

BIBLIOGRAFIA

PH. DU PUY DE CLINCHAMPS: *La Chevalerie*, 2.^a ed., Paris, Presses Universitaires de France, 1966, 196 pp. (Coll. «Que sais-je?», 972).

La première édition de cette étude, parue en 1961, fut vite épuisée malgré que les tirages de la collection soient fort considérables. Ce succès s'explique par les qualités de pensée et de style propres d'un auteur aguerri. Mais il s'explique aussi par le sujet. Le chevalerie, indispensable à connaître pour quiconque veut comprendre le Moyen Age, n'a rencontré jusqu'ici que peu d'historiens en France. La liste des ouvrages qui lui sont spécialement consacrés est vite dressée: Celui, déjà vieilli, de Léon Gautier; celui, excellent mais quelque peu aride, de Guilhaumoz; celui de G. Cohen «utile seulement par ses longues citations des chansons de geste» (p. 125). Voilà, à peu près, tout ce que l'on peut citer sur la question. L'ouvrage touche donc à un sujet de vif intérêt.

L'auteur insiste sur l'aspect religieux de la chevalerie — le christianisme étant élément essentiel à considérer pour l'étude de n'importe qu'elle institution médiévale — et propose la définition suivante: «La chevalerie... a été à fraternité des soldats chrétiens, chacun étant appelé à la rejoindre par l'un de ses pairs et reconnu alors comme tel, par tous» (p. 8). Puis l'étude s'ordonne en quatre chapitres: I) Naissance de la chevalerie; II) La chevalerie vivante; III) Le déclin de la chevalerie; IV) La pseudo-chevalerie contemporaine. Ce plan, aussi clair que logique, a l'avantage d'être conforme au déroulement chronologique des faits et il permet de bien saisir tout ce qui sépare le chevalier des XI-XII siècles «de fer vêtu», de ceux d'aujourd'hui, porteurs du simple veston... Notons, en passant, que les précisions apportées par l'auteur à propos de la «résurrection» de l'ordre de Saint Lazare, sont stupéfiantes, au sens propre du terme.

Dans la partie finale, l'auteur signale, fort justement à notre avis, que le scoutisme constitue la meilleure survivance actuelle de l'esprit chevaleresque, survivance qui serait encore plus nette «si le scoutisme, pour suivre la mode, n'essayait de se démocratiser, alors qu'il est par essence, un mouvement aristocratique» (p. 121).

Une bibliographie sommaire (dix numéros) mais où rien d'essentiel n'est omis, clôt ce remarquable travail.

J.-F. FINÓ

MICHEL B. JOSSERAND: *Les pistolets, les revolvers et leurs munitions*. Paris, Crépin-Leblond, 1966, 175 p.

Ce petit livre paraît devoir échapper au domaine propre de GLADIUS, revue consacrée à l'étude des armes anciennes. Mais le «terminus ad quem» est-il marqué par l'année 1855 (mise en service du fusil Dreyse), par l'année 1886 (adoption du fusil Lebel) ou par 1945 (première bombe atomique)? En outre, l'étude de M. B. Josserand débute par un long chapitre (pp. 12-57) relatif à l'historique des armes de poing, bourré de renseignements sur le Colt de la guerre de Sécession, le «Peacemaker» du Far-West, le Smith & Wesson, les revolvers français modèle 1873 et 1892, les pistolets automatiques Mauser, Lütger, Browning, etc., qui aident à redresser bien des erreurs concernant leur histoire ou leurs caractéristiques. Notons en passant que l'auteur signale la faute de ceux qui —romanciers, journalistes, etc.— emploient indifféremment, les mots «revolvers» et «pistolets».

L'auteur s'occupe ensuite des calibres et montre les difficultés qu'il y a à traduire en mesures décimales, des expressions telles «45», «38», «32», etc. Puis il passe à l'étude des symboles, des munitions, à une classification des deux types d'armes de poing, à leur balistique et à leur avenir, pour terminer par un excellent plaidoyer en faveur du tir en France.

La simplicité et la clarté de l'exposé ainsi que le choix pertinent des illustrations, font de ce petit livre une excellente initiation à la connaissance des armes de poing classiques.

J.-F. FINÓ

P. BARBIER: *La France féodale*. Tome I: *Châteaux-forts et églises fortifiées. Introduction à l'étude de l'architecture militaire médiévale en France*. Saint-Brieuc, Les Presses Bretonnes, 1968, 508 p.

Il est fort aventureux de juger sur un premier volume, la structure et l'économie d'un ouvrage qui doit en comporter une dizaine. Nous ne reprocherons donc pas à l'auteur d'avoir omis une bibliographie récapitulative des ouvrages cités en bas de page ni le manque (pourtant fort regrettable) d'une table analytique permettant au lecteur de se reporter aisément aux divers endroits du volume où un même édifice se trouve mentionné. Un reproche plus sérieux peut être fait à propos du titre. D'abord le choix du qualificatif «féodal» n'est peut-être pas tout à fait juste puisque, si bien il délimite la période considérée, il y a une certaine

contradiction à traiter de «féodales» les constructions faites par l'Église, par la Royauté et par les Communes, c'est à dire, par ceux qui furent de véritables «dissolvants» de la féodalité elle-même. Ensuite, la distribution de la page-titre n'est point irréprochable. En effet, le sous-titre (ou plutôt les sous-titres) portent «Châteaux-fort et églises fortifiés. Introduction à l'étude de l'architecture militaire médiévale en France». Or, si bien les châteaux-forts constituent le sujet du Livre II, les églises fortifiées ne forment qu'un chapitre (fort intéressant d'ailleurs) du Livre III où il est également question des châteaux de montagne, des tours de garde, des maisons-fortes, des ponts fortifiés, etc. Quant aux questions générales (principes d'attaque et de défense des places, ingénieurs militaires, etc.) elles sont traitées au Livre I, mais ne figurent qu'en dernier lieu sur la page-titre. Celle-ci aurait du être distribuée de façon à correspondre au plan du volume et à constituer sa véritable «carte d'identité», pour parler comme les bibliographes. Enfin, le fait d'avoir commencé son étude à la fin du IX siècle, porte l'auteur à barrer d'un seul trait plus de cinq cents ans, période au cours de laquelle ont eu lieu des transformations plus profondes que dans les mille ans postérieurs et dont l'étude (ou le rappel) servirait à expliquer bien des réalisations médiévales. François Gebelin, qui a tant insisté sur le rôle dévolu aux enceintes romaines pendant tout le Moyen Âge, aurait son mot à dire là-dessus.

Mais, ces réserves une fois faites, il convient de souligner les qualités positives de l'ouvrage et sa richesse d'information. A côté des édifices «classiques», l'auteur apporte de nombreuses précisions sur des ouvrages peu ou point connus. La classification qu'il fait des édifices militaires ou para-militaires (pp. 73-75): «châteaux forts primitifs», «châteaux-forts anciens», «châteaux-forts classiques», «châteaux-forts modernes» est, peut-être, susceptible de discussion (notamment dans le choix de certains mots ou dans celui des limites chronologiques) mais elle demeure fort suggestive. Dans l'avertissement qui ouvre le volume, l'auteur fait un bon résumé des principaux travaux modernes relatifs à la question. Il conviendrait sans doute d'ajouter l'ouvrage, publié en 1960 par P. du Colombier sous le titre *Le château de France*, quoiqu'il ait surtout pour objet l'étude du rôle social du château. *Le Château-fort*, de Marie-Clotilde Hubert et Jean Hubert, paru en 1965, n'aurait pas du être omis ici car, malgré ses proportions restreintes, il constitue une excellente introduction. Cela étant, les pages consacrées par P. Barbier au panorama de la littérature castellologique, sont aussi intéressantes qu'utiles pour le lecteur. De même, celles qu'il consacre aux châteaux de montagne et aux fortifications des édifices religieux; ce dernier sujet n'ayant guère été traité jusqu'ici si ce n'est d'une façon fragmentaire.

L'illustration, en grande partie provenant de la collection personnelle de l'auteur, ainsi que les cartes et croquis que accompagnent le volume, offrent un vif intérêt à être étudiés de près. Quelques inadvertances de composition (p. e., certaines références bibliographiques auraient été mieux placées en note, en bas de page, plutôt que dans le corps même du texte) n'enlèvent rien à la valeur d'un travail qui, dans la pensée et dans les projets de l'auteur, doit servir d'introduction à un corpus des édifices militaires que le Moyen Age a légué à la France.

J.-F. FINÓ

CLAUDE BLAIR: *Pistols of the World*. London, B. T. Batsford Ltd., 1968, 206 pp., 823 ill., 21 pages with line drawings and proof marks.

It is not necessary to introduce to the readers the British investigator and specialist in ancient arms and armours Mr. Claude Blair. In 1962 he issued a manual: *European and American Arms* (reviewed in *GLADIUS*, II, 1963, pp. 78 ff.). His new book has concentrated about a more specialized theme: *Pistols of the World*. This topic is very comprehensive although the pistols only form small part of ancient weapons. *Pistols of the World* is a parallel to the book issued in the same series by Mr. Howard Blackmore in 1965: *Guns and Rifles of the World*. Ancient firearms have a high portion of interest among collectors, probably more than have e.g. swords and daggers, and many museums are rich in firearms. Many collectors are experienced in using firearms and take interest in competitions, sporting, hunting, etc. To museums, collectors and to all who are interested in this topic the present book with its encyclopedic character is an important manual. The text is clear and concise. There are numerous illustrations of pistols and revolvers from a great many museums and private collections. Highly important are the captions with their detailed descriptions and informations, measures and even bibliography referring to the illustrations. The intention is that they can be used in connection with the headlines of the plates. The instructive line drawings, many of them with exploded views, with their many details of the various types of locks, loading systems, pistol butts, accessories, and even the most important proof-marks, certainly are well-come to all collectors and students of ancient firearms. The long and elaborate list of select bibliography is extremely useful.

In his introduction the author says that his book is a parallel to that by Mr. Blackmore, dealing with guns and rifles. He has avoided — as

far as possible — reiterations, e.g. in regard to ignition systems, lock constructions etc. In regard to the development of lock-types it is almost impossible, because the development of the pistol has so many details in common with the long guns. Indeed, the two authors are complementary to each other.

The book of the pistols contains 10 chapters, many of them divided in subsections. It covers the period from the first employment of pistols in the early 16th century to the first successful automatics in the 19th century.

