Muwashshah of al-Marzubānī, contain material in conformity with these titles, and it is likely that they are taken from collections which 'Umar b. Shabba produced and used in his teaching. However, only the *Akhbār al-Madīna*, which al-Dhahabī himself had seen in part, has survived in a late and damaged manuscript (*Ta'rīkh al-Madīna al-munawwara*, ed. Fahīm Muḥammad Shaltūt, 4 vols. Beirut 1410/1990). It contains *akhbār*, quoted with full *isnād*s and without any comments, about the life of the Prophet, of 'Umar b. al-Khaṭṭāb and of 'Uthmān b. 'Affān. The murder of the third caliph is not included; the title *Maktal 'Uthmān* mentioned in the *Fihrist* could be a continuation of this book. Al-Ṭabarī and al-Balādhurī, who both extensively quote 'Umar for other topics, do not seem to have used this particular collection. It comes as a surprise that only one of the titles given by Ibn al-Nadīm and in the above-mentioned lists is found quoted by a later author: al-Ṭabarī (ii, 168) refers to the *Akhbār ahl al-Baṣra*. Yāḳūt also refers to this book in general terms, but does not quote from it (F.J. Heer, 32), and al-Sakhāwī knew of this book as well (Rosenthal, 462).

The huge amount of quotations from 'Umar in the *Aghānī* proves Abu 'l-Faradj's substantial dependence on these materials. He does not mention any title of a book by 'Umar, but received the material from different informants who had probably produced recensions of 'Umar's collections, *Ṭabaḳāt al-shu'arā'* and the *Aghānī*. In a similar manner, materials pertaining to the *kitāb Muḥammad wa-Ibrāhīm ibnay 'Abd Allāh b. Ḥasan* are preserved in the quotations of Abu 'l-Faradj's *Maḳātil al-Ṭālibiyyīn* (S. Günther) and al-Ṭabarī's *Ta'rīkh* (T. Nagel). Al-Ṭabarī's work also contains fragments, or materials, from 'Umar's *Umarā' al-Kūfa* as well as from his *Kitāb al-Kuttāb*, which seems also to have been used by al-Djahshiyārī for his *Kitāb al-Wuzarā'* (S. Leder).

The fact that 'Umar's works are not directly quoted is in part due to the rules of *isnād* quotation. We may also infer that 'Umar, who applied the methods of the transmission of *ḥadīth*, passed on to his disciples *akhbār* which he had gathered and arranged according to different topics throughout his entire life. He thus spread his materials in various collections by way of *riwāya* [*q.v.*], instead of bringing books into circulation which were "his" works in terms of elaborated structure, introduction, etc. The existence of a variety of collections comprising roughly the same materials must also be considered in order to explain parallels between al-Ṭabarī and al-Balādhurī, as well as Ibn Ḳutayba and Abu 'l-Faradj. These have as their common source neither 'Umar's books nor the authorities he quotes, but arise from collections which are described as accessible to experts in these matters but which are not specified.

Bibliography: In addition to the literature quoted in the article, see Brockelman, S I, 209; Sezgin, i, 345-6; M. Fleischhammer, *Quellenstudien zum kitāb al-Aghānī*, Halle (Saale) 1965 (unpublished ms.); S. Günther, *Quellenuntersuchungen zu den "Maqātil aṭ-Ṭālibiyyīn" des Abū l-Faraǧ al-Isfahānī (st. 356/967)*, Hildesheim 1991, 220-5; F.J. Heer, *Die historischen und geographischen Quellen in Jāqūt's Geographischem Wörterbuch*, Strassburg 1898, 32; Djāsim Ḥamādī al-Mashhadānī, *Mawārid al-Balādhurī 'an al-usra al-umawiyya fī Ansāb al-ashrāf*, Mecca 1406/1986, i, 306-13; S. Leder, *Das Korpus al-Haiṯam ibn 'Adī*, Frankfurt 1991, 125, 151-5, 209; idem, *Frühe Erzählungen zu Maǧnūn*, in *XXIV. Deutscher Orientalistentag. Ausgewählte Vorträge*, ed. W. Diem and Abdoldjawad Falaturi, Wiesbaden 1990, 150-61; T. Nagel, *Früher Bericht über den Aufstand von Muḥammad ibn 'Abdallāh*, in *Isl.*, xlvi (1970), 227-63; F. Rosenthal, *A history of Arabic historiography*, Leiden 1952, 462, 473, 475, 480. (S. LEDER)

'UMAR BĀ MAKHRAMA [see MAKHRAMA. 3].

'UMAR KHAYYĀM, renowned Persian scholar and poet of the Saldjūḳ period (*ca.* 439-517/1048-1123).

1. Biography

Al-Imām Abū Ḥafṣ 'Umar b. Ibrāhīm al-Khayyāmī is thus named in the *Mīzān al-ḥikma* which 'Abd al-Raḥmān al-Khāzinī composed in 515/1121, often mentioning Khayyām for his scientific works. Abū Ḥafṣ is a *kunya* customarily associated with the name 'Umar, and al-Khayyāmī is the form which would be expected in an Arabic work; it would be pointless to speculate on the origin of this name, as to whether, for example, this was a man belonging to a family of tentmakers or not, just as someone with the surname al-'Aṭṭār is not necessarily associated with the manufacture of perfume. In Persian, this name naturally becomes Khayyām. Al-Khāzinī (see Dihkhudā, *Lughatnāma, s.v.*) definitely had personal links with Khayyām. In the indices of catalogues, his name will be found, according to the case, in entries beginning with 'U, 'O, Kh, X or H.

