

# Formation of the U.S. Corps of Engineers



# Father of the Corps of Engineers



**At age 16 he was engaged by Lord Fairfax as a surveyor's helper to survey 1.5 million acres of the Northern Neck of Virginia, which extended into the Shenandoah Valley**

**At 17 he began surveying lots in Alexandria for pay, and became surveyor of Culpepper County later that summer.**

**At age 21 he was given a major's commission and made Adjutant of Southern Virginia. Six months later he led the first of three English expeditions into the Ohio Valley to initially parlay, then fight the French.**

**Few individuals had a better appreciation of the Allegheny Mountains and the general character of all the lands comprising the American Colonies**

# First Engineer Action



**Battle of Bunker Hill in Boston in 1775**

# Washington's First Chief Engineer



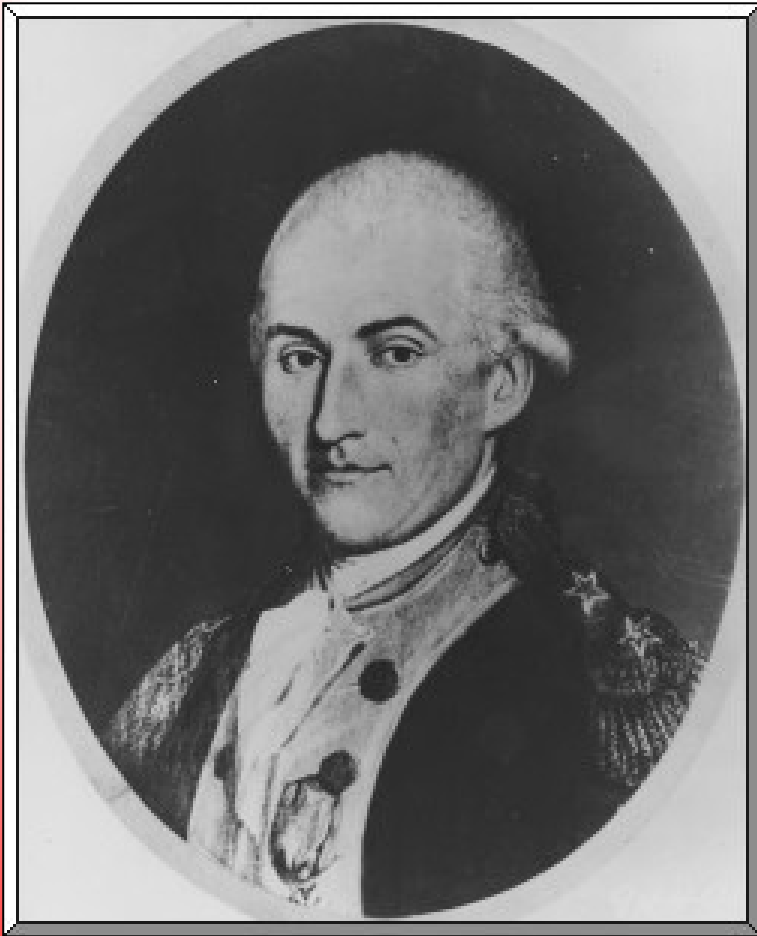
**Rufus Putnam 1738-1824**

**In 1775 Putnam entered the Continental Army as a lieutenant colonel. He was involved in the organization of the batteries and fortifications in Boston and New York City in 1776 and 1777, serving as Washington's first chief Engineer.**

**He went on to greater successes commanding a regiment under General Horatio Gates at the Battle of Saratoga in September 1777.**

**He built new fortifications at West Point in 1778 and in 1779 he served under General Anthony Wayne. He was promoted to brigadier general four years later.**

# Chief Engineer 1777 - 1783



**Louis Duportail**

**Washington pleaded for more engineers, which began arriving from France in 1776. In late 1777 Congress promoted Louis Duportail to brigadier general and Chief Engineer, a position he held for the duration of the war.**

**When Duportail took command of the engineers he renewed the pressure begun by his predecessor to establish a permanent, separate and distinct engineering branch of the Army. His proposal included a provision for companies of engineer troops to be known as Sappers and Miners and to be officered by Americans. From their ranks would come the engineer officers to replace the French when they returned home.**

