

H-France Review Vol. 3 (March 2003), No. 27

David Buisseret, *Ingénieurs et fortifications avant Vauban. L'organisation d'un service royal aux XVIe-XVIIe siècles*. Paris: Éditions du CTHS, 2002. 142 pp. Maps, tables, figures, notes, bibliography, and index. 33.00 € (pb). ISBN 2-7355-0478-6.

Review by Michael Wolfe, Pennsylvania State University, Altoona.

David Buisseret's new book on royal engineers and the rise of a royal fortification service in France prior to 1660 fills a significant lacuna for anyone interested in understanding the close relationship between new-style bastioned fortifications and the growth of monarchical authority. It serves as a prequel, if you will, to Anne Blanchard's magisterial study of royal engineers under Louis XIV and Louis XV and a fine companion piece to Hélène Vérin's work on early modern engineering techniques and training.[1] It also nicely complements the great mass of localized studies of late medieval and early modern fortifications in France published over the past twenty years as in, for example, the R.E.M.P.A.R.T. series.[2]

Buisseret's interest in the topic goes back to the very start of his brilliant career nearly forty years ago, when he published a seminal study of royal engineers who worked for Henri IV.[3] He expands on this work here by tracing the beginning of a royal fortification service back to the late fifteenth century when itinerant Italian designers began to seek commissions in France after Charles VIII's 1494 invasion of Italy. Buisseret limits his interest to only those individuals who held the title of "commissaire des fortifications" or, after the mid-sixteenth century, "ingénieur du roi." While this taxonomic choice is certainly understandable, it risks losing sight of several important continuities with the past.

With this in mind, it is worth pointing out that territorial lords, including the monarchy, had long been in the business of authorizing and occasionally sponsoring fortifications, at least since the twelfth century. Sometimes they did so through direct intervention, as in the case of *bastides* in the thirteenth century; in other instances, particularly when it concerned municipalities, the preferred method was to delegate responsibility (and the financial burden) for building and maintaining fortifications to local officials. These types of arrangements became entrenched during the Hundred Years War and survived well into the sixteenth century. The rise of the more centralized and formalized service that Buisseret considers actually evolved out of this world before it eventually came to replace it under the Bourbons.[4]

Buisseret begins by examining the work and career patterns of royal engineers during the sixteenth century. Until mid-century, they were almost exclusively Italian. Buisseret appears to have tracked down what little they left by way of a documentary record about their lives and work, which is no mean feat. In reconstructing the career trajectories of men such as Girolamo Bellarmato, Hieronimo Martini, and Jean de Saint-Remy, it becomes clear that these early military engineers learned and practiced their craft much like artisans, sometimes, as in the case of Bellarmato, passing their skills and reputation down to one of their sons. Engineering dynasties remained common into the reign of Louis XIII. Yet we also begin to see the development over time of a new, more professional ethos among the king's

engineers as their expertise, once based only on empirical experience, came to be increasingly grounded in the technical disciplines of mathematics, mechanics, and hydraulics. Vastly more sophisticated forms of technical illustration, seen perhaps most splendidly in the work of Agostino Ramelli, furthered this shift, as did the printing of technical manuals devoted to practical applications of geometry and cartography collections like those of Ortelius and Sebastian Münster. Buisseret follows this transformation of the self-identity of the king's engineers over the course of the book, as they gradually shed their artisan roots and began to assume instead the more familiar role today of technician. This change was only fully realized later in the eighteenth century with the founding of royal technical colleges.

While Buisseret tells us a great deal about the royal engineers, occasionally devoting sections of a chapter to several of the most prominent ones, he astutely chooses in the main a geographical approach that focuses on France's shifting frontiers. As he demonstrates, French rulers and their advisors at the outset thought in regional terms when assigning engineers to tours of inspection to make recommendations for fortification repair and construction. Each of the book's three chapters begins in Guyenne and proceeds in a counterclockwise direction around the kingdom's periphery, eventually ending in Saintonge and the Aunis. This pattern enables the reader to trace the progressive articulation of France's land and maritime frontiers. Lavish illustrations, maps, and photographs accompany the text that help the reader to see more clearly changes in fortification design and regional defensive systems that incorporated built places and terrain features. As becomes clear, Vauban's much vaunted vision of the *pré carré* had antecedents stretching all the way back to Louis XI (1461-1483). In this regard, Buisseret expands upon the important work of Gaston Zeller and Daniel Nordman, among others, giving us a much more detailed and nuanced understanding of the actual processes that reshaped France's frontiers.[5]