The book starts with the definition of a pistol and a short history of the pistol and its origin, which must be dated to the time of the invention and use of the wheellock. Date and place for this invention is unknown. However there seems to be literary documentation from about 1518 for something like a pistol «a gun secretly carried under a clothing» in the empire of Maximilian I of Austria. The first datable pistols existing, made about 1530s, come from the Armoury of Carlos V of Spain, and most of them are still to be found in Real Armería in Madrid. With the exception of two they are made in Germany, probably in Nuremberg. The author contemplates the evidence about the pistol as a German or an Italian invention. For the moment it is not possible to reach any definite conclusion. Probably the Germans first applied the pistol with success in warfare about 1540. The name: pistol, is of uncertain origin. (It has been assigned to Pistoya, and the author gives a statement for the reasons. But credited philologists have rejected this etymology. The word probably has come from Czech «pištal» during the Thirty Year's War. Via Germany it spread over the rest of Europe.) The adoption of the pistol in warfare led to the evolution of new tactics, e.g. the «caracole», to the disappearance of the old, heavy armoured cavalry, and, as a consequence, to the decay of the armours and of the armourer's art.

Almost up to the second quarter of the 19th century pistols, as a rule, were made in pairs. Though mainly regarded as a military weapon pistols were frequently used for hunting from horseback in the period between the middle of the 16th century to the middle of the 18th century. The history of the wheel-lock pistol apparently was dominated from the great centres of Augsburg and Nuremberg, and the pistols often can be identified by their marks and datings. The ball-butted German «puffers» were mainly horseman's weapons, to be carried in saddle-holsters. They were not used as clubs, as sometimes maintained. About 1580s the long, slender pistol with a fairly small bore appeared, probably first in France, still with the old shape of butt, lemon-or pear-shaped, but more straight than before. By the middle of the 17th century the

wheellock pistol had gone out of general use except in parts of Germany and in Scandinavia.

The various types of snaphance: Baltic, Roman, Spanish («patilla»), etc. are shortly examined just as is the flintlock, which soon after its invention (about 1610-1615) spread over all Europe except Spain, where the miquelete always was regarded as much superior to the new French type. Snaphance-pistols were used by a troop of horse in Ireland about 1580. The earliest known existing pistols are an English pair, dated 1593, now in Czechoslovakia. Very little later are some Scottish examples, dated 1598, now in Dresden and Brussels.

The development of the stock and the pommel is treated in mainlines. Both snaphance and flintlock pistols could be divided in three main groups according to their sizes, though no hard measurement can be fixed for each group: the longest (a pair) to be carried in saddleholsters; the medium size for the belt—occasionally furnished with a flat belt-hook—or else in a coach, for which reason they were sometimes called chaise-pistols; and the smallest, the pocket-pistols. Rifling of the barrels is sometimes said to have been invented in the late 15th century, but the earliest datable example is provided by a German wheellock gun, dated 1542, now in Copenhagen. The earliest surviving rifled pistols probably are a pair of wheellock pistols dated 1594 from Dresden, now in an English private collection. Existing examples of early muzzle-loading rifled pistols are rare. Surviving pieces mostly belong to the first half of the 19th century. About the middle of the 17th century improvements were made of the flintlock pistols which afterwards kept the improved shape. The graceful «swan-neck»—or «goose-neck»—curved form of the cock appeared about 1650. Though the basic form of flintlock remained unchanged after about 1650, a series of refinements were introduced in various periods. Among the refinements are the gold linings (much later platinum linings) to touch-holes and pan, a refinement first introduced in Spain in the second quarter of the 17th century on fine-quality firearms. The rest of Europe did not introduce this until about a century later, and then particularly in England.

As to the percussion-pistols the Reverend Alexander John Forsyth (1768-1843) from Aberdeenshire, an amateur mechanic and chemist, probably was the first to produce a satisfactory percussion lock in 1805, repatented in 1807. In 1811 he set up a workshop in London with only very little success. From about 1830s the percussion cap system was the only one used for muzzle-loading firearms. As to the invention of the percussion-cap it is still uncertain who was the inventor. It was not before the middle of the 19th century that the percussion-system superseded the flint-lock in Western Europe.

Among the special types of pistols the author treats various specimens of particular interest, such as the turn-off pistol, the pocket-pistol (amongst others the famous Deringer, first produced in Philadelphia by Henry Deringer), pistols with external mechanism, duelling pistols and, not least, the interesting Scottish pistol in its various shapes. A special attention must be called to the Scottish pistols made between the second decade of the 17th century (or before) until early in the 19th century. As a rule they are classified as Highland pistols, though it is difficult to show early types particularly connected with the Highlands. Glasgow and Edinburgh played an important part. These pistols are now usually classified according to the shape of their butts.

The pistol-furniture—all the mounts attached to the stock of firearms—are important for a chronological, artistic or local placing, such as belt-hooks, butt-caps, escutcheons, ramrod-pipes, etc. In the same chapter are treated the sights, though these—as the author says—do not strictly form part of the furniture. Pistols, as a rule, were not fitted with sights before the second half of the 17th century. As an addition to this chapter a special type is mentioned with segment or quadrant lock; a pair of this type, dated to about 1650, has just come to light, and is now in a private collection. Probably it is an Italian invention.

In regard to breech-loaders the author prefers to confine this term to pistols that are loaded from the rear and embody some moving parts in the breech, instead of using it about turn-off firearms too. In the chapter of single-shot breech-loaders and the development of the self-contained cartridge the author first treats the pistols with separate chambers. The next chapter deals with pistols with pivoted chambers (e.g., the Hall system, the Clanricarde—d'Est patent from the second quarter of the 19th century) and pistols with movable breech-plugs, e.g., the screw-plug system. Mentioned is amongst others the La-Chaumette's invention which did not achieve any success in France in the inventor's time, for which reason he went to England to patent it in 1721. Here he apparently did not have more success.

The cartridge breech-loaders are treated in outline, and the author has confined the term cartridge-pistol to those using a self-igniting cartridge, containing its own priming. Almost all such cartridge pistols are breech-loaders. The Swiss gun-designer S. J. Pauly patented in 1812 a breech-loader system employing paper cartridges with a re-usable base of soft brass with a recess in the center for a small charge of detonating powder. In 1814 he was granted a British patent for a system of ignition using a fire-piston instead of a firing-pin. He did not—however—achieve any success. A few guns and pistols of his design survive. But his invention marked a beginning of a period of experiment that was to

see muzzle-loaders supplanted by breech-loaders in Europe as well as in America.

In the development of the modern centre-fire cartridges a series of names are mentioned, first of all Galy-Cazalat's self-contained cartridge (Paris 1826). His patent was followed by e.g., Clement Pottet, Needham, Lancaster and many others. The centre-fire cartridges, patented by Clement Pottet in 1855, were the direct precursors of the modern shotgun cartridges. The form of rifle cartridge patented by coronel E. M. Boxer in 1866 became a basic type in future. From it was developed a brass pistol cartridge in 1867. Next the author mentions the German Johann Nikolaus von Dreyse's invention of the Prussian Needle-Gun. The rim-fire system represents a second important line of development but without any real success before employed in Smith & Wesson revolvers. Among the other important types of cartridges is the pin-fire. In this connection the name of Casimir Lefauchaux must be mentioned as well as C. H. Houllier's improved all-metal version of Lefauchaux' pin-fire (1850) used with Eugène Lefauchaux' revolver in 1854.

To the systems of repeating and volley pistols various names are connected from the second half of the 19th century. (Marston, with three barrels, one above the other and with rim-fire cartridges, patented New York 1857 and 1864; The Sharps, Philadelphia 1859; Remington-Elliott; Remington Double Derringer, etc.) A number of makers experimented with the multi-barrelled cartridge pistols with individual strikers for the barrels, operated in rotation by pressing the trigger, all of them with more or less success. The volley pistols—with several barrels fired simultaneously—are rare. A seven-barrelled specimen with flintlock by Henry Nock of London is now in Windsor Castle. The type was derived from the volley guns made for naval and military use. Another form for volley pistol was the so-called «duck's foot» or «mob» pistol with radiating barrels, of which a specimen exists in Glasgow Art Gallery and Museum.

The superimposed load firearms have been detailed treated by D. R. Baxter in his book from 1966, but Claude Blair gives an instructive representation of the types: pistols with superimposed loads fired individually and fired on the «Roman Candle» principle. This last type was known in Germany as early as in the beginning of the 15th century.

Much place is given to the revolvers, which the author has divided in two main groups: revolving-barrel system and revolving-cylinder system, and he traces their history back in time to the early 16th century. The earliest recorded hand-firearm with barrels that actually revolve apparently is the three-barrelled matchlock pistol in Palazzo Ducale in Venice. Probably it is of Italian manufacture from about 1540. The

existing three-barrelled revolving wheellock pistol of Carlos V, now in Armeria Reale of Turin, was made for firing darts of steel. Three of these darts still exist. The early specimens are isolated examples, and it was not before the middle of the 17th century that pistols with two rotating barrels (over-and under) came up in France, where they became popular, just as in Holland (the turn-over system).

The continous history of the revolver starts with the late 18th and early 19th century group of English flintlock «pepperboxes», of which many specimens survive. From about 1830s an extraordinarily wide variety of percussion-pepperbox pistols were made in Europe and America with single-action as well as self-cocking and double-action. Numerous variations of the types appeared.

The revolving-cylinder system falls in two categories, according to whether the chambers are loaded at the muzzle or at the rear, muzzle-loaders and cartridge pistols. Some unusual forms among the muzzle-loaders, e.g., the mid-seventeenth cent. Brescian pistols with hand-rotated cylinder and four chambers, now in Porte de Hal in Brussels, are mentioned.

