

BIBLIOGRAFIA

MUSEOS DE ARMERÍA Y HERÁLDICA ALAVESA. *Museo de Armería*, por FÉLIX ALFARO FOURNIER; *Museo de Heráldica*, por JUAN VIDAL-ABARCA. Vitoria-Gasteiz, Mendoza, 1983. Ed. por DIPUTACIÓN FORAL DE ALAVA (ARABAKO FORU ALDUNDIA), Depart. de Publicaciones. 220 págs. Todos con ilustraciones, gran parte en color.

El Museo de Armería alavés, con su gran departamento sobre la famosa batalla de Vitoria contra José Bonaparte, en 1813, tiene una historia interesante. Fue formado e instalado por su propietario, hoy director del museo, don Félix Alfaro Fournier, en 1940, que posteriormente donó al Museo Provincial de Alava. El primer catálogo: *Museo Provincial de Alava*, fue escrito y publicado en 1967 por el entonces director de la Real Armería del Palacio Real de Madrid, don Javier Cortés Echánove. En aquella época tuvo su domicilio en el edificio de la «Casa Armada de los Gorbeo-Guevara-San Juan», restaurado entonces a fin de acoger la gran colección de armería existente. En años posteriores se fueron recibiendo tantas piezas importantes de armas históricas y de interés artístico, que se pensó en la necesidad de un edificio lo suficientemente amplio y con capacidad para albergar las colecciones. Cuando la Diputación Foral de Alava adquirió el edificio de Ajuria Enea, en el paseo de Fray Francisco de Vitoria, se aprovecharon unas edificaciones anexas para trasladar a ellas el Museo de Armería y la colección de trofeos y recuerdos de la victoria sobre José Bonaparte, que anteriormente se encontraban en el edificio «El Portalón». La inauguración del nuevo museo tuvo lugar el 7 de julio de 1975. En estos hermosos locales fueron instaladas las colecciones en modernas vitrinas adecuadas, con espacio y excelente alumbrado. Hoy, la exposición está bien colocada por orden cronológico. Así es fácil apreciar la evolución de las armas desde épocas primitivas y prehistóricas hasta el comienzo de este siglo, no sólo de España, sino también —a grandes rasgos— de otras partes del mundo. En el museo existe una seleccionada biblioteca sobre armas antiguas, historia y etnografía, dedicada a investigadores que deseen profundizar su conocimiento sobre este tipo de armamento. Ha sido un arduo trabajo la organización y arreglo de este nuevo

museo. El asesor de estas obras ha sido el anterior director de la Real Armería, don Javier Cortés Echánove, quien ha mostrado su gran experiencia adquirida en la Real Armería. Don Félix Alfaro Fournier nos ofrece en la introducción de su libro, en pocas líneas, la historia de las armas. A continuación pasa por los objetos de armas y su historia, comenzando con las épocas prehistóricas; también una representación de guerreros con arco y flechas de las cuevas prehistóricas, las famosas pinturas rupestres del levante de España. Siguen después hallazgos de armas de sílex y bronce de la Península Ibérica de las épocas paleolíticas, de las culturas dolménica y neolítica, con buenos ejemplares de la época de bronce, como, por ejemplo, las dagas y espadas de la famosa cultura de Almería, así como otros objetos: hachas preciosas de bronce. Siguiendo la ruta del museo, nos encontraremos una magnífica colección de armas del Oriente Próximo, de Luristán, con espadas, dagas y hachas, más una bocada de bronce, objetos interesantes y de buena calidad de este mundo de la civilización antigua. De Luristán pasamos a las civilizaciones mediterráneas, a Magna Grecia, con buenos ejemplares de espadas de bronce, más un casco cónico de bronce de Grecia del siglo v a.C. Los primeros objetos de hierro en España están representados por dagas y espadas de las culturas celta, celtibérica e ibérica, con sus falcetas típicas, y con estilo de las grandes falcetas de Almedenilla de Córdoba, con los mismos tipos de cabeza de caballos en sus empuñaduras. Existe un buen ejemplo de un gladiador romano, más lanzas con sus regatones de hierro, también romanas. De aquí pasamos a la época visigoda, que está escasamente representada. La Edad Media en España comienza más tarde que en Europa Central. Comienza con la invasión de los árabes en el 711 y termina con la última reconquista, la de Granada, por los Reyes Católicos, en 1489. De la época medieval podemos destacar la loriga o el coselete de escamas de hierro, todavía con restos de oro en éstas; consta de peto y espaldar, pudiendo fijarse cronológicamente entre los siglos XI y XII. El autor nos da una corta pero precisa introducción sobre los siglos medievales en España, desde su comienzo hasta la época de las Cruzadas, las primeras apariciones de las armas de fuego (en 1340, en los asedios de Algeciras y Tarifa); asimismo, las primeras culebrinas a mano y su uso, ya en el siglo XV. Las armas medievales están representadas con unos cascós interesantes, un buen ejemplar de un bacinete del siglo XIV y dos celadas, una de origen español, con sus paralelos españoles, hoy en el Musée de l'Armée en París (en España y después, de Georges Paulhac, en París), y una celada milanesa de la misma época con la marca y nombre de Aloisio de Boltego. El lorigón de malla de hierro fue hallado en las ruinas de la fortaleza de Vitoria, destruida en 1202 por un incendio. Hay varias espadas medievales buenas y muy interesantes, entre otras un tipo algo raro en el Occidente: una es-

pada con pomo en forma de anillo. Es preciso prestar atención a dos rodelas de madera, cubiertas con estopa pintada con figuras geométricas.

La colección de armaduras del siglo xv y siguientes es grande; en todas ellas se indica su procedencia. Algunas de éstas provienen de castillos de conocidos marquesados de la época medieval. Podemos ver también una armadura interesante, estilo alemán, procedente del marquesado de los Falces, pero ésta de finales del siglo xv. El primer marquesado de Falces, en Navarra, fue otorgado por Carlos V, en 1518, a la familia del famoso mosén Pierres de Peralta. Otra armadura procede del castillo de Logroño. Es para yusta real. Otras son de los castillos de Guadamur (Toledo), del marquesado de Montealegre, de la casa ducal de Nájera (Navarra), más otras de conocidos castillos medievales. Termina este capítulo con unas ballestas de final del siglo xv, de los tipos utilizados, entre otros, en la reconquista de Granada por los ejércitos de los Reyes Católicos. El autor nos introduce en la llamada época moderna: la de los grandes descubrimientos del Nuevo Mundo, con Colón, Juan Sebastián Elcano, Magallanes y otros conocidos héroes. Es además la época de los lansquenetes alemanes y suizos, con sus mandobles, en este museo representados por un buen ejemplar grande. Las ballestas utilizadas para guerrear dan paso a las armas de fuego portátiles, bien representadas en este museo. Todavía existen las ballestas, de las que podemos ver buenos ejemplares de lujo. Cambiamos a los tipos de armaduras, de las que el museo posee algunos ejemplares interesantes. Pasamos por las épocas de Carlos V y Felipe II, la de la Guerra de los Treinta Años, la de la Paz de Westfalia, en 1648. El autor nos conduce ahora hasta una serie de espadas de la época, toledanas, de variados tipos y calidades, para lujo y para uso, más tipos sencillos. Siguen los espadines elegantes, introducidos en España con la nueva Casa Real, la de los Borbones de Francia, con la nueva moda francesa de esgrima. El autor nos da datos y nombres, más ejemplares de armas de las famosas fábricas reales, fundadas en el siglo xviii, como, por ejemplo, Fábrica Real de Armas de Placencia en Vizcaya, Ripoll en Cataluña, Sillitos cerca de Madrid y algunas otras. En 1794 se establecen las fábricas de Trubia y Oviedo; incluso menciona hasta los navíos de guerra de la época. En las páginas siguientes vemos buenas representaciones de las armaduras de las épocas de Carlos V y Felipe II, con muchas partes sueltas de armaduras en forma de petos, hombros, brazales, etc., y cascós como morriones, capacetes, borgoñotas. Los Tercios flamencos de Carlos V están representados por figuras ataviadas a la usanza e incluso con el armamento típico. No faltan asimismo equipos ecuestres con testera, bocados, estribos, etc. Entre las armaduras de la época son destacables la del ducado de Frías y la del marquesado de Serralvega de Torre de la

Mongrit. Podemos contemplar también un buen morrión con el anagrama de los marqueses de Falces, del siglo XVI. La colección de espadas y rapières de esta época es bastante grande y con buenos ejemplares. Idéntico es el caso respecto a los espadines españoles y franceses. Siguiendo nuestra ruta en el museo, nos encontramos con arcabuces con llave de rastillo y pistolas de las fábricas de Eibar y Madrid. Hay un trabuco italiano con el nombre de «Llazarino».

La época napoleónica está ricamente representada con los trofeos de la batalla de Vitoria en 1813; por ejemplo, la mantilla y elegantes pistoleras del caballo que montaba José Bonaparte en la batalla, más varios otros objetos y sus armas. También piezas de interés pertenecientes a sus generales (por ejemplo, Jourdin). Hay buenos objetos de lord Wellington, como espadas, sables y un elegante juego de té en una caja especial, cuadros y retratos de Wellington y de alguno de sus famosos generales. Siguen ilustraciones de espadas, sables y armas de fuego de la época y de otras posteriores; gran parte de ellas son reglamentarias, de tipos españoles, ingleses y franceses. Varios de éstos son muy elegantes. En esta parte del libro están representados fusiles, carabinas y pistolas de las fábricas de St. Étienne, Manufacture Imperiale de Tulle, de Francia; otros son de Liège. Incluso está representada hasta una buena escopeta de la fábrica de Lefaucheux, en París. Las épocas de las guerras carlistas también tienen buenas muestras en el museo, con escopetas y pistolas de Eibar, Placencia (Guipúzcoa), Barcelona y Vitoria. Nombres como Larrañaga, Aranguren, Ramón Zuloaga se encuentran inscritos aquí. Hay bastantes pistolas de Lefaucheux, en París. Termina esta parte del libro con unas hermosas láminas de uniformes y accesorios para ellos.

