

ARABIC

MUSICAL

INSTRUMENTS

from a MS

in the

Farmer Collection.

J. B. Hardie.

ProQuest Number: 13850433

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13850433

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Kitab Kashf al-Humum.

I. Introduction.

The anonymous author of this treatise on musical instruments expresses a naïve wish (col.5) that by means of it, he "may gain fame among his fellows, and honour and renown among all the exponents of the musical art who have gone before!" Unfortunately - from more points of view than one - this very understandable desire for recognition seems to have been doomed to disappointment; his ^{work} is almost unknown to lexicographers, and has been completely so until comparatively recent times. The earliest reference which I have been able to find to its existence is in Al-Hilal, 28, p. 214, in an article, descriptive of the literary possessions of Egypt, by Aḥmad Timūr Pāsha. Even here it is briefly dismissed as "Kashf al-Humūm: a photographic copy of the original is in the Dār al-Kutub in Cairo!" The "Catalogue of Books on Music and Singing, and their Authors, Preserved in the Dār al-Kutub", published in the year 1932, is a trifle more informative; it gives the following description. "The Removing of Cares and Grief, being a Description of Musical Instruments; the author is unknown;---- quotes the opening words ----; a bound copy, photographically reproduced from the original, the history of which is unknown, but which is written in pointed Naskhī script, and is preserved in the Tōp Qāpū Sarai Library in Iṣtamboul. It is inscribed on the first page "Dedicated to the Treasurer, the Exalted and Noble One, the Honoured and Served One, Saif al-Dīn Abū Bakr b. al-Muqirr, the late Munkalī Bughā Al-Fakhrī!" It has 118 folios, each with two pages! The press mark is also given - funūn jamīla I.

The MS is included also in Farmers's Sources of Arabian Music, as No. 259, and is there referred to as being anonymous, the date being given as fifteenth century. It is described as "a lengthy and obviously important!"

important treatise on musical instruments evidently written in Egypt!

And those are the only references which are to be found; the Arabic lexicographers have no mention of a Kashf al-Humūm, and, most surprisingly, even the exhaustive Supplement of Brockelmann makes no reference to it. Now such a situation presents immediate and pressing difficulties to the translator. Not only is he completely ignorant of the author, and therefore of the period of writing, of possible literary affinities, and the current background of theoretical knowledge, but he can have no criteria whereby to judge his MS, no parallels with which to compare it, in order to assess its value. And not only so, but the present case has proved peculiarly awkward, inasmuch as one exemplar of the work has had to suffice; the problems of possible textual corruption, many and infinitely varied in this case, cannot even be lessened by the collation of different texts, because here, so far as is known, there is only one text in three recensions. There is the original, as we have seen, in Istamboul, a photographic copy in Cairo, and the present exemplar which is a MS copy of the second, made in the Cairo Library in 1932.

It is from this last alone that I have had to work for the purposes of this essay, and for that reason a brief description of the book as it stands will not come amiss. It is a cloth-bound volume, and consists of 186 leaves, each containing two columns of 9-II lines each; the difference between this figure and that given by the Cairo Catalogue, quoted above, is to be noticed; the writing is good, and there are eleven photostatic plates of the illustrations. Of these, nine depict instruments, the tenth illustrates in conventional circular form, an orchestra of aerophones and membranophones, and the eleventh is a representation of one of the Astronomers' circles so dear to the Arab theorists/

theorists. The MS is now in the Farmer Collection in the Glasgow University Library, press mark Bi-22,z-I8. The text is not in a good condition; unfortunately, owing to the war situation, it has proved impossible to obtain photographs of the Cairo exemplar, by means of which to check the scribal errors whose existence seems all too likely. Particularly is this true of the arithmetical sections with which the work abounds, passages sufficiently difficult to understand in the original, but twice as difficult when copied by a scribe who is quite obviously unfamiliar with the theory which he is transcribing. It is not, of course, necessarily the Cairo scribe of 1932 who is at fault; quite possibly the textual corruption was already in the copy which he was using, but, without access to the latter, we cannot know.

In any case, whether the fault is to be laid to the charge of the modern scribe or of his predecessor, the present text is undoubtedly carelessly written, and corrupt in many places, corruptions for which at the moment we have no apparatus criticus whatever. Quite apart from the influence of such on the meaning of the text, matters which will be discussed in their appropriate places in the commentary, there are obvious flaws in the writing which I have, in general, corrected in the translation without comment. These include modern slipshod forms of grammar, such as اولى for اولة (col.50.), عشرون for عشرين almost invariably, and modernisms such as راج in the sense of "go" (col.127). Again, points are frequently misplaced, or omitted altogether, as in الجادة for الحارة (col.62), انفس for انفس (col.258), etc. Hamza too is frequently omitted, e.g. the word ابتدا seldom if ever has the final hamza written. And even whole words are sometimes mutilated, almost out of recognition, e.g. متى for حتى (col.53), مصبرة for ميرة (col.65), بنجاى in col.II6, بنجة in col.I36, both obviously intended for بنجاى.

بالتا /

بالقانون for القانون (col.246), etc.

As to the normal questions which arise in every MS, questions of authorship, of date and provenance, of the background which produced the work, owing to the singular lack of information already mentioned, we are sadly handicapped in the case of this MS, and are thrown back almost exclusively on the internal evidence provided by the author himself, all unconsciously. Nor can that, in the very nature of things, be other than unsatisfactory, as indeed all such evidence, consisting as it does largely of speculation and hypothesis, must be relatively doubtful.

The author is unnamed on the title-page, nor is there, throughout the MS, any hint of his identity; but, despite this, we may allowably deduce some few facts of his background from the work which he has produced. That he was, for instance, a man of little education seems relatively certain. He cannot quote with any accuracy, save for well-known, almost threadbare sayings, common in the mouth of everyone; there is not even one quotation from the Qur'ān throughout the book, a thing almost unheard of in a work of this kind. The stories, too, with which he illustrates his successive chapters, show not the least sign of erudition; in violent contrast to those used by other writers on this subject, such as Al-Ghazālī or Al-Hujwīrī, our author's tales are long and, for the most part, discursive; a notable exception is the story of the man selling wild thyme (col.268), but in general the incidents are the well-worn, romantic tales which vulgar tradition links loosely - and generally quite unjustifiably - with the famous names of history so remote as almost to have passed into the realm of legend. (Cf. the treatment of Al-Fārābī, discussed below.) Certainly we have here the quotation of some three traditions in recognisable form/

form, but even these are quoted in such a way as to render them useless to the student of the Hadīth literature, a most unusual thing in any Arabic writer.

He gives only one reference to an authority in all the traditions, and that one incorrectly. Al-Farqad (col.189) is presumably Abū Ja'far Muḥammad b. 'Alī b. Mukhlad b. Yazīd b. Mukhriz Al-Farqadī Al-Dārikī, who is mentioned in Al-Sam'ānī: Kitāb al-Ansāb p.425.(d.920 A.D.) Nor are the characters of his stories any easier to recognise; we hear of Maḥmūd Al-Kindī (col.282), of Ḥasan Al-Tūrīzī (col.128), of Abū 'l-Faḥ Al-Wāsītī, and Abū 'l-Faḍl (col.318 ff.), but it is practically hopeless to identify any of these at the moment. The last-named is a case in point; there are records of at least three Ṣūfīs named Abū 'l-Faḍl in the tenth and eleventh centuries.(vd. Farīd al-Dīn 'Aṭṭār: Tadhkirat al-Awliyā, b. Sarrāj: Kitāb al-Lumā'.) From the story it is perhaps most likely that the person intended was Abū 'l-Faḍl Ḥasan of Ṣarakhs, who was the Pīr of Abū Sa'īd b. ^{Abī} Al-Khayr, and the eleventh in the Ṣūfī lineage from Muḥammad himself.(vd. 'Aṭṭār: Tadhkirat II,32,lines 20-23.) But this is not an identification, and from the story itself it is not possible to decide with any certainty.

The Arabic, too, in which the book is written is of poor quality; it is loosely and inelegantly strung together, with little or no cohesion of thought or of syntax, and it is full of grammatical errors of the most elementary kind; mistakes in number and person of verbs are matched in frequency only by such things as false agreements between adjective and noun, and other similar barbarisms. The vocabulary is limited in the extreme; the words are simple, almost childish, with none of the verbal decorations of which Arabic at its best is capable. The only pretence at style throughout the book is that in some two places there/

there are some half-dozen sentences in rhymed prose (saj^t). A curious feature of the language is the apparently strong Persian influence, not only, as would be perfectly understandable, in the technical terms of music, e.g. the use of "shashtār" and "ṭarabrab" in col.124, but in the use also of such words as "marhamdān" (col.21), and "bīsharūhāt" (col.202) Yet at the same time, although he makes use of Persian words, it seems that our author was not acquainted with the language itself to any great degree, else he would never have made his obvious mistake over the derivation of the word "jank"! (vd. col.155, and commentary ad loc.)

But although the influence of Persian is clear, it is no less apparent that our author was himself an Egyptian, if not by birth, then at least by adoption, and that his book was originally written in that country. The evidence in favour of this statement may perhaps be best summarised as follows:

1) In the middle of his musico-magical treatment of the theory of music as it is expressed in the "mūsīqā!" there occurs the following description of the instrument. (col.48, lines 1&2.) "It faces four ways, one face being to the East, a second to the West, a third to the Sea, and a fourth to the Qibla! Now the determinative part of this statement, geographically speaking, is obviously the second half. In other words, we have to imagine as the place of origin of the book, a country with the sea to the North and Mecca to the South. The answer is obvious; not only is the Mediterranean known commonly to the people of Egypt as "the sea!", but there is no other country which will fit these geographical requirements.

2) Again from the actual text, we may notice our author's striking familiarity/

familiarity with Egyptian nomenclature. Where an instrument has a local definitive name, it is the Egyptian name which he quotes, as e.g. in col. I45 he mentions particularly that from the original Persian harp there came the "jank Miṣrī!" More significant still, in his chapter on the psaltery he tells us (col. I65) that it has two names; in Syria it is known as the "qānūn," and in Egypt as the "sanṭīr"; and, having said that, he proceeds throughout the whole chapter to refer to it as "sanṭīr"; the name "qānūn" is not used once after the opening paragraph.

3) The dedication of the MS (cf. infra) is to a man whose name and position seem indubitably to indicate Egypt. The Treasurer of that country, Khāzindār or Daftardār, during the era of the Mameluke Sultans and subsequently, was a man of real importance, an Amīr, and one whose patronage would be of value to a man of letters.

4) Our author gives the impression throughout that he is much more at home in Egypt than anywhere else; he has a surer grip of the history and background of that country than of any other, a more detailed knowledge of its tradition. Of other places he speaks as a stranger; for instance, his topography of Baghdād is highly inaccurate (cf. col. I8Iff. and Le Strange: Baghdād under the 'Abbāsid Caliphate). And it is difficult to resist the impression that, when he speaks of the Tigris, it is not the Tigris but the Nile that he has in mind. For, however suitable the Nile, the Tigris at Baghdād is not an ideal river on which to go for a quiet evening sail.

Again, the dating of the MS presents another problem for which we have no external criteria whatsoever; not only is the work anonymous, but/

but it bears no trace of a chronogram of any kind. Farther, as I have been unable to trace accurately the person to whom the book is dedicated, even that source of information is denied us; to this matter we shall return in a moment. Meanwhile we may note that, for fixing a date, the "terminus a quo" is provided by internal evidence; in col. 280 ff., in connection with the "rabāb", a story is told of Al-Malik Al-Kāmil of Egypt, his slave-girl, Nuzhat al-Qulūb, and a certain musician named Maḥmūd Al-Kindī. Now Al-Malik Al-Kāmil was one of the Ayyūbid rulers of Egypt in the thirteenth century, (1218-1238 A.D.) and therefore the date of the book is to be placed some time later than that period. No historical personage in the MS can be identified as later than this era, and therefore we can go no farther on these grounds.

Now, in regard to the dedication, which should normally be a useful feature in assessing the date of a writing, the title page of the MS reads as follows:

كتاب كشف السمور والكرب
 برسم الخزانة
 العاليه المولويه المحترميه
 المخدميه السيفيه سيف الدين
 ابوبكر بن المقر المرحوم منكلي بغا
 الفخر رحمه الله
 في شرح الة الطرب

This rather unusual dedication presents sundry problems; for one thing, the phrase برسم الخزانة is not by any means a normal formula of dedication, and for long I was inclined to regard it as meaning "written in the treasury", or even "written by the Treasurer", or "at the/

command of the Treasurer!" But بر undoubtedly does mean "dedicated to"; it is so given by Dozy (Supplément s.v. بر), and D.M. Dunlop Esq. of Glasgow University has drawn to my notice a usage in Völlers: Fragmente aus dem Mughrib des Ibn Sa'īd, p. IX, which is almost exactly parallel to this. In this case - and it is the same in Ibn Sa'īd - the word خزانة must have a personal and not an official meaning, particularly when followed, as it is, by a series of adjectives which are manifestly personal honorifics. Accordingly the Treasurer to whom the work is dedicated would appear to be named Saif al-Dīn Abū Bakr b. Al-Muqīrr, the late (المرحوم) Munkalī Bughā Al-Fakhrī.

But this too raises problems; the use of "al-marhūm", and the following phrase, "Allah have mercy on him", which would seem to show that the Treasurer is already dead, are curious in the extreme. For no literary man, in search of patronage, would dedicate his book to a man who was no longer alive to accept and to reward such homage. Something is manifestly wrong, but it is difficult to say exactly what. The best suggestion that comes to mind is that the original dedication ended at "b. al-Muqīrr", and that the following words are a scribal gloss of some later period, giving a better-known version of the Treasurer's name.

Who, then, was this Munkalī Bughā Al-Fakhrī, or Saif al-Dīn Abū Bakr, where and when did he live? Works covering this period of Egyptian history, generally known as the Alexandrian period, are not numerous, the only two in English being Muir's Mameluke Dynasty of Egypt, and Paton's History of the Egyptian Revolution, neither of which is sufficiently exhaustive to have reference to the man named here. I have used principally: for the Mameluke period, the Sulūk of Taqī al-Dīn Al-Maqrīzī, and, for the Turkish period, between 1517 and 1789, the Kitāb/

10.

Kitāb al-Kawākib al-Sā'ira of Shams al-Dīn Al-Bakrī, as summarised by de Sacy in Notices et Extraits de Manuscrits, vol. I, pp. 165 ff. This takes us as far as the time of Napoleon's invasion of Egypt in the year 1789, which may be regarded as the "terminus ad quem" for the date of the present MS, as it would seem to be earlier than the nineteenth century.

Now, neither of these works actually contains the name given in our MS, but Al-Maqrīzī abounds in evidence which is highly suggestive that in the period of the Burjī Mamelukes (i.e. from ~~1500~~¹³⁸² onwards; cf. Lane-Poole: Mohammedan Dynasties pp. 80-83) we have the conditions fulfilled which our MS demands. Such names as Munkalī Bughā are by no means uncommon, owing to the Turkish influences imported by the slave rulers; we have for instance, Timurbughā, and Katbughā. And more particularly is it true that the "laqab" Saif al-Dīn, or Sword of the Faith, is overwhelmingly common in the time of the Burjīs; almost the majority of the Amīrs mentioned by Al-Maqrīzī bear that title; cf. Al-Maqrīzī, 484, 502. (Quatremère, II, ii, pp. II & 46.) Indeed, although our Treasurer is not specifically mentioned, there are three persons with whom he might conceivably be identified. Saif al-Dīn Baktimūr, of Al-Maqrīzī, 502, 574, 593 is sufficiently similar to Saif al-Dīn Abū Bakr b. Al-Muqirr to be the same name corrupted by scribal error; there is also Saif al-Dīn Abū Bakr b. Isbāsālār (Al-Maq.: 407, 410) the "walī" of Fustāṭ, and Saif al-Dīn Abū Bakr b. Jamakdār (Al-Maq.: 475). Of these the first is perhaps the most likely; he died in 1304 A.D., having been the Khāzindār or Treasurer at an earlier date. (cf. Al-Maq. 593, 574, as above.)

Now if this identification will stand, tentative though it is, it follows/

follows that the date of our MS is to be set early in the fourteenth century. It is to be noted that such a dating would agree very ^{well} with the internal evidence of the text, as follows:-

- 1) The titles applied in the text to various persons, otherwise rather puzzling, thus receive an easy and immediate explanation, as honorifics bestowed by a later generation on the great names of history. Thus Al-Fārābī receives the title, Taqī al-Dīn, a phrase unknown in his own day, but sufficiently common in the fourteenth century. (cf. infra on the authorities quoted in this MS.) Similarly in col. 207 Zuhair is referred to as Al-Bahā', again a phrase more than common in Burjī times, as Bahā' al-Dīn.
- 2) The early fourteenth century is sufficiently remote from the modern era to be still under the influence of mediaeval theories of number (cf. infra), and at the same time is sufficiently late to be able to regard such names as Al-Fārābī (10th. cent.) more as mythical heroes than as live philosophers.
- 3) The illustrations, of which sketches will be found at Appendix B, also bear out this dating, showing, as noted in the appropriate sections of the commentary, developed stages of the primitive instruments, a stage intermediate between ancient and modern.
- 4) Significant also is our author's remark about the harp (col. 156), that "other instruments of this age have superseded it, so that it is fallen out of use!" Evliya Chelebī, writing in the seventeenth century, has the same tale to tell; "Few play it" he says of the harp, "because it is a difficult instrument!" Of course, it is naturally true that instruments did not drop out of use simultaneously in different parts of the world, and the fact/

fact that the harp had almost fallen into desuetude in Turkey in the seventeenth century is no proof that it had not suffered a similar eclipse in Egypt, perhaps centuries before. In the West certainly, it was destined to last; it is still very much in evidence at the end of the thirteenth century, (cf. Riaño: Early Spanish Music, pp. II7, I2I, I22) and in the fourteenth century, the "arpa" is mentioned in the poem of the very unclerical High Priest of Hita. (circa I350; cf. Chavarri: Musica p.78) Similarly the "ṣanj" is mentioned in the Kitāb al-Imtā' of Al-Shalāhī in the I3th-I4th century, in the Mughrib; (cf. Farmer: Studies, ii, 28, 30) but in the East, about the same time it seems to have fallen out of use in favour of its relative, the psaltery.

To sum up, then, the results of our findings; the Kashf al-Humūm would seem to have been written in Egypt not earlier than the second half of the thirteenth century, and probably a good deal later, at some time during the ascendancy of the Burjī Mamelukes: probably in the first half of the fourteenth century. It is completely anonymous, and there seems but little hope of ever discovering the identity of the author, but he seems, on the evidence available, to have been an Egyptian of small erudition, concerned to produce a popular work, rather than an academic classic. (cf. infra.)

N.B. In the above I have accidentally omitted to make any reference to the fact that the adjective "saifiya", which occurs in the dedication will not bear translation into English; it is merely a reference to the Treasurer's "laqab", Saif al-Dīn. (cf. Al-Maqrīzī: passim.)

It is difficult to assess the value of this MS from the point of view of modern scholarship. It is not in any sense a scientific treatise on musical instruments, nor, so far as may be seen, does it deal scientifically with the theory of music, even by Arabic standards. It does not stand comparison, for instance, with the strictly formal and highly valuable writings of Al-Fārābī, Al-Kindī, and 'Abd al-Mu'min, writers who go into exact detail on the dimensions and mechanics of the instruments with which they deal. The only portion of the Kashf al-Humūm which even makes pretence to a scientific treatment is the arithmetical part; and with that I have not felt qualified to deal - presuming always that our author's weird manipulation of numbers is really based on some scientific system - and even that is by no means certain. What this MS does give us is an invaluable, everyday view of the instruments under discussion; it was undoubtedly written for popular consumption, for a people who liked to hear stories and legends of far-off times, concerned with things which were of common occurrence in their lives. Hence the long and involved stories, rather unnecessarily tedious to the Occidental mind, which form the major part of every "faṣl" connected generally with the name of some almost legendary musical genius, such as Al-Fārābī (col. I2ff.) or Al-Khwārizmī (col. I27 ff.). Hence also the emphasis on numerology, a science which has a profound hold, even to the present day, on the unlearned and the superstitious; the emphasis on the four-fold thing, on the law of sevens, the constant recurrence of twelve and twenty-eight, although scientific enough after the style of the Pythagorean theories which took such a hold on the Arab world under the tutelage of Al-Kindī, is of that type of science which exerts a powerful hold on the popular/

popular imagination.

But to say that is not to depreciate the value of the MS as a whole; it certainly gives us no scientific enlightenment on the structure and working of the instruments, but we have that information in full from other sources. The value of this work lies rather in the insight which it gives into the way in which the common people looked at music. The popular mind, impatient of, and impervious to, exact detail in the academic sense, is seen mirrored in the very phrases of our author. Not once is a musical treatise quoted by name, not once is there even a verbal quotation from the great theorists; the famous names are loosely linked with colloquial tales; that scientific exactitude, so boring and so infuriating to the lay mind, which holds it but a waste of time, is glossed over; the influence of music is stressed time and again, its power to charm kings and caliphs is emphasised; the musical gift which brings fame and advancement to its fortunate possessor is laid before us continually. In almost every "faṣl" the story opens with the musician penniless and outcast, and we follow him as he advances, by reason of his art, into the favour of the mighty ones -- "and he remained in the king's presence, playing his instrument continually!"

That is to say, we are introduced here to that frame of mind which accepts music as one of the arts, and an art, moreover, in which there is great profit, and to a society in which the good musician is a man of importance, not only socially, but also religiously, as is shown by the stories about the wind instruments. The whole work is very far from being academic; the instruments are not classified in any way, but follow one another in any order; the authorities are doubtful/

doubtful in name (cf. *infra*), and are loosely quoted; the traditions, normally such an exact part of any Arabic literature, are given without any "isnād" and with frequent inaccuracies and variations in the actual text. In a word, it is with a book for the layman that we have here to deal, a book not written by a scholar for scholars, but, more human and, from that point of view, more interesting, a book written for those who wish to be entertained, and who have no rooted objection to a little instruction mingled with their entertainment.

The work, however unscientific its general background of thought and of language, is not disorderly in arrangement; it is composed as follows:-

- 1) After the "bismillāh" and the ascription of praise, the orthodox blessings on Muḥammad and his family are followed by the author's preface. He explains that he writes this book at the request of one of his friends "who is interested in the art of music! He claims to have taken his material from the stories and references of earlier generations, and to have worked it all up into this book, which he has composed in various chapters, each divided into sections (mafsūl). There follows a list of the authorities from whom he has borrowed, together with a brief biographical note on each. (cf. *infra*)
- 2) The book proper then opens with an exposition of the four-fold principle, on which all music - and all things in general - are founded; it was according to this principle that the "mūsīqa" was built by Al-Fārābī. This building, described in great detail, is followed by
- 3) A dissertation on the theoretical aspect of music which embraces/

embraces a discussion of the modes (anḡhām and awāzāt), the courses (abḡhur), and the genres (anwā'), together with such related matters as the qualities of the different winds which, in the "mūsīqa", produce the various genres. This leads on to a tale of a European savant who, envious of the "mūsīqa", spied out its secrets, and built for his own people a small version of the instrument, known as the "yurḡhal". This latter part of the section being closely linked in content with section 2), I have taken the two together.

4) We come now, the "mūsīqa" being regarded as a kind of synthesis of all the instruments, to a series of seven "fuṣūl", each dealing with one instrument, and each dealing with it from several points of view. Its invention, its legal standing, its numerical associations, its influence, and its use in practice are all then discussed, generally - though not invariably - in that order.

5) Then follows a section on the whole orchestra, the concerted playing of several instruments; it is almost entirely numerical in character.

6) The MS closes with an epilogue in story form, and with the prescribed ascription of praise, and blessings on the Prophet and his family.

With this mass of material I have felt neither inclined nor competent to deal; I have therefore limited the scope of this essay quite deliberately to the instruments themselves, and have omitted from both translation and commentary, sections 1), 3), & 5) of the above schedule. I have omitted also for the most part those portions of the individual sections which deal with numerological matters. But even after such omissions, by far the greater part of the MS will be found to/

to deal directly with the instruments, or with stories concerning them; the portions which are included in the present translation will be found to cover some 250 columns out of a total of 372. Farther, I have altered to some extent the order of the sections; the original author, regarding the "mūsīqa" as the embodiment of theoretical music, put that instrument first, and built the plan of his work around it, dealing in turn with the seven instruments which it is held to comprise. However, as this essay is not concerned with numbers but with instruments, I have adopted the modern scientific classification of instruments into the usual four groups, thus:-

- a) Idiophones -- none mentioned in this MS.
- b) Membranophones -- the "ṭār" and the "duff".
- c) Aerophones -- the "mūsīqa", the "shabbāba", and the "shu'aibīya
- d) Cordophones -- the "ūd", the "jank", the "qānūn", and the "rabāb".

Within these sections the separate instruments are dealt with in the order in which they occur in the MS. Each chapter is in two parts; A, the relevant portions of the text, translated with column markings in the margin, and B, the commentary. This latter I have tried to arrange as far as possible in accordance with the pattern set by the MS itself. In each chapter the commentary begins with a general introduction to the instrument in question; in this I have tried to set the instrument briefly in its ethnological context, with a short sketch of its historical associations, and its occurrence among the Arabs and other peoples. Any matter of general interest in connection with the instrument will also be found in this position, as, for instance, the question of the legality of the "ṭār" and "duff", or the vexed question of the descent of the Mediaeval "rebec" from the Arabic "rabāb". Then follow any comments which may be necessary on

15.
the vocabulary, and the textual problems of the chapter. The name of the instrument, its derivation, and any interesting variants are discussed, and after that any cases of apparent textual difficulty. In these I have, for the sake of convenience, written out the text of the Arabic in full, in order to save a monotonous and continued reference to the MS. These linguistic and grammatical points having been dealt with, the author's theory of the invention is noted and compared with other theories, a description of the instrument is built up as far as possible from the text, and the commentary closes with a note on the method of playing or on any special uses to which the instrument may be put.

Such is the plan which I have tried to follow in each of the chapters, although, as usual, it has proved impossible to make any hard and fast distinctions between one part of the commentary and the next; the various parts inevitably overlap and fuse into one another, and for that reason I have left the commentary as a unit, instead of sub-dividing it into paragraphs according to content.

My authorities, as must be the case with one who approaches an unfamiliar subject, have been many and varied. For the general background of Arabic music I have been indebted to Baron R. d'Erlanger's translation of Al-Fārābī, to J.P.N. Land's famous "Récherches sur la Gamme Arabe", to Salvador-Daniel (Farmer's translation), and to the very comprehensive works of Fétis and Lavignac, as also to the many articles by Dr. H.G. Farmer in the Encyclopedia of Islam. (s.v. Mūsīqī, Ghinā', and biographies of theorists such as Ṣafī al-Dīn, 'Abd al-Mu'min, or singers such as b. Misdjāh, etc.)

For the instruments themselves I have had recourse to a mass of material/

material which will be found in the bibliography (Appendix C), in particular to two recent works on musical instruments and their history, one by Curt Sachs and the other by Karl Geiringer. The former is especially valuable for a general view of musical instruments, and it is only to be regretted that Dr.Sachs is inclined to be a trifle opinionative, particularly in regard to Arabic and Persian instruments, of which he has apparently no first-hand knowledge; he quotes no authorities, but takes from the existing works of Arabic scholars such points as suit his hypotheses, refusing to countenance other evidence. Especially he may be accused of having done less than justice to the one man who is pre-eminent in the field of Arabic music, Dr.H.G. Farmer, whose painstaking and exact work must put every student of Oriental music inestimably in his debt. Inevitably in the course of this essay I have turned time and again to Farmer, more than to any other authority, and if, at times, I have ventured to disagree with him, it has only been in the hope that I may add some few bricks to the imposing edifice which he has systematically built up. His works cover all the aspects of music, theory, practice, and influence, and I have used them all. In the last-named subject I have also taken extensive advantage of the excellent translation of Al-Ghazālī by the late Prof.D.B.Macdonald which appeared in JRAS of ^{1901-1902.} ~~some years~~ ago; also of the works of R.A.Nicholson and A.J.Arberry in the field of Islamic mysticism. Lists of instruments with descriptions I have used with great caution, owing to the prevalent uncertainty about the meanings of terms; besides the works mentioned above, and various museum catalogues, notably that of the Crosby-Brown Collection in New York and that of the South Kensington Museum/

Museum, London, I have made extensive use of such works as Riaño's "Notes on Early Spanish Music", Chavarri's "Musica Popular Española", and Ribera's "La Musica de las Cantigas". The Arabic lexicons, being compiled mainly by purists who refused admittance to such loan words as instrumental names, are of little help, but in addition to Lane and Dozy I have consulted the "Lisān al-'Arab" and the "Tāj al-'Arūs". Schiaparelli's "Vocabulista in Arabico" is occasionally helpful, as is Seybold's "Glossarium Latino-Arabicum." Finally I have found much useful material in a new book by Gustave Reese, entitled "Music in the Middle Ages," which, although too technical in parts for a musical amateur, is an excellent piece of work, and in D.N.Ferguson's recent production, "History of Musical Thought".

But all these authorities, however great, can have only an indirect bearing on a MS such as this; I have discovered nothing, either among the printed works of Arabic authors, or in translation, which can aptly be compared with this work. The nearest I have seen to it is a treatise by Mikhā'īl Mushāqa, published by P.L.Ronzevalle in the Mélanges de la Faculté Orientale of the University of Beyrout, vol. VI, pp.II4ff. But even this is very much more scientific than the Kashf al-Humūm, whose approach to the subject is anything but scientific, and whose author, as he tells us himself (col.4) is only speaking at second-hand.

A notable feature of this MS is the emphasis which the author lays on the influence of music; his stories abound with cases of kings and others, who, introduced for the first time to real music, found themselves moved and thrilled beyond words. This idea, rather sketchily indicated at first, is worked out more and more strongly as the MS advances, until it reaches a climax in the tale of the two shaikhs, Abū 'l-Faḥ al-Wāsītī and Abū 'l-Faḍl, a tale in which the Sūfī doctrine of music is presented to us almost in its full form. Comments on individual passages will be found in the appropriate portions of text and commentary, but it might be helpful here to discuss the matter of the influence of music a little less disjointedly

It was, among the Arabs as among other peoples, a matter in which observation and experience preceded science by countless centuries; Combarieu (La Musique et la Magie, p.220 ff.) insisted that the influence of music had its origin in the magical, proto-religious offices of primitive man, that, as primitive life and magic are practically co-extensive, so we have the soothsayer's charms and incantations to cover every aspect of life from birth to death. Now that seems an eminently reasonable theory; the whole point of magic is the efficacy of a certain form of words, said in a prescribed way, and accompanied by regulated actions; hence, naturally, primitive religious chants and ceremonial dances, hence the music and dancing of circumcision feasts, hence the war song and the funeral wailing. And gradually, according to a psychological law, these things which were originally the expression of a feeling, come by force of association to be, not the result, but the cause of that feeling. The religious chant is used, not because the assembly feels reverence, but/

but in order to induce that reverence; the war dance is executed as a kind of primitive propaganda, not because it reflects the true state of the popular mind, but in order to produce the requisite pugnacity. And such a power of music is the commonest thing in the world, even today; the writer is acquainted with one person who can never hear Handel's Largo in G without bursting into tears, simply because she once heard it played at a funeral. Indeed it is a tenable position for argument that anyone who is not affected by music in some such way is lacking in spiritual understanding and feeling. As Al-Ghazālī quotes (JRAS 1901, p.218) "He whom the Spring does not move with its blossoms nor the 'ūd with its strings, is corrupt of nature; for him there is no cure." And with that may fitly be compared our own author's quotation, (col212) attributed to Al-Khwārizmī, (He who does not listen, he who does not love, he who is not charmed, such a man is not human, but is reckoned among the beasts.)

Farther proof of this, if any be required, is to be found in philology; as in English the words "charm", "enchant", etc. are derived from the Latin "carmen", a song, so also on the Arabic side the word "ṭarab", used of music, is a purely subjective word denoting "the thrill of pleasurable excitement" (Chenery on Al-Ḥarīrī) experienced by the auditor. And not only so, but the ordinary word for poet, "shā'ir" is derived from the root "sha'ara", to know, and indicates one who has a special or supernatural knowledge, almost, in fact, a wizard in league with the spirit world. In line with this is the tremendous reverence accorded to poets by the Arabs of the Jāhiliya; the appearance of a poet in a tribe, with his power for good/

23.

good or evil was celebrated, as b. Rashīq tells us, with feasts and entertainments, music and rejoicing:-- "And they used not to wish one another joy but for three things - the birth of a boy, the coming to light of a poet, and the foaling of a noble mare." (Nicholson: Lit.Hist. p.71)

So the influence of music was visible everywhere, long before any systematic doctrine of the Ethos was known. There were, for instance, the religious songs, the "tahlīl" and the "talbīya", songs of the pilgrimage which Muḥammad found and took over as a legacy from the Jāhiliya; they may best be compared with the pilgrimage Psalms of our Old Testament, headed "'al-'alāmōth." These songs the Islāmic Prophet, forced by strength of opinion, took and made allowable in a religion which, originally at least, proscribed music; and to them he added the "adhān" or call to prayer, and the idea of the cantillation of the Qur'ān. Not only did Muḥammad allow these things, but even he seems to have been fond of them, (cf. 'Iqd, 3, 176; Al-Ghazālī, op.cit. 209, 246; Bawāriq al-Ilmā', pp.75, 78.) and to have permitted music also on the occasion of the great religious festivals, such as the "yaum 'ashūra", or New Year's Day, and the "'īd al-fiṭr"; that music was practised at least, permitted or not, on such days appears frequently from the Maqāmāt of Al-Ḥarīrī.

Another occasion on which music was prominent was the day of battle; in pre-Islāmic times, each side had its poet in the ranks, chanting heroic verses to spur the warriors on to deeds of fame. Typical examples are the verses known as "Al-muwaththibāt", spoken by Basūs at the commencement of the war which bears her name, between Taghlib and Bakr (vd. Nöldeke: Delectus, p.40), or the verses chanted by/

24.

by Jaḥdar b. Ḍubayʿa (Nöldeke: op.cit.p.45) in the same war. Closely allied to this was the "hijā" or satire, of which Nicholson (Lit.Hist. p.73) says that it "introduces and accompanies the tribal feud, and is an element of war just as important as the actual fighting. The menaces which he (the poet) hurled against the foe were believed to be inevitably fatal. His rhymes, often compared to arrows, had all the effect of a solemn curse spoken by a divinely inspired prophet or priest..... Satire retained something of these ominous associations at a much later period, when the magic utterance of the "shā'ir" had long since given place to the lampoon! Such satire, at first in the "sajʿ" or rhymed prose, was later delivered in the common Arab measure known as the "rajaz", the easiest of all poetic metres for composition; and as such it was employed extensively by the armies of Islāmic times, as shown by the stories of such heroes as Abū Miḥjān and the chief of the Banū Tamīm at the battle of Qādisiyya (vd.Muir: Caliphate, p.II5) Al-Ghazālī attributes such a custom also to the great heroes of Islām, 'Alī and Khālīd, and quotes two verses of Al-Mutanabbi' which were commonly used to incite to war.

Again; perhaps the commonest and the most efficacious of all folk-music was the work-song, familiar enough to us in our many traditional sea-chanties, or, in the East, in the well-song of Numbers XXI, I7;

Spring up, O well;

Sing ye unto it!

The princes digged the well, The nobles of the people digged it,

By direction of the lawgiver, With their staves.

Huart tells us (Lit.Hist.p.5) that "the idea of Khalīl's prosody came to him from hearing the hammers of the workmen in the bazaars ringing on /

on their anvils with alternate cadenced strokes. Until the wise grammarian made this fruitful discovery, the Arabs had produced poetry with no knowledge of its rules, beyond their own innate feeling for poetic rhythm"; or, in other words, that, contrary to Ribera's belief (La Musica de las Cantigas, p.17) music did originate - or at least a proportion of it- among the common people. So too in Aghānī, I, 19ff., we find Ma'bad, when questioned by Ishāq Al-Mausilī about the composition of his songs, explaining that he composes in the saddle, beating time with a stick on the pommel. This is an interesting reference to what is probably the oldest type of Arabic work-music, the "ḥudā'" or camel-song; from earliest times the nomad Arabs had known that the camel was susceptible to music and could be made to accelerate his pace by the use of the appropriate melody. Consequently the "ḥudā'" was universal throughout the peninsula, (b. Khurdādhbih in Mas'ūdī, VIII, 92, says that it was "the first specimen of music and refrains known to the Arabs") and according to Anas b. Mālik, Muḥammad himself used to request it. A story illustrative of the power of such singing is given, on different authorities in Al-Ghazālī: op.cit., p.218, and in the Kashf al-Maḥjūb, p.399.

