately immature sand.