La última parte de la armería está dedicada a las armas etnográficas. Primero, una sección de armas árabes, con unas espingardas largas y elegantes, con llave de rastillo, intarsia de marfil y plata, de los siglos XVIII y XIX. De esta época son unas gumias vistosas y características, más unos sables típicos árabes y marroquíes. Como última herencia de las épocas hispano-moriscas tenemos el sable, la daga y el porta-corán, que nos recuerdan las armas y el estilo decorativo del último rey moro de Granada, Boabdil. De Marruecos pasamos a África Central, con una serie de bellas armas de Congo: espadas, dagas, hachas y las armas arrojadizas, tan características de este mundo africano. Notable es el precioso kopesh de Etiopía, un auténtico heredero de los conocidos sables sagrados de los faraones, de la época de Ramsés II, y de Mesopotamia hace milenios. También son sables, espadas y buenos yataganes los representantes de Turquía, todos del siglo XVII. Las últimas láminas las dedica el autor a las armaduras japonesas, katanas y otras espadas de Japón, kries de Indonesia, terminando con unas pocas armas de Polinesia y Australia indígena.

Es un museo muy interesante, con objetos de interés histórico, etnográfico y artístico. Cuenta a muy grandes rasgos la prehistoria e historia de la Península Ibérica y sus relaciones con el mundo allende Europa. Su biblioteca es buena y con libros muy poco conocidos fuera de España.

Del Museo de Armería pasamos a la otra parte del libro, la de la *Heráldica*. Esta está escrita por Juan Vidal-Abarca. Comprende las últimas veinte páginas, con ilustraciones de escudos de nobleza esculpidos en piedra. Resulta una colección rara, interesante y de mucha importancia. Ha sido un trabajo detectivesco para el autor y su ayudante, quienes recorrieron todas las iglesias, castillos, torres y pueblos alaveses en busca de escudos esculpidos, todavía no estropeados por derrumbamientos de los edificios o por la incuria del tiempo. Muchos objetos de este tipo ya han desaparecido para siempre. El objeto de la investigación ha sido conservar todo lo hallado hasta ahora. Muchos de los escudos conservados fueron adquiridos por la Diputación Foral de Alava y están hoy instalados en la Torre de Mendoza, en el pueblo del mismo nombre en Alava. La Torre de Mendoza es una de las muchas torres medievales de los siglos XIII y XIV. El peregrinaje para descubrir y recorrer estos posibles lugares en busca de escudos esculpidos ha durado tres años. Pero aún falta mucho. La Torre de Mendoza perteneció en su origen a la rama de los duques del Infantado, del linaje de los Mendoza. Está junto a la iglesia de San Martín, y se remonta a principios del siglo XIII. Es puramente defensiva y, por tanto, no habitable. En la actualidad pertenece a la familia Echánove. Es un edificio precioso y característico, y el autor, al escribir su historia, también lo hace sobre las familias nobles que han tenido contacto con este edificio del Medievo, como son los Mendoza, Infantado, condes de Orgaz y otras familias históricas medievales y renacentistas. Para los heráldicos e historiadores de la Península este museo tiene un gran interés, ya que en él puede verse la colección de estos escudos. La Torre no sólo fue restaurada por completo exteriormente, sino que su interior está conservado en unas salas, de las que unas son parte del museo y otras parte donde se pueden contemplar las colecciones de fotografías de los escudos. Con sus desnudos muros de granito, y sus enormes vigas de madera, sus características escaleras nos ofrecen el aspecto impresionante de un castillo español medieval. El autor da a sus lectores unas breves nociones de heráldica, su origen, sus elementos fundamentales y un glosario de la terminología heráldica, útil para los que quieren saber algo de este ramo de las ciencias armológicas. Termina esta parte del libro con una lista bibliográfica de libros y artículos sobre heráldica. Resumiendo, podemos decir que es una publicación interesante y hermosa, con buenas ilustraciones en color y en blanco y negro. Es de desear que otros museos arqueológicos provinciales sigan el ejemplo del director del museo alavés y tomen la iniciativa de

investigar y publicar sus tesoros ocultos de la misma manera. Todavía quedan muchos tesoros desconocidos en España.

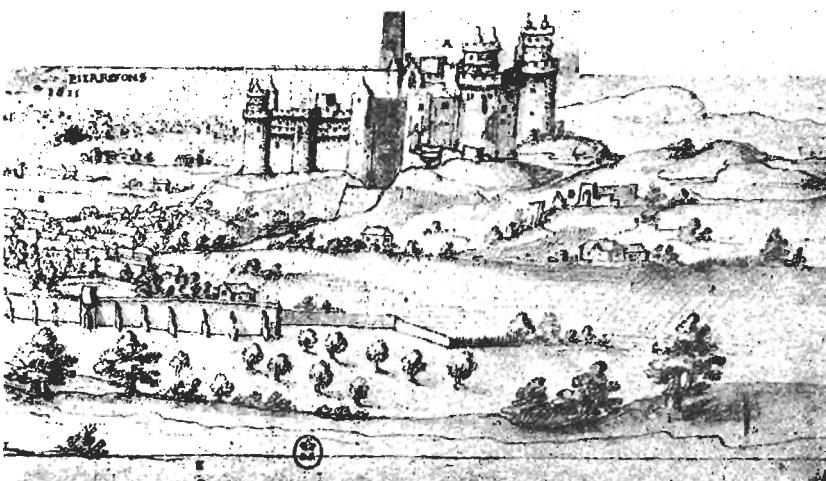
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JACQUES HARMAND: *Pierrefonds, La Forteresse d'Orléans, Les Réalités*.
Préface de Yvan Christ. Diffusion De Boccard, 11, rue de Médicis,
75006 Paris, 1983 (Éditions Jeanne-d'Arc, 43000 Le Puy-en-Velay),
208 pp., 30 ill.

With this book the well-known expert in castellology and medieval military architecture has decided to give a serious and objective solution in regard to the many problems concerning the truth about and the restorations of the important fortress from the late Middle Ages of France, the famous *Pierrefonds* in the region of Valois, today the department of *Oise*, near to the historical Compiègne north of Paris. *Pierrefonds* was one of the most important and impressive castles from the time of the Hundred-Years-War in France. It had been constructed by the orders and ideas of the duke *Louis d'Orléans*, second son of king Charles V and brother to king Charles VI of France. *Louis d'Orléans* was an ambitious and capricious prince, who wanted to dominate almost all the northern parts of France, including the province of Ile-de-France. The construction of this fortress had been entrusted with a well-known architect and military expert, *Jean Lenoir* and it was begun about 1393. Just up to 1407 it had not still been completely finished, when the duke was assassinated by the duke of Burgundy, who feared the increasing power of the duke of Orléans. The construction was continuated and about 1420 it seems to have been finished. The intention of the duke of Orléans had been to create a circle of various minor but strong fortresses in these regions in order to dominate northern France and Ile-de-France. Among the other important castles from this circle must be mentioned here the famous castle *La Ferté Milon* at a distance of about 22 km. south of *Pierrefonds*, and treated by Harmand in this book too.

In its final shape *Pierrefonds* was an enormous and imposant building as can still be seen in a late manuscript-illumination from 1611 in Bibliothèque Nationale, Paris (cover of the book). Though its placement may have been not tactically ideal, this fortress came to play a most important part in the history of France just up to the beginnings of the 17th century. During the aristocratic rebellion against Concini in 1617 —the first period of cardinal Richelieu as minister under the reign of the queen mother Maria de Medici,— Richelieu ordered it dismantled. The

cardinal didn't want strong private fortresses (with good artillery) *inside* the country. For about two centuries the fortress lay in ruins. There exist an excellent photo of the fortress in ruins from 1851 a few years before its reconstruction, which lets us see that still —in its precious and beautiful ruins— it was a most imposing building. In the year 1858 the French emperor Napoléon III wished to reconstruct this enormous ruin, and he entrusted the reconstruction in the hands of the famous military architect and specialist in medieval archaeology *Eugène Emmanuel Viollet-le-Duc*, an architect who put his personal stamp upon many reconstructions



Pierrefonds before it was demolished by order from cardinal Richelieu en 1640, and reconstructed by the French emperor Napoléon III and his architect the famous archaeologist Viollet-le-Duc en 1871. (After a manuscript in Bibliothèque Nationale, Paris from 1611.)

of medieval castles, cathedrals and even village-churches of France (Viollet-le-Duc even wrote a book about Pierrefonds). This architect is well-known and his publications and drawings are used still now-a-day by specialists in medieval archaeology (*Dictionnaire raisonné de l'Architecture française du XI^e au XVI^e siècle*, 10 vols., same: «Description du château de Pierrefonds», 1863), as well as his books *Dictionnaire raisonné du mobilier français de l'époque carlovingienne à la Renaissance*, 6 vols. Arms and armour students are well acquainted with his drawings of medieval armament from the time of the Carolingians to the Renaissance, or his poliorcetic engines for sieges, often of a certain unreal and

fantastic character. Viollet-le-Duc spent about 12 years investigating and restoring the fortress of Pierrefonds. He was a child of his time, highly in love with the «romantic» style of castles (and armouries), which dominated great part of the second half of the 19th century. He restored what could easily be restored and made new reconstructions according partly to his archaeological knowledge, partly to his own taste. He was a hard and heavy-handed restorer and an absolute person, who reconstructed without scruples, where there were no more ruins or only a few remains and in a style in accordance with the spirit of his time.

