

Mamluk *Furūsīyah* Literature and Its Antecedents

Furūsīyah literature, the greater part of which is still unpublished,¹ undoubtedly

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¹Manuscripts of all periods cited in this article include: "Al-'Adīm al-Mithl al-Rafī' al-Qadr," Istanbul, Topkapı Sarayı Library MS Revan 1933; (pseudo) Najm al-Dīn al-Aḥḍab, "Kitāb al-Furūsīyah" (added title), Paris, Bibliothèque Nationale MS 2829; Muḥammad ibn 'Īsā ibn Ismā'īl al-Ḥanafī al-Aqsarā'i, "Nihāyat al-Sūl wa-al-Umnīyah fī Ta'līm A'māl al-Furūsīyah," London, British Library MS Add. 18866; Abū al-Rūḥ 'Īsā ibn Ḥassān al-Asadī al-Baghdādī, "Al-Jamharah fī 'Ulūm al-Bayzarah," British Library MS Add. 23417, Madrid, Escorial Library MS Ar. 903; Aḷṭanbughā al-Ḥusāmī al-Nāshirī, known as Aḷṭajuq, "Nuzhat al-Nufūs fī La'b al-Dabbūs," Dār al-Kutub al-Miṣrīyah MS 21 *furūsīyah Taymūr*; Badr al-Dīn Baktūt al-Rammāḥ al-Khāzindārī al-Zāhirī, "Kitāb fī 'Ilm al-Furūsīyah wa-La'b al-Rumḥ wa-al-Birjās wa-'Ilāj al-Khayl," Bibliothèque Nationale MS 2830 (fols. 2v.-72r.); Abū Bakr al-Bayṭār ibn Badr al-Dīn al-Nāshirī (Ibn al-Mundhir), "Kāshif al-Wayl fī Ma'rifat Amrāḍ al-Khayl" (or "Kāmil al-Ṣinā'atayn fī al-Bayṭarah wa-al-Zardaqaḥ"), Bibliothèque Nationale MS 2813; 'Umar ibn Raslān al-Bulqīnī, "Qaṭr al-Sayl fī Amr al-Khayl," Istanbul, Süleymaniye Library MS Şehid 'Alī Paşa 1549; Sharaf al-Dīn 'Abd al-Mu'min ibn Khalaf al-Dimyāṭī, "Faḍl al-Khayl," Bibliothèque Nationale MS 2816; "Al-Furūsīyah" (untitled fragment), British Library MS 9015; hunting treatise (untitled), Alexandria, Egypt, Maktabat al-Baladīyah MS 1201/1; Muḥammad ibn Ya'qūb ibn Ghālīb Ibn Akhī Ḥizām al-Khuttalī, "Kitāb al-Furūsīyah wa-al-Bayṭarah," Bayezit Public Library Veliyüddin Efendi MS 3174; idem, "Kitāb al-Furūsīyah wa-Shiyāt al-Khayl," British Library MS Add. 23416; idem, "Al-Kamāl fī al-Furūsīyah . . ." (added title), Istanbul, Fatih Mosque Library MS 3513; Muḥammad Ibn Manglī al-Nāshirī, "Al-Adillah al-Rasmīyah fī al-Ta'ābī al-Ḥarbīyah," Istanbul, Ayasofya Library MS 2857; idem, "Al-Tadbīrāt al-Sulṭānīyah fī Siyāsāt al-Ṣinā'ah al-Ḥarbīyah," British Library MS Or. 3734; idem, "Uns al-Malā bi-Waḥsh al-Falā," Bibliothèque Nationale MS 2832/1; Abū Muḥammad Jamāl al-Dīn 'Abd Allāh Ibn Maymūn, "Kitāb al-Ifādah wa-al-Tabṣīr li-Kull Rāmin Muḥtadī' aw Māhir Naḥrīr bi-al-Sahm al-Ṭawīl wa-al-Qaṣīr," Istanbul, Köprülü Mehmet Paşa Library MS 1213; 'Alā' al-Dīn 'Alī ibn Abī al-Qāsim al-Naqīb al-Akhmīmī, "Ḥall al-Ishkāl fī al-Ramy bi-al-Nibāl," Bibliothèque Nationale MS 6259; idem, "Naqāwat al-Muntaqā fī Nāfi'āt al-Liqā," British Library MS Add. 7513/2; Rukn al-Dīn Jamshīd al-Khwārazmī, untitled, British Library MS Or. 3631/3; "Kitāb fī La'b al-Dabbūs wa-al-Ṣirā' alā al-Khayl," Bibliothèque Nationale MS Ar. 6604/2; "Kitāb al-Ḥiyāl fī al-Ḥurūb wa-Faṭḥ al-Madā'in wa-Ḥifz al-Durūb," British Library MS Add. 14055; "Kitāb al-Makhzūn li-Arbāb al-Funūn," Bibliothèque Nationale MS 2826; "Kitāb al-Makhzūn Jāmi' al-Funūn," Bibliothèque Nationale MS 2824; Ḥusām al-Dīn Lājīn ibn 'Abd Allāh al-Dhahabī al-Ḥusāmī al-Ṭarābulṣī al-Rammāḥ, "Kitāb 'Umdat al-Mujāhidīn fī Tartīb al-Mayādīn," Bibliothèque Nationale MS Ar. 6604/1; "Al-Maqāmah al-Ṣalāḥīyah fī al-Khayl wa-al-Bayṭarah wa-al-Furūsīyah," Dār al-Kutub al-Miṣrīyah MS 81 *furūsīyah Taymūr*; Marḍī ibn 'Alī al-Ṭarsūsī, "Tabṣirat Arbāb al-Albāb fī Kayfiyat al-Najāt fī al-Ḥurūb," Oxford, Bodleian Library MS Huntington 264; Shams al-Dīn Muḥammad ibn 'Abd al-Raḥmān al-Sakhāwī, "Al-Qawl al-Tāmm fī (Faḍl)



represents one of the most extensive and diverse fields of knowledge in the medieval Islamic literary tradition. It covers a broad scope of disciplines ranging from hippology and the art of riding (*'ilm al-khayl wa-fann al-rukūb*) to military technology (*'ilm al-ālāt al-ḥarbīyah*). While these disciplines are interrelated and form a unity in *furūsīyah* literature, each one of them constitutes a vast domain of research, an independent science with its own literature and chain of authorities. The treatises dealing with one specific discipline (hereinafter: thematic *furūsīyah* treatises) constitute the core of *furūsīyah* literature. As for the treatises comprising more than one discipline (hereinafter: general *furūsīyah* treatises), they are mostly works of compilation, based on the thematic *furūsīyah* treatises. In modern scholarship, general *furūsīyah* treatises are usually referred to as "*furūsīyah* manuals," and are often thought to be synonymous with *furūsīyah* literature. In fact, general *furūsīyah* treatises represent only a fraction of the surviving literature, and they can be quite misleading to anyone who is not familiar with thematic *furūsīyah* treatises.

Notwithstanding the undisputed importance of *furūsīyah* literature for the study of Islamic history and culture, this field suffers from a lack of scholarly research and, consequently, from deep misconceptions as well as an array of prejudices. One of the most common of these is the assumption that *furūsīyah* literature emerged under the Ayyubids in the late sixth/twelfth and seventh/thirteenth centuries because of the sweeping challenges posed by the Crusades, and that it developed and reached maturity under the Mamluks.²

al-Ramy bi-al-Sihām," Dār al-Kutub al-Miṣrīyah MS 2m *funūn ḥarbīyah*; "Sharḥ al-Maqāmah al-Ṣalāḥīyah fī al-Khayl," Bibliothèque Nationale MS Ar. 2817; Library of Istanbul University MS 4689; al-Ḥasan ibn Muḥammad ibn 'Aysūn al-Ḥanafī al-Sinjārī, "Hidāyat al-Rāmī ilā al-Aghrād wa-al-Marāmī," Topkapı Sarayı Library MS Ahmet III 2305; Nāṣir al-Dīn Muḥammad ibn 'Alī al-Qāzānī al-Ṣughayyir, "Al-Mukhtaṣar al-Muḥarrar," Topkapı Sarayı Library MS Ahmet III 2620; idem, "Al-Hidāyah fī 'Ilm al-Rimāyah," Bodleian Library MS Huntington 548 (annotated version of the latter); idem, "Sharḥ al-Qaṣīdah al-Lāmīyah lil-Ustādh Ṣāliḥ al-Shaghūrī," Bibliothèque Nationale MS Ar 6604/3; Jalāl al-Dīn 'Abd al-Raḥmān ibn Abī Bakr al-Suyūṭī, "Ghars al-Anshāb fī al-Ramy bi-al-Nushshāb," British Library MS Or. 12830; Abū Muḥammad 'Abd al-Raḥmān Aḥmad al-Ṭabarī, untitled fragment, British Library MS Or. 9265/1; idem, "Kitāb al-Wāḍiḥ (fī 'Ilm al-Ramy)," British Library MS Or. 9454; Ṭaybughā al-Ashrafī al-Baklamīshī al-Yunānī, "Kitāb al-Ramy wa-al-Rukūb" (added title), Bibliothèque Nationale MS 6160; Ḥusayn ibn 'Abd al-Raḥmān al-Yūnīnī, "Al-Nihāyah fī 'Ilm al-Rimāyah," Ayasofya Library MS 2952; Abū al-Naṣr al-Qāsim ibn 'Alī ibn Ḥusayn al-Hāshimī al-Zaynabī, "Al-Qawānīn al-Sulṭānīyah fī al-Ṣayd," Fatih Mosque Library MS 3508.

²See Shihab al-Sarraf, "Adab al-Furūsīyah fī al-'Aṣrayn al-'Abbāsī wa-al-Mamlūkī," in *Furūsīyah*, vol. 1, *Funūn al-Furūsīyah fī Tārīkh al-Mashriq wa-al-Maghrib*, ed. Shihab al-Sarraf (Riyadh, 2000), 105, 121; idem, "Furūsīyah Literature of the Mamlūk Period" in *Furusiyya*, vol. 1, *The Horse in the Art of the Near East*, ed. David Alexander (Riyadh, 1996), 131.

Apart from a lack of research, this wrong impression has been caused by the fact that the main corpus of surviving *furūsīyah* manuscripts is, indeed, from the Mamluk period. However, careful examination of such manuscripts shows that original Mamluk treatises constitute only one part of this literature. The other part consists of pre-Mamluk, mainly Abbasid, treatises, copied and reused by the Mamluks as manuals and as basic references. It also shows that the majority of Mamluk *furūsīyah* treatises, which did not always acknowledge their sources, were themselves largely based upon Abbasid *furūsīyah* literature and its sources. Some of the pre-Mamluk treatises were originally anonymous, others were rendered so by Mamluk copyists, and still others were falsely attributed to Mamluk authors. As an additional complication, some Mamluk treatises were imputed to earlier authors. Finally, a considerable number of the extant manuscripts of all periods are either unsigned and/or untitled or copies of one work but under different titles.

These points exemplify the problems peculiar to *furūsīyah* literature. The inability to distinguish pre-Mamluk from Mamluk treatises and to identify pre-Mamluk data within Mamluk treatises, and the failure to sort out its numerous sources (including Classical Greek, Sassanian, and Byzantine), have hindered research into *furūsīyah* literature from its inception. This partly explains why research in this field has not grown much beyond the stage of bibliographical documentation, which, understandably, in its current embryonic state includes many errors. One of these concerns the definition and scope of *furūsīyah* literature, which has been reduced to a fragment of what it should represent in the bibliographical essays.³ Furthermore, no attempt has ever been made to research the term *furūsīyah*, its origin, and its evolution as a concept and as an institution.

³Aloys Sprenger, *Kitāb Fihrist al-Kutub Allatī Narghabu an Nabtā'ahā* . . . (London, 1840); Joseph Freiherr von Hammer-Purgstall, "Das Pferd bei den Arabern," *Mémoires de l'Académie de Vienne* (1855–56): 211–46; Louis Mercier, *La parure des cavaliers et l'insigne des preux* [French translation and commentary of "Ḥilyat al-Fursān wa-Shi'ār al-Shuj'ān," by Ibn Hudhayl al-Andalusī] (Paris, 1924), 433–59; Hellmut Ritter, "La Parure des Cavaliers und die Literatur über die ritterlichen Kunst," *Der Islam* 18 (1929); George T. Scanlon "Introduction," in *A Muslim Manual of War, Being Tafrīj al-Kurūb fī Tadbīr al-Ḥurūb*, ed. and trans. George T. Scanlon (Cairo, 1961), 1–21; Iḥsān Hindī, "Muḥāwalat Ḥaṣr Bibliyūjrafī lil-Ta'ālīf al-'Askariyah wa-al-Ḥarbīyah 'inda al-'Arab al-Qudamā'," in *Abḥāth al-Mu'tamar al-Sanawī al-Thānī lil-Jam'īyah al-Sūrīyah li-Tārīkh al-'Ulūm* (Aleppo, 1978), 117–58; 'Abd al-Raḥmān Zakī, "Military Literature of the Arabs," in *Cahiers d'histoire égyptienne* 7 (1955): 149–60; idem, "A Preliminary Bibliography of Medieval Arabic Military Literature," *Gladius* 4 (1965): 107–12; Kūrķīs 'Awwād, "Al-Jaysh wa-al-Ḥarb wa-al-Silāh fī al-Athār al-Makhṭūṭah wa-al-Maṭbū'ah 'inda al-'Arab," *Al-Majallah al-'Askariyah* (Baghdad) 41 no. 1 (1964): 105–22, 43 no. 4 (1966): 113–26, 44 no. 1 (1976): 86–104, 44 no. 2 (1976): 99–117; idem, *Maṣādir al-Turāth al-'Askarī 'inda al-'Arab*, 3 vols. (Baghdad, 1981–82). The last essay is the most exhaustive, but with many errors and inaccuracies. Ritter's contribution, although not free from errors and limited to treatises in Istanbul libraries, remains the most noteworthy, since he actually saw and examined the treatises.

This article attempts to elucidate these issues: firstly, through investigating the Abbasid background and origins of Mamluk *furūsīyah* and its literature; secondly, by proposing an altogether new research-based classification of Mamluk *furūsīyah* literature, and finally, by providing a systematic and critical survey of the available basic treatises of Mamluk *furūsīyah* literature and its antecedents.

EMERGENCE OF *FURŪSĪYAH* AND ITS LITERATURE UNDER THE ABBASIDS

The term *furūsīyah* emerged as a concept and an institution under the Abbasid caliphate in Iraq during the later half of the second/eighth century.⁴ It attained full currency during the third/ninth century, when its conceptual and technical framework became well established and clearly defined. The activities covered by the term *furūsīyah* included horsemanship, training a horseman in the arts of the lance, close combat techniques and weapons handling, archery on foot and horseback, hunting, and polo. It also included both practical and theoretical knowledge of the basics of veterinary science, of the types and characteristics of weaponry, and of the art of war itself. The scope of *furūsīyah* was, logically, further extended to cover training, exercises, and games performed on foot. *Furūsīyah* was, therefore, subdivided into "upper *furūsīyah*" (*al-furūsīyah al-'ulwīyah*), which denoted activities performed on horseback, and "lower *furūsīyah*" (*al-furūsīyah al-suflīyah*), which denoted those performed on foot, like wielding arms, archery, boxing, and wrestling. The overall *furūsīyah* activities were generated and shared by two complementary and intermingling concepts and institutions of *furūsīyah*: noble *furūsīyah* (*al-furūsīyah al-nabīlah*) as represented by the Abbasid court and military *furūsīyah* (*al-furūsīyah al-ḥarbīyah*) centered on the training of mounted warriors.

AL-FURŪSĪYAH AL-NABĪLAH

Noble *furūsīyah* was initially inspired by the traditions and institutions of the

⁴There is no evidence on the use of the term *furūsīyah* in the *jāhilīyah* and early Islam. In some *furūsīyah* treatises, however, the caliph 'Umar Ibn al-Khaṭṭāb is quoted as having said in a letter to the inhabitants of Syria "Instruct your children in swimming, archery, and *furūsīyah*." The earliest *furūsīyah* treatise which cited this passage is "Kitāb al-Furūsīyah wa-al-Bayṭarah," by Ibn Akhī Hizām, Dār al-Kutub al-Miṣrīyah MS 5m *funūn ḥarbīyah*, fol. 75r.; see also *Kitāb al-Siyar al-Kabīr* by Muḥammad Ibn al-Ḥasan al-Shaybānī, ed. Ṣalāḥ al-Dīn al-Munajjid (Cairo, 1971–72), 1:113; al-Qarrāb al-Sarakhsī (in his *Kitāb Fadā'il al-Ramī fī Sabīl Allāh*, edited and translated into English by Faḍl al-Raḥmān Bāqī in *Islamic Culture* 3 (1960): 195–218) gave two versions of this passage, one of them without the term. In both versions 'Umar is said to have been paraphrasing a hadith of the Prophet Muḥammad from which the word *furūsīyah* is absent (see A. J. Wensinck, *Concordance et Indices de la Traditions Musulmane* [Leiden, 1936–69], 2 :295, 310). All this casts strong doubt on the authenticity of the wording of the hadith. For more information see al-Sarraf, "Adab al-Furūsīyah," 105.

Sassanian court and by local practices. It consisted of training from childhood the male members of the Abbasid family and the sons of notables in horsemanship and the use of arms, archery, polo, and hunting.⁵ The basic rules and conceptual framework of noble *furūsīyah* were expounded in the "books of *ā'in*" (*kutub al-ā'in*), such as "Kitāb *Ā'in* al-Ramy," "Kitāb *Ā'in* al-*Ṣawālijah*" and "Kitāb *Ā'in* al-*Ṣayd*," which formed part of the greater "Kitāb *Ā'in-nāmah*." This work (also called "Kitāb al-Rusūm") was translated from Persian into Arabic by Ibn al-Muqaffa' (d. 139/756–57) during the first years of Abbasid rule. The text is lost, but Ibn Qutaybah quoted extracts in his *'Uyūn al-Akhhbār* on the *ā'in* of archery and polo under the heading *Ādāb al-furūṣah*.⁶ An important fragment on the *ā'in* of hunting is included in "Al-Qawānīn al-Sulṭānīyah fī al-*Ṣayd*" by al-Zaynabī⁷ (see below). These lost treatises of *ā'ins* constituted the nucleus of the noble *furūsīyah* literature in the early Abbasid period.

Noble *furūsīyah* was a state institution almost from its inception after the founding of Baghdad during the caliphate of al-Manṣūr (136–58/754–75). Al-Manṣūr was too old to engage in such activities, but he prepared the ground for his heir, al-Mahdī (158–69/775–85), and their successors.⁸ Al-Mahdī was the first crown prince to be brought up according to the principles of noble *furūsīyah*. In 151/768, the first polo field (*maydān*) in Islam was built for him adjacent to his palace at al-Ruṣāfah in Baghdad.⁹ He was an archer of repute, skilled with both the simple Arab bow and the composite Persian bow,¹⁰ and it was he who turned hunting into a sophisticated caliphal institution. His successors followed his example, and proficiency in the arts of *furūsīyah* virtually became a prerequisite for the caliphate, as affirmed by al-Jāhīz: "None of the descendants of al-'Abbās mounted the throne without having fully mastered the arts of *furūsīyah*."¹¹

⁵Al-Jāhīz, *Rasā'il al-Jāhīz*, ed. 'Abd al-Salām Hārūn (Cairo, 1964–79), 3:32; al-Ṭabarī, *Tārīkh al-Umam wa-al-Mulūk* (Cairo, 1323/1905–6) 2:74–75.

⁶Ibn Qutaybah, *'Uyūn al-Akhhbār* (Cairo, 1938), 1:133–34.

⁷Al-Zaynabī, "Al-Qawānīn al-Sulṭānīyah fī al-*Ṣayd*," fols. 22v., 37r.–v.

⁸Ibid.

⁹Al-Ṭabarī, *Tārīkh*, 10:281; Bashir Yousif Francis, *Baghdād fī 'Ahd al-Khilāfah al-'Abbāsīyah* [a critical commentary and translation of Guy le Strange's *Baghdad during the Abbasid Caliphate* (Oxford, 1924)] (Baghdad, 1936), 164. Al-Mahdī was the first caliph to play polo, for which he was denigrated by the poet Bashshār Ibn Burd (cf. al-Ṭabarī, *Tārīkh*, 10:18); the claim (al-Mas'ūdī, *Murūj al-Dhahab wa-Ma'ādīn al-Jawhar*, ed. and trans. Charles Pellat [Beirut, 1966–74], 5:212) that Hārūn al-Rashīd (170–93/786–809) was the first caliph to play the game is thus incorrect.

¹⁰Al-Zaynabī, "Al-Qawānīn al-Sulṭānīyah," fols. 39r., 270r.

¹¹Al-Jāhīz, *Al-Bayān wa-al-Tabyīn* (Cairo, 1932) 3:11:

† لم يقيم أحد من ولد العباس بالملك إلا وهو جامع لأسباب الفروسية

Al-furūsīyah al-nabīlah was not simply a Sassanian product with an Arab or Islamic tinge; it was a unique and original blending of the interaction of mainly Arab and Sassanian cultures within the framework of Islam and the Abbasid context. Byzantine influences came through the first Islamic dynasty, the Umayyads (41–132/661–750), who also had retained many of the old pre-Islamic tribal values. These include the Arab conception of the horseman (*fāris*), embodying bravery (*shajā‘ah*), gallantry (*shahāmah*), manliness (*murūwah*), and generosity (*sakhā‘*),¹² qualities often lauded by Umayyad and early Abbasid poets. The notion of *fāris* penetrated the very fiber of Abbasid court *furūsīyah*, and the term *furūsīyah* is still used in Arabic as a synonym for these virtues. Indeed, the chivalric aspect of *al-furūsīyah al-nabīlah* was so powerful that it survived when the institution itself died out.

The same virtues constituted the moral foundation of *futūwah* (from *fatā*, lit., “young man”), which emerged concurrently with *furūsīyah*. The conceptions *fāris* and *fatā* were closely associated, and the terms were used, since the pre-Islamic period, interchangeably.¹³ This association was reflected in *furūsīyah* literature, which came to include treatises on aspects of *futūwah*, for example, *futūwat ramy al-bunduq* (the *futūwah* of hunting birds with the pellet bow).¹⁴ Chapters on *ramy al-bunduq* were usually included in Abbasid hunting treatises; entire works devoted to the subject began to appear in the sixth/twelfth century, especially during the caliphate of al-Nāṣir li-Dīn Allāh (575–622/1180–1225), and continued to be written into the Mamluk period (see below).

See also al-Zaynabī, “Al-Qawānīn al-Sulṭānīyah,” fol. 45r.

¹²On the the Arab concept of *fāris*, see al-Sarraf, “Adab al-Furūsīyah,” 105, and idem, “Furūsīyya Literature,” 132, n. 10.

¹³Cf. Muṣṭafá Jawād, “Introduction,” in *Kitāb al-Futūwah*, by Ibn al-Mi‘mār, ed. Muṣṭafá Jawād et al. (Baghdad, 1958); and al-Sarraf “Adab al-Furūsīyah,” 106.

¹⁴*Ramy al-bunduq*, which flourished in Iraq in the latter half of the second/eighth century, was practiced at the Abbasid court and in high society (as well as among the common people). Its practioners developed a powerful and strongly hierarchical fraternity, or *futūwah*, which the Abbasid caliph al-Nāṣir li-Dīn Allāh (475–622/1180–1225) “co-opted,” declaring himself supreme head. The Ayyubids joined it, and *ramy al-bunduq* took strong hold in Egypt and Syria. The Mamluks perpetuated this legacy. The pellet bow (*qaws al-bunduq*) is a hand bow. However, unlike that of the arrow bow, the string of the pellet bow is cut in the middle and fastened from each end to a small piece of leather designed to hold the pellet, *bunduqah*, which was made of glazed hardened clay. The pellet bow is drawn in much the same way as an arrow bow but on loosing, the pellet-bowman should rapidly shift his left hand holding the bow to the left (if he is right-handed, or to the right if he is left-handed) so that the *bunduqah* will not strike the grip or hurt the hand. As an additional precaution, the thumb (of the left hand holding the grip) is protected by an iron sleeve called *bārūq*. Simple hand pellet bows are still used today in Sind and Afghanistan. See Shihab al-Sarraf, “L’archerie mamluke (648–923/1250–1517),” Ph.D. diss., Université de Paris Sorbonne, 1989, 1:275–99, 314–12.

AL-FURŪSĪYAH AL-ḤARBĪYAH

Military *furūsīyah* originated in the professional army created by the Abbasids when they first came to power. The presence of the traditional tribal army dwindled rapidly in the latter half of the second/eighth century until it was practically extinguished under the Caliph al-Ma'mūn (198–218/813–42) and officially abolished by his brother and successor al-Mu'taṣim (218–27/833–42). Initially, the hard core of al-Ma'mūn's cavalry was mainly composed of Khurasanis, but during the last years of his reign, Abbasid cavalry was also steadily reinforced by sedentary Transoxanian Turks and then by free and unfree Turkish tribal nomads. Al-Mu'taṣim pursued this recruitment policy on a larger scale, favoring Turkish tribal horsemen with a certain preference for servile Turkish elements. The *ghilmān* institution started taking shape in his reign but only reached maturity during the caliphate of al-Mu'taḍid (279–89/892–902) who founded the elite corps of *al-ghilmān al-ḥujarīyah*,¹⁵ the fore-runner of *mamālīk al-ṭibāq* of the Mamluk sultanate. Henceforth the *ghilmān*, or mamluks as they came to be known, became a cornerstone of military *furūsīyah*.