Finally; lyrical or erotic poetry was observed to have a powerful effect on the hearer; the Kitāb al-Aghānī abounds with stories of those who hearing music; could not contain themselves; of these we shall quote three which are not so well known as many others. First in Aghānī VI, 7-9, it is related how one day Siyāt the singer fell in with a beggar named Abū Raiḥāna who desired him to sing; when Siyāt sang the first time, the beggar ripped his only garment to shreds in his/

his ecstasy. Requested to sing again, Siyāṭ did so, and Abū Raihāna in his delight struck himself in the face rendering himself unconscious. When he came to himself and was reproached for his folly in tearing his only garment, he replied that Siyāṭ's singing gave more heat than any clothes. Again, in Aghānī I, 26-7, we read of Ma'bad singing to Al-Walīd b. Al-Yazīd, and so charming him that the prince threw off his clothes and dived into the fountain, not once but three times; after the first time the fountain was, by the royal command, filled with wine in place of the usual rose-water. And finally in Aghānī II, 74-5 there is a story, often told of others also, about b. 'Ā'isha; once at the pilgrimage he boasted to a friend that he could halt the long train of pilgrims wending out to 'Arafat; challenged to prove his words he sang a verse of Zuhair, at the sound of which the front of the column halted, while those behind, being out of earshot, still pressed onward. The result was a tremendous confusion, and b. 'Ā'isha was arrested and brought before Hishām b. 'Abd al-Malik, leader of the "hajj". Accused of pride; his response was merely "When you can control the hearts of men as I can, you have a right to be proud." Such impudence apparently amused the governor who let the singer go free.

Such influences of music were too obvious to be overlooked, and in the end Islām had to reckon with them. Al-Ghazālī specifies seven types of music which are allowable, and his classification, although legal rather than scientific, is interesting. Here are his seven types, taken from JRAS, ¹⁹⁰¹ pp. 220 ff.:-

- a) Music used to incite to pilgrimage, and the music of the pilgrimage itself, with the accompaniment of "ṭabl" and "shāhīn". This type is allowable because the subjects with which it deals are/

are sacred and the result is piety.

b) That which is used to incite men to warfare against the infidel. This is music of a different type from the first, and is permissible only when warfare is permissible.

c) That which is used to hearten men on the actual field of battle, as used by 'Alī and Khālīd. It must be strong and martial, and therefore such instruments as the 'shāhīn" are forbidden for it, as being too soft and enervating.

d) Songs and music of lamentation, produced by sorrow.

But this type is only permissible so long as the sorrow is praiseworthy, that is, so long as it is not sorrow for the dead, since that is rebellion against the decree of Allāh; the sorrow must be for one's own faults and shortcomings.

So Adam and David made sorrowful music which was legal.

e) Joyful music which promotes innocent happiness, as on the occasion of a feast-day, or a marriage or any other family occasion. So the Prophet permitted music when he entered Al-Madīna; the reason was that it showed joy at his coming. (cf. text col. I90). Such joy may be indicated, not only by songs and music, but even by dancing.

f) Erotic poetry and songs, because ^{they} induce forgetfulness of self, and the individual is lost in the depth of his longing. This, of course, is permissible only where the lover's desire is legal.

g) The song of the mystic, or the music of mysticism, because music in this case arouses the ardour of the devotee, and stirs in his heart that love of God which is the basis of all piety.

It will be observed that never once does Al-Ghazālī argue that music per se is a good or even permissible thing; he has no conception of it as an art which supplies an end in itself. Solely he is interested, as is the author of this MS, in the various influences which music can have, the way in which it can induce in the auditor humility or pride, love or hatred, joy or sorrow. Such manifestations of the power of music had already received their official status under the aegis of Al-Kindī's doctrine of the Ethos. Into that doctrine it is not our place to go at the moment, but it was very fully worked out in all its ramifications; music took its place in the scheme of the unification of the sciences, and of the bringing of all things down to the common denominator of number. Thus the twelve modes were linked up with the twelve signs of the Zodiac, the four-fold principle was related to both and to the four humours; these things so far as they affect this MS will be discussed ^{later.} ~~in a moment~~. But here it will suffice to notice that the doctrine of the influence of music was very thoroughly systematised under the school of Pythagoras, from whom Al-Kindī borrowed extensively; so, among the Greek modes, "the Mixolydian is piercing and suitable for lamentations, the Lydian is intimate and lascivious, the Phrygian is ecstatic, religious, strongly affecting the soul, and the Dorian is manly and strong." (Reese: Music in the Middle Ages, p.44) So too it was with the Arabic theory: certain modes were linked with certain emotional states -- and also with certain physical states, it would seem, as therapeutic music was well recognised, even among the medical profession. (cf. Ikhwān al-Ṣafā', I, 87; Kashf al-Mahjūb, 407; Farmer: Sa'adyah Gaon p.6). Nearly all the theorists deal with the Ethos doctrine/

doctrine, but unfortunately their accounts are all different; from Al-Kindī (9th.cent.) to Ṣafī al-Dīn 'Abd al-Mu'min (13th.cent.) the great writers on music describe their version of the doctrine, which, however much it may vary in detail, is fundamentally the same. Ṣafī al-Dīn (Kitāb al-Adwār, I4, quoted in Farmer:Hist.p.I97) remarks that every mode has a different influence on the soul; 'Ushshāq, Abū Salīk, and Nawā' produce courage and simplicity, Rast and three others pacify the soul, while Buzurk and its associates influence a man to grief and lassitude. Ibn Ṣīnā connects the various modes with different times of the day and night (Farmer:Influence,p.24); another reference to this theory is to be observed in col.25 of the present text; the Ikhwān al-Ṣafā' worked out in considerable numerical detail the idea of the Harmony of the Spheres, while Al-Kindī himself ^{divides} all composition into three kinds, sad, cheerful, and medium. (vd. Farmer:Influence, p.I6) Reinach had much truth in his saying - although not intended for the Arabs - "Les anciens critiques....ont beaucoup raisonné et même déraisonné sur....l'éthos des modes."

Another feature of interest to the Arab theorist was the ease and the rapidity with which, by the changing of the mode, the hearer could be swayed and ruled. b.Khallikān (III,309) tells a story of Al-Fārābī which finds a parallel in the present MS (col.I63,I86); he relates how Al-Fārābī, a brilliant practical musician as well as a great theorist, played one day in such a way as to produce pleasure in his hearers; then, retuning the instrument, he made them weep, and retuning again he sent them to sleep. For an English comparison in literature, one might cite Dryden's poem "Alexander's Feast", wherein the varying moods of the musician's song are faithfully reflected/

reflected in Alexander and his companions. Or, in the words of Burton (Anatomy of Melancholy) "Music is a roaring-meg against melancholy, to rear and revive the languishing soul;..... Labouring men that sing to their work, can tell as much, and so can soldiers when they go to fight, whom terror of death cannot so much as affright as the sound of trumpets; drum, fife, and such like music animates. It makes a child quiet, the nurse's song; and many times the sound of a trumpet on a sudden, bells ringing, a carman's whistle, a boy singing some ballad tune early in the street, alters, revives, recreates a restless patient that cannot sleep in the night, etc. In a word, it is so powerful a thing that it ravisheth the soul."

But while such were the views of the musical theorists, the influence of music was regarded in quite a different light by the Ṣūfīs; to them music was a means of attaining to the ecstatic state in which they found their deepest religious experience, as, for instance, practised in a crude way by the dervishes with the monotonous chants and rhythmic movements of the "dhikr!" (vd. Lane: Mod.Eg., chap.24, etc.) In such an aspect, music loses its intellectual appeal almost entirely, though it is interesting that our author, in the story of Abū 'l-Faḍl, seeks to introduce the idea that the shaikh is applying intelligence to the sounds. In actual fact this does not seem to be so, and music as a means to ecstasy is in reality being used almost as a drug. As Falla says, music is not made to be understood, but to be felt --"la musica no se hace para que se comprenda, sino para que se sienta." (vd. J.B.Trend: Manuel de Falla and Spanish Music, p.45) And both Al-Hujwīrī and Al-Ghazālī insist that to those who hear music properly, that is, spiritually/

spiritually, the notes and the modes mean nothing; they are not interested in its technical details, but in the music itself, irrespective of its method of production. (cf. JRAS, 1901, pp. 705ff.; Kashf al-Mahjūb, pp. 402ff.) Like Schopenhauer, they see in music the Ultimate Reality which transcends thought and is a matter, not for the intellect, but for the affections. Interesting side-lights on the Ṣūfī use of music are to be found in Nicholson: Studies in Islāmic Mysticism, notably in his biography of Abū Sa'īd b. Abī 'l-Khayr. Abū Sa'īd, who was a Pīr or director of the Ṣūfīs, used music, including the chanting of a "qawwāl" or ^{reciter} ~~poet~~ on all occasions (op.cit. pp. 25, 32, 35, etc.), although a later Ṣūfī, Ibn al-Fāriḍ, (13th. cent.) denies that music is necessary for the ecstasy of the true mystic, since "my spirit is my musician!" (Tā'īyya, line 414; vd. Nicholson, op.cit. p. 235) These two conflicting schools of thought are well represented in the story of Abū 'l-Faḥ and Abū 'l-Faḍl in the present work (col. 318ff.); in this, Abū 'l-Faḥ is the contemplative, self-sufficient mystic whose method is that of monastic seclusion, while Abū 'l-Faḍl is of the type of Abū Sa'īd, rousing himself to ecstasy by external stimuli, by music and dancing and all the appurtenances of mass hysteria.

The Ṣūfīs were not by any means completely in favour of music, even for religious purposes; their approval is generally qualified in more ways than one, because they realised that music was capable of stirring up emotion of a quite un-religious character. Al-Ghazālī (op.cit., p. 220) puts the matter succinctly when he quotes Abū Sulaimān as saying "Music and singing do not produce in the heart that which is not in it, but they stir up what is in it." Or in other words, music will/

will not make a good man bad, nor will it make a bad man good, but it will accentuate his native character. Underlying such a saying is the clear realisation that reaction to music is essentially personally conditioned, and that therefore no sweeping generalisation can be made about its legality. The same thought lies behind the saying of Al-Hujwīrī (Kashf al-Mahjūb, p.402) that those who listen to music can be divided into two classes; first, those who appreciate the spiritual meaning of what they hear; and second, those who appreciate only the sensual or material meaning.

This line of thought can also be traced in the present MS; in col. 30I-2, the author, speaking of the delight and the ecstasy experienced by mystics on hearing the sound of the "shu'aibiya", says "Such is the case with the gnostics (ahl al-ma'rifa) whose aim is the Heavenly Kingdom. But as for the devotees of devilish charm, verily Satan comes to any of them who hear the sound of the instrument, and enhances it in their sight, and whistles in their ears." This is closely parallel to the story quoted by Al-Hujwīrī (Kashf al-Mahjūb, p.402) of David, under Divine inspiration, playing the pipes to an enthralled crowd, while Iblīs plays over against him at the same time. The result is that to half of the audience the music is Divinely inspired, while to the other half it is a guide to perdition. The whole of this attitude to music could not have been better summed up. As our author says, "It depends on the hearer what he hears, and everyone hears what is in accordance with what he has grasped" (col.268); with this sentence we are introduced to another story illustrative of this same point, the story of the pious man who heard a hawker crying his wares in the bazaar, shouting "Wild Thyme!" So, his thoughts being on things religious/

religious, he was struck down in a faint, imagining that the voice had cried "At once shall you see My righteousness." (cf. Al-Ghazālī, op.cit. p.238). The same idea is to be found in English in Sir Thomas Brown: *Religio Medici*, "And even that tavern music which makes one man merry and another mad, in me strikes a deep fit of devotion." (Quoted in de Quincey: *Confessions*, p.195)

Allied to this thought is the doctrine, common to many Sūfīs, that audition, while harmless and even beneficial for those advanced in the art of mysticism, is positively harmful for novices and for young men who have not exorcised the lusts of the flesh. Such is the argument of Al-Ghazālī in his limiting clauses on the value and the desirability of music, (op.cit., pp.243ff.) and a similar thought is to be found in Al-Hujwīrī (*Kashf al-Mahjūb*, pp.393 ff.) and in the biography of Abū Sa'īd by Muḥammad b. al-Munawwar, entitled *Asrār al-Tawhīd*. (cf. Nicholson: *Studies*, p.58).

As has already been remarked, a notable feature of this MS is the way in which this doctrine of the influence of music is worked out on what Farmer calls its "objective side," i.e. formally, arithmetically, and astrologically. To say that there is a "system" behind these parts of the book would be to go too far, in view of the general confusion of ideas which prevails, confusion in which 12 and 24, 7 and 360 are mixed madly together. But the truth would seem to be that our author has had not one system, but four in mind, and has sought to apply them all to the instruments which he discusses, with the result that he has succeeded with none of them. As the scope of this essay does not, strictly speaking, include anything except the actual instruments/

instruments, I have omitted the numerological passages in general from my translation; some, however, are so deeply imbedded in the text that I have had perforce to ~~leave~~ ^{include} them, and for that reason, as well as from the point of view of general interest, a brief discussion of the basic arithmetical principles employed seems to be indicated here.

The fundamental idea of number having an influence on human life is, of course, no new thing; indeed it would seem to be inextricably bound up with magic - and therefore also with proto-religion - throughout the course of man's history. The influence of magic numbers is to be seen, for instance, through the Old Testament; in Num.23,v.I, Balaam causes to be built, not one altar as was usual, but seven, the magic number, in order to make his sacrifice more efficacious; and in Josh.6,v.I5, the Israelites on the seventh day march seven times round Jericho, headed by seven priests with their trumpets, so that the walls fall down. So even today many religions bear the marks of the same primitive influence, e.g. the offerings of Hindu religion are sevenfold; seven is particularly a favourite number in such connections, as being the symbol of perfection, and therefore applicable to all things concerning God, or even concerning the King. (cf. Esther, I, v. IO) Even the root שבע in Hebrew had ritual associations; שבוע is "an oath" and השבועה is "to ratify an oath". Nor was the matter different in other early civilisations; Sir E.A. Wallis Budge (Egyptian Magic, p.222) speaks of the seven Hathor goddesses who predict the time when an infant must die, and Thorndike (History of Magic, i, I6) testifies to the frequent use of the same number in early Babylonia. "The number seven" he says, "was undoubtedly of frequent occurrence, of a sacred and mystic character, and virtue and perfection were ascribed to it. And no one has succeeded in giving any satisfactory/

satisfactory explanation for it other than the rule of the seven planets over our world." And instances could be further multiplied almost indefinitely.

But it was with the advent of the Pythagorean school of philosophy that the theory of the influence of numbers really came to its climax; all things, said the Pythagoreans, are number, and accordingly they worked out a complete numerical cosmology. Into its details we need not go here, particularly into its purely scientific aspect; but the Pythagorean doctrine of the influence of number on the ordinary things of life, as expounded by Pliny who made extensive use of such teachings, are exceedingly interesting. Once again we are faced by the potent number, seven, as e.g. when Pliny lays it down that a hunter will the more easily capture a hyena if he has seven knots tied in his girdle; or three, as in the case of his frequent prescription that a cure be repeated three times (cf. Pliny: Nat. Hist., 28, 27; and 26, 60, & 28, 7). And the magical powers of other numbers can be similarly traced, e.g. five in the famous pentacle of Black Magic, twelve in the twelve great kings and twelve evil spirits of the Manichean doctrine, or nine as in the Theban Ennead. Some of these are of later occurrence than others, but basically all go back to a common folk-theory which will prove almost any number to be possessed of supernatural powers.

But particularly was this theory applied to music; the classical doctrine of the Harmony of the Spheres is found not only in the Greek philosophers such as Plato and Pythagoras, but also in the later applied scientists such as Vitruvius and Hero of Alexandria, and even in the Gnostic writings, (cf. Thorndike: Hist. Mag., i, 184 ff., 371) until we meet with it again in the works of the Arabic theorists, notably of Al-Kindī. (vd. Farmer: Sa'adyah Gaon, p. 8) From his time onwards Arabic music was

fixed firmly in a course ruled by number. All the theorists have their own ideas, which they work out in detail, though without any agreement one with another, in a mass of scientific calculation and quaint conceits which makes the investigation of the subject, as Farmer justly remarks "fraught with difficulty to anyone who seeks to unravel its mysteries, although to Mediaeval thinkers there was in it a definite "raison d'être!"

With these factors in view we may proceed to examine, however briefly and superficially, the present MS in the light of its arithmetical sections. Two words are commonly used of the process of calculation, "ḥisāb" and "qisma"; the first of these presents no difficulty, as it is the normal word used of the calculations of the theorists. We are told for instance that Ishāq Al-Mauṣilī used "ḥisāb" in his musical theory, (cf. Enc.Is.,iii,750) and the word is also of frequent occurrence in Al-Fārābī and the *Ikhwān al-Ṣafā'*. But it is difficult to find a suitable meaning in English for "qisma"; on several occasions it seems to mean "proportion" (e.g. col. 226, 253), as for instance the way in which a standing string is to be measured off in order to produce a given note, as in the placing of the frets on a lute; or again it seems to have the same meaning in regard to the placing of the finger-holes in the flute. Sometimes it would seem to mean "measurement" without regard to proportion, (e.g. col.243) or, most common meaning of all, it appears frequently to refer purely and simply to the numerical value of the instrument. On the occasions of its appearance in the translated text, I have not been happy about its rendering, and consequently translated it in a variety of ways; sometimes even, when no alternative seemed to offer I have contented myself with transliterating the Arabic word.

Broadly speaking, our author's calculations may be said to be ruled by/

by four basic principles, three of which are cosmological in significance, and one purely mathematical. Let us examine them in turn.

a) The Law of Twelve. Under this, all things are based on a system of twelves; there are for instance twelve modes (anḡhām), viz. Rast, ‘Irāq, Zirwakand, Iṣfahān, Zankulā, Buzurk, Rahāwī, Ḥusainī, Māyāh, Būsalīk, Nawā*, and ‘Ushshāq. These are, with one exception, the same as those given by Ṣafī al-Dīn ‘Abd al-Mu’min, the nearest in time to this MS, of the great theorists (vd. Farmer:Hist.p.204), and seem to have been the standard modes of the time. The exception is that Ṣafī al-Dīn gives Ḥijāz as a mode, and Māyāh as one of the Awāzāt or secondary modes. The Kashf al-Humūm reverses the order, giving as its Awāzāt the following: Nīrūz, Shahnār, (= Shahnāz of Ṣafī al-Dīn ?) Salmak, Zarkashāh, Ḥijāz, Kuwasht. Cols. 98 ff. describe in detail the manner in which these Awāzāt arise; "the six are produced by the twelve.....For Aries is fire, and Taurus is earth; fire is male, and earth female, so fire marries earth; Aries corresponds to Rast, and Taurus (text has الرستور) to ‘Irāq, and from them comes Nīrūz." And so on with every other pair of the twelve original modes. Thus the six Awāzāt are linked up with the twelve modes, to be referred to hereafter as "the law of the twelve and the six!"

With the modes are associated, as we have seen, the twelve Signs of the Zodiac, and the twelve months of the year, both Muslim and Coptic, and much other material which may be seen in the table reproduced at Appendix A. Also, connected with the twelve Signs of the Zodiac, we have the three hundred and sixty degrees of the geometrical circle, and the three hundred and sixty days of the year. This latter conception is not unfamiliar to astrology, nor in fact to astronomy; reference to a 360-day year ^{in Babylonia} will be found in an article by Prof. A.C.Baird in the Transactions/

Transactions of Glasgow University Oriental Society, vol.V,pp.9ff., and at the time of the French Revolution, the calendar set up for the revolutionaries by Romme was founded on the same 360-day system. (cf. Carlyle:French Revolution,iii,I56) Another idea in connection with the 360 is the conception of 360 veins in the human body, each of ten members having 36; it is on this theory that the story is based of Al-Fārābī's supposed invention of the ten-stringed lute, each of the ten strings having 36 threads to bring the number up to the cosmological requirements of the theory. (cf.cols.II5 ff. & commentary ad loc.)

Another matter connected with the principle of the 12 modes, and with the principle of twenty-four, to be mentioned shortly, is the introduction of the rhythmic modes, the "khafīf" and "thaqīl" (cf.commentary on the "ṭār") Each of the melodic modes is regarded as capable of being played in two rhythmic modes (sometimes three), "khafīf" or "thaqīl" (or mutawāsīt), whereby the total number of variations which can be derived from the modes comes to 24, in harmony with the 24 qīrāt.(cf.infra)

b) The Law of the Twenty-four Qīrāt. This would seem to be a law, purely arithmetical in the sense that no cosmic significance attaches to

it; according to it, 24 "qīrāt" (قرايط plur. قيراط) are regarded as being equivalent to unity. "Qīrāt" is a curious word; a late usage in Arabic, I can find no trace of it in the earlier writers on music. It is, of course, not a native Arabic word, but a loan-word from the Greek κεράτιον, the parent of our word "carat", the unit of measurement, particularly of gold. In later times "qīrāt" in Arabic seems to have become a common word in popular, and even in scientific, speech;

Burckhardt (Arabic Proverbs) quotes it in a proverb -- صاحب قراة الفرس يركب -- "let him who owns a fraction of the mare mount her", though the word is here/

here given in a slightly different form. Dozy in the Supplément gives قيراط, the form read by our MS, although his plural is shown as قراطيط, with the following meanings: 1) "obolus"; so also in Schiaparelli's

Vocabulista in Arabico.

2) "doigt (measure)"; thus also in Hava, as a Syrian usage.

3) "écaille" or fish-scale.

4) in the phrase حساب القرايط it refers to a type of calculation.

This final meaning, which involves the same form of plural as is found here, is very interesting; it is based on a reference to Quatremère: Récherches sur l'Egypte, p.287, a book to which I have not had access, but it would seem that the reference is exactly to some system such as that used by our author. Mushāqa also uses the word in the same form, as a measure of length, equivalent to a finger-breadth, or as meaning one twenty-fourth part. (vd. M.F.O.B., VI, pp.57, 108) Theoretically the use of the term can be explained also by reference to the magical theory, 24 being the first denominator of a vulgar fraction which will contain evenly the fractions 1/8 1/6 1/4 1/3 1/2.

c) The Law of Seven. Reference has already been made to the supposed power of this number, and our author is very strongly influenced by it. The basis of his belief is taken from the cosmic significance of the seven planets and their presumptive governance of human life; he quotes many things as comprehended by the law of seven, the week having seven days, the flute having seven holes, and the lute having seven -- among other numbers -- strings. The earth also is divided into seven κληματα (أقاليم) according to the teaching of Hipparchus (cf. Enc. Brit. XVIII/

XVIII, 736 c), and therefore the best of the musical instruments are also seven in number; these he details as those with which he proposes to deal, "ūd", "qānūn", "jank", "rabāb", "tār", "shabbāba", and "shu'aibiya"; and from these seven arise other seven, similar. (col. IO6) "From the "ūd" comes the Turkish "qubuz" which is similar to it, and from the "qānūn" comes the "sanṭir" which is the same; from the Persian "jank" comes the Egyptian "jank", which is of the same type, and from the "tār" comes the "duff" which is equivalent to it; from the "shabbāba" comes the "maušul".... and from the "rabāb" comes the "kamanjā"; from the "shu'aibiya" comes nothing, because it is itself derived from the "qaṣab". Similarly, there are in the Persian theory of music seven courses, (abhur) and there are seven substances from which musical instruments are made, viz. copper, wood, skin, reed, thread, silk, and gut. (col. IIO)

With this law of seven and with the following law of four (cf. infra) he joins another cosmically important conception, that of the 28 Mansions (manāzil) of the Moon. This is and always has been an important matter in the science of astrology; it is to be found in English as far back as Chaucer, (cf. Frankeleyne's Tale, line 457) and prevails to the present day in the horoscopes of Old Moore's Almanac.

d) Finally, and most important of all, we have the law of the four-fold thing. (القاعدة الأربعة) All life, indeed the whole cosmos is, according to the theory, built up upon a system of fours. And our author elaborates the thesis; there are four quarters of time, for instance, Spring, Summer, Autumn and Winter, the seasons of the year; there are also four seasons in human life, babyhood, youth, middle life and old age. The material world is composed of four elements (fanāṣir) fire, earth, air and water, while the human constitution (ṭab'a) is made up/

up of four humours (imtizājāt), blood, bile, black bile, and phlegm. These features are elaborately worked out in relation to the four winds which work the four doors of the "mūsīqa"; each wind produces a sound with a peculiar influence on each humour of the human constitution in each quarter of life. (col.31 ff.) Subsequently (col.205 ff., to be found in the translated text) the basis of music, as referred to the "ṭār" is worked out as four-fold, as is also the basis of poetry; four chief poets are quoted, Imru' al-Qais, Zuhair, 'Antar, and Ḥassān b. Thābit. In line with this, out of the seven best instruments quoted above, we have a final choice of four, (col.110) "ud", "qānūn", "jank", and "duff".

This belief in a four-fold basis for all created things is no novelty; it has been worked out time and again in the history of astrology and philosophy, and its musical application will be found in Arabic in many places, notably in the Thousand and One Nights (vd. Story of Nūr al-Dīn and Ḥalīya). Pliny ascribes to Democritus a work dealing with the four-fold principle; it is prominent in Philo Judaeus, (cf. Thorndike, i, 356) and the "divine quaternities" of Raoul Glaber the mystic are well-known. (ibid., i, 674-5) For the Arabic version of the four-fold thing in musical theory, see Farmer: Sa'adyah Gaon, pp. 8, 9; Influence, passim.

It is against such a background that we must place the arithmetical sections of this MS, a background composed equally of scientific calculation and astrological superstition, striking its roots not only into the coldly scientific shallows of Greek theory, but also into the warm living depths of human fear, to which numbers are not mathematical abstractions, but forces potent for good or for evil.

42.

The biographical portions of this work are perhaps the most disappointing of all; not only are all our author's cited authorities unknown, but there remains a lurking suspicion that either their names or their periods are not correctly given. Into this point we shall go in detail later, but in general it may be said that there is something suspicious about the fact that out of seven authorities quoted (another reference to the magic seven) as having been the leading masters of the musical art, (col.10) and as having written books, (col.4) not one can be identified; and it is the more suspicious that, according to the writer, these men lived in times which are today fully and even lavishly documented for us by many reference books. Had he been quoting men who lived before the coming of Islām, or even before the peak production period of Arabic literature, had he been referring to a period whose history is relatively little known, such as his own, from the fourteenth century till the eighteenth, then we could have understood the mystery surrounding his musical heroes. But his Al-Fārābī is said to have lived in the time of Al-Ma'mūn, which, if true, makes it certain that he is not referring to the famous Al-Fārābī who was not born until roughly 870 A.D., some forty years after the death of ^{Al-}Ma'mūn. But even so, it is remarkable, to say the least of it, that seven eminent musical authorities, handing down the same tradition, (col.10) a whole school of musical theory, flourishing in a well-lighted period of history, should have disappeared completely, leaving no trace.

For that is the truth of the matter; this MS is our sole authority for the existence and works of these seven men. I have made extensive search for their names, in places likely and unlikely, but without success. Nor have I been alone in my failure; Dr.H.G.Farmer, from/

from whose collection the MS comes, informs me that he too has been unable to trace the names, and I have his permission to quote a letter from Prof. R.A. Nicholson, to whom Dr. Farmer applied for help in the matter, to the effect that he too was quite without information concerning these authorities. Nor is the idea of textual corruption of much assistance; to read; for instance, Al-Faryābī for Al-Fārābī is no help, because such a person as Taqī al-Dīn Al-Faryābī is equally unknown. And it would take a lot of emendation to twist the names into a shape which would be recognisable. I have a theory which might explain the facts, if not ideally, then at least fairly satisfactory, but before discussing it, it might be better to study the names and biographies as they appear in the text. (cols. 5-9)

a) First comes (col. 5) "...the wise and learned shaikh Taqī al-Dīn Muhammad Abū 'Abdallāh b. Al-Ḥasan Al-Fārābī, the master of this art, and the leader in this science; and [my material is taken] from what he related from other learned and excellent authorities of the past, who explained in their books, and proved their explanations by practical experience." Also on Al-Fārābī we have the story of his building of the "mūsīqa" for the Caliph Al-Ma'mūn (col. I2 ff.) and his invention of the ten-stringed lute, by reason of having seen a decomposing foot protruding from a grave. (col. II5ff.)

b) In col. 6 we have ; "One of them (i.e. the authorities who followed Al-Fārābī) was Aḥmad b. Muhammad b. Ayyūb Al-Khwārizmī, who learned the sciences and studied intensively in them. At first he was a transmitter of the tradition of the authorities at Al-Baṣra, and he studied many sciences with very great diligence. Then he emigrated from 'Iraq al-'Arab to 'Iraq al-'Ajam which was his birth-place and his home as a child.

His/

44.

His father, Muḥammad b. Ayyūb Al-Khwārizmī tells us that he himself had already been occupied with this science of music, and had studied it thoroughly; so his son learned it from him, and became the foremost authority of his day in it." In addition to this, Al-Khwārizmī is mentioned in col. I27 as handing on a tradition of Al-Nīsābūrī concerning the "‘ūd muḥkam", and in col. 2I2 he is quoted as the originator of a saying, "He who does not listen, he who does not love, he who is not charmed, such a man is not human, but is to be reckoned among the beasts!"

c) The next authority listed (col.6) is "Ṣāliḥ b. ‘Abdallāh b. Karīm Al-Nīsābūrī who studied at Baghdād and was very learned. After that, he took to travelling in the pursuit of that noble science, the study of the Qur’ān and the Sunna, and he met Abū ‘l-Ḥasan Al-Fārābī (note the mistake in the name as compared with col.5), from whom he learned this science. He was a pious man and an ascetic, who never spoke save on the subject of the Qur’ān and the Sunna. He had many pupils who quoted his authority in the study of religion, and this science of music was one of those taught him by Allāh the Exalted!" Al-Nīsābūrī is further mentioned in col.I27 as going in quest of information concerning the "‘ūd muḥkam" to the town of Shushtar in Khūzistān, to interview a certain sage by the name of Ḥasan Al-Tūrīzī.

d) After Al-Nīsābūrī we have (col.7) "Abū ‘l-Ghāliya b. Sāmān, the poet, who came from Kūtariya, (presumably Kūthāriyā is intended; cf. Al-Idrīsī: ed. Jaubert, ii, I6I) the neighbourhood in which was born Abraham the Friend of God, (Al-Khalīl) upon whom be the best of blessings and peace. Now this shaikh was a great lover of learning and study, and when he met Al-Fārābī, he attached himself to him and worked under him. And he was the leading musical authority of his day." Abū ‘l-Ghāliya is/

is further mentioned in the same story in col. 127, where he quotes Al-Nīsābūrī to his junior Al-Khwārizmī, and a different form of the name Abū 'l-Ghāliya b. Sulaimān is given in col. 10, in a description of the "ṭabaqāt" or grades in which these authorities stand to one another.

e) Then we are told (col. 8) of "Abū 'l-Faḥ b. Naṣr b. Al-Mu'azzimī who also engaged in this science; he handed down the opinions of the eminent authorities, and from them he learned the principles. A great number of people studied under him, and all were successful. By means of this science Al-Mu'azzimī attained to the courts of Caliphs and Viziers and nobles, and through it he enjoyed their favour. He had the patronage of Al-Ma'mūn, until he roused the jealousy of some of the Caliph's courtiers who saw how many favours were heaped upon him, how near he was to the Caliph, and how many gifts he received." After Al-Fārābī, this Al-Mu'azzimī seems to be the best-known of the cited authorities. A story (col. 133 ff.) is told of his having had a disagreement with Al-Ma'mūn, and being forced to fly from the Caliph's court; he wanders through the streets until he comes, unrecognised, to a house into which he is accidentally taken; music is provided for the guests of the household, and Al-Mu'azzimī's musical talent, which seems to have been outstanding, procures his recognition and a warm welcome. Such stories of musicians are by no means uncommon; an almost identical tale is told of b. Misjāh in Aghānī I, 195. He too came as a stranger to a house in Damascus, having had to fly from Mecca in order to avoid being charged with corrupting the youth of that city by his music. He too, unrecognised, corrected the singing of a slave-girl, and, after being almost expelled from the house, charmed the company into recognising him by the beauty of his singing. A similar story is told of Ma'bad in Aghānī/

Aghānī, I, 24, and of b. Jāmi^c in Aghānī, V, 45.

f) We are next (col. 8) told of "Khālīd b. Aḥmad b. Ismā'īl b. Ḥasan Al-Fīrūzī, whose great-grandfather, Ḥasan Al-Fīrūzī was a preacher in Al-ʿIrāq. The latter owned many books, which contained all the sciences, and when Khālīd reached manhood, one day he was looking at the books when he noticed in them something about a part of this science of music; he committed it to memory and learned it, and then he searched for someone who would teach him the science. He heard of one such, so he enquired after him, and when he met him he learned from him the science of music, and he handed ^{down} that science on his authority." There is no other mention in the MS of Al-Fīrūzī, but it is worthy of notice that he is the only one of the seven authorities quoted here who does not seem to have belonged to the school of Taqī al-Dīn Al-Fārābī. It is the latter's tradition that all the others use, but Al-Fīrūzī stands alone, his teacher and his tradition being alike anonymous. So it is that he is not mentioned in the "ṭabaqāt" in col. 10.

g) Another who only appears once throughout the MS is (col. 9) "Abd al-Mu'min b. Ḥasan b. Zakarī who was brought up as a child by Al-Fārābī and who was his servant for a long time. And when the shaikh saw his interest and his keenness for music, he knew that the boy would be his successor, so he applied his energies to teaching him, with the result that the lad made rapid progress. It is related in some of the sayings and the stories that he acted as Al-Fārābī's servant for twenty-three years, until he was thoroughly acquainted with the science of music. He was more learned than all his contemporaries, and he it was whom Al-Fārābī appointed to be his successor after him."

Such is our author's list of his sources for his work; what are we to make/

make of them? It is to be noticed first of all, that the "nisba" of three of these authorities can be recognised; Al-Fārābī is well-known as the tenth century philosopher of the school of Aristotle, but his full name was Abu Naṣr Muḥammad b. Muḥammad b. Tarkhān Al-Fārābī. In the same way Al-Khwārizmī, as already known, was Muḥammad b. Aḥmad who lived in the second half of the tenth century and composed the work known as the Mafātīh al-‘Ulūm. And even Al-Nīsābūrī is not unlikely as the name of a musician; Al-Shalāḥī (13th.-14th. cent.) quotes a certain Abū Sa‘īd Al-Nīsābūrī. (vd. Farmer:Studies ii,29) And finally the name ‘Abd al-Mu‘min, found in this MS with "b.Ḥasan b.Zakarī" is the "ism" of Ṣafī al-Dīn, the famous musical theorist of the thirteenth century. Now these things are admittedly very slight evidence on which to base deductions, but the following facts are clear:-

- 1) There is manifestly something wrong with the names as they are here quoted.
- 2) From the context of the stories given, e.g. about Al-Fārābī and Al-Khwārizmī, it is apparent that the reference is supposed to be to persons who are exceedingly well-known, too much so to need any introduction to even the casual reader. (cf. cols. I2 ff., II5 ff., 2I2 ff.)
- 3) The "laqab", Taqī al-Dīn, given to Al-Fārābī was very uncommon at the time, either of Al-Ma‘mūn (i.e. the time to which this writer is referred,) or at the time of the real Al-Fārābī. But it was very common indeed, like Saif al-Dīn as previously instanced, at the period at which we may conclude that this MS was written.
- 4) In addition to these things, it is to be emphasised that our author is not over-accurate in his writings, a point brought out more/

more than once in this introduction.

In view of these factors, I would suggest very tentatively that, either by the author or by a careless scribe, more probably the former, the names of the authorities have been hopelessly confused, and that, while part of the name may still be accurate, the rest is so corrupt as to baffle all efforts at a definite identification. Such a theory is, frankly, not very satisfactory, but it is at least better than no explanation of the curious position that a group of men, all living within the space of roughly 150 years - because (col. 10) they quote one another - should have vanished without trace from literary history.

Such is the MS entitled "Kitāb Kashf al-Humūm"; its very name is a sufficiently suitable index to its contents, for it is of all things a book designed to entertain the ordinary man in his hours of ease. Its translation, though it has been interesting, has been by no means easy. In addition to such prima facie difficulties as anonymity, lack of date, etc., its problems have been vexed by the ever-present possibility that the arithmetical sections which have not been here attempted may yet conceal some farther data on the instruments, from the theoretical side. On the balance of probability I do not believe that such is the case, but it remains a possibility; in any event, if in truth it be so, such passages will require the attention of ^{someone with} a greater degree of musical scholarship. But, viewing the MS as a whole, its main interest would seem to lie not with the musicographer but with the ethnologist, not with the student of Arabic history or biography or literature, but with the student of the manners and customs of the common people of all nations and in every period.

2. A. Translation.
- B. Commentary.

I. MEMBRANOPHONES.THE TAMBOURINE.

A. Text.

(Cols. 189-198, 201-223.)

189.

The "duff" is a modern [instrument], the ancient forerunner of which was the "ṭar", used by all the Arabs. In appearance the duff is like a large ṭar, resembling a thin sieve (ghirbāl) as made during pre-Islāmic times. It (i.e. the duff) consists of a coarse cattle skin with a circle of many small rings (ḥalaq), and is heavy to raise or lower; it has a low rough sound. When anyone plays it, it emits a sound like a drum (ṭabl), and every time it is moved the metal rings give a low and gentle tinkle which has no great volume.

190.

The Arabs used to love its sound and preferred it to all other instruments. Legally, it is the most permissible of all instruments, as is shown by what Al-Farqadī related, viz. "I have heard that when the Prophet - Allāh bless him and grant him peace - emigrated from Mecca to Al-Madīna, the people of Al-Madīna came out of their houses rejoicing at the arrival of Allāh's apostle; each of them brought a gift to give him according to what each could afford. They rejoiced greatly at his coming, and went out to escort him when he came out of the passes of al-Wadā'. The first to meet him were the daughters of Al-Najjār with tinkling tambourines; they were escorting him, singing as they went

'The full moon has risen over us from the passes of al-Wadā' ;

We must give thanks as long as prayer is offered to Allāh.'