Seen with the «eyes» of our time many of his reconstructions look hard, often lifeless, without spirit, filled as they are with new-creations. It is an almost «New-Gothic» style, a «machine-made,» and «romantic» recreation of the Age of Chivalry. His romantic reconstruction of Pierrefonds pleased the emperor, who —at least for a period— translated his own collection of ancient arms and armour to one of the halls in the donjon. The rebuilding was paid by the emperor.

The restoration-reconstruction of the fortress has caused much debate during the years. Much has been written about it in books and in articles. In its re-creation it appears an enormous colossus, a lifeless «mask» of the 15th century building, though it is still «malgré tout» —as has said another French investigator,— one of the most monumental works of military architecture from medieval France. The debate has been very hard at times. It has had its admirers and followers, and it has had and still has its hard but sober opponents many of whom have found that the best and most logical solution of the problems would have been to let make a radical and solid conservation of the original ruins, which in themselves give a strong impression of this historical fortification. The investigator who probably knows the matters best and to the very bottom is just *Jacques Harmand*. The purpose with his book is to find the *very truth about Pierrefonds*, the real fortress, using all possible and existing sources, literary, archaeological and historical, with an analysis of all existing material in form of books, articles through the years etc. in order to document the truth of its history, architecture and place as a fortress with garrison, dwelling without any kind of luxury, and *not a Viollet-le-Duc palace-castle*. He wishes to place it in its true cultural, architectural and functional milieu. The fortress occupied a rather large area, about 108 m. long, 88 m. broad with its eight round towers in a height of 38 m., only very little higher than the walls, in several floors, with the donjon-habitations, on the back of the walls. Each tower had its own name after historical heroes from various epochs of the history, but dressed in the armament of the 14th-15th century. The figures were placed in niches on the outside of the towers. Above the entrance was a huge

tympanon with the Virgen of the Annunciation (courtine I). The fortress certainly must have cost quite a fortune, but Louis d'Orléans had married a very rich lady, daughter of the duke of Visconti of Milan. Owing to the unsettled state of France during the Hundred-Years-War in France the construction of military architecture played a great part. But in regard to fortresses many new problems began to surge, for instance the defense, siege and attack by means of the still better prepared gun-powder artillery used beside and instead of the antique poliorcetic engines for siege or for defense. (The author of the book in one of his chapters discusses the placement for artillery with cannon.) It is in the same period in which the rich part of the feudal lords and nobility begin to get a more refined taste and interest for luxury with comfortable and elegant dwellings. The germs to the future palace-castles are laid now. Pierrefonds is, however, no palace-castle, but a fortress for a strong garrison, though with habitations and services, but without any luxury. It is a logistic base with the magazines as fundament for the rest of the buildings, it is ideological with its symbolic warrior-figures in their outwards turned niches of the eight towers. It is no comfortable luxury palace, but a highly developed conclusion of a long row of medieval, garrisoned castle-constructions. It belongs to the end of the garrison-castles with room for man and horses. In reality it was a *magnificent conclusion of the feudal period's castle-architecture*. In its original shape it must have been the most grandiose masterpiece of French military architecture, and not without influence from castle-architecture of Brittany. There is a kind of «leitmotif» from *Château Gaillard over Pierrefonds to the castle of Salces near to Rosillon in Cataluña* from the end of 15th century, ca. 1497, the last of the great fortresses from French Middle Ages, and there is a germ in it to the new system to come in the next century and to be perfected with the systems by marchal Vauban.

The book starts with an emphatic preface by *Yvan Christ*, who in a clear and sharp manner reopens the dispute about the restorations and reconstructions by Viollet-le-Duc. Quite a lot of investigators up till our days have maintained that Pierrefonds in the style given to it by Viollet-le-Duc is a masterpiece of importance, while there is a still greater group of investigators, who considers the re-creation of the fortress —in spite of the undeniable competence of the architect— as nothing more than a «mannequin» dressed in a past-time dress, or rather in a copy of a past-time dress, which is only a falsification —or better— an expression of ignorance about the truth. Point by point the author of the book refutes the arguments of his opponents. Very methodically and through profound investigation and analysis he documents what he has called the archaeological, historical and architectonical sources. Without disregarding the

competence of Viollet-le-Duc he has succeeded in finding and explaining the authentic facts about Pierrefonds, demonstrating that the architect's work is only a re-creation or rather a *new creation* of the original building-complexe. As it is now, it represents the time and taste of Napoléon III, and it was made according to his ideas and for his money.

The book by Harmand is a most interesting book which must have cost quite a lot of years for investigations. The author shows how Pierrefonds in its original shape tells an important part of the history of medieval military architecture of France, and it is of the greatest interest in the medieval and early Renaissance history. Particularly during the Hundred-Years-War and the changing historical fortunes during the 16th century it plays an important part. With its gigantic and precious sculptures of both military, religious and symbolic character it gives a good idea about Louis d'Orléans and his son, their intentions with their fortress and the many historical events during their time. Pierrefonds as a whole is a special chapter of the political and cultural history of France in some of its eventful and agitated periods, from the end of the Middle Ages to the transition to modern time. This appears clearly from the very extensive bibliographical apparatus with literature about Pierrefonds alone, with works about the other important fortresses by Louis d'Orléans, e.g. La Ferté-Milon and his other castles. Much literature is mentioned concerning other fortresses from the Middle Ages both in France and in great part of Europe in order to compare France with other countries. The list of bibliography has been traced up to the most recent publications. All the text by Harmand is filled with learned footnotes and a critical apparatus in which the problems and discussions are intensely valued. It is no easy reading and it takes quite a lot of time to study this book. It is composed of three main chapters. The first one deals with the reasons and the basis for this work, a settlement and valuation of what the author calls the «massacre viollet-le-ducien de Pierrefonds» and the literature in defense of his re-creations. Chapter II is very large and is composed of a series of subdivisions, many of them most interesting and of importance in order to find and understand the realities about this fortress. In these comprehensive subdivisions all details have been taken up to investigation from the bottom: «Les réalités de l'édifice,» the responsibility and the reasons for the situations and surroundings of the complexe. A detailed treatment of the different parts of the whole building-complexe with its generalités, the defense, the structures, entrances as a whole, their realities, passing to the various parts of all the complexe with its sections of the north side, the south, the courtines, the open courtine II with the tower of the chapel, in all these parts calling attention to a lot of details of the plan and building.

The open part to the south shows some special problems. There are many complicated but interesting points. Of particular interest is the little section treating the place of canon. The problem about the so-called «école» de Pierrefonds and the monumental pair: Pierrefonds and La Ferté-Milon, is taken up to examination. From these problems the author turns to the interior of the buildings, the livings, services, and the «main-court», the «manoir-donjon,» which probably from the beginnings has been destined for the ducal living, but according to the circumstances of the history of the fortress perhaps frequently has served as dwelling for the chiefs or the commanders. There is an informative reproduction of the «manoir-donjon» at the beginnings of the restoration, with its fire-places, its chimneys, accesses to the galleries of the machicoulis, and some of the old gables are seen in their original aspect, all this still before the restoration by Viollet-le-Duc. There is a special history about the chapel and its problems. Even the basements and the prisons are treated here. Very interesting are the parts dealing with the sculptures and the imposing haut-relief representing the Virgen of Annunciation from courtine I. Among the fragments of sculpture is an interesting fragmented body of Duguesclin in his war-dress, probably from the south-western tower. The series of sculptures let us see the duke of Orléans inspired by three ideas: the military, the religious and the ideas of the great feudal Lord. The military inspiration is seen in the historical heroes and warriors, all of them in an armament corresponding to 14th early-15th century. Duguesclin probably had been placed in the south-western maintower, inspired by the anti-english ideas, and the religious inspiration was symbolized in the relief of the Annunciation. There exist several fragments of sculptures and reliefs still unidentified and some of them of a later period. At last the accesses, the moats and bridges are discussed. Chapter III deals with the history of the fortress during the 15th century and particularly during the 16th century. Harmand has brought to light all possible facts about its complicated history, its changing ownerships, sieges during the century, the use of a strong artillery as a defense against the siege in 1591. In 1617 during the rebellion against Concini with the last sieges of the fortress Richelieu and his government decided to dismantle it, because a strong artillery-defense of a private military castle like Pierrefonds had shown a very effective resistance against the sieging artillery of the *State*. The fate of Pierrefonds had been destined.

It is a highly interesting book, sharp, erudite, methodical and with much bibliographical material. It is an investigation to the bottom of the problems —archaeological, historical and architectural— and it seems to show that there are no arguments to justify the double image of Pierrefonds as a palace-castle on the threshold to the Renaissance, spread by

Viollet-le-Duc in his *Dictionnaire raisonné de l'Architecture française*, particularly in its third volume. The history of Pierrefonds is in two stages: a strong «manoir» very serious and strict and without any kind of luxury, and a highly functional and strong fortress. To the dukes of Orléans it has been a fortress with garrison, and not at all castle for luxury. In its original shape the fortress was one of the most refined products of French Gothic style, and probably the most important of all the medieval castles of France. It must be considered a monumental conclusion of French medieval military architecture.

A. BR. DE H.

BARON DE COSSON and WILLIAM BURGESS: *Catalogue of the Exhibition of Ancient Helmets and Examples of Mail*, in: «Arms and Armour Monographs», n.^o 2, published by Ken Trotman Ltd. (Cambridge, 1985), 140 pp., 15 plates with 223 line drawings. £ 8.50. (Reprint from «Archaeological Journal», XXXVII, London, 1881.)