Thanks to two other contemporaries of Khayyām, Niẓāmī-i 'Arūḍī-i Samarḳandī (*Madjma' al-Nawādir* or *Čahār maḳāla*, written *ca.* 551/1156, ed. Ḳazwīnī, 100-4) and 'Alī b. Zayd al-Bayhaḳī (*Tatimmat Ṣiwān al-ḥikma*, written after 548/1153, ed. Shafī', fasc. i, 112-4, 163), some dates and biographical elements are available regarding this scholar and the renown which he enjoyed in his time. 'Alī Bayhaḳī, called Ibn Funduḳ (who is also the author of the important history of eminent families of Bayhaḳ), gives him the title of *al-Dustūr al-Faylasūf Ḥudjdjat al-Ḥaḳḳ*. The dates are as follows: in 506/1112 Niẓāmī, who was then in the service of Khwādja Imām 'Umar Khayyāmī, heard his master predicting his death in circumstances which subsequently came about. According to Niẓāmī again, at Marw, in 508/1114, the reputation of Khayyām exceeded that of all the astrologers and astronomers at the court of the sultan. In 530/1135, Niẓāmī had occasion to visit the tomb of his former master, a clearly described and moving experience. According to one manuscript "it was four years" (longer according to another) since the death of Khayyām. The three appreciative accounts of Khayyām given by Niẓāmī, in his chapter on astronomers/astrologers, are inspired by the admiration which he felt for his one-time master. For his part, 'Alī Bayhaḳī (499-565/1105-69), appreciably younger than Khayyām, presents a first biography of the scholar. He remembers having accompanied his father in 507/1113 to a salon (*madjlis*) conducted by Khayyām, who questioned him (or more likely, his father, see M. Ḳazwīnī, introd. to *Tārīkh-i Bayhaḳī*, 19-22, regarding a quotation from Abarkūhī on this point) on a *bayt* relating to an astronomical topic. "This was a man expert in philosophy (*ḥikmat*), in mathematics in all its forms, and in medicine." He was a native of Nīshāpūr, he writes, like his father and his grandfather. Skilled in teaching and in the composition of works, he was of strict character and valued his knowledge highly. Through the intermediary of a disciple of Ibn Sīnā, he was influenced by the latter's doctrine, as will be shown below. He was a scholar who was frequently consulted. Among the examples given by 'Alī Bayhaḳī, one is the response which he gave to a question put to him by the great

master of Muslim scholasticism al-Ghazālī. He often made his way to Iṣfahān to visit the observatory constructed there by Malik Shāh after 467/1076 (see further on this, below). Finally, Bayhaḳī gives a detailed horoscope of the birth of Khayyām, on the basis of which Swāmī Govinda Tīrtha (1941) calculated that Khayyām must have been born on 18 Dhu 'l-Ḳa'da 439/18 May 1048. Similarly, on the later basis of information given in the *Ṭarab-khāna* of Yār Aḥmad (written in 867/1460), it has been reckoned possible to date his death at 12 Muḥarram 526/14 December 1131) (on this point see the doubts of M. Mu'īn, 1333/1954). The date of 439 is entirely plausible; that of 526 is dubious. General opinion places the death of Khayyām around 517/1123. It seems that after the death of Malik Shāh, he lived some distance away from the court.

To these items of information others may be added, such as the known date of two of his treatises (469/1077 and 472/1080), or indeed the mention of Khayyām made by the renowned Maḥmūd al-Zamakhsharī (467-538/1074-1143) in his treatise *al-Ẓādjir li 'l-ṣighār*, where he comments that Khayyām enjoyed frequenting his circle, that he was familiar with the thought of the Arab poet Abu 'l-'Alā' al-Ma'arrī (a pertinent literary observation) and, finally, that he was of obstinate character (*liḏjādja*). More important in the life of Khayyām was the date 467/1074. Dealing with the events of this year, the historian Ibn al-Athīr, in his *Kāmil* (written before 631/1233), was the first to speak of the congress of scholars organised by Malik Shāh from 465/1072 onwards for the purpose of reforming the calendar [see DJALĀLĪ], setting the date for the festival of Nawrūz [*q.v.*] and planning the construction of an astronomical observatory at Iṣfahān. The object was both scientific and economic (fixing the date for the levying of taxes). "Among them," says Ibn al-Athīr, "there were 'Umar b. Ibrāhīm al-Khayyāmī, Abu 'l-Muẓaffar al-Iṣfizārī, Maymūn b. al-Naḏjīb al-Wāṣiṭī and others." Thus the meeting was probably not attended by Niẓām al-Mulk or Ḥasan al-Ṣabbāḥ, despite the legend to this effect retailed by e.g. Ḥamd Allāh Muṣṭawfī in his *Tārīkh-i Guzīda*. Also worth mentioning is a letter written to Khayyām by the Persian poet and mystic Ḥasan (or Maḏjdūd) Sanā'ī-i Ghaznawī (d. 525/1131 [see SANĀ'Ī]), a character of no lesser eminence than he himself, who had suffered bad experiences during a visit to Nīshāpūr, in particular when he was accused of having induced his servant to rob a money-changer. He complained to Khayyām, as a personage of influence in the town capable of defending his interests (the letter, written in elegant Persian, was published by Muḏtabā Mīnuwī, reproduced in 'Abbāsī, 1338/1959, 223-8). In brief, the biography which may be composed on the basis of information from contemporaries or from those who lived shortly after Khayyām is that of an important scholar, of as yet unsuspected poetical talents. Later biographers were to exploit these early elements, reproducing them and sometimes amplifying them imaginatively, as did, in the early 7th/13th century, al-Shahrazūrī in his first article on Khayyām, and al-Ḳifṭī in his *T. al-Ḥukamā'*.

2. The Quatrains

The recent celebrity of the quatrains attributed to Khayyām is inversely proportional to the authenticity of many of them. Care is required, however, when tackling the puzzle posed by the hypothetical reconstruction of the poetical corpus of Khayyām not to obscure a major literary fact, that of the Khayyāmian tradition. In fact, the study of authenticity runs the risk of scuttling a rich tradition which has worked for several centuries according to the procedure and the mentality of an initial literary nucleus which can scarcely be other than the creation of a single individual, who certainly seems to be 'Umar Khayyām, as may be deduced from a number of indications. While it was easy to preserve the scholar's scientific production, the retention of poems of a more personal nature, nudging at the frontiers of orthodoxy, could only be done with caution. There exists no text of reference offering the essential poetical works of Khayyām. There exist sparse quotations, painstakingly collected by anthologists, forming a small corpus which is very coherent in form and in content. Beyond this, there was an abundance of quatrains of the same type, regarded as worthy, for a limited period of time, of the tradition thus constituted, and demanding to be understood. Subsequently, the situation deteriorated; inferior imitations were produced, quatrains of other poets, dependent on other inspirations, were blended into the corpus, and the final stage saw the clever fabrication of "ancient" manuscripts.