The companions of the Prophet rebuked them for that, but the Prophet said 'Let be (أَس : vd. Wright I, 295A); do not stop them: for they rejoice at our coming.' So they commenced to play their tambourines in/

+ The Banū al-Najjār were a tribe of the Anṣār (vd. Lisān s.v. نَجْر.)

in the presence of Allāh's apostle. Now if it had been forbidden to play the tambourine, the Prophet would have stopped their doing so, or would have forbidden it."

191. Also, in the tradition [we read] that there were certain women of Al-Madīna with 'Ā'ishā the Mother of the Faithful - Allāh be pleased with her - in the house of Allāh's apostle; they were playing tambourines and striking them noisily, until the place resounded with the din. Then Abū Bakr Al-Ṣiddīq came in - Allāh be pleased with him -, but they were not silent; they kept on as they had been. After him Allāh's apostle entered, and yet they did not desist from what they were at, but continued playing their tambourines and singing. Then 'Umar b. Al-Khaṭṭāb came in - Allāh be pleased with him - and when they saw him, the women were silent and stopped [playing.] And 'Ā'ishā then fell into a rage with them, and said "What is the matter with you? You are not afraid of Allāh's apostle, nor of his friend (and kinsman Abū Bakr; they came in but yet you did not stop what you were doing. You only fell silent when 'Umar came in; of him you were afraid, and you fell silent, all of you. What is the matter with you?" Then they answered "Oh 'Ā'ishā, the reverence and the respect due to your father Abū Bakr are great, and that due to the apostle of Allāh is yet greater and more binding, so be not angry. For Abū Bakr is clement and compassionate, while Allāh's apostle is gentle and noble. But 'Umar is hard and forceful, and we are afraid of him; for that reason we desisted and held our hand." Now if the playing of tambourines had been forbidden, they would not have been played in the house of Allāh's apostle, and he would have forbidden them to listen.

Again, [we find] that they asked him - Allāh bless him and give him/

193. him peace - [about the playing of tambourines, and he said "Listening to any amusement (lahw) is forbidden when they quote the pagan odes to it, or poetry set to music; but when they repeat the religious odes or the poems about the Prophet, then it is allowable. Legal authority (lit. the master of the law) permits it."

Or again [we read] in the Tradition that the Prophet entered his house when 'Ā'ishā was there on a feast-day, and Abū Bakr Al-Ṣiddīq with him. He heard some women of the Anṣār playing tambourines, and Abū Bakr bade them cease that. But Allāh's apostle looked at him and said "Abū Bakr, let them alone, for it is a feast-day." The meaning [of this] is directed towards the pre-Islāmic "ṭār," and not towards the Egyptian "duff"; for the people ceased entirely to use the former, and evolved in its place these latter instruments with their shining rings (ḥalaq) and their soft parchment skins, and also the cymbals, inlaid (muṭa^{ca}ama; vd. commentary) with gold and silver. To listen to these is forbidden, as against the former precept. (naṣṣ.)

The [method of] playing these two instruments ("ṭār" & "duff") is well-known, and consists of rhythms (اعداد: vd. commentary) represented by rhythmical blows (tanqīrāt) of the hand, either 3 or 5 or 7, beginning with the first and ending with the fifth, sixth, or seventh according to the prescribed rhythm of those blows. That rhythm again is determined by musical notes which fit in with them in playing, the rhythm of blows of the hand corresponding to the rhythm of the syllables of speech; and that rhythm must not vary from its station (martaba) if the playing is not to be ruined.

When the playing is divided between the two hands and the tongue, and when the rhythm in both embraces the twelve melodic modes (انغام) whose/

whose rhythms (ضرب) we have referred to as 'adad, [the player] begins in one section of the modes and ends in another. Or if he so desires, [he may derive additional (reading دائرة; for دائرة) melodic modes from that striking, (tanqīr) according to their section in the rhythm and the value of their stations in number. As regards these two methods, there are four kinds of people; there are those who start by modulating (khārij) and who finish in the one mode and that is better than the preceding way because the principle of the art lies in the finishing. Some again begin in the one mode and finish by modulating, which is a defect in the art; others begin by modulating and end by modulating, and such a one is defective in art, is far from the playing and is not at all fine; and yet others begin in the one mode and finish still more excellently, which is perfect in skill, near to the playing and not far off. (See Commentary)

196. The man is also known who loses [the playing; when he is alone the reason for his losing it may be one of four things, two connected with the hands and two with the tongue. The man from whose tongue come familiar words in distinct rhythms, arranged in metre and scanned, being neither too long nor too short - when such a man falls into an error concerning it, he either adds letters at the beginning [of the verse] or drops letters at the end; so that the playing becomes too short and he does not perform the whole of it but breaks an art which others have perfected, and, through his ignorance, corrupts it; he is defective in art, knowing nothing.

197. Such is the rule for [mistakes arising from] the tongue. As for [the [case of the] hand, if there are a certain number of arranged beats, [a man] sometimes increases them at the beginning or at the end, or he decreases/

decreases them at the beginning or end; so the beat is decreased and again he does not do the full playing. We have seen a man take one of those forms (ashkāl) whose number is certain words laid down in the art [of poetry], fitted together according to the precedent of the principle in the art of music, a form to which nothing can be added, and from which nothing can be taken away from what the authorities and cultured men have laid down in their wisdom; to such a form the fool
 198. comes and spoils it by his folly|or inverts it by his performance or distorts it because of the paucity of his skill. But for intelligent
 ○ people there is no difficulty in it at all, since the rhythm is distinct according to the playing, in sections, and its number is [an] accepted [number of] beats with recognised signs [as to how many]. If the playing is done with the finger-tips, then the number is plain to anyone who has knowledge and understanding. If the playing is done with the palm of the hand, then it is a generally accepted type and has a rhythm understood by anyone who is familiar with the art of music.

201 As for the rule for playing with the palm of the hand, it consist
 ○ of mixed rhythms increased and decreased in the playing; there is no end to its rhythms, but all of them embrace the whole circle of the playing, making no difference in operation; nor is playing with the
 102. fingers|excluded. This [method of playing] is more musical and sweeter and of a more delicate skill; a sweet voice can follow it with great art and with much accompaniment; it is suited too to the poems which are set to music when plectrum and instrumentalist are discarded. (See Commentary.) Here the art of music is brought to perfection; because it is a spiritual art induced by bodily movement, rooted in human souls/

souls, tending to satisfied intellects, an art which men understand; it is weakened by neglect and strengthened by constant practice.

There are four classes [of people] according to the value of the grades of created things. Those who have been given fine theory but not fine voice, those who have been given fine voice but no greatness in theory, and those who have been given fine theory but not sweet notes. These it is whom Allah forbids [from music], and not ordinary mortals. For if two men play together, one on a tambourine and the other on a flute and if they confuse the playing, then there will be some who will say "The tambourine is following the flute", while others say "The flute is following the tambourine." But the soundest opinion is that the two follow one another, according as it falls out; if the flautist begins, the singer follows him: then afterwards the singer pours forth the modes one after another, while the flautist follows him. And the hardest method is for the singer to be helped by the flautist and to rest upon him, so that in their grades neither transgresses upon the other. [But if the two of them fall into error, they add to what the experts have laid down, or they decrease from it in some way, so that they both lose the playing. Or else one of them is in one grade while the other is in another, but is sometimes too loud and sometimes too soft; so they both lose the playing but imagine that they are still on the equal path, though in fact they are not. If one falls into error and not the other, he is lacking in skill, sometimes rushing and spoiling his partner, so that he loses the playing, sometimes lagging so that he is far from the playing and from what agrees with it, wandering. The worst fault in this art is to rush; as they say "He who rushes has not learned to play, he who goes slowly is praised, and he who knows his grade is at rest." For there are some/

203.

204.

205.

some who do not know their grade, so that they scream unrhythmically like the ass, (cf. Qur'ān, XXXI, 18) braying without principle. (aṣl.) And it is possible that a man may play correctly, even if his grade is low, while another may not play correctly though his grade be high, because of his lack of skill. As the experts have said, "Fundamentally the sheep which are inside are of our number, while the lions which are outside are not." (See Commentary.)

207. The bases of this art [of the tambourine] are: sweet notes, a powerful playing of the instrument, a knowledge of the melodies, and a memory for poetry. For the art rests on four foundations :- ta'līf, taṣnīf, taḥsīn and talhīn; ta'līf is fitting the notes to the poetry which was composed in ancient times by others of the poets; taṣnīf is taking words in prose and making them into ordered poetry, fluent, one part following upon another; taḥsīn is taking two words and adding to them other two, similar to them, so that they become speech; the name of that is malw or taḥsīn in speech; and talhīn is trilling in singing which is the attraction and the power of music, for without it there would have been only ordered poetry and no music.

208. Poetry also has well-known foundations, four in number, namely metre (wazn), and rhyme (qāfiya), music (mughnā), and composition (tartīb); these four are well-known in the musical world, and need no explanation. And the poets are four in number, Imru' al-Qais, Al-Bahā' Zuhair, 'Antar b. Shaddād, and Ḥassān b. Thābit, each of high rank in the poetry which he laid down as his aim; Imru' al-Qais takes water from the river, Zuhair culls from the flower, 'Antar carves out from the rock, and Ḥassān takes from the treasures of time. The last-named is the highest of all the poets - that is, of the Islamic poets - and is/

is their leader towards Paradise; and Imru' al-Qais is the greatest of the unbelieving poets, and is their leader towards Hell-fire. (Cf. Aḥmad b. Ḥanbal, II, 228.) Famous men have said "Verily, during pre-Islamic times three men were praised for three things; Ḥātim of Ṭayy was praised for generosity, 'Antar was praised for bravery, and Imru' al-Qais was praised for eloquence in poetry. But when Allāh the Exalted revealed the faith of Islam, and all those old laws were blotted out, there came three of the Muslims who wiped out the memory of those others, and who did more than they. Ḥātim of Ṭayy was praised for generosity, but Abū Bakr Al-Ṣiddīq came in Islamic times, and spent all his wealth secretly and openly until he was left destitute in his cloak, and had no opportunity left for generosity. (Cf. Muir: Caliphate, p. 79.) 'Antar was praised for bravery, but when there came the Sword of Allah and His Emissary (ātīhi), 'Alī b. Abī Ṭālib, he left no opportunity for bravery. And Imru' al-Qais was praised for eloquence in poetry, but when Ḥassān ^{b. Thabit} the Anṣārī appeared, he left to the other poets no shred of eloquence."

The singer, then, must be skilled in poetry as well ~~in~~ as in singing; and a singer's memory must be present and his hearing must go along with it, never departing from it for an instant; whenever he lets one go away from the other, then music deserts both. There are some who listen with their ears, and their heart in one place but their eyes in another direction; they neither hear nor appreciate, for it is the general opinion that "There is no audition (samā') without seeing": like a man who listens to music behind a curtain; some of the music comes to him, but another part he loses (reading just y for just y) so that his audition remains incomplete and without pleasure/

211. pleasure. For audition pertains to the eye as hearing (isghā) pertains to the ear. So if the mind of the hearer is away or departs from the singer for the twinkling of an eye, the music deserts him, he can have no pleasure, and is left wandering without enjoyment. So it is best that his mind and intelligence should not depart from the singer [even] for the twinkling of an eye. Because the singer is held a prisoner by his music and is troubled in mind because of it; if they do not listen to him they are not acting fairly, for the speaker is a prisoner (asīr) and the hearer a prince (amīr) and between the asīr and the amīr is a great difference. So when those who are present listen to the speaker and look at him, then all the conditions are satisfied.

212. There remains the condition [to be fulfilled] by the singer; and his memory and intelligence must be on the playing so that the music does not escape him for a single moment; for if the singer has no music nor happiness, then neither has the listener, like the preacher [when the heart of his hearer is not humble. So there are some who listen to and enjoy music while others neither listen nor enjoy. In the words of Al-Khwārizmī "He who does not listen, he who does not love, and he who is not charmed, such a man is not human, but is reckoned among the beasts."

213. It has been related that Ayyūb Al-Qarmūnī said: "I asked the wise and learned Shaikh 'Abd al-Razzāq, the preacher of Al-'Irāq, concerning music, whether it was a devilish profession or a divine art. But he lowered his head and gave me no answer. So I went away and stayed away three days; on the fourth day I came to him. and around him was a great crowd, listening to what he was saying. I waited till the/

the gathering broke up, and he remained alone; then he rose from his place to go to his house, and I stood up, went forward to him, and said 'Master [give me] an answer to my question or I shall go away.' Then he said 'Be patient with me.' and he took me by the hand and went off to his house. Then he said to me 'Sit down in your place until I return to you with what you asked me.' He went into his house, and I sat in my place waiting for him; but he was away for an hour until I thought that he had overlooked my business and forgotten me. But before long he came out to me and said 'My son, I have been reading the sciences and studying books|and poring over writings, pondering on the question which you asked; and I have found that it is plainly based on four foundations which are the root of all music and all singing. They are: a strong art, desirable modes, instruments of music, and well-tuned strings. As for the strong art and the desirable modes, they are a divine art, bestowed by the Lord of Creation; but as for the instruments of music and the well-tuned strings, they are a devilish profession which corrupts the minds of men.(c.f. Al-Tirmidhī 46, 17) Now after that you have no need of another word.' Then he left me and went away, and I had learned from his speech what he made me learn, and had understood what|he made me understand. For the wise man knows and understands, while the fool neither knows nor learns. And the art of music is bestowed by Allāh the Exalted; it is not [to be gained] by money or power or wiles, but Allāh gives His knowledge to whom He wills, and He is the Wise One, the Omniscient."

The art of music is to have a mellow and pleasing mode, and delicacy in its accompaniment by the fingertips so that they play gently. This is only found in young beardless children or in women, for/

for in the melody (lit. mode) they are softer of voice and have a sweeter music than men. Hence the saying "No audition save from the wearer (reading ذى for ذو) of the veil." Because, since a
 216 woman is not elegant until her singing is gentle and fresh, souls are cheered by her [music], especially if she is beautiful and her voice is good; for then her singing is completely perfect. Whereas a man's voice is crude, so that he boasts of it if he has a pleasing voice, and pleasantness of tone is not given to him; so that the listener gets no pleasure from him such as he gets from a woman, nor is he
 ○ gripped by excitement or amazed particularly, because a man is not beautiful and has no pleasing voice. So whence should there come pleasure or excitement in his case such as comes from [listening to] women?

A story is told of Al-Ma'mūn that once he made enquiries about
 217 the prison, and all the prisoners were paraded before him. |Among them he found a man of uglier appearance than any of them, so he made him come forward only to find that he stammered. Then he said to the keeper of the roll "Strike off his name, and send him away." So he struck off his name and sent him away; then he asked "Why did you do that, Oh Commander of the Faithful?" He answered "I heard a wise man say that when the Spirit takes pity on a man's external nature, the result is beauty, and when it pities the internal nature, the result is eloquence. But this man has neither external nor internal, and when a man is neither eloquent nor beautiful, that is when neither his face nor his voice is fine, then the only thing expected from him is
 218. skill of hand in the art [of music] and great |genius with the plectrum which he wields in his playing. So when he has the knowledge which I have/

have mentioned, music issues from him and hearts incline to him and yearn for that spiritual art which he has gained by his learning."

A Story. It is related of one of the kings that he had 100 slave girls who played on stringed instruments, on the lute, the harp, the psaltery, the violin (kamanja), the viol (rabāb), and all stringed instruments, but no others. The king was very fond of them and loved to listen to them. Then in the city at the house of a certain merchant he heard a slave girl playing the tambourine, which thing had never occurred in his time. The king wished to hear her so he asked that merchant for her; he sent her, and when the king examined her he found that she was superior to the 100 girls whom he had; not one of them could equal her in melody or perfection of art, in delicate fingering or strength of genius, and the king was astonished at her.

Then she started to play the tambourine before him and he was charmed by her. So he summoned her owner the merchant, and gave him a great sum of money to take her from him. He said to her "Who taught you this art?" and she answered "A famous shaikh named Ismā'īl of Al-Basra who used to come to my master every year to be entertained and honoured. He is the greatest man of his time in the art of music, for he plays all the instruments and suffers nothing of them to escape him." The king said "I should like to meet him" whereupon she said "He left us at the Īd al-Fitr, and he will not return until the beginning of the month of Ramaḍān. Ask my master about him, and when the shaikh returns he will arrange a meeting between you."

So the king asked that merchant about the shaikh and he told him what the girl had told him, so the king charged him that when the shaikh came, he should be brought to him. So he remained looking forward/

221. forward to the coming of Ramaḍān, day by day, week by week, month by month. | Then the month of Ramaḍān came and 30 days of it had passed when at last the merchant came, and with him the man about whom the king had enquired. When he saw him, the king rejoiced very greatly and made him sit down in his presence; then he said "Oh shaikh, I have heard that you can play all musical instruments. Now I have slave girls who play their instruments without knowledge of the fundamentals of the art, so I wish someone to teach them the fundamentals and explain the playing to them. So can you stay with me and teach them until they are your pupils and have learned from you? And I will favour you and pay you honour." Then the shaikh said "Willingly."

222. | So the king brought before him the girls who were in the palace, and he examined them, perceiving that their voices were musical but that their hands were inept in the playing, there was not one of them who was perfect in technique or who knew the complete art. So the shaikh said "Oh king, these girls need one who will teach them the art from the beginning, for there is not one of them who knows how to hold the instrument in her hands. But their voices are pleasant and their singing is exciting so that hearts incline to it because of the beauty of the voice and not because of perfection of technique. If such has been their performance before you, that is nothing." Then the king
 223. proposed to him to stay|and teach them, and he would give him whatever he desired; so the shaikh agreed to that.

The king gave him a great sum of money and showed him ever growing favour so that he could not go away; and he gave him great affection, so that he would not leave him for a single moment, even for eating/

eating or drinking, sleeping or travelling. But he was constantly in the presence of the king and in his assembly, playing the tambourine before him and showing him forms of playing, of technique and of music, and producing strange melodies which bewildered his judgment and amazed his intelligence.

B. Commentary.

With this chapter we are introduced to the only percussion instrument mentioned in the MS, the frame drum or tambourine. Reference is made in passing to the sunūj or cymbals (col. 194), but of all the membranophones, a numerous and important family in Oriental and primitive music, only the tambourine is noticed.

This instrument, as our author remarks, is among the oldest, the commonest, and legally the most permissible of all musical instruments. (cf. col. 189 and Aḥmad b. Ḥanbal V 353, 356) The last point is interesting and is developed at some length in this MS; four traditions are quoted to show the permissibility of the tambourine, and, although none of them is given in exactly the form in which it appears in the Hadīth literature, two are familiar as loci classici on the question of the legality of listening to music. On col. 190 is found the well-known story of the reception of Muḥammad at Al-Madīna with the verse on the rising of the full moon from the passes of Al-Wadā'. This tradition is given in a slightly less detailed form in Al-Ghazālī (JRAS, 1901. p.224) and in a different form altogether in the Bawāriq al-ʿIlmā' of Majd al-Dīn (Robson: Tracts p. 83.) Again in col. 193 is quoted a form of the famous tradition according to which Muḥammad allowed/

allowed the use of a tambourine on a feast day. Here too the details do not exactly correspond to other occasions of the tradition; it is found again in the Bawāriq al-ʿIlmaʿ (Robson: Tracts pp. 78-9) and in Al-Ghazālī. (op. cit. pp. 224-5) In the original Tradition literature, different forms of the same story are given by Al-Bukhārī in three places (ʿIdain 25, Jihād 80, and Manāqib al-Ansār 46) and by Muslim II, 299.

In fact the Prophet does not seem to have set his face very rigidly against the use of music. As Dr. Farmer has pointed out (History p. 23) little or nothing of definite opposition to music is to be found in the Qurʿān, and if traditions may be quoted in which he condemns it, others no less definite and equally authentic go to show that he approved it. And most especially is this true of the tambourine; indeed according to one tradition given in the Lisān al-ʿArab (s.v. Ghirbāl) the Prophet specifically commanded the use of tambourines on the occasion of a wedding, saying "Publish the wedding and beat the ghirbāl for it." This tradition is also given in Al-Tirmidhī: Nikāh 6. And that the Prophet had no very rooted objection to singing and playing the tambourine appears from a tradition on the authority of Ikrima and b. Al-ʿAbbās, that Muḥammad, visiting Ḥassān b. Thābit, found Shīrīn, the latter's singing-girl entertaining the company by songs and the playing of a mizhar; when appealed to, he said with a smile that the singing and playing constituted no sin. (vd. Kitāb al-Malāhī of b. Salama p.9 and ʿIqd al-Farīd IV, 91) In addition we know that the Prophet used to urge Anas b. Mālik to sing the ḥudāʿ or camel song while on a journey (Farmer: History p. 25); the effect of the ḥudāʿ on camels and men is strikingly/

strikingly illustrated by Al-Ghazālī (op. cit. p. 219). Perhaps that fact may afford a key to the understanding of Muhammad's outlook on music which seems to have been almost entirely pragmatic; if music was profitable, or, negatively if it did no harm, he took no exception to it; but if, as it frequently did, it constituted a danger to religion and morals, then he condemned it. How else can we understand the seeming contradiction of his allowing and even advocating the tambourine at a wedding or on a feast day, and forbidding its accompaniment to the recitation of the Qor'ān, except thus, that he was concerned to keep all the rites of Islām clear of all taint of the old pagan worship. In time even this rule came to be relaxed, as later legists permit the singing of pilgrim songs and the use of pilgrim instruments such as the ṭabl and shāhīn (c.f. Al-Ghazālī op. cit. pp 214, 220, 237) In line with this position is our author's tradition that Muhammad himself forbade "lahw", here to be understood as music, only when it formed the accompaniment to the Qasīdas of the Jāhiliya, but that he officially permitted it in association with Islamic poetry, such as the poems of Ḥassān b. Thābit (col. 193.)

In treating of this vexed subject of the legality or otherwise of musical instruments it is essential to bear in mind that, originally at least, many instruments were proscribed, not for any inherent vice of their own, but solely and simply because of their evil associations. So, for instance, the kūba, a narrow waisted shape of drum was forbidden because it was the badge of the effeminate mukhannathūn, (Al-Ghazālī op. cit. p.237) and the harp likewise because of its association with the singing-girls of the wine-shops. (c.f. supra chap. 3.) The tambourine too comes under this suspicion, in spite of the/

the pre-disposition to regard its playing as legal, for Tuwais one of earliest of the professional singers of Islam and one of the despised mukhannathūn, invariably played the square tambourine or duff murabba' (c.f. Kitāb al-Aghānī II, 174), which inherited its immoral flavour from him. Yet even so in the Kitāb al-Malāhī pp. 11-12 we have a story of some ten respectable shaikhs in the house of one Al-Awsi who, under the influence of music, themselves played square tambourines.

Again, some of the legal authorities assert, as does our author in this MS, (col. 194) that it is only the original Bedouin tār without the metal plates round the circumference which is permissible. So for instance Evliya Chelebi in describing the daf; Evliya incidentally is guilty of a strange inconsistency in this section of his work: he states clearly that "the legally permitted instrument must not have bells nor metal plates", but in the following section, dealing with the dā'ira which was a round tambourine with bells round the circumference, he states that it was played at the marriage of 'Alī and Fāṭima. Apparently the legal distaste for the instrument had not then taken shape. In direct opposition to Evliya, of course, Al-Ghazālī states (op. cit. p. 237) that the use of the duff is permissible whether or not it has bells, and though he viewed music more from the mystic than the theological point of view, he would not have ventured on such a statement unless he had a respectable body of legal opinion to back his decision.

Taken all in all, it will be seen that there is less argument about the legality of the tambourine in Islām than in the case of almost any other instrument. Though there are traditions and legal authorities opposed to it (c.f. b. Abī 'l-Dunyā: Dhamm al-Malāhī fol. 58b./

58b. Robson: Tracts p. 31) the great mass of opinion is in favour of its being permitted, and its defenders have in the last resort a firm grounding in that irrefutable basis of Islām, the Sunna; as Majd al-Dīn says (Robson: Tracts p.75) "In the rejection of listening to singing and listening to the playing of the tambourine and to beautiful voices there is opposition to the usage (sunna); and belief in prohibiting them is unbelief, and to turn away and refrain from them is wickedness."

The vocabulary of this chapter, so far as it touches the instruments themselves, is plain and straightforward. Two words are applied to the tambourine by our author, tār which he represents as the original Bedouin instrument, and duff, the modern descendant of the tār. Whether or not this entirely accurate is open to doubt; it is true that the word tār is preserved yet among the more primitive tribes of the North of Africa to signify the original instrument without any tinkling devices round the outside, as described by Shaw in his "Travels in Barbary." Similarly the word is still used in the dialect of Syria of a round tambourine, such as is called by the Persians "dayere" (c.f. Hava s.v. tār). But the more general words for tambourine in early times seem to have been ghirbāl and mizhar or mazhar. The former is found in the Tradition of the Prophet concerning weddings, referred to above; the word persisted in use at least until late 'Abbāsīd times, (c.f. Farmer. Hist. p.211) and Al-Ghazālī (11th. cent.) also uses it quite freely. It seems to have been used along with the term mizhar which was also a tambourine, a fact which suggests that there was some difference between the instruments designated by the two words; probably, as Farmer has suggested/

suggested, the difference lay in that the "ghirbāl" had snares stretched across the head, while the "mizhar" had not. (cf. Enc.Is.,iii,74) Yet b. Salama quotes a line of poetry (Kitāb al-Malāhī,p.39) which distinctly refers to snares increasing the sound of the "mizhar"! This word was certainly in use in pre-Islāmic times; it occurs for instance in Imru' al-Qais whose singing-girl uses a "mizhar" of harsh sound when played with the two hands. In spite of the opinions of Arab commentators this "mizhar" is much more likely to have been a tambourine than a lute. (vd. Dīwān of Imru' al-Qais, ed. de Slane, p.30.)

"Mizhar" is not used in this MS, and "ghirbāl" is used only once, and that in its literal sense of "sieve". In line with ordinary usage, particularly in Egypt, "duff" is used as the generic name for all types of tambourine, though in particular it is given its own description which will be discussed later. Another instrumental name mentioned, though no more, is "ṣunūj", the castanets of copper inlaid (مَطْمَعة) with gold and silver. (col.I94) For the meaning of "sunuj" vd. Farmer: Studies I,58-9. The word ~~طعمة~~ should certainly be pointed as above, to read the pass. part. of the second form = to inlay. cf. Quatremère: Al-Makrizi iii, p.II4, note 2.

So much for the names of the instruments; the text itself is by no means so clear to one unversed in the theory of music, and has given much difficulty. First (col.I94 ff.) comes the use of the word ʿadad, plur. aʿdād. Normally this word means number or quantity, but in this context it almost certainly bears a technical meaning which I have been unable to trace accurately. I have conjectured that ʿadad here is used in the sense of rhythm or rhythmic mode, a sense which at least/

least brings out a meaning without straining the Arabic; an English parallel is to be found in the use of "numbers" for verses at least as late as Pope and Dr. Johnson (c.f. Pope: Epistle to Dr. Arbuthnot l. 127; and Johnson's "numerous prose" in Boswell, chap. XXXVII)

The two critical passages of the Arabic both occur in col. 194; in line 2ff. **والضرب فيها معروف وهو أعداد**

مفهومة لها تنقيرات باليد معدودة where to render

أعداد literally is to make nonsense of the passage. The second

case is yet more difficult; in line 9ff. **إذا كان الضرب**

مقومة بين اليدين واللكان والجدد فيها يدور على

الانغام الاثنى عشر الذي ذكرنا كل ضرب منهم في العدد يبتدى

In this rather involved sentence, the protasis, introduced by **إذا**

must have two parts, since grammatically the apodosis cannot start

until the word **يبتدى**; consequently the relative clause must extend

from **الذي** to **العدد** and the preposition **منهم** is to be taken

with the relative **الذي**. (though strictly speaking both words

should be feminine since they refer to the broken plural **أنغام**)

If this translation of what is, at best, bad Arabic is correct, it

corroborates the earlier conjecture of **ʿadad** meaning rhythmic mode,

since **ضرب** plur. **ضروب** is the regular ^{usage} for that term. (Farmer:

Saʿadyah Gaon p. 44)

The term **عددة** is also used in this passage, apparently with a different meaning. (col. 195 line 2) as "rhythm" in this context would have no meaning; I have rendered it as "number". The sentence in question is also obscure, but it would seem to have reference to the "cycles" of modes in which a musician introduced modulation. (c.f.

Al-Kindī and the Ikhwān al-Ṣafā quoted in Farmer: Saʿadyah p. 87ff.)

This/

This seems the more probable in view of the passage which follows, a passage which, however, brings its own problems. The main difficulty lies in the antithesis of two pairs of words; in lines 3, 4 of col. 195 we have **فيهم من يبتدى خارج ويقطع مليح**. Now, just as **يبتدى** and **يقطع** are obviously opposed to one another, so also are **خارج** and **مليح**; the antithesis is satisfactory in the case of the verbs, as **قطع** to finish is the obvious meaning in opposition to **يبتدى**. But there seems to be no connection whatever between **خارج** and **مليح**, indeed they cannot, as they stand, be even the same part of speech. It follows that one word is erroneous, and must be emended; the probability is, in view of what has preceded, that **خارج** is correct and is to be retained, the more so because **خروج** is, with **انتقال**, the recognised technical term for passing from one mode to another. (c.f. the reference above to Sa'adyah) But it is quite uncertain then what is to be made of **مليح** the best suggestion which I can offer is some form such as the participle of **لَجَّ** with the meaning "to persist in," i.e. **مَلَّاحٌ**. The meaning of the whole passage will be discussed later under the method of playing.

In col. 198 occurs the anomalous form **العدوى**; the root is obviously intended, and the sense of **عدى** fits the context, so I have emended to read accordingly.

Col. 202 line 4 reads a form **بيشروعات** which I have been unable to find in any Arabic dictionary; it would seem to be an Arabicised form of the Persian plural, ending in **ها**. The word **پيشرو** is given in Vullers' Lexicon Persico-Latinum as meaning "Imamus, musici initium, praeludium," and here, used in conjunction with zakhma it would seem to refer to the instrumental music which generally forms/

forms the prelude and accompaniment to Eastern song. I have rendered, rather freely perhaps, "plectrum and instrumentalist."

In the same column and the following one, there is an obvious mistake in the text; the author specifies four classes of people and names only three, the first and third of whom are, in any case, the same. We would expect to find 1. Those with fine theory and practise. 2. Those with inferior practise. 3. Those with inferior theory. 4. Those with neither theory nor practise. But the text is faulty.

Finally in col. 205 we have the curious proverb **القطيع** **الداخل** **منا** **والصيط** **الخارج** **ليس** **منا**. Again there is the faulty antithesis, this time of **قطيع** and **صيط**, for the latter word is unknown to the dictionaries. The form suggests, by a transposition of points, the root **ضبط** which can be made to give a reasonable sense; for **ضابط** is commonly used in Arabic of a lion, and one of the meanings of **قطيع** is a flock or herd. This only involves reading **ضبطا** for **صيط**, as I have done in the text. The point would presumably lie in the strength of the lions outside being yet inferior to the weakness of the sheep inside; so by analogy the man whose ṭabaqa is high may, by reason of lack of skill be inferior to another whose ṭabaqa is lower but whose skill is greater.

As to the original invention of the tambourine, our author very wisely refrains from attributing it to any person or to any one people; simply he says that it was used under the name of tār by all the Arabs of former times. This shows considerable understanding, for in the case of such a primitive instrument as this, its history is to be sought not individually but in the general history of civilisation. Evliya Chelebī is another who prefers to give no origin for the daf, though he does yield to popular rumour far enough to say that the dā'ira/

dā'ira was first played at the wedding of Solomon and Balqīs. (Farmer: Ev. Chel. 12) b. Salama on the other hand (Kitāb al-Malāhī p. 20) definitely claims the tambourine as an Arab instrument, while b. Khurdādhbih (Mas'ūdī VIII 88) ascribes the whole drum family to Tubal b. Lamk. The only hint of local origin which our author gives is his application of the adjective Miṣri or Egyptian to the modern duff. (col. 193), and this would seem to be on a level with his use of Jank Miṣri in chap. 3, to indicate the provenance of a certain modification of an instrument, rather than its original home.

Regarding the description of the tār and duff we have little direct information; there is no formal catalogue of constructional details, perhaps natural in the case of such a well-known instrument, but much is to be gathered incidentally. With respect firstly to the shape; Sachs (History p.246) states categorically that the duff was always square or octagonal, while the names dā'ira and ghirbāl were reserved for the round forms. Where he gets the grounds for this statement is unknown; Al-Muṭarrizi (13th. cent.) distinctly states that the duff could be either square or round, the later Persian daf was definitely round (v.d. Farmer: Ev. Chel. p.12), and this MS betrays no knowledge of a difference in shape between the tār and the duff; further, our author, in likening the duff to a ghirbāl indirectly informs us that it was round. In addition to these facts, Sachs himself admits (Hist. p.108) that the Hebrew toph was in the shape of a hoop; there is also the philological argument that the very use of the phrase duff murabba' implies that the normal duff was round and not angular. It was sometimes square as Al-Muṭarrizi says; Farmer in his notes on Salvador-Daniel describes a square dof, a shape also/

also found in the Indian duff of the Crosby-Brown Collection, but it seems more probable that the usual duff was round, the more so because the instruments which sprang from it (as for instance the Spanish adufe) conforms to the conventional circular shape.

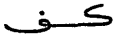

Over this circular frame according to our author (col.189) was stretched a skin (not two skins, as Sachs asserts) and the circumference was studded with "jingles", metal plates or rings which gave a tinkling sound in accompaniment to the rhythmic beat of fingers on skin. Curiously enough in col. 193 we are told that the duff was also covered with "soft parchment" (ruqūq nā'ima). There is no mention of snares. It seems from this latter passage which contrasts the early ṭār with the later duff, that there was a difference between the two which led to the former being permissible while the latter was not. Probably this difference consisted in that the author's ṭār had no jingles (c.f. Evliya Chelebi quoted above); Lane (Mod. Eg. chap.18) describes the ṭār as having five sets of jingles and Fétis gives it as having an unspecified number of sets of four ivory rings, while in the Meccan musical instruments described by Farmer (Studies I, 84) the ṭār has four sets of metal rings. Possibly our author was confusing the ṭār with the ghirbāl which the Prophet commended, and which had no jingles. Indeed the size and weight of the instrument mentioned in col. 189, together with its general description suggest the modern instrument of N.W. Africa known as the bandīr, or even more forcibly the Egyptian instrument described by Villoteau (Desc. de l'Egypte I 988) as the bandair.

More emphasis is laid in this chapter of the MS on the function and operation of the tambourine than on any other single feature, We might note first that, as might be expected, its use is always conceived/

conceived as being supplementary to singing, the recitation of poetry, or the playing of another instrument. This has always been a feature of the tambourine, as noticed as early as Salvador-Daniel who commented (Arab Music pp. 109ff) on its simple construction and rhythmical use. In particular it has always been the favourite instrument of women on all the occasions of domestic life such as weddings, funerals and circumcisions, as Lane has described them in Egypt and Snouck Hurgronje in Mecca. So we find it used in the Alf Laila (c.f. Burton: Arabian Nights I 396), as the Hebrew toph is used in the stories of the Old Testament (vd. Judges 11³⁴, I.Sam. 18⁶). It was also the indispensable accompaniment to the voice of the singing girl at convivial parties. (vd. Imru 'l-Qais, Wāliba b. Al-Ḥubāb, and 'Amr b. Al-Iṭnāba, all in b. Salama.) So it comes about that in this chapter, the author's discussion of tambourine playing leads him naturally on to a discussion on singing and poetry, together with a short excursus in cols. 203-5 on the tambourine as a member of the rhythm section of an ensemble.

Much of this part of the chapter is written in a semi-mystical vein, in language which recalls that of Al-Ghazālī; for instance the concentration of mind, ear and eye on the singer in order to gain the full effect almost of self-hypnosis is strongly reminiscent of Sūfism. The sharp differentiation between al-samā' the technical term for listening to music as an aid to devotion or ecstasy, and al-isghā, the mere physical function of hearing (col.210), the mental state of the singer who is held captive by his music, and the idea of a kind of psychic link between performer and listener, all these are familiar ideas of mystics of all ages and countries, ideas to be more definitely developed in the subsequent ~~chapters~~ ^{chapters} of this MS.

13.

As to the actual method of playing the tambourine, two methods are indicated, but only one is described in any detail. Playing may be with the palm of the hand  or with the fingers . This may well correspond to an apparent difference in methods of holding the tambourine; Lane, describing the Egyptian practise of to-day (or almost to-day), says that the instrument is held in either hand and beaten by the fingers of that hand and the palm of the other. Sachs (History p.247) says that the Egyptians hold the instrument in both hands, but that in Tunisia only the left hand is used for holding. But however it is held, the tambourine is struck, according to our author, in rhythmic fashion to correspond to the beats and cadences of the verses which its music accompanies; and the beats of the tambourine must coincide exactly with the stresses of the poetry, otherwise the effect is spoiled (col.196). Hence the danger of mistakes on which he descants at length; either the singer may fall into error in delivering his verses, adding or subtracting syllables, which will throw out the rhythm, or the player may add or miss a beat, producing the same evil effect (cols.196-7).