In 1835 Samuel Colt from Hartford in Connecticut (1814-62) patented his revolving mechanism which did not differ much from the single-action flintlock revolver ascribed to John Dafte, a London gunmaker from about 1680. The Dafte revolver had been in advance of its time and failed. It is to Samuel Colt that the credit must be done of devising a system that was both satisfactory in performance and capable of being manufactured in large quantities at a reasonable price. He patented his revolver in England in 1835 and shortly afterwards in America and France. Before the Mexican war had ended in 1847 his life as a manufacturer had become an almost unbroken success in spite of the numerous imitations and competitors. As to the magazine pistols the earliest recorded system appears to be the one invented about 1640 by Peter Kalthoff, a German who worked in the Netherlands and later on in Denmark. The 19th century saw numerous experiments and systems. A long series of names came up. About 1854 Horace Smith and Daniel B. Wesson formed a company to manufacture their repeating rifle at Norwich in Massachusetts and produced a pistol on similar lines, called «Volcanic». Among the automatic pistols dealt with in this book Mauser must be mentioned as the first really successful automatic pistol, patented by Peter Paul Mauser in 1896 and produced in 1898. It has been manufactured ever since by the Mauser Company of Oberndorf. Among the important patterns are, e.g., Mannlicher M. 1894, Bergmann M. 1894 and 1897, Schwarzlose M. 1898 and not least Browning about 1899-1900.

A short chapter treats air-pistols and gas-pistols and their history together with a mention of the steam-gun designed by Leonardo da Vinci.

Interesting is the chapter dealing with the Eastern pistols. Although in very short lines the reader gets an instructive impression of the types, their history and descent. Obscure and difficult is the topic about Oriental and North African firearms. Exact information is rarely to be obtained. Conservatism in regard to taste and decoration led to styles unchanged through centuries. Re-use of barrels, mixture of stylistic elements makes the classification, chronology and geographical distribution extremely difficult. However some main features are obtainable, and we are able to discern, at least with some certainty, Caucasian, Turkish, Persian, Indian and North African pistols. Many special features are seen on Japanese weapons. Since the 16th century, when firearms first made their appearance in the East, every known type of lock-mechanism can be found there with the exception of the wheellock. Matchlocks were widely spread even in the 19th century. A snap-match-lock became characteristic for Japan. Italian and Spanish types are found in the Near East more or less as variants. The miqueletes became much in use in Caucasus and Turkey already from the 17th century and have been in use still to the 20th century. In North Africa the lock was often a miquelete of Spanish type, or a variation: the Kabyle lock.

Among the combined weapons one extraordinary specimen must be called attention to: the key-pistol in Inst. de Valencia de Don Juan in Madrid. Many other specimens and capricious objects are existing, such as purse-pistols, stick-pistols, whip-pistols, etc. Hangers, axes, halberds, etc., occur as combined weapons with pistols.

The chapter dealing with the manufacture of firearms mentions the various centers for fabrication and the methods. Suhl, Bohemia, Nuremberg, Augsburg, Milan, Brescia, and, not least, the particular manufacture of the special Madrid-gun barrels are of interest. In Russia Tula became an important center. In England, London was leading until Birmingham in the 18th century became a hard competitor. To the greatest centers in the 17th and 18th centuries must be mentioned Liège.

As to pistols and other kinds of handfirearms no real distinction can be made in regard to decoration, material and methods. The author examines in outlines the designs and pattern-books, gold-and silver incrustations, chiselling, etching, etc., as well as carving, inlay of ivory, mother-of-pearl, silver and the like in stocks and goes through the main periods of style and their revival in more recent time, bluening, browning and the methods for making it.

Interesting is his mention of the collecting of pistols by the French

king Louis XIII and the painstakingly made inventory from 1673 and 1729. This royal collection was partly destroyed or dispersed during the French Revolution, and the surviving objects may now be found in modern time collections all over the world, though many exist in Musée de l'Armée, Paris.

To all who are interested in ancient firearms this book is an indispensable manual and reference book with its rich material of excellent illustrations, line-drawings and its elaborate informations. Certainly it will be highly appreciated by all arms museums, by collectors and students, as it deserves to be.

A. BR. H.

ANTOINE BOUDET-LAMOTTE: *Contribution à l'Etude de l'Archerie Musulmane. Principalement d'après le Manuscrit d'Oxford Bodléienne Huntington No. 264.* Damas, Institut Français de Damas, 1968, XXXV, 187 pp., XV pl. d'hors de texte.

The reader who is lost in this book must realize the fact that there is quite a difference between Occidental and Oriental world and mentality. Though not necessary, it has its advantage to possess at least a little knowledge about Arab letters, vocabulary and names. This facilitates the use of the glossary, as well as the use of the Arab dictionary.

The book is based upon the ms. of Mardi b. 'Alī b. Mardi al-Tarsūsī of which only the copy preserved in Oxford: Huntington no. 264, is known to exist. The complete text, in Arabic as well as in a French translation, is given by the author, from p. 40 to 153. To the reader this is most useful. He thus can get an impression of the literary style of this 12th century Arab author and convince himself about the art of archery which was in high esteem all over the Moslem world not only for war but even for hunting and sports. Archery itself, as well as the bow, was considered an almost divine art, given to man from the Heaven. Foremost of all were the Turks, but next came the Persians and the Arabs. The author himself has taken great interest in French archery, its traditions and techniques. For that reason it is quite natural that he, as an Orientalist, specialized in Arab civilization, has devoted his scientific knowledge and experiences to the art of archery in the Arab world.

While the Occident possesses rather few ancient essays dealing with archery, on the contrary the Orient and particularly the Arabo-Moslem world is rich in this respect. In his introduction the author says that

the word «Archerie» has almost disappeared in modern French and that it is hardly to be found in any dictionary. He gives an account of its occurrence in former day dictionaries and encyclopedias. The reason is that «Archerie» (in modern time French: tir à l'arc) formerly was of no great interest in France. The ancient Romans did not appreciate the archers, but mostly used them as auxiliary forces recruited among the Barbarian peoples in order to fight against other Barbarian tribes. It is not before Vegetius we find mention of some importance. In medieval France some scattered mention occurs, e.g., in works dealing with hunting, such as: «Roy Modus et de la Reine Ratio,» and in: «Déduits de la chasse de Gaston Phæbus.» The greatest European interest in archery was to be found in England. The author quotes some works, such as «Toxophilus or the Schole of Shootynge,» by Roger Scham from Cambridge from the first half of the 16th century. It was not before the disaster at Crécy in 1346 with the English archers that the king of France took up some interest in archery. On the other hand the Oriental peoples have taken much interest in archery since Antiquity. This can be seen already in the armies of the Assyrians, Medes, Parthians, Parthes, etc.

Among the peoples of the East it was above all the Turks who cultivated this art with veritable mastery. But even the Arabs, already since a rather early time, cultivated this art with predilection. Mohammed, the Prophet, was considered a master of archery. Tradition has preserved the names of his bows, just as tradition has preserved names of a series of prominent archers. Arab literature has treated archery in prose and poetry. During his investigations of catalogues from the principal libraries (Bibl. Nat., Paris, as well as many others) the author has found at least 43 works—more or less important—exclusively consecrated to archery: for war, hunting and sporting. And this list is not at all complete. Still numerous manuscripts are hidden in libraries and private collections of the Near and Middle East. Among the Arab manuscripts dealing with this topic the present manuscript Oxford, Bodleian, Huntington no. 264 no doubt is the oldest and the most complete. Apparently it has been completed in the 12th century, probably about 1174, for the library of Saladdin and forms part of a treaty with his armourer (examined some years ago by Dr. Claude Cahen, with the exception of the chapter dealing with archery). In regard to the terminology the translation from Arab to French offers considerable difficulties. The same is the matter with the terms belonging to the ancient Arab vocabulary known from the archaic poets and from the lexicographers and those introduced from foreign schools of archery. Some of the terms only can be considered valid for the epoch of Saladdin or even for this

particular author *Mardī*. It has been difficult to find equivalent words from the ancient French vocabulary to cover exactly the Arab terminology. For that reason the author has chosen to render the Arab terminology in transcription and to give explanations in his glossary.

Boudet-Lamotte's publication contains 12 chapters beside the text in full extension in Arab and French. In his introduction he gives a survey of the Arab sources, which are abundant and deal with the technique of the bow and its tactical use. But these sources—according to Arab practice—often have been hidden in other treatises by the Arab writers in order to impede the enemies—the Infidels—to find them and take advantages of them. Among such sources are, e.g., ancient Arab dictionaries, encyclopedias, works of philological or lexicographic character such as the work by Ibn Sīda, a Spanish philologist from about 1007, whose encyclopedia in 17 vols. has a vol. especially consecrated to arms (*Kitāb al silāh*). The sources here are taken from authors from Basra, Kūfa and Baghdad as well as from poetry from before Islam, ancient traditions and the works about *gihād* and *furūsiyyam*, especially: *al-Wādiḥ*, by *Muṣṭafā Kānī*. Further illuminations and mural paintings are important sources. The second chapter deals with the types of bows. The author has tried to find out the explanation of the various names given by Arabs and Turko-Persans, and to establish what kind of bows were current among the Arabs. The next chapter deals with the various parts of the bow itself and the names of the details. According to the preserved sources Mohammed himself used a composite bow. The bow-string is examined. And the various details and parts of it is examined with their special names, the material used, such as skin, sinew or silk, plaited together. The silk had the advantage that it was unaffected of temperature. The arrows are treated in details in regard to the shaft of reed or wood, the Arabs often using arrows called «*nabl*» with a cross section not too thick. The Persians mocked the Arabs for their slender arrows. The various parts of the arrows with the head, the end with its feathers of partridge, the notch, the shaft with its windings for reinforcements near the notch and the head, are treated with the special terminology of *Mardī* and other authors. *Mardī* doesn't speak much about the development of the types of quivers, but he describes the various shapes, their material and use and gives the names of them. Most of them are made of leather, some are of horse-hair, others are of wood or a combination of wood and leather. In poetry the well filled quiver is considered just as important as a good sabre. «There is nothing to come up to a sabre together with a quiver filled with 30 arrows and a bow made of wood from the mountains.» Of greatest importance to the archer is his thumb ring. It is an indispensable accessory to him,

because he bends his bow with the thumb which would be terribly wounded without this protection. As a rule the material is metal or ivory, rarely leather. The use of the ring was habitual in most of the archery-schools treated here, and among the Mongols.

Very important were the various positions for the hand, the placing of the arrow and the manner of shooting the bow. Several schools and many variants existed. There is accordance in regard to the five *arkān* (corresponding to the prayers of the Coran): the bow, the string, the arrow, the ring and the archer. The disagreements begin when isolating the fundamental principles of shooting. The first operation consists in placing the string on the bow. This operation needed a special care and depended on the type and strength of the bow and the body of the archer as well as the particular circumstances for operation. The composite bow, which is the only one from the manuscript of *Mardī*, is difficult to bend and needs much strength.

