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**Contractional Domains of the Niger Delta: Structural Styles, Influence of Mobile Shale, and Structural-Stratigraphic Evolution**

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The Niger Delta is a passive margin, detached, paired extensional-contractional system driven by gravity and sediment loading. Updip extension is linked to downdip contraction by a regional detachment in mobile shale. Structural styles in the downdip contractional domain include ductile detachment folds, shear fault bend and fault propagation folds, and tear faults.

The fold and thrust belt of the contractional domain is laterally segmented into regions characterized by tear faults and thrusts, backthrusts, forethrusts, and imbricated forethrusts. Tear faults are localized at major displacement gradient zones along delta lobe margins. The distribution of forethrusts and backthrusts is related to critical taper wedge geometry.

Early Tertiary mobile shale in the Niger Delta is characterized by seismic transparency, low velocity, low density, and ductile deformation style, indicating that it is overpressured and mechanically weak. Mobile shale thins basinward in the contractional domain and is associated with changes in physical properties and structural styles.

Structural features controlled distribution of paleogeographic elements and reservoir facies in the evolution of the Niger Delta. The downdip limit of contraction marks the paleo-toe-of-slope where distributive deposits accumulated, whereas ponded minibasin and channelized deposits formed on the slope where contractional deformation prevailed. These paleobathymetric features translated basinwards with time forming an overall progradational stacking pattern.