The Abbasid *ghulām* military institution was the end result of a sophisticated training system, which was constantly and painstakingly elaborated by Abbasid *furūsīyah* masters over a period of one hundred years starting from the second half of the second/eighth century. It represented an ingenious synthesis of various military traditions, namely Arab, Persian, Central Asian, and Byzantine. The ultimate aim was to produce an accomplished and almost unique brand of mounted archers who would be superior to and better coordinated than even the Central Asian

¹⁵*Ghilmān al-ḥujarīyah*, or *ghilmān al-ḥujar*, were the most distinguished *ghilmān* élite in the second half of the third/ninth century and the first quarter of the fourth/tenth century. They were also referred to as *ghilmān al-dār* or *ghilmān dārīyah*, as they were raised, educated, and trained within the palatial compound (*dār al-khilāfah*) where they were permanently housed in special quarters or chambers, the *ḥujar*; hence their name. During their formation period, *al-ḥujarīyah* were not allowed to go beyond this palatial compound unless accompanied by their supervisors and *furūsīyah* masters. Their number reached twenty thousand during the caliphate of al-Muktafī billāh (289–95/902–8), and they were superbly trained and equipped, also being given the highest salaries among *ghilmān* troops. However, they remained a local force and did not take part in expeditions outside Iraq. Their political role grew with time and culminated in the installation of the caliph al-Rāḍī in 322/934 with the participation of another *ghilmān* élite corps (*al-ṣājīyah*). However, this political role brought about their destruction in 325/936–37. See Hilāl al-Ṣābī, *Tuḥfat al-Umarā' fī Tārīkh al-Wuzarā'*, ed. H. F. Amedroz (Beirut, 1904), 12–13; idem, *Rusūm Dār al-Khilāfah*, 2nd ed., ed. Mīkhā'il 'Awwād (Beirut, 1986), 8; Ibn Miskawayh, *Tajārib al-Umam*, ed. H. F. Amedroz (Cairo, 1332–34/1914–16), 1:258; cf. Shihab al-Sarraf, "Close Combat Weapons in the Early Abbasid Period," in *Companion to Medieval Arms and Armours*, ed. David Nicolle (London, 2002), 149–78.

horse archer nomads while being at the same time highly proficient in handling the lance and weapons of close combat. The horseman was likewise trained to fight on foot in case he was unhorsed or ordered to dismount during battle. In addition, he was required to know the basics of veterinary science and be familiar with the types and characteristics of the weapons currently used by the cavalry, the infantry, and in siege warfare. He must also be acquainted with the stratagems of war and have some knowledge of the art of war in general. After the initial training period, which might last for several years, the skills acquired throughout were continuously perfected and sustained by a multitude of games and exercises. Hunting and polo were considered essential in maintaining such skills.

The Khurasani corps was the foremost corps of the Abbasid army to have practiced this training system and unceasingly contributed to its development.¹⁶ Being the first professional multi-ethnic caliphal army in Islam, the Khurasanis, whose first generation brought the Abbasids to power, had a precursor role in promoting Abbasid military *furūsīyah*. Although by the second half of the third/ninth century, this prestigious corps had lost much of its importance as a military force after the massive recruitment of Turkish and other elements, its prominent members and commanders remained the absolute model for Abbasid/Iraqi military *furūsīyah*.

From their ranks emerged the man who definitively marked Muslim *furūsīyah* and its literature. This was Ibn Akhī Ḥizām al-Khuttalī, the greatest *furūsīyah* master of his time and the central figure in Muslim *furūsīyah* as a whole. His masterly work became the basic source of future treatises and to a large extent determined the content of *furūsīyah* literature. Knowledge of the work and its author is essential for the understanding of Mamluk *furūsīyah* literature.

IBN AKHĪ ḤIZĀM, THE FOUNDER OF *FURŪSĪYAH* LITERATURE

Muḥammad ibn Ya‘qūb ibn Ghālib ibn ‘Alī al-Khuttalī,¹⁷ known as Ibn Akhī Ḥizām, was born in Baghdad and died there sometime in the last quarter of the

¹⁶Al-Jāhīz, “Risālat Manāqib al-Turk,” in *Rasā’il*, 1:20–21.

¹⁷From Khuttal, a region on the right bank of upper Oxus between the rivers Wakhsh and Panj, famous for its horses. Medieval Khuttal is now part of Tajikistan (C. E. Bosworth, “Khuttal,” *The Encyclopaedia of Islam*, 2nd ed., 5:75). According to al-Sam‘ānī, *Kitāb al-Ansāb* (Beirut, 1988), 2:322–23, there was also an Iraqi village named al-Khuttal near Daskarah on the great road between Baghdad and Khurasan, but the existence of such a place, and the association of those bearing the *nisbah* of al-Khuttalī with it, have been rejected (see Ibn al-Athīr, *Al-Lubāb fī Tahdhīb al-Ansāb* [Cairo, 1938–49], 1:345; Yāqūt al-Ḥamawī, *Mu‘jam al-Buldān*, ed. Ferdinand Wüstenfeld [Leipzig, 1866–73], 2:402; ‘Abd al-Mu‘min al-Baghdādī, *Marāṣid al-Iṭṭilā’ ‘alā Asmā’ al-Amkinah wa-al-Biqā’* [Cairo, 1954–55], 1:452). Ibn Manglī (“Uns al-Malā bi-Waḥsh al-Falā,” *Dār al-Kutub al-Miṣrīyah* MS 12 *ṣinā’ah*, fol. 7r.), and later Viré (“Iṣṭabl,” *EI*², 4:216), accepted al-Sam‘ānī’s dubious explanation of the *nisbah*.

third/ninth century. He was the descendent of a prominent family of *Abnā'*¹⁸ who served the Abbasid dynasty for several decades. His uncle Ḥizām ibn Ghālib was a well-known commander of the Khurasani corps and stable master to the caliph al-Mu'taṣim¹⁹ (*ṣāhib khayl al-khalīfah*, the equivalent of the later *amīr akhūr kabīr*). According to al-Ya'qūbī, care of al-Mu'taṣim's stables was not entrusted to Ḥizām alone, but was shared by his brother Ya'qūb, the father of Ibn Akhī Ḥizām.²⁰ Ya'qūb himself was an unrivaled authority on horses and their medical treatment in his time, and he became the chief veterinary surgeon to the caliph al-Mutawakkil (232–47/847–61). Nevertheless, because of the celebrity of his brother Ḥizām, he was commonly referred to as Akhū Ḥizām "brother of Ḥizām," whence his son's *shuhrah* "Ibn Akhī Ḥizām."

It is difficult to imagine a more propitious milieu for developing skills in *furūsīyah* arts and for gaining an intimate knowledge of horses. Ibn Akhī Ḥizām logically walked in the steps of his uncle and his father. He became a member of the Khurasani corps and ranked amongst its most prominent commanders.²¹ There is also evidence that he became the stable master of the caliph al-Mu'taḍid. Ibn Akhī Ḥizām was an experienced soldier, expert on horses, master of *furūsīyah* arts, and unchallenged authority in lance and close combat techniques and weapons—hence the unmatched importance of his work, which represents the oldest surviving *furūsīyah* manual.

¹⁸The term *Abnā'* (literally "sons" or "descendants") was originally used to denote the descendants of the first Khurasanis who brought the Abbasid caliphal dynasty to power and who were mostly Arab settlers in Khurasan. But as recruitment from Khurasan continued, the term was used for the descendants of any first generation Khurasani recruits regardless of the time of their arrival in Iraq or their ethnic origin. The *Abnā'*, whether of Arab or Persian origin and whether they were descendants of early or later Khurasanis, had a great sense of unity and solidarity. Raised and trained according to the rules of Abbasid *furūsīyah*, they constituted a redoubtable military force, serving both as cavalry and infantry. Their devotion to Iraq, Baghdad, and the Abbasid house was almost fanatical. Distinguished *Abnā'* may always have joined the Khurasani corps and to have assumed positions of command, as was the case with Ibn Akhī Ḥizām.

¹⁹On the notoriety of Ḥizām ibn Ghālib in this post, see al-Jāhīz, "Risālah fī Ṣinā'at al-Quwwād," in *Rasā'il*, 381 and n. 2.

²⁰Al-Ya'qūbī, *Kitāb al-Buldān*, ed. M. J. De Goeje (Leiden, 1892), 381. The stables in Samarra were located behind the quarter of Ḥizām:

. . . وفي هذا الشارع قطائع قواد خراسان منها قطيعة هاشم بن بانيجور و قطيعة عجيبة بن عبسة و قطيعة الحسن بن علي المأموني و قطيعة هارون بن نعيم و قطيعة حزام بن غالب و ظهر قطيعة حزام الاصطبلات لدواب الخليفة الخاصة والعامية يتولاها حزام ويعقوب أخوه.

²¹His name figures among the army commanders who in the year 251/856 supported the caliph al-Musta'in (248–52/862–66) against al-Mu'tazz (252–55/866–69) and the Turks in Samarra. He led (jointly with 'Abd Allāh Ibn Naṣr) the vanguard of the caliphal army under the command of al-Ḥusayn ibn Ismā'il (al-Ṭabarī, *Tārīkh*, 11:120).

His work, written, according to Ibn al-Nadīm, for the caliph al-Mutawakkil,²² consisted of two complementary treatises intended as manuals for the mounted warrior and for army officers and commanders. The first treatise (hereafter designated as Treatise A, see below, Category I [a]) is a comprehensive work on horses including equitation, hippology, and farriery. The second treatise (hereafter Treatise B, see below, Category II) mainly deals with the principles of riding and horse-mastery, lance and sword techniques, arms, archery, and polo. These two treatises came down to us either separately and bearing different titles, or combined as one work, though in two parts each with its own preface (hereafter Treatise AB) and also bearing different titles. The most recurrent title, however, and probably the nearest to the original, is “Kitāb al-Furūsīyah wa-al-Bayṭarah.” The title given by the Mamluk author and *ḥalqah* commander Muḥammad ibn Manglī to the overall work is “Al-Fawā’id al-Jalīlah fī ‘Ulūm al-Furūsīyah wa-al-Rimāyah wa-Amrāḍ al-Khayl wa-Mudāwātihā.”²³

During the Mamluk period Ibn Akhī Ḥizām’s work became the manual par excellence for *furūsīyah* masters, mamluks, and *ḥalqah* troopers. Indeed, Ibn Manglī warned his fellow *ḥalqah* troopers and mamluks not to consult any other work but that of Ibn Akhī Ḥizām.²⁴ He insisted elsewhere that he who heeds the teachings of Ibn Akhī Ḥizām while being trained at the hands of a knowledgeable master in the arts of *furūsīyah* shall licitly benefit from his *iqṭā’* and effectively serve the sultan in time of war.²⁵ Even the opening words that Ibn Akhī Ḥizām used in the preface of his Treatise AB:

أما بعد فإنني لم أزل بعد ما وهب الله لي من المعرفة بآلات الفروسية ودقة النظر وشدة الفحص عما
وصفه أهل النجدة والبأس من ذوي النيات الخالصة

(which is also the preface of Treatise A) became a cliché in Mamluk *furūsīyah* treatises.²⁶

Since Ibn Akhī Ḥizām’s Treatise AB (often referred to as his “grand book,” *kitābuhu al-kabīr*) was rather too voluminous to be used as a handy manual, and since it consisted of two distinct and independent manuals representing different disciplines in *furūsīyah* arts and literature, Treatise AB was often split into Treatises

²²Ibn al-Nadīm, *Kitāb al-Fihrist*, ed. Reza Tajaddod (Tehran, 1967), 377.

²³Ibn Manglī, “Uns al-Malā,” *Dār al-Kutub al-Miṣrīyah* MS 12 *ṣinā’ah*, fol. 7r.

²⁴Ibid. ولا يجوز للجندي إذا كان يحسن المطالعة أن يعرج على غيره من الكتب وكتابه الكبير جمع علومنا شتى.

²⁵Ibn Manglī, “Al-Tadbīrāt al-Sulṭānīyah,” fols. 38v.

ومن اشتغل بكلامه وتمهر على شيخ عارف بأمر الحرب أكل اقطاعه حلالا ونفع سلطانه وقت الاحتياج لقتال من تعين قتاله شرعا من كافر وبأغ.

²⁶See for example al-Aqsarā’ī, “Nihāyat al-Sūl wa-al-Umnīyah fī Ta’līm A’māl al-Furūsīyah,” fol. 2r.; Baktūt al-Rammāḥ, “Kitāb fī ‘Ilm al-Furūsīyah,” fol. 5v.

A and B and these were used and copied separately. This accounts for the limited number of the surviving copies of Treatise AB²⁷ in comparison with the extant copies of Treatises A and B. It also explains why most copies of Treatise A (which had the title page of Treatise AB) bear the signature of Ibn Akhī Ḥizām, while most copies of Treatise B are either unsigned or bear fictitious names. Moreover, the copies of Treatise B are all catalogued under different titles.

This is one reason why Ibn Akhī Ḥizām's Treatise B, though fundamental for a proper comprehension of Islamic *furūsīyah* literature as a whole and Mamluk in particular (see below), has remained largely unrecognized as a third/ninth century work. Furthermore, like all *furūsīyah* manuals in demand, the overall work of Ibn Akhī Ḥizām suffered at the hands of copyists, booksellers, and compilers; even the name of the author was not spared, especially his *shuhrah* and *nisbah*.²⁸ These errors have led to a number of recent false identifications of the author and his work²⁹ thus helping to obscure his immense contribution to *furūsīyah* literature, of

²⁷There are five manuscripts that contain both Treatises A and B: Bayezit Public Library MS Veliyüddin Efendi 3174, entitled "Kitāb al-Furūsīyah wa-al-Bayṭarah wa-Ma'rifat al-Khayl wa-Riyādatihā wa-Ta'dībihā wa-'Ilājihā wa-Ma'rifat al-'Amal bi-al-Sayf wa-al-Rumḥ wa-Ramy al-Nushshāb," dated 740/1339 but transcribed from a manuscript dated 428/1036–37—its colophon reads:

تم كتاب محمد بن يعقوب بن أخي خزّام (كذا) المختلي في الفروسية وكان راض المعترض بالله . . . يحيط علم الواقف على هذا الكتاب انه كتب من نسخه تاريخها على ما وجد ٤٢٨ سنة وهي نسخه لا يكاد يقرأ منها شيء إلا بالجهد فسيدينا يعذر المملوك في ما يجده في هذه النسخه من إشكال؛

Ayasofya Library MSS 2898, entitled "Kitāb al-Furūsīyah wa-al-Bayṭarah min Qibal al-Ṭibb wa-Umūr al-Salṭanah" (Treatise B incomplete), and 2899, entitled "Kitāb al-Khayl wa-al-Furūsīyah"; Dār al-Kutub al-Miṣrīyah MS 5m *funūn ḥarbīyah*, entitled "Kitāb fī 'Ilm al-Furūsīyah wa-al-Bayṭarah," catalogued as anonymous; Staatsbibliothek zu Berlin MS 5555, untitled and catalogued as anonymous.

²⁸The *shuhrah* Ibn Akhī Ḥizām was often corrupted to Ibn Abī Ḥizām and Abū Ḥizām; the name was written Ḥaram, Ḥazām, Ḥazzām, Khizzām, and Khazzām. The *nisbah* al-Khuttālī was written al-Khaylī, al-Jilī, al-Ḥilī, and al-Jabalī, which are common corruptions of this *nisbah* (see Ibn Mākūlā, *Al-Ikmāl fī Raf' al-Irtiyāb 'an al-Mu' talif wa-al-Mukhtalif fī al-Asmā' wa-al-Kunā wa-al-Ansāb*, ed. 'Abd al-Raḥmān al-Yamānī [Hyderabad, 1962–1972], 3:219 ff.). In some copies the personal name Muḥammad is omitted, and only Ya'qūb Ibn Akhī Ḥizām remains, usually with the *kunyah* Abū Yūsuf, which is common with the name Ya'qūb, rather than 'Abd Allāh, which normally accompanies Muḥammad. In one copy of Treatise B the name Muḥammad has been corrupted to Aḥmad. Such errors were so frequent in the Mamluk period that Ibn Manglī, "Uns al-Malā," Bibliothèque Nationale MS 2832/1, fol. 5v., tried to clarify the problem, but he, too, made errors. Ibn Manglī's work was one of the few sources used by Mercier (*La Parure des cavaliers*, xii–xiii), in efforts to establish Ibn Akhī Ḥizām's name and to identify his work; on the basis of the variations Mercier suggested that there might have been three authors: Ya'qūb and his two sons Muḥammad and Aḥmad. François Viré ("Iṣṭabl," 222–26) took Mercier's hypothesis as established and even added another imaginary person, Akhī Ḥizām, ostensibly Ya'qūb's father!

²⁹See for example the preceding note.

which he was, undoubtedly, the founder.

FROM THE ABBASIDS TO THE MAMLUKS

Since *furūsīyah* was and remained a state institution, its rise and decline was intimately connected with the sovereignty and independence of the caliphate. Two great periods of Abbasid *furūsīyah* literature can be isolated; the first flourished from the second half of the second/eighth century until the Buwayhid domination (334/945), and the second from the mid-sixth/twelfth century onward until the Mongol invasion in the mid-seventh/thirteenth century. The destruction of Baghdad and the abolition of the caliphate (656/1258) made Cairo and Damascus the uncontested centers of the Islamic world. The Mamluks inherited and built upon Abbasid traditions, including *furūsīyah* literature, enlarging and emphasizing military exercises and training due to their particular military institution and to the Mongol threat.

CLASSIFICATION OF MAMLUK FURŪSĪYAH LITERATURE

Careful examination and extensive research into *furūsīyah* literature and its historical background can only lead to the classification proposed below. This stands in direct opposition to the tentative classifications previously proposed by Mercier and Ritter.³⁰

Furūsīyah treatises fall into one of two categories. The first, henceforth Category I, includes thematic treatises dealing with a particular subject or branch of *furūsīyah*. These are:

- a) treatises on horses and farriery;
- b) treatises on archery;
- c) treatises on the arts of the lance;
- d) treatises on the arts of the mace;

³⁰Mercier, *La Parure des cavaliers*, 384–85, artificially divided the treatises into four categories: treatises on the description of horses and the mysterious virtues attributed to them; treatises on wielding arms on horseback; treatises on farriery; and treatises on falconry. Ritter combined Mercier's first three categories into one and added two more: archery and organization of the army. He discarded falconry. In both attempts the term *furūsīyah* was used in a restrictive way. Scanlon, "Introduction," in *A Muslim Manual of War*, 6–7, adopted Ritter's classification, but saw this only as military literature, thus limiting the scope of *furūsīyah* treatises to those covering the training of the horse, the training of the rider to wield certain weapons consummately, the concerted action of the cavalryman on the field, the technique and variety of single combat, tournaments, and the basics of veterinary medicine. Thus treatises on archery, hunting, polo, tactics, and organization of the army, which constitute an integral part of *furūsīyah* literature, were arbitrarily regarded as distinct from it. See also Ananiasz Zajaczkowski, "Introduction," in *Ādāb al-Ḥarb wa-al-Shajā'ah* (Warsaw, 1969), 7–13, who, although skeptical about such classifications, and the restrictive use of the term *furūsīyah*, did not propose any alternative.

- e) treatises on the art of war;
- f) treatises on arms and war engines;
- g) treatises on hunting;
- h) treatises on polo.

Thematic *furūsīyah* works, with the exception of those on polo, may be subdivided into two types of treatises: comprehensive and specific thematic *furūsīyah* treatises. The former gives an overall treatment of the subject, while the latter deals only with a specific aspect of the subject matter.

The second category, Category II, includes general *furūsīyah* treatises. They deal with some or most of the above-mentioned subjects, either in an abridged form or by including portions from Category I treatises or entire small treatises. This applies mainly to lance play and mace play. It also covers the training of the Mamluk *fāris* and all that concerns lower (foot) *furūsīyah*.

ASSESSMENT AND GRADING OF MAMLUK *FURŪSĪYAH* LITERATURE

The Mamluk *furūsīyah* treatises of either category may be divided into three groups. The first group is made up of treatises that can be described as basic because of their originality or essential contribution. This group, however, constitutes only a small proportion of the total number of works produced in this period. They were usually written by professionals who belonged to the military institution or worked closely with it. Two authors in this group belonged to the *ḥalqah* corps. Not many treatises are signed by pure Mamluks, probably because of an insufficient knowledge of Arabic. Otherwise, this group would have been greatly enriched with original works based on first-hand observation and experience. This group includes only one original Mamluk-Kipchak treatise (see Category I [d] below).

The second group consists of compilation treatises based on the first group and on pre-Mamluk works. The best examples were composed by men of learning (ulama) like Sharaf al-Dīn al-Dimyāṭī (d. 705/1305–6), Badr al-Dīn Ibn Jamā‘ah (d. 733/1333), Ibn Qayyim al-Jawzīyah (d. 751/1350), ‘Izz al-Dīn Ibn Jamā‘ah (d. 819/1416), Walī al-Dīn Aḥmad al-‘Irāqī (d. 826/1422), Shams al-Dīn Muḥammad al-Sakhāwī (d. 902/1497), Jalāl al-Dīn ‘Abd al-Raḥmān al-Suyūfī (d. 911/1505), and many others.³¹ They quoted clearly and exactly from treatises now lost, and usually acknowledged their sources, which the authors of the treatises in the first group did not necessarily do, and those in the third group almost never did. Moreover, they sometimes defined important technical terms and, finally, their language is of the highest caliber ever used in *furūsīyah* literature, thus aiding in

³¹The marked interest and participation of ulama in *furūsīyah* literature started in the sixth/tenth century under the Abbasids, and assumed important proportions in the Mamluk period. See al-Sarraf, "Adab al-Furūsīyah," 109–10.

the verification and correction of copyists' errors in treatises in the other groups. Many of these authors were quite familiar with the arts of *furūsīyah*. For example, Muḥammad al-Aqsarā'ī al-Ḥanafī (d. 749/1348), the author of "Nihāyat al-Sūl" (see below), was an experienced lancer and well versed in archery. Many members of the ulama practiced the latter art and even excelled in it.³² 'Alā' al-Dīn al-Akhmīmī al-Naqīb, chief Shafi'i magistrate under Sultan al-Ghūrī (906–22/1501–16), was considered by his contemporaries a great master of archery and an undisputed expert.³³ For this reason and because he spoke Turkish perfectly, he was very popular among the Turks, a matter that contributed significantly to his selection for the post of *aqdā al-quḍāh*.³⁴ There is strong evidence that he was the author of two deliberately unsigned treatises. The first is on archery, entitled "Ḥall al-Ishkāl fī al-Ramy bi-al-Nibāl" (see Cat. I [b] below), and belongs to the first group, and the other is a general *furūsīyah* treatise entitled "Naqāwat al-Muntaqā fī Nāfi'āt al-Liqā'," an abridged version of a lost treatise by Taqī al-Dīn Yaḥyá ibn al-Kirmānī (d. 833/1430) which belongs to the second (see Cat. II below).

The third group encompasses popular and often apocryphal literature produced to meet the great demand for *furūsīyah* works at the end of the Bahri period and throughout the Circassian period. Much of it consists of truncated and sometimes amalgamated portions of pre-Mamluk and Mamluk treatises from the previous two groups. The copyists and booksellers, who played a great role in propagating these works, either deliberately left them anonymous or attributed them to well-known authors from Category II.

An illustrative example of this group is the luxurious manuscript now in the Bibliothèque Nationale, MS 2824, entitled "Al-Makhzūn Jāmi' al-Funūn" and fraudulently attributed to Ibn Akhī Ḥizām. It begins with the preface and the first section on training the rider and horse from his Treatise B, followed by the lance *bunūd* of al-Aḥḍab (see below), then a section on incendiary weapons taken from pre-Mamluk and early Bahri sources, ending with a corrupted vernacular version of an anonymous work on the training of the Mamluk *fāris*. Because of its very nature, this group has led scholars astray and should only be studied and exploited after a full understanding of groups one and two. Although random examples will be given below, this article focuses on the first two groups.

³²The reasons are discussed in al-Sarraf, "L'archerie mamluke," 1:51–56.

³³Al-Sakhāwī, *Al-Ḍaw' al-Lāmi' li-Ahl al-Qarn al-Tāsi'* (Cairo, 1353–55/1934–36), 5:275; Ibn Iyās, *Badā' i' al-Zuhūr fī Waqā' i' al-Duhūr*, ed. Muḥammad Muṣṭafá (Wiesbaden-Cairo, 1961–75), 4:348:

وكان الشيخ علاء الدين له شهرة طائلة عند الاتراك وكان علامة في الرمي بالنشاب عارفا به وكان له اليد الطولى في ذلك.

Cf. al-Sarraf, "L'archerie mamluke," 1:52–53.

³⁴Ibn Iyās, *Badā' i' al-Zuhūr*, 4:848.

MAMLUK *FURŪSĪYAH* TREATISES AND THEIR SOURCESCATEGORY I: THEMATIC *FURŪSĪYAH* TREATISES

CAT. I (A): TREATISES ON HORSES AND FARRIERY

Abbasid treatises on horses were the objects of two kinds of contributions; the first was made by Arab philologists and the other was made by professionals and *furūsīyah* masters. The main body of Arab philological works on horses was written in Iraq during the period from the latter half of the second/eighth century to the end of the first half of the fourth/tenth century.³⁵ These works included both comprehensive and specific treatises. Of the former type, commonly titled *Kitāb al-Khayl*, more than twenty treatises were written,³⁶ all deemed lost except four. These are *Kitāb al-Khayl* by Abū ‘Ubaydah Ma‘mar ibn al-Muthanná (d. 209/824),³⁷ *Kitāb al-Khayl* by al-Aṣma‘ī (d. 216/831),³⁸ “*Kitāb al-Khayl*” by Abū ‘Abd al-Raḥmān Muḥammad al-‘Uṭbī (d. 228/842), and “*Kitāb al-Khayl*” by Aḥmad ibn Abī Ṭāhir Ṭayfūr (d. 280/893). The last two treatises are still in manuscript and the fate of their extant copies, presumably kept in a private collection, is uncertain.³⁹ In any case, the basic and unmatched contributions in this domain remain the above first two treatises by the celebrated Basran philologists whose competence and rivalry in the knowledge of horses were particularly well-known. However, notwithstanding the importance of al-Aṣma‘ī’s contribution, Abū ‘Ubaydah’s *Kitāb al-Khayl* undoubtedly represents the most complete and learned philological work on horses, and was the source par excellence for subsequent treatises whether written by philologists, *furūsīyah* masters like Ibn Akhī Ḥizām, or compilers. Similarly, very few, of an otherwise considerable number, of specific philological and historical works on horses have survived. The most notable of these are *Nasab al-Khayl fī al-Jāhilīyah wa-al-Islām* by Ibn al-Kalbī⁴⁰ (d. 204/819); *Asmā’ Khayl al-‘Arab wa-Fursānihā* by Ibn al-A‘rābī⁴¹ (d. 231/846), and *Al-Sarj wa-al-*

³⁵ Cf. al-Sarraf, “*Adab al-Furūsīyah*,” 110–111.

