The use of the horse in pre-industrial societies improved a series of human activities, including production processes, transportation, and military activities. Recent excavations at two important sites in the Principality of Achaea (1205-1428), the castles of Chlemoutsi and Glarentza in Western Peloponnes, revealed a significant collection of riding equipment. The collection consists mainly of spurs for the citizens of Glarentza who held the status of knight, as well as horseshoes for war horses and pack animals.

Keywords
Frankish period, horses, spurs, horseshoes, Western Peloponnes, Chlemoutsi, Glarentza, Principality of Achaea.

The Principality of Achaea was the largest of a series of states formed in Greece after the Fourth Crusade in 1204, which resulted to the sack of Constantinople by the knights of Western Europe. The castles of Chlemoutsi and Glarentza, which were constructed in the 13th century at the westernmost tip of the Peloponnes, were the Principality's administrative and economic centres (Figs 1, 2).

Eleni Barmparitsa

RIDING EQUIPMENT
FROM THE PRINCIPALITY OF ACHAEA (1205-1428)

ΔΧΑΕ ΑΖ' (2016), 239-250
Fig. 1. The castle of Chlemoutsi, aerial photograph.

Fig. 2. The castle of Glarentza, aerial photograph.
In the 13th century, when the Principality was run by the Villehardouin family from Champagne, the court of Achaea, described as «nova francia», was thought by the contemporary Westerners to capture the chivalric ideals that are reflected in the main written source of that period, the Chronicle of Morea, a verse narrative about the conquest of the Byzantine Peloponnese by the Franks, which survives in four language versions. According to the information drawn mainly from the Chronicle, the cavalry was a key part of the Principality’s Frankish army. Additional data derived from sigillography indicate that horses symbolised the strength and dominance of its ruling class (Fig. 3).

Horse equipment during the Late Middle Ages included direction and control gear (mouthpiece, bridles, spurs), gear used by the rider (saddle, stirrups), protective gear for the animal (armour) as well as various decorative elements (fittings, bells). The horse’s gear entailed a great cost. Leather and iron were the most preferred materials and were used in different variations depending on the economic strength of the horse’s owner. Precious metals, which may be suggested by the iconography or referred to in sources, were not found in the excavations, meaning that they were most probably recycled. The use of various metal objects (buckles, fittings, bells, rings, decorative mounts) which may be connected to the horse’s equipment as well as to the rider’s attire, is also difficult to determine.

The excavations that took place between 2000 and 2005 in the castles Glarentza and Chlemoutsi by the Archaeological Service of the Greek Ministry of Culture, under the supervision of the archaeologist Dr. Demetrios Athanasoulis revealed, amongst other things, a set of objects associated with the gear and control of the horses, hence confirming the close relationship that medieval knights had with them, also established from the chivalric romances of the time.

The finds included sets of spurs, spur buckles and fittings excavated from the funerary ensembles of the

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5 Chronicle of Morea, op.cit. (n. 4), ver. 858, 1069, 1145.


Glarentza cathedral, from a pottery depository found at the eastern gate of the city as well as from the site of its fort (Fig. 2). Spurs and additional fittings are dating from the late 13th to the early 15th century, as established by the excavation context and the subsidiary finds mainly coins and pottery shards. Most horse-shoes were excavated from the inner enclosure of the Chlemoutsi castle (Fig. 1). However, no information could be drawn regarding the horses’ armour, probably because of the main use of organic materials which were more suitable in hot climates.

The use of spurs while riding was ancillary and is linked to the growing use of horses and the finalisation of saddlery equipment by the 9th century. During the Late Middle Ages, in addition to serving the practical needs of the rider, spurs indicated social status and, if clad with gold, were also seen as chivalric symbols. Ma-

