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Layering and geological inner structure of 67P Churyomov-Gerasimenko comet nucleus

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Image acquired by OSIRIS NAC camera soon after Rosetta orbit insertion on the 6th of August 2014 have provided evidences of terraces and cuestas all-over the 67P/ Churyomov-Gerasimenko comet surface. In the following months both NAC and WAC data have confirmed that these features are related to a pervasive layering involving most of the nucleus surface. Layering on cometary nuclei has been already proposed for 9P/Tempel 1 and, possibly, both for 81P/Wild2 and 19P/Borrelly. Nevertheless the OSIRIS high-resolution images of 67P Churyumov-Gerasimenko comet provide clear and unquestionable evidences of a layering extent never seen before. In this work we illustrate such evidences showing how such geomorphological features provide fundamental clues to understand the nucleus inner structure. By looking both at the layers organization on the nucleus surface and their relationships with the fracture network affecting the whole body, we show how layers attitudes provide a strong argument in favour of 67P being an accreted body formed by two distinct objects.