³⁶ On this work see *ibid.*, 111.

³⁷ Published in Hyderabad, 1358/1939.

³⁸ Published by Nūrī Ḥammūdī al-Qaysī, in *Majallat Kullīyat al-Ādāb* (Baghdad University) 12 (1969): 337–88, then published separately (Baghdad, 1970).

³⁹ See ‘Awwād, *Maṣādir al-Turāth al-‘Askarī*, 1:294–96.

⁴⁰ Published by Giorgio Levi Della Vida (Leiden, 1928); another edition by Aḥmad Zakī Pasha (Cairo, 1946; 2nd ed., 1995); and republished by Nūrī Ḥammūdī al-Qaysī and Ḥātim Ṣāliḥ al-Dāmin (Beirut, 1987). A copy written by Abū Manṣūr al-Jawālīqī (d. 540/1145) is preserved in the Escorial, MS 1705.

⁴¹ Published by Levi Della Vida together with *Nasab al-Khayl* by al-Kalbī in one volume (Leiden,

Lijām by Ibn Durayd⁴² (d. 321/933).

In all, Abbasid philological works on horses were essential for preparing the ground for the emergence of the *furūsīyah* masters' contributions in this field. These were primarily concerned with subjects that are not dealt with in philological works such as dressage, riding, ailments of horses and their cures, suitable horse equipment in war and peace, etc., while integrating at the same time the essentials of the philologist's contributions, especially concerning hippology.

Ibn Akhī Ḥizām was the first *furūsīyah* master to make this synthesis in his Treatise A, commonly titled "Kitāb al-Furūsīyah wa-al-Bayṭarah." It is not only the oldest preserved text in Arabic on horses and their medical treatment, but also the earliest contribution, probably in any language, in which hippology, riding, training, and veterinary medicine, together with many other related topics, are integrated in one work. Thus the genre was established and Treatise A became the prototype of subsequent treatises. The work was a seminal contribution because it was based on the deep knowledge and practical experience of the author. In a number of subjects, it even reached the limits of perfection, as can be seen in the method of training the rider and the horse in the ring.⁴³ In the part devoted to farriery, the main reference besides the author's own experience was his father Ya'qūb, who is referred to by his *kunyah* Abū Yūsuf. Ibn Akhī Ḥizām also gives some medical prescriptions in order to discredit them; he urges veterinary surgeons to be more prompt in their work and demands that they should be cross-examined before being allowed to practice. In the chapters on colors, markings, and whorls, a certain Indian named Junna was mentioned and quoted, though only for reasons of completeness, as the author did not agree with what Junna wrote⁴⁴. Ibn Akhī Ḥizām also elaborated on the borrowings he made from *Kitāb al-Khayl* by Abū 'Ubaydah.

More than fifteen copies of Ibn Akhī Ḥizām's Treatise A have been traced so

1928), and reedited by Nūrī Ḥammūdī al-Qaysī and Ḥātim Šāliḥ al-Dāmin (Beirut, 1987).

⁴²Published by William Wright in *Majmū'at Jurzat al-Ḥātib wa-Tuḥfat al-Ṭālib* (Leiden, 1859). The text of Wright was republished by Ibrāhīm al-Sāmarrā'ī (in the seventies, but no date is given); a third edition by Munāf Mahdī Aḥmad appeared in 1992 (Cairo). However, this treatise, which is unique in its genre in *furūsīyah* literature, deserves to be studied more appropriately. Two copies are extant, one in the Library of the University of Leiden, MS 53, the other in Dār al-Kutub al-Miṣrīyah, MS 459/5 *lughah Taymūr*.

⁴³Translated by Beate Sierwert-Mayer in "Riding in the Early Abbasid Period," in *Furusiyya*, ed. Alexander, 1:110–17. For the Arabic text of this chapter, see idem, "Rukūb al-Khayl fī Bidāyat al-'Ahd al-'Abbāsī," in *Furūsīyah*, ed. al-Sarraf, 1:98–103.

⁴⁴See, Ibn Akhī Ḥizām, "Kitāb al-Furūsīyah wa-al-Bayṭarah" (Treatise A), Dār al-Kutub al-Miṣrīyah MS 1610, *tibb*, fols. 52v.–53r.

far and I believe the list is still far from being exhaustive.⁴⁵ There is also an unsigned late eighth/fourteenth-century Mamluk-Kipchak version of Treatise A (unidentified as such hitherto) entitled “Kitāb Bayṭarat al-Vāziḥ.” The translation from Arabic was made at the request of Tolu Beg, who is almost certainly the same as Tolu min ‘Alī Shāh, *nā’ib* of Şafad, who was killed in 808/1405.⁴⁶ At his orders another *furūsīyah* treatise, this time on archery, was also translated into Turkish (see below, Cat. I [b]). Two copies of “Bayṭarat al-Vāziḥ” are preserved.⁴⁷

The earliest authentic Mamluk work on horses is the anonymous “Kitāb Sharḥ al-Maqāmah al-Şalāḥīyah fī al-Khayl wa-al-Bayṭarah,” which was written towards the end of the seventh/thirteenth century. It is a learned commentary on a comprehensive didactic poem on horses and other related topics in 133 verses, in *-ri*, presented within the framework of a *maqāmah*. There are two extant copies of this treatise bearing different and apocryphal titles.⁴⁸

⁴⁵The following manuscripts of Treatise A have been identified: British Library MS Add 23416, entitled “Al-Furūsīyah wa-Shiyāt al-Khayl”; Chester Beatty Library MSS 3889 (seventh/thirteenth century), 416 (645/1256), 3319 (869/1464–65), 3073, and 3220 (twelfth/eighteenth century), all entitled “Al-Furūsīyah wa-Shiyāt al-Khayl”; Dār al-Kutub al-Miṣrīyah MS 1610 *tibb*, entitled “Al-Furūsīyah wa-al-Bayṭarah fī ‘Alamāt al-Khayl wa-‘Ilājihā”; Damascus, Dār al-Kutub al-Zāhirīyah MS 71 *‘amm*, entitled “Al-Furūsīyah wa-al-Bayṭarah”; Istanbul, Süleymaniye Library MS 3608, ascribed to al-Şāḥib Tāj al-Dīn (d. 707/1307) and published under this apocryphal name by Fuat Sezgin as a facsimile in 2 vols., *Book on Veterinary Medicine: Kitāb al-Bayṭarah by al-Şāḥib Tāj al-Dīn Abū ‘Abd Allāh Muḥammad Ibn Muḥammad Ibn ‘Alī* (Frankfurt, 1984); Fatih Mosque Library MS 3510, entitled “Kitāb al-Khuyūl wa-al-Furūsīyah” (written for the *amīr akhūr* “stable master” of Sultan al-Nāṣir ibn Qalāwūn and the son of *amīr akhūr kabīr* “chief stable master” of the same sultan); Topkapı Sarayı Library MS 1951, entitled “‘Awn Ahl al-Jihād min al-Umarā’ wa-al-Ajnād” (893/1487): this copy, incomplete and catalogued as anonymous, was published (presumed unique) in Damascus (1996); Budapest University Library MS Arabe O.3, transcribed in Baghdad in 757/1356: this copy is incomplete, untitled, and catalogued as anonymous, and it was published as such (and presumed unique) by Muḥammad al-Tūnjī under the title *Al-Jawād al-‘Arabī* (Kuwait, 1413/1993); Baghdad National Library MSS 134 *al-athār*, 1938/1 *al-athār*; Leiden University Library MS 528; Bibliothèque Nationale MSS 2823, untitled and containing only the first and last folios (1063/1653), and 2815, untitled and classified as anonymous. Treatise A was also plagiarized by a number of compilers, for example, British Library MS Or. 813 (620/1223; signed Aḥmad Ibn ‘Atīq al-Azdī); and Ayasofya Library MS 3705 (copied for the Rasulid sultan of Yemen al-Muzaffar Yūsuf al-Sa‘īd [647–94/1249–95] by Aḥmad Ibn Muḥammad, known as Ibn Abī Quṭayrah).

⁴⁶See al-Sakhāwī, *Al-Ḍaw’ al-Lāmi’*, 4:48.

⁴⁷Topkapı Sarayı MS Revan Köskü 1695 and Bibliothèque Nationale MS Suppl. Turc 179, fols. 1–99r. See also Janos Eckmann, “The Mamluk-Kipchak Literature” in *Central Asiatic Journal* 8 (1963): 316–17, and Kurtuluş Öztopçu, “Introduction,” in *Münyetü’ l-ğuzāt: 14. yüzyıla ait Memluk-Kipçakçısıyla yazılmış askêri bir risâle*, ed. and trans. Kurtuluş Öztopçu, *Sources of Oriental Languages and Literatures*, 13: Turkic Sources, 11 (Cambridge, Mass., 1989), 4.

⁴⁸The first one, written for the library of Yalbāy min Qānī Bāy al-Hamzāwī, is preserved in the

The text begins with a short introduction on the blazes, markings, stockings, and shackles of the horse. Then the author rather smoothly shifts to the rhymed prose of the *maqāmah*, setting forth the frame story: Sultan Ṣalāḥ al-Dīn Ibn Yūsuf Ibn Ayyūb (Saladin) ordered that pure-bred Arab horses should be amassed for war. When that was done he summoned his courtiers and questioned them about the origins of the (Arab) horse, its breeds and bloodlines, its conformation, its qualities, the ailments that can strike it, its markings, its colors, and the equipment of its rider. No one answered but one man, an outsider, who stood up and recited the poem.⁴⁹ The commentary normally follows after one or two verses. Those from 1 to 116 cover hippology and farriery, from 117 to 122 deal with arms and armor, from 123 to 130 treat saddles and bridles, and finally from 131 to 133 deal with how the horseman should behave on the battlefield. When the commentary of the last three verses is completed, the rhymed prose resumes the argument of the *maqāmah* and reports that the sultan, greatly pleased with the poem, decided to appoint the poet as his stable master and to make him his boon companion. The *maqāmah* concludes in the style and spirit of *Maqāmāt al-Ḥarīrī* as the narrator (appearing in the role of al-Ḥārith ibn Hammām of the *Maqāmah*) discovered that he knew the poet (resembling the famous Abū Zayd al-Sarūjī) and engaged him in a pleasant and lively conversation.

This treatise is one of the hidden jewels of Mamluk *furūsīyah* literature. First of all, it should be noted that didactic poems, while common in such *furūsīyah* disciplines as archery and hunting, were not very frequent in the domain of horses, especially in such a comprehensive way.⁵⁰ Consequently, if this didactic

library of Istanbul University, MS 4689, and titled "Kitāb al-Razdaqah fī Ma'rifat al-Khayl wa-Ajnāsīhā wa-Amrāḍihā wa-Adwiyatihā." The second copy, dated 1180/1766, is kept in the Bibliothèque Nationale, MS Arabe 2817. It is spuriously attributed to Wahb Ibn Munabbih under the title "Kitāb fī 'Ilm Siyāsat al-Khayl." There is also one copy of the "Maqāmah" sans commentary in Dār al-Kutub al-Miṣrīyah MS 81 *furūsīyah Taymūr*, entitled "Al-Maqāmah al-Ṣalāḥīyah fī al-Khayl wa-al-Bayṭarah wa-al-Furūsīyah."

⁴⁹The poem begins as follows:

الحمد لله ميدي عالم الصور \ وخالق الخيل عزاً منه للبشر
والصلوة على المختار من مضر \ وسيد الرسل من بدو ومن حضر

⁵⁰In *furūsīyah* literature, didactic poems, namely in the fields of archery, hunting, and horses, appeared mainly from the sixth/twelfth century onwards, after these disciplines were established, and the major pertinent treatises were written during the first two hundred years of Abbasid rule. Among the few surviving didactic poems on horses from that period is "Al-Urjūzah al-Manṣūrīyah fī Ṣifāt al-Khayl" by the Zaydī Imam al-Manṣūr billāh 'Abd Allāh Ibn Ḥamzah (d. 614/1217). It was commented by his son al-Amīr Shams al-Dīn Abū al-Ḥasan Aḥmad in a treatise entitled "Kitāb Sharḥ al-Urjūzah al-Manṣūrīyah fī Ṣifāt al-Khayl," of which at least two copies survived; one of them is kept in the British Library, MS 814. The "Urjūzah" and its commentary are entirely based on early Abbasid philological contributions and works of *adab*.

poem was not the first of its kind, it is undoubtedly the earliest and the unique surviving example. It is also the first and probably the last didactic poem presented within the framework of a *maqāmah*. In *furūsīyah* literature, the *maqāmah* is an exceptional genre and the only one I am aware of is "Al-Maqāmah al-Qawsīyah" (on archery) by Ismā'īl ibn Jamāl al-Dīn al-Isbahānī (sixth/twelfth century), which is in rhymed prose⁵¹.

The real importance of this work, however, lies in the subtlety of the didactic poem, the expert and erudite commentary of the author, and his clear and fine Arabic style. Although he did not name his pre-Mamluk sources, the text clearly shows that the author was perfectly familiar with the relevant Abbasid literature, especially *Kitāb Nasab al-Khayl* by Ibn al-Kalbī (d. 204/819), *Kitāb al-Khayl* by Abū 'Ubaydah and above all "Kitāb al-Furūsīyah wa-al-Bayṭarah" by Ibn Akhī Ḥizām. It is also clear from his commentaries that the author was a pure product of military *furūsīyah*, as he was highly proficient in horsemanship, hippology, veterinary science, and arms and warfare. He gave us a valuable hint about himself and the period during which he wrote the treatise when he casually referred to two of his contemporaries who were alive when this work was written. One of them was Amir Sunqur al-Ashqar (Shams al-Dīn Sunqur al-Ṣāliḥī), *nā'ib al-salṭanah* in Damascus who died in 691/1292. He was personally and intimately known to the author who must have, therefore, belonged to the upper strata of the Mamluk ruling elite or was very close to it. The other personality is Sharaf al-Dīn al-Dimyāṭī, who died in 705/1305–6. Al-Dimyāṭī wrote a work on horses entitled "Faḍl al-Khayl," based exclusively on Abbasid philological and *adab* works and including a compendium of hadiths of the Prophet on the merits of horses,⁵² with rather long chains of authority which our anonymous author quotes. As al-Dimyāṭī wrote his treatise in 688/1289, "Kitāb Sharḥ al-Maqāmah al-Ṣalāḥīyah" was, therefore, composed sometime between the latter date and the death of Sunqur al-Ashqar in 691/1292.

The only worthy signed Mamluk treatise on horses belonging to the first group is *Kāshif al-Wayl fī Ma'rifat al-Khayl*, also known as *Kāmil al-Ṣinā'atayn fī al-Bayṭarah wa-al-Zardaqaḥ* and as *al-Nāṣiri*,⁵³ by Abū Bakr al-Bayṭar ibn Badr

⁵¹See below, note 101.

⁵²It has been published by Muḥammad Raghīb al-Ṭabbākh (Aleppo, 1930) from a single copy in Aleppo, al-Maktabah al-Riḍā'īyah MS *furūsīyah* 801, now lost. A new edition was published in Damascus (2001), allegedly based on a copy conserved in 'Ayn Shams University Library (Egypt), no reference number given. The most reliable copy, however, is that in Medina, 'Ārif Ḥikmat Library MS *ḥadīth* 54, dated 688/1289. Another copy, dated 850/1446–47, is in the Bibliothèque Nationale, MS 2816.

⁵³Translated into French by Nicolas Perron, under the title *Le nâcérî: la perfection des arts, ou, Traité complet d'hippologie et d'hippiatrique arabes, par Abū Bakr Ibn Bedr*, 2 vols. (Paris,

al-Dīn, known as Ibn al-Mundhir, chief veterinary surgeon to Sultan al-Nāṣir Muḥammad Ibn Qalāwūn during his third sultanate (709–41/1310/41). Although the author drew heavily on Abbasid sources, especially on Ibn Akhī Ḥizām's Treatise A (from which he borrowed much more than he intimated), his professional experience ensured that his book was a genuine contribution. More than fifteen copies have survived, including an autograph version.⁵⁴

The anonymous "Kitāb al-Furūsīyah fī 'Ilm al-Khuyūliyah" is another valuable, hitherto unknown work that needs to be noted. The author, who assumed the role of a narrator, attributed the treatise to someone called al-'Abbāsī and claimed that the latter copied it from sources pertaining to King Solomon (al-Malik Sulaymān Ibn Dāwūd). The treatise is largely based on Abbasid sources and some of these are lost, hence the importance of this work. The text begins with a long introduction relating the Arabo-Islamic version of the creation of the horse and its breeds, which is the most detailed and complete account on this subject in *furūsīyah* literature. The work is divided then into four parts and each part into several sections. The first part deals with training and horse mastery; the second covers training the obstinate horse; the third treats colors, markings, and characteristics of the horse; and the fourth part is devoted to ailments and cures. Three copies of this interesting treatise are extant.⁵⁵

A good example of a Mamluk compilation treatise on horses (group two) is by 'Umar ibn Raslān ibn Naṣr al-Bulqīnī (d. 805/1402), called "Qaṭr al-Sayl fī Amr al-Khayl." It is an abridgment of al-Dimyāṭī's *Faḍl al-Khayl* but with supplementary material on hippology and equitation. At least six copies have been preserved.⁵⁶

CAT. I (B): TREATISES ON ARCHERY

Archery was indubitably the most important and sophisticated discipline among

1852–60). It was edited by 'Abd al-Raḥmān al-Daqqāq, *Kāshif Hamm al-Wayl fī Ma'rīfat Amrād al-Khayl: Le découvreur de l'importance des maux relativement à la connaissance des maladies des chevaux, ou, La perfection des deux arts: Traité complet d'hippologie et d'hippiatrie connu sous le nom de al-Nāṣiri* (Beirut, 1991).

⁵⁴Topkapı Sarayı Library MS Ahmet III 1956, dated 722/1322. Nine more copies deserve particular mention: Topkapı Sarayı Library MSS Ahmet III 203, E.H. 1813, and E.H. 1817; Dār al-Kutub al-Miṣrīyah MSS 4 and 5 *furūsīyah Taymūr*; Bibliothèque Nationale MSS 2813 and 2814; Baghdad, Iraqī Museum Library MS 187; and Chester Beatty Library MS 3680.

⁵⁵Bodleian Library MS Huntington 377; Süleymaniye Library MS Şehid 'Alī Paşa 1550; Vienna National Bibliothek MS 1474.

⁵⁶Süleymaniye Library MSS Şehid 'Alī Paşa 1549 and 2138; Iraqī Museum Library MS 17108; Sohag (Suhaj), Egypt MS *adab* 559; ; 'Ārif Ḥikmat Library MS *ḥadīth* 57; Dār al-Kutub al-Miṣrīyah MS 214 *funūn ḥarbīyah*.

furūsīyah arts and the keystone in the training of the Mamluk *fāris*.⁵⁷ Likewise, archery treatises represent the richest branch in *furūsīyah* literature and the preserved copies account for almost one third of the total number of extant *furūsīyah* manuscripts of both categories. Furthermore, archery themes and texts constitute an integral part of general *furūsīyah* treatises (Cat. II), and of such thematic *furūsīyah* treatises as those concerning the art of war, arms and war machines, and the chase (respectively Cat. I [e], [f], and [g]). All this makes knowledge of Muslim archery and its literature indispensable for the comprehension of *furūsīyah* arts and literature as a whole.

However, archery literature is a singularly thorny field of research. It was subject more than any other branch of *furūsīyah* literature to manipulations and falsification at the hands of booksellers, copyists, and unknowledgeable compilers. Furthermore, because of its highly technical language, archery literature was particularly exposed to copyists' errors and omissions. This phenomenon assumed such amplitude in the Mamluk period that even learned and acknowledged authors/archers like al-Akhmīmī showed reluctance to comment certain texts for fear of misinterpretation.⁵⁸

These and other problems and pitfalls characteristic of archery literature, in conjunction with lack of research, may explain the total confusion reigning in modern publications concerning medieval Muslim archery, its evolution, history, historiography, and literature. It took many years of systematic research, during which the main core of archery literature—all still in manuscript form—was examined and collated, to clear up the picture. The following is a résumé of the main axes of Mamluk and pre-Mamluk archery literature. Its understanding, however, is innately connected with the evolution of archery techniques, the correct identification of archery masters, their epoch and their schools, and the types of bows used.

It should be emphasized that Arabo-Islamic archery as depicted in archery treatises was exclusively based on the use of the composite bow. On the other hand, all Arab philological works on bows,⁵⁹ classical Arabic poetry, as well as the entire corpus of hadith attributed to the Prophet Muḥammad on the merits of archery,⁶⁰ denote only the simple wooden hand bow. This was the traditional Arab bow and the only type of hand bow used by the Arabs in the pre- and proto-Islamic

⁵⁷For a detailed exposition of the training of the Mamluk *fāris* in archery, see al-Sarraf, "L'archerie mamluke," 3:750–869.

⁵⁸Al-Akhmīmī, "Ḥall al-Ishkāl fī al-Ramy bi-al-Nibāl," Bibliothèque Nationale MS Arabe 6259, fols. 5v., 100r., 101r. Cf. al-Sarraf, "L'archerie mamluke," 1:41.

⁵⁹See al-Sarraf, "Adab al-Furūsīyah," 113.

⁶⁰The major source on this is al-Qarrāb al-Sarakhsī's *Fadā' il al-Ramy fī Sabīl Allāh*. See above, note 4.

periods. Nearly all the nomenclature pertinent to the simple Arab bow was adopted for the composite bow, which is referred to in archery treatises as *qaws* (bow) without further distinction. This may induce confusion between the two types of bows, especially when we know that archery treatises usually begin with the relevant traditions (*sunnah*) on archery, followed by the nomenclature and types of the simple bow as established by Abbasid philologists and coupled with the appropriate verses of Arabic poetry. As the composite and simple bows differ fundamentally, any confusion between them will render archery treatises totally incomprehensible and will also deeply compromise our understanding of *furūsīyah* arts and literature. Indeed, the essence of military *furūsīyah* and the whole Mamluk institution was based on horse archery,⁶¹ which was totally subject to the employ of the composite bow. Unless otherwise specified, all occurrences of the term "bow" hereafter denote the composite bow.

Practically, all the basic archery texts were written during the first two centuries of Abbasid rule. The authors were confirmed archers and their works were records of their own experience and/or of the techniques of their respective schools of archery (*madhāhib al-ramy*). All these schools of archery emerged during the period in question. The founders, who flourished in Iraq and Khurasan, were the archery masters commonly referred to as *a'immat al-ramy* (imams of archery). Their number is not the same in all treatises but the data concurs that there were no more than ten principal figures and that the most prominent among these were Abū Hāshim al-Bāwardī, Ṭāhir al-Balkhī, Ishāq al-Raffā', Abū al-Ḥasan al-Kāghadī, and Abū al-Fath Sa'īd Ibn Khafīf al-Samarqandī. The latter, considered the greatest master of his time and the last of the archery imams, was born in Baghdad in the second half of the third/ninth century and gained prominence under the caliphs al-Rādī (322–29/934–40) and al-Mustakfī (333–34/944–46).⁶² His father Khafīf al-Samarqandī was one of the loyal and close *ghilmān* of the caliph al-Mu'taḍid and the last of his chamberlains. Under this caliph, accredited for being a great archer⁶³ and the propagator of the technique of *ikhtilās*,⁶⁴ Abbasid archery was at

⁶¹On the interdependent relation between the mamluk institution and archery, especially from horseback, see al-Sarraf, "L'archerie mamluke," 3:1055–81.

⁶²See anonymous, *Kitāb al-'Uyūn wa-al-Ḥadā'iq fī Akhbār al-Ḥaqā'iq*, ed. 'Umar Sa'īdī (Damascus, 1972–73), 1:316; 2:428, 442.

⁶³Al-Ṭabarī, *Tārīkh*, 11:265; al-Zaynabī, "Al-Qawānīn al-Sulṭānīyah," fol. 43v.; al-Ṭarsūsī, "Tabṣirat Arbāb al-Albāb," fol. 61r.–v.; al-Aqsarā'ī, "Nihāyat al-Sūl," fol. 36r.; al-Ṣughayyir, "Kitāb Ramy al-Nushshāb," Topkapı Sarayı Library MS Ahmet III 2620, fol. 89r.

⁶⁴A form of loose which gives the arrow greater power of penetration, suitable for war. Basically, it consists of drawing the bow to a certain limit, followed by a very short pause and then by a full draw executed with a snatch. Al-Ṭarsūsī, "Al-Tabṣirah," fols. 61r.–v.; Ibn Maymūn, "Al-Ifādah wa-al-Tabṣīr," fols. 62r., 68v.; al-Aqsarā'ī, "Nihāyat al-Sūl," fol. 36r.; Ṭaybughā, "Kitāb al-Ramy

its apogee. As an army commander, al-Samarqandī's *madhhab* in archery was entirely military. He was the younger contemporary of Abū al-Ḥasan al-Kāghadī, who lived in Herat (now in Afghanistan) and devoted his life and fortune to gain excellence in archery. His school, based on target archery, was civilian.