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11 During the Middle Byzantine period the horses were protected in the vital parts of their bodies with pieces of felt, iron, keath or horn, J. F. Haldon, «Some Aspects of Byzantine Military Technology from the Sixth to the Tenth Centuries», Byzantine and Modern Greek Studies 1 (1975), 20, 22, 38 T. G. Koliak, Byzantinische Waffen. Ein Beitrag zur byzantinischen Waffenkunde von den Anfängen bis zur lateinischen Eroberung (Byzantina Vindobonensia 17), Vienna 1988, 51-53. Id., «The Horse in the Byzantine World», Le cheval dans les sociétés antiques et médiévales, ed. S. Lazaris, (Bibliothèque de l’Antiquité tardive 22), Paris 2012, 92. Babuin, «Πόλος», op.cit. (n. 7), 139. According to the Chronicle of Morea the rival troops were striking with arrows the horses of the Frankish army, thus disorganising the cavalry, which was the main unit of the army, Chronicle of Morea, op.cit. (n. 4), ver. 1069, 1144-1145. By 1272, the cavalry of the Principality of Achaea was mainly using uncovered or partly armoured war horses, J. Wickman, «The Conflict between the Angevins and the Byzantines in Morea in 1267-1289; A Late Byzantine Economic War», Βυζαντινή Σόμαρεστα 22 (2012), 44-45.

12 E. M. Jope, «The Tinning of Iron Spurs: A Continuous Practice from the Tenth to the Seventeenth Century», Oxoniensia 21 (1956), 35-42. J. Gies – F. Gies, Life in a Medieval Castle, New York 1974, 166-169. L. White Jr., Medieval Technology and Social Change, Oxford 1962, 150. Since early 12th century only the anointed knights earned the right to wear golden spurs and the Crusaders are thought to maintain the rituals of their places of origin, T. Jones, Chaucer’s Knight: The Portrait of a Medieval Mer-
and small buckles that attach them to the rider’s shoes (Figs 4, 6-13).

Regarding the spurs found in Glarentza, it can be traced a typological development in the way the strap was attached, which also constitutes a chronological evolution. More precisely, from the end of the 13th to the mid 14th century, the spur shanks ended in a circular and a rectangular hole respectively (Figs 4, 5). Two small rivet attachments joined to the circular hole (Figs 4, 12). The attachment located on the exterior side of the foot, retained the leather strap. The strap went around the rider’s footwear, passed through the rectangular hole of the other shank and fastened with a buckle. The buck-

Fig. 4. Glarentza, from the graves of the cathedral. Rowel spur, gilded iron, end of 13th – middle 14th century (Inv. Number: HM485).

Fig. 5. Glarentza, from the graves of the cathedral. Rowel spur, gilded iron, end of 13th – middle 14th century, drawing (Inv. Number: HM487).

Fig. 6. Glarentza, from the graves of the cathedral. Rowel spur, copper, middle 14th – early 15th century, drawing (Inv. Number: HM776).

Fig. 7. Glarentza, from the graves of the cathedral. Rowel spur, copper, middle 14th – early 15th century, drawing (Inv. Number: HM777).
le was suspended from the second rivet attachment of the circular hole. The majority of the iron spurs from Glarentza was of that particular kind, and could hence be dated from the late 13th century (Figs 4, 5).

However, from the mid 14th century onwards, most spurs had two leather straps, passing over and under the footwear of the rider and joined themselves to the shanks with separate rivet attachments. This marked a change in the edges of the shanks, each of which now included two small holes alongside one another (Figs 6, 7). The one hole restrained the small buckle. Intact bronze spurs of Glarentza fall in this category, hence indicating that they date from the mid 14th century.

Predominantly iron rowel spurs are often found in excavations in the Eastern Mediterranean dating from the late 13th century onwards. Gold-plated and decorated spurs were an indispensable complement to the upper class male attire during the Late Middle Ages and are depicted in various forms of art.

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16 Ellis, «Spurs», op.cit. (n. 15), 127-130, fig. 95, 133-134 no. 323, fig. 91.
19 The rowel spur can be traced in the art of the Angevin kingdom of Naples as well as the regions of the Greek peninsula under Latin occupation, by the first third of the 14th century, S. Bridges – J. Ward Perkins, «Some Fourteenth Century Neapolitan Military Effigies», Papers of the British School at Rome 24 (1956), 172, pl.}

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Fig. 8. Glarentza, from the graves of the cathedral. Spur buckle, copper, late 13th – early 15th century, drawing (Inv. Number: HM484).

Fig. 9. St. Nicholas at Trianta, from the graves of the nave. Spur buckle, copper, late 13th – early 15th century, drawing (Inv. Number: HM489.β).