Another reason for taking a geographic approach lay in the fact that regional administrative responsibility for fortifications was in the mid-sixteenth century divided among the four royal secretaries of state who, together with the provincial governors (whose role in the emerging royal fortification service only begins to be discussed later under Henri IV), initiated inspections, reviewed reports, and saw through to completion repairs and construction. Although it falls outside the scope of Buisseret's study, there is an interesting parallel between prior developments in what might be called the king's civil architectural and engineering service and changes in the organization of the royal military engineering corps. Indeed, the creation and organization of the *Surintendance des Bâtiments* under Henri II, the directorship of which lay in the hands of the famous Italian architect and interior designer, Sebastiano Serlio, in many respects anticipated the reforms that came to military engineering beginning in the early seventeenth century.[6]

Royal administration of fortifications underwent significant reform during Henri IV's reign due to Sully's leadership, as Buisseret discusses in chapter two. In the *grand règlement* of 1604, Sully proposed re-organizing military engineers, who numbered between eighteen and twenty-four, along with local *contrôleurs des fortifications*, by defining their duties and assigning them to specific territories. He ordered them to make regular inspections of fortifications in their areas and make recommendations about what to build and what to demolish. He appointed a chief engineer to direct inspections and construction projects in four vital frontier provinces: Picardy, Champagne, Dauphiné, and Provence. As Buisseret shows in a table tabulating fortification expenditures from 1600 to 1610 (p. 49), Sully's vision of military defense embraced the entire kingdom. By this time, nearly all of the royal engineers were French, and a distinctly French school of fortification design, begun by Jean Errard and further refined during Louis XIII's reign by Antoine de Ville and Blaise Pagan, came into existence, soon displacing the Italians as innovators in this field. The influence of Dutch fortification specialists, especially in the use of waterways and controlled floods in defenses, also proved to be important, especially in the marshy flatlands of northern France.[7]

Documentary sources proliferated as the royal fortification service became more formally organized and integrated into the royal administration. Buisseret takes advantage of this richness to present more detailed views in chapters two and three of the political and financial factors that shaped the development of France's fortified places. He goes into the difficulties royal engineers encountered in the *pays d'état*, for example, where local estates-generals jealously guarded against perceived infringements of provincial liberties. No stronger symbol of intrusive royal authority perhaps existed than citadels, which began to be built in increasing number, starting in Amiens after the 1597 siege. Royal fortifications strove not only to repel would-be enemies but also to overawe and subdue potentially rebellious subjects.

Cityscapes and fortification designs by royal engineers/cartographers, such as Claude Chastillon, also survive in much greater abundance after 1600. Buisseret uses these images to beautiful effect as he shows how the royal fortification service gradually rationalized France's frontier defenses. He explores how cartographic representations of space enabled administrators and engineers to plan and integrate regional defenses more effectively. They strove to use improved surveying techniques and trigonometry to render maps and plans as accurate as possible. It would not be until the eighteenth century, however, that this project became fully realized in the great map of France created by the Cassini clan. Ambitious atlas projects that aimed to catalog both the topography and fortified place across the entirety of the kingdom got under way in the 1620s, culminating in the celebrated publications of Nicolas Tassin, Nicolas Sanson, and William Blaeu over the next several decades.[8]

The growth and elaboration of the royal fortification service continued along these lines until mid-century. Under Louis XIII, the number of royal engineers grew from a dozen to some fifty strong. Greater attention was paid to their training. They also became more involved in military conflicts, lending their expertise most famously at the 1628 siege of La Rochelle when Claude Métezeau oversaw the construction of the great sea wall that cut the Huguenot redoubt off from its English allies. During the Thirty Years War, royal engineers played a very important role in France's war effort, providing vital assistance during sieges, conducting inspections and making recommendations on how to improve France's defenses. Richelieu's autocratic temperament and the emergency sparked by renewed conflict succeeded in removing many of the local obstacles that had previously thwarted royal engineers. By the time Louis XIV came of age in the 1650s, royal engineers were a vital cog in the war machine created by Sublet de Noyers and Michel Le Tellier.