The publication of this new series of «Arms and Armour Monographs» is an excellent idea, carried out by Mr. Richard Brown, director of the Wellknown Publishing House of Arms and Armour Literature in Cambridge. The present catalogue is publication number two in his new series. This new and interesting publication is well merited and no doubt it will be hailed with pleasure by many scholars, arms and armour collectors and students. It will be appreciated, because it gives back to investigators an important publication, one hundred years old, and now-a-day almost inaccessible. It is a work which has kept its value through the whole century and is a testimony of the development of the history of ancient arms and armour and of the great knowledge at least some of the first scientific investigators and pioneers in this peculiar branch of science possessed, in spite of the period of «romanticisme» which in many ways had dominated great part of the 19th century not least in England with its medieval castles, historical novels and its poetry. The name of the Baron Charles Alexander de Cossen is known to everybody among arms and armour scholars and collectors. Many and valuable publications of a great many topics of the branch, but particularly from the Middle Ages and the Renaissance, was published by him during the years, and he was well informed in history, art and civilization at a whole. (Among his publications his name is particularly tied to the precious catalogue from 1901 of the famous Duc de Dino collection, formerly in Paris, now in Metropolitan Museum in New York, and to the foreword

in the important manual: Sir Guy Laking, *A record of European Armour and Arms through seven centuries*, I-V, London, 1920-22.)

The name of his collaborator, the important collector of arms *William Burges*, too is wellknown among armour students in spite of his too early death, just before the present catalogue of 1881 was issued. The catalogue was first published in «*Archaeological Journal*», XXXVII (1881), and treats the objects exposed in the rooms of the *Royal Archaeological Institute of Great Britain and Ireland* in the days between the 3rd of june to the 16th of june in the year 1880. The intention with this exhibition was primarily to bring together as many types as possible so as to facilitate a comparative study of helmets from different periods and countries, to discern authentic objects from forgeries and to study the true construction of mail, on the various specimens and types exposed on the walls and tables of the rooms in the Institute. About 104 European helmets from about the middle of the 14th century and up to the 17th century were on exhibition, together with a small selection of excellent antique Greek, Etruscan and Roman helmets. In one of the rooms a series of oriental helmets from India, Persia, and other parts of the Eastern world as well as some Japanese armours were exhibited.

In spite of inevitable gaps in the series of the exhibited helmets they showed a great part of the history and development of this kind of defensive armament. The many specimens of mail had their great interest in throwing new light in the investigation of the construction of this particular type of body-protection. In those years the discussion about the construction of mail was going on with various more or less acceptable or fantastic opinions.

The exhibition of the helmets and shirts of mail excited considerable interest and was visited by an extraordinarily great number of persons interested in antique arms. It must have been a rather great work to gather so many objects of quality. Many of the specimens came from private collectors. The objects from the *Venetian arsenal of Rhodes* with its great hoard of helmets and parts of armour, came from the at that time named *Museum of Artillery of Woolwich*, but various important objects came from the collections of *Baron de Cosson*, amongst others the Italian armet with the name of the maker: «*Lionardo*», just as the Italian sallet with T-shaped opening in front. The bacinet with pointed visor came from *Sir Richard Wallace*. Other objects of importance came from the collections of *William Burgess*, or from cathedrals or churches. On account of the interest arisen about this exhibition, it was decided to make a permanent record of it, and it was proposed to write and publish a catalogue. Baron de Cosson and Mr. Burgess kindly offered to write this catalogue. Baron de Cosson undertook the description and history of the

European helmets, and Mr. Burgess wrote the parts about the Greek, Etruscan and Roman helmets, the mail shirts and the rest of the catalogue (Oriental helmets). The objects were photographed, and drawings were made by *Mr. W. G. B. Lewis* from the photographs, and all his work was supervised by Mr. Cosson so as to secure exact drawings and details of all the objects. As a matter of fact such a work took a rather long time. But in the volume for 1881 of the «Archaeological Journal» the whole exhibitions with introduction, descriptions and history of the helmets and mail shirts —very detailed, indeed,— with many and erudite notes and with provenance of the objects and names of the owners, was at last published.

The authors declared expressly in their introduction that it had not been their intention to write a complete history of the objects and their development. In many cases, particularly in regard to the European, and especially to the medieval helmets, it however turned out as something like a history. No wonder that it took a long time to give such an extensive relation about each piece from the exhibition. It is interesting to pass through the reproductions on the plates. Quite a lot of the specimens belonged to the two authors. Most of the objects owned by William Burgess are now to be seen in the British Museum, those of De Cosson in various European Museums, great European collections (today Museum Marzoli) and in the Metropolitan Museum in New York. Many of the objects from the *Venetian boards of armour from Rhodes* are now in the Tower of London. Objects from the *boards in the Venetian arsenal on Chalkis on Euboea in Greece* were dispersed and are now to be found in various museums and collections, but great part came to the ethnological museum in Athens. Later on these objects were bought by *Bashford Dean*, and they are now to be found in the Bashford Dean collections in the Metropolitan Museum. For the history of the *armet* many of these pieces have been of the greatest importance. The Chalkis hoard was published by *C. I. Ffoulkes* in «Arqueología», LXII (1911), pp. 381-390. We follow the various types of helmets in use at the end of the Middle Ages, not least the *armet*, but even the *bacinets*, the *sallets*, *chapeaux-de-fer*, *barbutes*, etc., further the *tilting* and *jousting* helmets. We recognize in the drawings many of the later on so famous and precious helmets and helms, which through their wanderings have found their final home in important museums in Europa and in United States of America. Many of the *sallets* are in the Tower, the precious helm which once was hung over the tomb of Sir Richard Pembridge, who died in 1375, and was buried in Hereford Cathedral, is now in Royal Scottish Museum in Edinburgh. We find in the drawings the other famous helmets amongst others the helms from Cobham church in Kent. The great *tilting* helm from the Brocas collection —on the exhibition too— is in the Tower of London.

The history of the helmets pass over the 16th century with its cabassetes, morions, closed helmets, burgonets and the maximilian fluted types. There are some lobster tailed helmets from Poland, there is a spider helmet from England and we find several pikeman's helmets, some of them from the collections of William Burgess.

The department of helmets terminates with the forgeries, which is interesting too. Among the oriental helmets there are some Turkish specimens with the mark of the arsenal of Konstantinople. Various of the oriental helmets belonged to the collection of Mr. Burgess.

In regard to the pages treating the mail shirts the authors treat the old theory of Mr. Waller and the various ways of representing mail in a conventional manner. There are almost two pages about the so-called «banded mail» dealing amongst others with the theories by Sir Samuel Meyrick and Viollet-le-Duc and others, and the reader passes to other kinds of body-protection of iron, mixed armours of mail and metal scales and lamels. Jazerants, scale armour and brigandines are shortly treated and the book ends with the so-called jacks. The part of drawings dealing with mail, the various combinations and the construction of mail, the rings and the manner of forging them probably are the less instructive parts of the drawings.

In a postscript of this little book De Cosson mentions colleagues who have died and brings the sad mention about his collaborator William Burgess who during his long period of illness still was occupied with the publication of the catalogue. He just had the possibility to read the proofs, but the final publication did he never see.

It is a very interesting little book. It gives a picture of the pioneers and the work by the first true scientific scholars and their erudite investigation of ancient arms and armour. It is interesting reading, and the many instructive notes give an impression of the history of investigation in regard to arms and armour before the true scientific and critical studies really started. No doubt this little book will find many readers among arms students.

A. BR. DE H.

RAMIRO LARRAÑAGA: *Síntesis histórica de la armería vasca*. Edit. Caja de Ahorros Provincial de Guipúzcoa, San Sebastián, Editorial CECA, 1981, 573 págs., con ilustraciones en blanco y negro y en color.

En la presentación de este libro, la *Caja de Ahorros Provincial de Guipúzcoa* dice que se funden en esta publicación dos temas permanentes

en la idiosincrasia de este pueblo: *la tierra y el hierro*. Es un trabajo meritorio y notable demostrar el desarrollo y actividad de un sector tan característico como la armería en esta tierra guipuzcoana, desde las épocas más remotas de la prehistoria a las primeras del metal, del bronce y del hierro, y hasta la invención y fabricación de la pólvora. El libro comienza con un preámbulo del famoso escritor y científico del país don Julio Caro Baroja, recientemente elegido miembro de la Real Academia de la Lengua.

Es un libro grande, casi exhaustivo respecto a las armas de fuego —portátiles y en forma de cañones—, desde las primeras aparecidas hasta las de nuestros días, hecho a base de intensas investigaciones en archivos, ayuntamientos, museos y cualquier otra clase de documentación. Consta de cuatro partes principales, con veintitrés capítulos, y cada uno de éstos con sus propias subdivisiones. La primera parte comienza con la industria del hierro, la pólvora, artillería antigua, las armas de fuego en el País Vasco, los varios sistemas de armas manuales, las fábricas reales de armas, marcas de éstas y de los armeros, así como de los museos de armas en esta parte de la Península Ibérica.

La segunda parte es la más larga, con 260 páginas, con largas e importantes listas de armeros, sus cargos en la fabricación y las firmas de prestigio, gremios y otras organizaciones. Estas listas sobre armeros nos muestran además a los que han fabricado armaduras, hojas de espadas u otros tipos de armas; algunos de éstos son de Toledo, Sevilla y diversas partes de la Península, de los siglos xv y siguientes. Algunos capítulos tratan sobre la documentación de la industria armada en los Archivos Generales de Simancas, entre otros desde 1480 hasta 1832, y del Archivo General de la Provincia de Guipúzcoa, Tolosa. Un largo artículo describe los acuerdos adoptados en las juntas generales de la Hermandad de Guipúzcoa, respecto a la industria armada, durante los años 1561 hasta 1849. Entre las noticias interesantes que ofrecen los capítulos tenemos la mención sobre la plantación de fresnos para fabricar lanzas; otros se refieren al acecho de Mondragón, arcabuces de San Sebastián, pólvora de Navarra y de Burgos y otros lugares; sobre las espadas de Tolosa del siglo xvi y siguientes; armamento para los pueblos y para las naves, fabricación de artillería, pruebas de las armas, plantación de nogales para hacer culatas de arcabuces y escopetas, pago de nogales para fabricar cureñas y material para éstas. Termina esta segunda parte con extractos de las actas de los Ayuntamientos Gremiales de las Reales Fábricas de Armas de Placencia (1740-1764) y con los gremios armeros vascos, más una lista sobre las marcas que se usan en Eibar, Elgueta, Elgóibar, Placencia de las Armas, Bergara, Guernica y otros sitios.

