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Miocene to Present shortening and vertical movements in the S Adriatic region:

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The re-interpretation of a dense grid of seismic lines S of the Gargano Promontory (S Adriatic Sea, Italy) has shown that the region experienced substantial shortening in Miocene times with the development of thrust-related folds. This is in contrast with previous models which envisaged an extensional to transtensional environment in the same region.

The presence of thrust-related structures in the region S of the Gargano Promontory is compatible with the presence of contractional features in the Gargano Promontory itself as it has been documented in recent years. The structures in the two regions display indeed interesting geometric differences.

Despite their common contractional history, the vertical evolution of the two regions was obviously very different. While the area S of the Gagano always remained below sea level, the region of the future Promontory experienced a more complex evolution which is documented by marine deposits and terraces found in several places and at different elevations of the Promontory. The record shows that the area started its uplift during Middle to Late Miocene times and continued throughout the Pliocene.