As for al-Bāwardī, al-Balkhī and al-Raffā', they were the three celebrated great masters consecrated in the late Ayyubid and Mamluk periods as the greatest and true masters of archery (*a' immat al-ramy al-kibār*). The consequences of this consecration largely dictated the orientation and nature of archery literature in the Mamluk period. The school of al-Bāwardī, who probably was still alive in the first half of the second/eighth century, was the first in Islam. It was very close to the old Sassanian school, which was principally based on foot archery. Al-Balkhī lived in the second half of the second/eighth century; his school mainly represented Abbasid Khurasani foot and horse archery. Ishāq al-Raffā' flourished in Iraq in the first half of the third/ninth century. His school was a genuine Abbasid development and extremely important to our understanding of the evolution of Muslim archery, especially in the Arab region, where it was adopted by the majority of mounted and foot archers during the Abbasid and Mamluk periods. The school of al-Raffā' was often described as the Median School (*madhhab al-wasaṭ*) for having allegedly taken a median position in terms of archery techniques between the schools of al-Bāwardī and al-Balkhī. However, its real importance lies in its contribution to the standardization of archery techniques implied by the systemization of the Abbasid military training program, which inevitably led to the standardization of the war bow and consequently allowed its production in large quantities. This development reached considerable dimensions in Ayyubid Syria when Damascus became the largest center for manufacturing war bows in the Islamic world.⁶⁵

The foremost authority on the schools of al-Bāwardī, al-Balkhī, and al-Raffā', and the key figure in Muslim archery literature as a whole, is Abū Muḥammad 'Abd al-Raḥmān Aḥmad al-Ṭabarī, who was Ibn Akhī Ḥizām's older contemporary. Not much is known about him except that he was a devoted archer who traveled in Khurasan and Iraq seeking perfection in this art, and that he was trained in the technique of each one of the three masters by their respective disciples and then formed his own synthesis of their techniques. He expounded their methods, as well as his own eclectic approach, in a book entitled "Kitāb al-Wāḍiḥ fī al-Ramy." This became the most popular and widely used archery treatise in the Mamluk period, when al-Ṭabarī, referred to as the "founder of the eclectic school" (*ṣāḥib madhhab al-ikhtiyār*), was implicitly consecrated as the fourth imam of archery.

wa-al-Rukūb," fol. 37r.; al-Ṣughayyir, "Kitāb Ramy al-Nushshāb," fols. 80r., 89r.–90v.

⁶⁵See al-Sarraf, "L'archerie mamluke," 2:498–506.

"Kitāb al-Wāḍiḥ" is an essential treatise not only in understanding and assessing Mamluk archery literature, but also Mamluk archery as a whole. In the Ayyubid period when the massive production of war bows in Damascus was standardized into three types, certain Syrian authors and archers introduced the idea that the practices of the great masters represented three somatic categories, tall (Abū Hāshim al-Bāwardī); medium (Ishāq al-Raffā'); and short (Ṭāhir al-Balkhī). This categorization, which probably played an important role in legitimizing the consecration of the three masters during that period, was too constricting, as a bow made for a tall man and the techniques for using it were not necessarily unsuitable for a man of medium or short proportions. Al-Ṭabarī's eclectic method provided a practical alternative and was a stabilizing influence and safety valve against rigid classification.⁶⁶

Most of the ten copies of "Kitāb al-Wāḍiḥ" that have reached us⁶⁷ bear only the *nisbah* of its author, al-Ṭabarī, preceded by such attributes as *shaykh*, *ustādh*, and/or *'allāmah*. This created a grievous misconception regarding the identity of the author, who was grossly confused in modern bibliographical essays with Aḥmad ibn 'Abd Allāh Muḥibb al-Dīn al-Ṭabarī (615–94/1218–95), the well-known *shaykh al-ḥaram* of Mecca,⁶⁸ whose works and activities are fully documented by Mamluk sources.⁶⁹ The persistence of this flagrant error, accepted without further verification by modern scholars from the end of the nineteenth century till now,

⁶⁶Ibid., 2:494–506, 524–33; 3:722–40, 773–74, n. 42.

⁶⁷British Library MSS Or. 9454, 9265/2, fols. 55r.–96r., and 3134; Bayezit Public Library MSS Veliyüddin Efendi 3175, 3177; Nuruosmaniye Mosque Library MS 4098; Topkapı Sarayı MS Revan Köskü 1933/2; Bodleian Library MS 396; Cairo, al-Azhar Library MS 6 *abazah* 7275; Staatsbibliothek zu Berlin MS Ahlwardt 5539.

⁶⁸W. Ahlwardt, *Verzeichniss der arabischen Handschriften de Königlischen bibliothek zu Berlin* (1887–99, nos. 5540 and 5550) was the first to confuse the author of "Al-Wāḍiḥ" with *shaykh al-ḥaram* Muḥibb al-Dīn al-Ṭabarī; he was followed by Ritter, "La Parure," 136, and Brockelmann, *Geschichte der arabischen Literatur* (Leiden, 1937–49), 906. The copies of "Al-Wāḍiḥ" available to Ahlwardt, Ritter, Brockelmann, and even to Ḥājji Khalīfah (*Kashf al-Zunūn 'an Asāmī al-Kutub wa-al-Funūn* [Istanbul, 1941–43], 2:1995) bore only the *nisbah* of the author: al-Ṭabarī. In his *Talkhīṣ Rasā'il al-Rumāh* (Istanbul, 1263), written in Turkish for Sultan Maḥmūd II (1809–39), the Ottoman archer Muṣṭafā Kānī Qahwaçī Bāshī identified the author of "Al-Wāḍiḥ" with the historian Abū Ja'far Muḥammad Ibn Jarīr al-Ṭabarī (d. 310/923). This sort of confusion was probably very old and may go back to the early fourth/tenth century, cf. Yāqūt al-Ḥamawī, *Mu'jam al-Udabā'*, ed. D. S. Margoliouth (Cairo, 1923–30), 6:453. The correct and full name of 'Abd al-Raḥmān al-Ṭabarī figures in a number of *furūsiyah* treatises. Cf. al-Sarraf, "L'archerie mamluke," 1:70–76, 166, n. 97.

⁶⁹See for example al-Dhahabī, *Kitāb al-'Ibar fī Khabar Man Ghabar*, ed. Ṣalāḥ al-Dīn al-Munajjid and Fu'ād Sayyid (Kuwait, 1960–66), 5:238; Ibn Taghrībirdī, *Al-Manhal al-Ṣāfi*, 1:342–48; cf. Ibn al-'Imād, *Shadharāt al-Dhahab fī Akhbār Man Dhahab* (Cairo, 1931–32), 5:8.

attests to the deplorable state of research in *furūsīyah* literature and particularly in archery literature, where al-Ṭabarī undoubtedly represents the key element par excellence in our understanding of it.

Furthermore, contrary to what is generally believed, "Kitāb al-Wāḍih" was not the only archery treatise written by 'Abd al-Raḥmān al-Ṭabarī and in terms of thoroughness, it was not the most important one. His definitive work is "Kitāb al-Shāmil fī al-Ramy," which represents the oldest surviving comprehensive archery treatise and probably the first of its kind in archery literature. It mainly deals with military archery and covers, *inter alia*, the types of bows, cords, arrows, thumb-rings, training the novice, shooting at the *birjās*,⁷⁰ faults and injuries to which the archer is exposed, bracing the bow, hints for archers in time of war, shooting at and from a fortress, etc. "Kitāb al-Shāmil," of which I have found so far only one copy,⁷¹ became a major source for subsequent *furūsīyah* treatises of both categories starting with Ibn Akhī Ḥizām's Treatise B. Other works by al-Ṭabarī, still untraceable, include "Kitāb Nuzhat al-Qulūb," "Kitāb al-Kanz," and "Kitāb Jāmi' al-Asrār."⁷²

The work of Rukn al-Dīn Jamshīd al-Khwārazmī was also an important third/ninth century Abbasid source of Mamluk archery literature. The long quotations which certain Mamluk authors give from his treatise made it clear that Jamshīd was a major source for the Mamluks on the great masters and on al-Ṭabarī, in particular, with whom he was a contemporary.⁷³ This information is confirmed by Jamshīd in a small but important treatise ascribed to him of which one copy only is extant.⁷⁴ In this treatise, probably a much abridged version of his main, untraceable treatise, Jamshīd mentions that his work was seen and verified by the great Iraqī archer Abū Bakr Ibn 'Abd al-'Azīz Ibn Julham al-Baghdādī, to whom no archery treatise is attributed. Another Abbasid source for Mamluk archery literature is the work of Muḥammad Ibn Yūsuf al-Akhbārī (third/ninth century) entitled "Al-Iḍāḥ fī 'Ilm al-Ramy" which has survived in one copy.⁷⁵ Mamluk writers also drew on the now lost works of Abū Bakr al-Warrāq, Abū Mūsā al-Ḥarrānī al-Sarakhsī,

⁷⁰For the different meanings and functions of *birjās* (pl. *barājis* and *barjāsāt*) in *furūsīyah* literature see al-Sarraf, "L'archerie mamluke," 3:751–53.

⁷¹British Library MS 9265/1, fols. 1r.–55r. This manuscript, of which the first pages are wanting, is not recorded in the printed catalogue.

⁷²See al-Ṣughayyir "Kitāb Ramy al-Nushshāb," fols. 12v., 23r., 42r., 53r., 66r., 68r., 85v., 90r., 91v.

⁷³Al-Ṣughayyir, "Kitāb Ramy al-Nushshāb," fols. 48v. ff., 84v. ff.; Ṭaybughā, "Kitāb al-Ramy," fol. 65r.–v.; al-Sinjārī, "Hidāyat al-Ramy," fols. 14v., 16r.–v., 18r.–v., 21v., 22v.

⁷⁴British Library MS Or 3631, fols. 279v.–293r., with the author's name given as Jamshār, instead of Jamshīd.

⁷⁵Nuruosmaniye Mosque Library MS 4098/2.

Aḥmad al-Suhrawardī, Abū Ja‘far Muḥammad al-Harawī, and ‘Alī al-Daqqāq,⁷⁶ all of them ranked as great archers.

The advent of the Buwayhids in Iraq and the Fatimids in Egypt contributed to the decline in the region of military archery, and horse archery in particular. Neither the Daylami troops of the former nor the Berbers of the latter used this arm. The recourse of both dynasties, especially the Buwayhids, to Turkish horse-archers did not stop this decline. Only when the Saljuqs swept over the region with their Turkoman horse-archers did archery come back with force. Interest in archery literature was greatly revived, old Abbasid texts were reproduced and new ones were written. This time, the Syrian archers, who were already bearing the brunt of the Crusaders thrust, took the initiative. This also coincided with the efflorescence of bow manufacturing in Damascus and the birth of the famous Damascus war bow under the Burids.⁷⁷ Three contributions in the form of didactic poems are representative of this new spirit. The first one, a short and almost riddle-like poem on the fundamentals of archery intended for knowledgeable archers, is “Al-Qaṣīdah al-Lāmīyah fī al-Ramy” by Ṣāliḥ al-Shaghūrī who, on behalf of the Damascene archers, took it to Egypt in 553/1158 to challenge the Cairene archers and test their knowledge. It was commented by an Egyptian archer named Abū al-Ḥasan ‘Alī ibn ‘Abd Allāh ibn Nabīl in a treatise entitled “Kitāb fī ‘Ilm al-Rimāyah bi-al-Nushshāb wa-Uṣūlihi wa-Madhāhibih” of which one copy is preserved.⁷⁸ The second contribution is an anonymous and untitled *urjūzah* on the fundamentals of archery and the schools of the three great masters, including important information on the main prototypes of war bows known in the region since the advent of the Abbasids. This fine *urjūzah* was commented at the end of the ninth/fifteenth century by al-Akhmīmī (see “Ḥall al-Ishkāl” below).

The third didactic poem was written and commented by Ḥusayn Ibn ‘Abd al-Raḥmān al-Yūnīnī⁷⁹ (d. 650/1252), who claimed to be the rightful heir of the bygone masters. While this claim may be questionable, al-Yūnīnī was certainly one of the greatest archers of his time. His work, entitled “Al-Nihāyah fī ‘Ilm al-Rimāyah,” represents the most important archery treatise written in Ayyubid Syria, and is a precious link in our understanding of the evolution of archery techniques and literature. Like all archery treatises written after the period of the great masters, “Al-Nihāyah” is essentially based on early Abbasid texts and deals

⁷⁶Al-Sarraf, “L’archerie mamluke,” 1:149–51.

⁷⁷Ibid., 2:497–98.

⁷⁸Köprülü Mehmed Paşa Library MS 470.

⁷⁹He was also called al-Yunānī. Both *nisbahs* are correct in denoting Yūnīn or Yunān, a village near Baalabak (Baalbek) in Lebanon. See al-Dhahabī, *Kitāb al-‘Ibar*, 5:248, n. 1; al-Baghdādī, *Marāṣid al-Iṭṭilā’*, 3:1488.

with the fundamentals of archery as established by the masters. But it contains extremely valuable information on contemporary practices and equipment. Furthermore, it was al-Yūnīnī who first introduced the notion that the schools of the three great masters were influenced by their physical characteristics. This notion, though unsupported, was widely accepted by Mamluk archers and authors, as "Al-Nihāyah" became one of the standard sources of Mamluk archery literature. At least nine copies exist, including an imperfect autograph version.⁸⁰

Sometime in the second half of the seventh/thirteenth century or early eighth/fourteenth century, two important archery treatises, greatly appreciated by Mamluk authors and archers, appeared in the Maghrib. This was exceptional and unprecedented as the crossbow, not the hand bow, usually predominated in that region. In fact, it was to challenge this trend and to promote the cause of the composite hand bow and the relevant oriental traditions that these treatises were avowedly and expressly written. The first one is "Kitāb al-Badā'ī wa-al-Asrār fī Ḥaḡīqat al-Radd wa-al-Intiṣār wa-Ghāmiḡ Mā Ijtama'at 'alayhi al-Rumāh fī al-Amṣār" by Abū Bakr Muḡammad ibn 'Alī ibn Aṣḡagh al-Harawī, who severely criticized his Andalusian compatriots for preferring the crossbow to the hand bow. His treatise gives a penetrating and unique exposé on the merits and superiority of the hand bow to the crossbow and the defects of the latter in the open battlefield. The treatise also includes important information on contemporary practices relevant to archery and warfare in Muslim Spain. Three copies have survived.⁸¹

The other treatise is by the Moroccan archer Abū Muḡammad Jamāl al-Dīn 'Abd Allāh Ibn Maymūn al-Murrākishī,⁸² who wrote "Al-Ifādah wa-al-Tabṣīr li-Kull Rāmin Muḡtadi' aw Māhir Naḡrīr bi-al-Sahm al-Ṭawīl wa-al-Qaṣīr," which is absolutely one of the best comprehensive treatises in archery literature and probably the most complete. In fact, "Al-Ifādah," written as a manual for both the beginner and the expert archer, represents a concise and intelligible encyclopedia on archery covering a wide range of subjects that were never previously united in any one single comprehensive archery treatise. Ibn Maymūn drew on al-Ṭabarī's works,

⁸⁰Damascus, Assad National Library MS 22 Zayyat, *al-adabīyāt al-manẓūmah* (originally in al-Zāhirīyah Library), autograph; Ayasofya Library MSS 2952 and 4051; Manisa (Maghnisa), Turkey, General Library MS 1145/3, fols. 21v.–130v.; Tire, Turkey, Necip Paṣa Library MS 333/3, fols. 212v.–279r.; Chester Beatty Library MS 3158/1, fols. 1r.–62v.; Alexandria, Maktabat al-Baladīyah MS 81 *funūn ḡarbīyah*; Leiden University Library MS 1416; Gotha, Landesbibliothek MS 1340.

⁸¹Bodleian Library MS Marsh 304; Staatsbibliothek zu Berlin MS 5538; Rabat, Maktabat al-Khizānah al-'Āmmah MS 32/1q.

⁸²There is evidence that archery flourished in Morocco before the sixth/twelfth century and that a school, perhaps as important as the two traditional ones in Iraq and Syria, existed there (al-Sarraf, "L'archerie mamluke," 2:82–83).

especially "Kitāb al-Shāmil," and on many other Abbasid treatises, some of which are lost. The "Ifādah" was particularly esteemed in the Mamluk period, and Ibn Manglī emphatically advises his fellow troopers to use it as a major reference.⁸³ An earlier treatise by Ibn Maymūn, entitled "Kifāyat al-Muqtaṣid al-Baṣīr fī al-Ramī 'an al-Qaws al-'Arabīyah bi-al-Sahm al-Ṭawīl wa-al-Qaṣīr," was more condensed and also known in the Mamluk period, but is not extant. Four copies of the "Ifādah" have been preserved.⁸⁴

The Mamluks did not produce any worthwhile treatises on archery until the end of the Bahri period, contenting themselves with the reproduction of the pre-Mamluk archery literature. For example, the important chapter on archery in al-Aqṣarā'ī's "Nihāyat al-Sūl," written during the third sultanate of Sultan al-Nāṣir Ibn Qalāwūn, is based entirely on pre-Mamluk sources (see below, Cat. II). The author defends this by saying that after the old masters no contributions had been made to this field.⁸⁵ Ibn Manglī's main sources for archery in his various *furūsīyah* treatises, written under the sultan al-Ashraf Sha'bān (764–78/1363–76), were Ibn Maymūn's "Al-Ifādah" and al-Ṭabarī's works. Both Ibn Manglī and al-Aqṣarā'ī deplored the state of archery under the sultanate,⁸⁶ which had started to deteriorate during the third sultanate of al-Nāṣir,⁸⁷ and only worsened during the successive reigns of his sons.

A timid revival of archery and *furūsīyah* in general took place under al-Ashraf Sha'bān, bringing forth several relevant works, including a didactic poem on archery titled "Ghunyāt (or Bughyāt) al-Murāmī (or al-Marāmī) wa-Ghāyat al-Marām (or al-Murām) lil-Mu'ānī." It was written and commented by a Syrian instructor of archery (*ustādh*) called Ṭaybughā al-Baklamīshī al-Yunānī.⁸⁸ This

⁸³Ibn Manglī, "Al-Tadbīrāt al-Sulṭānīyah," fol. 56r.

⁸⁴Köprülü Mehmed Paşa Library MSS 1212, 1213 (verified [*qubilat*] 759/1357–58), both of the second half of the fourth century; Chester Beatty Library MS 5144; Princeton University Library MS 793, catalogued as an anonymous sixteenth-century "Kitāb fī Bayān Faḍl al-Qaws wa-al-Sahm wa-Awṣāfihimā." This last copy, presumed until now unique, was in fact translated with many errors into English under the title *Arab Archery* (Princeton 1945) by Nabih Amin Faris and Robert Potter Elmer. They remained unaware of the fact that they had actually translated a basic work on Muslim archery and not, as they believed, an anonymous sixteenth-century work, a mistake which was unfortunately readily adopted by modern scholarship. See al-Sarraf, "L'archerie mamluke," 1:89–90.

⁸⁵Al-Aqṣarā'ī, "Nihāyat al-Sūl," fol. 37v.

⁸⁶Ibid., fol. 41v., Ibn Manglī, "Al-Tadbīrāt al-Sulṭānīyah," fol. 32r.; cf. al-Sarraf, "L'archerie mamluke," 3:942, n. 3.

⁸⁷On the causes for this decline and that of *furūsīyah* in general and the sultan's role in it, see al-Sarraf, "L'archerie mamluke," 3:877–82, 922–33.

⁸⁸A version of this work has been translated into English with a commentary by J. D. Latham and

was the first true Mamluk treatise on archery.

Still borrowing heavily from pre-Mamluk sources, such as the works of ‘Abd al-Raḥmān al-Ṭabarī, al-Yūnīnī, and Ibn Maymūn (all unacknowledged), Ṭaybughā’s main contribution, unique in archery literature, lies in the few pages he devoted to the technique of shooting from horseback, and the measurements and descriptions he gave of the Mamluk war bow, the Damascene bow.⁸⁹ He also provides important information on crossbows and arrow guides. The relative thoroughness of his work, its simplicity, usefulness, and the vacuum it filled made it quite popular in the Circassian period as attested by the attention it was accorded and by the many, although variously titled, copies which have survived.⁹⁰

The main Mamluk contribution to the literature on archery comes from the Circassian period. Especially significant was Nāṣir al-Dīn Muḥammad ibn ‘Alī ibn Qutlubeg ibn al-‘Alā’ al-Qāzānī (d. 858/1454), better known as Muḥammad Ibn ‘Alī al-Ṣughayyir. He was also called “al-Mu‘allim,” being a great authority on archery, and because he was the chief archery instructor of the royal Mamluks in the *ṭibāq* during the reigns of Sultan Mu‘ayyad Shaykh (815–24/1412–21) and his successors up to the reign of his friend Sultan Jaqmaq (842–57/1438–53). He was then appointed governor of Damietta (Dimyāt).⁹¹ He is the only author of works in this group about whom the sources furnish information. During his long life, many considered him the greatest authority on the theory and practice of archery.⁹² This praise is totally justified, for he is certainly the most important

W. F. Paterson under the title *Saracen Archery* (London, 1970); cf. al-Sarraf “L’archerie mamluke,” 1:125–29. On the term *ustādh* in Mamluk archery, see al-Sarraf “L’archerie mamluke,” 1:49. Ṭaybughā was still active in the first two decades of the ninth/fifteenth century; this can be inferred from al-Ṣughayyir’s “Kitāb Ramy al-Nushshāb,” composed in 822/1419, where his name is mentioned frequently (fols. 6r.–v., 7v., 9r., 14r., 15v., 18v., 22r., 27v., 28r., 48v., 53v., 54r., 65r., 75r., 76r., 77r., 79v., 91r., 93v., 94r.). It has been suggested (Ritter, “La Parure,” 137) that Ṭaybughā could have been Ṭaybughā Ibn ‘Abd Allāh al-Ashrafī, reported by Ibn Ḥajar al-‘Asqalānī in “Inbā’ al-Ghumr” (Bodleian Library MS Huntington 123, fol. 129r.) to have died in prison in Aleppo in 797/1395. This unlikely identification has been generally accepted by modern scholars.

⁸⁹ Al-Sarraf, “L’archerie mamluke,” 1:90–93, 2:506–20, 3:813 ff.

⁹⁰ For example; “Ghunyat al-Ṭullāb fī Ma‘rifat Ramy al-Nushshāb,” “Bughyat al-Murāmī wa-ghāyat al-Gharāmī fī Ramy al-Sihāmī,” “Bughyat al-Murāmī wa-Ghāyat al-Marāmī lil-Mu‘ānī,” “Al-Jihād wa-al-Furūsiyah wa-Funūn al-Ādāb al-Ḥarbīyah,” and “Al-Ramy wa-al-Rukūb.” More than twenty copies of Ṭaybughā’s work exist. On the fifteen copies known to Latham and Paterson see *Saracen Archery*, 195–96 (titles not indicated); in addition, see Dār al-Kutub al-Miṣriyah MSS 1m *funūn ḥarbīyah* (catalogued as anonymous) and 3m/2 (fols. 61v.–107v.); Suhaj Library MS 6 *ṣinā‘ah*; Aleppo, al-Maktabah al-Riḍā‘īyah MS 802 *furūsiyah*; Iraqi Museum Library MS 9405/‘Azāwī.

⁹¹ For further information, see al-Sarraf, “L’archerie mamluke,” 1:44–49, 899ff.

⁹² Al-Sakhāwī, *Al-Ḍaw’ al-Lāmi’*, 7:203; Ibn Taghribirdī, *Al-Nujūm al-Zāhirah*, ed. William Popper (Berkeley, 1909–), vol. 7 pt. 2:577; Ibn Iyās, *Badā’ i’ al-Zuhūr*, 2:321. Al-Ṣughayyir was more

Mamluk authority in this field and one of the great names in Islamic archery literature in general.⁹³ While he was still a young disciple of *ustādh* Lu'lu' al-A'azz, al-Ṣughayyir made his first contribution to archery literature. He wrote a short and learned commentary on "Al-Qaṣīdah al-Lāmīyah" by Ṣāliḥ al-Shaghūrī (above). At least two copies have survived.⁹⁴ Many years later, when he was in his forties and fifties, he composed several specialized books on archery, but only one of these has survived, in two copies bearing different titles, one of them an autograph, "Kitāb Ramy al-Nushshāb al-Mukhtaṣar al-Muḥarrar," dated 822/1419.⁹⁵ Although the treatise deals only with the bow and its accessories and the fundamentals of archery, the treatment of these subjects is so extensive and profound that it stands unparalleled in the entire extant archery literature. In fact, this monument, which includes many directions and hints for archery instructors, was not written for beginners—for whom the author promised to write a simplified version—but for experienced and learned archers who could understand and appreciate a critical analysis of some of the teachings of the pre-Mamluk masters. Al-Ṣughayyir cited and discussed an imposing number of Abbasid archery sources, all acknowledged, including the works of 'Abd al-Raḥmān al-Ṭabarī, Abū Bakr al-Warrāq, Jamshīd al-Khwārazmī, Abū Mūsā al-Sarakhsī, Aḥmad al-Suhrawardī, Abū Ja'far al-Harawī, 'Alī al-Daqqāq, and two anonymous and apocryphal treatises attributed to the Sassanid king Bahrām Ghūr. The sole Mamluk work mentioned is Ṭaybughā's "Ghunyat al-Marāmī," which al-Ṣughayyir quoted many times, though often for the purpose of highlighting the errors of its author, Ṭaybughā, who is even described in one occasion as unworthy of the title *ustādh*.⁹⁶ Al-Ṣughayyir's work has also a remarkable social and historical dimension, which is generally lacking in other archery treatises. It provides, for example, important and unique contemporary information on the practices and functions of archers' guilds in Cairo and on the

than eighty years old when he died.