# Military Engineers at Yorktown

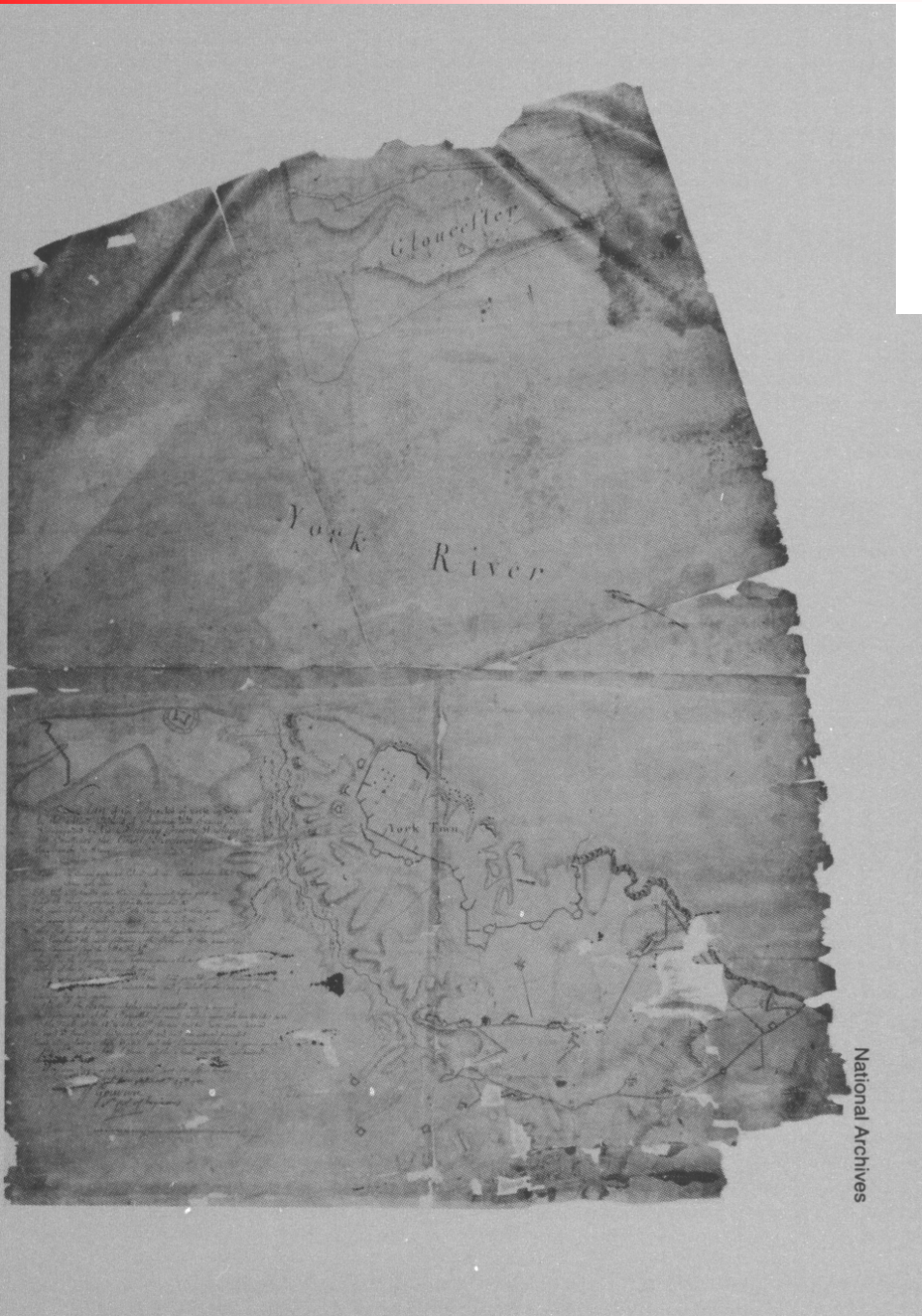


# Yorktown Map

**Yorktown was situated on the southern shore of the York River estuary, on the north side of the James Peninsula, which contained Virginia's first capitol, Williamsburg.**

**It was very low lying, but easily accessed by shipping in Chesapeake Bay**

**The British assumed the Royal Navy could break any attempted blockade by the French and Americans and reinforce their position or retract their forces if need be.**

