

A Selective Glossary of Nineteenth Century Fortification Terms

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This glossary is provided to assist readers who might be unfamiliar with nineteenth century military terms. Engineers developed a specialized vocabulary over a period of four centuries to describe elements of defensive works. Armed with a common language, military engineers could effectively convey their ideas regarding modifications and improvements in fort design. Consisting of Italian, French, and English expressions, the terminology illustrates the lineage of fortification theory, highlights the preoccupation with defence-in-depth, and identifies the primary countries that made the business of nineteenth century fortifications both an art and a science.

Introduction

Nineteenth century fortifications were the product of a four-hundred-year process pitting advancements in ordnance against improvements in fort design and materials (Arnold 2002). Evolving from the fortified *keep* into subterranean works of reinforced concrete, forts were the offspring of art and science. By the Renaissance, the business of fortification design required much more than the influence of monarchs and lords. It demanded specialized theorists, engineers, and a technical vocabulary. Knowledge of fortifications and elements of defence was once an essential facet of a gentleman's education (Herman 1992:7). Today, our reliance on missiles and flight technology has all but erased the need for permanent fortifications. Gone too is the pedestrian knowledge of forts and their defensive components.

This selective glossary is thus intended to assist twenty-first century readers unfamiliar with nineteenth century fortification terms. The definitions employed are a collective amalgamation gleaned from several sources on the subject (Duffy 1975:183-186; Herman 1992:175-185; Hogg 1977:155-158; Hughes 1991:241-248; Saunders 1989:246-249). Derived from Italian, French, and the English language, the vocabulary reflects contemporary spheres of influence and underscores the geographical/political arenas where "model" fortifications were conceived, developed, and nurtured.

Selective Glossary

Advanced Works: Additional works beyond the glacis, but near enough to receive protection from the main fortifications. They are designed to force an enemy to begin a siege from a great distance, and to cover parts of the ground not easily seen from the main parapets (Hughes 1991:241; Saunders 1989:246).

Armourer: A maker and repairer of arms or armour (Barber 2004:71).

Banquette: A raised ledge, sometimes stepped, at the base of the parapet of the rampart on which troops stand when firing upon attacking forces (also known as the firing step) (Hogg 1977:155; Herman 1992:175).

Barbette: Raised platform allowing mounted guns to fire over the parapet *en barbette* (without the need for embrasures) (Farwell 2001:79). A breastwork of a battery that is sufficiently low to permit fire without the use of embrasures (Saunders 1989:246).

Bastion: Projection from the general outline of a fortress from which the garrison can defend the ground before the ramparts by flanking fire. From the mid-sixteenth century on, a bastion refers to a four-sided projection consisting of two faces and two flanks (Duffy 1975:183; Saunders 1989:246).

Barracks: A purpose-built structure providing permanent or semi-permanent accommodation for soldiers. Barracks can be free-standing or incorporated into casemated ramparts (Douet 1998:1; Farwell 2001:81).

Battery: Any place, permanent or temporary, where guns or mortars are mounted. The emplacement usually consists of a parapet and defensive ditch (Duffy 1975:183; Saunders 1989:246).

Blast Wall: A free-standing masonry wall designed to reflect the blast from an explosion. Blast walls are often associated with powder magazines.

Blockhouse: A small fortified work constructed of heavy timber or masonry and consisting of one or more rooms fitted with loopholes to permit defensive fire in various directions. Normally a small, detached work situated to guard an isolated point against raids (Saunders 1989:246).

Breastwork: Similar to a parapet but also thrown up along entrenchments to provide shelter and protection to defending troops (Hogg 1977:155)

Caponnière: A casemated work projecting perpendicularly across a ditch for the purpose of delivering flanking or enfilade fire. Also covered passage constructed across a ditch, sometimes with loopholes for muskets or rifles, intended to provide sheltered communication with the outworks (Hughes 1991:241; Saunders 1989:246).

Canteen: A shop selling necessities or liquor in barracks or camp (Barber 2004:224; Farwell 2001:161).

Casemates: A bombproof vaulted chamber built in the thickness of the ramparts to permit artillery fire, or to provide storage or barrack accommodation (Hogg 1977:155; Hughes 1991:241).

Coupe de main: A sudden vigorous attack (Barber 2004:347).

Counterscarp: The outer face or slope of the ditch below the glacis. The side of the ditch closest to "the country" and the besieging force (Hogg 1977:156; Saunders 1989:246).

Curtain Wall: The main wall or rampart of a defensive work, lying between two bastions, towers, or gates (Herman 1992:179).

Demi-Bastion: A work with one face and one flank. Half the entrance to a bastion measured from the angle of its adjoining curtain. A work resembling one half of a bastion (Hughes 1991:243).

Demi-lune: A detached work constructed to cover the curtain and the shoulders of the bastion. It was composed of two faces forming a

salient angle toward the country. A demi-lune is sometimes referred to as a ravelin (Herman 1992:179; Saunders 1989:246).

Ditch: A wide, deep trench surrounding a defensive work, either wet or dry. Often excavated to provide building material for the ramparts and to present a serious obstacle to an attacker (Hughes 1991:243).

Embrasure: An opening cut through a parapet or wall through which cannon or other guns could be fired. The sides or cheeks of the embrasure are flared outward to protect defenders while offering a broader sweep or range of fire (Hogg 1977:156; Hughes 1991:243).

En Barbette: A gun or battery is said to be en barbette when it is placed so as to fire over a low parapet without embrasure (Duffy 1975:183; Hogg 1977:155).

Enceinte: The main body or area of a fort as defined by the outline of the ramparts excluding outworks (Herman 1992:179; Hughes 1991:243).

