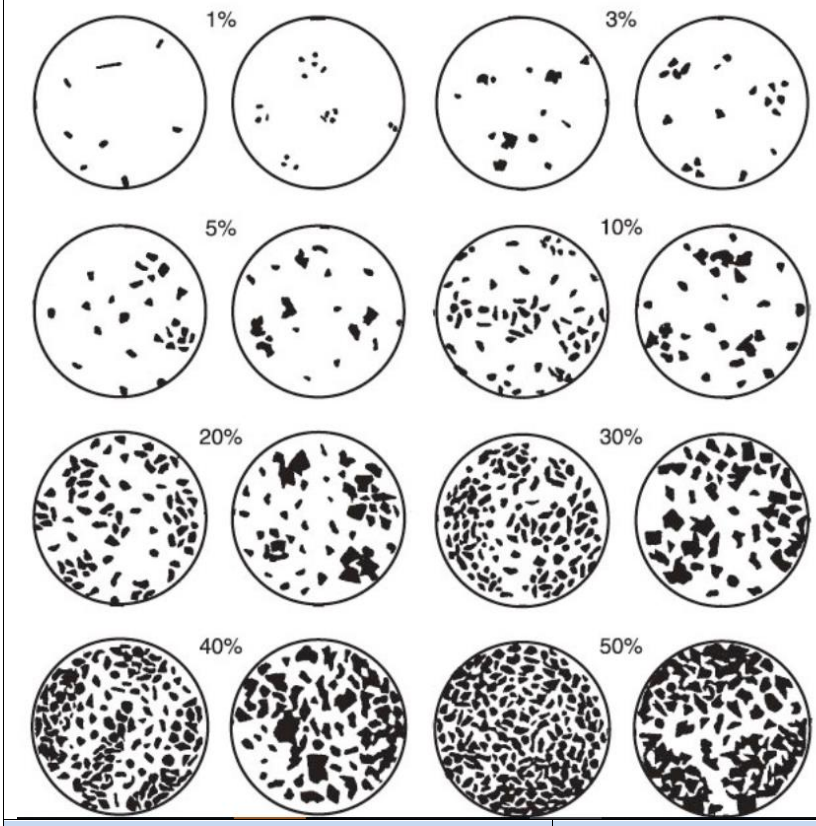
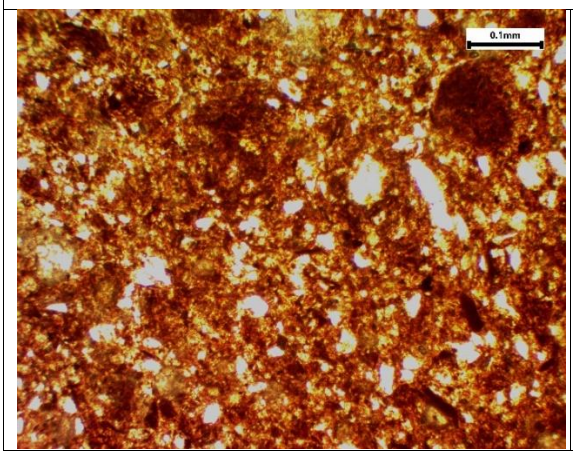
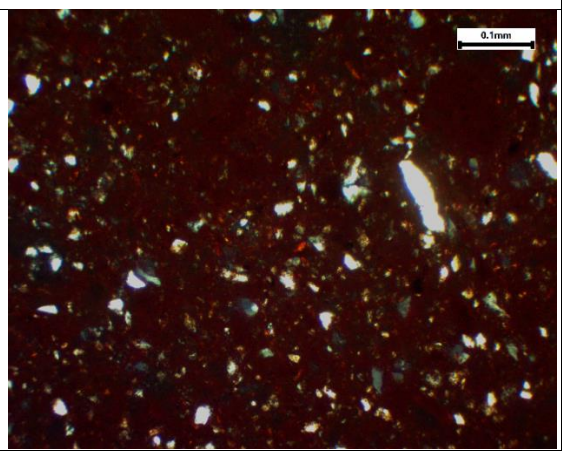
Catalogue 2: Fabric groups of fired geological samples