⁹³Cf. al-Sarraf, "L'archerie mamluke," 1:142ff.

⁹⁴Bibliothèque Nationale MS 6640/3, fols. 19r.–25r., entitled "Kitāb Qaṣīdat al-Lāmīyah al-Mushtamilah 'alā Uṣūl al-Ramy wa-Furū'ihī wa-Ma Yadullu 'alayhi min Ma'rifat Sharā'iṭih," dated 799/1397; and Chester Beatty Library MS 3158/3, fols. 79v.–83r., entitled "Sharḥ Naẓm Ṣāliḥ al-Shaghūrī fī al-Ramy" (transcribed in the seventeenth century and incorrectly attributed to 'Abd al-Raḥmān al-Ṭabarī). The author did not mention this work in his own "Kitāb al-Nushshāb," where he did list two even more elaborated works, "Kashf al-Sirr al-Khafī li-Muḥammad Ibn 'Alī al-Ḥanafī" and "Al-Masā'il al-Qūṣīyah," which he had composed in Qūṣ in Upper Egypt (fols. 17v., 56v., 57r.; al-Sarraf, "L'archerie mamluke," 1:147).

⁹⁵Topkapı Sarayı Library MS Ahmet III 2620.

⁹⁶At least part of this criticism, which is sometimes excessive and not always justified, is due to the strong rivalry that existed between the Egyptian and Syrian archers; cf. al-Sarraf, "L'archerie mamluke," 1:145ff.

preponderant role of Syrian archers in this domain. The margins of this autograph often bear additional notes and comments by the author who at times seems submerged in the overflow of his vast erudition. The second extant copy of al-Ṣughayyir's work bears the title "Al-Hidāyah fī 'Ilm al-Rimāyah"⁹⁷ and is slightly different from the autograph in the disposition of its contents. This copy is particularly important because it was transcribed in 845/1441 by Muḥammad ibn Muḥammad al-Pahlawān, who was himself an instructor of archery and one of the great archers of his time. Most significantly, al-Pahlawān, who personally knew al-Ṣughayyir and had great respect for him, preserved the margin-notes and comments of the latter and added many more of his own. Consequently, "Al-Hidāyah" is not merely a copy of "Kitāb al-Ramy" but rather a stand-alone treatise and an invaluable document on Mamluk archery. Because of their specialized nature, al-Ṣughayyir's works never attained the popularity of Ṭaybughā's treatise.

Of the long list of lesser works in this group the following treatises deserve special mention: "Al-Urjūzah al-Ḥalabīyah fī Ramy al-Sihām 'an al-Qisī al-'Arabīyah," a poem of 400 verses of which one copy is extant, composed by Abū Bakr al-Ramī al-Ḥalabī, known as al-Minqār (d. 890/1485),⁹⁸ and al-Akhmīmī's "Ḥall al-Ishkāl fī al-Ramy bi-al-Nibāl," a late ninth-/fifteenth-century commentary on the anonymous sixth-/twelfth-century *urjūzah*, see above. Three copies are known.⁹⁹

Among the very good compilation treatises of the second group is an autograph dated 855/1451 written for Sultan Jaqmaq by al-Ḥasan Ibn Muḥammad Ibn 'Aysūn al-Ḥanafī al-Sinjārī, "Hidāyat al-Rāmī ilā al-Aghrād wa-al-Marāmī."¹⁰⁰ It is a very clear résumé of Muslim archery with some very important information on pre-Mamluk archery. The treatises "Ghars al-Anshāb fī al-Ramy bi-al-Nushshāb" by al-Suyūṭī and "Al-Qawl al-Tāmm fī Faḍl al-Ramy bi-al-Sihām" by al-Sakhāwī are also worthy of consideration. At least three copies of the former exist;¹⁰¹ of the

⁹⁷Bodleian Library MS Huntington 548.

⁹⁸Staatsbibliothek zu Berlin MS 5540

⁹⁹Bibliothèque Nationale MS Arabe 6259, dated 913/1507–8 (transcribed from an autograph manuscript); Ayasofya Library MS 3845, dated 895/1489–90; Princeton University Library MS Yahudah ELS 3954/1, fols. 1v.–91r.

¹⁰⁰Topkapı Sarayı Library MS Ahmet III 2305.

¹⁰¹Topkapı Sarayı Library MS Ahmet III 2325; British Library MS Or. 12830; Staatsbibliothek zu Berlin MS 5540. This treatise is the only one that includes passages from "Awthaq al-Asbāb fī al-Ramy bi-al-Nushshāb" by 'Izz al-Dīn Ibn Jamā'ah (al-Suyūṭī, "Ghars," fols. 15r.–22r.). A hasty reading of Ritter ("La Parure," 143), led 'Awwād (*Maṣādir al-Turāth*, 107) to conclude that the manuscript in the Topkapı Sarayı library is the work of Ibn Jamā'ah himself. The same manuscript (fols. 22r.–30r.) includes the entire text of "Al-Maqāmah al-Qawsīyah" ("Al-Risālah al-qawsīyah," according to Ḥājji Khalīfah, *Kashf al-Zunūn*, 1:884) by Ismā'il Ibn Jamāl al-Dīn al-Isbahānī

latter we have an autograph dated 875/1470–71.¹⁰² There is only one Mamluk-Kipchak archery treatise, entitled “Al-Khulāṣah,” or “Kitāb fī ‘Ilm al-Nushshāb.” It was composed and translated for Tolu Beg (see above) by an anonymous compiler basically from “Kitāb al-Wāḍiḥ” of ‘Abd al-Raḥmān al-Ṭabarī. Two copies are known.¹⁰³

CAT. I (C): THE ARTS OF THE LANCE

The arts of the lance can be divided roughly into four parts: firstly, training the *fāris* in handling the lance, types of lance charges and thrusts, and the techniques of lance combat under different situations. Secondly, the *bunūd* (sing. *band*): each *band* comprises a set combination of movements performed solo by the horse lancer while he is in motion, and as if he is in the *mêlée* of a battle. The *band* is based on two essential movements: thrusting and parrying, which are executed in four directions, front, rear, left, and right, but with various angles. Thirdly, *al-manāṣib al-ḥarbīyah*, which denotes the technique of fencing with the lance where two horse lancers are engaged in simulated combat. And fourthly, *al-mayādīn* or *al-mawādīn* (sing. *maydān*, and by extension the exercise itself): this is the technique of collective simulated combat between two teams of lancers executed according to a traced course.¹⁰⁴

The main source for the Mamluks on lance training, types of charges, and thrusts was Ibn Akhī Ḥizām’s Treatise B. It was also one of the principal sources on the techniques of lance combat under different situations. Although other sources remain unidentified, two late Abbasid masters are mentioned in this connection, particularly in relation to *al-manāṣib al-ḥarbīyah*: Muḥammad Ibn al-Shayḍamī and Ibrāhīm Ibn Sallām.¹⁰⁵ There are no extant pre-Mamluk sources

(sixth/twelfth century). Al-Suyūṭī’s treatise is thus the most trustworthy source on this *maqāmah*, two of the three surviving copies of which are later than his work and probably transcribed from it: Istanbul, Süleymaniye Library MS Ḥamīdiye 1447, fols. 114v.–116r.; Ayasofya Library MS 2983; Dār al-Kutub al-Miṣrīyah MS *adab* 3901.

¹⁰²Princeton University Library MS Yahudah 3551; ‘Awwād, *Maṣādir al-Turāth*, 2:271, gave the wrong reference number. Three more copies are known, one of them Dār al-Kutub al-Miṣrīyah MS 2m *funūn ḥarbīyah*.

¹⁰³Bayezit Library MS Veliyüddin 3176, and Bibliothèque Nationale MS Suppl. Turc 197. See Eckmann, “The Mamluk-Kipchak Literature,” 317–19.

¹⁰⁴In modern research *bunūd* and *al-manāṣib al-ḥarbīyah* are generally described in vague and laconic terms like “exercises, maneuvers, and movements.” *Al-mayādīn* are generally described as parades. The only serious effort to define and explain these terms was made by Mercier in *La Parure des cavaliers*, 389–93, but his limited sources and failure to dissociate his approach from European references greatly limited the value of his explanations. The definitions given here have been derived from an overall reading of the pertinent *furūsīyah* treatises.

¹⁰⁵See for example “Kitāb al-Makhzūn li-Arbāb al-Funūn,” fol. 38r.–v.; (pseudo) Najm al-Dīn

for the *bunūd*. The evidence shows that the Mamluks inherited 150 *band* from the Abbasids and that the most eminent pre-Mamluk authority in this domain was the Iraqi lance master Uṣṭá Bāriq al-Rammāḥ al-Baghdādī,¹⁰⁶ who flourished in the first half of the seventh/thirteenth century. There are no surviving pre-Mamluk sources for the *mayādīn*. The monumental cloverleaf *maydān* discovered in Samarra¹⁰⁷ and Ibn Akhī Ḥizām's Treatise B¹⁰⁸ make it clear that the origin of this art was also Abbasid. Mamluk treatises drawing on a lost Abbasid source also mention that collective and individual lance combats had been performed before al-Mu'taṣim and al-Mu'taḍid and furthermore that the stable master of the latter, Ibn Akhī Ḥizām, used to participate.¹⁰⁹

No matter how important the Abbasid legacy was, it is in this field that the Mamluks showed genuine creativity and that their contribution to *furūsīyah* is most apparent. The credit for this goes almost entirely to the Syrian lance masters and particularly to the celebrated Syrian lance master Najm al-Dīn al-Aḥḍab al-Rammāḥ (636–95/1238 or 39–1296), who made innovations in three of the four categories. His fame rests principally, however, on the 72 *bunūd* that he condensed out of the 150 *band* inherited from the Abbasids.

Al-Aḥḍab's marked influence on Mamluk *furūsīyah* literature persisted throughout the Mamluk period. This is clearly attested by the many extant manuscripts containing his *bunūd* and *manāṣīb*. Most of these treatises belong to Category II (general *furūsīyah* treatises) and many of them could be rated as vulgar *furūsīyah* literature (group three). Copyists and anonymous compilers clumsily crafted lengthy treatises to envelop his very thin *bunūd* and *manāṣīb*. By crediting al-Aḥḍab with the authorship of these treatises, the false impression was created that he had written several.¹¹⁰ Even the *bunūd* ascribed to him are only

al-Aḥḍab, "Kitāb al-Furūsīyah," fol. 16r.–v.

¹⁰⁶See for example, Baktūt al-Rammāḥ, "Kitāb fī 'Ilm al-Furūsīyah," fol. 6r.

¹⁰⁷On this *maydān*, see Ahmed Sousa, *Rayy Sāmarrā' fī 'Ahd al-Khilāfah al-'Abbāsīyah* (Baghdad, 1948–49), 1:116–22; Ernst Herzfeld, *Geschichte der Stadt Samarra* (Hamburg, 1948), pls. xxiiiib, xxiv; Alastair Northedge, "Sibāq al-Khayl wa-Mayādīnihi fī Sāmarrā'," in *Furūsīyah*, ed. al-Sarraf, 1:91–97 and editor's note (u).

¹⁰⁸See Ibn Akhī Ḥizām, "Al-Kamāl fī al-Furūsīyah," fols. 21v., 41r.–v.

¹⁰⁹See (pseudo) Najm al-Dīn al-Aḥḍab, "Kitāb al-Furūsīyah," fol. 16r.

¹¹⁰The titles of the manuscripts attributed to al-Aḥḍab ("al-Furūsīyah wa-al-Manāṣīb al-Ḥarbīyah"; "Al-Furūsīyah wa-al-Jihād wa-Ma 'adda Allāh lil-Mujāhidīn min al-'Ibād"; "Kitāb al-Furūsīyah wa-al-Jihād [fī Sabīl Allāh]"; "Kitāb al-Bunūd fī Ma'rifat al-Furūsīyah," etc.) are all later additions contrived by anonymous compilers or even drawn from the prefaces of manuscripts by modern bibliographers and archivists. Moreover, these titles do not necessarily belong to different treatises, just as manuscripts bearing the same title are not always identical. The following list of manuscripts ascribed to al-Aḥḍab is not exhaustive and should be viewed with reserve: Mecca, Maktabat al-Ḥaram al-Makkī al-Sharīf MS 50 *tārīkh*; Bibliothèque Nationale MSS 2825, 2829; Topkapı

dubious versions of those found in his "Kitāb al-Bunūd," which never reached us as an independent treatise. Al-Aqsarā'i, a Damascene himself and al-Aḥḍab's younger contemporary, as well as a disciple of his disciple ('Izz al-Dīn al-Rammāḥ), could not find a definitive copy of "Kitāb al-Bunūd"; he included four different versions in his own "Nihāyat al-Sūl." He commented that these varying versions were useful,¹¹¹ implying that they reflect not copyists' manipulations but rather different original versions by the author. This comment casts strong doubt on the existence of a main "Kitāb al-Bunūd" and suggests two possibilities: (1) that al-Aḥḍab wrote different versions during his career as a lance master, or (2) that he never wrote a treatise at all but that at different times his *bunūd* were recorded by his followers, on their own initiative, or from dictation by him. The second possibility is more in keeping with the traditions of the period and can be inferred from al-Aqsarā'i, as well as other writers.¹¹² The transmission and development of lance *bunūd* by followers of a master can explain the absence of signed treatises by those who are known to have created new *bunūd*, for example, al-Aqṭa', a contemporary of al-Aḥḍab, Ādam, and Uṣṭā Bārīq al-Baghdādī.

Al-Aḥḍab's *mayādīn* did not become as famous as his *bunūd* and *manāṣīb*. The most current treatise on *mayādīn* in the Mamluk period was "Tuḥfat al-Mujāhidīn fī al-'Amal bi-al-Mayādīn," by Lājīn Ibn 'Abd Allāh al-Dhahabī al-Ṭarābulṣī al-Rammāḥ (d. 738/1337). More than eleven copies are available.¹¹³ Lājīn and his work should not be confused with his son Muḥammad Ibn Lājīn al-Ḥusāmī al-Ṭarābulṣī al-Rammāḥ and his work, also on *mayādīn*, entitled "Bughyat al-Qāsidīn bi-al-'Amal fī al-Mayādīn," written for Sayf al-Dīn 'Āshiqṭīmūr al-Mārdīnī al-Nāṣirī, governor of Aleppo (d. 791/1389). Two copies are preserved.¹¹⁴ Muḥammad Ibn Lājīn also related his own version of *bunūd* al-Aḥḍab in a small treatise entitled "Ghāyat al-Maqṣūd fī al-'Ilm wa-al-'Amal bi-al-Bunūd," which survived

Sarayı Library MSS Ahmet III 2129/1, Baghdad Köskü 370/2; Fatih Mosque Library MSS 3512/2, 3509/2.6; Ayasofya Library MSS 2899a/1, 4196/1; Nuruosmaniye Mosque Library MS 2294/2; Aleppo, al-Maktabah al-Aḥmadīyah MS 1272; Staatsbibliothek zu Berlin MS 5553.

¹¹¹Al-Aqsarā'i, "Nihāyat al-Sūl," fol. 44r.:

واختلفت عنه النسخ وأنا أذكر ما وصل إلي من النسخ التي صححتها وفيهم اختلاف كثير ولا يخلو اختلاف النسخ من فوائد وقد أحببت أن أذكر كل نسخه من أولها إلى آخرها حتى نعم ما حصل فيها من الفوائد وهذا لمن يطلب الدرجة العليا في العمل بالرمح وإذا لم يطلب الدرجة العليا تكفيه نسخه واحدة.

¹¹²See al-Sarraf, "L'archerie mamluke," 1:162.

¹¹³Al-Maktabah al-Aḥmadīyah MS 1372; Fatih Mosque Library MSS 3512/4, 3509/8; Topkapı Sarayı Library MSS Ahmed III 2129/3, Baghdad Köskü 370/1; Ayasofya Library MSS 2899a/3, 4196/2; Nuruosmaniye Mosque Library MS 2294/2; Rampur Riza Library MS 3524; Staatsbibliothek zu Berlin MS 5552; Bibliothèque Nationale MS 6604/1 (with the title "Umdat al-mujāhidīn fī tartīb al-mayādīn").

¹¹⁴Ayasofya Library MS 3799/1, dated 780/1378; Leiden University Library MS 1418.

in one copy under the latter original title¹¹⁵ and in several copies under different apocryphal titles and often with added material.¹¹⁶

CAT. I (D): THE ARTS OF THE MACE

Three basic and distinct types of mace were used in the early Abbasid period.¹¹⁷ The first, commonly called *dabbūs* (pl. *dabābīs*), consisted of a wooden or iron shaft with a head of iron or other solid material with different shapes. The second was a one-piece iron staff, usually without a separate head or with one which was actually made integrally with the handle, invariably called ‘*amūd* (pl. ‘*amad* or ‘*umud*), and was both longer and considerably heavier than the *dabbūs*. The third, habitually called *kāfir-kūb* (pl. *kāfir-kūbāt*), was entirely made of wood, and was typical of the Khurasanis’ rank and file horsemen; it became obsolete as a regular cavalry weapon in the region by the end of the third/ninth century.¹¹⁸ The ‘*amūd*, a costly weapon, was mainly the privilege of the rich military and political Abbasid elite. Most references to its use are associated with caliphs, army commanders, high-ranking officers, and the cream of *ghilmān* troops. The decline and fragmentation of the caliphate and the consequent collapse of its worldwide trade in armaments, iron, and steel, brought to an end the use of the ‘*amūd* as an elite weapon. It survived, however, on a very limited scale as a ceremonial and parade weapon, especially under the Fatimids.¹¹⁹ The Mamluks of Egypt and Syria knew the ‘*amūd* only by name through Abbasid and Fatimid sources. All the precious though scanty data on the ‘*amūd* which is found in Mamluk *furūsīyah* treatises dates from the third/ninth century and was borrowed from early or later lost Abbasid *furūsīyah* treatises, such as those of Muḥammad Ibn Khālid (see below) and Ṣābir al-Manjanīqī (see below, Cat. II); the *dabbūs* was the only type of mace known in the Mamluk period.

Under the Abbasids, most references to the use of the *dabbūs* from the early third/ninth century onwards were associated with *ghilmān* troops. In fact the emergence of their institution coincided remarkably closely with the appearance of the term *dabbūs* in the documentary sources. By the time this institution reached full maturity under the Caliph al-Mu‘taḍid, the *dabbūs* became a permanent feature of *ghilmān* military equipment. In contrast to later periods when it became a heavier weapon, the third/ninth century Abbasid *dabbūs* was of a light type and, consequently, it played a minor role in close combat. Here it was of less importance

¹¹⁵Bibliothèque Nationale MS Ar. 2827/2.

¹¹⁶See al-Sarraf, “Adab al-Furūsīyah,” 127

¹¹⁷For more information on this subject, see al-Sarraf, “Close Combat Weapons,” 149–78.

¹¹⁸Ibid.

¹¹⁹Ibid.

than were the *amūd* and the *ṭabarzīn* (war-axe). The rapid decline of the latter two weapons during the fourth/tenth century necessitated the emergence of a heavier and oversized type of *dabbūs* called the *latt*. The term was ephemeral, as in the sixth/twelfth century the term *dabbūs* had become the generic term for studded maces, irrespective of their weight and the forms of their heads. By this time, however, the standard type of *dabbūs* was sufficiently heavy and effective to become the primary cavalry close-combat weapon for a Mamluk *fāris* or fully trained cavalryman.¹²⁰

It was probably in the second half of the sixth/twelfth century or the first half of the seventh/thirteenth century that the rules of the art of fighting with a *dabbūs* were regulated in a recognized number of exercises called, like those of the lance, *bunūd*. Thirty five of these *bunūd* were recorded, most probably in Syria, during the Bahri period in an anonymous treatise entitled "Kitāb fī Ma'rifat La'b al-Dabbūs wa-al-Ṣirā' 'alā al-Khayl 'inda Mulāqāt al-Khaṣm fī Awqāt al-Ḥurūb." It is divided into two parts, in the first of which the exercises are described, and in the second, techniques of hand-to-hand combat on horseback. At least four copies have survived.¹²¹

Two contributions on the arts of the mace were made during the Circassian period. The first is the lost "Al-Usūs fī Ṣinā'at al-Dabbūs," by 'Izz al-Dīn Ibn Jamā'ah.¹²² Given Ibn Jamā'ah's erudition, this work must surely have contained more information on fighting with the mace than simply an enumeration of thirty-five *bunūd*.

The second contribution is a Mamluk-Kipchak treatise entitled "Nuzhat al-Nufūs fī La'b al-Dabbūs," composed in Syria by Alṭanbughā al-Ḥusāmī al-Nāṣirī, known as Aṭājuq. It is preserved in an original copy dated 822/1419.¹²³ The importance of this hitherto unknown Mamluk-Kipchak treatise, wrongly described and classified as an Arabic work, is manifold. Besides being the only extant signed Mamluk treatise on the mace, this work, unlike all the other surviving Mamluk-Kipchak *furūsīyah* treatises, is not a translation from an Arabic text but was originally composed in Mamluk-Kipchak. Furthermore, as the author was an expert in the art of the mace and in close-combat techniques, his work undoubtedly constitutes an original and extremely important contribution to this field and to *furūsīyah* literature as a whole. In his rather long and reasonably well-written Arabic introduction, Alṭanbughā indicated that he was trained at the hand of several

¹²⁰Ibid.

¹²¹Topkapı Sarayı Library MS Ahmet III 3469/3; Ayasofya Library MS 3186/2; Bibliothèque Nationale MSS 2830/2, 6604/2 (incorrectly attributed to Lājīn al-Ṭarābulṣī).

¹²²Ḥājjī Khalīfah, *Kashf al-Zunūn*, 1:91.

¹²³Dār al-Kutub al-Miṣrīyah MS 21 *furūsīyah Taymūr*.

furūsīyah masters in mace play, a domain to which he was particularly devoted, and that, urged by his comrades, he decided to record the best of what he had learned in order that it would serve as a reference for his fellow warriors. He synthesized his masters' teachings in six major *bunūd* associated with forty types of mace blows. The six *bunūd* comprise the essential maneuvers and techniques covered by the thirty-five *bands* described in the above anonymous work. The treatise also includes valuable hints on relevant close-combat techniques. A lack of pre-Mamluk sources for the *bunūd* of the mace is probably due to the same reasons which explain the lack of sources for the *bunūd* of the lance.

CAT. I (E): THE ART OF WAR

When in 129/746 'Abd Allāh Ibn Marwān was ordered by his father, the last Umayyad caliph Marwān II (127–32/744–50), to march against al-Ḍaḥḥāk al-Khārījī,¹²⁴ Marwān's secretary (*kātib*), 'Abd al-Ḥamīd Ibn Yaḥyá al-Kātib, wrote (on the order of the caliph) 'Abd Allāh a letter containing practical advice and directions for organizing the army and the conduct of war.¹²⁵ This important and original epistle can be considered the forerunner of Muslim and Arab treatises on the art of war.

'Abd al-Ḥamīd's epistle set the pattern for the Abbasid *kuttāb*.¹²⁶ 'Abd al-Jabbār Ibn 'Adī, *kātib* to the caliph al-Manṣūr, and according to Ibn al-Nadīm one of the ten most eloquent Abbasid *kuttāb*, followed 'Abd al-Ḥamīd's example. Ibn 'Adī's treatise "Ādāb al-Ḥurūb wa-Ṣurāt al-'Askar" was written for al-Manṣūr and dealt with the conduct of war and the organization of the army.¹²⁷ This lost work was probably the first true Abbasid and Muslim treatise on the art of war.

About seventy years later, al-Khalīl Ibn al-Haytham al-Harthamī al-Sha'rānī composed his monumental "Kitāb al-Ḥiyal wa-al-Makā'id fī al-Ḥurūb" for al-Ma'mūn. It was a multi-volume encyclopedic work comprising four hundred fifty topics and one thousand seventy-six chapters. Al-Mas'ūdī ranked it among the pre-eminent contributions made by Muslim scholars.¹²⁸ The description and praise

¹²⁴ Al-Ṭabarī, *Tārīkh*, 10:76–77; Muḥammad Kurd 'Alī, *Rasā'il al-Bulaghā'* (Cairo, 1908), 66; cf. al-Sarraf, "Adab al-Furūsīyah," 122.

¹²⁵ Published in Kurd 'Alī, *Rasā'il al-Bulaghā'*, 1st ed. (1908), 66–89, 2nd ed. (Cairo, 1913), 139–172, 3rd ed. (Cairo, 1946), 173–313. It was also published in *Umarā' al-Bayān*, ed. Kurd 'Alī (Cairo, 1937); and in *Jamharat Rasā'il al-Arab*, ed. Aḥmad Zakī Ṣafwat (Cairo, 1937). A serious edition and study of this important work is still lacking.

¹²⁶ Knowledge of the art of war apparently became one of the professional qualifications of a *kātib*; see Ibn al-Nadīm, *Al-Fihrist*, 140.

¹²⁷ *Ibid.*, 140, 377.

¹²⁸ Al-Mas'ūdī, *Murūj al-Dhahab*, 1:13.

