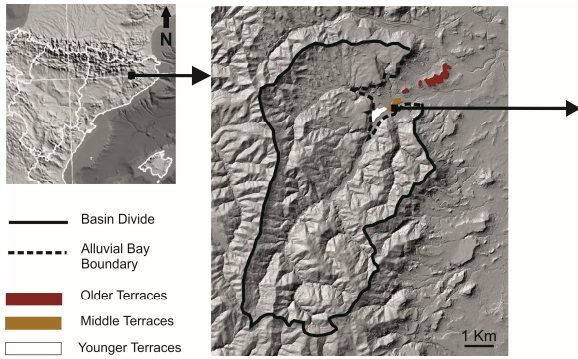
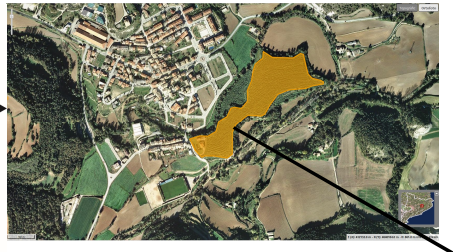
QUATERNARY TERRACES SUCCESSION IN "LA PLANA DE VIC" (NE IBERIAN PENINSULA). AN EXAMPLE OF GRAVEL DEPOSITS PRODUCED BY FLASH FLOODS.

CGL2012-35071
CGL2012-37416-C04-03

F. X. Castelltort[1] , J. C. Balasch[1] , F. Colombo[2], J. L. Ruiz-Bellet[1], J. Tuset[3,4], M. Barriendos[5], D. Pino[6,7], J. Mazón[6]

[1] Department of Environment and Soil Sciences, University of Lleida, Catalonia; [2] Department of stratigraphy, University of Barcelona, Catalonia; [3] RIUS Fluvial Dynamics Research Group; [4] Forest Sciences Centre of Catalonia, Solsona, Catalonia; [5] Department of Modern History, University of Barcelona, Catalonia; [6] Department of Applied Physics, Universitat Politècnica de Catalunya -BarcelonaTech, Spain; [7] Institute of Space Studies of Catalonia (IEEC-UPC), Barcelona, Spain
Corresponding author: F. X. Castelltort(xavier.castelltort@gmail.com)

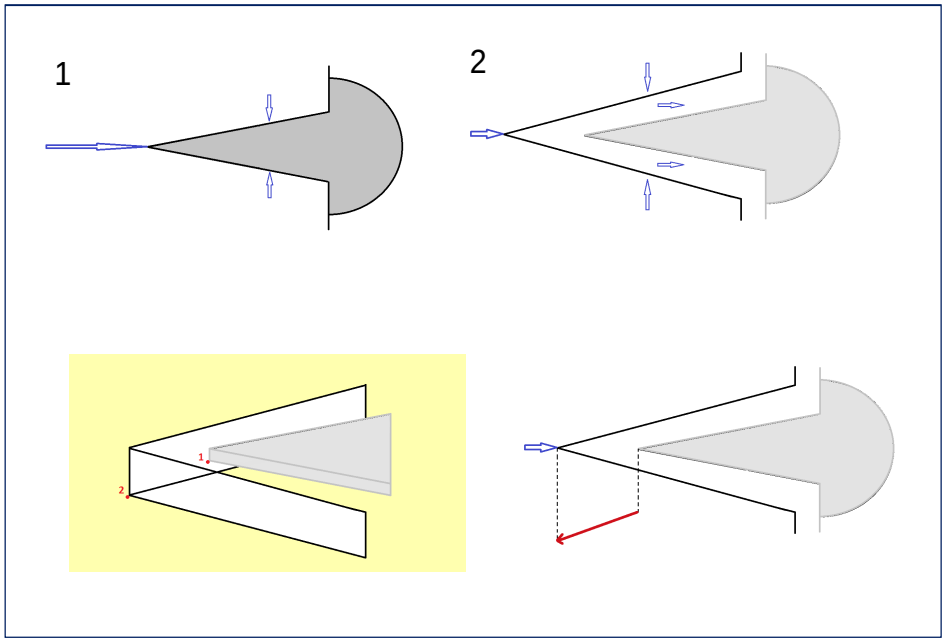




Flow loses its competence in the alluvial bay and deposits entrained material. Deposited sediments are structured in terraces. Because of stream incision and escarpment evolution, younger terraces are located in a lower position and in the inner part of the entrenchment.

Multistorey gravel terrace showing the product of erosive flows of high energy. Each separate level represents a flash flood episode. Note the reversed grading of episodes including imbricated boulders in the top of the level. This is effect of high density and energy flows in the inner part of the bay.

Direction of flows and phases of evolution of strath terraces in an alluvial bay



Detail of basal boulders coming from the adjacent hillslope . The silty layer is the product of denudation of badland areas on the valley slopes.

Detail of an imbricated boulder in the top of a gravel bed

EGU General Assembly
Vienna, 2016