

Supplementary File for: Controls on the grain size distribution of landslides in Taiwan: the influence of drop height, scar depth and bedrock strength.

Odin Marc^{1, 2}, Jens Turowski², and Patrick Meunier³

¹Géosciences Environnement Toulouse (GET), UMR 5563, CNRS/IRD/CNES/UPS, Observatoire Midi-Pyrenees, 14 Avenue Edouard Belin, 31400 Toulouse, France.

²German Research Center for Geoscience, GFZ-Potsdam, Section 4.6, Geomorphology, Telegrafenberg, Potsdam, Germany

³Laboratoire de Géologie, Ecole Normale Supérieure, 15 Rue Lhomond, Paris, France

Correspondence: Odin Marc, odin.marc@get.omp.eu

Abstract. This file contains four supplementary figures.

Fig. S1 and S2 are pictures showing part of LS-2 and LS-5.

Fig. S3 is similar to Figure 3B and shows the difference in GSD between the toe and apex of the deposit of LS-8 and LS-10.

Fig. S4 shows the correlation between different geometric attributes of the surveyed landslides.

- 5 Fig. S5 shows the scar gradient and transport length for the surveyed landslides with and without signs of grain-size segregation.



Figure 1. Figure Suppl. 1: Drone picture above a section of the transport channel of LS-2. Note the carapace of very coarse ($>1\text{m}$, see black and white target square of $1\times 1\text{m}$ for scale) boulder on the left part of the channel. On the right part the carapace is missing or eroded and finer and more variable grain sizes are visible.



Figure 2. Figure Suppl 2; Picture of LS-5. Note the coarse blocks on the channel part going up until the scar. While the fan part to the left is a mixture of fine and coarse grains. Thus we consider likely that the deposit was reactivated due to river incision of its toe, and thus that the outcropping fan is more representative of the inner part of the deposit

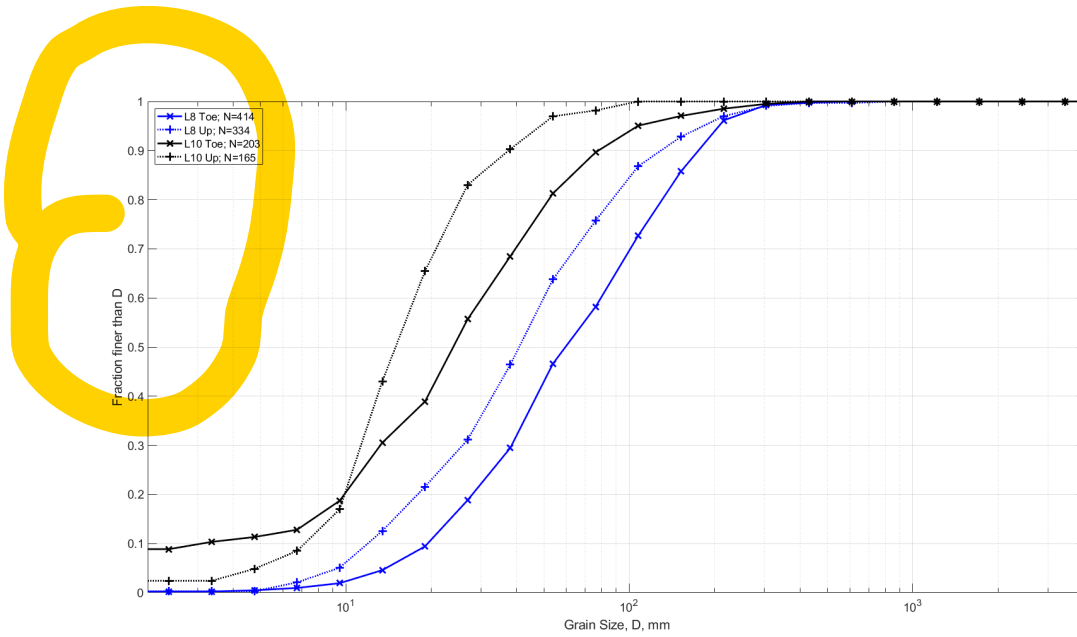


Figure 3. Figure Suppl 3: Downslope segregation in LS-8 and LS-10, similar to what is shown in Fig. 3B