Quatrain is the term used, inaccurately, to denote the Persian *rubā'ī* [*q.v.*]. It consists, as is well known, of two distiches (*bayt*), composed in turn of two hemistiches (*miṣrā'*). The four hemistiches have the same basic metre, specific to the quatrain (reading from right to left): - - \- -\ o - o\ - o o\ - -. This quantitative metre has five feet. It is obligatory that feet no. 1 and no. 4 are strictly invariable. In the entirety of the Khayyāmian tradition, foot no. 2 consists of two shorts and one long; exceptions (two longs alone) are rare. Foot no. 3, in the same tradition, alternates freely, within the same quatrain, between short-long-short and long-short-short; it is unusual to find two longs in this position. In the same tradition and within the same quatrain, foot no. 5 can be formed of two longs or of two shorts and one long. No rule exists to impose order on variation; for example, the third *miṣrā'* is not necessarily required to be distinguished from the three other *miṣrā'* by a specific variation of the metre. As for the rhyme, S.'A. Mir Afḍalī (1374/1995) has shown statistically that before the 7th/13th century, this third *miṣrā'* is not yet necessarily at variance with the rhyme of the *rubā'ī*. Of the 1,358 Persian quatrains known between the 5th/11th century and the 6th/12th century, 1,347 have the rhyme *a-a-a-a*, and only eleven have *a-a-b-a*. It is to this tradition that quatrains of the time of Khayyām belong, and here there is an additional means of pursuing the quest for authenticity. The rhyme in *a-a-b-a* is thus not absent, but it is not common, as will be seen. The rhyme scheme *a-a-b-a* was subsequently to become the rule, however, either as a result of the work of new poets, or on account of new arrangements of ancient quatrains by copyists.

The history of the quatrains of 'Umar Khayyām has been marked by a particular event, this being a free translation of these poems into English which enjoyed unparallelled success. Khayyām was not unknown in Europe; his name was mentioned in Basel in 1583. In 1816, H.G. Keene produced the first English translation of the quatrains, revived in German by Von Hammer Purgstall a few years later. But E.B. Cowell, who taught Persian to Edward Fitzgerald (1809-83) and was Professor of Sanskrit at Cambridge, discovered in 1856 in the Bodleian Library at Oxford a manuscript from the Ouseley collection (no. 140), dating from the 9th/15th century and containing 158 quatrains explicitly attributed to Khayyām. From 1859 onwards, Fitzgerald began to publish his translation,

on the basis of this manuscript and with the aid of a more recent Indian copy containing 510 quatrains. Fitzgerald's fifth version appeared in 1889. Only the first bore the rubric *translated*, without the name of the translator; the others were to be signed and described as *rendered*—a more accurate term in that this was a poetical rendering into English of what Fitzgerald understood to be the message of the quatrains. The number and the choice of quatrains varied from one version to the other. In total, the English poetical work ran to 310 editions and millions of copies. For a translation, it was a phenomenal success.

The reverberations were considerable, but it was not until 1897 and the appearance of Z. Žukovski's article on what he called "the wandering quatrains" (in *al-Muẓaffariyya. Festschrift Baron V. Rosen*) that the question was raised as to the authenticity of 82 quatrains attributed to ʿUmar Khayyām. E. Denison Ross (1900), then E.G. Browne (synthesis in *LHP*, ii, 246-59), took up the question, the latter concluding, with others, that an adequate answer could not be found. After the edition and translation of numerous quatrains by F. Rosen in 1925, on the basis of a dubious manuscript known as the "Berlin" one, the copy of a copy containing 329 items arranged alphabetically, Arthur Christensen (*Critical studies*, 1927) re-examined the entire question. Facing the major difficulty posed by the fact of only late manuscripts of the quatrains existing, the best option was to choose the most reliable manuscripts and seek to establish connections between the texts in terms of the succession of quatrains established in each case. The absence of alphabetical arrangement among the quatrains, for example, is, as is well known, a sign of the antiquity of a text. On the other hand, a quatrain may be considered authentic if it is found in at least five texts of the best group of these manuscripts. By means of successive eliminations, Christensen arrived at a total of 121 quatrains showing characteristics of authenticity in form and content. The excellent *EI*[1] article published by V. Minorsky in 1936 s.v. *ʿOmar Khayyām*, shows the stage which had been reached in his studies at that point. But in Persia as in Europe, research was henceforward directed towards ancient texts capable of delivering, at least in quotation, original works. Here, in chronological order, are the ancient pieces and the significant evidence. A characteristic trait showing the antiquity of a quatrain is the fact that it does not contain the name of Khayyām. General use of the *takhalluṣ* [*q.v.*] dates from the 7th/13th century, and not being by any means a panegyric poet, Khayyām had no need to impress a patron with self-generated publicity. When Khayyām's name appears in a quatrain, it is natural to suspect pseudepigraphy or the substitution by a copyist of *khayyām* for a word such as *ayyām*. Khayyām is not always named by the author who cites a quatrain, and it at this point that recourse must needs be had to tradition.

First to be mentioned is the fact that, in the anthology which he composed in 572/1176 (*Kharīdat al-Ḳaṣr*), ʿImād al-Dīn al-Kātib al-Iṣfahānī mentions Khayyām among the poets of Khurāsān who wrote in Arabic. The poem of four Arabic *bayt*s which he quotes is certainly consistent with the thinking of the poet, in its evocation of the quest for reconciliation of self with the realities of destiny. This would be supplemented by other Arabic *bayt*s of Khayyām which al-Shahrazūrī was subsequently to cite in the second article which he devoted to Khayyām in his *Nuzhat al-arwāḥ*, written before 611/1214 (quotations and translations in ʿAlī Dashtī, *Damī bā Khayyām*, 92-98).

But even before 534/1139, thus before Niẓāmī-i ʿArūḍī, and a few years after the death of Khayyām, Aḥmad-i Samʿānī produced a remarkable Persian quatrain in his *Rūḥ al-arwāḥ* (ed. N. Māyil-i Harawī, 78, 293), which the entire tradition, from the 7th/13th century onward, has attributed to Khayyām. A masterpiece of Persian literature, the work dealt with the divine names, and the quatrain concluded the chapter on the name of Creator (*al-bārī*); it is quoted again in the chapter dealing with divine mercy. It takes the form of an ironical perspective on those who inquire about the causes of the world without thinking of the cause of His action and dealing only with pretexts (*rubāʿī* no. 19 in Dashtī, *Damī bā Khayyām*, with significant variants. References here will be to this work at times, but with account being taken, as the case requires, of more ancient quotations).

Farīd al-Dīn ʿAṭṭār (d. 586/1190) is the well-known author of major spiritual *maṯnawī*s in Persian; his *Ilāhī-nāma* is the one which he wrote concerning the end of his life. Like Khayyām, he was from Nīshāpūr. One of many anecdotes in his poem (215, 5169-83) is that of the man who could see what was happening in tombs. To test him, a dignitary led him to the tomb of ʿUmar Khayyām. There the man saw the scholar in a state of utter confusion having to confront his ignorance, although throughout his life he had prided himself on his knowledge. Subsequently ʿAṭṭār extends the sayings of the visionary in the form of a long homily: since neither the beginning nor the end of life is clear, no one will find in this inferior world either head or tail. The sky is a ball without beginning or end, the earth is a foul valley where all men lose their way, the world is misery, the Wheel [of fate] plays with us. Such is ʿAṭṭār's version of the nucleus of the thinking promulgated by Khayyām's quatrains—a curious version, indeed.

