

PRIMARY SOURCES ON FORTIFICATIONS

“To George Washington from Major General John Armstrong, 19 December 1777,” Founders Online, National Archives, last modified June 13, 2018, <http://founders.archives.gov/documents/Washington/03-12-02-0577>. [Original source: The Papers of George Washington, Revolutionary War Series, vol. 12, 26 October 1777?–25 December 1777, ed. Frank E. Grizzard, Jr. and David R. Hoth. Charlottesville: University Press of Virginia, 2002, pp. 632–634.]

“General Orders, 15 January 1778,” Founders Online, National Archives, last modified June 13, 2018, <http://founders.archives.gov/documents/Washington/03-13-02-0203>. [Original source: The Papers of George Washington, Revolutionary War Series, vol. 13, 26 December 1777–28 February 1778, ed. Edward G. Lengel. Charlottesville: University of Virginia Press, 2003, pp. 243–246.]

“To George Washington from Brigadier General Duportail, 18 January 1778,” Founders Online, National Archives, last modified June 13, 2018, <http://founders.archives.gov/documents/Washington/03-13-02-0226>. [Original source: The Papers of George Washington, Revolutionary War Series, vol. 13, 26 December 1777–28 February 1778, ed. Edward G. Lengel. Charlottesville: University of Virginia Press, 2003, pp. 262–266.]

“Officers who are desirous of taking Commissions in the company of sappers under the Command of Brigadier General Du Portail and possess the necessary qualifications, such as the knowledge of practical Geometry & drawing will give in their Names at the Adjt General’s office: Three Captains, three first & three second Lieutenants are wanting.”¹

“That the timber prevalent about Valley Forge, previously to its being fallen for the use of the American army, in the autumn of 1777, and winter and spring of 1778, consisted of white oak, black oak, Spanish oak, rarely interspersed with scrubby chestnut and hickory.”²

Contemporary Maps of Valley Forge Winter Encampment

Antoine-Jean-Louis Le Bègue De Presle Duportail, Plan of the position of Valley Forge after Jany. [1778] Map, <https://www.loc.gov/item/gm71000935/>.

“Tredyffrin History Digital Archives: The William Davis Map” Tredyffrin Easttown Historical Society, last modified September 5, 2018,

<http://the2nomads.org/18CTredyffrin/Military/WilliamDavisMap.html>.

1777.25 PROGRESS OF THE BRITISH ARMY FROM THE LANDING IN ELK RIVER TO THE TAKING POSSESSION OF PHILADELPHIA ANNO 1777. “This manuscript map shows Howe’s route of march north from the Chesapeake to surround the city. The road network is shown in detail. It is attributed to Capt. John Andre, the same British officer later executed in the Benedict Arnold affair. Illustrated on page 55 of Marshall & Peckham. This image is from the Library of Congress. There are two manuscript maps attributed to Andre concerning the Mud Island operations listed in Docktor #277A2, #277A2.0A. A military journal of Andre is at the Huntington Library. It contains several manuscript maps on Brandywine, Germantown, the Philadelphia fortifications, and the operations against Mud Island; see Guthorn (1972) #2.”³

¹ “General Orders, 8 February 1778,” Founders Online, National Archives, last modified June 13, 2018, <http://founders.archives.gov/documents/Washington/03-13-02-0392>. [Original source: The Papers of George Washington, Revolutionary War Series, vol. 13, 26 December 1777–28 February 1778, ed. Edward G. Lengel. Charlottesville: University of Virginia Press, 2003, pp. 473–476.]

² “On Timber at Valley Forge,” Letter from Isaac Wayne, Esq., Easttown, Chester County (PA) to Richard Peters, Philadelphia, 4 March 1814, in “Memoirs of the Philadelphia Society for Promoting Agriculture, Containing Communications on Various Subjects in Husbandry and Rural Affairs,” Vol III. (Philadelphia: Johnson and Warner, 1814), 376.

³ Harold Cramer, “1775 to 1779 Pennsylvania Maps,” Historical Maps of Pennsylvania, last modified May 28, 2018, <http://www.mapsofpa.com/antiquemaps27b.htm>.