La tercera parte del libro es un apéndice documental, que comienza

con documentos de 1480 y termina con los de 1910, con varias cartas reales sobre armamento para Sicilia y contra los turcos, etc. Hay testimonios documentales sobre fabricación de armas de fuego en los primeros años del siglo XVI, entre otros en la villa de Placencia, fabricación de una armadura para el rey en 1512, compra de armas por el cardenal Cisneros en Marquina, Placencia, Vergara, etc., y firmada por el rey y su secretario en 1514. De 1515 son las cédulas sobre envío de escopetas y capacetes, con sus barbotes, para el reino de Portugal, firmado por el rey y su secretario. De 1522 existen documentos que tratan de los contratos sobre arcabuces, entre ciertos arcabuceros con el virrey de Navarra, y sobre otras clases de armas y armaduras. De 1531 es una solicitud de 500 arcabuces para el reino de Valencia. De este modo podemos seguir esta actividad en esta parte del país durante varios siglos hasta comienzos del nuestro. Existe mucho material documental de los siglos XVIII y XIX; en este siglo vemos las varias dificultades y movimientos que surgieron. En 1855 se hacen gestiones para revocar una real orden y tratar de mejorar los sistemas de trabajo, incrementar la producción, etc. Es un documento muy largo y detallado. En 1865 se dan reales órdenes para la supresión de la Real Fábrica de Armas de Placencia. De 1887 es una proposición de ley del señor Ansaldo para establecer en Eibar un banco nacional de prueba de armas de fuego portátiles. En 1910 hay una solicitud de autorización para establecer en Eibar la «Escuela de Armería», un nuevo probador y un museo de armas y damasquinado, documento que se encuentra en el Archivo Municipal de Eibar. Respecto al arte del damasquinado, éste se liga al nombre de la familia Zuloaga, especialmente Plácido Zuloaga, que logró perfeccionar este arte en las armas de fuego, consiguiendo un nivel muy alto. En una serie de láminas a color están representados excelentes ejemplos de este arte, desarrollando en unas escopetas preciosas, en revólveres y pistolas de varios tipos raros; podemos apreciar en estas láminas unos interiores de los estudios y de los artesanos en plena labor.

La cuarta parte del libro se dedica a ofrecer un vocabulario, que en la armería es muy importante; trata las nomenclaturas de las armas blancas, de las de fuego y de artillería. Además nos muestra un dibujo de una armadura, con un glosario de voces vascas y algunas consideraciones etimológicas. El libro termina con una lista bibliográfica, que resulta muy útil por mencionar obras poco conocidas en el extranjero.

El libro está perfectamente ilustrado, con dibujos, detallados y corregidos, hechos por un experto, Juan Luis Calvó Pascual. Hay muchas fotos y grabados desconocidos, pero de gran interés para este tema. Excelentes son las láminas a color representando las armas de fuego damasquinadas, con buenos colores y oro. Es un libro que da información casi exhaustiva

sobre el desarrollo de las armas de fuego, desde su aparición hasta nuestros días.

Las armas de fuego en el País Vasco es tema muy poco conocido, no sólo en España, sino, aún menos, en el extranjero. Por eso es muy importante la aparición de una publicación como ésta, que con sus investigaciones a fondo en los archivos españoles, sea en el norte de la Península, sea en otros lugares, abre las puertas para un nuevo conocimiento. Poco se ha escrito sobre el tema. La documentación por escrito comienza temprano, con los Reyes Católicos. Conocemos muy bien las armas de fuego que utilizaron estos monarcas en las últimas batallas con los moros durante la reconquista. Y aunque todavía no se ha documentado ciertamente, no cabe ninguna duda de que armas de fuego de los países vascos se usaron por los ejércitos a finales del siglo xv, en las últimas batallas contra los reyes nazaries en Granada. Existe un permiso, en 1480, para que los armeros vascos fabriquen lanzas, paveses, bombardas, cerbatanas y otros «tiros» de pólvora. Interesantes son las informaciones sobre artillería y armas de fuego bajo el emperador Carlos V. Es bien conocido que en 1526 se fabricaban para él arcabuces y mosquetes en estos países. Hacia 1540 se hacen las primeras pistolas. El autor, en su capítulo sobre estos temas, sigue el desarrollo e historia durante los siglos, con demostraciones en todas las etapas del desarrollo, pasando por las llaves de chispa, miguelotes de rastrillo, hasta sistemas de percusión, mencionando al famoso clérigo Alexandro Forsyth, de Escocia, y las armas de Lefaucheux, en París, en forma de escopetas elegantes para caza y de varios tipos de pistolas y revólveres. La historia de las reales fábricas de armas y los gremios se trata en diversos capítulos. Tienen interés los que hablan sobre los museos de armas en esta parte del mundo español, poco conocidos fuera de España. El autor los examina y nos ofrece su crítica. Hay cinco museos mencionados: el Museo de Navarra, en Pamplona, instalado en un palacio del siglo xvi, inaugurado en 1956; es un museo bueno e interesante, pero no lo es exclusivamente de armas. Arqueológicamente puede seguirse la evolución de las armas desde épocas prehistóricas. Hay que resaltar que en Pamplona ya se fabricaban varias clases de armas; entre otras, armaduras, armas blancas y hasta municiones. No existe en Pamplona un museo especial de armas. Otro museo, esta vez de armas, se encuentra en Vitoria, Alava: Museo Provincial de Alava, en donde puede seguirse el desarrollo de armas desde épocas prehistóricas hasta el siglo pasado, en forma de lanzas, hachas, flechas, espadas, dagas, armaduras, cascós y una importante colección de armas de fuego de buena calidad. El Museo Histórico de Vizcaya, en el corazón de Bilbao, tiene una pequeña colección de armas. Posee unas buenas muestras de armas blancas y de fuego de varias épocas y diversos sistemas. El Museo Histórico-Militar,

de San Sebastián, se encuentra desde 1963 en el Castillo de Santa Cruz de la Mota, en el monte de Urgull. Las armas de este museo fueron trasladadas desde el Museo de San Telmo, en la misma ciudad. Tiene una buena colección de espadas de los siglos xv, xvi y xvii, armas de fuego, más armaduras y coseletes. Asimismo algunas piezas de artillería de bronce, entre otras la famosa bombarda de bronce, de 1502, llamada «Rosita». Respecto a las armas de fuego, sin ninguna duda es el Museo de Armas de la Escuela de Armería de Eibar la institución de mayor importancia. Fue inaugurado en 1914, y existe (hoy agotado) un catálogo de ese año sobre este museo, publicado el día de su apertura. El autor nos ofrece una clasificación de las armas de fuego, reglamentarias y no reglamentarias, de este museo, y habla entre otras cosas sobre el poco interés que anteriormente existía para este rincón de la industria armera en España. Menciona algunos de los famosos maestros armeros en la historia de España, entre otros el bien conocido Simón Marcuarte, que trabajaba para Carlos V, bajo nacionalidad de Alemania, pero que sin duda tuvo su origen en los países vascos, según su nombre. Lo mismo ocurre con el famoso Alonso Martínez. Probablemente era también vasco. Sigue con la historia de las armas de Eibar hasta nuestra época. Las listas de armeros de esas regiones son largas y comienzan temprano. Hay también reproducciones de sus punzones. Entre los nombres, aquí no sólo hay maestros de armas de fuego, sino también espaderos y armeros que se dedican a armaduras, lanzas y otros tipos de armas, entre ellas, por ejemplo, ballestas.

Es un libro grande, con muchos temas de interés en la industria armera, poco conocida, pero que merece investigaciones profundas respecto a muchos detalles. Con sus varias fábricas, sus largas dinastías de armeros (Larrañaga es una de las más conocidas), las reales fábricas de armas, durante siglos y con su buena documentación en forma de fuentes literarias, sus cédulas y ordenanzas, este libro nos ofrece unos capítulos interesantes e importantes en la historia cultural de las Vascongadas y de España.

A. BR. DE H.

MUSEO DE ARMAS EN EIBAR, por Ramiro Larrañaga, en colaboración con Juan Luis Calvó Pascual. Ed. Departamento de Cultura de la Diputación Foral de Guipúzcoa, Escuela de Armería y Ayuntamiento de Eibar, Sociedad Guipuzcoana de Ediciones y Publicaciones, S. A., Real Sociedad Vascongada de las Obras Culturales de la Caja de Ahorros Municipal de San Sebastián. San Sebastián, 1984, 185 págs., 38 ilustraciones en blanco y negro, 103 en color, más dibujos esquemáticos y punzones de maestros armeros. Introducciones en español y en vasco.

Este libro, en cierto modo, es un suplemento de la obra *Síntesis histórica de la armería vasca*, del mismo autor, mencionada en las páginas anteriores. Se trata del Museo de Armas de Fuego del Museo de Eibar y la catalogación de las armas allí fabricadas y expuestas en las vitrinas como testimonio significativo de la actividad armera en los países vascongados en los siglos pasados. Este museo es relativamente nuevo, pues fue inaugurado en 1914. En este mismo año se publicó su primer catálogo, hace ya años agotado por completo. Cincuenta años más tarde se editó otro, asimismo totalmente agotado. El nuevo, publicado en 1984, es por completo diferente a sus antecesores; está escrito en estilo moderno y es práctico e informativo; su organización es característica y se ha realizado a gran formato. Los autores han seguido un sistema nuevo; todos los detalles de las armas expuestas e informes se dan en un esquema algo rígido, pero muy adecuado. El museo se ubica en el edificio de la Escuela de Armería y el libro lo presentan el director de esta institución y el alcalde de Eibar. Cuenta con un prólogo, a cargo de don Juan de San Martín, y una introducción del autor, don Ramiro Larrañaga, cuyos antepasados pertenecieron a las primeras y más conocidas dinastías de la armería vasca desde sus comienzos, ya a finales del siglo xv.