Ẓahīrī-i Samarḳandī wrote some ten years before 600/1203 his *Sindbād-nāma*, a fine example of Persian prose embellished with pieces of verse. Among the latter, and without the author being named, five quatrains are found which tradition attributed to Khayyām at a very early stage. These *rubāʿī*s (Dashtī, nos. 29, 16, 12, 22, 18), of ancient composition, add to the theme of the precariousness of a world devoid of reason, that of the consequences of withdrawing from it; since no one will return to the world below to reveal the secrets of other places, it is imperative that all enjoy their share of good living, in particular the pleasures of wine and romance. Not to do so would be a mistake. The poems also evoke the theme of the earth as dust; the cup and the pitcher are made from the remains of humans who were proud. Ẓahīrī repeated *rubāʿī* no. 29 in his *Aghrāḍ al-siyāsat* (155).

It is with Fakhr al-Dīn Rāzī [*q.v.*] that the name of Khayyām appears as the author of a quatrain (Dashtī, no. 1, with perceptible variants). In the last part of a treatise written in 600/1203 (*al-Tanbīh ʿalā baʿḍ al-asrār* . . .), in a commentary on sura XCV which relates to the last things, the author quotes this audacious *rubāʿī* which he attributes to Khayyām by name: "Disposer of the elements,/ Why did the Master of the world/ Vow the destruction of these assemblages of atoms?/ If they were fair of form/ And well-conceived, why then/ Dismantle them? And if not . . ./ if not, who is to blame?" (following the Fr. tr. of G. Lazard). Coming from such an authority, the quotation and the attribution to Khayyām carry considerable weight. The *rubāʿī* poses a question poetically, but this is to be understood as a rhetorical question, the response to which is not in doubt—or possibly

as a metaphysical question to which there is no answer. It is impossible to forget the existence and the breadth of the tendency of "free thinkers in classical Islam" (see on this subject, D. Urvoy, Paris 1966), when contemplating this famous quatrain.

This same *rubā'ī* was to be taken up by another Rāzī, Nadjm al-Dīn Dāya, in the work in Persian which he completed in 620/1223 (*Mirṣād al-'ibād*, 31), adding to it another *rubā'ī* (Dashtī, no. 2) which he also attributed to Khayyām, as a means of further justifying his indignation as a believer confronting such manifestations of atheism. The second *rubā'ī* cited ("In the circle whither we enter and whence we depart") could have followed the passage dedicated by 'Aṭṭār to Khayyām.

The 7th/13th century was the time when there appeared, in the pattern which has been seen to evolve, the best-formed quatrains. Without naming Khayyām, Rāwandī, in his *Rāḥat al-ṣudūr* of 599/1202 (425), presents a Bacchic quatrain ("A mouthful of old wine is better than the new empire", absent from Dashtī). Before 622/1225, Warāwīnī, in his *Marzbān-nāma* (ed. Rawshan, 501), without naming Khayyām, quotes the fine quatrain (absent from Dashtī) spoken by a fisherman, complaining of his old age to a fish. In 629/1231, 'Abd al-Ḳādir Āharī, in *al-Aḳtāb al-kuṭbiyya* (ed. Dānish-Pazhūh, 121), attributes to Khayyām two Ṣūfī quatrains, one of which is definitely the work of Sanā'ī. On the other hand, without naming Khayyām, he quotes from two of his quatrains, one being that cited (above) by the two Rāzīs (Dashtī, no. 1), the other retained by tradition "Heaven has nothing to offer me [here below]" (absent from Dashtī).

A new development took place in the Khayyāmian tradition with the proliferation of anthologies. That of Khalīl-i Shirwānī, the *Nuzhat al-madjālis* (written before 649/1251), a collection of 4,000 *rubā'ī*s, includes a *bāb* devoted to Khayyām by name and containing 31 quatrains, presented as a choice made from those of the poet. While five are problematical, the other 26 quatrains are of the best quality (see M. Farzāna, *Khayyām-shinākht*, Tehran 1974, 153-65). There must have been other anthologies in which Khayyām had his place. One which has survived and which dates from the following century (741/1340), was written by Muḥammad b. Badr al-Djādjarmī, *Mu'nis al-aḥrār* (ii, 1144-6). It is composed of a choice of the poems of a great many authors, among whom Khayyām is mentioned and his work illustrated by the quotation of 13 quatrains, some of which have been mentioned above, and all of which are of superior quality. But five out of the 13 quatrains have already discarded the rhyme scheme *a-a-a-a* in favour of *a-a-b-a*.

Henceforward, Khayyām enters the storehouse raided by other men of letters for quotations which serve their purpose. Thus 'Aṭā' Malik Djuwaynī, the historian of the Mongols, in his *Tārīkh-i Djahāngushāy* (i, 128, written before 681/1281) puts into the mouth of a spectator of the atrocious massacres committed by the Mongols at Nīshāpūr the superb *rubā'ī* beginning *Tarkīb-i piyāla ki* . . . (Dashtī, no. 3), attributed to Khayyām by name. For his part another eminent historian, Rashīd al-Dīn Ṭabīb (d. 718/1318) in his *Djāmi' al-tawārīkh* (in the section devoted to the Ismā'īlīs, ed. Dānish-Pazhūh, Tehran 1356/1977, 110-11) quotes an anecdote explaining the reasons for the assassination of Niẓām al-Mulk by Ḥasan Ṣabbāḥ. The whole episode is supposed to be based on the fact that these two individuals, in their childhood, were close friends of 'Umar Khayyām; when he was at the zenith of his power, Niẓām al-Mulk kept the promise he had made to help his friends in regard to Khayyām only, not to Ḥasan Ṣabbāḥ. This fictitious account is the origin of the legend which was to develop of the three companions (cf. H. Bowen, *The* sargudhasht-i sayyidnā, *the "Tale of the three schoolfellows"* . . ., in *JRAS* [1931], 771-82), and it may have been inspired by the story of the three companions of the fig-tree recounted in the 4th/10th century by al-Djahshiyārī (*K. al-Wuzarā' wa 'l-kuttāb*, ed. Cairo, 96). It is found fully developed in the work of Dawlat Shāh (*Tadhkirat al-shu'arā'*, 153). Sayfī-i Harawī wrote in 720/1320 a history of Harāt (ed. Ṣiddiḳī, 129) in which he quoted, without naming Khayyām, a quatrain subsequently held by tradition to be attributable to bim "The misery of the world is poison (*zahr-ast*), and wine is my antidote to poison". Yet another historian, Mustawfī-i Ḳazwīnī, in his *Tārīkh-i Guzīda* (written in 730/1329), devoted a feature to Khayyām, presented as a scholar and a poet, and quoted two of his *rubā'ī*s, one the famous "Every atom upon the earth has been a being on the face of the sun" (Dashtī, no. 4), and the other a more dubious one, supposedly composed at the time of his death by "Khayyām who stitched the tents of wisdom . . .".

