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Large-scale slope movements around the Machu Picchu historical monument, Cuzco, Peru

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Multidisciplinary approach has been adopted to study slope movements and landscape evolution in the archaeological site of Machu Picchu and its close surroundings. We assume that the basic event in the landscape evolution of the area was the large-scale slope movement, which destroyed the originally higher ridge between Machupicchu Mt. and Huaynapicchu Mt. Within the body of that primary deformation, several younger generations of slope movements occur. Limits of the large-scale slope deformation are strongly structurally predisposed by the existence of fault zones. The majority of various types of more recent slope movements on the so-called Front slope (E facing slopes) and Back slope (slopes oriented to the W) are mostly influenced by alignment between topography and joints. Along with slope movements, fluvial erosion and tectonic disturbance of the rocks dominate the landscape evolution of the studied area.