The two major geological units yielding quarried slate are colored on these vertical cross-sections B¹ Indian River Slate Mud Brook-Middle Granville Giddings Brook Fault Slyboro-Mt. Ham Middle Granville Slate C Mettawee River VT. 22A South Bay, N.Y. 22 East Fault Middle Granville Lee Road Fault Fault G Slyboro-Mt. Hamilton Syncline Mettawee River Fault WHITEHALL East Whitehall D.&H. R.R. Giddings Brook Slyboro-Mt. Hamilton Syncline Giddings Brook Fault Mettawee River Lee Road Note that the slates, along with all the other strata of the Taconic thrust sheets, are disposed in folds. The deformation of once-horizontal sedimentary strata into these crumpled fold forms was what created the slates and their rock cleavage from shales, as part of an episode of mountain building about 450 million years ago. Middle Stoddard Granville Road Fault Fault N Lee Road 0 Giddings Brook New Boston Fault N Syncline Dewey Bridge N.Y. 22 The Pinnacle Battle Hill Fault Comstock Fault Mettawee River D.&H. R.R. Vertical exaggeration 2x The scale of these sections is exaggerated two times in the vertical direction relative to the horizontal scale. This makes the topographic profile look rougher than it is in reality; it also makes the inclination of geological structures somewhat steeper than they actually are. For location, see the geological map.

Cross-sections of the Taconic slate belt near Granville, NY