Also worthy of mention among the original recorders of the quatrains of Khayyām is 'Ubayd-i Zākānī [*q.v.*], the satirical poet of the 8th/14th century. In his *Akhlāḳ al-ashrāf*, ed. Iḳbāl-i Āshtiyānī, Tehran 1953, 14, 19, without naming Khayyām, he supplies the quatrain (Dashtī no. 16) already recorded by Ẓahīrī in his *Sindbād-nāma*, and another of dubious authenticity which tradition does not retain.

Though the links in the chain are lacking, it is not hard to envisage the process whereby, over two centuries, the collection of quatrains attributed to 'Umar Khayyām was considerably expanded. The celebrated Oxford manuscript used by Fitzgerald, dating from 865/1460, contains 158 *rubā'ī*s. In manuscripts also dating from the 9th/15th century, in Istanbul, in the B.N. of Paris or in private collections in Tehran and Lucknow, collections have been found ranging from 56 to 315 quatrains. Subsequently, the tally expanded still further, exceeding the figure of 500. But an interesting turn of events, which put the brakes on this expansion, came between 1947 and 1952, when three manuscripts came on the market, dating respectively from 604/1208, 613/1216 and 658/1259. Also announced in Tehran in 1959 was the existence of a manuscript dating from 654/1256. Khayyām was named as the sole author of quatrains totalling 252 items. V. Minorsky took the bearings of this issue (*The early collections of O. Khayyam*, in *Ya̱dnāme-yi Jan Rypka*, Prague-The Hague 1967, 107-23) on which there is little point dwelling, although Minorsky's encouraging conclusions, which include the following, may be noted: the comparative tables between these manuscripts, drawn up by A.J. Arberry, will serve as references for research, and credit is due to the imitators of Khayyām for having preserved a living tradition based on a root which was well documented.

The English translation by A.J. Arberry of the Cambridge manuscript, erroneously dated to 604/1208, then the French translation by Pierre Pascal, with an edition of the manuscript in Rome in 1958, then the edition of the manuscript by Muḥammad 'Abbāsī in Tehran in 1959 and by Aliev and Osmanov, with Russian translation, at Moscow in the same year, are useful works in that they present the provisional corpus of quatrains relating, with a few evident exceptions, to the Khayyāmian tradition. The figure of 252 *rubā'ī*s is clearly disproportionate in terms of the num-

ber of *rubā'īs* found in texts between the 6th/12th and 8th/14th centuries which could have been composed by Khayyām—an approximate total of 25 items, of which fewer than ten are explicitly mentioned by the sources as being the work of the poet himself, if the *Nuzhat al-madjālis* of Shirwānī is left out of the equation.

What is needed is a revised edition of the Cambridge manuscript which takes account of the readings offered by the ancient texts. It would be necessary to eliminate the quatrains which are not part of the Khayyāmian tradition, such as nos. 131-2, 134, 151-8, etc. (Moscow ed.). Also required is a clearer identification of what is most central in the Khayyāmian tradition, not only in the text itself, but in the evident influence of this tradition on the thinking of major authors such as Ḥāfiẓ. It is seen, for example, that the invisible is that which is questioned by the man whose knowledge reveals his ignorance. This invisible is presented as inadmissible, since it is a secret kept elsewhere; it is a destiny which, in justifying itself, denounces the one whom it overwhelms. All men need a share of terrestrial good fortune, and the therapy for guilt is to enjoy this share immediately. Religious practice is then devoid of cause and effect (no. 140), profitable time is only that of the moment (no. 200, for example), and thinking of God evokes the idea that in His place the poet would have made the world otherwise (no. 228, for example). Several quatrains place the poet among those who are in neither total certainty nor total doubt, but steer a path between the two extremes.

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(CH.-H. DE FOUCHÉCOUR)

3. Mathematics

The main contributions by Khayyām in science are related to mathematics and astronomy. His first extant mathematical treatise is a "Treatise on the division of a quadrant of a circle" (*Risāla fī taḳsīm rubᶜ al-dā'ira*), which was devoted to the theory of algebraic equations. Algebra, as important part of mathematics, appeared in the treatise of Muḥammad b. Mūsā al-Khᵛārazmī under the name *al-djabr wa 'l-muḳābala* [*q.v.*]. Al-Khᵛārazmī himself solved only linear and quadratic equations, but some classical and mediaeval mathematicians solved separate cubic equations; thus the first cubic equation $x^3 = 2a^3$ was solved in the 4th century B.C. by Menaechmus and led him to the invention of conic sections.

The single manuscript of this treatise by Khayyām is located in the Library of Tehran University. It was published, with a French translation by R. Rashed and A. Djebbar. In it, a geometric problem of division of a quadrant of a circle was reduced to the cubic equation $x^3 + 200x = 20x^2 + 2000$. The complete classification of cubic equations with positive roots was also given, and the equation in question was solved by intersection of an equilateral hyperbola and a circle. Khayyām found also the approximate numerical solution of this equation. There are also Persian, English and Russian translations.

