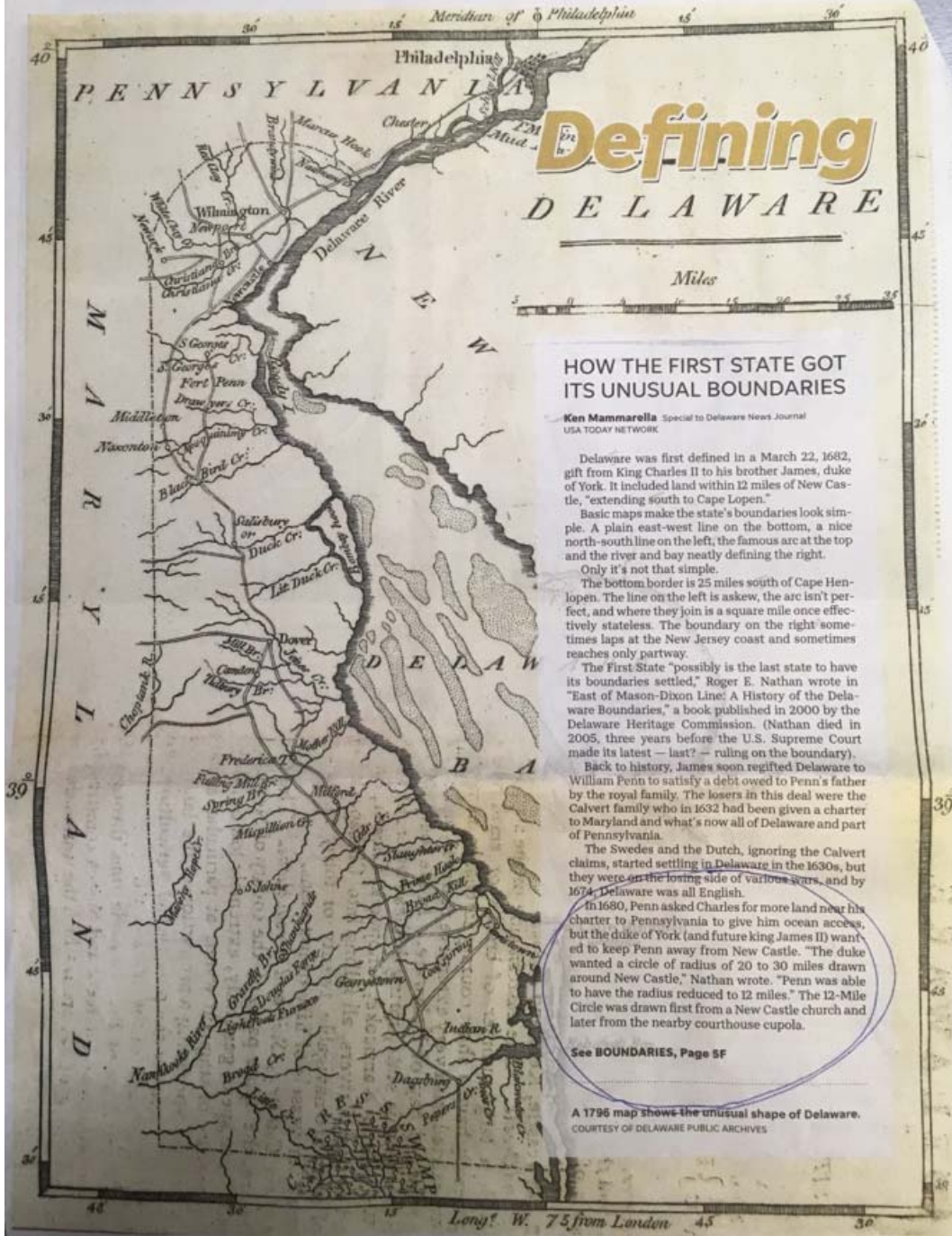


“The Duke of York wanted a circle of 20 or 30 miles drawn around New Castle.”

SundayLife



Defining DELAWARE

HOW THE FIRST STATE GOT ITS UNUSUAL BOUNDARIES

Ken Mammarella Special to Delaware News Journal
USA TODAY NETWORK

Delaware was first defined in a March 22, 1682, gift from King Charles II to his brother James, duke of York. It included land within 12 miles of New Castle, "extending south to Capelopen."

Basic maps make the state's boundaries look simple. A plain east-west line on the bottom, a nice north-south line on the left, the famous arc at the top and the river and bay neatly defining the right.