Mardī mentions 15 fundamental techniques and 6 secondary, beside some effort for special cases. The author next treats the various positions and their Arab names. The importance of the thumb and index finger is represented in some illuminations such as one from the schools of *Tabriz* and some fragments of the manuscripts of *Chāh Nāmeḥ*, about 1370, now in *Istambul*.

According to almost all traditions the bow and the art of archery is of divine origin. Many essays dealing with the art of archery tell us so. The archangel *Gabriel* gave it as a present to *Adam* that he might destroy some crows ravaging his fields. The art of archery passed over to *Abraham* from whom it passed to *Ismael*. According to some traditions the art later on got lost until the time of *Nimrod*. The Prophet himself in the battle of *Uḥud* was an eminent archer. The tradition has left the names of his bows. The «father of all archers» was *Sa'd b. Abī Waqqāṣ*, the Knight of Islam, who became the Patron Saint of all Turkish archers' guilds. *Sa'd* became particularly famous in the battle of *Uḥud*, where he was surrounded by a little group of skilled archers whose names have been preserved in literature together with some special groups of famous masters, many of those having connection with *Hurāsān*. The origin probably can be traced much farther, and it must be sought for outside the Moslem world. *Mohammed* recommended the art of archery to the Believers not only for war but even as a good exercise to the body. Later on famous and important persons from the Moslem world recommended this art as a daily exercise. Particularly the Turks brought the art of archery to a high degree of perfection. An important chronicle from 1293 gives an elaborate description of archery, executed from horseback, in *Cairo*. In regard to the efficiency of the Arab bows the author

quotes a series of famous sultans and caliphs such as Murād IV, Osman II, Maḥmūd II and several others who became famous for their long range shooting. Next the author gives a description of the manuscript itself, its history and its originator, who probably came from Tarsus between Asia Minor and Syria. The essential parts of the manuscript—after treating the types of bows and their traditions—deal with the postures and attitudes such as they had been established by the famous masters, and it concludes with some considerations in regard to tactics and the particular incidents which can meet the archer in a campaign. We are informed about the various schools still in function in the days of Saladdin. If this manuscript should not be the most complete manuscript dealing with Moslem archery, however it is the oldest known and one of the most important manuscripts, made as it is, in collaboration with the armourer of the armour hall of Alexandria, about 1174. Before passing to the translation of the manuscript the author gives a survey of the various chapters dealing with the superiority of the bow, its origin, denominations, the successive phases of shooting, the 15 fundamental types of technique, the 6 secondary techniques as well as other kinds of technique such as the mounted archer in halt, at a gallop, with a large bow, with two bows, etc., shooting when armed with sabre, with lance and with both sabre and lance. The manuscript contains further a chapter on the crossbow, which however has not been treated in this book.

It is a highly interesting book, sometimes a little difficult to read on account of the Arab terminology. It presupposes some knowledge about the Arabo-Moslem civilization. However, the carefully made glossary is a good help to the reader. It is to be desired that it will be followed up by further publications of the rich Oriental literature dealing with ancient arms, armours and art of war. In this particular field a close collaboration between orientalists and arms-and armour investigators is highly important and desirable.

A. BR. H.

JUAN-EDUARDO CIRLOT: *Diccionario de símbolos*. Barcelona, Ed. Labor, 1969, 495 pp., 350 ill. in black and white and colour. Select bibliography and bibliography in general.

In 1958 the well-known author and reviewer Juan-Eduardo Cirlot from Barcelona issued his first publication of a *Diccionario de símbolos*, the first book of its kind in the world. Now he has issued an augment-

ed and revised edition as a renovation or revival of ancient traditions, known since Antiquity and Middle Ages in almost all civilizations of the world. In an encyclopedic manner this book gives information of symbolism and symbols in an untraditional shape, with short articles covering the field from A to Z. It is a most interesting work, erudite and immensely filled with philosophy and psychology together with an enormous knowledge about ancient civilizations, thought, religion, mythology and mysticism from the Occident, Ancient Egypt, Mesopotamia, Islamic world, Hindu, China, Japan, and stretching its area to the civilizations of the Americas. The author is well versed in this particular field. His special talent for looking through the world of materialism and its manifestations into the spiritual world gives his book new and interesting aspects. In more than 50 pages he introduces his readers in the scope of the work, in the topic as a whole as well as in the details. After the prologues (there are two) he turns to a long and interesting information. It is no easy reading. He forces the reader to concentrate about the matters here treated. The comprehensive topic requires definitions in regard to the spirit of symbols, and it is necessary to give definitions of symbol and symbolism. Step by step the reader follows the author: symbolism and history, origin and continuity of symbols, development of symbolism, symbolism of the Occident, of dreams, visions, phantasy and lyrical symbolism. The essential of the symbolism, analysis of symbols, analogies, symbols and allegory are treated with reference to important and international scientists and specialists. The author makes up for one or other opinion in his individual style. Interesting is the last chapter: Comprehension and interpretation, where he takes up the various problems as to psychological interpretations, significations, syntaxis, etc., of the symbolism and symbols.

The reason why this book is mentioned in these pages, is that it can be of interest to arms and armour investigators too (just as the little book by the same author: *El espíritu abstracto desde la Prehistoria a la Edad Media*, Barcelona 1966). Various of the symbols treated in the «diccionario» occur on ancient weapons, e.g., on sword-blades, axes, spear and arrow-heads, even on helmets, and in heraldry. The author sets forth new aspects on various of such symbols. There are articles about: *armadura, armas, cascos, espadas, hachas, lanzas, caballero* (Saint George). Noteworthy is the article about the cross and its shapes, the use of orb and scepter, crown, etc. One article deals with the symbolic use of the sword in various parts of the world and its significance, e.g., in Ancient China, among the Scythians, the Hebrews, and the representation of sword together with spindle in Megalithic civilizations, as symbols of Death and Fertility. Looking over the numerous articles one

stops with the article about the swastica (cruz gamada, tetrasquellion, as it is called too), and its existence in almost all the Ancient world from Ancient India to the American civilizations. Other articles treat ritual dances and fights with swords, symbols in numismatics and heraldry. The author has a profound knowledge of his topic and has passed through an immense material from all the world. His bibliographical list is comprehensive. (Worth noting is here: MARIUS SCHNEIDER, *La danza de espadas y la tarantela*, Barcelona 1948.) This useful encyclopedia is furnished with a rich material of illustrations many of which reproduce ancient Spanish art objects from cathedrals, monasteries and museums.

A. BR. H.

JAVIER CORTÉS ECHÁNOVE: *Museo provincial de Alava. Armería*. Vitoria 1967, 48 pp., 18 lam. («Guías de los Museos de España», XXX).

The number of Arms and Armour Museums of Spain has been augmented with an interesting little armeria in the Museo Provincial of Vitoria. In short outlines and with great leaps it gives the mainlines of the armeological development from prehistoric time to the beginning of the 19th century, terminating with the trophies and effects from the famous battle of Vitoria on the 21st of June 1813 where the brother of Napoleon Joseph, had to fly before the united Spanish-English armies under command of Wellington on the plains outside the city of Vitoria.

This new department originates in the collections of don Félix Alfaro Fournier, who presented his private museum to the Museo Provincial de Alava in Vitoria. It has been installed in an ancient building: Casa Armera de los Gobeco-Guevara-San Juan. The museum galleries are of a characteristic and interesting style. The objects have been placed chronologically by the former director of the Real Armería of Madrid, don Javier Cortés Echánove, who in addition has published the instructive guide. The building contains an archaeological department and an armoury. The archaeological department comprises specimens from paleolithic, neolithic, eneolithic period as well as some specimens from Bronze age and later Iron age. Interesting here are the four Iberian falcatas. The early Middle Ages are represented, amongst others, by a Merovingian scramasax and some swords from from 10th-11th centuries. Of particular interest from this epoch are the two specimens of body-protection: the well-preserved scale armour made of iron scales, probably from the 10th century or maybe a little later, and the fine mail-shirt from

the 12th-13th century. Attention must be called to some of the armours, such as the armours for *justa real*, Spanish made, originating from such families as Casa Ducal de Nájera and Frías, and the Marquesados Montealegre and Serralavega. Other pieces come from private collections of Madrid. Beside these Spanish armours German and Milanese



Two Spanish armours for jousting. 15th century. To the left: from Marquesado de Montealegre; to the right: from Casa Ducal de Nájera. (Museo Provincial de Alava, Armería. Vitoria.)

armours are represented too. Among the helmets you find a Spanish celada and an Italian barbuta, signed Aloisio da Boltego. There is quite a number of Spanish swords and rapiers with Toledan master-names and marks in their blades, others of Solingen manufacture, «espadas de lazo», cup-hilt rapiers with their accompanying lefthand daggers, and a series of fine small-swords. Some of these are from Valencia and Sevilla. An Austrian small-sword has a grip of Meissen porcellan. Crossbows and handfirearms are represented, the last group representing Spanish and Italian manufacture. Guns and pistols from Eybar, Ripoll and Madrid as well as from Vitoria are to be found here.

One of the pieces bears the name of Zuloaga. It was made as a presentation gift from the Royal Consort of Isabel II to the Spanish General Zabala. There is a group of Arab, Persian and Far Eastern weapons too.

The particular interest of the museum is concentrated about the historical weapons from the battle at Vitoria in 1813. The «Museo de la Batalla de Vitoria» comprises the trophies and effects from this battle in which Wellington cut off the retreat of king Joseph Bonaparte and his French troops and closed the route between Vitoria and Bayonne. The flying Joseph had to leave an enormous convoy with all the robbed, precious Spanish objects destined for France, as well as 151 canons. Vitoria honoured the Spanish general with a presentation sword of gold and Wellington with a field-marshal staff. Cortes of Spain honoured Wellington with a part of the Granadine Vega called Soto de Roma.

It is an interesting and attractive museum. The instructive guide by don Javier Cortés has been edited by the Diputación Foral de Alava, Consejo de Cultura.

A. BR. H.

MARTÍN DE RIQUER: *L'Arnès del Cavaller. Armes i armadures catalanes medievals*. Barcelona, Ed. Ariel, 1968, 237 pp., 257 ills., 6 pl. in colour (in Catalán).

