

**J.E. Kaufmann and H.W. Kaufmann. *Fortress Europe: From Stone to Steel Fortifications 1850-1945*. Barnsley, S. Yorks: Pen & Sword History, [www.pen-and-sword.co.uk](http://www.pen-and-sword.co.uk), 2022. 445 pp., glossary, illustrations, maps, tables, text boxes, appendices, bibliography, index. UK £40.00, US \$62.95, cloth; ISBN 978-1-3900-272-1.**

Different European countries planned, funded, and built a wide variety of fortifications and military strongholds in the modern period from the Crimean War to the end of the Second World War. Some were more or less permanent installations prepared during peacetime over years and decades and manned by dedicated troops, while others were definitely ad hoc in response to wartime exigencies, time and available resources, geography, as well as particular threats and needs. Fortifications primarily fulfilled defensive purposes to bolster the fighting capabilities of positional armed forces, to slow down or ward off attacks, and to provide greater temporal space for formulation of policy, plans, and national mobilization. Technological changes in the art and design of fortifications were also notable in the so-called second industrial revolution, as the characteristics of weapons and materials advanced. Joseph and Hanna Kaufmann, a husband and wife team based in Texas, both retired from careers in public school and college education, are well-known for previous publications on fortresses and fortifications in the new and old world. The present work updates and synthesizes many themes and topics developed previously and gives particular attention to coastal defences and fortifications depending on the locale and strategic circumstances of particular countries near the sea.

The book is divided into 17 distinct chapters, each covering a specific country and area for either part of or the entire time period. The focus progresses from smaller neutral countries and the Baltic region to Central and Eastern Europe, the Mediterranean, and finishes with the big three – the British Isles, Third Republic France, and Germany from the Kaiser to Hitler. The Kaufmanns explain the changes wrought from introduction of rifled artillery, high explosive shells, and replacing centuries-old stonework with better protection from new materials. At first, Hermann Gruson's process for chilled cast iron possessed superior qualities for resisting penetrating fire compared to steel and was used extensively in armour facings and armoured turrets. The contest between protective armour and bigger and better guns played out with new offerings from private companies with state contacts like Armstrong, Krupp, and Schneider. The Belgian fort designer Henri Brialmont and his French counterpart Raymond Séré de Rivières, though less lasting, were recognized at the time for their expertise and innovation in the field. Quickly obsolete once completed, these types of fortifications proved their worth in the

general deterrence and readiness role, although some were pounded down to the ground by monster railway-mounted guns during operations in the First World War. Concrete, in special and reinforced forms, gradually became predominant in the construction of permanent fortifications. Soviet Ivan Belinsky's idea of the fortress garden situated in forests to provide concealment and limited protection from chlorine gas never reached beyond the conceptual phase, since it was pointed out that wood and brush furnished a fuel source for fire.

The Kaufmanns provide context and detailed treatment to lesser known and some decidedly infamous fortification projects, such as the tactically more efficient Hindenburg Line, the Stalin Line of fortified regions, France's much maligned Maginot Line, the Finnish Salpa Line, the Siegfried Line in western parts of Germany, and Hitler's unfinished Atlantic Wall. Generally, military fortresses and fortifications sited in challenging topography such as mountains, passes, and on water obstacles proved more successful and enduring, aimed at dominating or protecting certain lines of movement and supply. In other cases, fortifications had to be extensive enough and mutually supporting, to avoid being outflanked and bypassed by military forces. Too often, fortifications proved so expensive and demanding of resources and personnel that many remained unfinished or ill-adapted to a dynamic battlefield. The Germans used gliders and paratroops to subdue the Belgian fortress at Ében Émael in May 1940 against a numerically superior garrison.

According to American naval theorist Alfred Thayer Mahan, a ship is a fool to fight a fort. Coastal defences and protection of ports and naval bases are covered quite nicely in the book in both text and illustrations. By virtue of being coastal states, many of the selected countries devoted attention to protection from seaward attack. Defences around Den Helder in the Netherlands, and naval fortresses at selected points in Norway and Sweden are highlighted. The chapter on Finland details not only that country's coastal defences in the Baltic and Arctic regions, but also Russian and German fortifications in the Gulf of Riga and Gulf of Finland. Fortresses and artillery positions were built on natural and man-made islands at strategic points, including the naval base at Kronstadt/St Petersburg. The Austro-Hungarian Empire built out coastal fortifications on the Adriatic, and countries such as Italy and Spain invested fitfully in coastal defences. As a cost-saving measure, naval coastal batteries commonly consisted of guns taken off decommissioned warships and emplaced in fixed positions. They were joined with searchlights, controlled underwater mines, smaller calibre anti-aircraft artillery, batteries of shore-launched torpedoes, rangefinders, and later radar (and eventually missiles). During the German invasion of Norway in April 1940, the heavy cruiser *Blücher* was sunk after engagement by older Norwegian coastal guns and several hits by two or three Whitehead 450 mm torpedoes dating from the turn of the century.