Only it's not that simple. The bottom border is 25 miles south of Cape Henlopen. The line on the left is askew, the arc isn't perfect, and where they join is a square mile once effectively stateless. The boundary on the right sometimes laps at the New Jersey coast and sometimes reaches only partway.

The First State "possibly is the last state to have its boundaries settled," Roger E. Nathan wrote in "East of Mason-Dixon Lines: A History of the Delaware Boundaries," a book published in 2000 by the Delaware Heritage Commission. (Nathan died in 2005, three years before the U.S. Supreme Court made its latest — last? — ruling on the boundary).

Back to history, James soon repaid Delaware to William Penn to satisfy a debt owed to Penn's father by the royal family. The losers in this deal were the Calvert family who in 1632 had been given a charter to Maryland and what's now all of Delaware and part of Pennsylvania.

The Swedes and the Dutch, ignoring the Calvert claims, started settling in Delaware in the 1630s, but they were on the losing side of various wars, and by 1674, Delaware was all English.

In 1680, Penn asked Charles for more land near his charter to Pennsylvania to give him ocean access, but the duke of York (and future king James II) wanted to keep Penn away from New Castle. "The duke wanted a circle of radius of 20 to 30 miles drawn around New Castle," Nathan wrote. "Penn was able to have the radius reduced to 12 miles." The 12-Mile Circle was drawn first from a New Castle church and later from the nearby courthouse cupola.

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A 1796 map shows the unusual shape of Delaware. COURTESY OF DELAWARE PUBLIC ARCHIVES

Boundaries

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"Because of errors in this difficult survey, the arc is a compound curve with several different radii," wrote Sandy Schenck of the Delaware Geological Survey, which since 1971 has coordinated work on the boundaries and their monuments.

In 1682, Penn sailed to Delaware, added it to Pennsylvania and started negotiating with the Calverts over the other boundaries. Their dispute was resolved on Nov. 7, 1685 with Britain's commissioner for trade and plantations dividing the peninsula vertically, between the 40th parallel (which actually bisects Philadelphia) and the latitude of Cape Henlopen, with the Calverts getting areas to the west and south.

Maryland's claim to Delaware was denied because the commissioner ruled that its charter only included land "uncultivated by Christians," Mark Stein wrote in the fascinating "How the States Go Their Shapes."

Religion underlaid a lot of the arguments about Delaware's borders: The Penns were known as Quakers, the Calverts Catholic and Delaware's early settlers primarily Protestant.

As the number of Delaware residents (and taxpayers) grew, so did the Calvert-Penn tiff, ending with a new agreement on May 10, 1732.

"The line of division was to run due west from Cape Henlopen to a point in the middle of the peninsula and then northerly to a point tangent to a 12-mile circle around New Castle," Nathan wrote. Except the attached map placed Cape Henlopen at Fenwick Island.

That confusion is understandable: "Early Swedish settlers called the present Cape Henlopen, Cape Inlopen, and the Fenwick Island Cape Henlopen or Hinlopen, signifying 'entering in,'" a Delaware Public Archives posting says.

Whatever. It meant an 800-square-mile loss for Maryland, which also argued fruitlessly that the arc should be a smaller circle with a 12-mile diameter, not a 12-mile radius.

Surveyors started in 1750 from Fenwick, placing stone markers every five miles on this east-west Transpeninsular Line (about 38°27'). It took 10 years to define the Middle Point (the peninsula's east-west midpoint) and hence where to start the Tangent Line, running roughly north.

It took surveyors three years to do an OK job of drawing the Tangent Line. There's also a small bulge at the northern end of the Tangent Line called the Arc Line: It represents the western reach of the 12-Mile Circle.

An important circle, plus some lines

Delaware's boundaries include multiple parts, according to Sandy Schenck of the Delaware Geological Survey, which since 1971 has coordinated work on the boundaries and their monuments.

- 12-Mile Circle, centered on the cupola of the New Castle Courthouse. The Delaware-Pennsylvania boundary is an arc running from the northeastern edge of the Wedge called Arc Corner across the Delaware River to the Mean Low Water Line, established in a 1934 U.S. Supreme Court ruling.

- Mean Low Water Line, riverbed reaching up to New Jersey land, within 12 miles of New Castle.

- Delaware Bay Line, the shipping

channel's midpoint, south of the circle to near Cape Henlopen.

- Transpeninsular Line, running west from Fenwick to Middle Point.

- Tangent Line, running roughly north from Middle Point to the Tangent Stone.

- Arc Line, a tiny bulge in the northern end of the Tangent Line, created by the 12-Mile Circle.