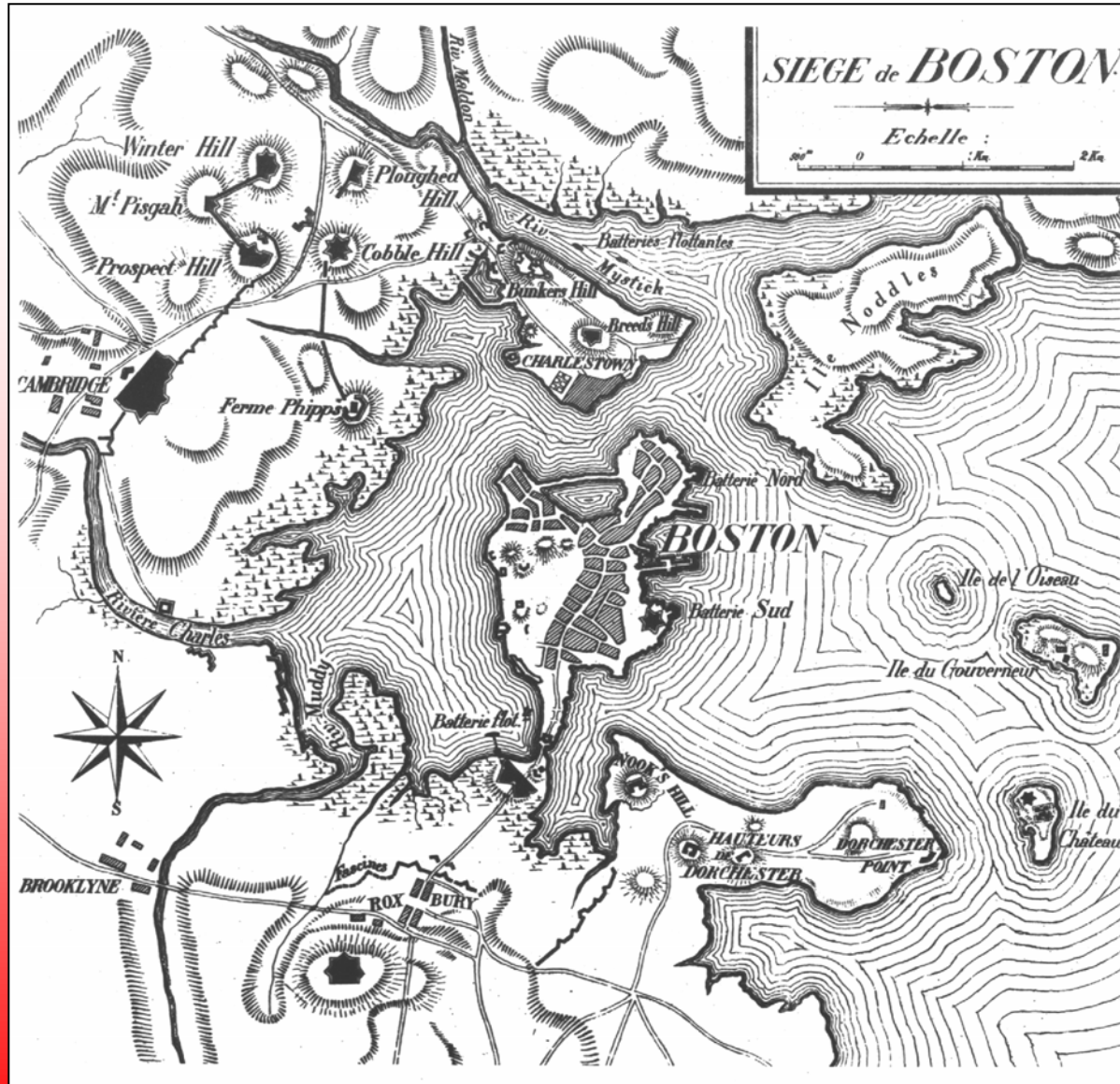


# Sappers Breaching a redoubt





# Plan for the Siege of Boston



# Early Cartography by Military Engineers



**In 1805 President Jefferson created the Offices of U.S. Surveyor General and the U.S. Coast Survey**

**Each entity was given responsibility for mapping key commercial and industrial areas, such as forts, roads, canals, and harbors; and to establish a system of initial points for undertaking surveys of newly acquired lands.**

Thaddeus Kosciuszko, by  
Charles Willson Peale.