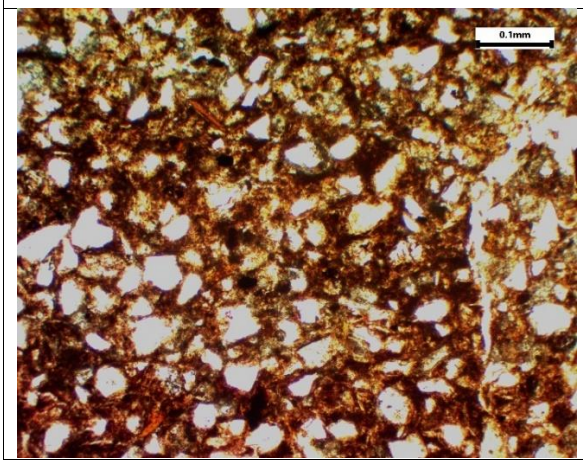
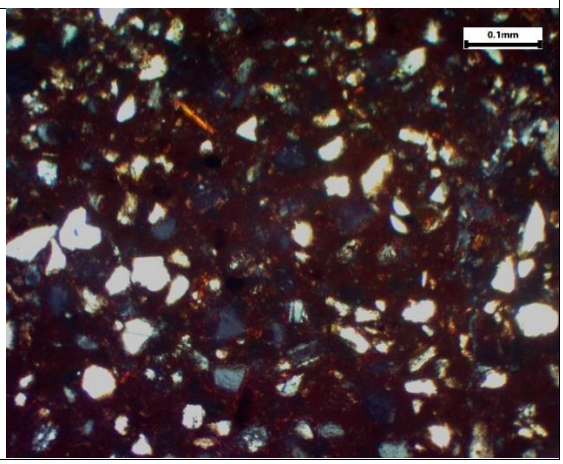
Fig. 1. Legend from the geological map of the Gansu province, from Ma and Liu (2002:326-327).

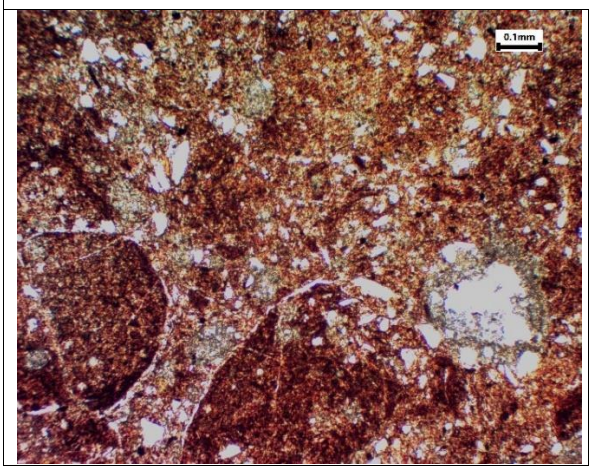
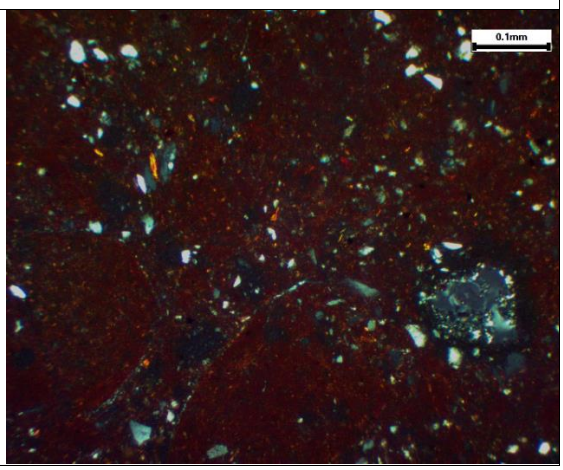
Fig. 2. Legend from the geological map of the Qinghai province, from Ma and Liu (2002:334-335).

Table 1. Key to the estimations, abbreviations, and vocabulary used for petrographic description.