Enfilade Fire: Fire directed along the length of a fortification or a body of troops (also known as flanking fire) (Herman 1992:179).

Face (of a bastion): The exposed, outer wall of the bastion forming the salient angle projecting towards "the country" (Hogg 1977:156).

Flank (of a bastion): The portion of the bastion lying between its face and adjoining curtain wall (Hughes 1991:244).

Glacis: A natural or person-made slope descending from the crest of the ditch towards "the country," the purpose of which was to expose the attacker and to provide defenders with a clear fire. Since much labour went into the contouring of the glacis, they are normally found only around permanent fortifications (Herman 1992:179).

Gorge: The neck, or rear face (either open or closed) of a bastion or other work (Herman 1992:179; Saunders 1989:249).

Guardhouse: A building used to accommodate a military guard or to detain prisoners (Barber 2004:670).

Keep: A stronghold within a fort and the final point of defence. A keep often refers to the main castle tower (Hogg 1977:157; Saunders 1989:247).

Loophole: A long, narrow opening in a parapet or wall to provide for vision and allow small arm fire (Farwell 2001:504).

Martello Tower: A British coastal tower, conical in shape, mounting guns on its terreplein and barracks for the gun crew. Its design was inspired by a Corsican work that withstood a naval encounter and a two-day investment of 1400 men before its 32-man garrison surrendered (Clements 1999:10-16; Hughes 1991:246; Grimsley 1998:13-15).

Moat: Common usage for a ditch. A deep, defensive trench enveloping the work (Hogg 1977:157).

Palisade: A series of wooden posts, close-set and pointed, driven into the earth and used as an obstacle or barricade about a defensive position. Palisades are normally positioned within a defensive ditch to delay assault and act as an antiper-sonnel device (Hughes 1991:247).

Parade: The ground on which regular musters and exercises are held (Saunders 1989:249).

Parapet: A stout wall or earthen breastwork, crowning the rampart, providing shelter and protection to defending troops (Hogg 1977:156; Saunders 1989:249).

Polygonal System: A fortification system attributed to the French general and engineer, Marc-René, Marquis de Montalembert. Reducing the importance of bastions, the system employed faces forming salient angles or re-entry angles of small depth, flanked by powerful ditch caponnières (Herman 1992:181; Hughes 1991:246).

Powder Magazine: A ventilated storehouse where gun powder is kept in very large quantities. Often constructed of masonry and protected by a bomb-proof arch. A smaller shifting room chamber is commonly attached to one of its gabled ends (Farwell 2001:520; Smith 1969:155-156).

Rampart: A protective mound of earth forming the main defence of a fortress. Most often formed from the soils excavated for the ditch, the rampart elevated the defenders to a commanding position overlooking the approaches to a fortification. A rampart is usually capped with a stone or earth parapet (Herman 1992:181).

Redan: A V-shaped work with two faces forming a salient angle. Often incorporated into a curtain wall and functioning like a bastion (Hogg 1977:158; Herman 1992:182).

Redoubt: A closed, independent work of square or polygonal trace, without bastions. Usually, a redoubt had little or no means of flanking defence. Redoubts commonly form a chain of detached works designed to support each other (Hogg 1977:158; Hughes 1991:247).

Reverse Fire Chamber: A work (casemate or passage) constructed behind the counterscarp from which the ditch could be enfiladed with reverse fire (Herman 1992:178). A reverse fire chamber is also called a Counterscarp Gallery.

Ricochet Fire: The method of firing by which the projectile is made to glance or bounce along the length of a work (Saunders 1989:249).

Rifling: Technique of cutting spiral grooves into the bore of the barrel of artillery and firearms, resulting in greater accuracy and distance of the projectile (Farwell 2001:698).

Salient: An angle pointing outwards toward the field or country, such as the apex of a bastion (Saunders 1989:249).

Scarp: The slope or face of the rampart from below the parapet to the bottom of the ditch. The face of the rampart that faces the attacker (also known as the escarp) (Herman 1992:183).

Terreplein: Wide, level surface on top of the rampart used to support gun positions and assist infantry movement. Protected by the parapet, it extends from the banquette, or firing step, to the edge of the talus (Hughes 1991:247; Saunders 1989:249).

Toise: Initially a French unit of measurement equalling six feet (1.83m) or a fathom (Smith 1969:244).

Trace: The ground plan of the defensive work (Duffy 1975:186).

Vauban: Sébastien le Prestre de Vauban (1633-1707), Engineer-in-Ordinary to Louis XIV. A master of defence and siege warfare, his systems became the model both to aspire to and emulate (Van Creveld 2002:78-81).

Work: A general term for a work of defence (Hogg 1977:158).

Wythe: A continuous vertical section of masonry wall one unit in thickness (Ching 1995:155). While not specifically a military term, wythe construction is often used in military architecture.

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On fournit un glossaire pour aider les lecteurs à saisir le sens des termes militaires du 19^e siècle avec lesquels ils ne seraient pas familiers. Au cours de quatre siècles, les ingénieurs ont développé un vocabulaire spécialisé capable de décrire les éléments des ouvrages défensifs. Armés d'un langage commun, les ingénieurs militaires étaient en mesure de transmettre efficacement leurs idées susceptibles d'apporter des modifications et des améliorations à la conception des forts. Comprenant des expressions italiennes, françaises et anglaises, la terminologie illustre les origines de la théorie des fortifications, met en évidence les préoccupations à construire des défenses invincibles et identifie les premiers pays qui ont fait des fortifications du dix-neuvième siècle, à la fois un art et une science.

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