En el prólogo, el autor nos cuenta los avatares del museo y nos dice que es relativamente nuevo y que la colección de armas no se remonta —por desgracia— a los primeros siglos de esta industria vasca. La mayor parte de la colección son objetos modernos, aunque algunos pocos objetos pertenecen a los siglos XVII y XVIII. El autor da a sus lectores las razones de la falta de objetos antiguos en este museo. Cuando se estableció la ley de supresión de las *reales fábricas de armas* en estas regiones, había una pequeña colección de armas de fuego antiguas. Estas se dispersaron a varios sitios por razones desconocidas. No hay duda de que algunas de ellas están hoy en el Museo del Ejército, en Madrid, no obstante no ser posible seguir su historia y procedencia. Existe una gran laguna en la historia de las armas de estas fábricas. Faltan, por ejemplo, las de mecha y las de chispa de los siglos XVI, XVII y XVIII. Además, las fábricas sufrieron

grandes daños durante la invasión francesa, bajo José Bonaparte, y las guerras civiles del siglo XIX y de éste.

El catálogo, organizado en íntima colaboración con el experto en armas de fuego de las fábricas reales y de las épocas posteriores, armas reglamentarias y no reglamentarias, José Luis Calvó Pascual, de Barcelona (autor de varios libros sobre estas armas de los siglos XVIII y XIX), ofrece unas descripciones minuciosas y da detalles y datos técnicos y complementarios.

El material se encuadra en un «esquema» de catalogación y ofrece unos índices con procedencias y definiciones muy exactas. Se ha respetado la referencia numérica de los catálogos anteriores como ayuda para la localización de los diversos objetos. Lo primero que encontramos en el libro es un esquema de catalogación, seguido del orden numérico de las armas, una clasificación de los grupos a que pertenece cada número y las páginas en las que se describe cada modelo. Contiene también una relación de las armas que figuran en cada vitrina. Después de estos informes prácticos siguen las descripciones de cada ejemplar, según dicho esquema: armas cortas y largas no reglamentarias, así como las cortas y largas reglamentarias. Siguen descripciones de las armas blancas del museo. Un capítulo nos detalla las armas de la zona de Eibar, con sus marcas y con cuantos datos se han podido conseguir. El autor da explicaciones sobre la falta de punzones y marcas en las armas más antiguas, entre otras razones por la incuria o falta de interés de aquellas épocas. De esta manera puede ser difícil identificar y documentar su exacta procedencia, aunque no cabe duda de que su origen son las regiones vascas. La lista de nombres conocidos es larga, y algunos de ellos son de armeros de los siglos XVI, XVII y XVIII. Abundan los del siglo XIX y comienzos de éste. En esta lista se informa sobre el paradero de las armas vascas que ha sido posible localizar. La de nombres aumenta considerablemente las listas del anterior libro, del mismo autor. Poco a poco crecen las marcas de armeros vascos. Unas páginas se dedican a marcas y punzones, y en este libro se ofrecen 81 marcas.

Las fábricas de Eibar produjeron armas blancas, por ejemplo, dagas y bayonetas; pero también existen hojas de espadas. Han sido relacionadas entre los espaderos de Eibar y los de Toledo. Entre estos últimos hay algunos que su origen, en pasados siglos, fue vasco.

El autor da al lector descripciones de la inauguración, el 24 de junio de 1914, así como la presentación del catálogo de aquella época; hace mención, en el nuevo museo, de las pistolas, revólveres, escopetas y fusiles, desde el siglo XVIII hasta nuestra época, parte de Eibar, parte del extranjero. El libro termina con un glosario con la terminología sobre este

tema, con varios dibujos técnicos de escopetas y pistolas; todos los detalles y toda la nomenclatura se ofrece también en vascuence.

La mayoría de las ilustraciones de armas son en color, de más calidad que las ofrecidas en blanco y negro. Predominan las armas cortas, pero también hay algunas escopetas. Se presentan interesantes ejemplos del arte del damasquinado, que fue introducido y cultivado con gran perfección por el arcabucero real Eusebio Zuloaga, y más aún el efectuado por su hijo Plácido Zuloaga, que revolucionó este arte que creó su padre.

A pesar de ser un libro de difícil lectura, dado que es muy esquemático, resulta muy útil y de mucha importancia para museos y coleccionistas de armas de fuego, sean estas armas largas o cortas, reglamentarias o no. La actividad armera en Guipúzcoa ha funcionado durante varios siglos, pero ha sido poco conocida fuera de su país no obstante su importancia en la historia de las armas de fuego y su desarrollo. Por eso es meritaria la iniciativa que han tomado el autor y su colaborador para despertar el interés y conocimiento de una industria tan especial, tan histórica y con sus raíces casi en la infancia de las armas de fuego en la Península Ibérica.

A. BR. DE H.

CLAUDE BLAIR (ed.): *Pollard's History of Firearms* (Dedicated to «The Memory of Major Hugh Bertie Campbell Pollard, 1888-1966»), Middlesex, Feltham (Country Life Books), 1983, 559 pages, 320 illustrations in black-and-white, 40 in colour and 320 line drawings.

This important book starts with an introduction to the works by *Hugh Pollard*, based upon Mr. Pollard's own papers, and written by *Mr. John Brewer*. Pollard was an expert in firearms and spent all his life among firearms. His life had been filled with adventures in almost all the world, as a sportman, as an author to several books and in the army. His first book appeared in 1917: *The Book of the Pistol and Revolver*. Soon after followed several books about the same topics. As a specialist in the effects of firearms he, after a Canadian process about a murder where he functioned as an expert in ballistics and won great fame as a such, entered the row of experts of *Forensic Ballistics* in 1923. In 1936 he as a kind of «tourist» got the job to bring the at that time still unknown coronel *Francisco Franco* from Tenerife of the Canarias, to Morocco and later on to Spain.

Already in 1926 his book *A History of Firearms* had been published with much success. It was reedited in 1930. After the end of World War II his plans about a new augmented and corrected edition came up.

But as so much new literature about firearms had arisen, it was too much for him —then an aged person— to review and correct his older editions. He handed over the work to the wellknown expert from the Victoria and Albert Museum in London Mr. Claude Blair and gave him free hands, but with the conditions that the title of the new book should be *Pollard's History of Firearms*. Claude Blair has fulfilled this work with the greatest honour and created a handbook of high value to all scholars, museums and collectors of firearms, indeed a history of firearms from their beginnings to the modern arms used up to the World War II. Thanks to an excellent staff of experts all epochs could be treated. The complete history of the development, use, construction, etc. has been examined. Besides there are chapters about Oriental, Levantine and African firearms, decoration of firearms, accessories and proof, and the book terminates with an important glossary, with explanations of the technical terms and with informative drawings. The book consists of twenty chapters. Blair himself has written three: about the history from the beginnings in the Middle Ages to the entrance of the 17th century, and further two appendixes. He is followed by chapters about the later history by the late Harold L. Petersen from Virginia; Howard L. Blackmore, former Master from Tower of London, and up to such wellknown modern experts as A. W. F. Taylerson, C. H. Roads and Ian Hoggs, while the oriental part has been written by the director of the Czartoryski Museum in Cracow Z. Zygułski, and the ornamentation by Irena Grabowska from the Nationalmuseum of Cracow.

In his first chapter Blair starts with the origin of gunpowder, which still must be considered a little obscure, and with the earliest known firearms. Greek fire and other kinds of early explosive incendiaries have not been treated, because this kind of firearms in spite of their use now and then in some kind of mechanical apparatus such as the copper siphons used in the Byzantine navy (Scylitzes, Ms. in Biblioteca Nacional, Madrid) and hand-siphons as seen in a Byzantine ms. Vat. gr. 1605 in the Library of the Vatican), were not using the explosive power, a kind of gunpowder, to propel projectiles. It is very probable that the knowledge of gunpowder was first brought to Europe with the Arabs of Spain, thanks to their alchemical experiences and treatises (Córdoba was an important centre). But in every case *the gun no doubt seems to have been a German invention*. The earliest evidence for their existence seems to come from European sources of the 13th century, and the author mentions the works by Robert Bacon, the mysterious figure Marcus Graecus with his collection of recipes: *Liber ignium ad comburendos hostes* (the last and latest recipes, 13th century, treat alcohol and gunpowder), and Albertus Magnus: *De mirabilibus mundi*. He mentions the Leningrad manuscript

(C 686), the midfaa represented, a name known from the secend half of the 14th century, Hasan al-Ramah, who died in 1294/1295 and other sources of more or less certain chronology.

Further he goes to the legendary *Bertholdus Niger*, the Franciscan German monk, and then he passes to the famous *Council of Florence* from 1326-1327 with the ordinance and the cannons of bronze, no doubt of a shape similar to the cannon represented in the manuscript of *Walter de Milemete* in Bodleian Library, Oxford, from 1326-1327, written for king Edward III of England, and the other manuscripts of the same monk, from Holkham Hall, now in British Museum Library, both with a cannon in shape of a vase and very similar to the socalled Loshult gun from Sweden. In 1346 guns were kept in the Tower of London according to the documents. We see it from the orders from 1346 in regard to make a shipment to France of some of the Tower guns, together with their storage chests, lead pellets and pieces of lead in order to found new pellets if necessary.