The complete theory of cubic equations was set forth by Khayyām in his Arabic "Treatise on the proofs of problems of algebra and almucabala" (*Risāla fi 'l-barāhīn 'alā masā'il al-djabr wa 'l-muḳābala*) written in Samarḳand and dedicated to the judge Abū Ṭāhir, extant in manuscripts in Paris, Cairo, London, Leiden and the Vatican, and published by F. Woepcke. There are also English, Russian, and Persian translations. This treatise contains the complete classification of linear, quadratic, and cubic equations with positive roots. This classification consists of 25 equations: one linear $ax = b$; five quadratic $ax^2 = bx$, $ax^2 = c$, $ax^2 + bx = c$, $ax^2 + c = bx$, and $ax^2 = bx + c$; five cubic equations which can be reduced to linear and quadratic: $ax^3 + bx^3$, $ax^3 = bx^2$, $ax^3 = cx$, $ax^3 + bx^2 = cx$, $ax^3 + cx = bx^2$; and 14 cubic equations which cannot be reduced to linear and quadratic: $ax^3 = d$, $ax^3 = bx^2 + cx$, $ax^3 = bx^2 + d$, $ax^3 = cx + dx$, $ax^3 + bx^2 = cx$, $ax^3 + bx^2 = d$, $ax^3 + cx = d$, $ax^3 = bx^2 + cx + d$, $ax^3 + bx^2 + cx = d$, $ax^3 + bx^2 + d = cx$, $ax^3 + cx + d = bx^2$, $ax^3 + bx^2 = cx + d$, $ax^3 + cx = bx^2 + d$, $ax^3 + d = bx^2 = cx$. In all these equations, all coefficients, a, b, c, d are positive. For quadratic equations, Khayyām gives solutions according to the treatises of al-Khᵛārazmī and Thābit b. Ḳurra; for cubic equations which are not reduced to linear and quadratic ones he gives solutions by means of conic sections: parabolas with diameters parallel to axes 0x or 0y, circles, and equilateral hyperbolas

with axes or asymptotes parallel to axes 0x and 0y. For instance, the equation $x^3 + d = bx^2$ he solves by means of the parabola $y^2 = D(b-x)$ and the equilateral hyperbola $xy = D$, where $D^3 = d$. For each equation he considers cases, when this equation has one, two, or no positive roots (for our example in these cases, the hyperbola and parabola touch at a point, intersect at two points, and do not meet, respectively). The case when a cubic equation has three positive roots, Khayyām does not notice.

Before his "Treatise on the proofs of problems of algebra and almucabala", Khayyām wrote a treatise on arithmetic. In this he mentioned that the Indians know methods for extracting square and cubic roots based on small induction and knowledge of the products of the first nine numbers, and that he had written a treatise with the proof of these Indian rules and generalised them for finding "bases of square-squares, square-cubes, cube-cubes and so on, as much and as many as you like", that is, for the extraction of roots of any integer power. Since such methods in the works of Naṣīr al-Dīn al-Ṭūsī and Djamshīd al-Kāshī are based on the binomial formula for $(a + b)^n$, this treatise apparently contained also the exposition of the binomial formula. This treatise is not extant, but its title was apparently "Difficult problems of arithmetic" (*Mushkilāt al-hisāb*); this last is written on the title page of the Leiden University Library ms. containing a manuscript of Khayyām's geometric treatise. Therefore in V. Minorsky's *EI*[1] art. *'Omar Khaiyām* it was written erroneously that a manuscript of this treatise is extant and located at Leiden.

Khayyām's geometric treatise is his "Commentary on difficulties in introductions to the Book of Euclid" (*Sharḥ mā ashkala min muṣādarāt kitāb Uklīdis*), finished at Iṣfahān in 469/1077, with manuscripts located in Paris, Leiden and in the Ḥaydarābād Sālār Djang Library; the Arabic text was published by T. Erani in Tehran and by A.I. Sabra in Alexandria. There are also Russian and incomplete English translations of this treatise. The treatise is devoted to commenting on Euclid's *Elements* and consists of three chapters: (1) on parallel lines, (2) on the definition of ratio and (3) on compound ratios, these three problems being indeed the most difficult ones in the *Elements*.

The first relates to Euclid's postulates. In his introduction to the first book of his *Elements*, Euclid formulates five postulates, that is, geometric axioms: (1) any two points can be joined by a straight line, (2) any straight line can be continued indefinitely, (3) there is a circle with any centre and any radius, (4) all right angles are equal and (5) if a line intersects with two lines in a plane and forms interior one-side angles less than two right angles, these lines, if they are continued, will meet. The fifth postulate is formulated in a more complicated way than the first four, and many mathematicians tried to prove it as a theorem. In the introduction to this chapter, Khayyām formulates five "principles borrowed from the Philosopher". This Philosopher is undoubtedly Aristotle, since four of these five principles are in Aristotle's works. Only the fourth principle is not found there: "Two convergent straight lines meet and it is impossible for two convergent straight lines to diverge in the direction of convergence"; evidently this "principle" was formulated by Aristotle in a work no longer extant. This principle is equivalent to postulate V of Euclid, but is more obvious. Khayyām proposes a proof of Euclid's postulate V based on it. Note that many proofs of postulate V were based on the logical error of *petitio principii*, that is, it implicitly contains an assertion equivalent to the postulate to be proved. Khayyām was one of the first mathematicians whose proof did not contain this error and who explicitly replaced postulate V by an equivalent assertion. In his proof, Khayyām first considered a quadrilateral with equal sides, with two right angles at the base and two equal angles at the upper side, and three hypotheses on these upper angles, i.e. the hypotheses of acute, obtuse, and right angles, and he refutes the first two hypotheses by means of the fourth "principle of the Philosopher". From the existence of the rectangle he easily proves the postulate V. Note that the hypotheses of acute and obtuse angles are fulfilled in hyperbolic and elliptic non-Euclidean geometries respectively, and in his proof Khayyām actually proves the first theorems of these non-Euclidean geometries. The Khayyām quadrangle was later used by Naṣīr al-Dīn al-Ṭūsī, J. Wallis and G. Saccheri, and is therefore known also as the "Saccheri quadrangle".

The second of these problems is the problem of definition of the equality of two ratios of continuous magnitudes. In ancient Greece, there were two solutions of this problem, those of Theaetetus and Eudoxus. The way of Theaetetus was forgotten by the time of Khayyām, and Khayyām discovered it anew and proved the equivalence of both definitions. Note that Theaetetus's definition admits the calculation of approximate rational values with any required degree of precision.

The third of these problems is the problem of the definition of "compound ratios". In Book V of his *Elements*, Euclid defined "double", "triple", and "multiple" ratios for a/c, if a/b = b/c, for a/d if a/b = b/c = c/d, etc., and in Book VI he wrote that a ratio a/b is "compound" from ratios c/d and e/f if there are magnitudes k, l, m such that a/b = k/m, c/d = k/l, and e/f = l/m. For the creation of a new theory of these ratios, Khayyām introduced an abstract 1 and connects with each ratio a/b of continuous magnitudes an abstract magnitude g, such that (1/g) = (a/b). He calls the magnitude g "number" but "not a number absolute and true" (for him "absolute and true" numbers were only integer numbers). Thus he introduces generalised numbers which now are called "real numbers". He calls a ratio "compound" from two given ratios if the "generalised" number for the first ratio is the product of analogous numbers for the second and third ratios; undoubtedly, since he could calculate approximate rational values of ratios, he understood by "the product of two generated numbers" the number determined by a product of approximate rational values of ratios forming the compound ratio. The notion of real numbers appeared in Europe only in the works of Descartes, Wallis, Newton and Leibniz, and became the basis for the creation of differential and integral calculus.