The passage which deals with the physical actions of the playing, number and time of beats etc. (col.194) is abstruse; it has already been partly discussed under the vocabulary of the chapter, but in general the language is too little technical and too vague to bear comparison or collation with the musical authorities on the subject of rhythm such as those given by d'Erlanger in his Musique Arabe, and discussed by Farmer in his Sa'adyah Gaon. I have tried in vain to find in either of these any resemblance to the words and phrases of the present MS, so that it seems that a full discussion of this portion must/

must await the attention of an expert musician. In the meantime the following comments might be made, chiefly in the light of the two works mentioned.

We are told that the rhythmic modes (a'dād) were composed of groups of three, five, or seven beats. The first of these, groups of three beats repeated ad libitum might well be the rhythmic mode called al-thaqīl al-awwal, described by Al-Fārābī as being "three consecutive beats"; Al-Kindī and Sa'adyah give three consecutive beats followed by a quiescent beat, but if the beats occur in groups of three, the quiescent beat is to be understood as marking off one group from the next. Similarly the mode known as the khafīf al-thaqīl which consisted of groups of three beats with a beat rest between the groups, or the khafīf al-ramal which was "three movent beats" according to Sa'adyah and the Ikhwān al-Ṣafā', though not according to Al-Fārābī; all of these three modes would answer to our author's description, perhaps the last best of all as it contains no quiescent beat.

Similarly with his groups of five; Al-Kindī and Sa'adyah give the thaqīl al-thānī mode as a quintuple scheme of three consecutive beats, a quiescent beat, and a movent beat, which might be marked on the tambourine as a group of five beats. The khafīf al-ramal was sometimes also treated as a quintuple scheme embracing different arrangements of beats and rests (for a summary of such arrangements vd. Farmer: Sa'adyah p. 25)

Nor is it impossible to find parallels for the group of seven beats; the Ikhwān al-Ṣafā' define the makhūrī mode as a septuple scheme of two consecutive beats, a heavy solitary beat and then four beats. b. Zaila also, following a definition of Al-Kindī gives a septuple scheme for the thaqīl al-thānī mode, of two consecutive beats with a beat/

beat rest between them, then a two beat rest and a solitary beat, ending with a quiescent beat.

So all our author's three groups can be traced in the great theorists, perhaps most clearly and consistently in the *Ikhwān al-Ṣafā'* and pending further investigation it might be concluded that the present text has affinities with the rhythmical theories of the Brethren. A fuller examination by a competent musical scholar is demanded.

Beyond this, there occurs in the same passage of the MS the most curious phrase "beginning with the first and ending with the fifth, sixth or seventh." What has this to do with groups of three, five or seven beats? The most obvious solution to the difficulty is to regard it as a textual error and to presume that the author originally intended "ending with the third, fifth or seventh." Such an error could easily creep into the text, e.g. by the omission of the word

ثالثة and the restoration of the missing term in the wrong place, and therefore in the wrong form. But assuming that the text as it stands is correct, the only probable explanation seems to be that whichever group is in use, triple, quintuple or septuple, it is to be repeated five, six or seven times to each line to supply the requisite number of beats to fit the metrical length of the line. This again is a matter on which a greater musical background might suggest other theories.

There follows in col.195 a rather clearer, though still rather involved passage, apparently concerned with the practise of modulation (*intiḳāl*) from one mode to another. It starts with a statement of two possibilities; the performer is regarded as singing and playing the tambourine/

tambourine (i.e. "the playing is divided between the two hands and the tongue") and it is laid down that he may start in one rhythmic section of the melodic modes and end in another, modulating, that is to say, from the khafīf to the thaqīl or vice versa, according to the author's theory of the division of the modes (c.f. Introd.); or, alternatively he may abide by the one rhythm throughout, and, within its compass, modulate in the melodic modes. Some general remarks follow on the general subject of modulation and where and when it is best used. For the results of such changing of the modes to change the moods of the listeners c.f. Ikhwān al-Ṣafā' quoted by Farmer: Sa'adyah p.87 and the stories throughout this MS, particularly cols.47, 162, 186 etc.

II. AEROPHONES.THE MUSIQA.

A. Text.

(Cols. 11-29, 30-31, 52-66, 72-75.)

11. Know then, O student - may Allah the Exalted direct you - that the foundation of this whole material world- i.e. that from which the whole of the material world is composed- is fourfold, namely fire, earth, air and water. And scholars tell us that the elements which compose the human body are four, blood, bile, spleen and phlegm. All time also is composed of four seasons, spring, summer, autumn and winter. And the stages of human life are four, babyhood, youth, middle age and old age. Similarly this science which is set forth completely in this book of ours is composed in accordance with these four foundations which have been mentioned. So whoever comprehends these four foundations and seeks through them to acquire a knowledge of science, he has already acquired it and has grasped the whole of science; for the four foundations in their turn rest upon a fourfold principle, viz. the heavenly bodies, time, movement, and mankind; and these comprehend four "courses" (abhur)

12. Such is the opinion of the people of Iraq, and as a result all the older authorities used to derive the science of music (ṭarab) from the science of human nature; on this basis Al-Fārābī derived the science of the "mūsīqa" and its rules by means of which he surpassed all others who wrote on this science of music. And there is a story about the reason for his making it.

13. Al-Ma'mūn used to hear about Al-Fārābī and the knowledge which Allāh the Exalted had given him, and his understanding, so he desired to meet him, wishing to test him in some of the sciences in order to see his sagacity and his knowledge. Now a strange thing had happened to Al-Fārābī which brought him out of his own country against his will and secretly/

secretly. So he travelled night and day until he came to the city of Baghdad which was the seat of the Caliphate, and he entered the city in disguise so that not one of the people recognised him; and he thought that he would make his way to the Caliph in order to earn his favour by means of his learning and his knowledge.

So he came to Ja'far and requested him to bring him to the Caliph; but Ja'far said "O man, what do you want with the Caliph? If he asks me about you, what am I to say?" He answered "I have brought him some good advice and a gift, so ask him if he will permit me to see him that I may tell him my advice and give him my gift." And Ja'far looked at ¹⁴ him|appraisingly, noting his disgraceful appearance and the travel stains upon him; he was dishevelled and covered with dust, wearing threadbare garments which bore the stains of dirt, and he was emaciated. So Ja'far despised him, and said "O man, I think that you are disordered in mind and know not what you are saying. For if you are ridiculing the royal honour or making a jest of the Caliph, I fear he will be angry with you; for the sanctity of the Prince is unequalled among mankind while you are a poor man with no money and no retinue. And if you are ¹⁵ making up this story as a plan, or devising it as a stratagem to gain access to the Caliph, then return whence you came, and take from me something to help yourself and to spend on your family. And I will give ~~14~~ you some advice: do not appear|before the Caliph with anything that will not please him, else he will do you harm and nothing will avail you; and I fear he will be severe to you. For the royal honour is immense and the sanctity of the Caliphs is a mighty thing, while you are in weak circumstances, having no comparable power. But I will give you some help for your needs; and if you return whence you came you will receive praise for/

for your journey, and on your return you will not be censured for being repulsed."

And Al-Fārābī said "I must do it; so if you will not ask permission for me to see him, then I will ask someone who will bring me to him, and then I will tell him that I asked you for permission to see him, that you refused me and that you concealed my appeal from him. So the matter will return upon your head and I fear that he will punish you".

So when Ja'far heard him speak of punishment, he rose immediately and went into the presence of the Caliph, telling him that there was at the door a man of such and such an appearance, and he related what had passed between them and what he had said. And the Caliph said "Bring him to me !" and gave him permission to enter. When he stood before him the Caliph looked at him and saw that what Ja'far had said was correct, so he turned to Al-Farabi and said "O man, what is your advice?" He answered "Commander of the Faithful, I have brought you a piece of advice and a gift." And the Caliph said "Then what is your advice and what manner of thing is your gift, seeing that you are a poor man with neither money nor retinue? I think you are making up this story as a plan, and devising it as a stratagem in order to gain access to the presence of the Caliph that you may have something to talk about and that your future may be assured before him. Now then, Allāh has brought you to him and led you to his presence, so say what you will; tell your story and what you have come for; Allāh has given you an easy approach to him and he will hear what you have to say. So speak briefly, ask what you need and it will be granted; if you have a debt we shall pay it in full; if it is some business, we shall execute it for you; if you have been oppressed, we shall take away from you what you fear."

He/

He answered "Commander of the Faithful, my purpose is not any of the things you have mentioned, and I have no need of the things of which you have spoken; but I have some very important knowledge to present to you and a gift with which to draw near to you. And the gift is this knowledge which Allāh has taught me; with this I come to you that you may see such wonderful and strange things that your fancies will be perplexed and your thoughts astonished. For I have made something

18. according to a principle which no one has ever used before, composed of pieces of wood and copper and strings, and it produces every pleasant melody and every agreeable sound so that it charms everyone who hears it. And already, Commander of the Faithful, I have expended much thought on it and have been kept awake planning it, until it became the desire of kings and the glory of every poor man and beggar. It pleases the fancy and the eye delights in it; it is the perfection of every degree, and is dear alike to high and low. None listen to it save all the intelligent, and none is moved by it save him who understands all fine conceptions. And I, O Commander of the Faithful, have devoted it to your service that you may boast yourself over all the kings of the earth in its length and

19. breadth. So if I have done that, what reward shall I have from the

20. Commander of the Faithful, may Allāh prolong his life, may those who envy him be overturned, and may he conquer his enemies?"

He answered "At our court you shall have the highest privilege and the greatest riches, among us you shall obtain glory, and you shall be honoured above all your peers and your fellows." Then the Caliph continued "Produce the knowledge of which you spoke to us, and hasten with your answer that you may be given our generous gift." He answered "It will appear before you now." The Caliph asked "What things do you need/

need to produce it for me?"

He said "Bring me copper and smiths and wood and carpenters." So the Caliph sent for them; and all who were present stood silent watching him to see what he would make. And he ordered the smiths to melt the
20. copper and make it into long thin sheets, light, engraved and ornamented; and he ordered the carpenters to saw the wood and to cut it into rods, round and hollow, in two sizes thick and thin, the thick cut eight-sided and short, the thin cut four sided and long. They were to stand upright their heads upward and their tails down. And between each pair of rods he fashioned a peg fixed on a crossbeam, twelve pegs above at the heads of the rods with the heads of the pegs turned downward; and twelve similar pegs at the tails of the rods also, arranged in the same way on a crossbeam, steady and fixed at the bottom so that the heads of the pegs
21. were upward standing alone.

Then he took silken strings which he stretched across the rods to right and left; and over these he rolled the sheets of copper on the outside until all of them were covered with copper and the instrument resembled ----- (There is an omission in the MS. at this point.)

Then he fastened it up and connected the various pieces together, and stood it upright and erect like a pulpit (minbar). Some said too that it resembled a physician's ointment box, (marhamdān) eight sided in size and dimensions. Others said that it was like a box turned in a lathe, rounded in the cross-section and long; and yet others said that it was square in length and breadth like a coffer. But this is generally
22. agreed; that it was square, its height off the ground being less than the height of a man, while the breadth of the circumference of its four sides was 12 dhirā', each side being 3 dhirā'.

It/

It had 4 doors each in two leaves and each opening and shutting; around each door was a small aperture (ṭāqa: lit. window) in which was a copper pipe going in to the inside. On the outside of this pipe was fixed a wild beast's skin secured to it and folded over upon itself like a bellows with two wooden handles which were opened and closed mechanically to deliver air. It was worked by men who sat blowing with the bellows, and others who stood beating with the plectrum on the 4 sides around the 4 doors.

Each door has a front, each front has an entrance, each entrance has a channel, each channel has a mouth and each mouth has an end to which the air comes and goes round. By whichever door it enters it has no exit by which to escape, so it masses and collects all together and rises to the top; but finding no loophole or exit by which to get out, it sinks back to the bottom to go out where it came in. But there it meets the air which has been blown in on top of it, and the pressure becomes stronger and stronger. The blowing of the bellows prevents the air from sinking to the bottom, and the beating of the plectrum keeps it from rising to the top, so that no exit remains for it, nor any movement to escape, but it is enclosed and can find no way out. So it circles between the upright pegs and strains at all the strings but finds that they have checked all its efforts to escape and have driven it out of its place and prevented all its movements to reach its destination (i.e. outside) and made all its efforts vain by opening the doors and closing the windows.

So the four blasts of air (i.e. from the 4 doors) are hindered in their way and circle round in that copper box; and the pressure grows strong and the force continues to increase and to grow and to become great/

great until the air is confined between the four doors. Then the pressure becomes too strong for it and forces it back to the top; so it ascends and finds 12 windows which had been made in the top,

25. corresponding to the 12 hours of the day and also to the 12 Signs of the Zodiac. Under each window was one of the 12 inverted pegs which had been fixed there and across which the strings were stretched. Each of these windows had a use and all were common to the 4 doors through which the air came, because they assisted in opening and shutting; whenever the doors were open the windows were shut, and whenever the doors were shut, the windows were open, and so on successively.

He made 12 windows in the bottom also, corresponding to the ^{number of the} [hours]

26. of the night, like the hours of the day, so that the whole scientific system might be complete there; above them were the 12 pegs upright, fixed on a crossbeam, standing alone round the circumference of the 4 doors, and what surrounded them above and below. In the middle he made 4 doors, their tops upward and giving outward, their mouths open and turned inward from the bottom, opening inwards; they were to collect the air from whichever side it came. One was narrower than the others another was broader, one shorter and another longer according to the constitution whose principles are laid down in the mūsīqa, ordained and ordered according to the precedent of the 4 elements. Through these 4 doors the air enters from whichever it comes of those 4 sides which are exactly alike, not an atom too big nor a scrap too small.

27. Then he made those flue pipes (būq, plural abwāq) fixed between the strings to collect the air from whichever aperture it came of the 4 which he had made between the 4 doors as an entry for the air. And in them he fixed 4 bellows from which the air should come, flowing through copper/

28. copper pipes which had been prepared, like channels. So the air enters by them and is confined in the centre; and when it moves it resounds and roars, so that there is heard from it a sound and an uproar until from underneath it comes up between the 4 doors. When it rises from the bottom those 12 windows at the top are all shut; and when it comes down from the top the 12 windows at the bottom are all shut. The air, having no opening or outlet left to it, circles round and returns to its place between the 4 doors which form the centre. And it finds that there has been made something like a girdle in which are 4 small holes, and when it collects together and grows strong it can find no outlet except through 29. these 4 holes. They were made in the middle of the circle of the 4 doors above the 12 lower windows and below the 12 upper windows between the strings which were stretched across the framework to right and left.



30. From these 4 holes also come the notes, 90 coming from each hole according to the law of the quarter of the 360 degree circle. They constitute the kernel of the mūsīqā and they regulate it, since it is from them that the air issues regulated according to the principle laid down; and it rises in the constructed pipes from their lower ends. And when it is established there and rising in the pipes, it goes up (reading علا for على); and every time it rises, the place expands to hold it, and every time the place expands, the sound becomes great and loud; and thus it continues as it rises, increasing in strength and volume, until it emerges from the mouths of the 4 pipes; and as it 31. emerges it makes a piercing noise and a powerful sound. Every time the sound becomes loud they beat from above with the plectrum (zakhāma), and as the beating becomes violent the sound becomes louder and louder and the/

57

the strings on the inside move also, so that all contributes to make a mighty noise. The result was that the place where the instrument was, resounded with a great noise so that a man could hardly hear another man at his side because of the strength of the sound and the noise of confused modes totally unlike one another, divided into 4 "Genres" (nau^c plural 'anwā^c).

52. He said: And when the building was finished and the instrument correctly assembled, he needed a key for it to start opening and shutting it; so he made for it a key of yellow copper weighing one Syrian rotl (5 lbs.) hollow in the head and curved in the middle like an Alexandrian anklet (dawwār: cf. illustration in Lane's Modern Egyptians Appendix A) to open and close it. When he wanted to open it he inserted the key at whichever of the twelve windows he wished and twisted it until (reading حتى for متى) it passed completely inside and came near the strings and met the pegs which had been made standing upright fixed on a cross-beam stretched across the breadth of the instrument. And each peg was opposite one of those twelve windows: in the case of the upper windows, the pegs were below with their heads turned down; and in the case of the lower windows the pegs were standing upright above them. When he inserted the key at a window and twisted it, it came to the peg opposite the window at which the key entered, took a hold on the peg and twisted it violently. So it dragged at the strings until it pulled them out of place, and every string dragged at its neighbour, one pulling another, till the effect reached the door on the side where the key had entered; it dragged at the two throats (i.e. "leaves" of the door) and the door was opened. So the movements of the air gained strength and it flowed/

flowed in its channels and the tension on the strings became great with
53. | the effect of the plectrums beating successively. (This reading entails
the omission of 4 words which have crept into the text by dittography.)
Such was the method in the case of all the windows, and such was the
course of the air entering from the direction of the four doors.

When he wished to close the instrument he removed the key from it
without haste, so that it came out slowly while he twisted it to the left
because when he was opening it, he twisted it to the right; so all the
movements were reversed and the first process was nullified. He continue
to withdraw it stealthily, little by little, taking care that no string
should be drawn too tight and raised above its pitch, or loosed and
relaxed from its pitch, and so spoiled for the task he had set it. So
when he removed the key, the pressure was excluded and the plectrum made
useless, and the instrument was left empty and idle | with no movement and
54. | no action, the four doors being open, and the 24 windows above and below
being closed since they were the apertures for the key. As we have
already noticed, the doors and windows acted successively; when the
windows were closed, the doors were open, and when the doors were closed
the windows were open. Thus at this juncture the 12 upper windows and
the 12 lower were closed, while the 4 doors were open.

When he wished to start it, he took the key in his hand and with it
he struck a violent blow on the upper beam of the doors until those
55. | strings, which were stretched across the rods round about between doors
and windows, quivered. And he continued thus, striking door after door
with the butt end of the key until the 4 doors closed while the 12 upper
windows and the 12 lower windows opened; when that happened the apertures
for the key were open, so he inserted it as we have described.

Such/

Such is the description of the "mūsīqa" from which come all the modes, some deriving from others. It has no equal in all the range of instruments, except the "yurghal" which the Franks made upon the pattern of the mūsīqa to have the same performance. It is very like the mūsīqa
 58. | in dimensions and is played in the same way. Some say that it is half the mūsīqa, resembling it in dimensions and appearance but having only some of the music; for it can produce the section containing the six Awāzāt but not that containing the 12 main modes. For it is also based upon the fourfold principle on which the mūsīqa depends; and there come from it modes similar to those which come from the latter. Its action is not unlike that of the mūsīqa because the idea of it was stolen from the mūsīqa and the man who built it was one of the Frankish savants. Here is the story:-

When this man heard of the mūsīqa and had it described to him, he went to look for it to discover how it was made. Now he was a learned and eminent man to whom Allāh had given knowledge such as perplexes other
 59. | intelligent men; he travelled night and day until he came to the city of Baghdād; the mūsīqa had already achieved fame in Baghdād and the Caliph had appointed men to watch it night and day. So this man laid his plans when he arrived, and pretended to be dumb, saying nothing; he dressed in ordinary clothes and became a servant, going from one master to another until he was employed by one of the servants of that prince who was in charge of the mūsīqa, and who was responsible for it. One day this man went to Al-Sarha with the Caliph and instructed his slaves and his servants to look after the instrument, since the Caliph guarded it very carefully, being anxious on account of it because it was an instrument whose like had not been made at that time. The Frank continued |scheming and/
 and/

60 and drew near little by little until he had a favorable opportunity; and there were near him three slaves and two servants. He produced some incense which he had made, being a skilled physician and with it he raised a smoke in that place where they were, whereupon at once they fell asleep.

Then he proceeded to walk round the instrument in both directions, but he got little information from it as to its construction and could not complete the matter, nor find a way to it. He was afraid that one of the people would catch him and find fault with him for what he was doing; so in a twinkling of an eye his soul would be near to death. So he placed something under his feet and climbed up till he got on the top of it. There he walked round the top, and from the outside he saw 61 through the key holes in those upper windows a sight that was plain to him; and that was the origin of his knowledge of the instrument and of the principles of its construction. Then he walked round it on all four sides and considered it for a long time, descended to the bottom and walked round it, looking at it from the bottom as he had looked at it from the top. He looked at the 12 windows which formed the key holes 62 and saw that they were open, so he looked through them and saw inside the upright pegs across which were stretched the strings extending inside as far as the 4 doors. Then he knew how it was made and how it worked.

Some say that he spoiled its action so that it would not work and no music would come from it. Now no one could know what was wrong 62 except Al-Fārābī and he was not to be found. Then Aḥmad said "Verily this cannot be sorted" and he left it and went away from them secretly so that no one knew anything of him. He went outside the city and plucked/

plucked some of the herbs of the ground, which he remembered; he pounded them and mixed them with water; when it was thoroughly wet he spread the mixture over all his body so that he was covered with black and his fair skin and light complexion disappeared, and at once he became a black slave. He slipped off the clothes which he had on and put on others so that his appearance was changed: then he took to the highway (reading بجارت) with the people.

Now the rest of the people knew what had been done, and they looked at those men who remained and saw that they were unharmed, with nothing amiss; then they missed that deceitful one and found that he had disappeared from among them, so they set out to look for him in all directions, and they kept passing him and meeting him as they went, without recognising him, and asking him "Good slave, has there passed you a dumb man, light in colour and red haired?" And he would say "I have seen nothing of him." And they would leave him and go their way. None of them recognised him and he continued on his way until he passed out of Muslim territory into that of the Franks. Then he took herbs the opposite of those he had first used and boiled them over a fire until they were pulped and their properties came out in the water. This he poured over his body and it peeled off all that black, so that he became light in complexion and hairless as if nothing had happened to him. And the effects of the sun which had burned him disappeared and he bore no trace of dishevelment or dust. Then he put on his clothes in his usual way and rose up immediately to design an instrument like the mūsīqa. So he built for them the yurghal which was like the mūsīqa; its appearance was the same and its construction (نقر lit. ordinance). He intended it to be an honour to him above all the others of his art, the famous/

famous sages of his day and generation: and he hoped to gain from it lavish gifts and advancement at royal courts.

Before he made the yurghal for them, the people had in their churches Byzantine gongs from the time of the Byzantine empire; their sound was like that of bronze bells and they used to strike them at the hours of worship so that the people gathered together when they heard them; and they had a mighty sound. But when the accursed one built the yurghal for them they found that it made a mighty noise and a sound that could be heard at a distance of a day's journey, (reading مصبرة for مصيرة) and that it had a powerful note; when horses heard it they could not control themselves, but shied away from under their riders and the wits of the latter deserted them by reason of the violence of the sound.

When he played on it all the people of the district heard it; and the King heard it and asked about it. He was told "So and so, the sage has made a gong and is striking it." So he sent for him. When he came into the presence of the King the latter said to him "Where did you get this?" He answered "I made it for you, O King, that by it you might surpass all the kings of the Franks; because its like is not to be found with them." He said "Play it." So he played it in the King's presence,

But the concensus of opinion holds that the yurghal is half of the mūsīqa because the inventor studied the externals of the science but not the hidden things of it; and the truth is that he worked on the outer appearance which was apparent to him; but the inner parts of the science were unknown to him, which Allāh the Exalted taught Al-Fārābī. And if that sage who built it had not had knowledge and learning above the ordinary, he would have studied neither the outward things nor the inward.

Others/

Others say that if the yurghal had given rise to any other musical instrument of the same kind as did the mūsīqa, then it would have been perfect; as for the mūsīqa it gave rise to all the instruments of music and to the yurghal. But the yurghal gave rise to nothing except the "little yurghal" an instrument of the same type which was invented from it and which was often smaller than it in dimensions. The reason for its invention was that when the people started to play the yurghal, there came from it a loud noise and a screaming sound and a powerful clamour: (reading غنّلة for غيبة) so their hearts were afraid and their horses thrown into disorder and their riding beasts were scattered; and it harmed those of the women who were pregnant and injured the weak among them. So he made for them the little yurghal, like it in every particular, but it was small, with a sound in proportion to its size, faint like camel bells: (reading أجراس for أجر اص) sometimes it gave a rough harsh murmur, at other times a piercing murmur, sometimes a delicate piercing note, at other times a delicate soft note. So they started to play it in their churches at the times of prayer and services, relegating the great yurghal to be played only on feast days. Then the king gave him great gifts for it, finally feeing to him certain islands and giving him much gold and silver; and he started to play it in the royal presence.

B. Commentary.

Undoubtedly the most interesting point in this portion of the text is the use of the word "mūsīqa" (موسيقى). While this form has an obvious affinity with موسىقى, the Arabic form of the Greek μουσική (science or theory of music), it is equally obviously not a synonym for it/

it; the whole passage makes it abundantly clear that the reference is to some specific musical instrument and not to any theoretical aspect of the subject. In addition it is perhaps worth noting that although the form موسيقى with vocalic ya representing the long ḡ of the Greek feminine termination is of common occurrence in Arabic, I have been unable to trace any instance of موسيقية with the ta marbūta.

Two hypotheses suggest themselves; there is first the possibility that this form with the feminine ending follows the usual practise in Arabic of the "nomen unitatis" (c.f. Wright: Grammar 1 147B).

Accordingly while موسيقى referred to music in general, the feminine form موسيقية would refer to one individual instrument of music. There is, further, a subdivision of this usage called by Zamakhshari التخصيص according to which the feminine ending denotes a specific part of something, such as a dish of food (e.g. from لحم meat comes لحمة a dish of meat); an analogous use of the principle in this case is surely not impossible. By this theory الموسيقية would mean "the musical instrument", the instrument par excellence, a conception quite in line with the general thought of the author who ranks the mūsīqa far above all other instruments (c.f. col. 73 etc.)

The other possibility is rather more interesting: from various points it would seem that we may have in this passage a reminiscence, or even a description of, that familiar puzzle of Oriental musicographers, the Jewish Magrepha. The facts for this possibility may best be summarised thus:

1 Obviously in this passage, disregarding various technical difficulties to be mentioned later, we are dealing with a pneumatic organ of some primitive type. The two passages of Talmud, Arākin II, 6 and/

and Tamīd V, 6 in which the Magrēphā is originally mentioned have roused much controversy. But at least in the former it is agreed by scholars from Abraham de Porta Leone onwards that the reference is to the same type of early pneumatic organ.

2 There is a marked similarity between the two words Mūsīqa and Magrēphā when written in Arabic; مجريفة could quite easily become موسيقا in the hands of a careless or ignorant scribe.

3 Arākin II, 6 describes a handle projecting from one side of the magrēphā and the Shiltē ha-Gibbōrīm of Abraham de Porta Leone goes even further - though not explicitly mentioning a handle - in likening the instrument to "the shovel of the bakers." (Ugolinus XXXII p. 44) These citations form an excellent parallel to the Arabic description in this MS. of a box with a handle protruding from the side.

4 The present Arabic text agrees very strikingly with the Shiltē ha-Gibbōrīm in placing the organ pipes within and the bellows without the casing. This is in contrast to Kircher (Ugolinus XXXII, 371) who imagines the magrēphā as more after the fashion of the conventional Church organ with pipes above the casing. Abraham de Porta Leone is, of course, not an ideal witness, but the very circumstantial nature of his evidence suggests that he may have had further unquoted authorities, not now available to us.

5 In the passage Tamīd V, 6 the magrēphā is described as making such a noise that "no one could hear the voice of his neighbour in Jerusalem because of the sound of the magrēphā." It is remarkable to say the least that that identical phrase should be used of the mūsīqa in this MS (vd. col. 31.) Again the magrēphā according to Tamīd III, 8 could/

could be heard from Jerusalem at Jericho; and although Bishop Lightfoot dismisses this as an exaggeration, Dr. H.G. Farmer (Organ of the Ancients p. 35) reminds us that the Mūristūs hydraulus could be heard for 60 miles - reputedly. This in turn is supported by the account given here of the mūsīqa being so powerful in sound that it caused horses to bolt and men to lose their wits, while - inconsequently enough - the sound was so loud as to be harmful to pregnant women, and audible at a distance of a day's journey. (vd. cols. 65, 73.).

6 Finally Tamīd V, 6 describes what is at least an incidental use of the magrēphā, namely to warn priests, Levites and others that the Temple service had commenced. In the present Arabic the yurghal or offshoot of the mūsīqa is represented as being used by the "Franks" for exactly the same purpose.

These are interesting points but in the very nature of the case they can hardly be expected to provide conclusive evidence. So little is known of the magrēphā at first hand that failing further details anent its appearance and method of operation little definite identification can be hoped for.

Again the instrument here named the yurghal prompts some interesting speculations; at first sight the form of the name has obvious affinities with other Arabic names of musical instruments, notably with the reed-pipe described by Lane (Modern Egyptians ch. 18) as the أرغول, and even more with the normal Arabic word for organ, أرغن as found e.g. in Kitāb Al-Aghānī IX, 90. Other forms found elsewhere, such as أرغان and أرغنين demonstrate the possibility of the last vowel being either short or long. There is in fact a close phonetic similarity in the three words/

words أرغن, أرغول and أرغول, and indeed all may well have come from the same root. The chief difficulty from a philological point of view is the long vowel in أرغول, but it seems that that vowel is not unchangeably long; Dozy, in his Supplément aux Dictionnaires Arabes, gives both أرغل and أرغول, the former being the root form as found in Freytag: Chrestomathia Arabica 74, 7, and the latter the form of the Egyptian dialect as in Lane and the Description de l'Égypte. It is rendered as "haut-bois," and no derivation is given. (~~See further in Chapter 6~~)

Assuming then the hypothesis of a common root for the three terms, the original would be a loan word أرغن taken from the Greek ὄργανον an original which, besides itself persisting, gave rise to two side forms أرغل and أرغول. The former is gained by the easy and familiar phonetic change of "l" and "n" as in the parallel cases كمن or كمل and ذمن or ذحل quoted among many others by Landberg (Études II, 1759 ff.) This change of final "l" and "n" is the more likely in the case of a loan word such as this (O'Leary: Comp. Gram. p. 64). From the point of view of meaning, the connection of أرغن and أرغل is easy; we have Dr. H.G. Farmer's careful research to prove that "organ" stood for a "pipe" in English as late as Shakespeare and Milton, and that a similar meaning can be found for organum in the Latin of Quintilian and for in the Burhān i Qāti' and in Evliya Chelebi (Farmer: Organ of the Ancients p. 2ff.)

The second derivative form أرغول with which we are more directly concerned here is apparently the result of two phonetic changes, "l" for "n" as above, and at the beginning of the word the substitution of ya for alif and hamza. Precedent for the latter can also be found, as e.g. the colloquial Egyptian usage of أيد, for يد hand; and still better in/

in the twin forms أتون and يتون meaning furnace.

To sum up, supposing that the Greek ὄργανον became Arabic أرغن, still embracing its double meaning of "organ" and "pipe", we may reasonably surmise that in order to differentiate between the two meanings, different forms emerged; and that while أرغن was preserved as a general term - subsequently in fact to outlast both its derivatives - the form أرغل was evolved to refer to the pipe, and the form يرغل to refer to the organ. In any case whatever the explanation of the form, yurghal in this text is manifestly a pneumatic flue pipe organ.

It is interesting also that the name yurghal is given to the European or Frankish form of the instrument. It has long been maintained by musical historians, notably Dr. Farmer, that the use of the pneumatic organ in Western Europe was borrowed from the Near East; it seems in the light of this story that the term "borrowed" is to be interpreted in its widest sense! During the Middle Ages there were inevitably contacts, cultural as well as political and military between the growing West and the declining Moslem empire, and it may well be that this obviously popular story preserves the tradition of a European savant who lived among the Moslems and who took home with him, among other things, the idea and the working principle of the flue pipe organ.

Again it is to be noticed that although the parent organ or mūsīqa seems to be considered purely as an instrument of music for entertainment a fact which seems to indicate a late date and a lax social environment for the story, the yurghal is connected immediately with European Church services, taking the place of the "Byzantine gongs" formerly used to call to worship. And, yet more striking, a further development, the "little yurghal" of the text is referred to as being played "in their churches at/

at the times of prayer and services", a reference apparently to the very early use of organ music as an integral part of the worship.

With these brief and necessarily rather unsatisfactory references to the terms employed, we may more fittingly turn to the actual description of the instrument as contained in the text, though with the caution that here is no scientific description, no accurate detail on the construction and operation of the organ. There is for instance no comparison between this text and the careful and scholarly work of the Mūristus treatises, or even between this and the description of Ibn Rusta. It is notable too that our author is alone in referring the invention of the organ to an Arab source, Al-Fārābī, all other Arab writers from Al-Khwārizmī to Hajji Khalīfa agreeing that it was a Greek, Byzantine or Hebrew invention.

The instrument here presented to us then appears in the shape of a square box standing on end; its height was roughly 165 centimetres (i.e. "less than the height of a man") while the circumference of the section was as we are told 648 centimetres (12 dhirā') each side being 162 centimetres. These dimensions present to us an instrument almost cubical in shape. That it was strong in construction appears from the fact that a man could walk about on the top of it, and that it was completely enclosed, from the fact that he could only see inside through one of the apertures. Sheets of copper were used to enclose the box, in which the flue pipes - for we have no mention of reed-pipes - were fixed, copper perhaps being specified to give resonance.

The construction of the instrument is very sketchily indicated in the text; two materials only were apparently required, viz. wood and copper. The wood was cut into hollow pipes (qadīb pl. quḍbān lit. rod) of/
of/

of various sizes, some 4 and some 8 sided; These presumably were the sounding pipes, different dimensions giving the various notes, and over and round them the box was formed, the pipes standing upright. Between each pair of pipes he fixed a "peg" (the word is watad, tent peg) on a crossbeam (ʿarīḍa), twelve pegs in all, so that there must also have been 12 pipes. The same arrangement was carried out at the foot of the pipes. Round about this erection and at right angles to the upright pipes were stretched silk strings, and over them the copper covering was laid. Whether the copper was rolled round the strings individually or laid as a covering over the whole is not explicitly stated in the text; the Arabic runs أَبْسَ عَلَيْهِمُ التَّصَابِعَ and the verb may be taken either as أَبْسَ from بَسَّ or as أَبْسَ both of which mean to "collect" or "gather". But in view of the later passage which indicates that the instrument was entirely enclosed, it seems likely that the copper formed a complete sheath.

The inclusion of strings as an integral part of the instrument is extremely interesting. That they were not merely designed as parts of the mechanism e.g. to open stops or "pallets" appears from the fact that they were beaten in the orthodox string instrument fashion with plectra. At the same time we are told that during the operation of starting the instrument, the player inserted his key which gripped a peg and twisted it; this motion was somehow transferred to the strings, each of which pulled at the string next to it until the reaction was felt on the leaves of the doors, which thereupon opened. From which it would seem that the strings had some mechanical purpose also.

The description of the string part of the instrument, and indeed of the organ as a whole suggests irresistably that the author was writing on something which he did not understand very well himself.

That/

That in turn suggests a possible theory of the uncomfortable and unnecessary inclusion of strings in a pipe instrument. The phrase ὄργανον πολυχόρδον is used in Greek literature; e.g. in Plato: Republic 399c we have ὄργανα πολυχόρδα. But it is debatable whether in any case ὄργανον refers strictly to the organ in the sense of this MS; as we have already seen, the word was used simply of an instrument, particularly perhaps of a pipe. Then again πολυχόρδος is often used in Greek to signify "many-toned"; so e.g. in Simonides 56 where it is used of the flute, or in Euripides *Medea* 196 where it goes with ὦ Σαί. Thus ὄργανον πολυχόρδον can mean merely an instrument of many tones which would be an admirable description of the organ (cf. Byzantine organ, "instrument of 1000 voices") though the phrase has nothing to do with organ or strings in the literal sense. Yet in the hands of an Arab unfamiliar with the nuances of Greek, who found his material, as he tells us in his preface, largely at second hand, it could have serious results in influencing his description.

Wind was supplied to the instrument by hand worked bellows of skin fitted to the sides. At the orifice were "doors" which, though the detail of their working is obscure, seem to have acted as primitive non-return valves. As far as the bellows and their position go, the description here squares well with that of Ibn Rusta in his *Kitāb al-A'lāq al-Nafīsa*, though the latter does not mention any valve arrangement to keep in the air (Quoted in Farmer: *Organ*). From the bellows the air, now under growing pressure was carried through copper pipes to the interior of the casing which seems to have acted as a pressure chamber.

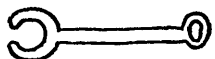
At this point again the description of the action breaks down into/

into a confused medley, we read of the air rising and falling as it seeks an outlet until, when the pressure becomes too great, it finds its outlet in the centre of the instrument, between the four doors, "something like a girdle in which are four small holes." From what follows we may gather that these four holes are the apertures to the outer air of four copper pipes (ابواق) through which the air passes under pressure, thereby making a sound which is enhanced by beating with the plectra. And there with sublime assurance our author leaves his description of the working of the mūsīqā: he has no word to say of any method of distributing the air to various pipes; indeed from the mention in col. 31 of "confused modes" it might even seem that there was no method of playing any individual pipe, and that the instrument was merely a noise-maker. But in that case it would hardly merit the term "musical", and in any case the whole tenour of the passage is against such an idea. Compare e.g. col. 52 (a passage which I have not included in the printed text.)

"When an invalid hears such music he is cured of his sickness ---- for that reason there is kept in hospitals along with one afflicted with madness or insanity someone to play to him on an instrument until his mind is clear and there is taken from him what possesses him of that illness. Because music is beneficial to the body which is ill, and takes away the intellect of the sane."

