Can back-arc processes in a simplified model explain much of the complexity of the northern Appalachian orogen?

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"Introduction"

In the Iapetus Ocean, large bodies of gabbros are preserved for studying the processes that accompanied oceanic accretion and subduction. Several units of gabbros are presented here as evidence for the complications of subduction: (1) Iapetus Spreading Ridge (ISR) gabbros, (2) Penbscot orogeny, (3) Peri-Laurentian amalgamation, and (4) Penobscot orogeny. These complications are explained by the differences in the subducted terranes and the nature of the subduction zones. The intrusions are cooled and are structurally consistent with the later reactivation of the subduction zone. These gabbros record the complications of subduction and the later reactivation of the subduction zone. They record the processes that were involved in the formation of the Acadian orogen and the later reactivation of the subduction zone.

"Database assembly"


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The evidence presented here shows that back-arc processes can explain much of the complexity of the northern Appalachian orogen. The gabbros record the processes that were involved in the formation of the Acadian orogen and the later reactivation of the subduction zone. They record the processes that were involved in the formation of the Acadian orogen and the later reactivation of the subduction zone.