A STATE BY GEOLOGICAL CONSENT

Connecticut exists by geological consent. That's my corruption of historian Will Durant's most quotable quote: "Civilization exists by geological consent, subject to change without notice."

The Roman city of Pompeii, buried by volcanic ash from Vesuvius, provides a dramatic example of change without notice. We may look back on climate change from the use of fossil fuels in somewhat the same way.

The last days of Pompeii came quickly. The geological consent that allowed the settlement of Connecticut did not.

In the early 17th century, there wasn't one Connecticut, but three pioneering English colonies. To the north lay the Central Lowland settlements of Windsor, Wethersfield and Hartford (1633-1637). To the west was the more powerful New Haven Colony (1638), situated on the northern edge of Long Island Sound. To the east, at the mouth of the Connecticut River, lay the colony of Old Saybrook (1636). Each of these colonies lay in its own distinct geological setting.

The Central Lowland settlements were nestled within a broad interior basin that originated about 250 million years ago. The Earth's crust stretched apart, creating a rift valley not unlike those of East Africa today, with an elongate tropical lake, mountain streams and lazy, winding rivers. The basin filled mostly with sand and mud, which hardened into maroon-red sandstone and brown-black shale.

On several occasions, lava gushed forth from deep fissures, cooling to form resistant layers of basalt. During the last hundred million years, in the area north of Middletown, the soft sandstone and shale was eroded into a lozenge-shaped topographic lowland, later deepened by ice sheet erosion. Then it was occupied by a large glacial lake until about 13,000 years ago.

By the time of 17th-century European settlement, the floor of the lake had been drained and downcut by the Connecticut River to produce a broad, vast area of loamy, stone-free soils. Closer to the river were natural meadows of marsh hay. Clear streams of fresh water drained down from the eastern and western highlands into an Eden--esque agricultural setting embraced by harder, higher hills.

The New Haven Colony formed in a different basin with a very different history.

Until about 100 million years ago, a coastal plain extended north of the present Connecticut shore. During the same uplift that caused the carving of the Central Lowlands, the weakly consolidated sediments of the inner coastal plain were stripped away by river erosion. The result was a north-facing escarpment or continuous ridge, the crest of which is under present-day Long Island.

When ice-sheet glaciation commenced about a million years ago, the Connecticut River Valley guided ice southward more effectively than the rougher surfaces of the eastern and western highlands. This produced an enormous lobe of glacier ice above New Haven that eroded away even more of the coastal plain sediments and bulldozed the residues against the escarpment.

The final icy push about 20,000 years ago created a continuous marginal moraine that marks the gracefully curved shore of Long Island Sound between Oyster Bay and Orient Point. Founders of the New Haven Colony chose wisely, locating their settlement at the widest part of this moraine-rimmed basin, midway along its length.
The third ancient colony of Old Saybrook lay at the touching point between the basins of the central valley and Long Island Sound. When the ice sheet pulled back from its moraine, what is now a saltwater sound was then a freshwater glacial lake that drained into the Atlantic opposite the powerful flows of the Connecticut River. Then, about 15,000 years ago, the drained floor of this glacial lake re-filled with shallow salt water through the same passages that used to carry freshwater.

The colony of Old Saybrook was established opposite the most safely navigable entrance to the river, where ships parted company to head either north to the agricultural lowland or west to the more maritime New Haven colony.

Thus did geology consent to the founding of one Connecticut from two basins and the touching point between them. This world is still subject to change without notice.