For this book the professor of medieval literature at the University of Barcelona, Dr. Martín de Riquer has adopted the title of an important poem from the second half of the 14th century, the allegoric work by Pere March, father of the famous Ausias March. This poet participated in the siege of Morvedre in 1367 and was taken prisoner by the Black Prince, Edward of England, in the battle at Nájera. In the first part of the 15th century he was «procurador» and intendent of Alfonso de Ara-

gón, duke of Gandía, to whom he probably dedicated his long and, in regard to arms and armour studies, very important and interesting work. He was a knight, who knew about the matters of armament and battles.

It must be said at once that the book by Martín de Riquer is of the greatest interest to all investigators of ancient arms, armours and art of war from the Middle Ages. It treats a period of importance not only to the Catalán, but to all the Mediterranean world, its history and civilization. It was just the epoch in which Cataluña and Aragón enjoyed a Golden Age, holding all the strings to the maritime routes of the Mediterranean, with dominions of Sicily and the islands of the Tyrrhenian Sea, a lively trade with the Italian republics, not least Milan. Aragón, Valencia, Mallorca played an important part. With the many contacts to almost all corners of Europe, not least to West Europe, this part of the Iberian peninsula, contacting Provence, came to be an important center for cultural and artistic development. Poetry and art flourished. These centuries from the 10th to the beginning of the 16th century were rich in martial events, tournaments and display of Chivalry as a whole, the weapons, as a matter of fact, were of the greatest importance.

Already from the 10th century Cataluña possesses a wealth of literary documentation of interest to arms investigators. Although the archaeological material from this period, in Spain as well as in most other parts (except Viking-countries), is rather scarce, the pictorial material is in abundance, and what is important: it is rather realistic portrayed. Just these two components: literary sources and art representations make the basis of this book, followed up with the existing pieces of weapons and armours. In regard to arms and armours the Iberian peninsula is a most important field, though rather complicated. To European development in Middle Ages and Renaissance it meant quite a lot.

The present book gives a very exhaustive examination of the rich literature and documentation of the time of Chivalry as well as an important analysis of artistic monuments from the corresponding periods and places. These act as marvellous illustrations and complements to the literary documentation.

Examinations as those made by Martín de Riquer can only be done by a specialist who is well acquainted with prose and poetry of Chivalry, the historical archives of the regions in question, descriptions of battles, tournaments, legislation, laws from guilds, chronicles, etc. In the present book all kinds of knightly weapons as well as the equestrian equipment have been explained from contemporary documents, literature, etc. The names are examined and the corresponding types of weapons are illustrated by examples from contemporary art. Cataluña is extremely rich in art from these centuries. Manuscript illuminations, mural paintings,

from churches, monasteries and town halls, stone reliefs from church portals, capitals from columns of the cloisters and, not least, the numerous monumental effigies representing the knights in fully knightly equipment. Further there are the seals of kings and nobles. The periods again have at least some archaeological objects in the shape of swords, shields, helmets and parts of armours.

For the first time a complete and very detailed description of all types of knightly weapons for defense and for attack used by the Catalán nobles and knights have been presented in these pages.

The book contains 10 chapters, each of them with several subdivisions. There are four appendices, a rich bibliographical list, and a most important glossary in Catalán, Castilian and French. The chapters cover historical periods and give details taken from historical documents, prose and poetry of the period. Where it has been possible these periods are illustrated with the corresponding archaeological material.

The first chapter deals with the Condal period, the days of Alfonso el Trovador and Pedro el Católico, a period which in regard to arms and armours offers many difficulties not only in Cataluña but even in the remainder of the Iberian peninsula, as well as in most parts of Europe. Part of the material from this period has resemblance to that from the Carolingian world, which is nothing strange considering the historical events of the time. On the other hand there are considerable differences between Catalán and Carolingian equipment and its details. The pictorial material from the period consists in such important documents as the Biblia de Roda, Biblia de San Isidoro de León, the reliefs from the church portal of the monastery of Ripoll copied from the miniatures of the Biblia de Farfa. An unusual and highly interesting document is the mural painting from Santa María de Taüll. One of the finest representations of a Catalán knight is that from Sant Quirze de Pedret, now in the archaeological museum of Solsona. Another important document is the manuscript of the Beato in Turin, a Catalán copy of the Leonés Beato of Gerona, from the beg. of the 12 century. (By the way noteworthy is the illustration in this manuscript of the primitive and coarsely rendered engine for throwing stones, probably the type which on the Iberian peninsula is called *algarrada*, introduced to the peninsula by the Arabs already in the 8th century.) An important archaeological object from the time (probably 10th-11th century) is the cuirass of iron scales, now in the Armería of Museo Alava in Vitoria. This cuirass finds its parallels, e.g., in the Biblia de Roda. Another interesting object in the same museum, though no doubt a little later, is the mail shirt. Of particular interest in the Roda Bible are the mail shirts with the quadrangular reinforcement, almost a «bib», on the breast of the shirt. Such

quadrangular pieces are known from representations of mailshirts on the Bayeux-tapestry. Together with those of the Roda Bible they are the only known examples of the type. Until now they have not been satisfactorily explained. The names of body-protection: ausberg (haubert, hauberg), loriga, etc., can be verified in Catalán documents as early as from 951, 1005, 1063, etc. The development of the early helmets can be followed in the pictorial art of the time, and the names are found in the same documents as those of the lorigas. The same is the case with the shields: scutum, targa, mentioned in 967. The illustrations render both the almond shaped shields of the early type with rounded top, and the later type with flat cut-off top, as well as the round shields. As to the swords the literary documentation confirms the use of precious swords with gilt and silvered ornamentation. An interesting description dates from 1008.

The second chapter deals with the time of Jaime el Conquistador and Pedro el Grande. It is the 13th century—an eventful period. The literary documentation is based upon such important documents as, e.g., Ramón Llull: *Libre de l'orde de cavalleria*. This treatise was destined for the spiritual education of the knight. It was widely dispersed over Europe and translated to various languages. It contains important and exact information about armament and the names of the various pieces of the knightly equipment from the end of the 13th century. It was written about 1275-1276. The *Libre dels feyts* or *Crònica de Jaime I* reflects rather exactly the armament of the Chivalry. Another important source is the chronicle by Bernat Desclots from 1283-1285. From these sources have been taken the names of the various categories of weapons of the time such as gonió instead of haubert. Sources from about 1210-1213 tell that the haubert is covered with the pourpoint, the gonió with a surcoat of silk. Already in this period the haubert could be reinforced with various extra pieces of mailshirt, such as a gorget of mail and other pieces. Even cuirasses of leather, covered with beautiful, coloured velvet and with gold, occur. From the 13th century are the extraordinary fine altar-pieces from the church of Santa Lucía del Mar, now in Art Mus. of Barcelona with representation of a mail-shirt with almofar and ventalla. Of the highest importance and interest are the mural paintings from el Salón del Tinell in the Town Hall of Barcelona, made in the later period of the 13th century and representing, e.g., the attendants of king Jaime in their precious knightly equipment, as well as a group of crossbow-men, differing as to equipment and dress from the knights who wear bacinets, chainmail, swords and shields. Their horses wear couvertures protecting head and body. This painting gives a most instructive picture of Catalán knights and the nobles of the

court. From about 1300 is the excellent relief from the portal of San Ibo in the Cathedral of Barcelona, representing the hero Vilardell fighting the dragon. The equipment is interesting, representing the reinforced chainmail and the iron-hat. His famous, invincible sword is rendered with all its details. Another outstanding representation of a Catalán knight is seen on the relief from the monastery of Poblet, now in Metropolitan Museum of New York. It represents the knight wearing gonio. His helmet is a transitional shape between the ancient type and the true bacinet. Interesting is his shield, seen from inside, and the manner of grasping it. The heavy helm of the Crusaders did not play the same part in Spain as in West Europe or in Germany. But it occurs in some representations, such as the seals of Jaime I, about 1241, and Charles de Valois «king of Aragón», about 1288. The characteristic type of this helm, from the middle of the 13th century, as worn by the Crusaders, is seen in the pressed leather disc now in Museo de Navarra in Pamplona. The literary documents mention the special names of the types of helmets used in Cataluña, the ironhats, bacinets, barbutas and the like. The sword is an important weapon, the symbol of the knight, and it plays an important part in the work of Ramón Llull and in the *Crónica de Jaime el Conquistador*. Here the famous Tizona of Cid el Campeador is mentioned. Its history can be documented literarily from the treaty in 1018-1026 between Ramón Berenguer I and Ermengol II of Urgel which speaks of «ipsam espadam cognominatam Tizonem». Through several centuries it can be followed to the inventories of Isabel la Católica from the Alcázar of Segovia. The *Crónica of Desclot* speaks of a sword type called bordó, which can be no other type than the forerunner for those stabbing swords later on known as pointed Bordeaux-swords, several times mentioned by Froissart in his chronicle about the Hundred Year's War. Originally the name signified a pilgrim staff, but in most of the Catalán descriptions it means an estoc. The history of the sword of Vilardell, is told. The first notice of this «espada de virtud» is found in a juridical sentence pronounced by Jaime el Conquistador, referring to a duel or fight between two knights. Later on this sword was placed among some other famous swords in the armoury of Pedro el Ceremonioso (unus vocatur Sancti Martini, alius de Vilardello, alius Tison). Its marvellous qualities were still known in the 14th century, as stated in literature.

The 14th century is treated in chapter III, the period of Jaime II and Ramón Muntaner. From the first quarter of this century a very rich documentation exists in the shape of inventories from the royal armoury from 1315 and following time. The inventories are very detailed. The *Crónica de Ramón Muntaner* was begun in 1325. In

regard to arms and armour it is extremely important, not least because its author himself was a very experienced military. He had—as he himself says—participated in 30 battles on sea and land. From this period the pictorial material is very rich giving the investigator much possibility for examining armament of the 14th century. Interesting is a mention in the documents of the armour, which in Catalán is called *llaunes*, and which is excellently demonstrated in an early relief from the cloisters of the cathedral of Pamplona. The knight here wears a tunic reinforced with lamels of iron or steel. Muntaner mentions a tunic called *cassot*, and this light tunic is probably represented in a mural painting from first half of the 14th century in the monastery of Santo Domingo in Puigcerdá. The *camisol* was a coat of mail, and it is mentioned in the inventory of Jaime II in 1315. Difficult to explain is the signification of the word: cuirasses, which occurs already in the 12th century. The author follows the word and its appearance in the Catalán and Provençal documents in the 12th and 13th centuries. Makers of cuirasses are known in these centuries from Barcelona and from Valencia. Barcelona had an organized industry in the 13th century. On the relief from Poblet the knight probably wears a primitive cuirass over his *gonió* of chain-mail. In the Museo Episcopal de Vich is an alter-piece from about 1350 with knights wearing a kind of cuirasses. The name brigandine or brigantine doesn't appear in Catalán documents, nor in Aragonese or Castilian documents from the Middle Ages, whereas it is met with in French, English and Italian documents of the 14th century. However the Catalán name «cuirass» no doubt covers the same type of protection as that of brigandine in French and Italian. In 16th century Castilian it is called *coracina*. Such body-protections were manufactured, e.g., in Calatayud (Aragón) and Valencia. Names for the various details of reinforcements for legs, arms, armpits, etc., appear in the Catalán texts, and the author finds excellent parallels to them in the knightly effigies from, e.g., 1319 in the cathedral of Barcelona and in some seals, one of Pedro el Ceremonioso from 1337, or Jaime III of Mallorca from 1342.