1777.27 (Valley Forge) "On page 63 in Marshall & Peckham is an anonymous, untitled and undated manuscript map of the encampment at Valley Forge during the winter of 1777-78, probably done by a British spy who actually visited the camp. It indicates Washington's headquarters and shows the encampment as three long rows of shacks or tents. Many historians have tried to portray this dismal time as a moral victory for Washington. The map was apparently found in the papers of General Henry Clinton and is now in the William Clements Library. The Pennsylvania Archives, in Manuscript Group 11 #730, has a facsimile map "Contemporary Map of the Encampment at Valley Forge 1777-1778," by a French engineer, from the original in the Library of Hon. Samuel W. Pennypacker, LL.D., copyright by the Pennsylvania Society of the Sons of the Revolution, 1898. Roads, Flatland Ford, River, Bridge, encampments, old headquarters are shown. This appears to be a different contemporary manuscript map of Valley Forge. Docktor #278A9 lists a manuscript map of Valley Forge in the Jared Sparks papers at Cornell University Library dated 1778, and also one (#278A9.0C) in the Library of Congress. Guthorn (#51-D2) lists a color wash manuscript map 14 x 20 inches, and (#51 D 4) a 13 x 15 inch manuscript map dated to 1778; both of Valley Forge and held at the Historical Society of Pennsylvania. Winsor illustrates a composite map of Valley Forge shown here prepared from at least two sources."⁴

1778.27 A CHOROGRAPHICAL MAP, OF THE COUNTRY, ROUND PHILADELPHIA. By B-Romans. "The map is dated from ads which appeared for it in newspapers of the time. Valley Forge is shown and called "Grand American Winter Camp January 1778." The map was republished circa 1780 with the added title CARTE PARTICULIERE DES ENVIRONS DE PHILADELPHIE. K. Klockhoff sculps. A Amsterdam, chez Covens et Mortier, et Covens, junior. This image of the Klockhoff print comes from the Library of Congress. Wheat & Brun #304, Phillips page 701, Guthorn #41-7,8."⁵

FURTHER READING

John Muller, *The Attac and Defence of Fortify'd Places* (J. Millan, 1757).

Marc René, marquis de Montalembert, *La Fortification perpendiculaire* (Philippe-Denys Pierres, 1776).

Vauban, Sebastien Le Prestre de, *A manual of siegecraft and fortification* (Ann Arbor, MI: University of Michigan Press, 1968).

"Yorktown Redoubt No. 10." *U.S. Army Heritage & Education Center*,

<https://ahec.armywarcollege.edu/trail/Redoubt10/diagram.cfm>. Accessed 18 September 2017.

⁴ Harold Cramer, "1775 to 1779 Pennsylvania Maps," <http://www.mapsofpa.com/antiquemaps27b.htm>.

⁵ Harold Cramer, "1775 to 1779 Pennsylvania Maps," <http://www.mapsofpa.com/antiquemaps27b.htm>.

MILITARY DEFENSE TERMINOLOGY



ABOUT GABIONS

Between three to six feet tall, gabions were large baskets woven from tree branches. Open at top and bottom, gabions were packed next to each other and filled with earth to become part of a reinforced earthwork. Gabions gave structure to the earthwork and made it stronger than it would be otherwise.

OTHER TERMS

Abatis—(Ah – bah – TEE) eighteenth-century barbed wire. To make abatis, soldiers chopped down tree branches, removed the leaves and sharpened the branches into pointed stakes. They often crossed the branches with each other to make it difficult for the enemy to remove them. Soldiers would place abatis as an extra obstacle around a redoubt (see below). Borrowed from French, literally, “act of felling, things felled.”

Earthworks—large structures partially made of earth and used for defense. Also referred to as earthen forts or earthwork fortifications.

Fascines—(Fah – SEEN) bundle of sticks or branches tied together to create a sausage-shaped reinforcement, which were stacked on top of gabions to strengthen the earthen fortifications. Attackers also threw fascines into the ditch of earthen fortifications, making a bridge to get over the top.