Fig. 10. Glarentza, from the graves of the cathedral. Spur buckle, copper, late 13th – early 15th century, drawing (Inv. Number: HM901.β)
In most cases, individual small buckles and rivet attachments, which served to fasten the spur to the rider's footwear, were also found together with the spurs. The buckles excavated at the Glarentza cathedral are all made of copper and are a variation of a simple type with an elongated attachment shank and a circular or oval frame on which a thin pin is attached (Figs 7-10). The larger buckles usually have rectangular attachment shanks which are fastening to the leather straps through pins or hooks.

Spur equipment also includes the different strap attachments, which fall into two categories: those that join the spurs' metal shanks to the straps (Figs 4, 11, 12), and those that are placed at the end of the leather strap to protect it from getting worn out (Fig. 13).

The simple typology and the strong similarity observed between most of the copper spur attachments that were excavated at Glarentza, along with the need to immediately repair those objects that were of great practical utility, leads us to the assumption that the simplest among the rivet attachments could have been produced locally. Gilded iron spurs from the same funerary ensembles of the cathedral must have come from the same workshop, as well as the buckles and the attachments associated with them. The buckles and the fastening accessories with rosette decoration possibly belong to the same pair of spurs (Figs 10, 12).

By the first decade of the 15th century, the neck of the rowel spurs starts to become longer and thinner20.

20 The long neck of the rowel spurs was probably meant to help in the control of the armored horses, as it could slip under the joints of the armor, *Dictionary of the Middle Ages*, 3, «Cavalry, European» (C. M. Gillmor). R. Emmerson, «Design for mass production: monumental brasses made in London ca. 1420-1485», *Artistes, artisans et production artistique au Moyen Âge*, Colloque international, Centre National de la Recherche Scientifique, Université de Rennes II – Haute-Bretagne, 2-6 mai 1983, ed. X. Barral I Altet, III, Paris 1990, fig. 20-23, 25. Ἔργα Βυζάντιων. Ἐργα και Ημέρες στο Βυζάντιο, Η Πολιτεία του Μυστρά, Μυστράς,
Although more practical spurs with short necks also existed during that period, the absence of spurs with long necks in the burial layers of Glarentza is an additional clue which establishes their upper date limit maximum circa 1400, evidence which coincides with the historical inference regarding the town’s decline during the first quarter of the 15th century.\(^{21}\)

Iron horseshoes adapted with nails to protect the horse’s hoof, were an important innovation allowing for a safer tread on uneven ground and thus improving travelling conditions, allowing heavier cargo to be carried at a greater distance, increasing performance in agricultural activities and ensuring greater security when conducting military operations.\(^{21}\) The first reference to the use of iron horseshoes is made in an anonymous military handbook of the 6th century Byzantine period, although their use became widespread during the 9th century.\(^{21}\)

Twelve horseshoes that came mostly from excavation sections at the castles of Chlemoutsi and Glarentza are divided in two categories based on their typology. The first category includes compact «oriental-type» horseshoes, used until recently in Greece for the shoeing of mules (Fig. 14). Similar horseshoes, dating from the 9th century onwards, originated in Greece and the Balkans.\(^{21}\) Semicircular horseshoes, used on horses, were much more widespread (Figs 15-18). The subsidiary pottery finds allow us to date them from the late 13th to the early 15th century.

In the eastern Mediterranean, during the Late Middle Ages, we come across a type of semicircular horse shoe of rectangular section, made of heavy iron plate. At least two attachment holes are arranged along the shanks.\(^{21}\) These horseshoes often had thicker or fold-

**Fig. 14. Andravida, church of St. Sophia. Compact iron horseshoes for mules, late 13th – early 15th century, drawing (Inv. Number: HM472).**

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\(^{22}\) A compact horseshoe of the 9th-12th century is exhibited at the Byzantine Museum of Athens, Lazaris, op.cit. (n. 23), fig. 6.
ed edges which formed a heel at the back of the hoof, hence facilitating the animal’s gait, an element which was used progressively less after the end of the Middle Ages. Similar horseshoes were found at the same time in Western Europe, forming a group whose typology is characteristic of the Late Middle Ages.

