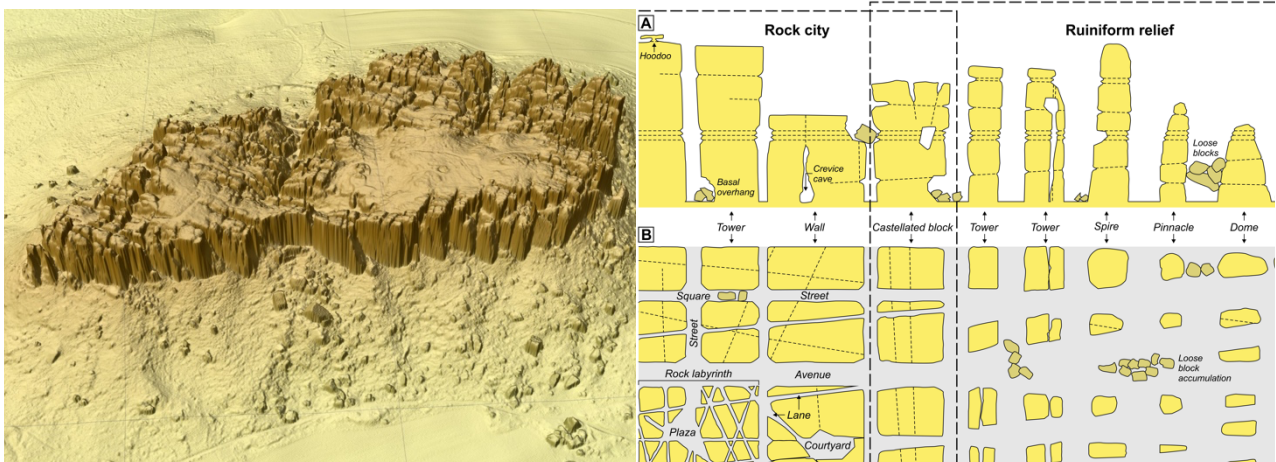


Seminario

Landform evolution in sedimentary tablelands: patterns of escarpment retreat and the role of subsurface processes

Tuesday, 25 March 2025 – 16:30, Aula Arduino

Relatore: **Prof. Piotr Migoń**- Uniwersytet Wrocławski, Poland



Sedimentary tablelands are widespread globally and are typified by planar surfaces separated by escarpments. The latter are typically morphologically bipartite, with the upper steep to vertical segment developed in resistant rocks such as massive sandstone. It is commonly accepted that in the long-term the escarpments are subject to non-uniform retreat, giving rise to a variety of residual landforms such as embayments (cirques), mesas and buttes. However, the mechanisms of retreat are still insufficiently known. In this talk, several conceptual models of escarpment retreat will be presented, with an emphasis on non-catastrophic processes involved in caprock in situ disintegration. This will be followed by the examination of the role of subsurface processes in the evolution of tablelands in clastic and presentation of tools available to recognize that the role is indeed very important. Finally, a simple conceptual model that implies gradual fragmentation of a sedimentary plateau into an array of mesas and buttes will be challenged and it will be argued that this is but one evolutionary pathway applicable to tablelands. Most of supporting evidence will come from Central European sandstone tablelands, but observations from other regions of the world will be also used.

Proponente: **Francesco Sauro**