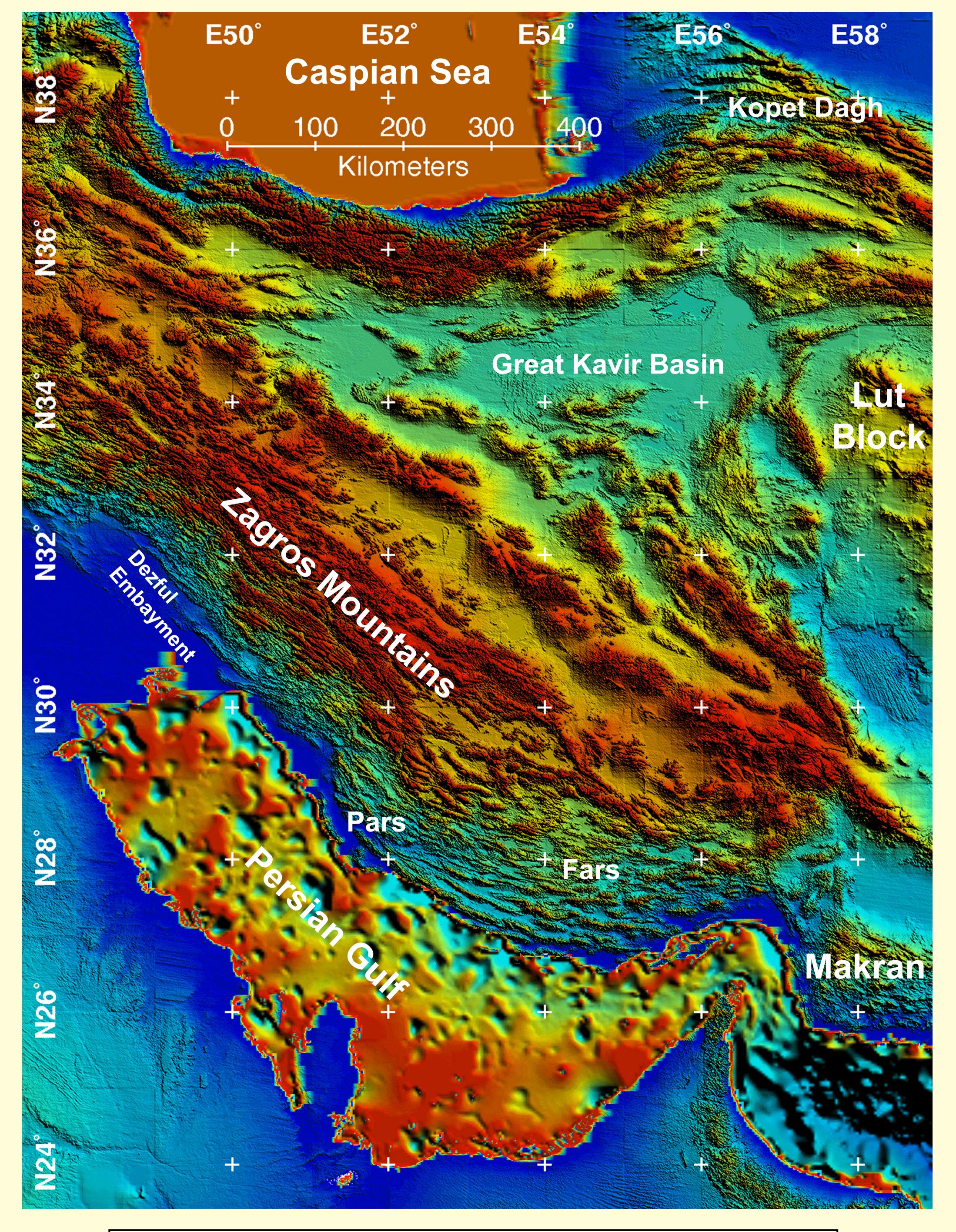
Structural Styles of the Dezful Embayment, Zagros Mountains, Iran