From 1382-1396 stone bullets for shot are generally mentioned. The term *handgun* appears in 1388. At some unknown date of the late 14th century or early 15th century the first semi-mechanical device for firing a gun was made. Before 1500 we find the first snap-matchlock on a German handgun made in Nuremberg and now in Hermitage Museum in Leningrad. A snap-matchlock is found on a hackbut in Bernisches Historisches Museum in Switzerland. During the third quarter of the 15th century the stock developed. Stocks of early type are seen for instance in the Berner Chronique by Diebold Schilling, from ca. 1474-1483 (Landsknecht stocks). It looks possible that rifling of the gun was introduced already at the end of the century, even if we cannot document it for certain. Apparently it was a German invention. With his second chapter the author treats the system of ignition and he deals with the wheel-lock and its origin and with the drawings from the *Codex Atlanticus* (Bibl. Ambrosiana, Milan), by *Leonardo da Vinci*. The exact date cannot be fixed, but it looks probable that this invention was made at the end of the 15th century or about ca. 1500. Dated to 1505 are the drawings of two wheel-lock tinder lighters for or by *Martin Löffelholz* in Nuremberg (former in Berlin). In the following years we step by step can follow information about the «self-striking hand-gun that ignites itself» as the emperor Maximilian I of Habsburg in 1517 called it in some prohibitions made by him against its use in the Habsburg dominion. The earliest known documentary evidence of the use of the wheel-lock in Italy is from an ordinance issued by the duke of Ferrara on 14th of November 1522. It seems that the early history and use of the wheel-lock in Italy is a little obscure. The author has not omitted a treatment of the

combined wheel-lock gun and crossbow made for the archduke Ferdinand of Austria, German, probably from Nuremberg, between 1521-1526, in Bayerisches Nat. Mus. (Munich), and a mention of the three combined wheel-lock and crossbow weapons entirely of steel made about 1510, in Palazzo Ducale in Venezia. Real Armería in Madrid possesses (K 32) a carabine with the mark of Simon Marquart the Elder from Augsburg on its barrel together with the date 1530, with a fully developed lock and a safety-catch. Some French wheel-locks differ from the usual type, but the general type is seen on a group of fire-arms in Museo di Capodimonte in Naples. From about 1540 is the double-barrelled wheel-lock pistol with its stock and butt inlaid with ivory, made for Carlos V of Spain by Peter Pech from Munich, now in Metropolitan Museum in New York. (In regard to every kind of arms and armour this emperor was highly interested in the German manufactures and workshops.) The rasp-lock came up now. The author treats the long-guns for sporting and military use, the musket, which needed a forked rest to support it when fired. Again the name of Carlos V is linked to the use of fire-arms and his governor of the Netherlands, the grand duke of Alba in the campaign in 1567, gave his companies, called the «mousquetaires», such heavy fire-arms. The term of Harquebus (Hackbut) is explained. The chapter ends with the history of the pistols, several of them from Nuremberg and Augsburg. In Spain, in the famous «Relación de Valladolid» from about 1558 we find the term «arcabucillo de arzón», saddle-harquebus, used for what we should normally call a pistol. The Real Armería in Madrid has several «arcabucillos», which once belonged to the emperor. There is a three-barrelled wheel-lock pistol belonging to Carlos V in Armeria Reale in Turin, designed to fire steel darts. It is from Nuremberg, ca. 1540, with its three barrels rotated by hand by means of a wing-nut at the end of the butt. Carlos V was, all his life, interested in matters of fine mechanics (cf. his interest in making clocks and astrolabes).

It is interesting to note that the invention of the gun did not play any important part in warfare in the first epochs of its existence, and Blair gives several and good reasons why. But during the Italian wars of early 16th century the use of firearms lead to a complete revolution of the art of war, particularly in regard to tactics (Gonzalo de Córdoba, el Gran Capitán).

The third chapter, by Blair too, deals with the various systems of ignition, match-lock, wheel-lock, etc., and with the famous historical collections from the armoury of the French king Louis XIII, some of the specimens from here now in the Victoria and Albert Museum, London (birding-pieces and other types), or the specimens of the archdukes and the emperors of the Habsburg-monarchy. Then follows the introduction

of the snaphance with its various types and systems: Scandinavian-Russian (with a variation: the Baltic lock), the Netherlands type with variations and maybe originating in England, and the Mediterranean types. The snaphance obtained great popularity in Italy. The Roman lock «a la romana» and other Italian types are of the socalled miquelet type. A little different and very characteristic is the miquelet of Spain, where it became of particular interest and got its own face. It was much in use in Catalonia. (But it is found all over Spain and in North Africa too.) It can be seen on various specimens in the Real Armería in Madrid. The author gives references in regard to the various Spanish miquelet locks, in the work by *Alonso de Espinar*, the «montero» and chamberlain of the Spanish kings Felipe III, Felipe IV from Austria, and the prince Baltasar-Carlos. The book *Arte de Ballesteria y Montería* was published in Madrid in 1644.

The flint-lock is treated in various pages and the author gives some corrections to the main-work of this type of locks, the monography by Torsten Lenk *The Flint-Lock* (English ed. by John Hayward), in regard to its first appearance in France, and says that the date for the first appearance of this system in France (by Lenk ascribed to Marin de Bourgeois) must be brought forward to ca. 1627, or at least to a period between 1620 and 1627, for various reasons. A general adaption of the flint-lock was not taken in the rest of Europe before about 1630-1640. In the following pages we can follow the development of the long-gun, the birding-pieces, blunderbusses, carabines, hand-mortars, harquebuts, muskets, petronels, tshcinkes and various other categories, and the chapter terminates with the combined weapons.

The fourth chapter is written by *Harold L. Peterson*, shortly before his death. This author treats the 18th century and the end of the flint-lock. According to him the flint-lock had reached its full development, and only a few alterations took place during its 120 years long life. In this century the stock and the butt underwent great development. The author mentions some special forms of flint-lock and treats the great variety of pistol types and their variation in regard to sizes. The pocket-pistol was a highly popular weapon which in many cases used the turn-off system of barrels. The earliest of these small arms frequently were equipped with «Queen-Anne» lock and were very popular in the first half of the century. Of interest was the use of the rifle, which had appeared already two centuries earlier. It was particularly used for hunting and for target shooting. About 1700 this weapon had acquired all of the characteristics which made it a distinctive type for about 150 years. The German flint-lock and percussion rifles, the Jaegers, were wellknown. The German rifle was brought to America with the German and Swiss settlers early in the

1700s where it got a special development. After the battle at New Orleans in 1815 the rifles used here generally were named *Kentucky* rifles, and they got a history of their own, based upon a popular ballade. Their greatest manufacture place was Pennsylvania. About 1780s started the «Golden Ages» of the Kentucky rifles. (American collectors travelling in Spain often ask for Kentucky rifles for their collections.)

Howard L. Blackmore, formerly Deputy Master of the Tower of London, has written the chapter about the percussion system of ignition. The author is very detailed in his relation about the new system with its whole «prehistory» and with a great many and interesting details, particularly about the Reverend *Alexander John Forsyth* (1768-1843), his many experiments and his hard struggles with the authorities. In regard to the problems of the inventor of the copper cap Joshua Shaw seems to have been its father. With the new system of ignition of the percussion and the new ammunition, which came up, the system of rifling seems to get a still more interest to military authorities.

Chapter six is written by *Mr. Blackmore* too: «Early breech-loading firearms», and he speaks about the drawings of breach-loading already who by Leonardo had designed some specimens with turn-off chambers, but some twenty years older drawings by an unknown inventor from Germany exist in the University Library in Erlangen. *Harold Peterson* has a short chapter about early repeating firearms, and is followed by the wellknown expert in regard to revolvers, *Mr. A. W. F. Taylerson*, who deals with the muzzle-loading revolvers. With the next chapters, one by *Harold Peterson* about breech-loading and repeating firearms 1810-1870, and the chapter by *C. H. Roads* formerly Imperial War Museum, about firearms other than revolvers and automatic pistols 1870-1918 have we come up almost to our own time. Cartridge revolvers down to 1918 are dealt with by *Taylerson* in chapter eleven, and automatic pistols down to 1918 by *C. H. Roads*, who in collaboration with *Ian Hogg* gives a general survey of firearms 1918 to the present day in chapter thirteen. In this way almost the whole history of the European firearms have found their place in the history of the development of firearms. *Mr. W. Reid*, director of the National Army Museum in London, has written a chapter of particular interest about the Scottish firearms, which are something outside the current history and development. The Scottish firearms have a history of their own and a strong stamp of their own, different in many aspects from the usual firearms. The author mentions the dress pistol, which came up about 1840s. Many of the specimens were made in London and Birmingham, and were not for practical use.

Of particular interest are the chapters dealing with the *oriental* fire-

arms and with the decoration of firearms. The first of these chapters has been written *Dr. Zdislaw Zygułski, Jr.*, keeper of the Czartoryski collections, Cracow, the second by *Irena Grabowska* from the National Museum in Cracow.

The article about the oriental, levantine and north African firearms is fundamental, an important work, not least because literature about these weapons is very scarce and in many cases the weapons are not sufficiently investigated. The article treats almost all types of firearms, from central and far east Asiatic world, and from North Africa too. But great part is dedicated to *Turkey* and the *Balcanic world*. Most of our knowledge do we have to look for in the work by *George Cameron Stone* in his excellent but too short Glossary, or in the still shorter catalogue by *Charles Buttin*. There exist quite a lot of material and the author has tried to systematize it which is a rather difficult matter partly on behalf of the character of the material, partly because the chronology is a most uncertain problem. This is owing to the conservatism of the oriental world. Further the written sources often are rather difficult to understand for Europeans. The author starts with some new theories about the invention and early use of gunpowder in China already about 600 A.D. and its development which is different to the occidental.