The horseshoes of the Frankish sites in the prefecture...
of Elis that have survived almost intact can give us some indication as regards the size of the horses that were used. However, these conclusions should be treated with caution, as studies on modern horses have proven that there is no distinct proportion between the height of the horse and the size of their hoof. Pack-horses with a bigger build usually have larger hooves than those of taller riding horses. With these facts in mind, we observe that the maximum width of the opening in the aforementioned horseshoes ranges from 8.1 to 14 cm, with an average of 10.87 cm (Figs. 15-18). Measurements taken from contemporary horses, which are roughly between 1.52 and 1.68 meters tall, showed that the width of their hooves is around 12 to 14 cm, leading to the conclusion that only larger-sized medieval horseshoes could meet the needs of a typical modern horse. Consequently, most medieval horses must not have been taller than 1.50 m. The measurements of horseshoes used by the Franks in the prefecture of Elis support similar experimental finds, leading to the conclusion that the medieval horse would be considered, based on current data, relatively small.

The adaptation of saddlery equipment comprises buckles and fittings usually made of iron. Two finds from the castle of Chlemoutsi were probably used to secure the leather harness that crossed the horse’s belly and chest.

An iron buckle stands out because of its large dimensions and, according to the subsidiary pottery finds, dates from the late 13th-14th century (Fig. 19). The identification of the buckle’s use as a probable piece of saddlery equipment is mainly based on its dimensions but also on the material from which it is made. Since Roman period and the Late Middle Ages, works of art depicting riders illustrate how large buckles were used to fasten the saddle straps, passed across the horse’s belly. This is relevant in demonstrating the diachronic use of riding equipment that adequately covered functional needs and become standardized.

Another hasp, made of a rectangular section iron plate, is roughly triangular in shape with bevelled corners (Fig. 20). It served as sliding clasp, ensuring flexibility in adjusting leather straps or hooks while the horse was in motion.

Riding was, among other things, an element of social

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29 Ibid., 30-32, 97-100.
distinction and as a result the Frankish upper classes spent large amounts of money for the purchase and maintenance of horses\textsuperscript{35}. Hunting activities and chivalric contests (joust and tournament) were part of the court’s etiquette and complemented every major celebration\textsuperscript{31}.

The war horses used by the knights of the Principality fall into two categories. Firstly, imported European horses that were tall, strong and corpurulent, in comparison with eastern standards, and which were renowned for their aggression and stamina\textsuperscript{31}. According to the *Chronicle of Morea*, during the battle of Prinitsa, in 1263, the Frank commander, Jean de Catavas, raised the spirits of his troops by claiming that their horses equalled fifteen Byzantine horses\textsuperscript{35}. The element of exaggeration demonstrates the crucial role played by horses during that period in respect to the outcome of a battle.

However, the passing of time affected the Principality’s lightly-armed horsemen, whose equipment and organisation was, according to the limited data available, similar to the one used by the Muslim cavalry of the Middle East and the Byzantine cavalry. These corps probably used indigenous flexible, medium-sized and strong horses, which cost less to purchase and train compared to European horses\textsuperscript{36}. Finally, horses of medium size as well as mules and donkeys were indispensable in all transportation activities.

Throughout the 13th century, the Principality of Achaea imported horses and horseshoes from the suzerain kingdom of Naples, as domestic breeding was not sufficient to meet supply needs. In the archives of the Anjou rulers of Naples many references are made to the transportation of war horses and pack-animals from southern Italy to Glarentza, and these increase considerably in the last decade of the 13th century\textsuperscript{37}. Furthermore, Charles I of Anjou (1267-1285), following a well-established tradition in the French kingdom as well as in Sicily, created horse-breeding farms in the Principality of Achaea\textsuperscript{38}. Besides, in the fertile plains of Andravida, the breeding of horses, widely known from the Byzantine period, has been a timeless occupation.

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\textsuperscript{36} *Le voyage d’Outremer de Bertrand de la Broquière*, ed. Ch. Schefer (Recueil de voyages et de documents pour servire à l’histoire de la géographie XII), Paris 1892, 62.