As for the head-gears the documents deal with the details of the various types. The *bacinet* with chain-mail is often represented in Catalán art of the time, but mention of it is rather scarce. The iron-hat occurs more frequent. «*Capell de ferro*» is often mentioned by Muntaner, just as he mentions the *cervellera*. In regard to shields the name *pavès* occurs in Muntaner, and the Moors here wear the *darga*. Heraldic figures are placed in the fields of the shields, the surfaces of which are divided into squares. Broquel is mentioned too, and is often seen in art representations. The most frequent type of shield in this period is the little triangular piece with heraldic decoration. A fine specimen of

a cavalry target with notch for the lance and with a heraldic deer on the front is now in the Museo Arqueológico in Castellón de la Plana. The offensive weapons of the period are the swords, the bordós and the lances (long lances and throwing lances), knives and maces. In regard to the bordó it is interesting to find it in Muntaner and to see its use and importance in a fight. The swords are richly decorated with gold and silver; the scabbards are of fine hide from snakes and gazelles, and those for the bordós have precious silk covers. Interesting is the use of the estoc, because the middle of the 14th century is the very period in which the particular development from cut to stabbing takes place. Stabbing swords were in use already in the battle of Benevento in 1266 between the German knights, who wore heavy and long cutting swords, and the Italian knights with their short and pointed stabbing swords. It is about the middle of the century that the famous Sempach-types make their appearance on the battle fields as seen from Switzerland.

In regard to arms and armours the development in Spain can be followed rather close from the rich material of monumental effigies. Spain probably is the richest country in the world in that respect. Cataluña possesses a wealth of such monuments, which give detailed informations as to knightly equipment: helmet, body-protection, coats, spurs, shields, swords and daggers. The weapon preferred by Pedro el Grande was the mace. Axes are seen now and then. Muntaner gives important information about the lances which have got so heavy that it was necessary to support them in the notch of the quadrangular target. The inventories of Jaime II gives a list of weapons for tournament. There is now a clear distinction between weapons for war and for tournament. The equipment for the horse is very important as a matter of fact. Both the literary documentation and the pictorial art give detailed information about it: bardings, saddles, spurs, etc. Among the finest effigies—true jewels in this peculiar art—is the effigy, now in the cloisters of New York, for Alvaro de Cabrera, made about 1299-1314. The viscount is represented in his precious pourpoint and dressed in chain-mail, with a gorget on his neck. The sword is excellently rendered. Another jewel is the monument for Ramón Folc IV de Cardona, from after 1322, in the monastery of Poblet. From the monastery of Santa María del Puig are some marvellous effigies, one sculptured about the middle of the 14th century. Precious and instructive are the reliefs from the portal of the cathedral of Pamplona with the detailed representation of mail, reinforcement of the legs, the gorget and the two types of shields.

Chapter IV treats the armour as described by Pere March and Per Eiximenis. It is a most interesting chapter, not least in regard to the allegoric poem of Pere March. Modern time has given to it the title:

L'Arnès de cavaller. This poem was written probably between 1370-1380, according to Riquer. The other document is that of Eiximenis, titled: *Dotzé del Chrestia o Regiment de prínceps e de comunitats*, from about 1385-1386. Its author was a minorit monk from Valencia. The third documentation of the period is the *Crònica de Pedro el Ceremonioso*, from about 1375 and 1386, which gives more information about artillery of the time than of knightly equipment. From the same period the inventories of castles are very informative. The pictorial documentation is well represented in some of the finest existing effigies as well as in retables from various churches and monasteries of Cataluña. From the texts it appears that about 1350 the armoured knight often wears a jupon, a coat of mail, and a jaque. The Italian—probably Milanese—armour from about 1380 in the Castle of Churburg in Tyrol corresponds rather well with the descriptions of the work by Eiximenis. The reinforcements such as vambraces, etc., are mentioned in a document by Pedro el Ceremonioso from about 1395, as well as in other documents. The century is the era of the bacinet. March gives a description of a bacinet which corresponds well with the bacinet worn by the Black Prince on his monument in the cathedral of Canterbury, while that of Eiximenis is more like the specimen preserved in Wallace Coll. in London, the bacinet with its pointed visor on roses in the temples. In Catalán sculptured monuments from this part of the 14th century the bacinets without visor are the most frequent. The shields of the time are called tarjas or targas. Heraldic emblems are frequently mentioned in the inventories.

The author gives an interesting analysis of the historical sword called that of Saint Martin, now in Musée de l'Armée in Paris, former in the collection of the late M. Pauilhac. This sword once belonged to Pedro el Ceremonioso. It is mentioned in his will of 14th may 1370 together with the Tizona and the swords of Vilardell. Martín el Humano is said to have worn it at his coronation in Zaragoza in 1399, but this is not at all certain. The coronation sword was said to have come from the cathedral of Palermo (sword of the emperor Constantine), and it doesn't seem to be identical with that of Saint Martin. This last one can be followed during the centuries in almost all its history. In 1888 it was acquired by José Estruch for his collection in Barcelona, from whence it later on went to M. Pauilhac. In Pere March we find mention of the «*misericordia*», the dagger-knife for the coup-de-grace. A magnificent representation of a dagger is seen in the effigy of the sepulchre of Hug de Copons, now in the Archaeol. Mus. of Solsona. Axes are now of less importance than before, but still they appear in various retablos, e.g., in scenes from the Holy Sepulchre.

The white armour is treated in chapter V. It is particularly the 15th century which is here concerned. The documentation now has augmented considerably, not least in regard to the many descriptions and ordinances concerning battles. The armour develops from the mail with reinforcing parts to the complete iron dress of plates. The chapter is a detailed analysis of the literary documentation and the armour, both from art representations and from archaeological documentation. In his Appendix I the author gives a comprehensive documentary material with references to the arms and their classification. From here a multitude of information can be taken. The citizen of Barcelona, Gabriel Turell, in the second half of the 15th century wrote a tract: «En qual manera los cavallers se deuen scriure de batalla a ultransa hi en deseximents», which gave a model of how to classify the weapons. Another important source in regard to the offensive and defensive weapons of the 15th century are the two romances of chivalry: *Curial e Güelfa* and *Tirant lo Blanch*, the first of them anonymous, from about 1435 and 1462, and with the incidents moved back to the 13th century. But it refers rather exactly the matters from the 15th century. Different, but of particular interest, is *Tirant lo Blanch* by the Valencian Joanot Martorell, written between 1460 and 1468, with its many details, formalities, etc., from battles and from the tilting yard. The author was a fine expert in regard to military matters. Important from this century are further the inventories of Martín I and of Alfonso el Magnánimo. The descriptions of the «Passo Honroso», which took place in July to August in Valladolid in 1434, are of inestimable value.

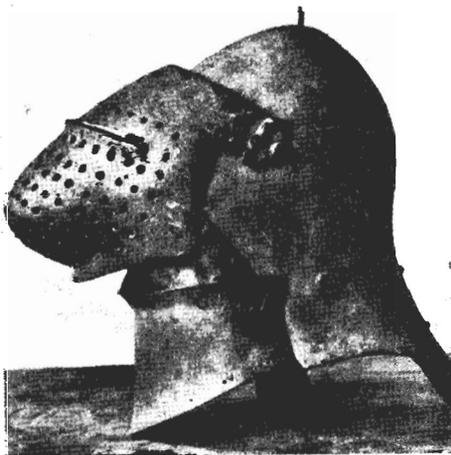
In the following pages the author gives an analysis of the body-protection as mentioned in Passo Honroso and in other manuscripts. The representations in art are examined and compared to corresponding objects preserved in, e.g., Real Armería in Madrid. The armours for jousting and the lances in use are treated, as well as the various parts of reinforcements. Among the solid breastplates for jousting an excellent piece is found in Real Armería, from the second half of the 15th century and probably originating from Mallorca. An excellent representation in art of a complete armour from shortly after the middle of the 15th century was the now destroyed altarpiece by Jaime Huguet, from Sant Antonio Abbad.

Valencia was an important centre for manufacture of armours, and it further had import from abroad and transit to Castilla and to Flanders. There is a considerable importation of armours from Milan as well as importation of mail-shirts. Tomás Missaglia had as his agent Gaspare Zugnio for selling armours to Cataluña, Galicia, Castilla, Aragón, Navarra and other places. In the literature of the 15th century we find mention

of «gesarant» = jazerant. The inventories of Alfonso el Magnánimo mentions amongst others a «yasserant» from Paris. The Barcelonese armourers of the first half of the 14th century worked in leather, textiles and in lamels of metal. In the second half of the 15th century they had come to work in iron and steel.

Chapter VI treats the head-gear, the types in literature and in art. The great helm—the heaume—is now only found for tournament. *Traité des tournois* by Antoine de la Sale from 1458 gives a description of the equipment for the head with the fine and plain bacinet without a visor, chainmail and the heavy heaume superimposed. The helm with its fantastic heraldic figures were not used in the same scale as in Germany, but we find some mention of it in poetry and some representations in art and on seals. A helm-figure of a special category is the precious winged dragon in Real Armería, for king Martín, erroneously referred to Jaime el Conquistador. The use of a winged dragon had been adopted by Pedro el Ceremonioso. It appears on seals for Martín el Joven of Sicily in 1403, Alfonso el Magnánimo in 1443 and on various other seals.