Arrangements for coastal defence fell under either army or navy control, depending on the country and its traditions. German naval organization for coastal defences and personnel, for example, followed the same arrangements as those aboard larger warships, as evidenced on the fortress island of Heligoland and defences covering Wilhelmshaven and along the Elbe estuary to the Kiel Canal's western entrance and on the approaches to Hamburg. Where the army was in charge, focus gradually shifted away from permanent coastal fortifications and garrisons to greater employment of mobile field artillery and reserve forces. The French installed heavy 340 mm guns at the main Toulon naval base, but similar plans for Cherbourg and Brest on the Atlantic coast were shelved due to finances and higher priorities. Great Britain's strategically important positions at Gibraltar and Malta warranted some investment in fortifications and allowed the Royal Navy to dominate that part of the Mediterranean in peace and war, especially during the desperate struggle over supply lines to North Africa in 1941-42. Great Britain, as an island nation separated from the European continent by the English Channel, itself faced the threat of invasion, first from the French and then from Germany. Prime Minister Henry Palmerston inaugurated a costly and extensive programme of sea forts and batteries around Portsmouth and Plymouth to protect the major naval bases there. Hurried preparation of anti-invasion measures after the fall of France in summer 1940 augmented existing defences at British ports, while German losses of destroyers during the Scandinavian campaign and failure to achieve air superiority over the Royal Air Force during the Battle of Britain precluded Hitler and the German high command from proceeding with the planned Operation Sea Lion. German paratroopers, however, were given the opportunity to seize the Mediterranean island of Crete by airborne envelopment from British and allied forces; (another planned Luftwaffe airborne operation against Gibraltar was cancelled). The British constructed a number of sea forts during the two world wars in river estuaries out to sea to provide gun and anti-aircraft platforms, according to designs and plans made by Guy Maunsell. In terms of naval defence, coastal defences seldom acted alone and were integrated with flotilla craft such as torpedo boats, destroyers, and submarines, guard ships and floating batteries, underwater minefields and barrages, and maritime reconnaissance and strike aircraft.

The production quality of the book is very high. Most illustrations are in colour, printed on the glossy paper used throughout. Explanatory notes and references appear in sidebars on each page. Green shaded text boxes provide informative background related to the main text. The numerous tables are detailed and full of data on locations, types of armaments, and personnel. Four appendices at the end cover armour, artillery development, machine guns, and the revolution in artillery. The bibliography is extensive and specifically

identifies works in English with an asterisk. Among the pleasing features of the book is widespread reference and use of non-English source materials, whose authors are occasionally quoted directly in the text and text boxes. *Fortress Europe* by Joseph and Hanna Kaufmann is recommended for general readers interested in European military history and specialists on military fortifications and coastal defences.

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**Jack Kelly. *Valcour. The 1776 Campaign that Saved the Cause of Liberty*. New York, NY: St. Martin's Press, [www.stmartins.com](http://www.stmartins.com), 2021. xv+285 pp., illustrations, maps, appendix, notes, bibliography, index. US \$28.99, CDN \$38.50, cloth; ISBN 987-1-250-24711-7.**

*Valcour* is a masterfully written history of a military campaign by opposing naval forces engaging in combat on a long narrow lake during the early stages of the American Revolution. Its unforeseen, consequential aftermath likely changed the outcome of the entire war. Kelly's narrative is a mosaic of interlocking and yet similar clashing tales of American and British politics, military ambitions, imaginative tactics, resourcefulness, and the vital role of logistics in war. In addition, there are thought-provoking insights into the character and leadership qualities of the officers on both sides of the conflict.

The British military plan was to cut the rebel colonies in two, especially the rowdy New Englanders, by capturing a swath of territory from the US-Canadian border, down Lake Champlain, across Lake George, through Saratoga and ultimately connect to the Hudson River and New York City. Lake Champlain contains many islands, shoals, steep rocky cliffs, and heavily forested shore. It gently flows south to north for roughly 120 miles with a width of twelve miles at one point and an average depth of about 60 feet. Situated between the Green Mountains to the east and the Adirondacks to the west, lake winds (critical for naval warfare) generally run northerly or southerly in this geologic corridor.

The leaders of the American forces for this "terraqueous war" were Generals Philip Schuyler, Horatio Gates, plus Benedict Arnold, Commodore of the Continental Navy's lake forces, and some soon to become prominent, such as John Sullivan. The British commanders were Generals Guy Carleton and John Burgoyne, and the later-renowned, Edward Pellew. All were King's Army veterans, but were now opponents. In addition, the British had made alliances with many of the native American tribes in the area.

The adversaries had the same requirements to wage the impending battle. These included reconnoitering the lake's nearby territory, taking soundings