About the invention and early use of gunpowder in China and the first use of firearms, for instance cannon, there are some articles written by Chinese scientists in the review «*Isis*», particularly in the volume for 1947 (bronze guns in Pekin, etc.). According to *John Needham*: «*Science and Civilization in China*,» sec. 33, vol. V, 4, Cambridge University Press, Cambridge, 1980, in chapters treating alchemy in China, there seems to be evidence for the primary invention in China, where the first references to the gunpowder mixture are from about 8th-9th centuries and its development in war in the 10th century with widespread military use in the 11th-12th centuries. According to Zygułski the Chinese seem to have reached a development of a kind of firearms, a tube firing balls after the course of about 600 years. But a true development did not come before the arrival of the Portuguese and Dutch settlers and tradesmen, who came to this part of the oriental world. The author has not omitted a mention of the Byzantine empire and the Greek fire, launched by means of copper siphons.

The Turks seem to have been the first people in the oriental world to use firearms and to produce them. Their cannon foundries of Istanbul in the 15th century are wellknown. Soon the Turks came to make barrels for firearms of a rather good quality and had a great export to European countries, at the same time as they imported firearms from Europe, particularly from Italy. In the *Balcanic* lands and in *North Africa* they were

met with the European barrels, imported from Italy, Liège and Amsterdam. The Balcan countries give a coloured picture, often a little romantic, starting already in the late 14th century. Interesting is the information about *North Africa*, where already the *Berbers* in the 16th century adopted firearms, influenced from Turkey, Italy, France and Spain. In *Morocco* a group of original pistols were made with snaphance lock and with inlay of engraved silver sheet panels and with gold incrusted barrels, while the stock had silver wire incrustation. From Africa the author turns to Persia, the Tartars, the Caucasians, India, Sri-Lanka with its special industry under influence from the Portuguese, and with firearms of a fine quality. Some of them probably are not without contact with Indonesia, though it cannot be said for certain. It is a most interesting chapter, but with a material still not sufficiently investigated.

Taylerson's chapter about manufacture and proof is important. He treats the origin of the firearms makers and their development during the centuries. We can follow the development in England, Germany, Scandinavian countries, Spain (Ripoll and Eibar), Liège, Switzerland and several other countries, and not least in United States of America. He is followed by the interesting article by *Irena Grabowska* about the decoration of firearms. Beside their practical use these weapons little by little became appreciated art objects, decorated with inlay in various kinds of fine and precious materials. The author presents the reader for the printed patternbooks, some of them as early as already from 16th century and she deals with the styles of the various centres for decoration.

Howard Blackmore terminates the book with a chapter of firearms accessories. He gives a most useful explanation in alphabetic order, practical and handy to the reader. After a glossary and two appendixes by *Blair*, about air, spring-air and gas guns and about miniature firearms, follows the long and most useful bibliographical list with literature about the topics treated in the book and with books and articles up to the most recent time.

It is a highly important book, of high quality, necessary to all who are interested in firearms and their history from their beginnings up to our own time. It is well documented with information, useful for investigators, museums, collectors and aficionates. There is every reason to appreciate the general editor *Claude Blair* and his selected staff of specialists for this work, necessary and wanted!

A. BR. DE H.

MICHEL PÉTARD: *Équipements Militaires de 1600 à 1870*. Tome I: 1600 à 1750, 117 pp., 92 ill., 1984. Tome II: 1750 à 1789, 95 pp., 102 ill., 1985. In continuation. Auto-édition (Imp. Sitol-Guibert, 240, Route d'Olonne-sur-Mer, France).

The interest for the so-called «Militaria» and the increasing number of collectors of «Militaria» no doubt will welcome these publications. Special literature about the topic is not in abundance. The author's purpose with his publications (five in total) is to give as much and as exact information as possible about almost all kinds of accessories to the French armies through a span of almost three centuries, during periods of glory and during periods of defeats. It is no general «history» about these topics. It is what he himself has called it: «Catalogue Raisonné des Équipements de l'Homme de Guerre, de l'Ancien Régime à la Troisième République.» The three following tomes will treat the periods up to 1870. The young author, from Nantes, has specialized in history and archaeology in general, and later on in the history and development of ancient arms. He has been and is still collaborator with wellknown specialists in white arms, handfire-arms, artillery and uniforms with their accessories, particularly in France. He has quite a lot of publications behind him about: *Fabrication des armes blanches au XVIII^e siècle en France*, *Les armes blanches réglementaires françaises*, articles in «Gazette des Uniformes» and various other reviews, in collaboration with other specialists in these topics. He later on in his career specialized in *Costume de Guerre du XVII^e Siècle au Premier Empire* and he is considered one of the finest specialists in military leather-work.

His *Catalogue Raisonné* is well documented with original representations of the weapons themselves and the leather equipment for armament and uniforms, and his sources are such documents as ordinances, regulations, etc., from the French State archives and libraries. Further he takes some material from documents concerning the military history of France and wars of this country with its neighbours. Military legislation has not been omitted either. Some of his objects represented have been taken from Musée de l'Armée in Paris and other museums and collections. The illustrations are taken from contemporary coppers and other kinds of prints, and their details are well represented in instructive and clear line-drawings of his own.

The texts in *tome I* start with the troops from about 1600 (or a little before), the political situation (shortly referred), the heavy and light cavalry, dragoons or mounted arquebusiers, infantry, pikemen, etc. The author passes through the important wars of the 17th century and their

consequences for the development of armament and uniformization with references to the reorganizations and reformations of the armies and their equipment and armament (Maurice of Oranien-Nassau, Gustav II Adolf of Sweden) of importance for the European future. There is a short examination of the uniformization up to 1752. His documentations are such works as *Jacob de Gheyn's* instructive coppers from 1607, *Johann Jacob von Wallhausen* from about 1616, *Saint Remy, Watteau, Vauban* and several others. The firearms and their systems of ignition is taken up and the details are explained in clear line-drawings. We pass to the first types of cartridges, the changes of terminology in regard to the musket to the fusil. (In 1671 Louis XIV in France founded a special Régiment des Fusiliers.) The author next treats the introduction of the flint-locks. There is a short treatment of the appearance of the bayonet and the last periods of pike and musket. In the last parts he deals with the cartouches, and he terminates with some special terms taken from the great encyclopedia by Diderot and d'Alambert from about 1750 and the explanation of these terms. In the time of Louis XIV, France is involved in various wars, with Spain, Holland, Germany, etc., and there is now a tendency to uniformity in regard to the accessories. This can be documented by various ordinances from the part of the government. There comes a change in regard to sidearms, swordbelts, hangers, bandoleers and manner of suspension. The musket reaches its final development. The changes are well represented in contemporary prints with representation of the soldier's dress and all details concerning bags and satchels. All the leather work passes through a change, and new types are created, new combinations, for instance bags with special suspension for the bayonet, or bandoleers and cartridge boxes for infantry, grenadiers, etc. Quite a lot of instructions are ordered, about how to throw grenades, how to put on the bayonets on a fusil, changes in regard to details and cut of uniforms. The last part of the book treats the uniforms, accessories and medallions for the royal guard, for the navy and for the colonies. There are two plates representing the tools for and the manner of using them for the guilds for belt-makers and for other kinds of leather work. As the last illustrations of this tome are three representations of a fusilier from the Gardes Françaises in uniform with all accessories and bags of model 1747. In their belts are seen the new models of swords replacing the antique model of the musketeers from 1680.

Tome II treats in its 95 pages and 102 illustrations the period from about 1750-1789, an interesting period being the era of many new ordinances, partly from the period of Louis XV, partly of Louis XVI. It is the time of several wars, the Seven Years War and the wars in America. There comes a lot of changes in regard to models of swords and

sabres. The sword-belts get new types of buckles, suppressions of ornaments on the cartridge boxes, which now get a portebayonet on the baldric. Special cartridge boxes appear for the artillery. The regulation arms for the army are well represented in a series of line drawings, seen in their scabbards, but lifted a little so as to show the uppermost part of the blade just below the guard. We see the regulation swords with their years of model for all the army: fusiliers, grenadiers, dragoons, hussars, heavy cavalry, etc., and on the following pages are represented the regulation firearms in the regular armies just up to the Revolution, with muskets, musketons, fusils, and with their accompanying pistols. The year 1758 signifies the introduction of a series of new ordinances published with frequency and at least every year with new bulletins. It is the time of *Les États Militaires de France* with their annual bulletins about troops, uniforms, armament, etc., up to 1774. Much information is to be found in the numerous «Abrégés» some of them, however a little scamped. Uniforms and their accessories can be followed year by year in these publications. Among several famous persons of the period in the military world appears a name of importance, the *Duke of Choiseul* (1719-1785), a person with a most radiant military and diplomatic career in regard to France and to Foreign Countries and protected by Mme. de Pompadour. From his hands originates the important renovation of the French army, with its many reforms and modernizations, among others in regard to the artillery with the introduction of the Gribeauval system. In 1770 he fell into disgrace with the Kingdom, a matter caused by various intrigues at the Royal Court.

The last part of the book deals partly with the army of Louis XVI and partly with the grande ordinance of 1786, just before the outbreak of the Revolution. It is a confirmation and an improvement of the ordinances from 1779. It treats the straps, leather work and almost every detail of the harness and other equipment of leather such as cartridge boxes, straps for fusiles, knapsacks, kitbags, etc., as demonstrated in the line-drawings and in contemporary prints. The last illustration of the book is a drawing representing an infantry-fusilier in full uniform from 1767, seen from the back, dressed in the equipment in use just up to the coming of the Empire.

These two tomes make out a nice and in many ways instructive publication, illustrated into all details. The illustrations are fine and give much information, the text is short and exact with references to the written sources in the shape of ordinances, bulletins and other kinds of decrees from the periods concerned. The armamentis placed in the frames of the history of France during these relatively few years, from Henry IV (of Navarra) to Louis XVI. The two tomes are representative, and no

doubt will be useful to military museums and to collectors of «Militaria,» not only in France, but even in other countries. Tome III is announced to be dealing with the period from 1789 to 1815, a most important epoch in the history not only in France but in the history of Europe as a whole.

A. BR. DE H.