The idea of music as a curative is of course by no means new; parallels may be found e.g. in the story of David charming away Saul's evil spirit, in the Kitāb al-Siyāsa, and, most interesting of all in the Kashf al-Maḥjūb of Al-Hujwīrī where there is mention of an instrument named the "angalyūn" (Greek ἀγγύλιον) used for the precise purpose stated/

stated in this MS. But the very fact that this is here mentioned of the mūsīqa is proof that it could produce various modes at will. But how? We have no mention of stoppers or pallets, no indication of how the air was directed into a specific pipe, no word of key board or sliders or any other such mechanism.

Finally we are told of the method of starting the instrument, apparently a key was necessary, so a massive copper key was made "hollow in the head, and curved كالدوار الكدري". This is interesting; the hollow head apparently refers to the grip or handle which was cut much like a modern key, but the succeeding phrase is difficult. Hay'a's Arabic dictionary gives an Egyptian dialect meaning for دوار as "anklet" and Lane: Modern Egyptians has a sketch of an Egyptian anklet, though under a different name, in a shape which would entirely suit the requirements of the passage. If my conjecture here is correct the shape of the key would be something like this , an ideal form for the function described, that of taking hold of a peg and twisting. Thereafter the operation of the key is not so clear; passed within one of the windows made above and below the 4 doors, it gripped the peg opposite to it and twisted. By some unspecified means this motion reacted on the strings and through them on the doors, which thereupon opened, and access was given to the air from the bellows. It is interesting to notice that while the instrument was in use, the key apparently remained, jutting out from the side, a fact curiously parallel to the description of the magrēphā quoted above.

Such is the chapter on the mūsīqa and its offshoot the yurghal, a rather unsatisfactory and, we may surmise, incomplete description, particularly unsatisfactory for an instrument with any pretensions to science/

science such as the primitive organ definitely had. We are told that the mūsīqa could produce all the modes, but we are not told how; we hear of hollow wooden tubes, some eight- and some four-sided, but we are given no hint of their purpose; we are told of copper tubes leading from the bellows and copper tubes leading to four small holes, but we have no indication whether or not they are the same; we are given a detail of the fixing of pegs on a crossbeam between the wooden pipes, gripped by the key and working on the strings, but nothing is said of how they

worked. Only the following facts seem to be plain.

1. The instrument took the form of a cube ^{roughly} 162 cm. on each side with a handle protruding from one side.
2. It was fitted with bellows, one pair on each of the four sides.
3. It had copper flue pipes (but surely more than four.)
4. It had a wooden framework, strongly constructed and possibly sheathed in copper.
5. It had strings which fulfilled the dual purpose of resonating and acting in some mechanical way.
6. The main construction served as a pressure chamber.

THE FLUTE.

A. Text.

(Cols. 225-262)

225.

The flute (shabbāba) is of two kinds, the old and the new; the former is the Arab flute, named the "minjāra", and consists of one piece without a junction. It was so named by the [people of the] pre-Islāmic age who used to chant the pagan odes to its accompaniment, while others used it in the recitation of elegies in metrical poetry. From it emerged the "mausūl"; it is [formed of] two pieces, a body and a limb (waṣla) and was therefore named "joined" (mausūl). And scholars say concerning its name "[It is] that we [call it] 'mausūl' because it is joined, and it is not that we [call it] 'mafsūl' because it is separated and parted." (See Commentary.)

226.

A strange secret is to be found in the flute, not to be found in any other instrument, | a divine secret in which there is gain. From the seven holes in the instrument the air issues in measured proportion (qisma mauzūna) and splits up into ordered modes which are varied in sound and from which comes all music. These [holes] are set in accordance with the principles of the seven planets, and the proportion of the origin of the modes is derived from the planets. You

227.

multiply the 7 by 4 and the result is 28 according to the number of the Mansions of the Moon which is 28. They are the circuit of the seven planets and in them lies the path of the planets. Now when you divide out the 7/x 4 [among the planets], each proportion is composed of a group of 4 parts (ashum); so the air, issuing from each of the holes is made up according to the fourfold principle which is in the human body and according to which all the members are composed, viz. blood, bile, spleen and phlegm; and these in turn are of the nature of the four/

four elements, fire, earth, air and water. So the law of playing is the law of these things (asmā' lit. names) enumerated, so that the playing (ḍarb) corresponds to the beat (ḍarb) of the members of the body which are stirred by music. And whichever vein encounters the rhythm of the corresponding mode, coming from the appropriate hole, that vein experiences the whole of music. These [modes] are derived from the 7 [holes] by the rule of the circulation of the modes, a circulation which embraces the 12 modes already mentioned. When you multiply the 7 by the [fourfold] principle, the result is 28 as we said at first; subtract from that the fourfold principle and you are left with 24 which are the 24 qirāt peculiar to the flute, i.e. 24 parts for the 12 modes, or 2 parts to each mode according to the rule of the thaqīl and khafīf modes.

[Such is the rule for the calculation in reckoning the twelve modes distributed over the seven holes. As for the rule for the seven holes: they used to play with [only] six holes (emended text: see Comm.), but the pitch (ṭabaqa) was a strain on them and they became tired of using it; for such a pitch belongs to women, and not to men. So they had recourse in the matter to extra holes for the true pitch. And they found a solution to the matter; for they deliberated about it and took counsel concerning it. And one of them said "I know a man who has knowledge of this science; ask him about this matter of which you are speaking. Perhaps he may know what to advise you to do." So they went and asked him what they had agreed and he said "What will you give to him who shows you an extra hole which contains the whole of music, and which bewilders your soul so that you find rest in the playing and the pitch is lowered for you?" So they gave him much money/

money and he revealed to them the hole at the top of the flute which he called the Shajā' ; and its position suited their pitch so that they all found great pleasure in using it. Thus there was shown to them a part (jiz') from which came all the modes, and a part whose pitch was low.

231.

The whole of the mauṣūl consists of 24 qirāt; when it has 9 [holes] there attach particularly to each joint (ka'b) five of the [24] qirāt, which leaves 19; for the main part, 12 for the 12 modes, and for the limb 7 reckoned according to the 7 planets, divided over the 7 holes from which come all the modes. As for the hole at the bottom of the shabbāba, (text here and in next col. line 7 has sabbāba - fore-finger) it is based upon the fourfold principle, not on the 12 or the 7. And when its position agrees with that of the principle, the reckoning of the principle is in it and it suits some of the modes, although not others. It is otherwise with the Shajā' which suits all the modes from highest to lowest. Each of the [holes] has a law in the proportion according to its derivation in respect of place, and according to what is given to it of the flow of air. And note that the law of the 9 is the same as the law of the 5 in numbering and reckoning but not in proportion.

232.



Most foolish people say that the qaṣab from beginning to end of the shabbāba (see note to previous col. and c.f. commentary.) is reckoned in qabḍāt, but that is only exclusive of the lower part (dhail) which is the basis of the reckoning; and indeed the best method of counting is that the lower part be reckoned in the mauṣūl, each 4 aṣābi' or one qabḍa having one isba' in the reckoning. Thus the 5 [hole flute] has 5 aṣābi', and the 9 [hole] is reckoned the same way.

233.

The/

The soundest of that which arises in the matter of proportion is :-
 five, less one isba because in the numbering that represents 5 qabdāt,
 less one isba, the total thus being 19 asābi with which go 5 asābi
 making in all 24 aṣābi which correspond to the 24 qirāt; this is the
 total of the mausūl from beginning to end, reckoned with the lower
 part.

This represents 24 parts which embrace the 12 modes, divided so
 that each mode has two parts. If you want to know of that, multiply
 6 by 6 and the result is 36; subtract the fourfold principle and you
 are left with 32 which is the limit of the Lesser Circulation. Or if
 you wish, add to the 36 the four which you subtracted, and the result
 is 40, so that the playing attaches to the Circulation of the 40.
 These are circulations which comprehend all the modes, shared by all
 musical instruments. Or if you divide the 36 which you had, into 3
 parts, each consists of 12 according to the 12 modes already mentioned,
 each mode having 3 parts according to the playing of the 12 and the 6,
 one part weak, one strong, and one between the two. Such is the
 reckoning according to the law of the playing of the 12 and the 6; and
 it is taken from the [same] measurement which enters into the numbering
 of the reckoning in the laws of the 9, the 7, and the 5 [hole flute].
 All make up 24 qirāt, each having 5 asābi and 5 qirāt whether the
 pitch be broad or narrow, whether the mausūl increases or decreases
 its number in qabdāt.

The law in respect of the 12 is different from that in respect
 of the 6, viz. that you multiply 12 by the fourfold principle so that
 the total is 48 equivalent to 24 qirāt, each with 2 parts; the law of
 one part lies in the strong modes whose playing is loud and strong,
 and that of the other part lies in the low modes whose playing is low
 and/

and weak. Every time the breath is lower, it is more musical and sweeter, because the mauṣūl is the best of all the instruments and the most lawful. It is also the "ass" of music, that is that when all
237. the instruments are silent, the mauṣūl plays on, never failing to give pleasure; and on it is played the accompaniment for the singer.

It is more lawful than the zamr and more musical, because the zamr is one of the works of the devil, but the qaṣab has in it a secret of the Merciful. Ka'b Al-Aḥbār was once asked about the zamr and the qaṣab, and he said "The qaṣab is lawful, but the zamr is forbidden, because it is of the handiwork of the people of Lot." Then he said "Allāh cursed the people of Lot; they were eating spiders and drinking wine and marrying males and listening to zamrs and disbelieving in the Lord the Forgiving." Now if the qaṣab had not
138. been lawful, the Companions would not have listened to it, for they loved to listen to the qaṣab as against other instruments. An indication that they did so lies in what 'Usāma b. Zaid relates, saying "I was with the Prophet on a journey and he heard a shepherd playing the flute behind his flocks; he put his fingers in his ears and said "Oh 'Usāma, do you hear what I hear?" I said "Yes, Apostle of Allāh; I hear the sound of a flute from a qaṣab played by one of the shepherds. Then he was silent for a little, then said "Do you hear it [still]?" I said "Yes, Apostle of Allāh." I said "Yes" and he continued asking me time after time until the sound ceased. He said "Do you hear it?"
139. and I replied "Oh Apostle of Allāh, the sound has ceased." Then he took his fingers out of his ears and I said "Oh Apostle of Allāh, is listening to it forbidden, that we may forbid it after you?" He said "It is not forbidden, but it is one of the pleasures of the world, and listening/

listening to pleasure is forbidden to all prophets." Now if listening to it had been forbidden, he would have prohibited 'Usāma from listening and would have forbidden it to the Companions. But in the matter of forbidding, it is disliked, as something to be avoided but not to be forbidden. It would be forbidden by a definite law, were it not for the profitable secret and the Divine light which Allāh placed therein by His power; but it was made excellent by that Divine secret.

240. It is related in the Tradition that Allāh the Blessed and Exalted, when He wished to converse with Moses, revealed His power and His might to all the mountains of the whole earth, [saying] "I am about to speak with one of My servants on one of your mountains." And all the mountains were proud and haughty except Mount Sinai, and it humbled itself to Allāh the Exalted, and was lowly, submissive, and not proud. So Allāh spoke to it "I am about to speak with that servant, that noble servant and merciful prophet, on your [summit], Oh mighty hill." Now before that day, there had been sown at the foot of the mountain a small quantity of reed grass (qasab) which had formed one stem in which there was no hollow whatever. But when our Lord, Great and High and Exalted is He, revealed Himself on that mount, then the mountain was flattened, and Moses fell down thunderstruck (Bell: Qur'ān VII, 139), while that region and all round it burned with fire; and all between heaven and earth shone, and there was a brightness upon all the plants at the foot of the hill, so that they became green and brought forth fruit, and grew and became sweet. And when the reed produced its ripe fruit, Allāh gave to it this strange secret, namely that His fire went in at one side and came out at the other, so that it was pierced through by the fire of Allāh the Exalted; and thus it gained the Divine secret.

For/

For that reason people went to great lengths with the qasab, making it of silver and gold, bronze and wood, and everything to take the place of reeds, anything except the reed itself. So praise to Him who caused water to flow over the hard earth, so that it is submerged and produces herbage, making to grow a plant, wondrous, like the colour of gold, into which air enters, coming out with a plaintive musical sigh; and Oh what a wonder it is! Is the secret in the breath or in the reed? For when one blows into it, there appears in it the wonder of the might of Allāh the Exalted, namely that the air comes out at one exit and goes in at one entrance; it is one breath from one single person, yet when it comes from the holes, there emerge from it all the modes which embrace the whole sphere of music, some deriving from others.

And in the numbering of them there is a great total, gained by measurement and numbering. For we say that the modes are 7 coming from the 7 holes, for each hole one mode; from the 7 are derived 7 and from that 7 other 7, doubling till you get 7 x 7 or 49. In this there is no derivation for the 12 modes or the 6 Awāzāt; for the fourfold principle is forfeited here since from the proportion of the seven are derived proportionate modes, divided and distinct. In the proportion of the reckoning of these modes, the fingers are separated according to the grades of the rhythms. So if a man falls into error in [playing] the flute, or if something seems to be lacking, the reason is that he has forgotten the grade of that finger of his two hands which he is using; or he has separated his basis from the basis of that mode in which he is playing, and has overstepped it, going from one note to another. If he is alone, with no singer, then he is corrupting in the art that which others have set up, and is wandering from his playing. So/

So he remains perplexed, going on without any rule. But if he has a singer with him, when he goes from the note, be it ever so little, with no rule; then he has departed from the path (ṭarīq) in which he and the singer were [going], so that he is in one path and the singer in another. The best thing for him is that he should know each of his fingers, where to put it down and where to raise it up: so he does not leave the path in which he is going. Then men will say of him "He has grasped the playing" and not "He has lost the playing."

246. If he blows on one hole harder than he requires, the pitch of that hole becomes too strong (? high) for the pitch on which he is, and the playing will be confused, and he will be perplexed, will overstep his pitch without knowing it, and will depart from the [proper] playing. Or if he blows less (reading الطبقة for البخش) than he requires, its pitch will be too weak (low) for the pitch on which he is, and he will spoil the playing, and those notes will be confused with him; he will be left, going on without rule and away from the [proper] playing without being aware of it.

247. This art is ruled by a law, governed by a measure (reading القانون for القانون to make up the parallel with الميزان). For the form مقوننة see Wright I, 47D, 301D. قون is a quadrilateral form from قانون see Dozy: Additions s.v.) namely the measure of technique; for it is built up on a basis and arranged according to a principle, and constructed on a clear foundation; if it is spoiled, then the defect which enters into it arises from a weakness in technical skill in the [player's] hands, and not from the art itself. For it is a perfect art to which glorious intellects incline, and it is only understood by him who possesses a pure (reading صفي for the impossible قيم of MS.) understanding, and is only gained by him who has great good fortune. Well did He who set it in order and ordained/

ordained it, and happy he who worked at it and perfected it, to embrace all the modes which comprehend the sphere of music, all in one breath as we said.

248.

Now breath without utterance partakes of the nature of speech but is weaker than the voice. It is of two kinds, warm and cold breath; the nature of the warm is akin to fire without moisture or pleasure, and lacking musical quality. But the cold is like a zephyr (nasim) when it blows, giving pleasure and moist air. The science of the breath is that these qualities appear in action if not in speech; whenever the mouth opens, the warm breath goes up from the bottom of the heart, and it is warm, dry and weak with no music in it. For it goes up from the birthplace of thought and the home of sadness; so that breath comes only from regret and care; it is short-lived because it is a single breath and is then cut off. When there is a sustained breath of it, it leaves the heart weak and the head empty, and every time there comes from it bile in the brain and it causes weakness of the body. Such is the law.

249.

As for the law of the principal breath, whenever the mouth is shut, that cool breath comes out from the lips; it comes like a zephyr, and as cool and moist, the origin of joy and happiness. From it comes music which is a wind (rih) or more correctly a spirit (ruh) because the breath is the spirit; whenever the breath stops, a man dies, but while the breath lasts the spirit remains for the same length of time. It is one breath, but when it enters the qasab and comes out from the holes, it splits up according to the numerical value of the 7 holes; from each hole come 7 modes. This is the extreme limit of the number; but the most likely figure is that each of the 7 modes produces another/

150.

another like itself, giving a total of 14. Add to that the fourfold principle and the result is 18 modes embracing the circle of the 12 and the 6. Subtract the 6 and you are left with 12; multiply them by the fourfold principle and the result is 48 divided into 24 qirāt each having 2 parts of the music, one part whose playing is high, and another whose playing is low.

Each of them has a distinct playing, according to rhythms which are marked off, shared between the breath and the fingers, the breath setting the [music] in motion, and the fingers dividing it out. And one can speak with the fingers just as the tongue speaks with words. But the breath is not like utterance by words because the speaker does not become weary of words nor does he tire in any space of time. Whereas if breath were used in the place of words, it would be cut off and would cease, and the body would be tired by it and wearied and sickly; the spirit would shrink, and the breath be cut off. But the breath has been made half of words because it is inferior to them in speech and weaker than articulation. But often if a person shouts in a strong carrying voice, his breath is taken away and he loses it; whereas if the breath is blown strongly, producing a loud noise in the blowing, louder than the voice, as when one blows a bugle (naḥīr), then it produces a great loud sound which can be heard from afar, as against the voice. For the wind carries the voice away to the limit of its range, and it dies away before reaching the distance at which the sound of the bugle dies away; and it is not equal to it, but is shorter than it in range. Thus it is reckoned as higher than it in degree (daraja). In this there are many rules anent rhythms and proportion whose explanation would take too long. But Allāh has placed in it something/

something of the strange secret, namely that the qasab speaks between your hands just as one speaks with the tongue; and in it there is something of Divine secrets. And the strange law of it is told in a story.

254.

Alexander Dhū 'l-Qarnain had conquered both the ends of the earth from East to West; and so he was named Dhū 'l-Qarnain, meaning "King of the Two Horns of the World" from end to end. It is said also that he was named Dhū 'l-Qarnain because he had two forelocks of hair which the Arabs called "Horns" and therefore Possessor of the Two Horns. It is said, too, that he had two small horns on the middle of his head, like a small cock's spur; they were not obvious, but hidden and concealed in his scalp. And he used to say to whoever washed him and combed his head "What did you see on my head?" They would say "I saw such and such", and then the king knew that he could not keep it a secret, so he would cut off his head. So he remained some days and months with no one daring to [approach] him, but flying from him in terror of death. But one man said "I will risk my life, and go in to the king. If I remain safe, then he will favour me and be pleased with me. But if I perish, then he will give me rest from the world." So he requested one of the king's personal servants to introduce him; this was done, and when the man stood before the king, the latter imposed a condition on him, and he accepted it. Then the king handed himself over to him, and he washed him and cleansed him and combed his head, and saw there what he saw. And when he had finished with the king and had clothed him in his garments, the king said to him "What did you see on my head?" He answered "I saw nothing." The king repeated his question and he answered "I saw nothing." Then he said

ss.

st.

a /

a third time "What did you see?" and again he answered "I saw nothing." So the king left him; then he began to come regularly to him, and the king would question him, and the man would answer "I saw nothing."

257. Then when the king grew tired [of asking] and the man still gave no answer, he paid him great honour and made him remain in his presence for a long time. The man told no one of what was in his heart, fearing that the news would spread among the people so that the king would hear about it, and so his spirit would go like the spirits of others before him. And his health failed, and bile overwhelmed him, his body grew thin and his belly swelled, so that he [almost] perished through keeping his secret. So he said to himself "If you reveal to any person what is within you, if they are your friends they will convey the story to others, and if they are your family they will reveal it to their neighbours; so the story will spread from one to another, which is not desirable. But go out into the open country and tell the content of your secret to the birds and the beasts, for they have no dealings with mankind, nor have they tongues to repeat what you say." So he went out into the open country; there were no birds and no beasts, 258. nothing out of all the creation of Allāh the Exalted; but he found there a well which had been forgotten and neglected. He said to himself "This is a place which no one but Allāh will look upon; there is no one here except yourself, so reveal the content of your secret, and you shall not die for your deceit." So he bowed his head over that well, and shouted at the top of his voice, saying "Oh well, Alexander has two horns, Alexander has two horns." He repeated that several times until his heart was cheered (Reading *أنفثر* for *أنفثر*) his belly lightened and his care abated. Then he returned in haste to

his home.

259 But Allāh the Exalted, in His power and His wisdom permitted some parties to encamp|round that well; they drew water from it to water their animals, and the water flowed over the earth. And from that Allāh the Exalted caused a thicket of reeds to grow; so there grew up the finest of reeds, the longest, and the most musical. Now one of the musicians whom the king had summoned to his presence heard of it, and he travelled until he came to that place where the reeds were; he cut some of them and made a flute whose sound reverberated and whose note was sweeter than all other flutes at that time, and more melodious. One day he played it in the king's presence; and when the music was at its height and the sound was strongest, Allāh the Exalted brought forth|from it the secret which He had placed in 260 the qaṣab, and He gave it utterance (reading أنطقه for أنطقه) by His wisdom, so that it said as that man had shouted into the well "Alexander has two horns."

All who were in the presence of the king heard it speaking clearly in Arabic, as if the man were speaking himself. All were amazed at it, and said one to another "Do you hear what that reed is saying?" One of them said "I hear it saying such and such", and another said "I hear the same", and a third said the same as his 261 companions. They continued repeating|the saying among themselves until it came to the ears of the king. He listened attentively to it, and heard it saying what his companions had heard. Then he knew that it was a secret from Allāh the Exalted which He had placed in that reed, and he wondered at that, realising that no existing thing can hide a secret from the creatures of Allāh the Exalted, and that what Allāh/

Allāh has ordained will take place until the Day of Judgment. So he bestowed very great favour on that man until he had enriched him and brought him nearer to himself. The king was exceedingly attached to him and said to him "Stay, and do not leave me." So he used to sit in the king's assembly, playing the qasab, astonishing those who were there and amazing those who saw him.

262

B. Commentary

With the wood-wind instruments we enter another sphere of doubt and controversy; history, nomenclature and operation of the various instruments are so confused as to be almost beyond all hope of clear understanding, nor does the conflicting nature of the Arabic evidence make the matter any easier. Certain it is that the history of such instruments as the flute goes back beyond all records; Evliya Chelebī indeed says of the qawwāl or rustic flute that it was the first instrument of music, though it is to be feared that he post-dates it considerably in attributing it to Pythagoras. Of the wood-wind family it is probable that the oldest representative is the flute, whose ancestors go back to the days of pre-history. Primitive man bored out reindeer joints, inserted frontal holes, and he had his flute (c.f. Geiringer op. cit. 54 and plate); bone flutes are actually extant from Europe, dating from roughly 2500 B.C. and from that time onwards their history is to be traced in all quarters.

Even earlier than that, evidence of the use of the flute is to be found from pictographic and literary sources in the older civilisations. For example a slate found at Hieraconpolis bears the likeness/

likeness of a hunter playing on a flute to entice game towards him. This slate is estimated to belong to the fourth millenium B.C., (Sachs History p.90) and the flute, in Egyptian ma·t or mā·t, is held and played in exactly the same way as the Persian nāy or the shabbāba of this MS.

An interesting literary reference to a "crystal flute" is to be found in the closing lines of the old Babylonian poem entitled "The Descent of Ishtar," (vd. Jeremias: Hölle und Paradies bei den Babyloniern, in Der Alte Orient (1900) p.86.) a passage which contains a reference also to the use of another instrument along with the flute; unfortunately a mutilation of the text robs us of the interesting knowledge of what instrument was thus used. In Palestine too we have early evidence of the use of the flute; in I Sam. 10, 5 Saul meets a company of dervishes, playing, among other things, tōph we-halīl; in Exod. 15, 20 the Elohist writer describes Miriam, attended by her women, playing tuppīm u-mehōlōth which Stainer (Music of the Bible) conjectures to have been the familiar Tabor and Pipe; this meaning of nisinn would better suit the context here and in Jud. 11, 34 where the same phrase occurs, than does the traditional rendering of "dances." But even without this use of sin q, the use of the ṣṣn is well substantiated.

Among the Arabs also the wood-wind is of as great, if not greater, antiquity than any other instrument. The mizmār is mentioned by Al-Muzarrid in the sixth century (Mufaddaliyāt, 17) and the word is of frequent occurrence in the Kitāb al-Aghānī. (vd. Farmer. Studies I, 66, 78). It is mentioned too in b. Salama (9th. century) together with various other instruments of the same family such as the zammāra, nay/

nāy and yarā'. Some of these are mentioned also in b.Salama's quotations from earlier writers, the quṣṣab for example being referred to by Al-A'sha, a contemporary of Muḥammad, while Al-Aḥwaṣ (8th. cent.) mentions the zanābiq, another species of flute. Muḥammad's own outlook on the music of the flute is doubtful; speaking of the Qur'an - reading of Abū Mūsā al-Ash'arī he likened it to a mizmār of the mazāmīr of David, (vd. Al-Ghazālī: op. cit. 209) although in the strongly authenticated tradition given in the text, he stopped his ears at the sound of the qasab. At any rate, both names seem to have been well known to him.

In Europe this family of instruments is copiously represented; to argue whence they came there, by what channels and through what races, is a waste of time, as in all probability they are indigenous in all primitive civilisations. Names and species may have been borrowed or transmitted from one people to its neighbours, as, for instance, the Arabic shabbāba became the axabeba of Spain, (Farmer: Hist. Facts p.137) and as the Arab ṭabl wa-shāhīn became the tabor and pipe of the Cantigas de Santa Maria, subsequently to be passed to Scotland. So also the mizmār and duff, the military band of the Jewish tribes of Al-Hejāz, (Aghānī II, 172) became the fife and drum of the Swiss lansquenets in the late Middle Ages, and passed thence, by way of European mercenaries into the British Army, until to-day, carried by William of Orange to Ulster, the combination forms the distinctive mark of many an Orangemen's procession. But the fact of names and species having been borrowed by one country does not invalidate the claim of the instruments to be native to that country; there were flutes in Spain before they were named axabeba, and there were/

were wood-wind instruments in Europe before the coming of the tabor-pipe.

Few of the many Arabic names for the wood-wind family are used in this MS, and the five which do occur seem to be used indiscriminately, with no differentiation between reed-blown pipes and flutes proper. Shabbāba, minjāra, maušūl, qaṣab and zamr all occur in this section, the second and the last only once, and they are taken almost as interchangeable terms; the maušūl is the sole exception and it is differentiated solely by its twin shape and not by its method of operation. In fact this is inaccurate, as there were marked differences between the instruments thus designated, although the matter is considerably complicated by the uncertainty of the Arabic terminology. For an illuminating discussion of the confusion in the Arabic wood-wind vocabulary see Farmer: Studies I, 65ff.

In the chapter heading, the instrument is introduced under the name of shabbāba, which may serve to indicate that the type under discussion is in reality the flute. For shabbāba is in all its usages a small flute or fife or flageolet, its diminutive size being indicated by its name, since shabbāba is derived from shabb - young. Villoteau (Desc. de l'Égypte I, 951), followed by Fétis (Histoire de la Musique II 153) equates shabbāba with suffāra as the small form of the Persian nāy (i.e. nāy abyad or flute, as opposed to nāy aswad or oboe). With this identification Farmer agreed in his Studies I p.83, but in a later work (Turkish Instruments of Music in the Seventeenth Century p.23) he inclines to separate the two words entirely by identifying saffāra with the Persian sūtak, a brass bowl with a whistle attached for imitating bird-notes. According to Sachs also, the shabbāba is the/

the small version of the nāy, parallels (or rather derivatives ?) being quoted (History p.247) in the sobaba of Madagascar and the Spanish axabeba of the Middle Ages, modern ajabeba.

The term minjāra is of infrequent occurrence; it is quoted by our author as being the pre-Islamic name for the shabbāba, but this is highly doubtful. In any case the form of the word usually found lacks the ta marbūta which occurs here, and the word in one form or another seems to be a modern Syrian usage. It is not mentioned, as far as I can discover, in any of the classical writers on music, and is not given in Lane. Two forms of the word are found; Lisān al-‘Arab and Tāj al-‘Arūṣ give منجا as "a toy with which boys play," and the same form is given in Steingass as "a kind of flute or pipe." Dozy in the Supplément gives منجيرة on the authority of Al-Biṣṭānī, and the same form is given in a note by P.L. Ronzevalle to a modern Arabic treatise on music, published in the transactions of Beyrout University (Mélanges de la Faculté Orientale VI, 29), as being the Syrian name for the "pipeau."

Another flute, as opposed to reed-blown pipe, mentioned in this section is the qaṣab (قَصَب), an unusual form for the name of the instrument. The simple form qaṣab in Classical Arabic means simply "reeds", while the derivatives, qaṣaba and quṣṣāba (plurals qaṣabāt and qisab) are retained to designate the musical cane. But it is too much to say, with Sachs (History p.247) that only these two forms can refer to the instrument; modern dictionaries e.g. give qaṣab itself as a musical cane or flute, and also qaṣiba, while Al-A‘sha (Dīwān in G.M.S. p.121) uses quṣṣāb without the feminine ending. Indeed qaṣab itself is used of the flute in the Bawāriq al-Ilmā‘ (Robson: Tracts p.154 curiously/

curiously enough in conjunction with Fārisī or Persian, in a tradition which distinguishes the qaṣab as allowable, from the mizmār as forbidden. (c.f. col. 237 and infra.) In any case, the form here is definitely qaṣab; the grammatical context e.g. in col. 237 rules out of court the other possible vocalisation, qiṣab, which would be the plural of quṣṣāba. It is this name which has clung to the flute throughout the Moslem lands of the Western Mediterranean; (c.f. Salvador - Daniel pp. 109, 114, Farmer: Historical Facts p. 137) in general the root qaṣab refers to a small and primitive flute, such as is described by Fétis (Hist. p.156) under the name of gosba, a three-hole flute for the accompaniment of singing, or by Lavignac (Enc. V 2922) as a gasba or five-hole flute. The juwāq, variously spelled by Salvador - Daniel, Lavignac, and Fétis is a seven-hole flute of the same species.

With the two other terms mauṣūl and zamr we pass to another branch of the wood-wind family, the reed-pipes. The first of these, the mauṣūl is referred to throughout this MS. as though it were a type of flute; it is even stated (col. 225) that the mauṣūl is derived from the minjāra-shabbāba. This can hardly be accurate, as instruments of the type of the mauṣūl all seem to have been reed-pipes. The word means "joined", and the description given of the instrument infers a twin pipe with one member considerably longer than the other, acting as a drone. In other words the mauṣūl of our author is the arghūl of Fétis and Lane; the word mauṣūl is found elsewhere in contexts which presume the same identity, e.g. Farmer (Studies I, 78) quotes its usage in a MS entitled Al-shajara dhāt akmām al-hāwiya uṣūl al-anḡām where the mauṣūl is mentioned in conjunction with the nāy and the zamr as/

as comprising the wood-wind section; it is also mentioned by Salvador-Daniel. (op. cit. p.117) Another instrument of the same family was the zummāra, which however had the two pipes of the same length, (c.f. Lane: Mod. Eg. ch. 18) and seems to have corresponded more to the double aulos of the Greeks, an instrument which, as Geiringer points out (op. cit. p.62) it is quite incorrect to call a double flute, since it had more in common with the shrill tone of the shawm than with the gentle melody of the flute. Indeed from the very nature of the instrument with its double shape, it can hardly have been anything but a reed-pipe, since a double flute would be almost impossible to blow.

Finally we have one passing reference to the zamr of which (col. 237) it is related that the famous Jewish savant Ka'b Al-Aḥbār (7th. cent. See Tabari i, 2738, 7ff) specified it as forbidden as against the qaṣab, because it was of the handiwork of the people of Lot. We have already seen that the same conclusion is quoted by Majd al-Dīn in the Bawāriq al-Ilmā', though not on the same grounds. But it would seem that our author has here preserved a very early fragment of tradition, in that reed-pipes (zamr, mizmār, zammāra) had evil associations in Moslem thought; a common phrase is مزامير الشيطان the Devil's pipes (b. Abi 'l-Dunya: Dhamm al-Malāhī fol. 57a, 58a; Al-Ghazālī: JRAS 1901 p.226; and col. 237 here.) and the word zammāra has immoral connotations, being rendered in the dictionaries as fornicatress, or singing-woman (vd. Lane S.V.) The zamr is here used apparently of the whole reed-pipe family, in opposition to qaṣab, used of the whole flute family.

From a textual point of view this section presents some very nice/

nice problems of judgment; much of the vocabulary is obscure and much of the theory is unfamiliar, with the result that the difficulties are formidable. Taking these in the order in which they occur, we have first a very dubious phrase at the foot of col. 225; the Arabic runs

انا للشمر موصور وليس انا بالقطيع والهجر مفصور

This as it stands can have no meaning at all; the 1st. plural suffix to ان with singular adjectives cries aloud of an elipse of some nature. I have conjectured an elipse of نَيْبِي after اَنَا in both clauses, which, if not very satisfactory, at least supplies the deficiencies of grammar and sense.

Then in the small story in cols. 229-230 concerning the discovery of the extra hole; col. 229 line 3 the text as it stands reads واما

as for the law of the seven holes, they used to use nine in playing" - حكم الابخاش البعة فانهم ضربوا بالبعة

and then we are told of the discovery of another hole. Now while, from the context, it is just possible that the numbers are correct as they stand, and that this new hole was so efficient that its use dispensed with three others, such an hypothesis is rather less than likely.

Accordingly I have emended the text to read الستة six, for التبعة

The nature and position of the hole called Shajā' will be discussed later.

Two smaller points arise in the same passage, both linguistic; in line 8 there occurs the interesting form اشتوروا. This strong inflection of شار VIII is mentioned in Wright I 87B as indicating reciprocity; the normal reciprocal form is of course the sixth تشاور

With this may conveniently be taken another unusual verbal form in this section, occurring in col. 242 line 5; the word as written is

اغدورقت which /

١٥٥.

انغذورت which would seem to be a scribal error for **انغزورت** the unusual XII form of **اغرق** - drown, with passive meaning. (c.f. Wright I 46 B) To return to cols. 229-30 one thing yet to be noted is the highly unusual sense of **نفر**; in col. 230 line 3 we have **وتنفر لهم جزءا** and in line 9 **من ينفر لكم البخشر** I have been unable to find any warrant for this obviously technical usage, with which may fitly be grouped the use of **نفر البخشر** in col. 245 ff. where the production of harmonics is discussed. Obviously the phrase means to use the hole of a flute to produce a note, but none of the dictionaries even hint at such a use for **نفر**. In translation of course the literal sense cannot always be retained, and paraphrasing has been necessary.

Of the next portion of the text, particularly of cols. 232-233 I have been able to make but little; the translation is perhaps literally accurate, but a more minute knowledge of musical technicalities would be needed for a complete understanding. In col. 231 line 1 it is obvious that there is an omission in the text; syntactically it is impossible that the singular **قيرا** should go with the numeral **اربعة**; sense and grammar alike demand the restoration of the text to read **من الاربعة وعشرين قرا**. On the same column line 3 **والموصولة** should probably be **والموصولة له** or **والموصولة لها**, although it is curious that in col. 225, the word used of the "limb" is **وصلة**, and not, as here, **موصولة**.

Cols. 232-3 are difficult of grammar and of explanation; the matter under discussion seems to be some system of measurement (qisma) or reckoning (hisāb) of the qasab, worked out in terms of finger-breadths (isba^c plur. asābi^c) and hand-breadths (qabḍa plur. qabḍāt). That/

That measurements are intended by these terms seems fairly clear from the parenthetical remark in 232 line 10 that four asābi form a qabda. And again taking the isba as equivalent to 2 cm., our author's final estimate of 24 asābi as the length of his qaṣab would give 48 cm. which is the exact size of the vertical flute in the Snouck Hurgronje collection at Leyden described by Dr. Farmer. (Studies I, 84) This seems to have been the general length for the nāy or qaṣab; Lane (Mod. Eg. ch. 18) describes a nāy of 18" (= 45.5 cm.), Villoteau (Desc. I 95) and Fétis (Hist. II, 155) have a "nāy giref" of 46 cm., and finally, in a different direction, the smaller component of the "arghoul" of the Crosby - Brown Collection (Catalogue IV, 58) is 18 $\frac{3}{4}$ " (= 47.4 cm.)

But even if this be correct, we are still left to explain the curious manipulation of numbers by which our author reaches his 24 asābi. It is tempting to try to read into such a confused paragraph some system of measuring off the position of the holes and some estimate of their diameter, more particularly in view of the ^{use}~~size~~ of "qisma" in 233 l. 2. (c.f. Introd.) But it is difficult to see how to work in such a meaning.

I would suggest tentatively that the reference of this whole passage from col. 231 onwards is to the mauṣūl; in this case,

1 The reading of the text, sabbāba, is to be retained in 231 line 7 and 232 line 7, both occurrences to be understood not in the usual sense of the forefinger, but as "the row of holes" on the front of the instrument.

2 The reference of dhail is to the long secondary member of the double reed-pipe which serves as a drone, and the reference of qaṣab is to the short or active member which produces the melody. This latter with its five holes is the subject of the measurement proposed/

proposed above.

3 The sense would then be: It is said that only the short member of the mausūl is to be reckoned with; but that ignores the dhail which is a fundamental part of the instrument. Therefore the dhail is to be reckoned along with the other member, in the proportion of 3;1. (This seems the probable meaning of the phrase "each 4 aṣābi having one iṣba in the reckoning"; and the general ratio of the pipes of the arghūl is 3:1. c.f. Villoteau Fétis and Lane ad. loc.)