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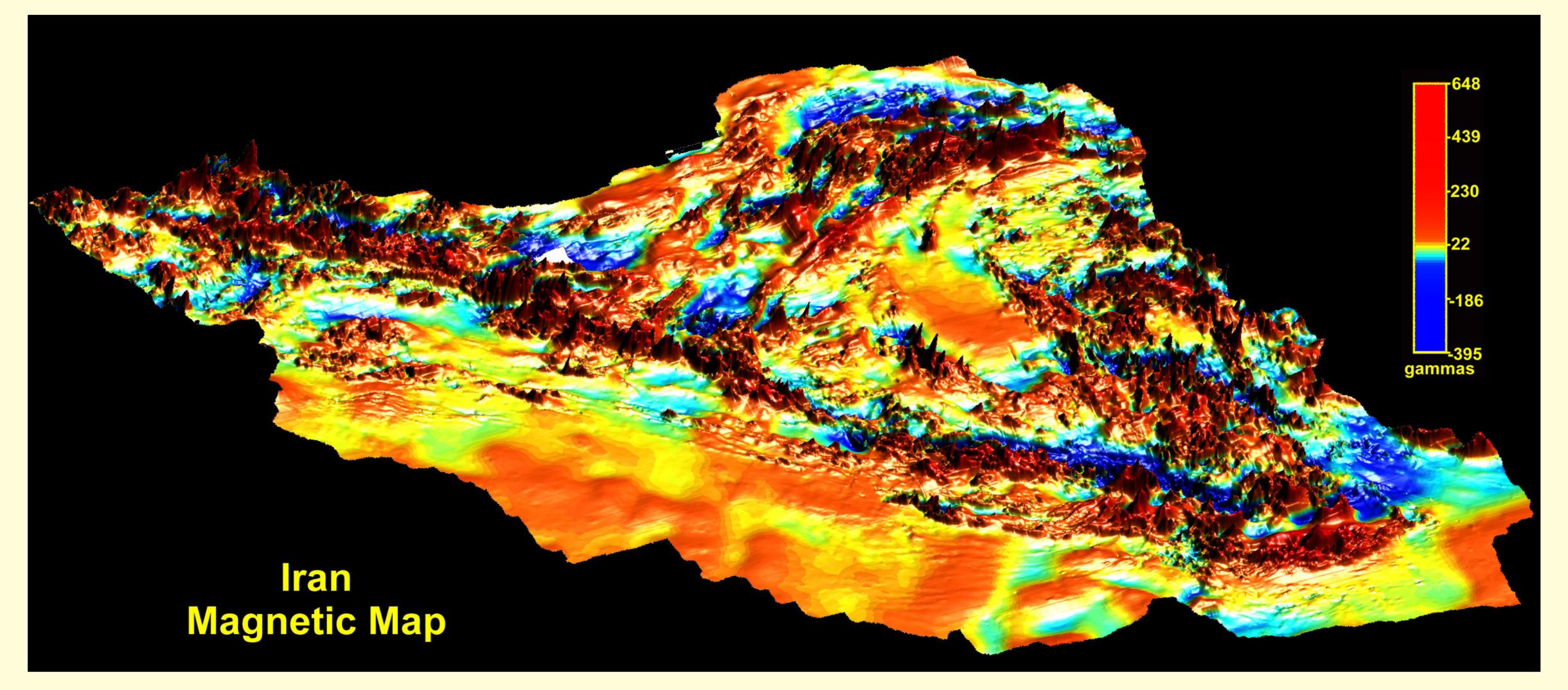
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Abstract: The structural styles of the Dezful Embayment are the result of fault-related folding and detachment folding. There are two well known detachments that occur in the Tertiary Gachsaran formation and the Infracambrian Hormuz formation. Additional detachments may occur within the Paleozoic. The Zagros is well known for detachment style folding related to the Infracambrian Hormuz salt, but these styles of folding are confined to the original salt basin boundaries. The styles of structural deformation change in the Zagros from salt-related detachment style folding, to salt swells and pillows associated with fault-propogation style folding, and fault-related folding, as the thickness of the paleo-Hormuz salt basin diminishes. The Fars region of the Southern Zagros Mountains are characterized by salt detachment folding with upright concentric folding. This style of deformation varies drastically in the Dezful embayment of the Northern Zagros as folding is largely fault-related folding. Older Dezful structures are related to salt related folding and exhibit coincident thinning over the structures. Thrusts in the Tertiary Gachsaran formation are often out-of-sequence thrusts, that ramp up from deeper detachments verging westward. The hanging-wall anticlines related to thrusts in the Gachsaran formation are often not coincident with deeper fault-related structures formed earlier.

Growth strata is also seen related to structures generated from faults in the Gachsaran and deeper detachments. Changes in structural syles and regional seals along strike in the Zagros Mountains complicate the petroleum systems of the Dezful Embayment.



Tectonic provinces, digital topography and bathymetry of Iran and the Gulf region.



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