Fraises—one of many large, pointed stakes placed at an angle near the base of an earthen fortification, extending over the ditch to impede or prevent assault from enemy troops. Borrowed from French, literally, “pleated collar, ruff.”

Hornwork—large earthwork configuration (vaguely shaped like an animal horn) that extended outward from the main part of a defensive line to protect high ground, etc.

Palisades—a fence of pointed vertical logs driven into the bottom of the ditch.

Redan—a work in a V-shaped salient angle towards an expected attack. It was made from earthworks or other material. French word for “projection,” “salient.”

Redoubt—a small, usually temporary, earthen fort. Soldiers made them in a variety of shapes, and could either stand in isolation, or as part of a long defensive line. French for “a place of refuge” or “a place of retreat.”

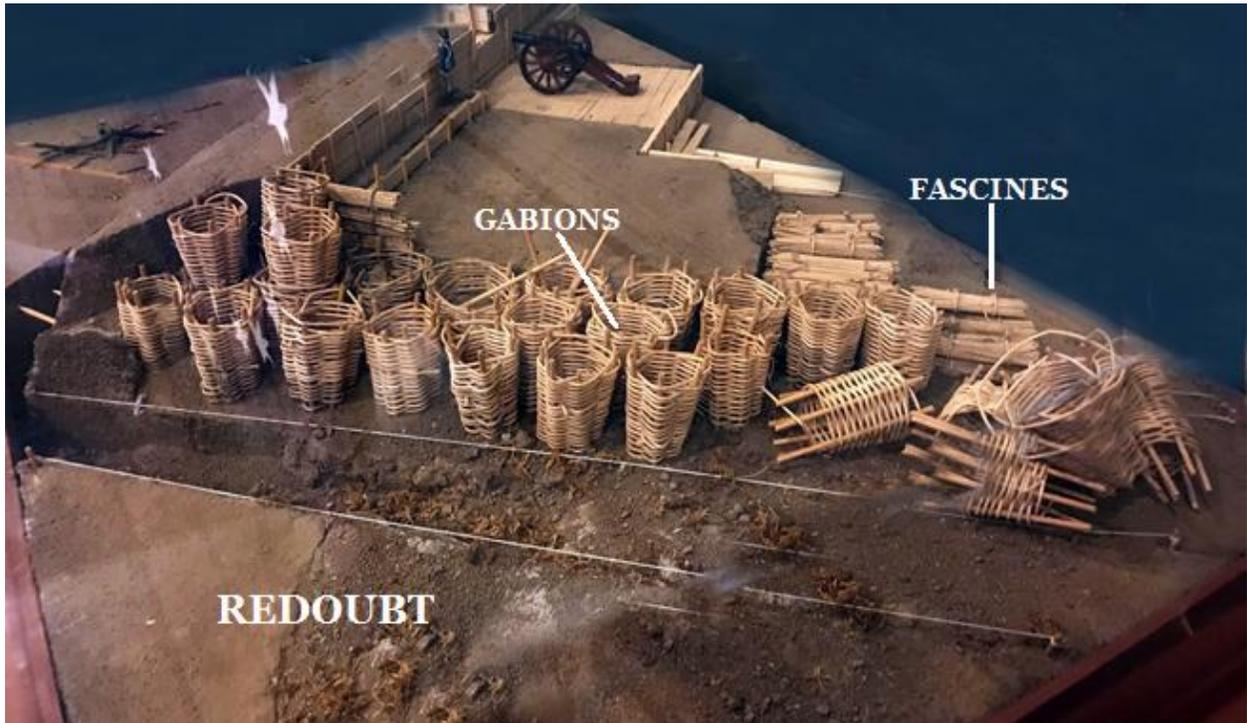
Saucissons—(Saw – see – SÖHN) extra-long fascines. French for a variety of thick, dry-cured sausages.