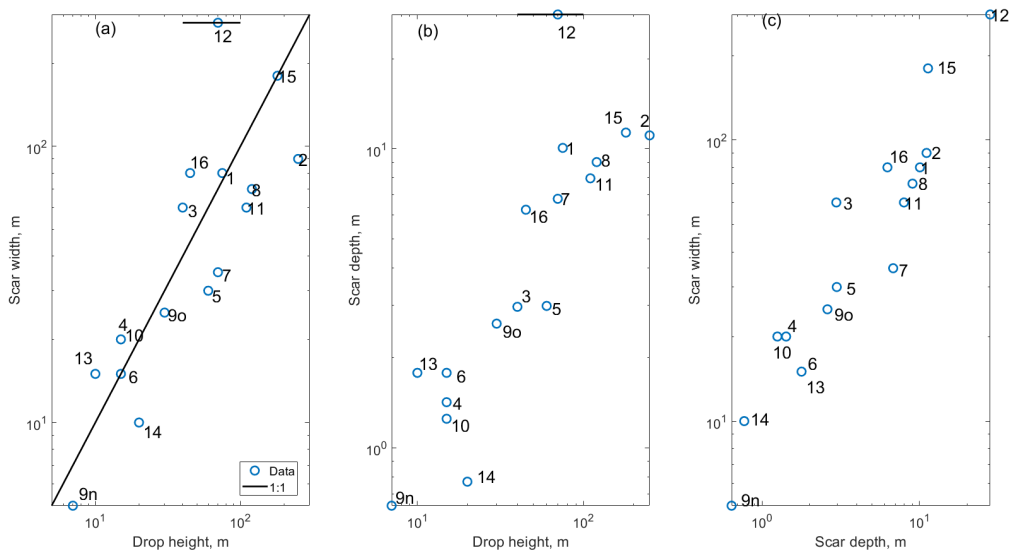


Figure 4. Figure Suppl 4: Correlation between the principal geometric dimensions of the surveyed landslides, drop height, scar width and scar depth.

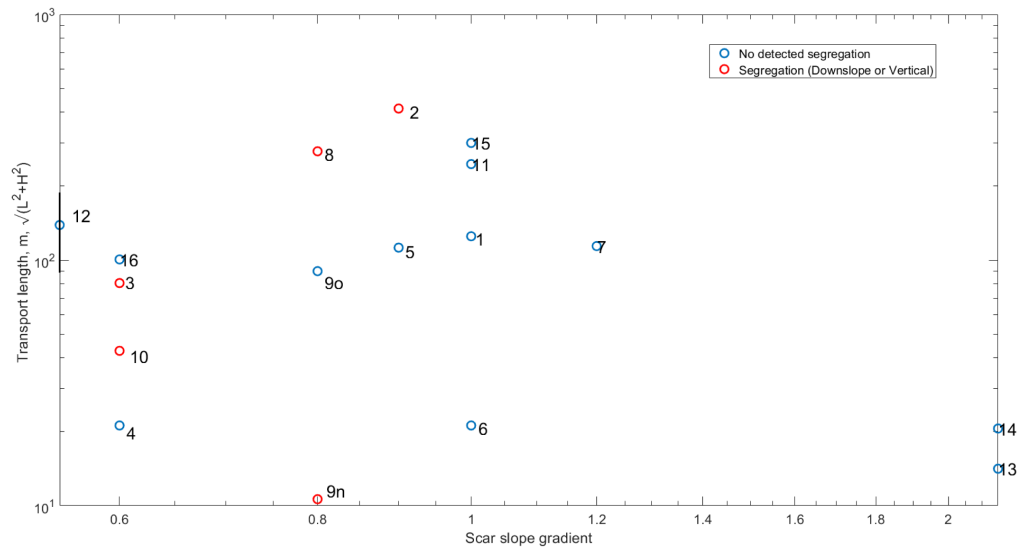


Figure 5. Figure Suppl 5: Transport distance vs scar gradient for the surveyed landslides. Although uncertainties on scar gradient are high, segregation seems rare for steep scar, and short transport.