Thus Khayyām's commentary on Euclid played a very important and creative role for the discoveries of European mathematicians such as non-Euclidean geometry and calculus.

4. Astronomy and the calendar

In 466/1074 Khayyām was invited by the Saldjūḳ sultan Malik Shāh [*q.v.*] to his capital for organising an astronomical observatory and for reforming the Persian solar calendar necessary for agricultural work. The new observations of the motion of the sun led to a more accurate measurement of the length of the solar year, and the spring equinox of 471/1079 became the first day of the new era called "Malikī" or "Djalālī" (in honour of Malik Shāh, who also had the honorific of Djalāl al-Dawla). The reform was not

carried out finally, but the alternation of leap years in this calendar was normally 4, 8, 12, 16, 20, 24, 28, 32 (this calendar diverges from the astronomical solar calendar by one day every 5,000 years, whereas this divergence is reached after only 3,333 years in the Gregorian calendar). The observatory was destroyed after Malik Shāh's death in 485/1092.

In this observatory, Khayyām compiled his "Astronomical tables for Malik Shāh" (*Zīdj Malik-Shāhī*) mentioned by Ḥādjdjī Khalīfa. Only one fragment of these tables is extant: the catalogue of 100 of the brightest stars, located in an anonymous manuscript written by the Ismā'īlīs (now in the B.N., Paris); there is a Russian translation of this catalogue.

After the destruction of his observatory, Khayyām wrote in Persian his *Nawrūz-nāma* "Book of the New Year", devoted to the Persian solar calendar. There is a single manuscript in Berlin; the text was published in Tehran in 1933. Undoubtedly, this treatise was written to attract the attention of the successors of Malik Shāh to problems of the Persian solar calendar and to prompt them to restore the observatory.

5. Mechanics, natural sciences, music

In the period when the capital of the Saldjūk sultanate moved to Marw, the works of Khayyām relating to mechanics were written. There worked in Marw, at the court of Sultan Sandjar, Khayyām's pupil 'Abd al-Raḥmān al-Khāzinī [*q.v.*], the author of the "Astronomical tables for Sandjar" and a treatise on mechanics, "The balance of wisdom". Al-Khāzinī's "Balance of wisdom" contains the texts of two of Khayyām's treatises on mechanics "The balance of wisdoms" (*Mīzān al-ḥikam*) and "On right balance" (*Fī 'l-ḳusṭās al-mustaḳīm*). Both are devoted to the theory of the level balance, and there are also separate manuscripts of the first treatise under the title "On the art of defining quantities of gold and silver in a body consisting of them" (*Fī iḥtiyāl ma'rifa miḳdāray al-dhahab wa 'l-fidḍa fī djism murakkab minhumā*). Khayyām solved this problem by weighing the alloy in air and in water, and he named the balance for this weighing the "balance of wisdom", whence also the title of al-Khāzinī's book. In the second treatise, a balance with a moveable weight is considered. The first of these treatises has been published in Arabic text and translated into English, German, and Russian; the second is also published in Arabic text and in Russian translation.

The treatise on music "Reasoning on kinds [formed] by quarts" (*al-Ḳawl 'alā 'l-adjnās allatī bi 'l-arba'a*) is extant in two Arabic manuscripts in Manisa and in Tehran University Library; it is published in Arabic text and Russian translation. Perhaps this treatise is a fragment of the "Treatise on difficulties from the book on music" (*Sharḥ al-mushkil min kitāb al-mūsiḳā*) mentioned in the treatise of Khayyām on geometry.

The historians al-Bayhaḳī and al-Tatawī mention also natural scientific (physical or biological) and geographical treatises of Khayyām, *Mukhtaṣar fī 'l-ṭabī'iyyāt* "Concise treatise on nature" and *Lawāzim al-amkina* "Necessary information on places". Khayyām was also a physician and treated the sons of Malik Shāh, Berkyaruḳ, Muḥammad and Sandjar.

6. Philosophy

Besides philosophical quatrains, Khayyām also wrote philosophical treatises, in which he appears as a pupil of Ibn Sīnā (Avicenna), that is, as an adherent of Eastern Aristotelianism. The first treatise "On being and obligation" (*Risālat al-kawn wa 'l-taklīf*), was written in 472/1080 at the request of the judge and *imām* of Fars, Abū Naṣr Muḥammad b. 'Abd al-Raḥīm al-Nasawī, who was also a pupil of Ibn Sīnā. Al-Nasawī asked Khayyām to explain his opinion on God's wisdom in the creation of the world and man, and on the obligation of men to pray. This request may possibly be explained by the contents of some quatrains composed by Khayyām or ascribed to him, and the judge, as a pupil of Ibn Sīnā, wanted to free Khayyām from suspicions of heresy. Khayyām substantiates the necessity of God, like Aristotle and Ibn Sīnā, as being the final cause, the cause of all causes, because the chain of causes must have an end, that is, it cannot be infinite or circular. He names this chain of causes the "chain of order" and says that the upper links of this chain are noble (the uppermost link is God), and the lower links are not noble (the lowest link is dust). The necessity to pray Khayyām explains by the necessity always to remember God and to obey His laws.

The second treatise, "An answer to three questions: the necessity of contradiction in the world, determinism and permanence" (*Djawāb 'an thalāth masā'il: ḍarūra al-taḍādd fi 'l-'ālam wa 'l-djabr wa 'l-baḳā'*) is connected with the first treatise. Apparently Khayyām's answer satisfied the imām, and he proposed to Khayyām three new, more difficult, questions. The first is the problem of evil in the world. Khayyām believes that even an all-powerful God cannot operate without evil and to refuse a great good owing to a small evil is itself a great evil. An analogous problem was discussed later by Leibniz in his *Theodicy*. Regarding determinism, Khayyām says only that "determinism first looks as if it were nearer to truth, but indeed declines into the absurd and is very far from the truth". The problem of permanence, that is, the stability of phenomena, is one of the most important problems of all philosophical systems; Khayyām, like all Muslim philosophers, was reduced to explaining permanence by the will of God.

In this treatise, Khayyām considers the important problem of universal notions. Ibn Sīnā believed that universal notions are threefold: "before things", in the mind of God, like Plato's ideas, "in things", and "after things", in the mind of men, that is, as an abstraction of concrete things. Khayyām considers only two forms of the existence of general notions, "in things" and "in the soul", that is, in the mind of men. In mediaeval Europe, the doctrine of Ibn Sīnā was apprehended by the "realists", who believed that universal notions really exist, i.e. in the mind of God, e.g. by Aquinas, and the doctrine analogous to that of Khayyām, i.e. the doctrine that universal notions are only names, was the doctrine of the "nominalists".