- North Line, a due north line forming the western boundary of the Wedge, with the Top of the Wedge Line forming the top. The Wedge is a triangular area, south of Pennsylvania, east of Maryland and west of the 12-Mile Circle.

Why the border matters

A fatal accident on Concord Pike in 1960 led to a costly question, The New York Times reported in 1975: "Did the victim die in Delaware or Pennsylvania? Who had jurisdiction? The boundary markers were missing. The National Geodetic Survey was called in. At a cost of almost \$50,000, its surveyors determined after four months' work that the man had died one foot inside Delaware."

An unknown number of families live on properties that straddle the Delaware border, The Baltimore Sun reported in 1990, detailing complications in mail delivery, utilities, taxes and bureaucracy. "It does make life interesting, even though it costs a lot of money and aggravation," Joe Moss said then.

Learning more

The Delaware Public Archives is an excellent source for details about Delaware's boundaries. At <https://archives.delaware.gov>, it has posted key documents, maps and an e-book, Roger E. Nathan's thorough "East of Mason-Dixon Line: A History of the Delaware Boundaries." The archives also has a role-playing game for fourth- and fifth-graders called "Why Does Delaware Have Such a Strange Shape?" "In 1664 the plot began to thicken," one participant is instructed to say. Play along at <https://archives.delaware.gov/exhibits/education/4th&5th/LessonB.pdf>.

phia's southern edge. Fifteen miles south of what's now South Street became the main border between Pennsylvania and Maryland, at 39°43'.

So forget about that insistence on the 40th parallel: another loss for Maryland. They continued to draw the Tangent Line, which doesn't run due north-south but at angle to connect the edge of the arc with the Middle Point 80 miles south. By 1768, 179 stone monuments had been placed along the boundary lines, and arguing that had gone on for a century was over.

Yeah, right.

With some monuments gone, the 1840s called for a new survey and monuments, plus a new interpretation of assigning the land. The Graham Resurvey moved from Delaware to Pennsylvania a 714-acre triangle west of the arc, with the North Line as its western boundary

man's land, providing shelter for illegal bootlegging and gambling operations," Matt Soniak wrote for Mental Floss.

This naughty behavior, the lure of growing numbers of taxpayers and what the Delaware Public Archives calls "vague and conflicting traditions" led to another survey five decades later.

The Wedge returned to Delaware, and the Horn (a sickle-shaped stretch of land on the northwestern side of the arc) moved to Pennsylvania. This round of changes took from 1889 to 1921 to be agreed upon. Border disputes continued for the Delaware river and bay.

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State boundary markers include those at, from top, Wedgestone, Midpoint and Fenwick Island. COURTESY OF DELAWARE PUBLIC ARCHIVES





The Fisher map shows Delaware Bay in 1776. COURTESY OF DELAWARE PUBLIC ARCHIVES

Boundaries

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One 1872 case involved shad, and a 1929 case involved oysters. In between was a 1905 Delaware-New Jersey compact that covered fishing, crime and civil processes — but not who owned the land under the water. New Jersey said the boundary was the middle or the deepest part of the main shipping channel (a thalweg). Delaware felt it owned the riverbed all the way to the edge of New Jersey within the 12-Mile Circle.

In 1934, the U.S. Supreme Court sided with Delaware for the Mean Low Water Line within the circle, following the shipping channel's Delaware Bay Line to the south. That led to more fights. Delaware tried taxing wharfs and piers (go ahead, these businesses said, just provide police and fire protection).

The latest was a proposal for a liquefied natural gas plant mostly in New Jersey, with the U.S. Supreme Court ruling on March 31, 2008, that Delaware could block the plant, because parts would extend into Delaware water.

"Delaware even considered a bill calling on the National Guard to protect its borders from the threat of New Jerseyan invasion," "Jeopardy!" champion Ken Jennings wrote in "Maphead."

Back to history: Also in 1934, the federal government created a bird refuge



A 1976 map depicts Delaware, with the northern arc highlighted. COURTESY OF DELAWARE HISTORICAL

that Nathan called a gimmick for what was really a deposit of dredging spoils.

The uninhabited Killcreek area is attached to New Jersey, northwest of Fort Mott State Park, but is legally Dela-



A 1769 map shows the Mason-Dixon Line. COURTESY OF DELAWARE PUBLIC ARCHIVES

ware, "because whenever man changes the topography, boundary lines do not change," Nathan wrote.

Another bit of Delaware is attached to New Jersey's Artificial Island, north

of the Hope Creek and Salem nuclear power stations. Neither place is inhabited, so a lack of taxpayers is likely to keep them off the argument list. For now.