\textsuperscript{36} «Τὰ ἄλλα μας ὑπέρ τούς ἐξοινίζοντας, ὥσπερ ἐπιτρέπτει ἡ φαράγη, ἐν ὑποκύπτειν», *Chronicle of Morea*, op.cit. (n. 4), ver. 4729-4730.
Ελένη Μπαρμπαρίτσα

ΕΞΑΡΤΗΜΑΤΑ ΙΠΠΟΣΚΕΥΗΣ
ΑΠΟ ΤΟ ΠΡΙΓΚΙΠΑΤΟ ΤΗΣ ΑΧΑΪΑΣ (1205-1428)

Τα κάστρα Χλεμούστα και Γλαρέντζα, κτισμένα κατά τον 13ο αιώνα στο δυτικότερο άκρο της Πελοπονήσου (Εικ. 1, 2), αποτέλεσαν για δύο περίπου αιώνες το διοικητικό και οικονομικό κέντρο του Πριγκιπάτου της Αχαίας (1205-1428).

Κατά τον 13ο αιώνα, όταν τη διοίκηση του Πριγκιπάτου ασκούσε η οικογένεια των Βίλιάρτσερ της Καμπανίας, η αυλή της Αχαίας θεωρείται ότι εξέχει τα υποτικά ιδεώδη που αντανακλώνταν στην κύρια γραφείωση της περιοδόδου, το Χριστιανόν του Μορέως. Οι στελεχοί και σιδερένια σπιρούνια που συνάγονταν κυρίως από το Χριστιανόν αποδεικνύουν πως τα αντικείμενα αυτά, με βάση την τυπολογία τους, προέρχονταν από τα στρώματα ταφών στο εσωτερικό του καθεδρικού ναού της Νάπολης. Εκτός από αυτά, οι σπιρούνια μπορούσαν να χρησιμοποιούνταν στα υποδήματα του αναβάτη (Εικ. 1, 2).

Ανασκαφές που ελάθαν χώρα κατά το διάστημα 2000-2005, στα κάστρα Χλεμούστα και Γλαρέντζα (Εικ. 1, 2), από την τότε 6η Εφορεία Βυζαντινών Αρχαιοτήτων, έφεραν στο εμφάνιση δύο αντικείμενα που συνέδονταν με τον εξής και την εξέρευνα των αλόγων. Τα ευρήματα περιλάμβαναν, μεταξύ άλλων, ομάδες σπιρούνιων, πετάλων, πορπερών και χρονολογούνταν από τα τέλη του 13ου έως τις αρχές του 15ου αιώνα, με βάση τα ανασκαφικά στρώματα. Τα σπιρούνια ανήκαν σε δύο συγκεκριμένες διαστάσεις και υψηλής αντοχής.

Μια ομάδα δύο μελών από σπιρούνια που ανασύρθηκαν κυρίως από τη δυτική περιοχή του καθεδρικού της Νάπολης, πιστοποιούν ότι οι νεκροί ήταν μέλη των ανώτερων κοινωνικών τάξεων του Πριγκιπάτου και είχαν την ειδικές τους υπηρεσίες. Τα σπιρούνια αυτά ήταν στην πλειονότητά τους από σίδηρο επιχρυσωμένο της Γλαρέντζας, πιστοποιώντας ότι οι νεκροί ήταν κυρίως από στρώματα ταφών στο εσωτερικό του καθεδρικού ναού της Νάπολης (Εικ. 1, 2). Ηνωμένα αυτά ήταν στην πλειονότητά τους από σίδηρο επιχρυσωμένο της Γλαρέντζας, πιστοποιώντας ότι οι νεκροί ήταν κυρίως από στρώματα ταφών στο εσωτερικό του καθεδρικού ναού της Νάπολης (Εικ. 1, 2).

Από το Πριγκιπάτο της Αχαίας (1205-1428), η αυλή της Αχαίας θεωρείτο ότι οι νεκροί ήταν κυρίως από στρώματα ταφών στο εσωτερικό του καθεδρικού ναού της Νάπολης (Εικ. 1, 2).

Από τον 13ο αιώνα, όταν τη διοίκηση του Πριγκιπάτου ασκούσε η οικογένεια των Βίλιαρτσερ της Καμπανίας, η αυλή της Αχαίας θεωρείτο ότι οι νεκροί ήταν κυρίως από στρώματα ταφών στο εσωτερικό του καθεδρικού ναού της Νάπολης (Εικ. 1, 2).