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Book reviews

Damm, B., Terhorst, B. & Thiemeyer, H. (eds.) (2012): *Hillslope processes in geomorphic systems on varying temporal and spatial scales. – Z. Geomorph. N.F. Volume 56, Suppl. Issue 4. 162 pages, 65 figures, 27 tables.*

This supplementary issue of the "Zeitschrift für Geomorphologie "presents a variety of papers dealing with various aspects of slope geomorphology. It seems to be partially a selection of oral and poster presentations from the EGU congress held in Vienna 2010, although the editorial does not provide any clue on what was the main driver behind the selection of the manuscripts or regarding the tier to connect them, as there are many aspects of slope reliefs not covered in this volume.

There seem to be three groups of issues addressed: (1) slope deposits as archives, aiming at paleoenvironmetal reconstruction; (2) past and current failures of slopes; and (3) slope processes affecting morainal relief. However, neither these groups are kept together in the book nor does the editorial list them in the same order as they appear in print.

Group (1) is represented by one paper on loess-borne sediments overlying a footslope in Austria by Homolova et al., who find that there was a humid period in the early Pleniglacial in the Lake Neusiedl area. However, they do not discuss whether their luminescence datings cover the time of the original deposition of the loess or of its dislocation. Then there is a variety of articles on textural features of periglacial cover beds, which I want to discuss somewhat deeper:

– Stolz & Grunert present a new, though simple approach to slope-deposit properties. They measure the inclination rather than the orientation of rock fragments on some slopes in the Rhenish Massif and come to the astonishing result that stones in the basal layers of their study area often are much less inclined than the surface relief. Since this is a first approach using this method, they offer several possible explanations for their findings. My favorite one is that the meso-relief at the time of the formation of their basal layers consisted of a narrow net of gelifluction lobes with low inclination and steep steps in between. However, the authors favor the interpretation that their basal layers were formed when the relief of their slopes was gentler at large, when the river at the foot of the slopes was less incised than it currently is – geometrically a little difficult to follow, but if they are right, this would indicate that these deposits are remarkably older than typically assumed, i. e. older than the last glaciation.
– This might have implication on the interpretation drawn from the paper by Müller & Thiemeyer. They focus on textural aspects mainly of intermediate layers aided by micromorphological examination. They find that the argillic properties (i. e. soil features due to clay translocation) of their layer successions are only in parts the result of top-down pedogenesis but in remarkable amounts due to dislocated fragments of soil aggregates affected by clay illuviation before their dislocation. This must be interpreted to the fact that there was remarkable pedogenesis between the formation of the basal layers, which remained unaffected by this process, and the intermediate layers. These substrates were incorporated by slope processes into the intermediate layers thereafter. This also makes the basal layer older than previously assumed because there was a soil forming episode after its formation but before the current intermediate layer came into being. The authors discuss an interstadial genesis of this original soil, but considering the conclusion of Stolz & Grunert, the basal layer may well be older than the last glaciation and the reconstructed paleosol may

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