Geophysical Research Abstracts, Vol. 7, 05068, 2005

SRef-ID: 1607-7962/gra/EGU05-A-05068 © European Geosciences Union 2005



Inca's constructive tipology in debris landslides

C. Ramírez (1,3), V. Ramírez (2), H. Cruzado (3)

(1) Instituto Nacional de Cultura, Cusco, Perú, (2) Instituto Nacional de Recursos Naturales, Cusco, Perú, (3) Universidad Nacional San Antonio Abad, Cusco, Perú

(jarp@unsaac.edu.pe / Phone: 005484231553)

The study area is located in the Archaeological Complex of Patallacta in Cusco (Perú), within the Eastern Cordillera. The Archaeological Complex is located upon the debris landslide, The incas chose this area to construct a town. To provide security they stabilized the terrain by building a "protection anden" to prevent future landslides. Then, they proceeded with the construction of additional terraces along the middle part of the landslide across an area of 8,731 m2. In this area, the overload was decreased, which enabled the construction of the town. From the middle- to the lower part of the landslide, the entire area was terraced. Because of the specific soil characteristics, they did probably have problems related to displacement of the walls, so that they used transversal mural, which were constructed on top of the foundation up to the middle third part, in order to decrease transversal pressures, to stabilize the andenes, and to prevent displacements.