Ibn al-Nadīm gives this work, cited by him as *Kitāb al-Ḥiyal*,¹²⁹ adds considerable testimony to its importance and esteem. Undoubtedly al-Harthamī, an experienced and learned soldier writing for a refined and knowledgeable warrior caliph surrounded by a veritable pantheon of tacticians and illustrious army commanders, could only produce a masterpiece.¹³⁰

It seems, however, that this work soon became rare and inaccessible after the fifth/eleventh century. Even copies of its abridged version, *Mukhtaṣar Siyāsat al-Ḥurūb*, were apparently quite scarce; only one copy has been preserved.¹³¹ It is also likely that during the Mamluk period copies of this condensed version were mostly unsigned and probably untitled. This could explain the omission of al-Harthamī's name from the Mamluk treatises that used *Al-Mukhtaṣar* and especially from the treatises of Ibn Manglī, who usually acknowledges his sources.

The anonymous "Kitāb al-Ḥiyal fī al-Ḥurūb wa-Fatḥ al-Madā'in wa-Ḥifẓ al-Durūb," compiled in the late third/ninth century or early fourth/tenth century, was also used by Mamluk authors, especially compilers of texts of the third group. This Abbasid treatise, whose first chapters were taken from Ibn Akhī Ḥizām's Treatise B, deals with military organization and stratagems of war in general; it also includes a section on the use of incendiary devices which is the oldest available in *furūsīyah* literature. The anonymous compiler claimed that the chapter on stratagems was inspired by an ancient Greek text found hidden between two rocks in Alexandria and based on the wisdom of Alexander. I have so far traced eight copies,¹³² most of which were transcribed during the Mamluk period and one of which was apocryphally ascribed to the Mamluk author Ibn Manglī.¹³³ In the sixth/twelfth and seventh/thirteenth centuries the subject of *al-ḥiyal al-ḥarbīyah* and military organization was usually dealt with in general *furūsīyah* treatises, but works entirely devoted to this question were also written. One of those is *Al-Tadhkirah al-Harawīyah fī al-Ḥiyal al-Ḥarbīyah*, by Taqī al-Dīn Abū al-Ḥasan 'Alī Ibn Bakr al-Harawī, who wrote it sometime between 588/1192 and the time

¹²⁹Ibn al-Nadīm, *Al-Fihrist*, 376–77.

¹³⁰See al-Sarraf, "Adab al-Furūsīyah," 123–25.

¹³¹Köprülü Mehmet Paşa Library MS 1294; published without care by 'Abd al-Ra'ūf 'Awn (Cairo, 1964). A proper edition of this important work is still lacking. For a critical analysis of "Mukhtaṣar," see al-Sarraf, "Adab al-Furūsīyah," 123–25.

¹³²British Library MS Add. 14055; Topkapı Sarayı Library MSS Ahmet III 3469/2, 3467/1; Ayasofya Library MSS 3186/2, 2875, 3187, 3086/7; Leiden University Library MSS 92 and 499. A microfilm of Ahmet III 3469/2 is available in Ma'had al-Makhtūṭāt, incorrectly catalogued as being by Ibn Manglī and so cited by certain researchers.

¹³³It is Ayasofya MS 3086/7 which Brockelmann (*GAL*, S2:167) rather precipitately included within Ibn Manglī's works, thus generating this misconception.

of his death in 611/1215.¹³⁴ At least three out of five known copies were transcribed in the Mamluk period, one of them for the private library of Sultan Qāyṭbāy,¹³⁵ which proves that the Mamluks were familiar with this small but important work.

On the subjects of military tactics and army organization the Mamluk treatises introduced hardly any new concepts, but rather were based indiscriminately on earlier sources, regardless of their contemporary relevance. Ibn Manglī cited the *Tactica* of the Byzantine emperor Leo VI (886–912), itself almost entirely based on the *Strategicon* of the emperor Maurice (582–602); he gave it the title “Marātib al-Ḥurūb” and recommended it highly to soldiers.¹³⁶ Al-Aqṣarā’ī used Sassanian sources, cited the Greek Polybius, and also drew heavily on the *Tactica* of Aelian, written in Greek at the beginning of the second century.

The main pre-Mamluk source remained the abridged version of al-Harthamī’s work, though almost never acknowledged. It was quoted by al-Aqṣarā’ī, Ibn Manglī, and especially ‘Umar Ibn Ibrāhīm al-Awsī al-Anṣārī, who included almost the entire text verbatim in his *Tafrīj al-Kurūb fī Tadbīr al-Ḥurūb*,¹³⁷ written for Sultan al-Nāṣir Faraj ibn Barqūq (801–8/1399–1407). On the whole, notwithstanding strong dependence on pre-Mamluk sources, Ibn Manglī’s treatises constitute a worthy contribution.

Muḥammad Ibn Manglī al-Qāhirī (d. 784/1382) held the rank of commander of forty (*muqaddam*)¹³⁸ in the *ḥalqah* and was *naqīb al-jaysh* in Alexandria under Sha‘bān, to whom he dedicated his major treatises. It was in those years, when he was in his sixties and seventies, that he wrote most of his works. His treatise on naval warfare, entitled “Al-Aḥkām al-Mulūkīyah wa-al-Ḍawābiṭ al-Nāmūsīyah,” containing 122 *bābs*, is unique in Arabic literature; in it he described naval tactics, types of warships, maritime equipment, and weaponry, especially guns. The text is interspersed with practical advice for the marine fighter. At least one copy has survived.¹³⁹

¹³⁴Edited and translated by Janine Sourdel-Thomine as “Les Conseils du Shaykh al-Harawī à un prince Ayyubide,” *Bulletin d’Etudes Orientales* 17 (1961–62): 206–66.

¹³⁵For a description of four of the five copies, including the one transcribed for Qāyṭbāy, see Sourdel-Thomine, “Introduction,” in “Les Conseils,” 214–16. The fifth copy is in Dār al-Kutub al-Miṣrīyah, MS 2299 *adab*.

¹³⁶Ibn Manglī, “Al-Tadbīrāt al-Sulṭānīyah,” fol. 14v.

¹³⁷Edited and translated by George Scanlon as *A Muslim Manual of War, Being Tafrīj al-Kurūb fī Tadbīr al-Ḥurūb* (Cairo, 1961), who failed to recognize that it was based on a third/ninth century work and thus drew incorrect conclusions.

¹³⁸The *muqaddam* commanded forty soldiers of the *ḥalqah* on military expeditions; as soon as an expedition was over he lost his command (see David Ayalon, “Studies on the Structure of the Mamluk Army (i–iii),” *Bulletin of the School of Oriental and African Studies* 15 (1953–54): 64.

¹³⁹Dār al-Kutub al-Miṣrīyah MS 23 *furūsīyah Taymūr*. See Albrecht Fuess, “Rotting Ships and

Two other treatises by Ibn Manglī on warfare have been preserved, "Al-Adillah al-Rasmīyah fī al-Ta'ābī al-Ḥarbīyah" and "Al-Tadbīrāt al-Sulṭānīyah fī Siyāsāt al-Šinā'ah al-Ḥarbīyah."¹⁴⁰ Although the title of "Al-Adillah" suggests that the battle formations are the main subject of this small but important work, less than a quarter of the text is devoted to this topic. The rest consists of hints and advice to soldiers and *muqaddams* on war, arms, equipment, naval warfare, siege warfare, and the like. Two copies have survived, one an autograph dated 770/1368–69.¹⁴¹ Without acknowledging him, Ibn Manglī draws on the treatise of al-Harthamī and cites the mystic Abū al-'Abbās al-Būnī in connection with a certain battle formation taken from the latter's books on talismans and the secret powers of numbers and letters.¹⁴² Ibn Manglī included several plans of battle formations in which the numbers of soldiers were determined by the mysterious powers of the corresponding letters.¹⁴³ He was more explicit in "Al-Tadbīrāt," where he revealed his belief in the subtle powers of letters and numbers and recommended that letters be inscribed on arms and armor. Indeed, he mentioned having written an entire treatise on the matter, the lost "Aqṣā al-Amad fī al-Radd 'alā Munkir Sirr al-'Adad."¹⁴⁴ "Al-Tadbīrāt" consists of advice and recommendations on arrangements to be undertaken at different governmental and military levels in anticipation of war. It also includes sections on archery, lance techniques, and horses. Ibn Manglī's basic sources for this work were al-Harthamī's *Mukhtaṣar*, Ibn Maymūn's "Al-Ifādah," and Ibn Akhī Ḥizām's Treatise AB. Of the latter, Ibn Manglī said that Ibn Akhī Ḥizām was the originator of the fundamentals of charging with the lance and highlighted his contribution to the art of *furūsīyah* and its literature.¹⁴⁵ Five extant copies of

Razed Harbors: The Naval Policy of the Mamluks," *Mamlūk Studies Review* 5 (2001): 70–71.

¹⁴⁰He also wrote five other works that have not survived: "Al-Manhal al-'Adhb li-Wurūd Ahl al-Ḥarb," "Al-Risālah al-Marḍīyah fī Šinā'at al-Jundīyah," "Aqṣā al-'Amad fī al-Radd 'alā Munkir Sirr al-'Adad," "Risālat al-Taḥqīq fī Sur'at al-Tafwīq," and "Al-'Iqd al-Maslūk fīmā Yalzamu Jalīs al-Mulūk."

¹⁴¹Ayasofya Library MSS 2839 (the autograph), 2875a.

¹⁴²See Ibn Manglī, "Al-Adillah al-Rasmīyah fī al-Ta'ābī al-Ḥarbīyah," fol. 22v. Muḥyī al-Dīn Abū al-'Abbās Aḥmad ibn 'Alī ibn Yūsuf al-Būnī (*nisbah* derived from the Algerian town Būnah; d. Cairo 622/1225) is not known to have written a book on *furūsīyah* or the art of war. His most important treatises were on the power of numbers and letters: *Laṭā'if al-'Awārif fī 'Ilm al-Ḥurūf wa-al-Khawāss* and "Mawāqif al-Ghayyāt fī Asrār al-Riyāḍīyāt"; cf. Khayr al-Dīn al-Zirkī, *Al-A'lām*, 4th ed. (Beirut, 1979), 2:145; A. Dietrich, "Al-Būnī," *EI*², Supplement I:3–4, 156–57.

¹⁴³Ibn Manglī, "Al-Adillah al-Rasmīyah," fols. 14r.–17r., 22v.–23r.

¹⁴⁴Ibn Manglī, "Al-Tadbīrāt al-Sulṭānīyah," fols. 2v.–9r.

¹⁴⁵*Ibid.*, fol. 38v.:

وهذه الأصول الأربع كلها من كلام الختلي رحمه الله فانه بث في الإسلام قضايا حربية جزاه الله عنا معشر المسلمين.

"Al-Tadbīrāt" are known.¹⁴⁶ Ibn Manglī's works constitute a major source on the equipment of the Mamluk army, in particular the *ḥalqah* corps, at the end of the Bahri period. They are also essential for evaluating Mamluk military thinking.

CAT. I (F): TREATISES ON ARMS AND WAR ENGINES

During the first two centuries of Abbasid rule in Iraq, a great number of comprehensive and specific treatises on arms and armor and military technology were written by philologists, specialists, and *furūsīyah* masters.¹⁴⁷ At this point in our research, no treatise of the comprehensive type is known to have survived apart from *Kitāb al-Silāḥ* by Abū 'Ubayd al-Qāsim Ibn Sallām al-Baghdādī (d. 224/838), a succinct but highly important philological contribution on the nomenclature and types of weaponry used by and known to the Arabs in the pre- and proto-Islamic periods as attested mainly by Arabic poetry.¹⁴⁸ However, considerable data from lost treatises can be found dispersed in other sources. Encyclopedic dictionaries and works of *adab* preserved much of what Abbasid philologists wrote about the subject. Similarly, contemporary and later general and thematic *furūsīyah* treatises contained important borrowings from comprehensive arms and armor treatises written by Abbasid specialists and *furūsīyah* masters. Among the lost works of this category of authors are "Kitāb al-Silāḥ" by the Abbasid commander and statesman Abū Dulaf al-Qāsim Ibn 'Īsā al-Baghdādī al-'Ijlī (d. 227/830),¹⁴⁹ "Kitāb 'Ilm al-Ālāt al-Ḥarbīyah" by Mūsā Ibn Shākīr's sons Muḥammad (d. 259/872–73), Aḥmad, and al-Ḥasan, and "Kitāb Ajnās al-Silāḥ" by a certain Abbasid army commander and *furūsīyah* master named Abū 'Abd Allāh Muḥammad Ibn Khālīd who flourished in the second half of the third/ninth century.¹⁵⁰

As for specific treatises on arms and armor, only two survived from that period; namely the treatise on the types of swords by Abū Yūsuf Ya'qūb Ibn Ishāq al-Kindī (d. around the middle of the third/ninth century, perhaps in 252/866), and his treatise on the composition, manufacture, and quenching of steel blades. Both treatises were written for the caliph al-Mu'taṣim. The first one, entitled "Ajnās al-Suyūf" or "Al-Suyūf wa-Ajnāsuhā," is unique in its genre within *furūsīyah* literature. It was a remarkable field study, as each type of blade described was known and examined by al-Kindī himself, who spent years frequenting swordsmiths

¹⁴⁶British Library MSS Or. 3734, 9016 (imperfect at the beginning and end); Ayasofya Library MS 2856; St. Petersburg University Library MS c-726; Dār al-Kutub al-Miṣrīyah MS 1147b.

¹⁴⁷See al-Sarraf, "Adab al-Furūsīyah," 118–21.

¹⁴⁸Published by Ḥātim Ṣāliḥ al-Dāmin (Beirut, 1408/1988).

¹⁴⁹See Ibn al-Nadīm, *Al-Fihrist*, 130; Ibn Khallikān, *Wafayāt al-A'yān wa-Anba' Abnā' al-Zamān*, ed. Iḥsān 'Abbās (Beirut, 1969–72), 4:74; Ismā'īl al-Baghdādī, *Īdāḥ al-Maknūn fī al-Dhayl 'alā Kashf al-Zunūn* (Istanbul, 1954), 2:303.

¹⁵⁰Ḥājji Khalīfah, *Kashf al-Zunūn*, 1:145.

and investigating the sword markets of Baghdad, Basra, and Samarra. This perhaps explains why there was no attempt to write something similar again. In fact, al-Kindī's work remains definitely the most important source on swords in the entire medieval period. Ibn Akhī Ḥizām made extensive use of it, and he was probably the first *furūsīyah* author to do so. Nearly all subsequent borrowings from al-Kindī's work by Abbasid and Mamluk *furūsīyah* treatises were taken from Ibn Akhī Ḥizām's Treatise B rather than directly from al-Kindī's treatise, of which three copies are available.¹⁵¹

The second treatise, entitled "Risālah fī Jawāhir al-Ḥadīd lil-Suyūf wa-Ghayrihā min al-Asliḥah wa-Siqāyātihā," is no less important. Surely al-Kindī was neither the first nor the last Muslim author to write on the making of steel, but his treatise was the only work which has survived. Moreover, while admitting that none of the thirty-five recipes which he mentioned was his own, al-Kindī assured the caliph that he had critically tested each one of them. Al-Kindī was as brilliant an alchemist and metallurgist as he was a philosopher, and his second treatise therefore presents extremely precious scientific testimony on this subject. The text of this "Risālah," generally presumed lost, is fully preserved in al-Aqsarā'ī's "Nihāyat al-Sūl" as part of lesson three on the arts of the sword (see below, Cat II).

Abbasid treatises on arms and military technology also included contributions on incendiary weapons and on siege engines. Ibn al-Nadīm mentions, respectively, the anonymous "Kitāb al-'Ilm bi-al-Nār wa-al-Naḥḥ wa-al-Zarrāqāt fī al-Ḥurūb," and the anonymous "Kitāb al-Dabbābāt wa-al-Manjanīqāt."¹⁵² Later Abbasid *furūsīyah* literature did not include comprehensive or specific treatises on arms and military technology but the subject continued to be treated within general *furūsīyah* treatises. One of these was the lost "Umdat al-Sālik fī Siyāsāt al-Mamālik" (see below) by Ibn Ṣābir al-Manjanīqī¹⁵³ (d. 620/1220), who was the chief (*muqaddam*) of the *manjanīqīyīn* (mechanics and engineers of projectile engines) in Baghdad where he was born and died. Given his great and acknowledged expertise in arms and war engines, his monumental work undoubtedly represented one of the most authoritative contributions in this field.

The magnificent treatise written for Ṣalāḥ al-Dīn al-Ayyūbī (d. 589/1193) by Marḍī ibn 'Alī al-Ṭarsūsī, viz. "Tabṣirat Arbāb al-Albāb . . .," should be mentioned.

¹⁵¹Leiden University Library MS 287 (being chapter 6 of "Jamharat al-Islām Dhāt al-Naḥr wa-al-Naẓm," by al-Shayrāzī); Ayasofya Library MS 4833 (fols. 38–45); Dār al-Kutub al-Miṣrīyah MS 3640, which is a recent copy transcribed in 1359 H. from the Ayasofya copy, published with many errors by 'Abd al-Raḥmān Zakī in *Nashrat Kullīyat al-Ādāb, Jāmi'at al-Qāhirah* 14 no. 2 (1956): 1–36. See al-Sarraf, "Adab al-Furūsīyah," 120.

¹⁵²Ibn al-Nadīm, *Al-Fihrist*, 377.

¹⁵³His *nisbah* derived from *manjanīq*-mangonel, an Arabicized term used not only to denote the catapult or the trebuchet, but also to designate projectile-throwing engines in general.

Although it can be classified among general *furūsīyah* treatises, as it covers three distinct *furūsīyah* themes (weaponry, archery, and the art of war), the “Tabṣīrah” was meant to be, and basically is, a work on arms and armor, and military technology. A close examination of the treatise, which is still essentially known through the truncated and quite misleading extracts published by Claude Cahen,¹⁵⁴ shows that “Al-Tabṣīrah” is a compilation, based largely on early Abbasid sources. Contemporary data is mainly limited to siege engines and compound weapons. Al-Ṭarsūsī’s only source in this domain was an Egyptian innovator in military technology named Abū al-Ḥasan al-Abraqī al-Iskandarī, who himself did not write a treatise on the subject. In all, “Al-Tabṣīrah” remains an extremely valuable source on Islamic arms and particularly on siege engines. The chapter on archery is among the best available on the various schools and techniques of the great Abbasid masters.¹⁵⁵ One of the three extant copies is an autograph, imperfect, written for the private library of Ṣalāḥ al-Dīn.¹⁵⁶ Although the other two copies were transcribed in the Mamluk period, it seems that “Al-Tabṣīrah” was little known to Mamluk authors.

Under the Mamluks, and despite the thriving and highly developed weapons industry of Aleppo, Damascus, and Cairo, not a single original treatise on arms and armor can be cited. Compilations based on pre-Mamluk sources were also scarce. One of them is *Mustanad al-Ajnād fī Ālāt al-Jihād*, by Badr al-Dīn ibn Jamā‘ah, who compiled it from early Abbasid philological contributions, and works of *adab* and hadith. Only one copy, dated 773/1371, has so far been traced.¹⁵⁷ As for the ninth/fifteenth century anonymous *Khizānat al-Silāḥ*, it is not, as presumed, a Mamluk work. It was composed in 840/1436 by an Iraqi *adīb* for the Muzaffarid ruler of Kirmān, Sultan Aḥmad Shāh. It is a petty, anecdotal, and banal work contrived from the books of *adab* and completely insignificant as a

¹⁵⁴Claude Cahen, “Un traité d’armurerie composé pour Saladin,” *Bulletin des études orientales* 12 (1947–48): 103–63. He failed to recognize *inter alia* that the folios were misarranged and that, in some of the most important folios, the lines are extended all the way through to the opposite page. A critical edition of “Al-Tabṣīrah” is forthcoming.

¹⁵⁵This chapter on archery was translated, rather equivocally, and published by Antoine Boudot-Lamotte as *Contribution à l’étude de l’archerie musulmane* (Damascus, 1968). As Boudot-Lamotte was neither familiar with the technical language of archery literature, nor with the sources of al-Ṭarsūsī, his translation as well as the edition of the Arabic text are extremely misleading.

¹⁵⁶Bodleian Library MS Huntington 264 (presumed unique); Ayasofya Library MS 2848 (written by different hands; the last portion is dated 709/1309). There is a third ninth/fifteenth-century copy kept in Katahiya Library, Turkey, which I haven’t seen yet, nor am I certain of its reference number.

¹⁵⁷Iraq Museum Library MS 34310/3, edited and published by Usāmah Nāṣir al-Naqshbandī (Baghdad, 1983).

source on Islamic arms. Only one copy is extant.¹⁵⁸

Apart from the information provided by Mamluk archery literature, such as the treatises of Ṭaybughā and Muḥammad al-Ṣughayyir, on bows, crossbows, and other archery equipment, contemporary data on arms and armor are lacking in both thematic and general Mamluk *furūsīyah* treatises, which recycled instead Abbasid data regardless of its relevance to the Mamluk period. Indeed, the most recurrent information on arms and armor found in Mamluk *furūsīyah* literature is derived from the sections of Ibn Akhī Ḥizām's Treatise B on swords, lances, and shields. On the other hand, general Mamluk *furūsīyah* treatises represent the source par excellence on incendiary weapons and firearms. There is also an anonymous work entirely devoted to the subject, entitled "Iyārāt al-Naḥḥ," of which one copy, dated 774/1372, is extant.¹⁵⁹

Information on incendiary weapons and firearms, including cannons, is also dealt with in a unique work on siege engines, *Al-Anīq fī al-Manājīq*, written by Urunbughā al-Zaradkash for the *atabāk al-askar* Manglī Bughā al-Shamsī (d. 836/1432). This work, complete with detailed drawings, provides full descriptions of the methods of constructing various siege engines: trebuchets, cannons, pedestal crossbows, wooden towers, ladders, and platforms. The last chapter deals with incendiary devices to be propelled by trebuchets and crossbows. Two copies of this treatise are known to exist.¹⁶⁰

CAT. I (G): TREATISES ON HUNTING

The art of hunting with birds of prey, *bayzarah*, was the subject of the first Muslim treatises on the hunt, which appeared early in the Abbasid period. The oldest known Muslim contribution on hawking was a collective work containing 150 *bābs* entitled "Kitāb Manāfi' al-Ṭayr" or "Kitāb al-Ṭuyūr," written on the order of the caliph al-Mahdī, who wanted a treatise on sporting birds synthesizing the knowledge of the Byzantines, Turks, and Arabs.¹⁶¹ The principle authors of this work, of which at least two copies exist,¹⁶² were al-Ghiṭrīf ibn Qudāmah

¹⁵⁸Dār al-Kutub al-Miṣrīyah MS 2796 *adab*, published by Nabīl 'Abd al-'Azīz (Cairo, 1978).

¹⁵⁹Topkapı Sarayı Library MS Ahmet III 3469.

¹⁶⁰Both copies are included in one manuscript, Ayasofya Library MS 3469. A tentative edition was made by Nabīl 'Abd al-'Azīz (Cairo, 1981), and it was reedited by Iḥsān Hindī (Aleppo, 1405/1985).

¹⁶¹See "Kitāb Manāfi' al-Ṭayr," Bodleian Library MS Marsh 148, fol. 1v.

¹⁶²*Ibid.*; and Topkapı Sarayı Library MS Ahmet III 2016 (880/1475), entitled "Ṭibb al-Ṭuyūr"; Dār al-Kutub al-Miṣrīyah MS 2 *furūsīyah Taymūr*, a recent copy (dated 1323/1915) transcribed from a photostat copy (also kept in Dār al-Kutub al-Miṣrīyah inv. no. 748 *ṭibb*) of the Topkapı Sarayı MS.

al-Ghassānī¹⁶³ and Adham ibn Muḥriz al-Bāhilī,¹⁶⁴ who were unanimously acknowledged by the sources as being the pioneer authorities in this field. A later Abbasid modified version of this work was apparently ascribed to al-Ghiṭrīf alone¹⁶⁵ and was translated into Latin on the order of Frederick II of Hohenstaufen (1194–1250) and from Latin into French by Daniel of Cremona, who dedicated it to Frederick's son Enzo (1220–72).¹⁶⁶

Another early Abbasid authority on falconry and hunting was a native of Basra named Ibrāhīm al-Baṣrī al-Bāzyār, who flourished during the period of Hārūn al-Rashīd and gained his favor. He was credited by al-Asadī as being the author of the first treatise written on hawking. Al-Asadī probably meant that al-Baṣrī was the author of the first original treatise on hawking. He speaks highly of his proficiency in hunting with sporting birds (the hawk, the saker falcon, and the peregrine falcon), dogs, cheetahs, and other trained predators, and in using all sorts of traps and snares, and credits him above all with introducing and propagating the techniques of liming birds (*tadbīq*).¹⁶⁷

During the third/ninth century most of the treatises on the hunt were written by high Abbasid dignitaries and notables, such as Abū Dulaf al-Qāsim Ibn ʿĪsā al-ʿIjlī (d. 225/839), "Kitāb al-Jawāriḥ wa-al-Laʿb bi-hā" and "Kitāb al-Buzāh wa-al-Ṣayd"; al-Faṭḥ ibn Khāqān (d. 247/861), "Kitāb al-Ṣayd wa-al-Jāriḥ"; Aḥmad Ibn Abī Ṭāhir Ṭayfūr (d. 280/893), "Kitāb al-Ṭard"; Aḥmad Ibn al-Ṭayyib al-Sarakhsī (d. 286/899), "Kitāb al-Jawāriḥ wa-al-Ṣayd Bi-hā"; ʿAbd Allāh Ibn al-Muʿtazz Ibn (the caliph) al-Mutawakkil (d. 296/908), "Kitāb al-Jawāriḥ wa-al-Ṣayd." These

¹⁶³Who is said to have lived long enough to be the grand falconer of the Umayyad caliphs Hishām ibn ʿAbd al-Malik (105–25/724–43) and al-Walīd ibn Yazīd (125–26/743–44) and to have to filled the same post for the Abbasid caliph Hārūn al-Rashīd; "Manāfiʿ al-Ṭayr" (Bodleian MS), fol. 1v.