Beautifully illustrated and deeply researched, this study provides us a synthetic overview of the early institutional development of a royal service that exerted a profound effect on the territorial development of early modern France. Vauban inherited and further strengthened this potent alliance between technical expertise and monarchical authority that together helped to unify the country, outfitting it with a ring of defenses that successfully repulsed invaders until the end of the Napoleonic Wars.

NOTES

[1] Anne Blanchard, *Les ingénieurs "du roy" de Louis XIV à Louis XV. Étude du corps des fortifications* (Montpellier: Université Paul Valéry, 1979); and Hélène Vérin, *La gloire des ingénieurs. L'intelligence technique du XVIIe au XVIIIe siècle* (Paris: Albin Michel, 1993).

[2] See <http://sabreteam.free.fr/fortifbiblio.htm> for a list of selected titles.

[3] David Buisseret, "Les ingénieurs du roi au temps d'Henri IV," *Bulletin de la section de géographie du C.T.H.S.* 77 (1964): 13-84.

[4] For castles during the twelfth and thirteenth centuries, see Charles L. H. Coulson, "Castellation in the County of Champagne in the Thirteenth Century," *Château-Gaillard. Études de castellogie européenne* 9-10 (1979-1980): 347-364 and "Fortress Policy in Capetian Tradition and Angevin Practice: Aspects of the Conquest of Normandy by Philip II," *Anglo-Norman Studies* 6 (1983):13-38. For *bastides*, see Jacques Dubourg's *Histoire des bastides d'Aquitaine* (Bordeaux: Éditions de Sud-Ouest, 1991); and, with Ray Delvert, *Connaître les bastides du Lot-et-Garonne* (Bordeaux: Éditions du Su-Ouest, 1991); as well as Sylvie Assassin, *Les bastides de l'Agenais: Caudecoste, Damazan, Donzac, Dunes, Lamontjoie, Laparade, Puymirol, Tournon d'Agenais, Valence d'Agen, Vianne, Villeneuve-sur-Lot* (Toulouse: Diagram editions, 1994). On municipal fortifications during the Hundred Years' War, see my essay, "The Bonnes Villes of France during the Hundred Years War," in *The Medieval City Under Siege*, Ivy Corfis and Michael Wolfe, eds. (Woodbridge: Boydell & Brewer, 1995), pp. 63-87.

[5] Gaston Zeller, *L'organisation défensive des frontières du Nord et de l'est au XVIIe siècle* (Paris: Berger-Levrault, 1928); and Daniel Nordman, *Frontières de France. De l'espace au territoire, XVIe-XIXe siècle* (Paris: Gallimard, 1998).

[6] See Vaughan Hart and Peter Hicks, eds., *Paper Palaces: The Rise of the Renaissance Architectural Treatise*, New Haven, Conn.: Yale University Press, 1998. Serlio took an interest, inspired by Polybius, in military architecture, too. See June Gwendolyn Johnson, "Sebastiano Serlio's Treatise on Military Architecture (Bayerische Staatsbibliothek, Munich, Codex icon. 190)" (PhD diss., UCLA, 1984).

[7] On the development of these techniques, see L. J. Morreau, *Bolwerk der Nederlanden. De vestingwerken van Maastgricht sedert het gegin van de 13e eeuw* (Assen: Van Gorcum, 1979).

[8] Jean-Louis van Belle, *Plans inédits de places fortifiées: XVIIe-XVIIIe siècle* (Louvain-la-Neuve: Éditions Ciaco, 1989).

Michael Wolfe
Pennsylvania State University, Altoona
ww4@psu.edu

Copyright © 2003 by the Society for French Historical Studies, all rights reserved. The Society for French Historical Studies permits the electronic distribution of individual reviews for nonprofit educational purposes, provided that full and accurate credit is given to the author, the date of publication, and the location of the review on the H-France website. The Society for French Historical Studies reserves the right to withdraw the license for redistribution/republication of individual reviews at any time and for any specific case. Neither bulk redistribution/republication in electronic form of more than five percent of the contents of H-France Review nor re-publication of any amount in print form will be permitted without permission. For any other proposed uses, contact the Editor-in-Chief of H-France. The views posted on H-France Review are not necessarily the views of the Society for French Historical Studies. ISSN 1553-9172