Both these treatises are written in Arabic. Their Cairo manuscripts are now lost, but were printed at Cairo in 1335/1917 in the collection of treatises of Ibn Sīnā, Khayyām, and other Muslim philosophers called *Djāmi' al-badā'i'*, and reprinted in the books of al-Nadwī and, with English translation, of Swami Govinda Tirtha. There are also Persian and Russian translations.

The third of his philosophical treatises, "The light of intelligence concerning the subject of universal knowledge" (*al-Diyā' al-'aḳlī fī mawḍū' al-'ilm al-kullī*), also in Arabic, is likewise printed in the above-mentioned collection, and reprinted by al-Nadwī. There are also Persian and Russian translations. The manuscripts of Khayyām's fourth philosophical treatise, "On existence" (*Risāla fī 'l-wudjūd*), also in Arabic, are located in Berlin and the Tehran Madjlis Library, reprinted by al-Nadwī, and, with English translation, in the book of Swami Govinda Tirtha. There are also Russian translations.

His fifth philosophical treatise is written in Persian, with manuscripts in London, Paris, the Tehran Madjlis Library and in the Khayyām Library. These manuscripts have three titles: *Risāla fī kulliyyāt al-wudjūd*, *Darkh*^{w}*āst-nāma*, and *Risāla-yi silsilat al-tartīb*. It is also published in the books of al-Nadwī and, with English translation, by Swami Govinda Tirtha. There are also French and Russian translations. It was written for the son of Mu'ayyid al-Mulk, vizier to the later Saldjūḳs, and contains a detailed exposition of Ibn Sīnā's theory of "chain of order": the links of this chain are connected with celestial spheres, each link has a mind and soul, and is moved by activity and love. It also contains the classification of existing bodies and, following al-Ghazālī, a classification of "men who strive to know truth", comprising (1) the *mutakallimūn*, (2) scientists and philosophers, (3) the Ismāʿīlīs and (4) the Ṣūfīs (although Khayyām himself was a scientist and philosopher, in this treatise, following al-Ghazālī, he believes that the highest place belongs to the Ṣūfīs).

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(B.A. ROSENFELD)

ʿUMAR MAKRAM, AL-SAYYID (*ca.* 1755-1822), the charismatic leader of the common people in Cairo between 1791 and 1809. He mediated the return to power in 1791 of the banished *amīr*s Ibrāhīm Bey [*q.v.*] and Murād Bey, with whom he maintained a long and friendly relationship, became Egypt's *naḳīb al-ashrāf* [*q.v.*] in November 1793 and continued a political career that took him to a peak of political influence in the chaotic period between the arrival of the French in 1798 and his banishment in 1809.

He helped to organise popular resistance to the French, fled Cairo twice, in 1798 and 1800, and returned triumphantly with the Ottoman governor in 1801. Re-appointed *naḳīb al-ashrāf* in April 1802, he played a major role in organising the armed resistance of the citizenry against the Ottoman governor Khurshīd Aḥmad Pasha, in offering the governorship to Muḥammad ʿAlī [*q.v.*] in 1805, in rallying the people behind the new governor when the central government tried to transfer him the following year, and in leading resistance to the British in 1807. He was one of Muḥammad ʿAlī's major intermediaries with the dissident Mamlūk *amīr*s who controlled the countryside and became a primary agent in assigning and collecting taxes and "loans" for Muḥammad ʿAlī.

As al-Sayyid ʿUmar's popularity increased among the common people, whom he tried to protect from the excesses of the period, he felt secure enough to oppose some of Muḥammad ʿAlī's demands for increased taxes, and in a particular dispute that erupted in 1809 refused to attend the governor in the citadel. Perceiving him as a political threat, Muḥammad ʿAlī courted al-Azhar's [*q.v.*] scholars who, jealous of al-Sayyid ʿUmar's popularity, political influence and wealth, connived with the governor to dismiss and banish him. He was expelled to Damietta in Augnst 1809 and moved to Ṭanṭā in April 1812. His dismissal ended the influence which the *ʿulamā'* exerted on Muḥammad ʿAlī. He was permitted to return to Cairo in January 1819 prior to undertaking the Pilgrimage, but was still popular among the people. He was banished again to Ṭanṭā in April 1822 and died there that same year.

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ʿUMAR AL-NUʿMĀN, an Arabic romance of a chivalric nature which forms part of the *1001 Nights* (nights 44 to 146 in the Būlāḳ ed., Chauvin no. 277), but also with independent attestations.

The intrigue, which is particularly complex (résumé in Chauvin, *Bibliographie*, vi, 112-24), falls within the general framework of the Arab-Byzantine wars, like the romance of Dhu 'l-Himma [*q.v.*], but unlike this last, has no reference to any recognisably historical substratum; the events narrated are in a vague past "before the caliphate of ʿAbd al-Malik b. Marwān" but after the advent of Islam. This said, the romance deals with several themes and motifs common to Dhu 'l-Himma (see R. Paret, *Der Ritter-Roman von ʿUmar an-Nuʿmān und seine Stellung zur Sammlung von 1001 Nacht*, Tübingen 1927, ch. ii; M. Canard, *Delhemma, Sayyid Baṭṭāl et ʿOmar al-Noʿmān*, in *Byzantion*, xii [1937], 183 ff.), as also with the great Arabic epic romances, like ʿAntara, Baybars and even Sayf b. Dhī Yazan [*q.v.*]. In addition to what can be called proper chivalric themes, an important role is given to ruses, manipulations and disguising; in the story, these are essentially the devices of Dhāt al-Dawāhī, mother of the Byzantine king of Caesarea, an implacable enemy to ʿUmar and his family. This elderly personage, malevolent and diabolically full of ruses, clearly reminds one of Dalīla, the protagonist of the story of the same name of the *1001 Nights* (Chauvin, no. 147); but it also closely recalls, except for the sex, the *ḳāḍī* ʿUḳba of Dhu 'l-Himma and the priest Djawān of Baybars. As against this maleficent personage, the first part of the story brings forward the chivalric figure of the Byzantine Amazon Abrīza, granddaughter of Dhāt al-Dawāhī, who gives hospitality to Sharr Kān, eldest son of ʿUmar al-Nuʿmān, and protects him against her own father's troops before accompanying him to Baghdād. This thematic material appears, however, combined with a complicated family intrigue, sc. the