The 15th century is the great period of the various types of helmets, such as sallets, iron-hats, skull-caps, etc. The bacinet still exists but now without mail curtains. Now it is furnished with bevor and visor. Various combined types of bacinets exist. A highly interesting bacinet with visor, bevor and gorget is the splendid specimen from the cathedral of Pamplona, now in Museo de Navarra, made about 1425 for prince Charles de Viana by the armourer Pedro del Campo of Pamplona. It is



«Gran Bacinet», made in Pamplona by Pedro del Campo, about 1425 to prince Charles of Viana. (Museo de Navarra, Pamplona.)

compared with the precious silver statuette of Saint George, who wears a similar helmet. This statuette with its marvellous and detailed rendered armour in Milanese style probably has been made about 1420-1430, according to Riquer, and it may be the work of a Catalán master, though the armour style is Milanese. It represents the type of armour preferred by the nobles of Cataluña in 15th century.

In the romances of Chivalry the bacinet enjoys a high prestige. It is the most usual helmet in *Tirant lo Blanch* and it is the first part of the armament taken from the degraded knight. According to literary sources from about 1420s the bacinet is about to be replaced by the sallet and the closed helmet, the almete. The earliest known representation of an almete is—according to Claude Blair—from 1416, on the effigy of Dietrich Hofer in Schünching. According to Martín de Riquer it is obvious that Alfonso el Magnánimo in 1417 had at least three specimens. The type is generally known in Valencia in 1418. During the first half of the century the type can be followed in Catalán documents.

Among the finest known early sallets is the beautiful piece in Real Armería in Madrid, formerly erroneously called the sallet of Boabdil. It was among the arms inherited by Carlos V from his father Felipe el Hermoso, and made by a member of the Negrolí-family in Milan. Probably the beautiful sallet with movable visor in Real Armería is a work by the same armourer.

The anonymous author of *Traité du costume militaire* from 1446 gives a description of a sallet, with an independent bevor. Documents of the period often mention «una celada francesa» with its bevor. The sallet is the helmet most frequently referred to in the documents. A variation of it probably was called «escaramucina». The capacete is not mentioned before the second half of the 15th century.

The horse and the knight of the 15th century are treated in the VIIth chapter. Very important is the equipment of the horse. The author quotes paragraphs from «Passo Honroso» from 1434 in regard to knight and horse, and he gives a detailed examination of the various parts of a horse armour with the chanfrons, crinets, peytrals, etc., the saddles, their types and shapes with or without steels. He too describes the particular Catalán type of saddle with its ancient traditions. The Aragonese Ximenes d'Urrea in 1482 speaks of the ginete-saddles of Moorish style with their characteristic stirrups. The culmination of armours treated in this period is that of Fernando el Católico, now in Vienna, a Milanese workmanship, but of Spanish taste. It may have been made about 1480-1500.

The weapons for attack—chapter VIII—from the 15th century are often called «bastons» on account of their shapes. From *Tirant lo*

Blanch we are informed about the weapons of a knight: lance, sword, dagger, two-handed axe. The sword with its measures and proportions as well as its qualities are frequently mentioned. It is just the epoch in which the development from Medieval sword to Renaissance rapier started, a period of importance, not only for Spain, but—via Spain—to almost all parts of Europe. The estoque—the stiff, pointed sword—much like the Bordeaux swords of the 14th century—is reproduced in the art of the time with its grip, pommel, quillons and other details on their way to the new types of complicated shapes. A definition of the types is given. Among the swords several of the rich and excellent pieces from the inventories of Alfonso el Magnánimo are mentioned with a description of material, ornamentation, coats of arms, etc. In the manuscript of Fernando de Bolea: *Cartas a los reyes de Aragón, Castilla y Portugal*, written about 1480 (Bibl. Nac. Madrid), is an outstanding representation of prince Charles of Viana with his precious sword of justice. The outstanding and fine sword of Pedro el Conetable of Portugal, who died at Granollers in 1466, is now in the Cathedral of Barcelona (v. Juan Eduardo Cirlot, in *GLADIUS*, III, 1964, pp. 5-13). Probably it is the work of a Catalán master. The sword-makers from Cataluña were famous for their works. (*Llibre del gremi dels espasers, de Barcelona.*) The sword-makers from Valencia played an important part in regard to swords and to blades. Famous sword-makers and sword cutlers existed here. They were conceded a privilege in 1425 by Alfonso el Magnánimo. Among the daggers the sources mention, e.g., the copagorjas and puñales. The baselard appears several times, e.g., in the inventories of Alfonso el Magnánimo. On a triptych in Museo Episcopal de Vich, by Lluís Borrassà (1414-1415) with Saint Michael, a fine representation of such a baselard is found.

«Visarma», French guisarme, occurs in Catalán texts of the 13th-16th centuries. In 1434 «una bisarma o luna» is mentioned. Highly important are the lances to Chivalry. In regard to lance the «Passo Honroso» is extremely important. Interesting in Catalán literature is the mention of and informations about the lance types for tournament, treated in connexion with the rest of the equipment, the body-protection with the types and systems of the lance-rest and the heaume. A magnificent specimen of jousting armour with lance-rest on its specially constructed breast-plate and with the heavy heaume, is the excellent armour made in Valencia about 1478-1506 for Felipe el Hermoso. Interesting are further the two Spanish pieces from the Armería de Alava in Vitoria. The literature gives worthful instruction about how to place and use the lances for tournaments, e.g., the diamond shaped lance-heads, the roquetes, etc., and the use of the billeta, the transversal.

Tirant lo Blanch gives a description which corresponds with the description in *Crónica de don Alvaro de Luna* in which is referred a jousting in 1419 between Gonçalo de Quadros and don Alvaro, and how the roquete opened his visor and next took away his whole helm. But don Alvaro did not fall from his horse, concludes the chronicle.

The IXth chapter gives the categories and characteristics of the weapons. The exact terminology was established by el Conde de Valencia de Don Juan, who took it from *Inventario Iluminado*. Chapter X deals with the battles. It is a highly interesting chapter, and important on account of its many details about armament and use of weapons, as documented from literature. Very interesting is the battle scene represented on a capital from the cloisters of the cathedral of Barcelona from 15th century, as well as a retablo from Santa Elena de Estella of Navarra, already from about 1400. In regard to cavalry fights with lance the «Passo Honroso» above all is important. Quite a number of descriptions dealing with battles are to be found in the above mentioned *Curial e Güelfa*. One gets a strong impression of the force with which the knights meet on the battle field or the tilting yard. The effects of a lance upon a helm, an armour and the rest of the equipment appears clearly from these sources. Both helmets, armours and lances often had to be exchanged, because the encounters had been so violent. A heavy blow from a sword upon a helmet often would bring death to its receiver.

The book further contains four appendices of greatest importance, because the author here gives a lot of documentary material such as *Extractes de Lletres de Batalla* from 15th-16th century. This dated documentation gives much information together with a series of details in regard to fights, formalities, types of weapons, their use and appropriateness. The documentation from Cataluña is overwhelming. Already from an early part of the 14th century the guilds laid down rules for the armourers, the material they had to use, regulations for sword-makers, lance-makers, scabbard-makers, etc. Among the inventories from castles several from 14th century still exist. From Valencia there are documents already from 1307. Appendix IV brings a normalization of the measures and weights for Cataluña, Valencia, Mallorca, Aragón, Castilla and Montpellier, a short, but most useful part for armour investigators. There is a long and elaborate bibliographical list. The *Index glossari* is most useful with its terminology in Catalán, Castilian and French.

This erudite book by Martín de Riquer is highly important to all who are interested in arms and armour investigations from the Middle Ages as well as to those who are interested in Medieval civilization in regard to art, poetry, prose, etc., from the time of Chivalry. It gives a clear evidence of how important the contemporary literary sources and

the art representations are to armour students. Further it proves the wealth of medieval sources in Cataluña, and how important this corner of the Mediterranean world was to the development of European civilization in the Middle Ages and beginnings of the Renaissance. The illustrations are numerous and excellent, and they have been selected with great skill and care.

A. BR. H.

'ABD AL-RAHMAN ZAKY: *The Army in Ancient Egypt*. Cairo 1968, 299 pages with 86 ill., maps and plans (in Arabic).

This book is the first in a series to be issued by the Egyptian scholar Dr. A. Rahman Zaky. The purpose with this series is to give a survey of the Egyptian army and its equipment from remote Antiquity through Roman and Byzantine time, the Moslem Conquest and up to more recent periods. This first vol. deals with the Egyptian army its equipment and its main battles from the first historical time until the Valley of the Nile, after the famous battle of Actium in the year 31 B.C., was conquered by Rome and, under Augustus, was made a Roman province. It is a most interesting book, but unfortunately, only very few European investigators are able to read it. Dr. Zaky's investigations are based upon the archaeological material such as preserved weapons, art representations from Egyptian monuments (tomb-walls, the great temple-reliefs and paintings) and inscriptions, many of which talk about victories won by Pharaoh and his generals, already from the 6th dynasty (tomb of Uni under the Pharaoh Pepi) to the inscriptions of Pianchi of the 25th dynasty and later time inscriptions. Ruins and more or less well preserved remnants of fortresses are taken into consideration. The author treats the various types of fortresses and the art of siege with the use of such war-engines as battering rams and scaling ladders. (The fortress of Buhen on the western bank of the Nile, at Sudan, was excavated as late as in 1957.)

The book consists of five parts, each of them with several subdivisions, treating the various aspects of Egyptian military organization, the equipment and its development, the most important wars and battles and their strategy.

The first part deals with the army during the Old Kingdom, the military service, privileges, the troops and their equipment. It was king Menes from This who already before 3000 B.C. opened the historical time of the country of the Nile Valley. The capital was moved to Memphis during the first part of the Old Kingdom. It was a great period to Egypt. Until the later part of this period the district governors had

their own armies under the command of a superintendent. The author here gives a survey of the organization of the army and how the soldiers were recruited. During the time of the Middle Kingdom we are better informed about matters dealing with military ranks and military training. The army was divided into several closed parts, such as special groups of lancers, with their shields of wood covered with animal skin, archers and slingers, etc. The service was mainly at the frontiers, where we find the fortresses. Among the soldiers we find mercenaries from Nubia and from Libya. It is seen from the colours given to them by the artists, who have painted the tomb-walls.