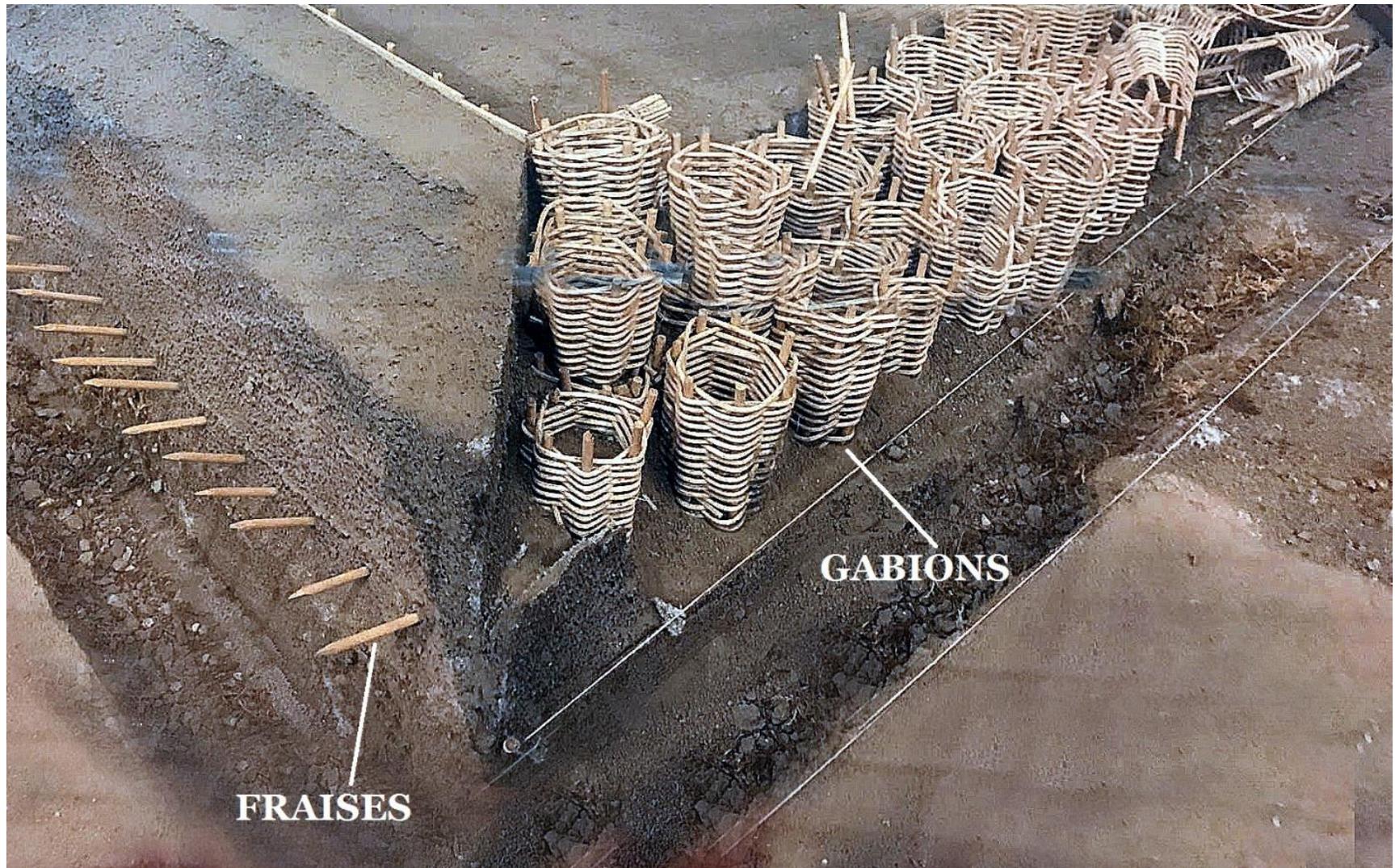
In the eighteenth century, why were French words used to label the things associated with siege warfare?
French military writers had been primarily responsible for developing the techniques of siege warfare, and the French were generally considered experts in the field.



TIPS WHILE WEAVING YOUR GABION

With weaving, you must make an in and out pattern. That way, the gabion will keep its shape. Make sure to keep pushing your reeds together to make a tighter pattern.