In connection, finally, with the matter of the legality or otherwise of flutes and reed-pipes, we have already noticed the saying attributed to Ka'b Al-Aḥbār; in col. 238 there occurs a very well-known tradition of the Prophet. It is quoted by Al-Ghazālī (JRAS, 1901 p.248) on the authority of Nāfi' and Abdullah b. 'Umar; it is quoted also by Majd al-Dīn and b. Abi 'l-Dunya, and the original story is to be found in several places e.g. in b. Khallikān: De Slane III, 521; Abū Dāwūd: Adab 52. But our author is alone in referring the tradition to the authority of Usāma b. Zaid, and, significantly enough, in telling it of a flute; for the two words used here are qaṣab and shabbāba, while in all other versions it is some derivative of zamr which is specified, generally the mizmār. On both these points our author could well be correct, though the weight of authority is against him. b. Al-Qaisarānī (Rijāl s.v. Usāma) says of Usāma that he quoted on the authority of Nāfi', and in any case though Usāma was too young at the time of the Prophet's death to be officially recognised as a Companion, his father Zaid b. Hāritha was Muḥammad's closest friend, and Usāma would be often in the Prophet's company. (c.f. Muir: Life, pp. 32ff,

pp. 32ff, Caliphate p.8) The qasab, too, is more likely than the mizmār to have had Muhammad's approval, or at least his tolerance, as seems to be indicated by this story: Al-Ghazālī, Al-Nabulūsī and Majd al-Dīn agree with our author in arguing that, as Muhammad did not actually prohibit his companion from listening, his own reluctance to hear was merely a disinclination to have his thoughts interrupted. (vd. Robson. Tracts p.30 n.1) Our author puts the words into the Prophet's mouth, that "lahw" is forbidden only to prophets. If this could be shown to be the true form of the tradition, it would have a very important bearing on the vexed question of Muhammad's opinion on music, as it would give a positive basis for tolerance, as opposed to Al-Ghazālī's negative argument from silence, a line of reasoning which at the best is unsatisfactory.

No theory of the original invention of the wood-wind instruments is advanced in this section, an evidence of wisdom in the case of instruments of such antiquity. Other theories of invention have been canvassed by sundry writers, not so much of flutes as of reed-pipes; our own author quotes Ka'b Al-Ahbār, as we have seen, as saying that the zamr was the invention of the "ahl Lūt" or inhabitants of Sodom and Gomorrah; this, in view of the associations of the zamr family is not surprising, since the ahl Lūt to the Arab mind stood for everything that was morally base and undesirable. According to Mas'ūdī VIII 90, and b. Salama p.19f the people of Lot invented the ṭanbūr for their specific immoral purposes, and it is noteworthy that, according to the former, the Persians invented the diyānai (= dūnāy or maušūl?) to accompany the ṭanbūr (Barbier de Meynard's text VIII, 91); obviously the prejudice against such instruments was deep-seated. In both Mas'ūdī/

Mas'ūdī and b. Salama the invention of the flute is referred to the Kurds and shepherd-folk, more, we may suspect, as a matter of pastoral tradition than as a matter of science and history. A similar ideal rustic origin is given for the pan-pipes as we shall see in chapter 8 of the present MS, in all probability principally because such are and always have been the characteristic instruments of the primitive pastoral peoples.

As to the description of the flute discussed in this section, we have a.) the matter contained in the text, and b.) a representation, at the end of the section, of a flute player with his instrument in his hand. From these two sources we can gather fairly accurately what manner of instrument our author had in mind. It was apparently (disregarding the mauṣūl for the moment) a simple hollow tube made out of a reed or a fine bamboo slip. We have as the authority for this the curious story in col. 240ff of the hollowing of the reed at Mount Sinai by the fire of Allāh, which thus made it particularly suitable for use as a musical instrument. A hollow reed is of course the traditional material for the rustic flute; the original Arabic name, qaṣab, is sufficient proof of that, as is the Latin name, fistula, which originally means pipe or hollow reed. (vd. Lewis & Short: Lexicon s.v. fistula) And this is borne out by all the classic descriptions of the flutes of the Near East; but as our author remarks, people have made it also of all kinds of material, a fact strikingly substantiated by the observation of Lane (Mod. Eg. ch. 18) that an old gun barrel makes an excellent nāy! And the flute which Farmer describes (Studies I, 82) in the Snouck Hurgronje collection is made of brass, whence its name, ṣaffāra.

This hollow tube of reed or brass is open at both ends; there is no/

no suggestion in text or illustration that we are dealing here with a flute à bec, to which instrument Villoteau says that shabbāba very often refers (op. cit. i, 951), Rather it would seem to be the primitive qawwāl or rustic flute of Evliya Chelebi, which is described and illustrated by Fétis (HistII,155) Lane (op. cit. ch.18) and Farmer (Studies I 83 and plate).

This simple pipe is equipped with seven holes. We are told that there used formerly to be only six (col. 230ff), but owing to technical difficulties of playing, another hole was added. This is interesting, as it seems more than probable that the hole here called the Shajā' † (bravery, courage) is in fact what is termed the "speaker-hole" on European flutes, placed on the back of the instrument to facilitate the production of harmonics by the process known as "overblowing", (vd. Geiringer: op. cit. 47, 60) a process analogous to the light "harmonic" fingering on a violin string. We are told (col. 229) that the reason for the introduction of this hole was that the pitch (ṭabaqa) was too great a strain on the player because it was "the pitch of women, and not of men." What better meaning for this could there be than that without the speaker-hole it was too difficult to attain the higher harmonics, corresponding to the top register of the feminine voice? Unfortunately we are given no information as to the exact location of the Shajā', save that it was "at the top of the flute", but this is one place where the speaker-hole is to be found, generally mid-way between the first and second holes from the mouthpiece. (c.f. Fétis: op. cit. II, 153ff; Sachs: Hist. p.247.) These seven holes are arranged in accordance with cosmological laws, says our author (col.226), particularly in correspondence with the laws governing the seven planets/ † Called by Al-Khwārizmī the "sharī'a" (Maḥāṭib, 237).

planets, and each hole produces its individual note to form the basis of one or more modes. Seven seems to have been a favourite number of holes for a flute; instruments are found with all numbers from three to ten, but those with seven, 6 + b, are in the majority; such is the gosba of Fétis (op. cit. II, 156) and the juwāq of Lavignac (V, 2922) as well as the shabbāba of Villoteau (op. cit. i, 951) and the nāy of Lane. (op. cit. chap. 18.)

Of the mausūl there is little in the text, and no illustration; it is definitely a double pipe, probably reed blown, and we are told (col. 231) that it has nine holes. As discussed above, it seems that the melody pipe, like the shabbāba, was some 48 cms. in length, and the drone roughly three times that length.

Of the actual playing of these instruments we have little information in this MS; from other sources, and from present-day practice we know that the flute is played, held not straight up and down, but obliquely, so that its edge cuts the air stream from the lips. It is mentioned that it is used extensively as an accompaniment to singing, (cols. 225, 237) a fact noted by most Eastern travellers, and that alone it gives a pleasing melody. In this latter connection is told the popular fable of the reed having the power of speech, traditionally associated with Midas and the asses ears, but here transferred to Alexander, whose laqab, Dhū 'l-Qarnain, would suggest an obvious parallel.

The instrument thus presented to us in the text and by the illustration at the end of the section is a conventional simple flute, a hollow reed of about 48 cm. in length with seven holes, open at both ends, and played, in the absence of a "fipple" by directing the breath/

breath obliquely across the mouthpiece so that the stream of air alternately passes and enters the tube, By this means the column of air inside the tube is alternately compressed and rarified, and the musical note is produced. The mausūl on the other hand is more complicated; it is an instrument of twin shape, one tube forming a melody pipe and the other a drone. From its picturesque name, the "ass" of music, we may perhaps legitimately infer that it was a shawm or double Aulos, corresponding to the Persian dūnāy, the Egyptian arghūl. It has nine holes, probably all on the melody member, holes which Arabic theory connects with the nine openings of the human body (c.f. Robson: Tracts p.99). Both instruments were used as an accompaniment to vocal music, or to sustain the melody on their own account. In the latter case the instrument was popularly supposed to have the power of enunciation in itself.

THE PAN-PIPES.

A. Text.

(Cols. 294-304, 311-333.)

294.

Most people assert that the shu'aibiya was made by the prophet Shu'aib - the blessing and peace of Allāh be upon our Prophet and on him - but far be it from prophets to do that! For prophets are preserved from the works of the devil, because such things pertain to the pleasures (lahw) of the world, and prophets are forbidden to produce pleasures or to permit audition (samā' cf. col. 239.) The instrument was named "shu'aibiya" only because it was made in the time of Shu'aib the prophet of Allāh, therefore was it thus named. Others say that it is so named only because it is derived from the word shu'ab;

295.

now tash'ib is to fasten separate pieces one to another, and stick them together, yet they are still separate. So that [the shu'aibiya] consists of pieces brought together as distinct from all the [other] instruments, and therefore it was so named. The shu'ab is a thicket of reeds which have been cut and [the instrument] took its name from that. The original name was "shu'aiba", but people corrupted it to "shu'aibiya" so that the name corresponded to the name of Shu'aib the prophet of Allāh, because it was made in his days; so the one explanation comes to be two.

296.

The shu'aibiya is delicate in tone, produces a lively air, (sari'at al-ma'khadh) is sweet in sound and reversed in breath; i.e. the breath is drawn back in it. (vd. infra.) In playing, it is the same as other reed instruments, save in two respects. First: in all other reed instruments the breath is free to pass through; it comes in at one place all together and divides out as it goes out at various places/

places, different from that at which it entered. But in the shu'aibiya the breath is confined; it comes in at one place, but scattered and not altogether, it reaches the end of the interior of the reed and tries to find a place to escape. But as no exit appears for it, and no way save that by which it entered, it turns back and is imprisoned as in the case of the mūsiqa; for this instrument is made in the same way.

297 ○ Second: with all [other] instruments the movement is performed by the two hands while the modes are derived by the fingers from which comes the music; and all reed instruments and all types operated by breath, it enters into them and they are played by the fingers, and so they produce music. But in the shu'aibiya, movement of the fingers is ignored, and its place is taken by two things which take the place of the fingers (reading مقامه for مقامها), namely the head and the neck; it is they which produce the music and the separate modes.

298 ○ There has been much discussion about the number of pipes in the instrument; (ضلع plur. اضلاع) some have had more and some less. The pipes correspond to the strings in other instruments, where each string produces a mode; so each pipe produces a mode which comes from it, according to the reckoning of the 12 modes which are reckoned, or of the 6, already mentioned as being derived from the number which is left over in the reckoning.

Men of excellence and knowledge have said that Allāh the Blessed and Exalted, created Paradise and made for it eight gates; each had a sound, whose like is not to be heard in this world, in power of music; this sound was heard when the gate was opened or shut. The sound of each/

299. each was quite unlike the sound of any other. Among them was a gate whose sound resembled that of the shu'aibiya, and this gate | Shu'aib the prophet of Allāh heard; when he heard the shu'aibiya he wept and his soul longed for the exalted Kingdom of Heaven. For that reason he favoured the shu'aibiya above all the other musical instruments. Listening to it is permitted, and in it also there lies one of the secrets of Allāh the Exalted which He set in the reed by the light which He sent into it from His glory, Great and Mighty is He.

300. When Al-Bahlūl (9th. cent.) heard it, while walking in the streets of Al-Madīna, he stood amazed at it for a long time; then one who was there said to him "What (reading ل for ل) sayest thou of the shu'aibiya? For its sound would charm rocks." He answered "Oh madman, verily it is glorifying the King who is worshipped, and saying as it glorifies Him 'Glory to the Loving One, glory to the Loving One, glory to the Creator of this existence.'" And it is according to the depth of longing of one who longs that he hears the words of the One; and it is according to the greatness of the desire of the seeker that he reaches the objects of his search. For it is not every seeker who finds, nor does every traveller arrive. Some hear their own desires, and some hear their ultimate fate (ukhrāhum); some seek only a vision of their Lord, and when they hear a charming (muṭrib) sound, they fall in love with it and lose their senses; when they lose their senses they are happy (tābū) and when they are happy they experience ecstasy. |
(~~al-~~ʿarīfīn).

301. One of the gnostics | was asked "What is there about the "qaṣab" that its music is near, its voice wonderful, its sound pleasant, and its secret strange?" He answered "It is because Allāh the Exalted has placed/

placed in it one of the hidden secrets which He has concealed from the eyes of beholders, so that the thoughts of the wise are perplexed in it; when they hear its sound, their hearts are cheerful towards it, their souls yearn for it, and on hearing it, they call to remembrance the pleasure which Allāh has prepared for them in Paradise. For that reason they are overcome by its charm, and ecstasy seizes upon them."

302. Such is the principle for those who have gnosis, whose object is the Heavenly Kingdom; as for the devotees of devilish charm, Satan comes to one of them as he listens to the sound of an instrument and makes it pleasant to him, and whistles in his ear; so that he hears the whistle of Satan in his ears, and is charmed by the amount of Satanic longing (wajd) which comes upon him; so he rises and stands up and dances and turns round and that time brings his lust (hawā) uppermost. So there comes to him a longing that destroys him; and that first longing grows in strength, and Satan animates him while his lust grows ever stronger; his heart is blinded, and his wits lost. For that reason he says "I was bewitched" (taribtu). There are some who are bewitched and listen, and others who are not bewitched and do not listen, according to their classes, according to the music which they hear, according to their longing, and according to the modes which that music brings forth.

03. This charm is common to [all] the pipes which are contained in the shu'aibiya, as it is common to the strings of all [other] instruments. From every pipe comes a mode, each different from its neighbour, some being stronger and others weaker according to the delicacy of the reed which forms the pipe and its shortness in one case, and according to 04. the coarseness and length of the pipe in the other case; [Thus is given]

a high note and a low note [respectively] as in the mūsīqa. (See Commentary).

311. The reason for making the shu'aibiya was as follows. The ruler
 312. of Midian had a certain slave. | Now Midian was the town of Shu'aib the
 prophet of Allāh, and it is said that the name of that king was
 Yanzun; it is also said that Yanzun was the prophet of Allāh, Shu'aib,
 and that as time went on and he aged, he was called Shu'aib. But the
 soundest opinion is that Yanzun was king of Midian. And he had a
 very beautiful slave girl with whom that slave was in love; his name
 was Rubīl and he never left the girl, day or night. The king heard
 313. of this and wished to harm the girl and the slave, but when the latter
 understood that, he fled from him and took refuge with Shu'aib, the
 prophet of Allāh, claiming protection from him. So the prophets sent
 to the king to seek forgiveness for him, and he replied "I have
 already given him over to you completely, Oh prophet of Allāh."

So Shu'aib took him from the king and gave him sheep to pasture,
 and he remained for a long time with the sheep going with them among
 fertile places, pasturing them and going with them. Until Shu'aib
 the prophet of Allāh loved him and gave him (reading the masculine
 singular suffix; MS has "them") more sheep so that he rose in his
 estimation. One day he went out on a certain track, and found a
 314. thicket of reeds | which had grown to a great height, so that the place
 was full of them, and they had grown. Then that slave sat down in
 the thicket with the sheep round about him; and as he pastured them
 he/

he hummed softly, reciting verses mourning and bewailing his separation from that girl whom he loved. And he heard the blowing of the wind as it entered into the reeds whose heads were broken; and they whistled as the flute whistles. The slave looked at the reeds in which the wind was whistling, and found that their roots were
 315. planted in the soil while their extreme tops had been broken off by the force of the wind which was blowing; Some were shorter than others and some were longer; and every time the wind blew, it entered the reeds and whistled, and a musical noise came to him and a sweet sound.

The slave said to himself "Oh what a wonder! I see that this reed has banished my loneliness and has brought me pleasure and happiness, while in it I hear music. Now if I were to cut some of the reeds and join them and fasten them together, so that they were fixed one to another, and if I were to blow in them as this wind
 316. blows, would they give me such music as I now hear when they are in their place? Now perhaps Allāh the Great and Glorious will take away my feeling of loneliness and longing, and this reed will be to me a friend and a companion, a delight and a help against the longing which I have endured (reading اكايد for اكايد) and the love which I have undergone; for music always dispels the cares of the sorrowful, and brings rejoicing to the hearts of lovers."

He got up at once [and went] to the reeds, cut some thick and long, others thin and short, and broke the heads of them as he had observed. Then he fastened them together, grading them and fixing
 317. them, and it took shape in his hands at once as a shu'aibiya. So he played on it, and the breath went down into the reeds, and Allāh the Exalted/

Exalted brought forth from them the hidden secret which He had placed in the reed so that they sounded along with him as he spoke. Every time he played on it, it cried along with him, and he wailed to its sound, and wept, sometimes playing on it, sometimes reciting elegiac verses; and every time it responded to him his wailing increased and his lamentation became great.

318.
○

So he continued, until the news of it reached Shu'aib, the prophet of Allāh, and he asked the slave how it was used, how he discovered it, and how he made it. And when he was told, he asked "And what is its name?" The slave was silent, not knowing what to answer, and the prophet said "Verily this instrument has been made in the time of Shu'aib the prophet of Allāh, so call it the shu'aibiya." And it was so named, according to this, the most reliable story.

Allāh the Exalted has placed in the qasab a strange secret which is not found in any other of all the instruments, namely that it says the words "Bismillah subhānahu." And there is a story about what He puts in it of His strange sciences and of the wonders of His power.

○
319.

It is told of our master Abū 'l-Faḥ Al-Wāsiti - Allāh sanctify his spirit - that he had with him a company of important faqirs, who were named; and he was pleased to have them and paid them very great honour. He set before them all kinds of excellent food and made feasts for them, and they stayed with him for seven days and nights, living pleasantly and enjoyably. On the last night they said to him "To-morrow, if Allāh wills, we are resolved to set out; we wish to go, and we intend to visit our master Abū 'l-Fadl. So have you any errand which we can do for you, or any greeting to send to one of your friends?"/

friends?"

320. The [narrator] continued: And the shaikh smiled and said "My friends, Allāh has made your trouble easy and has facilitated your visit; and He has ordained the matter so that the greeting is [already] sent. Tarry until to-morrow, and do not start until we meet our brethren whom you seek, for they are even now approaching us." So they stayed that night, marvelling at what the shaikh said; but when the next morning came and they had said the morning prayer, while he was sitting with them around him, praising Allāh and saying "Glory be to Him" and "There is no God save Allah," suddenly the gate of the hermitage (zāwiya) opened and there entered a servant of the Shaikh Abū 'l-Faḍl.

321. When the men saw him they were amazed, and they rose up and shook hands with him and greeted him. And he said (reading ج ل for MS.) "It is good! Verily yesterday the shaikh was sitting in the midst of us when he rose up from his place, then sat down again, saying 'Yes, yes.' twice over. And we turned round, but saw no one with him to speak to him, nor any man who could address him. So we said 'Oh master, were you addressing us or someone else?' And he said 'My words were not to you, but to your brethren who seek to visit you to-morrow, and they are staying with the Shaikh Abū 'l-Faḍl. So let us go and visit them.' So we set out at the beginning of the night, and have been travelling, looking for this place, and now here we are."

322. Then the shaikh said "You are very welcome." And he said to the faqīrs who were with him "Let us go to meet your brethren the faqīrs, for it was they whom you purposed to visit yesterday; and they/

they purposed visiting you. And Allāh has made the matter easy for you and has rendered it possible to you."

[The narrator] continued: So they went out of the town, and behold the Shaikh Abū 'l-Faḍl with his retinue, and the faqīrs round about him on the right hand and on the left. Then the Shaikh Abū 'l-Faḥḥ bade them welcome, and brought them into the hermitage and seated every one of them according to his rank, sitting himself in their midst. And they talked of what Allāh the Exalted had commanded, and of what He had imposed on them; and of what His apostle brought, what He commanded and what he forbade. So they continued until day with its brightness had gone, and night with its darkness had come.

323. Then suddenly, some people came after sunset (or "the evening meal" al-ashā') and entered the hermitage where they were gathered. They asked them who they were, and were told "We are wayfarers, since we have come down from the direction of the sea, wishing to strike the road to Mecca. We wish to visit the great ones of the earth, the shaikhs and the pious folk, and after that we would seek the pilgrimage by sea to the Sacred House of Allāh. So pray for us that Allāh may make that easy for us." They said "And what is your profession?" and they answered "We are musicians."

While they were talking, the servant of the Shaikh Abū 'l-Faḍl approached, and said "The shaikh summons you, so come to him." So they rose up [and went] hastily to him, while the musicians stayed where they were in the hermitage until morning. When the time came for the morning prayer, Abū 'l-Faḥḥ and Abū 'l-Faḍl and the company met together and said the morning prayers; then they sat, as was their custom, mentioning Allāh the Exalted, and extolling and praising Him. When/

When they had finished that, the Shaikh Abū 'l-Fath advanced to those musicians and commenced to talk with them; he smiled upon them genially and asked them about their profession. They answered "We are musicians; we have been for a day with the Shaikh Mansūr Al-Rifā'ī with whom we spent a very pleasant time; and with him was a company of shaikhs and pious men."

325.

When Abū 'l-Fadl heard what they said - and he was sitting there - he knew that what they said was true, for he had been among those present at that audition. (samā') He looked at them and said "The name of the man with whom you were is Mansūr b. Al-Rifā'ī; [and you were there] on such and such a day at such and such a time." They said "That is so." He continued "There was a youth among you who played the shu'aibiya." They said "Yes," and pointed out one of their number. "This is he whom you mention." He went on "And you said 'We are four, [each] with a separate profession: one plays the duff, one the shabbāba, and another the shu'aibiya; we are four, equally divided, two playing the duff and two the qasab.'" 326.

Then the faqīrs, who were there, said "We should like to hear these men." And Abū 'l-Fadl said "If you so desire." Then he turned to Abū 'l-Fath "We desire that these men beguile the time now for the faqīrs." Now Abū 'l-Fadl was enlightened and loved good audition, while Abū 'l-Fath was austere and loved to cut himself off from men, in solitude; so he said "You may do as you desire, but I will go into this cell, alone, for that is dearer to me than what you will be doing. 327. I have no need of these or of their audition." [And that pleased every one, and they agreed. So he entered the cell.

Meanwhile the musicians sat down, beating their tambourines and blowing/

blowing on the ~~reed~~ pipes, until the portico resounded, and the men's minds wandered. And when they were charmed (ṭarabū), the experience was pleasant to them, and they were pleased; and when they were pleased, every one of them experienced an ecstasy (tawājadū) each according to his longing (shauq), his temperament, (taking "mashrūb" as a variant of "mashrūbā") and his taste (dhauq). So one cried aloud, and another sobbed, one wept and another grieved, while the music affected them all, continuing (inserting ج و ز after ٧, in order to make sense) to go from one to the other, until it reached the Shaikh Abū 'l-Fadl. When he felt its effects and went into an ecstasy, he looked at those who were playing the tambourine, and listened to them, and perceived that their secret was of Satan; it did not suit his temperament and was not what he wished or sought. Then he looked at the ~~reed~~ pipes for a long time, and listened to them for a space; and he perceived in them the Divine secret which Allāh had placed there by His power, and he saw His brilliant light which He put there by His wisdom, so that it acquired the great Divine secret. And when he heard it, his wits wandered and he was bewildered; he stood up and walked from his place and spun round in his desire. (hawā)

328.

329.

Then he signed to the tambourine players with his hand to stop playing, so they stopped; and he said to the pipe players "Play" and they played. But the player of the shu'aibiya had a stronger art than the player of the shabbāba, and produced sweeter sounds, which is a quality gained from Allāh the Exalted who has given to His creatures knowledge which cannot be gained by money or power. When the Shaikh Abū 'l-Fadl felt the power of the music, he sought [what suited]

suited] his nature from the best [player] and he perceived that the quality which Allah the Exalted had given to the player of the shu'aibiya He had not given to the player of the shabbāba; namely sweetness of sound and strength of art - which is the whole of music. The shaikh was wise and understanding, so he said to the player of the shabbāba "Be silent"; he fell silent. And he said to the player of the shu'aibiya "Play on" ; so he played, and all the people were amazed at him, and wondered at him.

The shaikh watched him, and every time the shu'aibiya sounded, he found his longing renewed and the state (hāl) became strong; he went out of himself, (sāra hā'im) capturing the secret which appeared vaguely to him; in that it was a secret from Allāh the Exalted in the breath and in the reed, for the reed is the abode of the body and the body is the abode of the spirit. The shaikh knew that the secret was among the hidden meanings, (al-ma'niyīn) so he thought of mankind and Him who created them, of the reed pipe and Him who made it speak, and he was immersed in that for a long time. Meanwhile the people all sat silent, while that youth played the shu'aibiya without stopping for a moment, until the sparrow cried out in its hole (MS has كش; perhaps بش, "in its nest") because of the power of the music which they were hearing.

The shaikh was lost in ecstasy for a long time; then in his ecstasy he cried aloud, and Allāh by His power took the breath which came from him, and passed it into the heart of the Shaikh Abū 'l-Fath. He was still in his cell, but he drank of the same draught as Abū 'l-Fadl, and borrowed what he borrowed; and [He] made that secret of the brilliant light to go into his heart so that he was lost in ecstasy and/

and cried aloud at the top of his voice, from inside the cell. He rose from his place, and turned his steps to the door of the cell where he heard that youth playing the shu'aibīya; he listened for a long time and perceived in it what Abū 'l-Fadl had perceived, heard what he heard and drank what he drank, borrowed what he borrowed. Then he turned his steps gradually to come out to them, shouting at the top of his voice, saying as they say who praise Allāh "Praise to the Loving One, praise to the Loving One, praise to the Creator of this existence!" And every one present in the assembly heard him and rose up on their feet and echoed the words of the shaikh "Praise to the Loving One, praise to the Loving One, praise to the Creator of this existence!"

33. But as for the man who played the shu'aibīya, he had such reverence for the shaikh when he spoke that he threw away the shu'aibīya in his hand, and was silent. But the shaikh said to him "Continue as you were; this is not your doing, but it is of the hidden secrets of Allāh the Exalted which He has revealed at your hand in this reed. So be seated, my son, in your place, and play as you were playing." So he sat in his presence playing the shu'aibīya until he bewildered those present.

B. Commentary.

The last instrument to engage our author's attention is the syrinx or pan-pipes which he treats under the name of Shu'aibīya. The name is unfamiliar, and will be discussed later, but the pan-pipes themselves were, we may presume, as familiar among the Arabs as among all/

all primitive and rustic peoples, with whom all over the world this instrument is popular. To quote Stainer (Music of the Bible, 96) "The universality of the Pan's-pipe is as remarkable as its antiquity. To find a nation where it is not in use is to find a remarkable exception." Its use has been proved time and again to be world-wide; in China its origin appears to lie in the pitch-pipes which gave the twelve lü or standard notes, the basis of the Chinese musical system. The earliest reference to such pipes is in a poem dating from roughly 1100 B.C., in which the word is kuan, a single vertical pipe without holes. (Latin "eburneola", Cic, de Or. 3, 60, 225); there being twelve of these pipes, to give the twelve lü, it was an easy development, and a natural one, to put them together in a row or a bundle to form the set of pitch-pipes or what we now know as the Syrinx. Its Chinese name (Sachs: Hist. 177; Lavignac: Enc.I, 152) is phai syao or fong syao, and in its arrangement of pipes it still retains the impress of its original pitch-finding capacity, the pipes being mustered in two rows, those giving the male notes on one side, and those giving the female notes on the other.

Exactly the same idea is to be found in the huayra puhura of Peru although in this case the male and female notes are produced by pipes bound into two separate instruments which are connected by a cord. (vd. R. et M. d'Harcourt: La Musique des Incas p.36 and fig.15.) Both Chinese and Peruvian pan-pipes have the lip notched to facilitate blowing. An interesting example of a syrinx found in a Peruvian tomb was exhibited in plaster cast at the South Kensington Museum where Engel gave the following description of it. "It is made of a greenish stone, which is a species of talc. Four of its tubes have small lateral/

lateral finger-holes, which, when closed, lower the pitch a semitone."

In the classical world of Greece and Rome, the pan-pipes were famed, generally as the symbol of rustic contentment and simplicity; and as such they appear prominently in the works of the pastoral poets, e.g. in Horace and Virgil in Latin, Homer and Theocritus in Greek. It is of course from the classics that the European names of the instrument arise; (English pan-pipes, pandean pipes, syrinx, German pansflöte, French flûte de Pan, syringes); the story of Pan's infatuation with the nymph Syrinx, who in flight from him was changed into a reed which the god cut into pieces to form the original instrument, is to be found in Ovid (Met. I, 688ff.) From this story come both the names, panpipes and syrinx, the latter probably giving the original descriptive or onomatopoeic name - "the whistling instrument." The Greek root is $\sigma\upsilon\epsilon\acute{\rho}\gamma\omega$, connected with the Sanskrit "svar", Latin "susurrus", and it is to be found in Greek literature in the technical sense of "to play the syrinx" as early as Euripides (Ion, 500; Iph. Taur., 1125). But while, to the Greek and Roman authors, the panpipes were generally the index of simplicity of life (Homer, Iliad 18,256; Plato, Republic 399D; Virgil, Eclogues II, 32) such was by no means invariably the case; in Horace there occurs again the old association of music and immorality, and the "fistula" (in Horace and Virgil used of the syrinx) is connected with the Berecyntian flute, notorious for its part in the orgiastic cult of Cybele on Mount Berecyntus in Phrygia. (cf. Horace, Carmina IV, 1,22-4; IV,12, 10) An echo of such orgiastic association is to be seen in this MS in col. 302.

Nor yet was the syrinx regarded solely as a crude and unscientific/

unscientific instrument, suitable only for the rustic; there appears to have been in classical times, as in China, a recognition of its theoretical value. As Gevaert says (*Musique de l'Antiquité II*, 275) "La syringe n'était pas uniquement, comme on a l'habitude de le répéter, l'instrument rustique que les artistes mettent entre les mains des Faunes et des Satyres." And he goes on to point out that Aristotle, in the fourth chapter of the *Art of Poetry*, refers to an "art of the syrinx," and that in Macedonian times the use of the syrinx was a necessity for all who tried for the Pythian award at Delphi. The same point is made by Combarieu also (*La Musique et la Magie*, 251) and has received further emphasis from the researches of Dr. Erich von Hornbostel and Miss K. Schlesinger. (vd. Schlesinger: *The Greek Aulos*, 313) It is also worthy of note that the syrinx occupies a prominent place in illustrations and carvings at least until the Middle Ages, particularly in England; it is certainly to be identified in the *Psalter in St. John's College, Cambridge*, (12th. cent. and almost certainly in the *Anglo-Saxon Psalter of Cambridge University Library* (11th. cent.), but its occurrence, claimed by Galpin, (*Old English Instruments of Music*, 157) in the 12th. century *Psalter in Glasgow University Library* is much less certain. Engel in his *Catalogue of the South Kensington Museum* also reproduces a well-preserved example of a syrinx found in bas-relief on the Abbey of St. George de Boscherville in Normandy, dating from the 11th. century. And even as late as the 19th. century, the "Pandean pipes" enjoyed an ephemeral popularity, when, according to *Grove's Dictionary*, "itinerant parties of musicians, terming themselves Pandean, went about the country, and gave performances." And in 1829, an Italian artist, commissioned/

commissioned to redecorate the Great Screen of York Minster, included in his scene the figure of an angel playing the syrinx.

But such a discussion takes us beyond the scope of this essay; fuller discussions of the pan-pipes will be found, as regards the ~~the~~ classical world and the theoretical aspect in an article by H. Fox Strangways in *Music and Letters* X, 59, as regards the New World and its theory in d'Harcourt: *La Musique des Incas* pp. 35ff. Among the Arabs the syrinx has found little support and has received but scant notice, possibly due to the fact that it seems to have been an imported instrument among them; the very name indeed which is generally given to it, "mūsīqār" or "mūsīqāl" betrays its foreign origin as the same loan word from the Greek is used in later days to refer to a musician; so the *Ikhwān al-Ṣafā'* state (*Rasā'il*, Bombay ed., I, 87) in the letter which deals with music. In the same letter, the author makes mention, along with organs (ارغن) of an instrument, the "armūnīqī" or possibly (as the text is unpointed) "armūnīqā" (op. cit. I 97). This, so far as I am aware, is the only mention among the great Arabic theorists, of any instrument which might be the panpipes; although of course it is by no means certain that "armūnīqī" does refer to the pan-pipes, as it might equally, and perhaps more probably in view of its proximity to the organ family, refer to Chinese "shêng" or mouth organ, an instrument which, being operated by free reeds has little or no connection with the stopped pipes of the syrinx; that this latter instrument was familiar to the Arabs, albeit at second-hand, we know from the reference to it as "mushtaqa ṣīnī" in *Al-A'sha Maimūn*. (vd. b. Salama p.21)

The term "mūsīqār" (mūsīqāl) is used of the pan-pipes where that instrument/

instrument is mentioned; Evliya Chelebī, for instance in the seventeenth century, notices the "mūsīqāl" or "mithqāl" as an instrument of music with 51 players; he mentions also several players of the instrument, starting with Pythagoras and Moses (hence the latter's surname "Mūsā Mūsīqārī") and ending with a contemporary Turkish historian Sulāq Zāda who was surnamed Mithqālī because of his predilection for the pan-pipes. So in the 17th. century; but 200 years previously we have 'Abd al-Razzāq Al-Samarqandī writing in his Matla' al-sa'dain the story of a certain Ghiyāth Al-Dīn Al-Naqqāsh who travelled from Herāt to China and back in an embassy sent from the Mughal court. While at Khānbāliq, now Pekin, Ghiyāth Al-Dīn saw an orchestra render music, the mūsīqār being one of the instruments included in the ensemble. (vd. Farmer; Studies II 12, 14) The word mūsīqār is also used by b. Ghaibī (15th. cent.) in the Jāmi' al-alhān. (vd. Farmer: Studies II, 16), and a modern survival of the name is to be found perhaps in the Roumanian "muscal", the alternative designation of the "naiou", (itself seemingly a form of the Persian "nay" or flute) the panpipes used by the Roumanian peasants.

The name here used for the pan-pipes - and from the text it cannot be that the reference is to any other instrument - "shu'aibiya" seems to be otherwise unknown. In spite of a rigorous search I have been unable to discover any other occurrence of the term, in this sense or in any other. Yet, as our author remarks, the applicability of the name, deriving from the root "shafaba" is unquestioned; indeed it would be difficult to find a more suitably descriptive root, for the verb means "to collect" and "to scatter" and is used of things which are joined yet separate as the individual pipes of the syrinx are described/

described. So the root which gives "shā'ibān" - the shoulders, "shi'ab" - the twigs of a tree, "shu'ūb" - tribes of a people, is an ideal root from which to derive a word descriptive of an instrument made of slips of reed (Shu'ab: vd. col. 295), cut and fastened together. The "corruption" of the original word which our author postulates as a reason for the form "shu'aibīya" in place of "shu'aiba," the normal diminutive of "shu'ab," is also quite understandable. For, as he very justly remarks, the name "shu'aiba" would immediately connect in popular imagination with the name of Shu'aib, the prophet of Midian, (Qur'ān VII, 85e~~k~~) the Jethro of Exodus 3', 4'¹⁸, etc., and the instrument would at once be designated his. Against such blasphemy our author's orthodoxy is quick to react; far be it from a prophet to have any thing to do with a musical instrument; but it was so called only "because it was made in the days of Shu'aib" (col.294) or, according to another version, because it was made by a slave belonging to the prophet. (col. 312ff.) According to yet another story, the prophet Shu'aib had a weakness for the panpipes because their sound resembled that of one of the eight gates of Paradise, a sound which he had once heard in a vision.

Alternatively, the name "shu'aibīya" might well refer, not, as our author suggests, to the form and construction of the instrument, but rather to its association with the theoretical side of music. The word "shu'ab" is commonly used by the theorists of the secondary or branch modes, as opposed to the "maqāmāt" or principal modes; and as the syrinx was originally in China a set of pitch-pipes, so the shu'aibīya also may well have been so called as the little instrument which gave the pitch for the secondary modes. Such an hypothesis is farther/

farther borne out by the apparent confusion in cols. 298, 303, between نغم and نغمة; in both places it is said that each pipe "produces a mode" (يخرج منه نغم) where "note" would more normally be expected. But if the original purpose of the shu'aibiya, to give the pitch of the Awāzāt were in question here, the reading would be obviously correct. Against this is to be set the evidence of a passage in col. 306 to be discussed below, according to which the number of pipes is placed as high as 50; this would form a gigantic instrument reminiscent of, though even greater than, that mentioned by Galpin. (Old English Instruments of Music, 265) The most likely solution would seem to be that two instruments are here described under the same name; first the rustic, melodic instrument with many pipes, and second the smaller theoretical instrument designed to serve as pitch pipes. Such a small syrinx as the latter used to be available within recent years in this country, designed to give the correct pitch for violin strings.

The text of this chapter is relatively free from difficulty; reference has already been made to the apparent confusion in col. 303 between "naghm" and "naghma", a difficulty which disappears if the reference is to the pitch pipes. In the same passage in col. 304 line 2 there occurs the awkward phrase نفس رقيق ونفس غليظ على شبه tacked on with no pretence of grammar or syntax at the end of the sentence. Now from the context, a discussion of the various dimensions of pipes, it is apparent that the sense is, as I have rendered, "thus is produced a high note and a low note respectively---" But the Arabic says only "a delicate breath and a rough breath"; for such usage of نفس, or, indeed, of رقيق, and غليظ I can find no warrant.