¹⁶⁴He must not be confused with the poet and army commander who fought in the ranks of Muʿāwiyah at Siffīn (cf. al-Masʿūdī, *Murūj al-Dhahab*, 1:227, 3:294, and 6:134).

¹⁶⁵Other than taking an active and prominent part in the composition of the above collective work on falconry, there is no evidence that al-Ghiṭrīf made another contribution to this field. He was recently, however, credited with the authorship of yet another treatise on falconry of which several unsigned and variously titled copies survived. Two of these copies are preserved in Topkapı Sarayı Library, MSS Ahmet III 2099 and 2102. The former was published in facsimile by Fuat Sezgin and attributed to al-Ghiṭrīf under the title *Dawārī al-Ṭayr* (Frankfurt, 1986).

¹⁶⁶See Casey A. Wood and F. Marjorie Fyfe, "Introduction," in *The Art of Falconry, Being the De Arte Venandi cum Avibus* (Stanford, 1969), xlix; Baudouin van den Abeele, *La fauconnerie dans les lettres françaises du XIIIe au XIVe siècles* (Louvain, 1990), xvi, n. 10; idem, "La chasse au vol médiévale," in *La chasse au vol au fil des temps* (Gien, 1994), 52–53, 55; see also Charles Homer Haskins, *Studies in the History of Mediaeval Science* (Cambridge, Mass., 1927), 318–20.

¹⁶⁷Al-Asadī al-Baghdādī, "Al-Jamharah fī ʿUlūm al-Bayzarah," Escorial MS Ar. 903, fols. 76v.–77.

works, mentioned by Ibn al-Nadīm,¹⁶⁸ are all lost and were even unknown to the sixth/twelfth century Abbasid authors, let alone later Mamluk authors.

In any case, it is doubtful whether any one of the above treatises can match the highly expert work written by the falconer of the caliph al-Mutawakkil (232–47/847–61) and his boon companion, viz. Muḥammad Ibn ‘Abd Allāh Ibn ‘Umar al-Bāzyār, known as ‘Irjah. His treatise, entitled “Kitāb al-Jawāriḥ” and often referred to as “Al-Mutawakkilī,” was one of the most outstanding and definitive contributions made in this field in Islam and a major source for later treatises. It also had a significant and lasting influence on the art and literature of falconry in Europe, where the author was known under the name of Moamin or Moamyn. “Kitāb al-Jawāriḥ” was translated into Latin as *De scientia Venendi per Avers* by Theodor of Antioch at the order of Frederick II, who reviewed it during the Siege of Faenza in 1240–41, and used it as a reference for his own monumental *De Arte Venendi Cum Avibus*.¹⁶⁹ The emperor’s treatise was virtually the first true and major treatise on falconry in the West but it had a very limited diffusion and practically no influence on the subsequent European cynegetic tradition.¹⁷⁰ This was far from being the case concerning the treatises of al-Ghiṭrīf and Muḥammad al-Bāzyār. The latter’s work survived in twenty-four copies in Latin and in several more copies in French,¹⁷¹ Tuscan, Neapolitan, and Spanish.¹⁷² Paradoxically, the complete Arabic text is still lacking, though important borrowings and large portions can be found in subsequent treatises.¹⁷³

The fourth/tenth century witnessed the appearance of two important treatises on hunting: *Kitāb al-Maṣāyid wa-al-Maṭārid* by Abū al-Faṭḥ Maḥmūd Ibn

¹⁶⁸Ibn al-Nadīm, *Al-Fihrist*, 130, 163, 321, 377.

¹⁶⁹Haskins, *Studies in the History of Mediaeval Science*, 318–19; Wood and Fyfe, “Introduction,” in *The Art of Falconry*, xli.

¹⁷⁰See K. Lindner, “Tragödie der Monumentalität: Das Werk Friedrichs II von Hohenstaufen in historischer Sicht,” *Jahrbuch des Deutschen Falkenordens* (1976–77): 75–78.

¹⁷¹Like the treatise attributed to al-Ghiṭrīf, “Kitāb al-Jawāriḥ” was also translated into French by Daniel of Cremona for Frederick’s son Enzo. An excellent edition of the French version of both al-Ghiṭrīf’s and Muḥammad al-Bāzyār’s treatises was made by Håkan Tjerneld as *Moamin et Ghatriḥ: traités de fauconnerie et des chiens de chasse* (Stockholm and Paris, 1945).

¹⁷²The Spanish version of Muḥammad al-Bāzyār’s “Kitāb al-Jawāriḥ” is the most important and complete, as the translation was made directly from Arabic and not from Latin like the other versions. A very good edition of the Spanish version was made by José Manuel Fradejas Rueda under the title *Libro de los animales que cazan (Kitab al-Yawariḥ)* (Madrid, 1987).

¹⁷³Such as the anonymous “Al-Manṣūrī fī al-Bayzarah,” compiled for the Hafsid sovereign al-Mustanṣir billāh (647–75/1249–77), of which only the fourth chapter (on hunting dogs), taken verbatim from al-Mutawakkilī, reached us in two copies kept in Dār al-Kutub al-Waṭaniyah in Tunis, MSS 15072, 13464. This portion was published by ‘Abd al-Ḥafīz Manṣūr in *Al-Mashriq* 62 (1968): 155–222; and it was published as a book (Tunis, 1989).

Muḥammad Ibn al-Ḥusayn Ibn al-Sindī Ibn Shāhik, better known as Kushājim (d. 360/970), and *Kitāb al-Bayzarah* by ‘Abd Allāh al-Ḥasan Ibn al-Ḥusayn al-Bāzyār, falconer of the Fatimid caliph al-‘Azīz billāh (365–86/975–96).

The *Maṣāyid* of Kushājim is the oldest extant text which attempts to give a comprehensive treatment of venery and falconry. It represents a valuable résumé of contemporary practices and knowledge from the second/eighth and third/ninth centuries. As a poet and *adīb*, Kushājim sprinkled his treatise with related poems and anecdotes which gave his work important literary and social dimensions. This partly accounts for the treatise’s popularity, which was not limited to the cynegetic milieu and literature. *Al-Maṣāyid* is the earliest source on hunting birds with the pellet bow (*qaws al-bunduq*), and is also the oldest surviving signed work that draws on Ibn Akhī Ḥizām’s Treatise B. At least two copies are extant.¹⁷⁴

The Fatimid *Kitāb al-Bayzarah* is one of the earliest known works in which the term *bayzarah* occurs, and is used as a title.¹⁷⁵ Furthermore, as the author of the Fatimid treatise dealt with both venery and falconry, the term *bayzarah* is used in a generic sense covering all types of hunting. *Kitāb al-Bayzarah* is the first Egyptian treatise on hunting and probably the only one to have been written during the Fatimid period. It was composed for al-‘Azīz billāh, who from the early years of his reign was a zealous adherent of the Abbasid *al-furūsīyah al-nabīlah* which was upheld in Egypt by the Ikhshidids and before them by the Tulunids. Not only was he a passionate hunter, but he was also the first Fatimid sovereign to practice archery, play polo, and handle the lance in the eastern Abbasid fashion.¹⁷⁶ He was, however, unique in Fatimid history, as there is no evidence that his example was followed by his successors and the Abbasid *al-furūsīyah al-nabīlah* was not allowed to take root as a court institution under the Fatimids. This was partly due to the strong cultural and physical influence of the Berbers, who regained their pre-eminence after al-‘Azīz’s death. This also explains why apart from the *Kitāb al-Bayzarah* no other Fatimid *furūsīyah* treatise exists.

Al-Ḥasan al-Bāzyār modeled his treatise on the *Maṣāyid* of Kushājim, from which he drew abundantly, without acknowledging his source, and even plagiarized

¹⁷⁴Fatih Mosque Library MS 4090; Bayezit Library MS 2592. A tentative edition was made by Muḥammad As‘ad Ṭalas, based on a defective manuscript of 617/1220 owned by him (Baghdad, 1954).

¹⁷⁵The word *bayzarah* is rarely if ever used in the literature of the second/eighth and the third/ninth centuries and is also absent from Kushājim’s *Kitāb al-Maṣāyid* and Ibn al-Nadīm’s *Fihrist*. It is probable that this term emerged in the third/ninth and fourth/tenth centuries to designate the profession of the *bāzyār* or *bayzār*, though the former term is more commonly used for falconer. The term *bazdār*, which is the Persian equivalent of the Arabic *bāzyār*, is occasionally encountered.

¹⁷⁶Ibn Muyassar, *Al-Muntaqā min Akhbār Miṣr: Passages Selected by al-Maqrīzī*, ed. Ayman Fu‘ād Sayyid (Cairo, 1981), 179; cf. al-Sarraf, “L’archerie mamluke,” 2:487–90.

some of Kushājim's poems. The contribution of *Kitāb al-Bayzarah* lies mainly in the relatively small chapter on falconry, where the author gives some original and first hand observations. This treatise, which was rarely cited and apparently quite scarce, was completely unknown to the Mamluks. Two copies dating from the fourth/tenth century have been traced so far, of which one could be the original manuscript written for al-'Azīz billāh.¹⁷⁷

After a long, barren period, Abbasid hunting treatises, like most of the other branches of *furūsīyah* literature, found new life in the last hundred years of the caliphate, when three of the most important Muslim treatises on the hunt were written: al-Zaynabī's "Al-Qawānīn," al-Asadī's "Al-Jamharah," and al-Baladī's "Al-Kāfī." The treatise of 'Abd al-Rahmān Ibn Muḥammad al-Baladī,¹⁷⁸ *Al-Kāfī fī al-Bayzarah*, is exclusively devoted to falconry, and is among the best and most authentic texts written on the subject. In addition to his proper practical and theoretical knowledge, the author, who was a confirmed falconer and hunter, often related the opinion and experience of his fellow falconers, whom he frequented not only in Iraq but also in Egypt and especially in Syria. His written sources included the joint work of al-Ghiṭrīf and Adham Ibn Mihriz and Muḥammad al-Bāzyār's "Kitāb al-Jawāriḥ," which was heavily cited. Until the latter work (when found) and/or the magnificent work of al-Asadī have been edited, *Al-Kāfī* will remain the most important published source on falconry.¹⁷⁹

"Al-Qawānīn al-Sulṭānīyah fī al-Ṣayd" was written by Abū al-Naṣr al-Qāsim Ibn 'Alī al-Zaynabī al-'Abbāsī, a member of the highly distinguished Abbasid family of the Zaynabids,¹⁸⁰ particularly prominent in the social, cultural, and political

¹⁷⁷Chester Beatty MS 3831, a copy de luxe in 154 folios, considered among the oldest surviving Arabic manuscripts (see Kūrķīs 'Awwād, *Aqdam al-Makḥṭūṭāt al-'Arabīyah fī Maktabāt al-'Ālam* [Baghdad, 1982], 97). The other fourth-/tenth-century copy of "Kitāb al-Bayzarah" is apparently lost; a photostat copy of it is kept in Dār al-Kutub al-Miṣrīyah, inv. no. 762 *tabī'īyāt*. A copy of the latter is also kept in Ma'had al-Makḥṭūṭāt, inv. no. 20 *kīmyā' wa-tabī'īyāt*. Muḥammad Kurd 'Alī published a poor version of "Kitāb al-Bayzarah," based on a defective copy without a colophon owned by an "orientalist" (unnamed) (Damascus, 1953). This edition was translated into French by François Viré as *Le traité de l'art de volerie (Kitāb al-Bayzara): Rédigé vers 385/995 par le Grand-Fauconnier du calife fāṭimide al-'Azīz bi-llāh* (Leiden, 1967).

¹⁷⁸From the Iraqi town Balad, situated on the Tigris north of Mosul; the author, however, lived in Baghdad.

¹⁷⁹Based on the unique manuscript in Tunis, al-Maktabah al-Aḥmadīyah MS 14290, a good edition of *Kitāb al-Kāfī fī al-Bayzarah* (Beirut, 1403/1983) was made by Iḥsān 'Abbās and 'Abd al-Ḥafīz Maṣṣūr. It is regrettable, however, that the editors failed to consult the manuscript literature on falconry, contenting themselves instead with the published treatises of Kushājim and al-Bāzyār.

¹⁸⁰The *nisbah* is derived from Zaynab bint Sulaymān ibn 'Alī ibn 'Abd Allāh ibn al-'Abbās ('*ammat al-khulafā'*); see Ibn al-Ṭīqṭaqā, *Al-Fakhrī fī al-Ādāb al-Sulṭānīyah wa-al-Duwal al-*

life of Iraq during the second half of the fifth/eleventh century and the first half of the sixth/twelfth century. The author, like his father before him, was the chief judge (*qāḍī al-quḍāh*) in Baghdad, where he died in 563/1167. Autobiographical data indicates that he started writing the treatise for the caliph al-Muqtafī (530–55/1136–60) shortly before his death and finished it in the beginning of the caliphate of al-Mustanjid (555–66/1160–70), to whom the work was ultimately dedicated. It was no accident that this treatise was begun under the patronage of al-Muqtafī, for during the Buwayhid and Saljuq period in Iraq the Abbasid caliphs lost the right of the royal hunt. And for almost a hundred and fifty years this caliphal institution, an ensign of royalty, and above all symbol of sovereignty, was practically non-existent. The death of the Saljuq sultan Mas‘ūd in 545/1150 strengthened the position of al-Muqtafī, who is considered to be the first Abbasid caliph to have gained independence in Iraq since the advent of the Buwayhids,¹⁸¹ and it was during the last five years of his reign that the Abbasid chronicles record that “the caliph went to the hunt” (*wa-kharaja al-khalīfah ilá al-ṣayd*).¹⁸²

The “Qawānīn” was meant to be a royal or caliphal manual of the hunt. This accounts for the extraordinary range and detail of this work, which included, in addition to venery and a valuable and long chapter on falconry, sections on types of horses, horse equipment, arms, archery, polo, the *futūwah* of hunting with the pellet bow, climatic conditions (in Iraq), astronomical tables and instruments, various methods of finding the direction of the *qiblah*, etc. The treatise also contains original epistles on hunting and a number of *ṭardīyāt* (hunting) poems, as well as new information on the Abbasid caliphs and the royal hunt in the early centuries of the caliphate. Consequently, it is a major reference on the Abbasid *al-furūsīyah al-nabīlah*. Moreover, al-Zaynabī’s work is essential for assessing and verifying early Abbasid *furūsīyah* texts, of which he used a large assortment. Only one copy has survived.¹⁸³

Abū al-Rūḥ ‘Īsá Ibn ‘Alī Ḥassān al-Asadī al-Baghdādī composed his “Al-Jamharah fī ‘Ilm (or ‘Ulūm) al-Bayzarah” during the first two decades of the second half of the sixth/twelfth century. This treatise is not restricted to falconry but is about hunting in general; consequently the word *bayzarah* is used generically. Al-Asadī was an experienced hunter and also had extensive theoretical knowledge,

Islāmīyah (Beirut, 1966), 219. On the author, see Ibn Abī al-Wafā’ al-Qurashī, *Al-Jawāhir al-Muḍīyah fī Ṭabaqāt al-Ḥanaḥīyah* (Hyderabad, 1322/1913–14), 1:411. On the other illustrious Zaynabids, see al-Sarraf, “Adab al-Furūsīyah,” 139.

¹⁸¹Ibn al-Athīr, *Al-Kāmil fī al-Tārīkh* (Beirut, 1965–67), 11:256:

وهو أول خليفة إستبد بالعراق منفردا عن سلطان يكون معه منذ أيام الديلم ولحد الآن.

¹⁸²E.g., Ibn al-Jawzī, *Al-Muntaẓam fī Tā’rīkh al-Mulūk wa-al-Umam* (Hyderabad, 1938–40) 6 (book x): 165, 176.

¹⁸³Fatih Mosque Library MS 3508 (244 fols.); a microfilm of this manuscript in the Ma’had

and he was able to synthesize all the cynegetic and halieutic material of the Orient in two definitive volumes. The first was dedicated to technique and the second to the treatment and care of all sorts of trained predators and other animals. This majestic and unequalled work towers over the whole literature written on this subject in the Orient and constitutes absolutely the most important and decisive contribution to this field in Islam.¹⁸⁴ Three complete sets are extant.¹⁸⁵

The basic Mamluk work on hunting was Ibn Manglī's "Uns al-Malā bi-Waḥsh al-Falā," compiled in 773/1371. The originality of this work lies in the first few folios, where the author provided important information on types of saddles and on the techniques of hunting from horseback with the bow, spear, and sword. The rest of the treatise is entirely drawn from earlier sources, all acknowledged, especially al-Asadī's "Al-Jamharah," which in an abridged form constitutes two thirds of "Uns." Ibn Manglī also used Ibn Akhī Ḥizām's entire section on lion hunting with the bow from horseback (from Treatise B). Other sources included Kushājim's *Al-Maṣāyid*, al-Jāhiz's *Kitāb al-Ḥayawān*, and Ibn Waḥshīyah's *Kitāb al-Filāḥah al-Nabaṭīyah*. More than two copies are extant.¹⁸⁶

CAT. I (H): TREATISES ON POLO

With the advent of the Abbasids and the establishment of military *furūsīyah*, the "king of games" was inevitably democratized and lost its alleged exclusivity as "the game of kings" since it became an integral part of the training and on-going exercise of the mounted warrior and one of the fundamentals of military *furūsīyah*. Ibn Akhī Ḥizām emphatically exhorts his fellow cavalymen to constantly play polo, which he believes most beneficial for the practice of *furūsīyah* arts, especially the arts of the sword, lance, and archery. He also deems polo essential for horse mastery and for training the horseman and the horse on individual and collective maneuvers. In sum, Ibn Akhī Ḥizām considers the game a physical and mental

al-Makhṭūṭāt is incorrectly catalogued as a late Mamluk treatise dedicated to the caliph al-Mustanjid of Egypt (859–84/1455–79).

¹⁸⁴Several extracts have been published by D. C. Phillot and R. F. Azoo in *Journal and Proceedings of the Asiatic Society of Bengal* 3 (1907): 139–43, 173–78, 401–3, 599–600.

¹⁸⁵Escorial Library MS Ar. 903; Ayasofya Library MS 3813; Calcutta, Asiatic Society of Bengal Library MS 865 M9 (the copy used by Phillot). A copy of the second volume of "Al-Jamharah" is in the British Library, MS Add. 23417; another one is in the Iraqi Museum Library, MS 22147.

¹⁸⁶Dār al-Kutub al-Miṣrīyah MS 12 *ṣinā'ah*, transcribed from an autograph, as mentioned in the colophon; Bibliothèque Nationale MS 2832/1, dated 923 H., the colophon also indicates that it was transcribed from an autograph. The treatise was translated and published, apparently from a defective manuscript, by Florian Pharaon as *Traité de vénerie de Sid Mohamed el-Mangali* (Paris, 1880); a more recent translation, with annotations, based only on the manuscript in the Bibliothèque Nationale, was made by François Viré as *De la chasse: Commerce des grands de ce monde avec*

practice for war.¹⁸⁷ In accordance with this perception of the role of polo in military training, general Abbasid *furūsīyah* treatises, starting from Treatise B of Ibn Akhī Ḥizām, commonly included a chapter—which usually represented a veritable self-contained treatise—on polo. This tradition was not observed by Mamluk authors/compilers of general *furūsīyah* treatises.

In fact, during the Mamluk period, although polo was consecrated as a royal institution, as an integral part of military training, and as a popular game among Mamluks and *ḥalqah* troopers, contribution to this field was practically nil. The only Mamluk treatise that can be cited on the topic is “Ghāyat al-Itqān fī A‘māl al-Nushshāb wa-al-Ṣawljān” by a certain Alṭamish (eighth/fifteenth century). This treatise, of which one copy is available,¹⁸⁸ merely recycled Abbasid data on the subject. This not only means that the Mamluks accepted without further innovation the rules and “arts” of the game which they inherited from the Abbasids, but also that the latter’s contribution in this field was complete and final. Indeed, all the pertinent texts and information in circulation during the Mamluk period were Abbasid.

The earliest text on polo in the Abbasid period was translated from the Persian under the title “Kitāb Ā’īn al-Ṣawālījah,” of which a small portion has survived in ‘*Uyūn al-Akhbār*, by Ibn Qutaybah. This text was perhaps different from the untraceable “Kitāb Ā’īn al-Ḍarb bi-al-Ṣawālījah” mentioned by Ibn al-Nadīm.¹⁸⁹ The first original contribution in this field, however, was probably al-Jāḥiẓ’s “Kitāb al-Ṣawālījah,” which is deemed lost though reportedly a copy is jealously preserved in the library of al-Zāwīyah al-‘Ayyashīyah in Morocco.¹⁹⁰ In any case, it would seem that al-Jāḥiẓ’s work was not very accessible all along, as it was neither quoted nor mentioned in *furūsīyah* literature or works of *adab* other than the bibliographical and biographical dictionaries. Conversely, the most accessible and widespread document on polo during the Abbasid and Mamluk periods was the relevant chapter from Ibn Akhī Ḥizām’s Treatise B, which represents the oldest surviving document on the subject. No less valuable but far less known and accessible is “Kitāb ‘Ilm al-Ḍarb bi-al-Ṣawālījah wa-Mā Yata‘allaqu bi-Dhālīka

les bêtes sauvages des déserts sans onde (Paris, 1984).

¹⁸⁷ Ibn Akhī Ḥizām, “Kitāb al-Furūsīyah wa-al-Bayṭarah” (Treatise AB), Dār al-Kutub al-Miṣrīyah MS 5m *funūn ḥarbīyah*, fol. 105v.:

اعلم أن الضرب بالصولجة من أعظم أصول الفروسية منفعه لكل من طلب فنا من فنون الفروسية لا سيما العمل بالسيف والرمح والرمي لما يقع فيه من الكر والعطف والاختلاس والجولان والمناوشة وتدريب الدواب. وهي تدريب للحرب وتقرين للقلوب على القتال.

¹⁸⁸ Rabat, Maktabat al-Khizānah al-‘Āmmah MS 32/3q.

¹⁸⁹ Ibn al-Nadīm, *Al-Fihrist*, 376.

¹⁹⁰ See Muḥammad Mursī al-Khulī, ed., “Introduction,” in *Kitāb al-Burṣān wa-al-‘Umyān*, by al-Jāḥiẓ (Cairo, 1981, 2nd ed.), 9.

min Ālāt al-Fursān wa-al-Rammāhīn,¹⁹¹ which constitutes part of an anonymous, untitled, but highly important general Abbasid *furūsīyah* treatise written in the first half of the fourth/tenth century by a warrior and confirmed *furūsīyah* master (see below). The so-far unique though incomplete copy of this monument, which I happily discovered while preparing this study, is included in a *majmūʿ* on *furūsīyah* compiled for the private library of Sultan al-Muʿayyad Shaykh entitled “Kitāb fī Maʿrifat al-Khayl wa-al-Jihād wa-fī ʿIlm al-Ḍarb bi-al-Ṣawālijah wa-Mā Yataʿallaqu bi-Dhālika min Ālāt al-Fursān.” The chapter on polo contains a significant amount of information, especially on the history and rules of the game, not available in Ibn Akhī Ḥizām’s relevant chapter, which was the only source cited and quoted by the anonymous author, who praised Ibn Akhī Ḥizām, calling him “*imām al-fursān*,” and acknowledged his authorship and definitive contribution in this particular domain. The anonymous author refers to a more comprehensive general *furūsīyah* treatise that he had written earlier and which included an even more detailed discourse on polo.

GENERAL *FURŪSĪYAH* TREATISES

The treatises which fall into this category are normally devoted to military *furūsīyah* and integrate different *furūsīyah* disciplines and fields of knowledge, both practical and theoretical, necessary for the training and education of the mounted warrior. The treatises vary in range and coverage of *furūsīyah* disciplines, but they invariably include and put emphasis on the arts of the lance, which sometimes constitute the central theme in such works.

The earliest and certainly the most important surviving general *furūsīyah* treatise is Ibn Akhī Ḥizām’s Treatise B, which established the genre and served as a model for future treatises. In this treatise Ibn Akhī Ḥizām used, just for the sake of thoroughness, two sources (unacknowledged), namely the treatise of al-Kindī on the types of swords, and “Kitāb al-Shāmil fī al-Ramī” by ʿAbd al-Raḥmān al-Ṭabarī. The rest of the treatise is entirely based on his personal experience and knowledge as a *furūsīyah* master. Indeed, the main core of the book lies in the chapters he composed on military equitation and horse mastery, the diverse arts of the lance, and the art of wielding the sword and javelin. His invaluable digression on the types and quality of lances, shields, and swords most suitable for the warrior is unique in *furūsīyah* literature. As for his chapter on archery, although he borrows heavily from al-Ṭabarī, it is very significant as it reflects the state of archery in the Abbasid army in the third/ninth century and the conflict between the Khurasani school of horse and foot archery and the Turkish school of horse archers. He closes his treatise with his famous contribution on polo, followed by

¹⁹¹Topkapı Sarayı Library MS Ahmet III 2066/8.

his unique discourse on hunting lions with the bow on horseback. All these chapters and data were quoted and recycled by subsequent Abbasid and Mamluk *furūsīyah* treatises to the point that the treatise of Ibn Akhī Ḥizām became not only a basic source of future treatises but an integral part of them.

All six copies that I have discovered so far are catalogued under different titles, and most of them are either unsigned or bear fictitious names;¹⁹² two copies are ascribed to Ṭaybughā al-Baklamīshī (above) and so quoted by modern researchers. Like his Treatise A on horses, Treatise B of Ibn Akhī Ḥizām was also translated into Kipchak, though in an abridged and truncated way, under the title *Munyat al-Ghuzāt*. Only one copy is extant.¹⁹³ There are also Ottoman and Persian versions of his work.¹⁹⁴ As previously explained, this work is still largely unrecognized in modern research as a third/ninth century work. The preamble of Treatise B may help in making the text easily identifiable. It begins with the words:

الحمد لله ذي العظمة، المتعالي بالقدرة عن الصفات، ذي المجد والعز والسلطان، أحمدته حمدا يزيد
على حمد الحامدين وصلى الله على نبينا محمد خاتم النبيين.