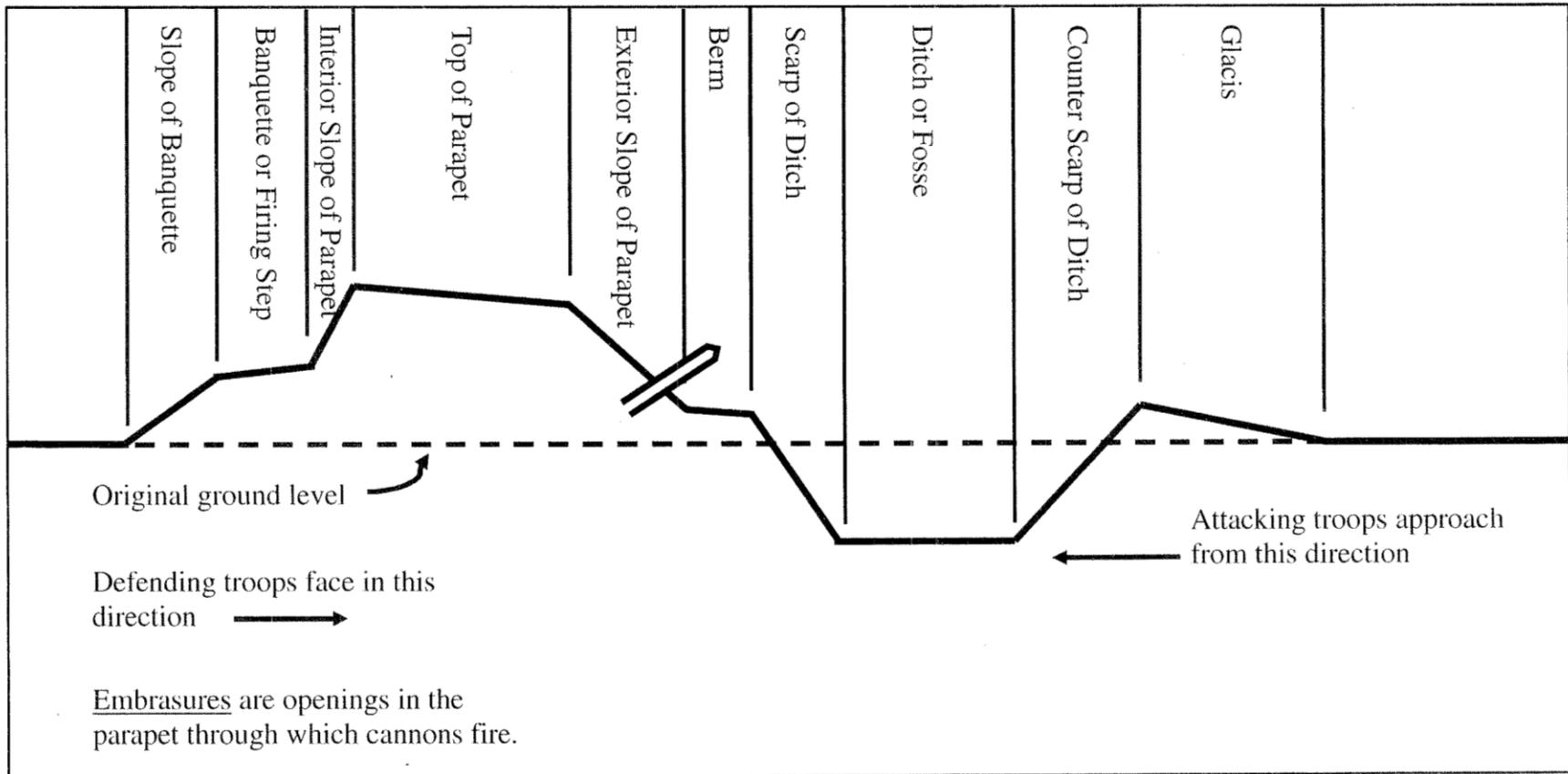


DIAGRAM 10: NAMES GIVEN TO THE PARTS OF EARTHWORKS

The cross section above represents the parapet/ditch structure of a typical redoubt. The words written vertically name the sections of structure shown between the vertical lines. (Adapted from Greene, p. 427; see question 154)