The story of the invention of the shu'aibiya presents little that/

that is of interest, beyond repeating the age-old tradition that the syrinx was originally a pastoral invention; the same idea is found in b. Khurdādhbih (Mas'ūdī VIII, 100) where the Kurdish shepherds are credited with having originated pipes in order to whistle to their dispersed flocks. In fact, as with so many instruments of music, the origin is lost in the mists of antiquity; Lucretius (De Rerum Natura V, 1379) claims that the syrinx was the original musical instrument, and his explanation that men first learned of it by hearing the Zephyrs blowing through broken reeds, bears a striking resemblance to the story of Shu'aib's slave in this MS.

Nor is the description of the instrument noteworthy in any way; its outlines are well known to consist of a row or a bunch (both types being found) of stopped pipes of varying lengths, each producing its individual note; sometimes, as in the soapstone huayra puhura of the Kensington Museum, the pipes are fitted with finger-holes, but more generally they are not. So it is here; the pipes are formed of reeds, the heads being broken off by the wind, the other ends still fixed in the soil, thus forming an ideal "stopped pipe"; being broken irregularly at the top, and being naturally of varying bore, each produces a different note. The shepherd, seeing these things, takes pains to reproduce exactly the natural conditions, his primitive instrument is put together and is ready. The only point of interest lies in the number of pipes held to be admissable in the "shu'aibiya"; this point unfortunately occurs only in the abstruse numerological passage in cols. 304 - 311 which I have not included in the translation. But one passage to which reference has already been made is col. 306 lines 2 - 7; I append a tentative translation.

"The/

"The extreme limit of the instrument is 50 pipes; when it has more than that, the music is scattered and diffused. The reason (makhraj) for the 50 lies in the "qisma" of 49 because it is 7 x 7; each complete seven form a scale, (bait al-'amal) finish the mode, (mahatt al-naghm) and provide the "qisma" of the Awāz for anyone who knows the art of music and who has understanding."

If this is to be taken at its face value, it means, as we have already seen, an immense instrument. But our author's ideas are always apt to be vitiated by his peculiar ideas on the magical power of numbers, and the power of sevens is a familiar conception which we have met before in this MS (cf. col. 105ff.) In addition to that, seven was the commonest number for the pipes of the syrinx in the classical world, whence, in all probability, the instrument came to the Arabs. (cf. Virgil: Eclogues 2, 36 and Fox Strangways in Music and Letters X, 59) But panpipes much larger were also found; R. and M. d'Harcourt quote an example with twelve pipes (Musique des Incas, 35) and Sachs (History ---, 177) and Courrant (in Lavignac IV, 152) mention as many as sixteen pipes. From the Arabic - or rather the Turkish - side, also, Evliya Chelebī states that there are two kinds of "mūsīqār", the large, (battal) and the small, (girift), and judging from the numbers of makers and players quoted by him, the instrument was of considerable popularity in his day.

Finally, a word about the use of the shu'aibiya among the mystic fraternities as an aid to ecstasy. We have here three stories of such an use; in col. 298 the reason for the prophet's liking for the instrument is stated to be because it reminded him by its sound of "the Exalted Kingdom." In col. 299 we have the anecdote of Al-Bahlūl who/

who heard, through its sound, the praise of Allāh the Creator. (Al-Bahlūl, whose "laqab" was Al-Majnūn, was a well known figure in Baghdād at the time of Hārūn. In spite of his nickname, he seems to have had plenty of sense. vd. Beale: Oriental Biographical Dictionary; 'Iqd al-Farīd III, 253, 14.) And in cols. 318ff. we have the strange story of Abū 'l-Fath and Abū 'l-Fadl who heard the same thing. Now there is nothing new in mystics seeking the aid of music for their devotions; the whole of the musical section of the Ihyā of Al-Ghazālī is devoted to proving the mystic value of music; indeed he asserts that "ecstasy" is the state arising from listening to music. And the same appreciation of its power is to be found in much of the Arabic and Persian mystical poetry, notably in that of Jalāl al-Dīn Rūmī. The latter indeed trained the Maulawī order of dervishes, of which he was the founder, to use the reed flute as a primary means of inducing ecstasy; its importance appears from its personification in the opening lines of the Mathnawī:

Listen to the reed how it tells a tale, complaining of
separations-
 Saying, 'Ever since I was parted from the reed-bed, my lament
hath caused man and woman to moan.'

The reed is the comrade of every one who has been parted from a
friend; its strains pierced our hearts;

(Mathnawī: trans. R.A. Nicholson, lines 1, 2, 11)

This may fitly be compared with the story in cols. 312ff. of the present MS. A more systematic treatment of music in regard to mysticism will be found in the Kashf al-Mahjūb of Al-Hujwīrī, (trans. Nicholson in G.M.S pp. 399ff) and, in English in Farmer: The Influence of Music, as well as in the same author's recent book on Sa'adyah Gaon.

III CORDOPHONES.THE LUTE.

A. Text.

(Cols. 110-145.)

110.

Praise to Him who made the lute from wood in order that praise might be given to the King who is served, the Creator of this world who made everything by His wisdom and formed man by His skill, creating him out of flesh and bone and blood, muscles, skin, sinews and various veins the total of whose number is 360; these make up 24 qirāt, as the lute also makes up 24 qirāt. When it has 12 strings, its law rests on that of the 12 Signs of the Zodiac and on that of the 12 modes which have been mentioned. The 12 are also divided according to the laws of the 6 Awāzāt, the reason being that the 12 are connected with the 6 by the law of multiplication and by the law of the khafif and thaqil [rhythms]. Each of the Awāzāt appropriates 4 parts of the number by analogy with the fourfold principle; so the total (6 x 4) is 24 qirāt of the playing which corresponds to the 24 qirāt of the human body.

So when one grasps the lute and plays it with his fingers, those members which are in the human body resound to it, and his soul longs for music and each vein is drawn to what corresponds to it in the strings: if the vein is stationary there is a rhythmic mode to move it, and if it is moving, there is a mode to stop it; and just as there are stationary and moving veins, so also there is a khafif and a thaqil. This does not apply only to the lute but to all stringed instruments; their rule depends on the number of their strings, by reckoning the difference of the numbers whether greater or less [than in the lute], the greater going together and the less going together. As for the instruments which are not distinguished by having strings, their rule depends on their playing, because they also are played in the khafif and thaqil.

thaqil [rhythms].

In the lute there are 12 strings or 10 or 8 or any other number, greater or less; and now we will mention all of them, each in its turn. The difference of opinion about the number of strings is in accordance with what older authorities have said, one after another, /about
 114. reckoning and computation and about the number of the 12 melodic modes. These are connected with the number of the strings, each string having one mode. So that is the best lute whose strings are 12; each string has 30 threads (عُرُق), which represent one division of the modes which correspond to the circle of the universe, 360 degrees: each degree attaches to one thread and each thread attaches to a rule in the thaqil and khafif rhythmic modes. We take from the 30 threads 6 for the 6 Awāzāt so that there remain 24 which we divide among the 12 strings each receiving two parts, [one] for the khafif and [the other for]
 115. the thaqil rhythm. | So the total comes to 24 qirāt of the playing ~~the~~ divided over the 24 parts of those veins of the human body which are stationary or moving. Such is the rule for the lute when it has 12 strings: but as for when it has 10, then it has a different rule.

The first man to make it [thus] was Al-Fārābī, and the reason was as follows. In the town in which he was living a man died who was one of the leading inhabitants, and all who were in the town went to his funeral, Al-Fārābī among them. They said the prayers over the body and witnessed its interment, then returned, | each going his separate way.
 116. Al-Fārābī left the others and returned alone; but while he was walking through the cemetery, he passed by a grave on which the wind had blown so that the earth was stripped away from the body in that grave; the body lay on its back with the foot sticking up out of the grave so that all/

all its veins and members were visible. Al-Fārābī counted the veins in the foot of the corpse and found that they numbered 10 divided among the 5 toes so that each toe had two veins, one stationary and one moving. So he made the lute according to the likeness which he saw of mankind, its belly like the human belly, its back like the human back and its peg box like the human foot. So too the 10 strings of it

117 | correspond to the 10 veins which he saw in the leg of the corpse. He arranged it according to the principle of the 360 veins; when the lute has 10 strings, each string has 36 particular divisions: the principle also with regard to the stationary and moving [veins] depends on the primary principle, but differs from it in number and reckoning. It is that, if you will, you divide the 36 into three parts, each part thus having 12 each of 3 lines (خَطَا plur. خَطُوط) so the principle devolves upon that of the 12 Signs of the Zodiac, and the reckoning comes under that of the 12 modes.

118 | Or, if you wish, divide them (i.e. the 36) into one and a half parts; the one part will consist of 24 qirāt corresponding to the original division (col. 114) each string having two parts. Then you are left with 12 which gives no derivation for the 6 Awāzāt unless they are connected with the 24 divided into 12 - each Awāz having two parts for the khafif and thaqīl rhythms - which is the law connecting the 12 with the 6. Or, if you wish, take the 12 which were left over from the circle of the 12 [modes] and multiply them by 30; the total is 119,360 | and each string has one thread to correspond to that vein [of the 360] on which the division depends. So the multiplication is complete, and nothing is lost from the number. Such is the rule for the 10 stringed lute.

When/

When [the lute] is 8 stringed, take away one for every string [from the 360] so that the 8 strings [make] eight in number; thus you are left with 352 out of the circle of 360. Then take for each string that part of the number (i.e. 352) which applies to it particularly, and its share will come to 44. Then the 4fold principle is added to [each] one of the eight parts so that the total is 48 for each part. Divide them ^{120.} (reading أقسام for أقط) over 24 qirāt and each qirāt has two parts.

To these two parts belongs the distinctive playing of the lute (ḍarb al-ʿūd) which corresponds to the beat of the veins (ḍarb al-ʿurūq); when the vein is stationary there is a thaqīl rhythm which makes it move (pointing يُكْرَهُ to agree with يَكُنُّ) and when the vein is moving, there is a khafīf rhythm which makes it still. So it makes one yearn for the rhythm [which suits him] and in that he seeks help from all the instruments according to the number of their strings.

Such is the rule for the 8 stringed lute, and that is the third stage in the rule of the lute. But there must needs be a fourth stage so that the matter may be symmetrical, and the division connected within itself, nothing going beyond its own stage. This [fourth stage] is that people, agreeing that the root principle is fourfold as we have ^{121.} said, being blood, bile, spleen and phlegm, made the number of the strings [of the lute] four, in accordance with the nature of this fourfold principle; with the provision that they should only be arranged in four in order to strengthen and help one another. We asked "How could this be done?" And they said: "Every string is helped by another string so that when one of these strings breaks we find another to supply its place, thanks to the small number of strings on the lute. And they made it so.

But/

But this explanation is not permissible in our opinion, for every string has a division, (i.e. vibrating length ?) every division has a movement, every movement has a rhythm, and every rhythm has a law in the division of the modes. And it is not laid down that any string can take the place of another unless it is in the same category. But this is a difficult matter for anyone who is not conversant with musical theory; and the soundest [opinion] about the rule of the eight-stringed lute is that given by the authorities: "nothing can be taken away from the eight strings because they are founded on the law of the constitutions [of mankind] (imtizājāt); for the natural elements (tabā'i) are four and the humours are eight. The four composite ones are: Hot, dry; cold, dry; hot, moist; cold, moist. And the other four are: Hot, cold, moist, and dry." Such is a description of the eight constitutions, and this science is not difficult for him who has a knowledge of first principles; and the playing [of the lute] is easy to cultured men, but difficult to fools.

Now suppose that one of the people takes the lute and plays it with his fingers, tunes it properly, (lit. rules it in its place) and plays it in the well known way in the divided manner, (see Commentary.) so that its rhythm corresponds to the beat of the veins in the human body, stationary and moving; then those veins resound to that sweet note, and all the limbs are drawn to it so that there is no vein nor member nor joint which is not affected by the music. For [the lute is nearer to music than all the instruments, and it is the Prince of Music.

The meaning of the name ūd is derived from al-awda, i.e. the return, as one is accustomed [to say] "Perhaps the days of joy will return". Connected with it is a small lute with six strings called the Shashtah/

Shashtah(shashta) or Tarabrab whose law depends on that of the 6 Awāzāt "distributively"; that is that the rule of one Awāz is not the rule of one string, but that each string has [several] Awāzāt, the distribution depending on the twelve modes which are the parents of the 6 Awāzāt. (vd. col.98 in Introd.) The rule depends on the four-fold principle, and works thus:- 6times 4|= 24 which equals 24 qīrāt or 12 modes, each mode having 2qīrāt according to the law of the two rhythms which divide the modes. Such is the rule of the playing of the 6 strings in the Shashtā, (Note difference of form from previous col.) as against the lute.

Some have gone to excess in the lute and have increased its strings to the number of eighteen and more; but for that there is no foundation, because the eighteen are arranged according to the law of the twelve and the six, a fundamental arrangement and not merely an analogy. And if anything be added to these twelve and six, the playing cannot include it, and the music is wasted. We have already mentioned that|when there are few strings the music is gentle and sweet and fine and pleasant: but when there are many strings the sound is great, and they strike the instrument too violently. And if we were to explain [in detail] the playing according to the rule of the 18 strings, the explanation would take too long; so it is best to shorten it, since the meanings involved in the rules of the lute are many.

The best lute is the "firm lute" (ūd muhkam), but great difference of opinion exists about it. Some say that it is a lute made in individual parts, and subsequently joined together; they make it in separate pieces, then it is brought together and assembled, one piece to another so that it becomes a sound perfect lute with nothing lacking and with no flaw. The strings are mounted on its face (wajh)|equally [spaced] with no weakness. It was an accomplishment of the experts who

made it for kings because of its lightness when they were on a journey. So, going and coming, they carried it with them divided into separate parts, and when camp was made in any place, it was assembled for them without difficulty and became a perfect lute with nothing lacking, and it was played in their presence. ^{dear} Salmān

Al-Khwārizmī said: I asked Abu 'l-Ghāliya b. Sāmān what the ūd muḥkam was, and he answered: "I heard my elder and my example, the learned shaikh Ṣāliḥ b. Abdullāh b. Karīm Al-Nīsābūrī say: 'I asked a gathering of musical experts, all eminent men|in their art, about the nature of the ūd muḥkam, but none of them could answer my query. So I said "Is there anyone left besides you who has a true knowledge of this science?" They said, one and all "There is none left who has knowledge of it save one very old man, full of years, whose age is 130, and he cannot walk, and indeed can hardly move. He lives in Shushtar and his name is Hasan Al-Tūrīzī." So when I heard that, I set out in search of him, and made enquiry about him; and I heard of him. When I came to his house I found many people jostling about his door in crowds, seeking to get from him the knowledge which Allāh the Exalted had given him. So I sat down at a distance from them ¹²⁸ till they had all gone, and then I said to his servant "Tell him there is a stranger at his door who desires to see him." He went away for a space, then returned to me and said "Oh man, arise; for he has given you leave to see him." So I went in with him and saw a wasted old man, bent by old age and emaciated by decrepitude, reclining on a cushion set behind him, and sitting on something made of woven camel wool like carpets. Around him were a great number of books and with him youths who wrote down what he said to them.

'When I entered I greeted them, and they returned my greeting;
then/

then [the old man] lifted his head to me and said "Oh man, what do you
 130. desire? | I am ready to hear you, so say what you have to say." So I
 told him: "I asked a gathering of the masters of this art [of music]
 about the nature of the 'ūd muḥkam and none of them could give me an
 answer to my question. So I asked them to tell me of anyone who had
 that knowledge and they told me of your wisdom and excellence. So I
 left my people and travelled from my home on account of your wisdom:
 so [tell me], have you any information to give me on the matter, or must
 I return whence I came?"

'He said "My son, Allāh has accomplished your business for you,
 and has made its difficulties easy. Do you know what the 'ūd muḥkam
 is?" I answered "You know better than I." He said "My son, the
 foundation of it is four things which you must learn from me and pass
 131. on | from me, that in them you may find satisfaction and fame." I asked
 "What are these things?" He said "The 'ūd muḥkam is that lute whose
 wood is light, whose tone is delicate, whose strings are few, and
 whose form and contour are regular." ' "

It is agreed that when the wood of a lute is light, it is best
 and sweetest and finest and most excellent. Our predecessors in
 ancient times used to make it of the kinds of wood which were best for
 the instrument, the sweetest in tone, the strongest in sound, and the
 most enduring in use. They were beech (zān), elm (dardār), teak (sāz)
 and vine (mais). In them are four good qualities not found in other
 132. woods: beech gives a ringing tone | and takes a polish; elm gives a
 delicate tone and a mellowness; teak lasts for all time, and is
 impervious to moth-worm - and whatever wood you join with it is also
 safe from moth-worm - and has a pungent odour; as for vine - there are
 two words, mais (vine) and mās (diamond) the latter of which is a
 mineral/

mineral only found in the treasuries of kings; it has a strange quality, namely that with it one bores out various kinds of metals and jewels and gems -; vine wood has a quality not found in other woods. When the lute is made from [one of] these woods it has a powerful tone and a sweetness, a beautiful sound and a delicate note. But when these four woods are unobtainable, | others may be substituted for them, without however being as good in appearance or in performance; just as they substitute some for others of those who practise the art of music whether they know it [perfectly] or not.

133. [Here is] a story as related on the authority of Abū 'l-Fath b. Al-Mu'azzimī: he found protection at the court of the Caliph Al-Amin b. Al-Rashid, (text has b. Al-Ma'mun) but one day the Caliph was annoyed with him and he left the imperial castle in confusion, not knowing whither he was going. He entered a certain place and saw a cul de sac away from the streets, so he went into it. His ordained fate led him to the end of the passage where he saw a lofty house with stone built benches and doors of sandal-wood inlaid | with ivory and overlaid with yellow copper; on them were engraved verses of poetry. Abū 'l-Fath stood reading these verses, amazed at the beauty and skill of the building of that house, when behold, the leaves of the door opened and there emerged a young man of fine appearance. When Abū 'l-Fath saw him he hid from him in a corner where no one could see him; and he heard the youth say to his servant, "Go to the company and say (reading قَوْلٌ for قول) to them 'My master has prepared for you what is right, and the time is fitting for you. So hasten to come to him.' "

134. Abū 'l-Fath continued: so the servant went away for a time; then 135. he returned bringing with him seven people. When I saw them I arose from my place and went in along with them and remained as one of them. They/

They entered the house, and I with them; they sat down and I with them, the master of the house thinking that I was one of them, and they thinking that I belonged to the house. When all had sat down, dishes of food were brought to them and they ate, and I ate with them. They were served with dessert and I along with them, and they began to talk and to be sociable, so I also talked and was sociable; and all this time they knew nothing about me. Then drink was brought to them and they drank, and when they were satisfied they requested music. Whereupon the master of the house said "Gladly"; he struck with his hand 36 on the door of an anteroom, and the door opened. From it there came a girl fair and beautiful with a slender graceful figure; as though she were the full moon on the night of full moon, her beauty was peerless. She sat down among the men and produced a bag of smooth silk with two discs of Egyptian gold and two pieces of crimson silk. She loosed the strings of the bag and took out of it a lute made of wood, scraped and barked, fashioned with ivory and ebony overlaid with yellow copper and inlaid with red gold, having its projecting peg box stuffed with ambergris. She placed the lute in her bosom and leaned her breast 37 upon it, playing it with her finger tips and reciting poetry to its sound. He (the master of the house) began to sing with her, and she with him, so that she thrilled her audience and astonished the onlookers so that they said one and all "Never in all our lives have we heard or seen the like of this girl, nor better notes than hers, nor a finer art."

Now Abū 'l-Faḥ was sitting looking at her, considering her art; and she sang and thrilled the people and stole away their wits so that they were roused as never before in their lives, except by that girl.

AND/

And her master said "Have you ever in your lives heard anything better than this slave girl of mine?" They answered "We have not ^{138.}heard, neither have we seen anything better than the music of this girl, nor a finer art in all this age of ours." The narrator said: But Abū 'l-Fath sat silent not saying a word, and the [girl's] master said to him "You there, whom I see sitting silent, not speaking a single word, but looking at the girl, did not her art amaze you, and the music thrill you?" Abū 'l-Fath said "Her art lacks perfection and strength, and her notes lack delicacy and sweetness."

When the master heard that, he took the lute from her bosom and dashed it to the ground where it lay in scattered fragments, a piece in every direction so that the house was full of them. | Then he looked at ^{139.}his companions and said "When, according to your custom, you heap words upon me I think that you dislike my company or that my friendship is wearisome to you; so if you wish to leave me, it shall be so without such speech and without putting from among you a man who finds fault with my slave girl; for I paid for her 1000 dīnārs." When the men heard this speech, with one accord they rose up saying "By Allāh, we had no idea that this man was any but one of your people, for we have never seen him save when we met here just now." Then the master of the house said "Then this man is not with you?" They said ["No, ^{140.}by Allāh, and we know nothing of him." The master of the house then rushed upon him and grasped him by the collar, and the whole party came at him, intending to do him violence. When he saw them threaten him angrily so that he was in grave danger with no chance of escape, he said "Oh people, restrain your hands and do nothing in haste. If I give you clear proof of that [which I have said], you will forgive my offence/

offence and will not try to harm me again." They said "Very well." Then their anger disappeared and they watched him in silence to see what would be done.

He went to the broken shattered lute, collected it in its pieces, and fitted each piece to its neighbour, putting each piece in its ^{141/} place. He repaired it and stuck it together; then he fastened the strings on it so that it became a perfect lute, and immediately it was as it had never been before; he repaired it where it was broken so that there should not be any apparent fault or flaw in it.

Then he placed it in his bosom and played on it while the men listened to him in amazement till he made them imagine that the house was dancing and the walls swaying from the power of his music; such a fine art did he have. The girl too was astonished at him, amazed at the beauty of his art and the lightness of his fingers. He moved them over the lute, playing on the strings as though he was not touching it with his hands thanks to the agility of his hands and the skill of his art.

^{142/} When the men saw that they bared their heads before him and said all together "Oh my lord, we ask pardon of Allāh because what you said was true, and we take refuge in Him from the careless manner which we displayed; for we threatened your honour in ignorance of you. But now we know your rank and your position and which of the musicians you are, for we have never seen anyone who understood this art as you do, or this skill which Allāh has given you, except one man to whom we listen at the Caliph's court; and his name is Abū 'l-Fath b. Al-Mu'azzimī. But he is beloved by the Commander of the Faithful with whom he is in great demand, so that he never mixes with ordinary folk/

143. folk or approaches them. So how could it be that we should meet that man or see him? But by Allāh, he is [not] superior to you as a musician; (the Arabic is obscure and probably faulty here, but this seems the required sense); and now Allāh has sent us one to fill his place, and has granted us one to occupy his station without trouble or difficulty! When Abū 'l-Fath heard their words, he said "My friends, rejoice and be content, for Allāh has granted you what you asked and has given you what you sought. For by Allāh I am Abū 'l-Fath b. Al-Mu'azzimī. I used to have the patronage of the Caliph, the Commander of the Faithful, but during last night I have travelled hither from my home; and Allah has ordained my meeting with you and brought my abode near to you." Then 144. they all said to him "Praise to Allāh who brought near our meeting with you and who comforted us at the sight of you. So play among us as you were wont to play at the court of the Caliph." / So he sat in 145. their midst playing the lute as it lay in his bosom, striking it with his fingers.

B. Commentary.

○ The lute, the so-called "Prince of Music" (col. 124) throughout the Near East, has for long been the subject of endless thought, conjecture and ingenuity by both Oriental and Occidental writers. As Dr. Farmer remarks (Studies in Musical Instruments II 88)--"we know almost every technical musical detail, i.e. the number and position of its strings as well as the number and precise location of its frets--"; perhaps it is this fact which has led to the reluctance of later Arabic writers, such as the author of the present text, to waste time and space on a detailed description of the instrument, but to concentrate/

concentrate rather upon its cosmological and numerological associations. One of the most popular of these fancies is the parallelism, often very elaborately worked out, between the lute and the human body in some aspect. For congruity of shape it is perhaps sufficient to cite the rather gruesome story of Lamak b. Matūshalakh to be quoted below in comparison with the tale given here of Al-Fārābī. The technical vocabulary of the lutenist also bears this out; مِنْط the bridge tail-piece of the lute is also the shoulder blade, أَنْف the nut is the ordinary Arabic for nose, and so on through a list of terms such as وجه, عنق, بطن etc. The doctrine of the ethos systematized for the Arabs by Al-Kindī is surely no more than the same conception in a broader and more subtle light; as our present author remarks (col. 12) "the older authorities used to derive the science of music from the science of [human] nature."

That simple sentence contains the key to the treatment of the lute in this section of the MS, for what we have here is less a description of the lute than an interpretation; indeed such description as does occur is purely incidental and totally subordinated to the primary thesis, viz. the working out of a numerological system of parallels between the instrument, the human body and astrological theory. The stamp of Pythagorean philosophy is plainly to be seen not only here but throughout the whole MS, the continual insistence on number, the doctrine of the ethos, the therapeutic value of music and so on. The story, related at the end of this section, of Abū 'l-Fath b. Al-Mu'azzimī is typical of our author, interested less in the instrument and even in the music it produces than in the psychological effect which it induces. The climax/

climax of the tale is not the skill of Abū 'l-Fath in reassembling the shattered lute, nor even his masterly handling of it in playing, but in the spiritual alchemy which can transform the raging lion to the sucking dove; the author's thesis is, with Congreve, that "Music has charms to soothe a savage breast." The whole treatment is based as on a text, on the sentence of b. Khurdādhbih (Mas'ūdī VIII, 99) "The lute --- was made by the geometricians in accordance with the form of human nature; if its strings are in agreement with the celestial numbers then the natures are parallel and music is produced, which music is the sudden returning of the soul to its natural state." In spite of this tendency however there are several interesting facts to be noted concerning the lute as here presented.

With regard first to the vocabulary of the section, it is in the main straight-forward. The lute generically is referred to by the ordinary Arabic word مُرود, and three species of lutes are mentioned specifically, the 'ūd muhkam, the shashtā (or "shashṭāh") and the tarabrab. There is no trace here of any of the other problematical words for lutes which are such a puzzling feature of many Oriental lexicographers, such as kinnāra, mi'zaf, kīrān etc.; even the Persian barbat is not mentioned.

To deal in the first place with the common and general word 'ūd, it is accepted in this MS without question as the standard word for the lute family. As Curt Sachs says (Reallexicon der Musikinstrumente: s.v. Laute) "Lute in the widest sense comprehends all instruments where the music comes from one neck and one sounding board -- Lute in the narrow sense has such characteristics as a pear shaped body --- a flat surface pierced in the middle --- a broad neck --- ending in a back bent peg box with pegs set in the side. The gut strings are attached/

attached to a cross-bar on the bottom half of the sound chest." It is notable that our author takes the same point of view; 'ūd is used when he speaks in general of this class of instrument, the other terms are used when he wishes to specify a particular type of lute. One curious feature of his use of 'ūd is the derivation of the word from the verb

عاد to return, or more particularly from اُنْحَوْدَة one form of the verbal noun; in support of this remarkable etymology is quoted the proverbial expression (كَمَا عُوْدُ - as one is accustomed [to say])

"Perhaps the days of joy will return." What connection that may have with the lute is not explicitly stated, unless the phrase quoted is only part of a longer proverb which contained a play on the words عُوْد "lute" and تَعُوْدُ "will return."

The real derivation of the word عُوْد is of course unknown, but most probably as is generally accepted, it comes from عُوْد - wood. Dr. H.G. Farmer (Studies II 89) states that it " -- was called Al-'ūd because it was made of wood, the name having been adopted when the wooden-bellied lute superseded the skin-bellied lute." But Dr. Curt Sachs in his History of Musical Instruments has a more interesting theory; he believes that the lute owed its origin to the primitive musical bow of the savage, and that as عُوْد in Arabic means primarily "pliable wood", a "rod" or "supple stick", the word applied first of all to the bow and as the lute advanced and the sound chest was incorporate in the structure the name عُوْد still attached to it. This is interesting and seems highly probable; the lute, and for that matter all stringed instruments would originate presumably in such rude forms as the musical bow, and it is more likely that the name grew with the instrument than that it should be arbitrarily applied to a late development./

development. Moreover a parallel is presented by the قَضِيْب which besides being the ordinary Arabic word for "stick" or "staff" was a musical instrument of some kind, according to Sachs one of the wood wind family, according to Farmer a percussion instrument.* A modern parallel may perhaps be seen in the saw, utilitarian and musical.

As to the varieties of lutes mentioned, the one of most importance would seem to be the ‘ūd muhkam; I have been unable to find any other occurrence of this phrase which might throw light upon its significance, so we are thrown back upon the internal evidence of the MS. Unfortunately this is not very satisfactory as the author himself confesses that "great difference of opinion exists about it." Two theories are propounded :-1. That it was a lute capable of being taken to pieces to ~~to~~ facilitate transport. But why should this be necessary? The normal lute was not of such proportions as to make it unwieldy to carry, especially in a royal caravan laden with much heavy baggage. It seems likely, then, granting the validity of this explanation that the ‘ūd muhkam was a specially large instrument, something after the style of the theorbo, which for convenience could be easily dismantled and packed for transport. This is, so far as I am aware, an unfamiliar idea to Eastern writers on music, though no less likely to be correct on that account. In addition there is, consciously or unconsciously, a shadow of the same idea in the story of b. Al-Mu‘azzimī taking a shattered lute and piecing it together again. I recollect to have read a similar story told in Arabic of another musician, but have been unable to trace it again.

2. That it was a lute distinguished by excellence/
* Farmer is undoubtedly correct. Cf. Al-Ghazzi in JRAS 1901 pp 210 and note, 214.

excellence of construction and tone. In this case, any lute could be an "‘ūd muḥkam" if it were sufficiently well made, and in view of the context this seems unlikely; from the phrase itself and its use it seems more probable that the ‘ūd muḥkam was some specific species of instrument; ‘ūd muḥkam is obviously a technical term, although Dr. Farmer in an earlier treatment of this passage (Studies, II, 96ff.) has overlooked this fact, taking the phrase merely as "lute". But the Arabic of col. 128 كُنْتُ عَمْرَ الْعُودِ الْمُحْكَمِ مَا عَوْ and col. 130 أَتَدْرِي مَا الْعُودُ الْمُحْكَمُ make it quite positive that the phrase must be understood in a specific sense.

It seems therefore that the first explanation is to be preferred; the Arabic phrase عود محكم itself provides little assistance to either theory. حكم IV means "to do anything well" or "to make anything firm, a meaning borne out by the tenth form, "to be done thoroughly, made strong". The passive participle IV used in this phrase could easily and without straining the sense, be applied to either theory.

Again, reference is made to a small six-stringed lute known as the "shashtah" or "ṭarabrah". For the latter of these names, see Farmer: Studies II, 97, n.1 where the writer is dealing with this passage. About shashta (or shashtah, since the ta marbūta if such it is, is not pointed) Dr. Farmer has nothing to say, save that it is a Persian word. It would in fact seem to be either an error for, or an Arabicised form of, shashtār, meaning six-stringed. (Pers. ششنت, six + تار, string.) Sachs (Hist., 257) quotes several analogous forms such as dūtār "two-stringed". A shashtā (shashtār) is mentioned by Evliya Chelebī Effendī (17th. cent.) in his "Travels" as being a fretted lute with six metal strings. It would seem from this MS that there was a difference/

112.
difference between the ordinary ‘ūd and the shashtā, probably in tuning, since the smaller instrument is described as being dependant on the law of the six Awāzāt as against the twelve principal modes, "which are the parents of the Awāzāt." This interesting point has already been dealt with in the introduction to the present work.

One other term remains to be mentioned in the discussion of vocabulary; the term بَنْجَكَة or peg box, used twice in this chapter is on both occasions spelled wrongly or deficiently. In column 136 it is written بَنْجَقَة with ق in place of ك and without pointing in the ج, while in column 116 the form is بَنْجُو with point only on the ن. In this latter occurrence it might even be doubtful whether بَنْجَكَة were intended, but the context makes it inevitable; the parallelism here being adduced between lute and body demands the peg box to correspond to the human foot. (cf. Mas‘ūdī VIII 89). The form بَنْجَكَة is to be found in b. Al-Ṭaḥḥān and another form without the ta marbūta but with compensatory lengthening, بَنْجَاك occurs in Villoteau: Description de l’Egypte i, 850.

The invention of the lute is here ascribed to the ubiquitous Al-Fārābī in a story which for macabre fascination rivals the similar story in b. Khurdādhbih, referred to above. As the latter has not, I believe, been translated into English, I take this opportunity of rendering it here for comparison with our author's tale of Al-Fārābī. The Arabic text is taken from Barbier de Meynard's edition of Mas‘ūdī's Murūj al-Dhahab viii, 89.

There are many opinions (as to who invented the lute) but the first man to invent it was Lamak b. Matūshalakh b. Maḥuwīl b. Ibād b. Khānūkh b. Qāin b. Ādam (cf. Gen. iv 17, 18). The reason was that/

that he had a son to whom he was exceedingly attached; the son died and Lamak hung his body on a tree. The joints of the body fell apart until nothing was left except the thigh, the shin, the foot and the toes; so Lamak took a piece of wood, shaped and glued it and made the body of the lute like the thigh, the neck like the shin, the head like a foot, the pegs like toes and the strings like veins. Then he played on it, singing mournfully as the lute sounded.

It will be noticed that there are very marked similarities between this and the story told in the present MS of Al-Fārābī's invention of the lute. The same physical aspect of the doctrine of the ethos is apparent in both, though slightly different in detail; b. Khurdādhbih works out the parallel between the lute and the human leg, while the Kashf al-Humūm is concerned mainly to find justification in the ten veins of the foot for the ten-stringed lute. It seems, in spite of this, very probable that both tales are dependant on a common tradition and that the emphasis has merely been shifted to suit the author's immediate need.

Again it is clear that such a tradition ascribes the lute and indeed other instruments of the same family to a Semitic source. In b. Khurdādhbih, for example, the ṭanbūr, an instrument of the same class as the lute is attributed to the "people of Lot," the inhabitants of the cities of the plain; while in this MS the rabāb, another closely allied string instrument, is referred back to a certain Su'dā bint 'Amir Al-'Absī. It has been claimed that Abū 'l-Fidā' in his History attributes the lute to Shāpur I (241 - 272 A.D.) the Sassānian king who favoured the prophet Mānī, but the verb used of his "invention"/

"invention" اِسْتَخْرَجَ is rather to be used of introduction than invention: both in Mas'ūdī and in the Kashf al-Humūm the word for invention is أَوَّلُ مَنْ صَنَعَ اِتَّخَذَ. The tenth form of خَرَجَ on the other hand is used of transferring or of translating a book, a term which would very naturally be used of introducing something hitherto unfamiliar. It would be more correct probably to assume that Shāpūr introduced a formerly unknown species of lute, just as, according to the Kitāb al-Aghānī, the musician b. Suraij introduced a Persian form of lute to Mecca in later days. The bulk of tradition in any case would give to the lute a Semitic origin, though it is true that b. Khurdādhbih (Mas'ūdī viii 99) states that "according to most nations and the great part of scientific opinion the lute is Greek, made by the geometers in accordance with the form of human nature." But this is susceptible of easy explanation; it was not the lute but its later accretion of theory and doctrine that was Greek. Greek theory was overlaid on Arabic practice, assuming an ever-increasing importance until native Arab music, theory and practice, was dwarfed into insignificance, and all seemed to be the legacy of Greece.

Finally the same tenour is to be noted in both stories, and with them in the story in this MS. ascribing the rabāb to Su'dā bint 'Āmir. In all there is the same underlying motif, the connection with death, sorrow and mourning, worked out in a morbid detail and with a ghoulish exactitude. In itself this fact suggests powerfully that these stringed instruments were indigenous to the Near East and that originally they were connected with mourning. This is the more cogent an argument when the strongly vocalic nature of Semitic mourning is borne in mind; indeed, according to Lane (Mod. Eg. ch. 28) mourning women/

women at a death in Egypt still bring with them their tambourines to accompany their ululations. And it is but natural that music and musical instruments should be associated with death; Combarieu (La Musique et la Magie) has shown, if not the origin of music in magic, then at least the close connection between the two, and among primitive peoples death is inevitably the source of endless magical rites, of which music would very naturally form part; particularly perhaps the music of stringed instruments whose flexibility of tone would most closely approach to human wailing.

Of the actual construction and description of the lute we are directly told very little, though indirectly we can glean from the section a good deal of varied information. This feature, although disappointing, is no more than in line with the general treatment throughout the MS, almost totally lacking in constructional details and with no description. We are told however that the lute should be light in construction in order to obtain the best results. Al-Kindī, the Ikhwan al-Safā', and b. Ṭaḥḥān (quoted in Farmer: Studies II 91ff) agree that the wood should be light, stipulating further that it should be cut very thin, but the Kanz al-Tuhaf allows wood "of medium weight." In our MS four woods are quoted as being particularly suitable, viz. beech, elm (دَرَزَن for دَرَزَن), teak (سَلَج for سَلَج), and vine. The most doubtful of these, from the point of view of translation, is the third; Farmer in his previous treatment of this passage has taken the word سَلَج as the equivalent of شِير and of سَلَم which he takes to mean walnut. سَلَم however is usually ebony while شِير is given in the dictionaries as "wood for making bowls."