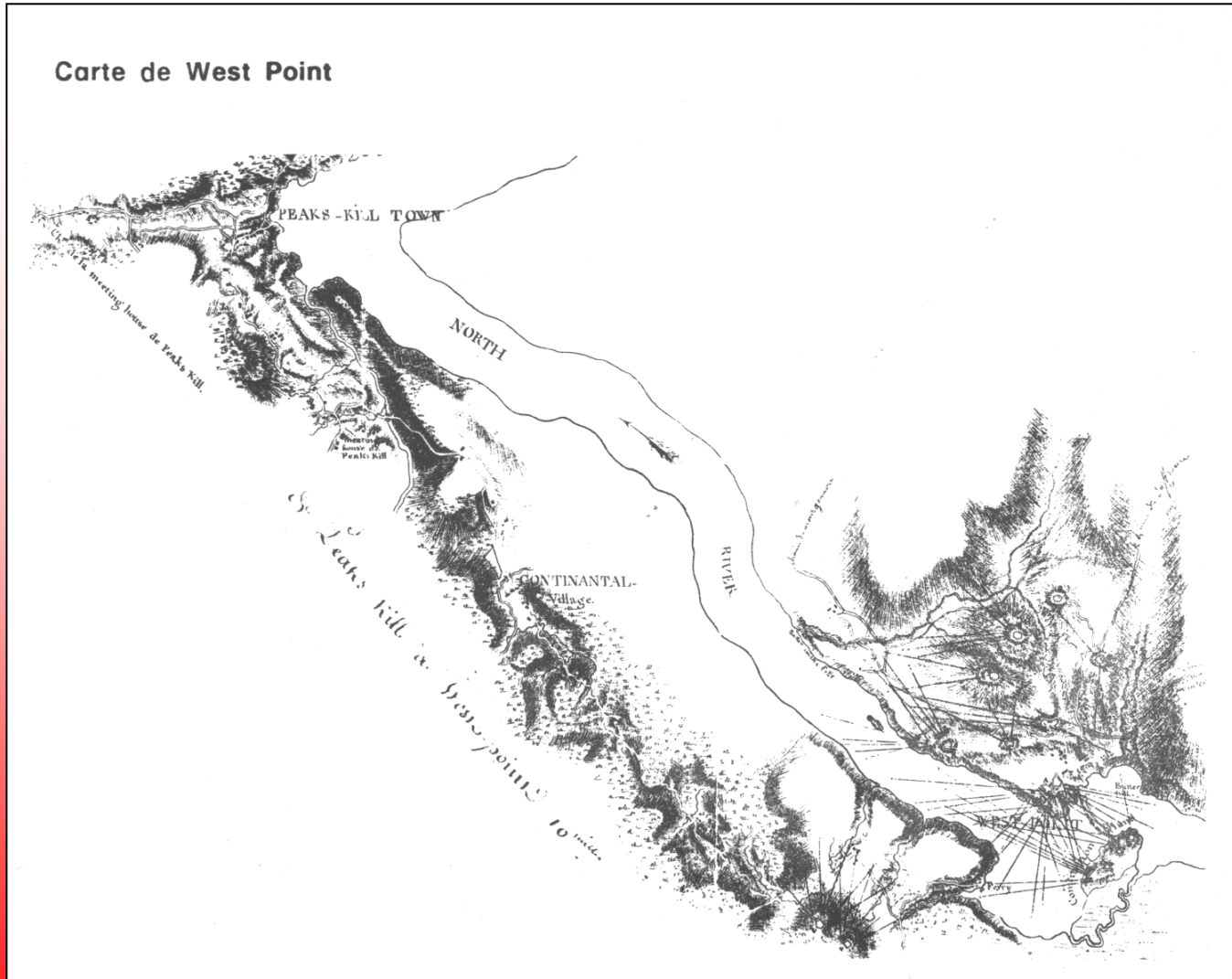
Independence National Historical Park Collection

# Thaddeus Kosciuszko was a Polish military engineer

He developed an intricate plan for the defense of West Point along the Hudson River, which was never conquered by the British.

This work influenced subsequent military engineering efforts in America because West Point became the nation's new military academy in 1802.

# Map of Kosciuszko's West Point fortifications



# References

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