After a period with desorganization and disturbances Amonhotep I again united the kingdom. He based his power upon the army and strengthened military matters setting up special companies, a bodyguard and garrisons in the fortresses at the frontiers. The tombreliefs from Beni-Hasan give many detailed and excellent illustrations of the military organization and the equipment of the Middle Kingdom. Workshops and manufacture of weapons of almost all kinds are represented here. During the 13th dynasty the mercenaries turned out to be a danger to the kingdom. During such a period the enemies from abroad got possibilities to invade the country and so did the tribes of Hyksos. The reign of Hyksos was a hard period to Egypt, but from them the Egyptians learned quite a lot. They learned how to be a military power. In regard to warfare and weapons many impulses and novelties had come to the country, such as the chariot with the scale armoured warrior, the Asiatic composite bow, the sickle sword, khopesh, and various other kinds of weapons. After a hard time of liberation from the Hyksos yoke Egypt entered a great epoch. The New Kingdom means a glorious period, in which Egypt grew to an empire, ruling great parts of the eastern corner of the Mediterranean. It extended its power to Sudan in the South and had cultural and commercial relations in many directions, even with the Minoan empire. The pharaohs took up their residence in Thebes. The 18th dynasty saw such rulers as Ahmes, Amenhotep I, Amenhotep II, the Tutmoses—particularly Tutmoses III, and others, the 19th and 20th dynasties were the time of Seti I, Ramesses II, Mernptah and Ramesses III. The important and most renowned battles of these periods were those at Megiddo and at Kadesh, the ruins of which fortresses have been excavated in modern time. The battles are depicted in the important wall-paintings and temple reliefs of the respective periods. (Seti I against the Hittites in the temple at Karnak.) The chapter deals just with such sources as the temple reliefs, e.g., Karnak, Luxor, Abu Simbel, tomb reliefs, inscriptions and what we can read from all these monuments. We are informed about the organization, the

battles themselves, infantry—even mounted archers occurs—chariot fighters, administrations and military scribes who are about to make account of war spoil, captives, tributes from the conquered peoples, etc. The military ranks and their names and grades are given by the author, such as the commanders-in-chief, the group commanders, and the various classes of officers as well as the types of the soldiers of the rank and file. Some reliefs show exercise of soldiers, with a group of lancers commanded by a trumpeter. Inscriptions from tombwalls and stelae as well as pictorial art speak about the various titles of honour and about decorations, e.g., how the king personally adorns the victorious generals with golden chains. Next the author treats the fortresses, not least the important fortresses at the southern frontiers, placed in order to protect the gold mines. Kouban, Semnah, Buhen and several other fortresses are mentioned. Beside the usual fortresses are the special towers—migdols—placed along the military and trade routes (of Egypt) to foreign countries, not least to Syria and Palestine. The reliefs from Beni-Hasan inform about such fortresses, the siege and the battles around them. Here we find the oldest known examples of the use of battering rams.

The rich manufacture of arms are excellently represented in these reliefs from Beni-Hasan. Chariot-makers, bow-makers, arrow-makers, quiver-makers, etc., are seen. Already the kings of the Old Kingdom had their well equipped arsenals. The royal arsenals of the New Kingdom had their own workshops with armourers, sword-and dagger makers, etc. The main weapons were: From the Old Kingdom and Middle Kingdom: maces and axes (epsilon-shaped axes are known from finds and illustrations), boomerangs, bows and arrows, slings, lances and daggers. Until the time of the Hyksos these weapons did not change much. With these tribes came the chariot, the new type of bows, and javelins and various kinds of swords, one of them the khopesh. Beside the shields, of wood with animal skin, we now meet a far better body protection than before, e.g., the scale armours, particularly used by the charioteers. Metal scales were sewn upon a coat of leather. Such armours are represented on the tomb-wall of Kenamon, from the time of Amenhotep II, and remnants have been found, e.g., in the palace of Amenhotep III at Thebes. Still another type of armour existed, consisting of leather strips or bands reinforced with metal strips. It is represented in various monuments. The head-gear often consisted in a kind of skull-cap or hood of leather. There may have been little metal caps too underneath. The apex often is crowned by one or two tassels. Now and then we find head-gears of a quilted or padded type with metal strips as reinforcements. Lancers and infantry archers apparently had no special body-protection. Interesting is the group of wooden soldiers: Egyptian spearmen with

high, pointed shields and Nubian infantry archers with slightly double-convex bows, characteristic to the Middle Kingdom, from the tomb of prince Mehseti in Assiut. Equipment characteristic to the New Kingdom is particularly well represented in the reliefs from the temple of Deir el-Bahri, built by queen Hatshepsut. However we are well informed of the New Kingdom's weapons from the many reliefs from Medinet-Habu and the great temples for Ramesses II and Ramesses III with representations of their wars. (Abu Simbel, Ramesseum, etc.)

Already in a very early time the Egyptian armies had their special standarts for the various units. We find them on the prehistoric sculptured mace head of king «Scorpion,» and on the interesting palette of king Narmer from about 2900 B.C. They can be followed in representations and inscriptions through the ages. The units of the armies had their own music bands. The instruments were, e.g., trumpets, flutes, drums, cymbals and the like. These instruments are to be found in the pictorial art too, and the music is mentioned in inscriptions.

In part II the author treats the wars from the time when king Menes united the two Crowns of Egypt. He examines the (various) expeditions and campaigns of the Old Kingdom, the fights during the time of Hyksos and the liberation of Egypt from the Hyksos yoke. Ahmose was the ruler who ascended the throne after the expulsion of the Hyksos, and he made Egypt a military power, unequalled in the contemporary world. From this period and through the following dynasties the evolution of warfare can be followed step by step.

Part III deals with the First Egyptian Empire under the pharaohs by the name of Thutmose. During the reign of these kings Egypt entered a splendid period with a growing wealth and a wide extension towards the East, South and West and with contacts with still more distant kingdoms. It is the period in which the famous expedition to Punt was made, the details of which is represented on the templewalls in the temple of Deir el-Bahri, built by queen Hatshepsut. Probably the most important of all Egyptian rulers was Thutmose III with the well-deserved surname the «The Great». Many battles were fought during his reign in Syria, Palestine and so far away as to Euphrat. The famous battle of Megiddo was fought by him, a battle at Kadesh too. The empire was extended to Sudan in the South. Many peoples were made tributaries to Egypt as seen in the temple walls. With the «Men from the Sea», from Crete, the connexions were lively. It is to be noted in the naturalistic impulses of Egyptian art from his time. His successor Amenhotep II made several important campaigns. In the monuments glorifying his many victories he boasts of the achievements made by him and his generals. From this period are excellent representations of the use of

chariots in battles. Amenhotep III was one of the following important rulers. With Amenhotep IV, the intellectual and philosophical ruler, a decadence set in. The pharaoh was unwarlike. It was he who made the religious revolution introducing the monotheistic religion, the Aton-worship, changed his name to Achnaton and moved the capital to Tell El-Amarna. The Amarna-tablets found in the ruins here are important evidences of the relations with the Hittite king and the events—political as well as warlike—of his reign. His young son-in-law, Tut-Ankh-Amon became famous years ago when Lord Carnavon and Howard Carter found the tomb of this young and apparently unimportant king. In regard to war and military matters, however, the objects—some daggers with iron-blades, bows, shields, etc.—and not least the precious chariots for ceremonial use, are important. Pictorial representations of war and battles on many of the art objects from this extraordinarily rich tomb are of the greatest interest. His successor, the (soldier or rather) general Horemheb, was the first king of the 19th dynasty. With him began a new period of military glory. From his tomb in Saqqarah are representations of Egyptian cavalry. During the periods of his successors, Seti I and Ramesses II, Egypt became a new important empire. The reliefs from the temple of Seti at Karnak give excellent evidence of war and military equipment. The battle of Kadesh under Ramesses II is treated by the author. The ruins of this place have been excavated, and we are informed about the battle in many representations on the monuments of Ramesses II. From Abu Simbel we find mounted archers partaking in the battle of Kadesh. A detailed record of the Egyptian military camp is rendered in the temple walls. Ramesses II is the founder of the definitive military organization of Egypt. During Mernptah the mercenaries came to play a still more important part and became a menace, and the king had to fight against the invaders from several parts. During the reign of Ramesses III several important battles were fought. On the temple walls of Medinet-Habu we find rich illustrations of these battles with the use of the chariot, and the khopesh as well as many details in regard to the various categories of weapons. From the same temple exists a very detailed and interesting representation of a naval battle, probably one of the first known representations of naval battles. The Egyptian navy fights against the navy of Philistines and Cretans.

The Libyan mercenaries placed Schoshenk I on the throne. The Aithiopian dynasty, the 25th (715-660 B.C.), was the first conquest of Egypt by the Nubians under king Piankhi. Egypt entered a rather difficult period. The author treats the time of Salmanassar IV, when the Assyrians became a danger, and the invasion of the Assyrians in Egypt. At the end of the 7th century Psammetik I drew out the Assyrians by

means of mercenaries from Greece, Phénicia and Syria. Among the soldiers we find many descendants of the old Libyan mercenaries. Necho, who made Israel tributary to Egypt and had a navy of about 200 ships, was defeated by Nebukadnezar, the Babylonian king, at Karchemisch. With Psammetik I Egypt got a renaissance in power and art. Psammetik II founded Naukratis in the Delta. In the 6th century the menace came from both Babylonians and Aithiopians, and in 525 Kambyses of Persia conquered Egypt in the battle of Pelusium.

Part IV treats the Ptolemaic period with the time of Alexander and his successors. The author treats the military organization and art of war such as it had been taken over from Alexander and introduced to Egypt. Egypt now had a mighty navy. The last chapter deals with Egypt under the Romans and with the change in military matters after the battle of Actium, the days of Augustus who made the old Kingdom of the Nile Valley to a Roman province. Both with the Hellenistic kings and with the Romans important changes were introduced in regard to organization, tactics and equipment as well as to names of the various military units, but still Egypt preserved some of its individual and characteristic features.

In a supplementary chapter a list is given of the most remarkable and known commanders of the Egyptian army during the three millenia. The bibliography is comprehensive consisting of a list of literature in Arabic and a list of European literature.

The author of this book is well at home in the archaeology and history of his country as well as in military matters. The topic here treated is interesting and it would be desirable to have the book translated into one of the principal languages of Europe.

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