<table>
<tr><th colspan="2">Inclusion frequency estimated in % (after Terry and Chilingar 1955)</th></tr>
<tr><td colspan="2"> 
</td></tr>
<tr><th>Inclusion shape (after Quinn 2013)</th><th>Inclusion size (after ISO 2017)</th></tr>
<tr><td>euhd – euhedral
eq – equant
el - elongated
ang – angular
s-ang – sub-angular
s-rnd – sub-rounded
rnd – rounded</td><td>MSi – medium silt – 0.0063 – 0.02 mm
CSi – coarse silt – 0.02 – 0.063 mm
FSa – fine sand – 0.063 – 0.2 mm
MSa – medium sand – 0.2 – 0.63 mm
CSa – coarse sand – 0.63 – 2.0 mm
FGr – fine gravel – 2.0 – 6.3 mm
MGr – medium gravel – 6.3 – 20 mm</td></tr>
<tr><th>Void shape (after Kemp 1985)</th><th>Void size (after Kemp 1985)</th></tr>
<tr><td>channel – elongated rounded
planar void – narrow angular elongated crack-like void
vesicle – rounded
vugh - amorphous</td><td>micro – <0.05 mm
meso – 0.05–0.5 mm
macro – 0.5–2 mm
mega – >2 mm</td></tr>
<tr><td colspan="2">“Mostly” in combination with a characteristic e. g. “mostly optically active” means that the majority of samples in that fabric group have this characteristic i. e. the majority is optically active.</td></tr>
<tr><td colspan="2">“Groundmass” means matrix and fine fraction together.</td></tr>
</table>

Fabric group: 1A; Fine, Quartz-Mica-Feldspar	**Sample area:** Tao River Valley
Samples: GSC1, fired at 1050° C.	
Description	
Well-sorted fabric with 30% inclusion frequency and <0.1% coarse fraction. Dominant coarse non-plastic inclusions: • micritic calcite? (eq; s-ang; CSa) one inclusion Fine fraction: • quartz 55% • mica 40% • feldspar 5% Matrix: matrix abundance: 69%; micaceous; homogeneous; moderate optical activity. Porosity: void abundance 1%; macro vesicles. Textural features/ comments: partially vitrified matrix; FSa-MSa clay pellets taking up 5-10% of the matrix.	
Photomicrographs (left – PPL, right – XPL; scale size 0.1 mm)	
GSC1	
 	

Fabric group: 1B; Fine, Quartz-Mica-Feldspar with higher inclusion frequency than Fabric group 1A	**Sample area:** Tao River Valley
Samples: GSC8, 11; fired at 1050° C.	
Description	
Well-sorted fabric with 40-50% average inclusion frequency and 0% average coarse fraction. Dominant non-plastic inclusions (average % for each type): • quartz 50% • mica 40% • feldspar 10% Matrix: average matrix abundance: 49-59%; micaceous; homogeneous; optically inactive. Porosity: • average void abundance: 1% • average void type and size: macro vesicles Textural features/ comments: none.	
Photomicrographs (left – PPL, right – XPL; scale size 0.1 mm)	
GSC8	
	

Fabric group: 2; Fine, Quartz-Mica, mineral inclusions MSi-sized and smaller	**Sample area:** Tao River Valley
Samples: GSC5, 6; fired at 1050° C.	
Description	
Well-sorted fabric with 20-25% average inclusion frequency and 0% coarse fraction. Dominant non-plastic inclusions (average % for each type): • quartz 55% • mica 45% • feldspar 0.1% Matrix: average matrix abundance: 74%; micaceous; heterogeneous; moderate optical activity. Porosity: • average void abundance: 1-2% • average void type and size: macro/ meso vughs and vesicles Textural features/ comments: both fabrics are partially vitrified; GSC5 has FSa-CSa clay pellets taking up >10% of the matrix; GSC6 has MSa-FGr clay pellets taking up >10% of the matrix needed a longer soaking time in water – many clay lumps and therefore inclusions are distributed unevenly.	
Photomicrographs (left – PPL, right – XPL; scale size 0.1 mm)	
GSC5	
	

Fabric group: 3; Semi-coarse, Quartz dominant	**Sample area:** Tao River Valley
Samples: GSC17, 20, 21; fired at 1050° C.	
Description	
Well-sorted fabric with 40% average inclusion frequency and 50-55% average coarse fraction. Dominant coarse non-plastic inclusions (average % for each type): • quartz (eq, el; ang – rnd; FSa-MSa) 73% • plagioclase/ microcline feldspar (eq, el; ang – s-rnd; FSa-MSa) 27% Fine fraction (average % for each type): • quartz 57% • mica 23% • feldspar 20% Matrix: average matrix abundance: 60%; micaceous; GSC17 homogeneous, GSC20-21 heterogeneous; optically inactive. Porosity: • average void abundance: 5% • average void type and size: mega/ macro vughs and channels Textural features/ comments: GSC20 and GSC21 have MSa-FGr clay pellets taking up >10% of the matrix.	
Photomicrographs (left – PPL, right – XPL; scale size 0.1 mm)	
GSC20