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Fluvial terraces along the Namhan River; Is it climatic?

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Floodplain and stepped landforms in Yeonyang ri, Yeoju, South Korea are investigated with DEM analysis, outcrop observation and optically stimulated luminescence (OSL) burial age estimation. Four flat surfaces which can be regarded as terrace surfaces are recognized with inspection of digital elevation model. Field observation of the area and analysis of stratigraphic layers suggested that all these surfaces are the terrace surfaces. Burial age estimation with OSL of the 4th sediment layer of the highest surface suggested that the layer buried at 63ka, BP - 67ka BP. At least 3 cycles of soil wedges are found from old sediment layers. It could be concluded that the highest terrace in this area was experienced floodplain deposition environment till the end of the last glacial period and was abandoned. However,it is not clear whether only the climatic changes control the formation of these terraces.