

geochronology and isotope geology, indicated that this model was incomplete. We will present new evidence that the Taconic orogeny comprises three separate accretionary events starting in the Late Cambrian and finishing in the Late Ordovician. Taconic 1 is represented by ca. 495 Ma west-directed obduction of the ca. 510 Ma Lushs Bight oceanic Tract onto the peri-Laurentian Dashwoods microcontinent. Subduction is inferred to have initiated at a spreading centre abandoned during an inboard ridge jump responsible for separation of Dashwoods from Laurentia. Partial subduction of the buoyant Dashwoods forced subduction to step back into the Humber seaway, which led to formation of the ca. 490 Ma Baie Verte oceanic tract (BVOT). Dextral oblique closure of the Humber seaway first formed the Notre Dame arc (489–477 Ma) built on Dashwoods and the coeval Snooks Arm arc built on the BVOT, followed by their collision with Laurentia (Taconic 2) and each other. The obliquity of convergence induced large-scale translations of continental ribbons of the Laurentian margin from the latitude of Labrador to central Newfoundland. After a magmatic gap of c. 7–10 my, the Notre Dame arc records a voluminous flare-up of predominantly tonalite magmatism (464–459 Ma) during the waning stages of Taconic 2. Magmatism overlaps with strong deformation and comprises both arc and non-arc-like tonalite. We relate this flare-up to break-off of the oceanic lithosphere of the downgoing Laurentian slab. Taconic 3 is represented by 455–450 Ma collision between a peri-Laurentian arc terrane and the peri-Gondwanan Popelogan-Exploits arc and their composite accretion to Laurentia.

The Taconic orogeny in Newfoundland: a three-stage process

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Hank Williams spent a large part of his geological career on the remnants of the Taconic orogeny in western Newfoundland. In particular, his outstanding work concerning the emplacement of ophiolites is known worldwide. The generally established tectonic model in those days was one of a collision between the Appalachian margin and a forearc/arc terrane during the Ordovician. Subsequent work, particularly