However, one should keep in mind that this preamble and the section on military equitation which follows were sometimes used by Mamluk compilers of the third group to give an air of authenticity to their texts.¹⁹⁵

¹⁹²Dār al-Kutub al-Miṣrīyah MS 3m *funūn ḥarbīyah*, entitled "Al-Jihād wa-al-Furūsīyah wa-Funūn al-Ādāb al-Ḥarbīyah," catalogued as having been written by Ṭaybughā al-Baklamīshī and so cited by modern researchers; Fatih Mosque Library MS 3513, entitled "Kitāb al-Kamāl fī al-Furūsīyah wa-Anwā' al-Silāḥ wa-Adab al-'Amal bi-Dhālika wa-Ṣifāt al-Suyūf wa-al-Rimāh," transcribed for the private library of Sultan al-Ghūrī; Köprülü Mehmed Pasha Library MS 1361, entitled "Kitāb fī al-'Ilm bi-al-Furūsīyah wa-al-'Amal bi-hā," transcribed for the private library of Ibrāhīm ibn Sultan Mu'ayyad Shaykh; Topkapı Sarayı Library MS Ahmed III 2515/1, entitled "Kitāb Yashtamilu 'alā Ma'rifat al-Ramy bi-al-Nushshāb wa-Ālāt al-Ḥarb wa-Anwā' Wujūh al-Ramy wa-Kayfiyat Shurūṭihi wa-Aḥwālihi"; Istanbul, Nuruosmaniye Library MS 3915, dated 843/1439–40, untitled and incomplete. The colophon was plagiarized from that in Bayezit Public Library MS Veliyüddin Efendi 3174, with corruption of the author's name to Aḥmad; Alexandria, Maktabat al-Baladīyah MS 1201b, fols. 105r.–120r., entitled "Al-Jihād wa-al-Furūsīyah wa-Adab al-Funūn al-Ḥarbīyah." This copy is ascribed to Ṭaybughā al-Baklamīshī and so quoted by modern scholars.

¹⁹³The only copy is Topkapı Sarayı Library MS Ahmet III 3468 (850/1446), translated and published by Kurtuluş Öztopçu, see note 48 above.

¹⁹⁴For an Ottoman translation of this work, see Topkapı Sarayı Library MS *khazina* 415; for Persian translations, see C. A. Storey, *Persian literature, a Bibliographical Survey* (Leiden, 1977), vol. 2 pt. 3:396. Cf. Kurtuluş Öztopçu, "Introduction," in *Münyetü'l-guzāt*, 4.

¹⁹⁵For example, British Library MS Or. 20730, fols. 1a–9a; Bibliothèque Nationale, inv. nos. 2826, fols. 55a–58a, entitled "Al-Makhzūn li-Arbāb al-Funūn," and 2824, entitled "Kitāb al-Makhzūn Jāmi' al-Funūn," composed for a Mamluk notable, and attributed in the beautiful colophon to Ibn Akhī Ḥizām.

The only other surviving Abbasid general *furūsīyah* treatise that I am aware of so far is the anonymous fourth/tenth century work mentioned in the polo section above. In addition to the chapter on polo, it consists of a long and highly original discourse on the arts of the lance largely based on the author's experience as a veteran soldier and *furūsīyah* master. The author cited and described a considerably more comprehensive work that he wrote earlier and which he referred to as "*kitābī al-kabīr*." It covered the arts of the sword, the arts of the lance, archery, including the description and use of crossbows, arrow guides and the relevant types of darts, the art of wielding the *'amūd* and the *kāfir-kūb* (respectively the heavy iron staff and the wooden mace, both typical of the early Abbasid period), the art of wielding the *ṭabarzīn*, war-axe, the game of *ṭibṭāb*, hockey, and the game of polo.

It is quite possible that this work, which could be the untraceable "*Kitāb al-Furūsīyah*" of al-Ishmīṭī mentioned by Ibn al-Nadīm,¹⁹⁶ was among the lost Abbasid works great numbers of which were used by Mamluk compilers of general *furūsīyah* treatises. Among these works might have been "*Kitāb al-Furūsīyah*" of the famous Baghdadi alim Ibn al-Jawzī (597/1200),¹⁹⁷ and especially the monumental work of Abū Yūsuf Najm al-Dīn Ya'qūb ibn Ṣābir ibn Barakāt al-Manjanīqī al-Baghdādī (d. 620/1220), "*Umdat al-Sālik fī Siyāsāt al-Mamālik*." Ibn Khallikān's description of the author's work and its contents indicate that this lost treatise might well have been one of the most outstanding contributions to Muslim *furūsīyah* literature.

Ibn Ṣābir al-Manjanīqī, who was also a talented poet, was so versed in siege engines that he became *muqaddam al-manjanīqīyīn* in his native city, Baghdad. According to Ibn Khallikān, Ibn Ṣābir started his career as a soldier and devoted himself to the study and practice of military arts until he became a celebrated and unrivalled authority in this field. His treatise, as its title indicates, was meant to be a definitive reference book for the Abbasid state on *furūsīyah*. It treated the conduct of war, battle formation, stratagems of war, military engineering, fortification, construction of strongholds, siege warfare, military training and exercises *al-riyāḍah al-maydānīyah* (which include all the "branches" of upper [mounted] and lower [foot] *furūsīyah*), the arts of wielding various arms, the manufacturing of weapons, equitation, and types of horses and their descriptions.¹⁹⁸

¹⁹⁶ Ibn al-Nadīm, *Al-Fihrist*, 377.

¹⁹⁷ Ḥājji Khalīfah, *Kashf al-Zunūn*, 1446; Ismā'īl al-Baghdādī, *Hadīyat al-'Arīfīn* (Istanbul, 1951–55), 1:522.

¹⁹⁸ Ibn Khallikān, *Wafayāt al-A'yān*, 7:36:

كان ابن صابر المنجنيقي جندياً في ابتداء أمره مقدماً على المنجنيقين بمدينة السلام بغداد؛ ولم يزل مغرماً بأدب السيف والقلم وصناعة السلاح والرياضة واشتهر بذلك ولم يلحقه أحد من أبناء زمانه في درايته وفهمه لذلك. وصنف فيه كتاباً سماه عمدة المسالك في سياسة الممالك ولم يتممه. وهو مليح في معناه يتضمن أحوال الحروب، وتعبيتها،

Al-Manjanīqī died before finishing this massive encyclopedic work, but the fact that contemporary sources were familiar with its title, and above all with its contents, strongly suggests that copies were available in the seventh/thirteenth century.

The main corpus of general Mamluk *furūsīyah* treatises belong to the group designated as popular (third group). Basic treatises (first group), and good compiled ones (second group), are quite few. Of the first group, the following merit attention.

The oldest surviving general Mamluk *furūsīyah* treatise is by Badr al-Dīn Baktūt al-Rammāḥ al-Khazindārī al-Zāhirī.¹⁹⁹ He began writing his treatise in 689/1290 while Sultan al-Ashraf Khalīl (689–93/1290–94) was conducting the siege of Acre, in which Baktūt participated as an ordinary trooper in the *ḥalqah*. It is a crude but sincere and highly motivated work. The author has no pretensions to the eloquence or erudition of his colleague of the late eighth/fourteenth century, Ibn Manglī; nor had he the same concerns and motives, for he was writing and responding to a different era, one marked by intense military activity. At this time the *ḥalqah* and its men enjoyed high esteem and *furūsīyah* was at its zenith. This was also the period of al-Aḥḍab and "lance fever." Baktūt was particularly proficient in the use of the lance. From the 150 *bunūd* of the Abbasid masters, the seventy-two *bunūd* by al-Aḥḍab, and the twenty-four by Ādam, he forged seven essential exercises so as to make it easier for the beginner. He modeled his work on Ibn Akhī Ḥizām's Treatise AB, imitating even its preamble. The treatise is mainly devoted to lance techniques and the care of horses, but it also contains interesting passages on other subjects, mainly on training the novice in archery and the alternation of different weapons on the battlefield. Apparently Baktūt did not give a title to his work and it has survived under different names.²⁰⁰ More than seven copies have been traced so far.²⁰¹

The treatise of Muḥammad Ibn 'Īsā Ibn Ismā'īl al Aqsarā'ī al-Ḥanafī (749/1348), "Nihāyat al-Sūl wa-al-Umnīyah fī Ta'līm A'māl al-Furūsīyah," is generally

وفتح الثغور، وبناء المعادل، واحوال الفروسية، والهندسة، والمصابرة على القلاع والحصار، والرياضة الميدانية، والحيل الحربية، وفنون العلاج بالسلاح، وعمل أداة الحرب والكفاح، وصنوف الخيل وصفاتها. وقد قسم هذا الكتاب ورتبه في ابواب، كل باب منه يشتمل على فصول.

¹⁹⁹Charles Rieu (*Supplement of the Catalogue of the Arabic Manuscripts in the British Museum* [London, 1894], 556), suggested that he could be the Baktūt Amīr Shikār al-Khāzindārī mentioned in al-'Asqalānī's *Al-Durar al-Kāminah* as *nā'ib* of Alexandria (711/1311–12); he dug the canal of that city at his own expense. This hypothesis has led some modern scholars to confound the *nā'ib* with another Baktūt, who died in 771/1369, almost a century later than Baktūt al-Rammāḥ.

²⁰⁰For example, "Al-Furūsīyah wa-'Ilāj al-Khayl" and "Kāmil al-Ṣinā'ah fī 'Ilm al-Furūsīyah wa-al-Shajā'ah." Copyists have also added Baktūt's name to such treatises as al-Aqsarā'ī's "Al-Nihāyah" and "Al-Sirr al-Makhzūn wa-Jāmi' al-Funūn" (Ḥājjī Khalīfah, *Kashf al-Zunūn*, 2:89–99). The varying titles also have led modern scholars to conclude that Baktūt wrote several works.

²⁰¹Bibliothèque Nationale MS 2830, fols. 1a–72b, catalogued as anonymous; British Library MS

considered the most important Mamluk *furūsīyah* treatise. This is a questionable assumption, since a full analysis of the work and its sources is still lacking.²⁰² It is not a synthesis but an ingenious original compilation by an alim who combined erudition with practical knowledge in some branches of *furūsīyah*, particularly in the arts of the lance and archery. It is a deliberate attempt at placing the available knowledge and experience into a unified framework, and also a concerted effort to reverse the deterioration of *furūsīyah* in his time. The result was a unique work of incontestable encyclopedic dimension which is curiously reminiscent of Ibn Ṣābir al-Manjanīqī's "Umdat al-Sālik." "Nihāyat al-Sūl" includes historical data from a variety of cultural backgrounds. Much of this data was not indicative of contemporary practices. Some of the information on tactics, military organization, and battle formations was taken from Greek and Sassanian sources, which were never part of Abbasid or Mamluk military practice, at least not in the raw form presented. The importance of this work does not, however, lie in its supposed representation of Mamluk military reality, but rather in its being the only extant source on a number of subjects, including long quotations from treatises no longer surviving. A preliminary breakdown of the contents and, when possible, the identification of sources will provide a more precise assessment of the treatise.²⁰³

Lesson 1 (fols. 27b–42b). This chapter on archery is based on a considerable number of pre-Mamluk sources. Al-Akhbārī's "Al-Idāḥ fī 'Ilm al-Ramy" is mentioned as "Al-Idāḥ" without accrediting the author; al-Yūnīnī's "Al-Nihāyah fī 'Ilm al-Rimāyah" is referred to simply as "Al-Nihāyah" without mentioning the author's name; al-Ṭabarī's "Kitāb al-Wāḍiḥ" and Ibn Maymūn's "Al-Ifādah wa-al-Tabṣīr" are both used without acknowledgment. He quotes "Ardashīr" (Ibn Bābak) and refers to his treatise as "Al-Nihāyah."²⁰⁴

Lesson 2 (fols. 42–118a). This chapter on the arts of the lance is the longest, and represents perhaps the most comprehensive development on the techniques of the lance in *furūsīyah* literature. It is divided into sets of *bābs*, the first five of which are devoted to different versions of the *bunūd* of al-Aḥḍab; his *mayādīn* and *manāṣīb* are expounded in other *bābs*. On this subject, al-Aqsarā'ī may be considered the most reliable authority. The only other source which can be identified

Or. 3631, fols. 261a–279a; Dār al-Kutub al-Miṣrīyah MS *funūn ḥarbīyah* 4m; Rabat, Maktabat al-Khizānah al-‘Āmmah MS 266/a; Istanbul, Evkaf Museum Library MS 2107; Ayasofya Library MS 4826/1; Topkapı Sarayı Library MS Ahmet III 3471/5.

²⁰²It has been edited in two unpublished Ph.D. theses by Sayed Muḥammad Luṭf al-Ḥaq (London University, 1955) and Nabīl ‘Abd al-‘Azīz (Cairo University, 1972). Both editors failed to use the two most reliable copies: Chester Beatty Library MS A 21 and British Library MS Add. 18866 (see below).

²⁰³Taken from the text in the British Library, MS Add. 18866.

²⁰⁴A work entitled "Kitāb Ramy al-Nushshāb," attributed to Ardashīr and narrated on the authority

is Ibn Akhī Ḥizām's Treatise B (not acknowledged); his chapters on equitation and lance techniques, quoted verbatim, fill twenty *bābs*. For the remainder of this chapter, which is considerable, the author drew on unidentified sources.

Lesson 3 (fols. 118a–148b). This chapter on the arts of the sword is entirely based on Abbasid sources. It includes three pages from Ibn Akhī Ḥizām's Treatise B (not acknowledged) and al-Kindī's entire treatise "Risālah fī Jawāhir al-Ḥadīd" (acknowledged). The remainder of the text, which constitutes the greater part of this chapter, includes an extensive discussion of the arts of the sword which is unique in the available *furūsīyah* literature. The source or sources used for this important discussion cannot be ascertained at this stage of research, though it may reasonably be suggested that al-Aqṣarā'ī drew here from al-Manjanīqī's work and/or from the "Grand *furūsīyah* book" of the anonymous fourth/tenth century author.

Lesson 4 (fols. 151b–152b). This chapter on shields was taken almost entirely from Ibn Akhī Ḥizām's Treatise B (not acknowledged).

Lesson 5 (fols. 152b–153a). This short chapter on the '*amūd* (a ponderous iron staff), taken from early Abbasid sources, is irrelevant to the Mamluk period, for the weapon was already extinct at the advent of the Mamluks, who knew and used only the *dabbūs* (see above). Al-Aqṣarā'ī concluded this chapter by mentioning that a frontier (*thughūr*) warrior told him that the '*amūd* weighs one hundred fifty dirhams and that it is preferable to have one even lighter.²⁰⁵ The one hundred fifty dirhams is equivalent to about 0.5 kg, which is not even a third of the weight of a light *dabbūs*, while the minimum weight of an '*amūd* as standardized in the early Abbasid period was six kg and the maximum weight was commonly fixed at ten kg, but it could be much more.²⁰⁶ This clearly indicates that al-Aqṣarā'ī not only had never seen a real '*amūd* but that he did not have the slightest notion about its functions.

Lesson 6 (fols. 153a–161b). For cavalry training al-Aqṣarā'ī's principal source was again Ibn Akhī Ḥizām's Treatise B (not acknowledged), covering horse equipment, vaulting on horses, and hunting with the bow. There is particular emphasis on the famous method of lion hunting with the bow from horseback.

Lesson 7 (fols. 161b–197b). The methods of using arms in various situations are described. The unity of style and subject matter is evidence that al-Aqṣarā'ī was quoting verbatim from a now unidentifiable source. His work is thus the only one available on this aspect of *furūsīyah*.

Lesson 8 (fols. 197b–211b). In this chapter, the author deals with recruiting and organization of the army, including data totally incompatible with the Mamluk

of Ṭāhir al-Balkhī, survives in a single copy: Nuruosmaniye Mosque Library MS 4098, fols. 63a–71a.

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period, for example, a section on summoning and recruiting troops based on the army register (*dīwān al-jaysh*) developed by the Abbasids. It was considered important to keep accurate descriptions of each soldier and his mount in these registers, hence the emphasis on physiognomy, *‘ilm al-firāsah*, which motivated scholars like al-Kindī and al-Jāhiz to take an interest in the subject. The most important contributions in this field were *Kitāb al-Firāsah* by Fakhr al-Dīn al-Rāzī (d. 606/1209),²⁰⁷ and *Kitāb al-Firāsah* by Muḥammad Ibn Ibrāhīm al-Anṣārī al-Ṣūfī al-Dimashqī (d. 727/1327).²⁰⁸ Al-Aqṣarā’ī drew on both (not acknowledged) and on *Al-Kharāj wa-Ṣinā‘at al-Kitābah* (not acknowledged) by Qudāmah ibn Ja‘far al-Baghdādī (d. 329/940).²⁰⁹ The section on ambush was taken from al-Harthamī’s abridged treatise (not acknowledged) and also includes material from Aelian’s *Tactica*.²¹⁰ The remainder of the text is probably from the same Sassanian source that al-Aqṣarā’ī used in Lesson 9 (not acknowledged).

Lesson 9 (fols. 211b–235b). This chapter on battle formations is irrelevant to the Mamluk context, for it was based mainly on Aelian’s *Tactica*²¹¹ (acknowledged) and a Sassanian source (not acknowledged) that was already available in Arabic in the latter half of the second/eighth century, as some of the battle formations, especially those of crescent shape, were already known to al-Harthamī.

Lesson 10 (fols. 235b–240b). This chapter is devoted to military ruses involving incendiary and smoke devices. It is divided into two parts, the first, on the use of fire, copied from the anonymous Abbasid treatise *Kitāb al-Ḥiyal fī al-Ḥurūb* (not acknowledged). The second part is about the use of smoke in battle. The source material for it has not yet been identified.

Lesson 11 (fols. 240b–281a). This rather long chapter is on the spoils of war and various problems of Islamic law concerning attitudes toward the enemy in war and peace. It is acknowledged to have been drawn from *Kitāb al-Siyar al-Ṣaghīr* and *Kitāb al-Siyar al-Kabīr*,²¹² both written by the Iraqi jurist Muḥammad Ibn

²⁰⁷First published by Muḥammad Raghīb al-Ṭabbākh, as *Risālah fī ‘Ilm al-Firāsah* (Aleppo, 1929); then edited and translated into French by Yūsuf Murād as *La physiognomonie et le Kitāb al-firāsa de Fakhr al-Dīn al-Rāzī* (Paris, 1939); cf. Tawfiq Fahd, “Firāsa” *EL*², 2:937. The work is also called *Jumal Aḥkām al-Firāsah*.

²⁰⁸Published in Cairo 1882. The work is also known as “Al-Siyāsah fī ‘Ilm al-Firāsah” or “Al-Firāsah li-Ajl al-Siyāsah.”

²⁰⁹Edited and published by Muḥammad Ḥusayn al-Zubaydī (Baghdad, 1981).

²¹⁰See Geoffrey Tatum, “Muslim Warfare: A Study of a Medieval Muslim Treatise on the Art of War,” in *Islamic Arms and Armour*, ed. Robert Elgood (London, 1979), 194.

²¹¹According to Tatum, “Muslim Warfare,” 194, “Al-Nihāyah” contains approximately one third of the *Tactica*.

²¹²The original text is apparently lost, but a version survived within the commentary of Muḥammad ibn Aḥmad al-Sarakhsī (d. 429/1037), published and edited by Ṣalāḥ al-Dīn al-Munajjid and ‘Abd

Ḥasan al-Shaybānī (d. 189/805).

Lesson 12 (fols. 281b–292a, end of treatise). This chapter covers complementary branches of knowledge needed by the warrior like casting auguries, treatment of wounds, and so on. The author's sources are not known, but the fact that he included such a chapter in his treatise attests to his concern for thoroughness.

After careful consideration of the treatise it is apparent that its importance lies in lessons 3 and 7 and parts of lessons 1 and 2. Consequently, it seems an exaggeration to qualify it as "the most important of all sources in Arabic on Muslim military organization, training and theory."²¹³ At least ten copies of the "Nihāyat al-Sūl" are extant.²¹⁴

Baktūt's and al-Aqsarā'ī's works are the only authentically signed general *furūsīyah* treatises in the first group which can be traced up to now. All the other treatises of this group are unsigned either by accident or design. An example is the untitled and unsigned work with the first and last pages missing, written in the second half of the fourteenth century by a veteran master of *furūsīyah* in the royal barracks, during the sultanate of Sha'bān or of Barqūq. It should be considered one of the most original Mamluk *furūsīyah* texts. Its importance lies mainly in the author's directions and advice to his cadre of fellow *furūsīyah* instructors, whom he urges to be more inventive and to create new exercises for their pupils, especially in lance play. He has furnished information on how to treat and train the sultan's personal mamluks. There is also useful information on past and present *furūsīyah* masters, both Turkish and Arab. The author further expounded on riding and lance techniques. Only one copy has survived.²¹⁵

Another anonymous text, "Al-'Adīm al-Mithl al-Rafī' al-Qadr" is the only one in which the complete training program of the Mamluks is set forth. It covers practically all aspects of upper (mounted) and lower (foot) *furūsīyah*, including techniques of fighting on foot, fighting with the dagger, boxing (the unique source

al-'Azīz Aḥmad, as *Kitāb al-Siyar al-Kabīr bi-Sharḥ al-Sarakhsī*, 5 vols. (Cairo, 1971–72). A version of *Kitāb al-Siyar al-Ṣaḡhīr* was published by Majid Khadduri (Beirut, 1975).

²¹³Scanlon, "Introduction," in *A Muslim Manual of War*, 10, quoting Ritter, "La Parure," 132–35.

²¹⁴Chester Beatty Library MS A 21 (dated 767/1366); British Library MSS Add. 18866 (773/1371, probably copied from the Chester Beatty manuscript), Or. 3631, Add. 23487, 23488; Topkapı Sarayı Library MS Ahmet III 2651 (dated 775/1373); Ayasofya Library MSS 4044, 4197; Bibliothèque Nationale MS 2828; University of Cambridge Library MS Q9277; Dār al-Kutub al-Miṣrīyah MS 3m/1. This last copy is incomplete, unsigned, and untitled; it is bound with a version of Ṭaybughā's treatise "Ghunyāt al-Marāmī," and the whole manuscript, bearing the fictitious title "Al-Jihād wa-Funūn al-Adab al-Ḥarbīyah," is attributed by modern research to the latter and quoted as such.

²¹⁵British Library MS Or. 9015 (imperfect).

on this subject), and wrestling.²¹⁶ This treatise is all the more valuable because most exercises are illustrated in detail. Only one copy, the original, is extant under this title;²¹⁷ later versions appeared under different titles. The one that needs to be mentioned, being a persistent source of misunderstanding, is the luxurious, anonymous version entitled "Al-Makhzūn Jāmi' al-Funūn" kept in the Institute of Oriental Studies in St. Petersburg. It was wrongly attributed to Ibn Akhī Ḥizām or rather, *faute de mieux*, to "Ibn Abī Khazzām"!²¹⁸ This attribution is largely influenced by the similarity of title and general aspect with manuscript 2824 of the Bibliothèque Nationale apocryphally signed Ibn Abī Khazzām which we have described above and classified among the treatises of group three.

Among the compiled texts (second group) of general *furūsīyah* treatises two are especially noteworthy, *Kitāb al-Furūsīyah* by Ibn Qayyim al Jawzīyah,²¹⁹ which is of some use in explaining and correcting certain names and terms, and "Naqāwat al-Muntaqā fī Nāfi'āt al-Liqā," by al-Akhmīmī. It was written before his appointment as *qāḍī al-quḍāh* under Sultan al-Ghūrī. It is an abridgment of a lost work entitled "Al-Muntaqā fī 'Ulūm al-Furūsīyah" by Taqī al-Dīn Abū Zakarīyah Yaḥyá ibn Muḥammad al-Kirmānī al-Shāfi'ī al-Baghdādī²²⁰ (761–833/1359–1429), who in turn compiled it from the major early *furūsīyah* works, including Ibn Akhī Ḥizām's Treatise B. It is useful for explaining certain technical terms used by Ibn Akhī Ḥizām in his chapter on the lance. The only surviving copy is an unsigned autograph dated 889/1484.²²¹

²¹⁶Al-Suyūfī composed a treatise on wrestling, "Al-Musāra'ah ilá al-Mušāra'ah," of which perhaps two copies are known: Staatsbibliothek zu Berlin MS 5557/2; Dār al-Kutub al-Miṣrīyah MS 5 *khidiwīyah*, 11845. I have not seen the latter and I am not sure of its existence.

²¹⁷Topkapı Sarayı Library MS Revan 1933 (871/1466–67), incorrectly catalogued as al-Ṭabarī's "Kitāb al-Wāḍiḥ"; a microfilm in Ma'had al-Makhtūṭāt is also incorrectly catalogued as a "*majmū' fī al-rumḥ*," and a large portion of it has been attributed to 'Abd al-Raḥmān al-Ṭabarī.

²¹⁸A. Alikberov, "Ibn Abi Khazzam and his Kitāb al-Makhzun: The Mamluk Military Manual," *Manuscripta Orientalia: International Journal for Oriental Manuscript Research* 1 (1995): 21–28.

²¹⁹Edited by 'Izzat al-'Aṭṭār (Cairo, 1942).

²²⁰See Ibn Qāḍī Shuhbah, *Tārīkh Ibn Qāḍī Shuhbah*, ed. 'Adnān Darwīsh (Damascus, 1977), 151–52; al-Sakhāwī, *Al-Daw' al-Lāmi'* 10:259–61.

²²¹British Library MS 7513/2.