It seems simpler and more satisfactory to assume that the writer

intended/ † Since writing the above I have discovered that Dozy in the Supplément actually gives دَرَزَن as meaning "elm", thus confirming what was originally intended.

intended ج ل teak, a wood which certainly is not particularly light, but which does fulfil the condition of being impervious to moth-worm (col. 132); indeed it resists even white ants and may reasonably be said to "last for ever," while its heavy oily smell completes its suitability to the description. In connection with vine wood, the author inserts a completely irrelevant note on the philological similarity of ميسر vine and ماسر diamond, subsequently forgetting to specify the particular quality which vine wood possesses over other woods.

○ About the strings we are told that the lute may have eight, ten, or twelve; had this MS dated from classical times it would have been tempting to speculate that these numbers represented a four-, five-, or six-stringed with double strings, a well-documented arrangement. But we are specifically told that each string has one mode (col.114); hence the best lute had twelve strings to correspond to the twelve principal melodic modes. Now if this sentence means anything more than mere numerological jargon, as surely it must, we are forced to conclude that the lutes which our author had in mind were mounted with eight, ten, or twelve strings each of different pitch. Indeed the theory of double (or possibly quadruple?) strings seems to be mentioned in cols. 120, 121, and dismissed as being impracticable. If this is the case, it points very definitely to a late date for the MS, a period of the much fuller development of the lute. Reasons are of course adduced for each number of strings; twelve is desirable because there are twelve principle modes (the shashtār with its six strings corresponding to the six Awāzāt); ten is good because there are ten veins in the human foot; and eight is justified because it can be manipulated/

manipulated by curious numerical juggling to give a satisfactory result. Nothing is said of the thickness of the strings or of their material, save in the section on the twelve stringed lute where we are told that "each string has thirty threads." We may justifiably suspect that this is an ideal arrangement, invented in the interests of numerical theory, rather than a scientific fact. The strings of the lute are well known to have been of different thicknesses, even in the four-stringed lute, and the more necessarily in a twelve-stringed instrument. Al-Fārābī in the Kitāb al-Mūsīqī al-Kabīr, dealing with the ṭanbūr of Khurāsān, certainly speaks of strings of the same thickness, but the ṭanbūr had only two strings, not twelve.

The shape and appearance of the lute are briefly dealt with; the belly is like the human belly and the back like the human back, with a peg box bent out at the back like a human foot. This latter fact is quite in order, the peg box bent back at a right angle being characteristic of what Sachs calls "the short lute" i.e. the pear-shaped body with vaulted back, medium neck and bridge tailpiece. But the phrases descriptive of the body are difficult; normally the "belly" of the lute is the flat surface on the top, while the "back" is the vaulted soundchest. The human analogy here is awkward, to say the least. From the story of b. Al-Mu'azzimī we learn that his lute was profusely ornamented, though this is deprecated by the classical descriptions of lutes; it was overlaid with copper, gold, ivory and ebony and had its peg box stuffed with ambergris; as such an instrument deserved, it was carried in a silken bag ornamented with gold rings. One more detail about the lute may be gained from the section on the psaltery (col. 171); it had the usual small round holes/

holes on the flat "belly" the progenitors of the "f-apertures on our violin, to allow egress to the sound.

Two small, yet by no means unimportant facts are mentioned of the method of playing the lute. In cols. 137, 141 we are told that the lute was played with the fingertips, apparently without a plectrum; indeed the plectrum (zakhama) does not occur at all in this section, its mention in this MS being almost entirely confined to that chapter in which we are most surprised to find it, chap. 2 on the Mūsīqa. The lute apparently was played with fingertips and with plectrum, although Sachs (History, p. 254) confines its technique to the latter. The other point occurs in col. 123, where we find the lute played in "the divided manner" (bil-'amali 'l-maqsūmi). What was this "divided manner"? We have no more detailed information here, and I have been able to find no other use of the phrase in this context, but it might reasonably be surmised that the reference is to the upward and downward beat of the fingers on the strings of the instrument, giving alternately a light and heavy beat to the rhythm of the playing. Cf. the use of the Greek word δίχα e.g. in Athenaios (183 D) κατὰ χεῖρα δίχα πλήκτρον ἔφαλλε.

The chapter on the lute closes with a sketch of a lute-player holding his instrument. It is the conventional short-necked lute, with the back-bent peg-box. The drawing is badly executed but the pear-shaped body can be seen with four sound-holes on either side of the strings. There are six strings and eleven pegs, presumably in error for twelve, the strings being tuned in pairs.

THE HARP

A. Text.

(Cols. 145-164.)

145.

The harp is of two kinds, the Persian harp and the Egyptian harp. The former has only one face which is played from both sides; it has no covering, and nothing between the strings. It is a very old instrument invented by the earliest of races. The Egyptian harp has two faces and is a new instrument invented by the Egyptians; in addition it has a wooden shutter passing between the strings, put there for three reasons. First, in order that the fastening of wood to wood should increase the strength [of the construction] since one part grasps the next firmly and can only be separated from it with great difficulty (lit. after a long time.) Second, in order that the harpist's hands should be hidden from the view of the spectators, being seen from one side, but not from the other. Third, in order that the striking of the string on wood (see commentary) should give a ringing tone different from the striking of the string alone; for when it is struck [alone] it gives a soft weak note.

146.

147.

The harpist uses both hands in playing, and this gives rise to two names; the playing of the right hand is called "strong" (tamkin) playing because in playing the right hand is more powerful than the left, and the man who plays with his right hand is always established (mutamakkin) in his playing as against others, the left handed player not being thus established. For the right hand has greater endurance and is stronger in action, and has much greater force. The playing of the left hand is called "assisting" (mu'in) playing, because in this type we have the right hand clearly marked while the left hand assists it in playing. So when [the harp] is played with the left hand along with/

with the right, the playing is called assisting playing, because the primary playing is done by the right hand while the left hand helps it. This left hand playing is called assisting playing because the left hand assists the right, and because the right hand does not assist the left in playing, it being stronger in action and having much greater force and more endurance than the left, which is weaker in effect and more lacking in playing, with no strength of performance owing to its weakness and its few movements. In truth the meaning is, that the right hand is lusty and masculine, while the left is feminine; and Allāh has favoured the male above the female, as though the left hand were to have one favour only, while the right had two. So the right hand is valued at $\frac{2}{3}$ [of the whole] and the left at $\frac{1}{3}$. (Cf. Qur. IV, 12.)

When the left hand is specified in preference to the right, the meaning is that the left hand does the playing and the right hand the holding; then the rule alters in the two types of playing, their meanings remove and their names change so that the left hand playing is called "specified" (ta'yīn) playing, because its playing is clearly marked, in preference to that of the right. The result is that the original playing (i.e. with the right hand) becomes ineffective, and is transferred to the left hand, the right hand playing leaves the right hand, its name is deleted and its playing is termed assisting playing; because the left hand is specified in preference to it, thus retaining the playing, while the right hand assists it.

So the playing is divided equally between them; for the right hand [originally] represents $\frac{2}{3}$ and the left $\frac{1}{3}$, but the right loses $\frac{1}{6}$ owing to its weakness in this place, while the left gains $\frac{1}{6}$ owing to its strength in this part, and owing to the weakness of the right.

Thus/

Thus the playing rests equally with the left and right hands, and we
 150. never favour the left above the right. | But among adventurers and men
 of war, though not in singing and playing, they say that the left hand
 is the more effective and the more courageous, because in a fight it
 parries the blow before the right hand rushes in to strike, and because
 it meets the weapons alone before a blow is struck against them. And
 one who repels a blow from someone else, when unarmed, is braver and
 stronger than he who rushes, armed, to strike for himself. But this
 rule carries little weight in the matter of striking strings because
 they are governed by conditions and meanings comprehended by the rules
 of the art [of music] concerning the number of strings and the use of
 them.

The number of strings in the harp is not specified; some make it
 151. with 100 strings, | others with fewer. When it has many strings, it has
 a loud sound and takes much playing, while when the strings are few,
 the division is sound and the playing easy. The best is that which
 has 60 strings in two divisions, forming two cycles each of 30 strings.
 From each 30 subtract 6 for the number of the 6 Awāzāt, so that each
 152. part is left with 24 which is what applies particularly to each of the
 strings, which thus form 24 qirāt of music. The strings are also
 arranged according to the law of the 12 modes already noticed; each
 mode has two parts, and therefore 12 | modes have 24 parts. If to each
 cycle, which you divided into 24, you add 4 more, corresponding to the
 fourfold principle, each cycle has 28, corresponding to the 28 Mansions
 of the Moon so that the rule is in accord with the universe also.

If you divide the instrument into 48, (i.e. if you make it with
 48 strings) each cycle has 24, and there remains nothing to give rise
 to/

to the 6 Awāzāt; so the rule becomes that each mode of the 12 corresponds to a string, an arrangement which is better than any other, since each mode has two parts among the strings, one for the khafīf and one for the thaqīl. Or again if you divide it into 24 strings in two cycles, that division is balanced, since each cycle consists of 12 modes, and the rule for the whole harp corresponds to the 24 qīrāt, the same idea as in the mūsīqa, which has 24 strings in two cycles, each having 12 modes according to the number of the 12 Signs of the Zodiac which also form 24 qīrāt.

This type of division leaves nothing over, and has no place for the derivation of the Awāzāt; but their rule appeared in the principle based on their relation to the first division into 60 (col. 151.) That is that you add to the 24, which you have, the fourfold principle, thus giving 28, corresponding to the number of the 28 Mansions of the Moon. But the derivation of the Awāzāt is lacking in these [other] divisions.

This is the origin of the use of the harp and all the other stringed instruments; they depend on the four elements of the human body, so that the nature of the string corresponds to the physical nature; the result is pleasure, and excitement is produced without trouble, and every time the playing gains force this excitement becomes stronger, a fact which was noted by the theorists. (ʿarbāb al-asl).

The first man to make the harp was Shahriyār b. Khāqān the Persian, and he named it "jank", three Persian letters which in Arabic mean an instrument but which in Persian are explained as "beating" (zakhm), because it requires a strong beat when it is played and/

and because it produces a great volume when the strings are violently moved. When Al-Mu'izz (first Fātimid Caliph of Egypt. A.D. 969) first came to Egypt and conquered it, they came joyfully to meet him and congratulate him, accompanied by musicians who played in his presence on all the instruments. He listened to them and considered them for a long time, then said to all of them "Be silent except for the harpist" and to him he said "Play!" So they remained silent while the harpist continued playing, khafīf and thaqīl, in which the beat of the harp fitted the beat of the veins, stationary and moving in the human body; [that playing] healed the anxiety of Al-Mu'izz, and made him long for excitement and shake his head. He asked "What is the name of this instrument?" They told him "It is the Persian harp", and he said "It has left nothing else in the world of music; its playing excites and awakens desire, and it can be delicate when the singer is silent and the harp plays [alone]." The people of early times spoke much about the harp, but [other] instruments of this age have superseded it so that it has fallen out of use and little is heard of it among men, although it is the noblest and strongest of all musical instruments.

So it is told of one of the Kings that he had a nephew who loved recreation and music; these things his uncle had forbidden him, but he would not abstain from them. Now one day there came to the King, envoys from another similar King who had a greater palace, was stronger and had more wealth and followers. He kept a hundred musicians who sang before him night and day without ceasing, and he never tired of their music. He also kept five hundred slave girls who played lutes and tambourines, harps and flutes, and all kinds of musical [instruments]; of their strains he never wearied night or day. So when the envoys came/

came to him, the King took them to his nephew's house; that night they heard sweet music, and experienced great pleasure and excitement, and they imagined that that sweet music came from the royal palace, not knowing of the King's nephew.

Then the next day the King received them, paid them honour, and entreated them kindly and with friendship. He asked "Did you spend a pleasant night?" and they answered "[We spent] it in luxury, with wonderful melody, and we heard such music coming from your palace as confused our wits and perplexed our minds. By Allāh, Oh King, indeed you live in luxury!" When the King heard that, he looked at them and smiled; then he said "That was not in my palace, but in a palace nearby, belonging to my nephew who loves music and desires sport night and day, never wearying of amusement and recreation. Indeed we have forbidden him these things, but he cannot restrain himself from them." They asked "Oh King, why are you not interested in music?" He said "Never in my life have I had experience of it." Then they answered "We are amazed at how your natural intelligence has sunk to the level of the beasts." He asked "How is that?" and they told him "Because you have denied yourself the pleasure of music, so that no desire stirs you, nor does any thrill touch you; your heart is dying, and pleasure is far from you; your care is great and your joy little. We have seen Kings very different; and indeed our own King keeps a hundred musicians, while in his palace are five hundred slave girls who play all kinds of musical instruments. Yet [even] there we have never seen or heard the like of what we heard yesterday."

Then the King said "Bring me my nephew!" and when the latter stood before him, "Were there those in your house yesterday who were singing?" /

singing?" He answered "There were; they were four, a harp player, a tambourine player, a psaltery player, and a flute player." The King said "Bring them to me!" and when they stood before him, he said to the envoys "These are they who were singing yesterday." They said "We wish to hear them." So they commenced to sing, each one alone, and the King listened to them, and the envoys and all who were present.

161. All were amazed at them, so that those who stood by were charmed, and, when they heard them, the people said "Indeed these men have [produced] a wonderful thing and a beautiful sound." The King said to them "You have charmed us" and they answered "Who is there who remembers and does not desire it? But as for you, Oh King, music has never moved you." He said "No, nor do I know what this 'music' is."

Then the harp player said "Oh King, if I charm you, and delight your heart, and bring you pleasure till you know what music is and till you enjoy it, so that the very memory of it makes you desire it; if I do that, what will you do for me?" And the King said "I will give you an immense sum of money." He said "Then let us fix

162. conditions between us" "What conditions?" "That you will not withdraw from what you say." So they made an agreement to their mutual satisfaction, and then the harp player said "Oh King, sit in your place on your throne as you are accustomed. Do not change or move your position, but watch how the art of music is managed."

So the King sat in his place, and the harpist commenced to play his harp; and those who were present listened to him until they imagined that they were on a ship in a stormy sea, from the power of the music; and because of that music they could not control themselves. As for the King, he sat digging with the ankle that was under him until/

until it left its mark on the couch beneath; he did not speak nor move
 /63. from his place. | So that those who were there said. "Of a truth we
 have not seen this King change [his position] or move from his place."
 Then the harpist said "There is no power and no might save in Allāh
 the Exalted, the Great." And he played [again], reversing the playing,
 and he changed his notes, producing others, and he altered his beats,
 using others. Then he played more violently, and then more lightly,
 singing slowly. So he continued till his playing was very powerful,
 and Allāh gave him assistance and help. The music gripped the King,
 and he experienced pleasure such that he could not contain himself,
 and such that he saw what he had never before seen; so that he almost
 died by reason of his joy, and his seat was worn away from under him.

164. Then when the music was finished the King said "Now show me how
 you have charmed me." The man said to him "Move from your place till
 I look at it; and if there is no mark for me to see, then I have been
 worsted by you." So the King moved from his seat, and the man looked
 at it; and the couch under the King was indented with the mark of his
 ankle. Then the King said "Great is Allāh; by Him, time after time I
 nearly died for joy, by reason of the rapture which came upon me, and
 the music which I heard." The man said "This is music which we have
 studied and learned." So the King gave him a princely sum, saying to
 him "Sit in my presence and play your harp that I may hear." So he
 sat and played it in his presence.

B. Commentary.

This section of the MS is the more interesting because there is
 extant comparatively little in Arabic literature on the subject of the
 harp./

harp. The treatment of this instrument, one of the finest as well as the oldest of all musical instruments, (we have proof in Mas'ūdī III, 93 that its use at Mecca was anterior even to that of the lute) forms a good commentary on the power of Moslem religious law. For although the kinnōr of David is accepted in the Old Testament unhesitatingly as a "religious" instrument (cf. Pss. 33, 57, 81), although among the Sasānians, the vān had its place in the royal orchestra, (cf. the Tāq - i - Bustān reliefs) among the Arabs the jank carried a flavour of immorality, of sensuality and luxury; its associations were erotic or alcoholic, or, generally, both; indeed during the times of the early Caliphate the word صانجة or female harp player had come to mean a lady of very easy virtue. Nor was this a new thing in Arab society; it is surely more than a coincidence that Al-A'sha Maimūn b. Qais the pre-Islāmic poet was celebrated for three things, his amatory affairs, his intimate descriptions of wine parties, and his love for the harp, so great the latter that he is called "the harpist of the Arabs." His famous lines, translated by Nicholson (Lit. Hist. p. 125) bear witness to all three things.

It is interesting in this connection to compare a few lines from Husrau ut-Retāk, 65 published by von Stackelberg in the Vienna Oriental Journal 17 (1903) No. 9. They give a very similar picture of the convivial use of the harp:

With the maiden who plays the chang excellently, when her voice is high and sweet and she has a facility in that art; and with the player of the vin in the great banquet hall, no entertainment can compete.

Incidentally this casts some light on the difference, previously noted by/

by Dr. H.G. Farmer (Studies II 74) between the vīn (van, von, or vun) and the chang. Perhaps it was that the vīn, the lower sound chest harp, was heavier and more suited to the male musician than the lighter chang. But for our purposes here it is sufficient to notice the traditional association of the harp with feasting and drinking. The fact too that it was a favourite instrument for women did not lend it acceptance in the eyes of the strict, to whom it had a distinctly unsavoury influence.

Against such an influence the Moslem legists set their faces uncompromisingly; music was banned, and most especially were such musical instruments proscribed as incited to desire; the Shāfi'i school specifically ban the 'ūd, jank, and nāy for this reason. (Al-Ghazālī: Thya 214.) The result was inevitable; the instruments did not go out of use, but they "went underground" so to speak, and flourished in obscurity, until a later age brought a relaxation of the rigour of the legal code in practise if not in principle. So it was with the harp; we find it in use still in the time of Evliya Chelebī (17th. century) and even before that it is fully detailed in the Persian Kanz al-Tuhaf of the 14th. century. A similar argument has often enough been formulated against the saxophone in our own time, but in spite of the fulminations of over-rigorous moralists, the saxophone retains and even seems likely to increase its popularity. None the less our author tells us (col. 156) that the harp had by his own days been superseded by other instruments and was seldom if ever seen, possibly owing to its growing complexity and cumbersome size.

The vocabulary of this section is, on the whole, straightforward; two kinds of harps are mentioned, the 'Ajami or Persian, and the Misri or/

or Egyptian, and a detailed discussion of these will be found later in this commentary in dealing with the description of the instrument. The word used for the harp is جند, one of two words commonly used of this instrument in Arabic writings. It is recognised as usual as a Persian word, but the etymology given by our author disagrees with the normal explanation; he says that the three letters جند refer in Arabic to the harp as an instrument, but in Persian are explained (tafsīr) as "beating." Further he explains that this name was given to the instrument because it requires a great deal of physical effort in playing. Now this is possible without straining either the Arabic or the Persian words: the Persian letters چ and ج are both transliterated by the Arabic ج, just as the Persian ک and گ both become Arabic ک; as a result the two Persian words چنگ and جنگ both appear in Arabic as جند. The first of these is the generally accepted derivation for the name of the harp; it means "bent" or "crooked" and describes adequately the humped back of the harp with the upper sound-chest. The form چنگ is a root meaning to fight, strike or beat (vd. Vullers s.v.) and may be equated with خم; from which comes the Arabic خمة; used commonly in this MS for a plectrum, an etymology which would be just as suitable as the traditional one. But in spite of this suitability it is to be remembered that the writing of the name in Persian and Turkish literature is always of the form ^{chang} چنگ, and the probability is that our author, being little acquainted with Persian, has confused the two words in his effort to find a reasonable derivation.

It is unfortunate that in this treatment of the harp we have no suggestion of any name other than jank. There is not the slightest reference/

reference even to the term صنج which is still more common than in Arabic as the name of the harp. It is to be regretted also that our author in his treatment has not seen fit to cast some light on the vexed and doubtful questions of the other allied instruments of the harp family; the kinnāra and its relation to the Hebrew kinnōr, the sambuca and the wann, the kaithar and the Welsh crwth, these are problems on which some authoritative guidance is needed, and we can only regret that that guidance is not here.

In col. 146 line 5 there occurs a curious phrase which I have not translated literally and therefore give here in full. The Arabic runs توتيع الخشب اذا نزل عليه الوتر يعطي لرنة literally "The taudī' of the wood when the string comes down upon it should give a ringing tone." The meaning of توتيع is very far from clear; normally it signifies a signature or seal put to a decree, or, by synecdoche, the decree itself; a metaphorical reference of this meaning is not impossible in the present context - "the characteristic note of the wood." The same meaning may perhaps be obtained from a secondary signification of توتيع as "opinion." On the other hand it is more probable that توتيع is an error for some other form; for although this second form verbal noun is unknown to the musical vocabulary, other forms of the verb are not. وَقَح, for instance, means both a blow and the sound of the blow, a meaning which would fit very adequately here, and ايقاع is well known as meaning rhythm; but اوتع is also used of tuning instruments, and ايقاع is given in Hava as "harmony of voices." We might therefore tentatively render the phrase as "the resonance of the wood struck by the string."

In col. 152 lines 9 and 10 there occurs what is surely an error in/

in the text. The MS reading has كُلَّ جزءٍ له نغمين "each part has two modes." As the sense obviously demands the opposite, I have altered the text to read accordingly.

Col. 155 line 6 contains the anomalous form صغى ; in itself meaningless, it might be intended either for صغَا to lean towards, or أُصغى to listen to. I have preferred the latter reading as being more in harmony with the sense.

The invention of the instrument is ascribed to a Persian, Shahriyār b. Khāqān, and no reason is given for its invention, nor is any story attached to it, in sharp contradistinction to the other instruments treated of in this MS. The importance of this story of invention lies in the race, not in the name of the person mentioned; Khāqān is, of course, the full form of Khān the Persian and Mongol honorific title, and the only Shahriyār known to history is the usurper who seized the throne of Persia on the death of Khusrau Parwīz in 628, (Malcolm: History of Persia I 136) a most unlikely inventor for any musical instrument. But although the personal name is but a figment, it does not necessarily follow that the tradition of Persian invention is the same. Indeed it is highly probable that it retains a truth overlooked by other writers. Evliya Chelebī e.g. attributes the invention of the harp to Pythagoras, just as Al-Shalāhī states that it was a Byzantine instrument; but Farmer (Studies II 30) states on authority of Strabo that the Greeks borrowed all their stringed and necked instruments from the East. Though this may be doubtful in the case of the lyre, the classic Greek instrument, it seems true of others such as the psalterion, the kithara or ψαλτήριον and the general class of instruments known to the Arabs as ma'āzif with/

with which we are here concerned. It is interesting to compare also the oration of b. Khurdādhbih quoted before from Mas'ūdī VIII; according to that passage "the music of the Persians was with lutes and harps," (صنج the common variant for jank) while the folk of Khurāsān had the muwannaj. (This reading depends on Farmer's emended text, based on the Berlin Staatsbibliothek MS; vd. Farmer Studies I 55. Thus the provenance of both these members of the harp family, the sanj, and the muwannaj, as of the jank in this MS, is given as Persia.

However that may be, it may be taken as authentic that the harp was one of the earliest instruments, and that, wherever it originated - if indeed it had its beginning in any one specific district - it was early widespread over the civilised and even semi-civilised world. Diodorus Siculus (1st. century) speaks of the Celts as having an open-stringed instrument like a lyre, with which their bards accompanied their songs, and whether or not the reference is to the Welsh crwth, it is certain that this instrument is of considerable antiquity. The association of the harp with Ireland is legendary, and from the eighth century we have the "hearpe" of the Beowulf. Karl Geiringer (Musical Instruments, 67) doubts whether the word should be taken to apply to the harp as to-day known, but even so, in its meaning of a plucked instrument, ^{it} must have referred to something of the harp family; in any case it is impossible in historical perspective to limit the word "harp" precisely to the instrument as we are familiar with it, or to any one type as a standard.

The description given of the harp in this MS is extremely interesting. Two types of harp are mentioned; first the old traditional Persian harp, attributed to Shahriyār, which is passed over/

over almost in silence and which we may therefore presume to have been of the conventional triangular shape, with the upper sound chest and curved top. This type indeed is illustrated in the plate appended in the MS. to this chapter; it shows, in a rather careless drawing, very much the same type of instrument as appears in one of the plates from the Tāq-i-Bustān reliefs (vd. Farmer: Studies II p. 75 fig. 3); we have the same slightly acute angle between base and sound chest, and the same pronounced curve on the back of the latter with rather more of a hook on the end. The strings, fourteen in number are apparently fastened to the sound chest and stretched to tuning pegs on the base. (String ends, only twelve in number, may be seen below the base.) A curious feature is that there seems to be a kind of "foot" at the angle of the frame; this, resting on the ground, raises the harp to a height suitable for playing by a comfortably seated performer. Apart from this, the "Persian harp" conforms most admirably to the old Sasānian models.

The instrument named here the Egyptian harp is yet more interesting; it is described as a new invention of the Egyptians, having two "faces" (وجهين) and a wooden shutter (دقة) which passes through between the strings (جائزة بين الأوتار). Now there is no doubt about the Arabic words used in this passage. وجه is always the playing face of an instrument; e.g. the وجه of the lute is the flat top surface on which the strings are mounted, the وجه of a drum is the skin -or parchment -covered head. So when our author says that the Egyptian harp had two faces, he must mean that it was equipped with two sets of sounding strings, one set on either side. How this was accomplished we are told; a wooden shutter, passing between the strings/

strings, formed a common back or resonating board for both sets of cords; and we are even given the reasons for the incorporation of this unusual feature:- first in order to strengthen the framework of the harp, as it would very naturally do; second in order that both the harpists hands might not be visible to his audience at the same time; and third to increase the resonance (cf. supra). This description and catalogue of reasons - unusually accurate for this MS. - dispose of two out of three explanations which come to mind.

1 It is tempting to speculate that this Egyptian harp was an approximation to the conventional European type of instrument with the "pillar" running between the base and the sound chest arm. This would certainly satisfy the reason of increasing the strength of the framework, but it does not in any conceivable way give two faces, any more than in the Persian harp, nor does it provide for one of the harpist's hands being hidden, nor yet does it supply wood for the strings to strike upon.

2 More possible is the hypothesis that what is described here is something of the family of the Greek kithara. But the kithara was so far as we know strung only on one side and could therefore not be said to have two faces; again it was an instrument of very different shape from the harp, a fact which would surely have been noticed here, had the reference been to it.

3 So we are driven to conclude that our author meant exactly what he said, an ordinary harp with additions. The instrument thus depicted bears a striking resemblance to the so-called Pointed Harp of the seventeenth century. This Pointed Harp is thus described by Geiringer (Mus. Inst. p. 165) "This instrument has/

has the form of a wing, and possesses a sound-box placed between two ranks of strings. On one side of the sound-box are the high strings, which are of steel, and on the other the low strings which are of brass. The player stands the Pointed Harp on the table; or rests it on his knees. With one hand he plays the melody on the front of the instrument; with the other he plays the accompaniment on the farther side." When this is compared in detail with the description in col. 145, 6, the two are almost identical. And when Geiringer's last sentence is compared with the Arabic method of playing, discussed below, the identification is well-nigh complete. Confirmation may also be sought, though rather more doubtfully, in col. 151 ff. where the number of strings is discussed. In each case the strings are divided into two "cycles" (adwār) which are very reminiscent of the Pointed Harp with bass and treble strings on different sides of the central sound-chest. Especially in col. 152 where each mode has two strings one for the khafīf and the other for the thaqīl, it is tempting to suppose that the author meant to write حادّ for خفيف meaning that each mode attached to one string in the treble and one in the bass. But the phrase khafīf and thaqīl is of too common occurrence in this MS to allow of any such supposition.

As to the number of strings on the harp, considerable latitude is allowed; the number may reach 100, or may be as low as 24. Between these extremes we may have 48 or 60 strings, the latter being specified as the ideal number, more, we may suspect, in the interests of the author's numerological theories than in the interests of pure scientific accuracy. But all the authorities are divided on the matter/

matter of the number of strings requisite to the harp. Evliya Chelebi for instance gives 40, while b. Ghaibi is content with 17; older instruments had fewer strings. The truth of the matter probably is that, considering the nature of the instrument, the number is, as our author remarks, not specified; the harp is, even more than most, a personal instrument, and the number of strings could conveniently depend on the taste and the ability of the player.

The method of playing the harp is also clearly stated; the harpist uses both hands on the strings, either hand producing the melody, and the other "assisting" it. If the right hand has the melody, its playing is called "tamkin" or strong playing, if the left it is "ta'yin" or specified playing; in both cases the subsidiary hand's playing is classed as "mu'in" or auxiliary playing. What this may mean is a matter for conjecture; it is tempting to suppose here an advanced Western theory of melody and accompaniment, as on the pianoforte, one hand, as in the Pointed Harp above, playing the air, and the other striking a series of chords in varying harmonies. Unfortunately such is against all precedent in Arabic music which is melodic only, all unison and no harmony. So we are compelled to fall back upon the conclusion that what is intended here is the method of playing called by the Greeks $\kappa\iota\theta\epsilon\rho\omega\delta\eta\sigma\iota\varsigma$, i.e. the production of melody from an instrument of unstopped strings as an accompaniment to singing. In this technique, one hand picked out the melody on the strings with the fingertips, while the other hand, armed with a plectrum, swept across the strings in the intervals of the song. The point is that the "assisting" hand had some definite contribution to make to the production of music, whether by stopping the strings to produce/

produce harmonics or by sweeping out arpeggios or by any other method. It was not as in the case of the psaltery kept in reserve to deal with any emergency which might arise. (cf. col. 171 ff.)

To sum up, then, the harps which are here discussed are of two kinds. First, the old traditional Persian harp with the upper sound-chest, hump backed and slightly acute angled: the second a development of the same and something of a cross between a double harp and a double psaltery. The chang is played exclusively with the finger-tips with no mention of a plectrum, is used conjointly with other instruments, as an accompaniment to a song, or as a solo instrument. It is an instrument of great antiquity now falling into desuetude, an instrument of great range and power, and of tremendous emotional appeal; "it has left nothing else in the world of music."

THE PSALTERY.

A. Text.

(Cols. 165-172, 181-187.)

165.

This instrument has two names; "qānūn" in the language of Syria

166.

and "sanṭīr" to the Egyptians. The difference between the two is well known; if the instrument is square (murabba') on its four sides and has no extra length, (جُر, lit. part, portion) it is the "qānūn"; while if it has three equal (mustawī) sides and the fourth contains an extra length, as distinct from the "qānūn"; then it is the "sanṭīr".

○

The first of the ancients to make it was a certain Byzantine sage named Qānūn so it was named after him. The meaning of "qānūn" is "the principle of wisdom", (قانون الحكمة) because he was a sage, a wise man who possessed knowledge and understanding. But some say that it was named the "qānūn" simply because it was the principle and the standard (mizān) of the science, for the "qānūn" of an art is its standard.

167 ○

[The psaltery] is the most melodious of all the instruments, the best, the sweetest and the most delicate in sound. And many have gone to excess in [making] it, so that they almost made it of silver and copper; but that is not suitable because of its weight [when made] of metals, and its lightness [when made] of wood; in addition wood gives suppleness and delicacy while other materials give hardness and firmness. But the best instrument is that which has in it some of the four woods which we mentioned in connection with the lute.

[The psaltery] is to be played lying flat as against the harp and the lute; for the lute is held in the hand of the player, while the harp stands upright like the web of a weaver. (See Commentary). But there/

168. there is none of the stringed instruments except the psaltery which can compare with the mūsīqa, because something of its sound is in the psaltery, something which resembles its shrill ringing tone; this is because the foundation of the mūsīqa is copper, and copper has the quality of shrillness and clarity of tone; so also the psaltery operates by copper strings which fall upon wood, thus giving shrillness. If these copper strings were striking upon pieces of copper or hard bone, that would give clarity and hardness of tone with no softness; and so it is that all the instruments which have copper in them tend to be shrill and loud, as against those which have no copper in them, such as the tambourine; excepting the castanets (صنوج) in which the copper seems as though it were deaf and has no clear ringing tone. The psaltery has a delicacy and sweetness of tone above all other instruments; and it has also a strange secret not possessed by any of the others, namely that if an ant walks on it you will hear the sound of its feet upon it.

169. The psaltery is the fourth grade (طَبَقَة) from the mūsīqa; for Abu Hasan Ahmad b. Hamid Al-Sha'ar was once asked "What instrument follows the mūsīqa?" and he answered "We know no instrument better than the lute, so it is the second rank (دَرَجَة) from the mūsīqa. Then after that and near to them comes the harp, so it is the third grade. Then the comes the psaltery which is the seal of them all; for if we had not the mūsīqa, we would fill its place with the psaltery." But he did not treat it as a [complete] substitute. So it is the fourth grade of music; in it the four grades culminate, and they form four stages (مَرَاتِب). The first stage was the revelation of the mūsīqa and the origin from which its modes issue; the second was the lute/

lute which has delicate strings and a sweet playing, the course of its modes coming from its strings; the third was equally shared by the playing of the harp alone (cf. Wright II 154 C, D.) and along with other instruments (حاشية lit. followers); the fourth was the psaltery which comprehends all of them.

It is played with the right hand, while the left is kept for adjusting [the pegs], (lit. for opening and shutting) as auxiliary to the right; because the strings are really responsible for the playing in that they are sometimes tight and therefore strong, and sometimes loose and therefore weak. Whenever anything goes wrong, [the player] puts it right with his left hand while his right is on the strings, occupied with the playing. The player sometimes twists [the pegs] with the left hand and sometimes he plays with the right hand, because the latter has a greater diversity of movement and does not turn away or stop in its work for a moment. | Thus it remains; otherwise the playing passes away from it: for if the right and left hands both play the playing is all right in that way; but if the left hand does the playing while the right remains idle, then the psaltery loses its position and the playing is altered to "a'sar" which is playing with the left hand. There is no fault in the playing, but the fault lies in the musician and not in the instrument.

It is necessary that on the face of the wood under the course of the strings there should be small holes, that the music may come up without the notes being hindered. (But cf. commentary.) The same device is found in the lute also which the psaltery resembles in many respects, the arrangement of the lute being coincident with that of the psaltery, though the latter in many respects differs from the lute and/

and rather agrees with other instruments.

172.

As to the number of strings in the psaltery, you will not be praised for having too many, nor will you be blamed for having too few; for everyone has just made his own decision and followed his own way. Some have many strings while others have few, but those who have many have no cause for boasting and those who have few do not diminish the value of the instrument. But whenever the number of strings is increased, the volume grows and perhaps the range (lit. notes) is extended; and whenever the number is decreased, the tone becomes purer and more delicate, although weaker.

181.

A Story: It is told by Al-Faḍl b. Al-Rabī' saying "One day I was with the Caliph Al-Rashīd in one of his gardens; he was disporting himself along with a number of his friends who had met in a palace of his, built in that garden; it was named the Palace of Amusement (قَصْرُ التَّنَزُّهِ) and had been built by the Caliphs, who resorted to it when their minds were straitened; to it they went to amuse themselves.

182.

"Now on that day the Caliph had taken medicine for his body, and he sought amusement in that palace to distract his mind after the headache of crowds. I was with him, and Ja'far, Muḥammad b. Al-Mundhir, Khālid the Barmecide, Masrūr and another man who came from Al-Baṣra and who played the psaltery: [so there were] six of us, the Caliph making seven, and no more. During the night the Caliph was troubled and very restless, so that Ja'far said to him 'Commander of the Faithful, if we were to leave this palace and walk towards the Tigris we would find greater diversion; we could see some novel sight and take a stroll. So your care would leave you and your anxiety and grief would depart from you.' /

183.

you.' And the Caliph answered 'What you say is good, Ja'far.'

184. Al-Faḍl continued "So we went out by the garden gate which gave on to the bridge; it was a small gate like a wicket belonging to that garden, and it led to the bridge. There were four gates, one on each side; one led to the populous quarters, the second went to the gardens, the third led to the city, and it was the great gate by which the Caliph came in and went out, the principle gate of the garden through which ran the footpath, and it formed an antechamber, arched over with trees; and the fourth gate was the river gate. It was by it that we went out, and when we came out at that gate, going in the direction of the bridge, before we had gone very far we found a boatman on the river bank where he had moored his craft. His name was Rashīd and he was well known to the people of the town. When he saw us come out at that gate and go towards the Tigris he knew that no one came out of that gate except personal friends of the King or one of the members of his household. We called him in jest, but when he saw us he was glad and welcomed us and besought us to come down into his boat. The Caliph accepted, so he brought his boat in for us and the Caliph went on board and we with him. We sat in the waist of the boat, and no one remained on shore.

"Then Ja'far said to him 'Take us to yonder mile stone towards the Clattering Steps and back.' So he sailed his boat to the place we desired, and then back again. We found that the moon was shining brightly, the weather was fine and the night was still; so the Caliph said to the boatman 'Take us towards the western side.' And we went that way till we got there.

"Now that man who played the psaltery was with us, playing it without/

without ever stopping or resting from it. We returned to the place where we had boarded [the boat], and there we sat at the foot of the bank while that man still played his psaltery for us and we listened to him. The night was fine and the weather was quiet, but because of the power of the music which affected us, we thought that the boat was tossing with us on the river, while actually it was still and motionless. Then he played again, and the very river almost was troubled by the delicacy of his hands, the perfection of his technique (ṣan'a), and the purity of his notes. Then when he played the third time, he repeated his playing and sang slowly, demonstrating the perfection of his technique. And at that time Allāh the Exalted gave him a marvellous voice and the strength to play; so he began to play the psaltery, moving its strings, altering the style by changing the notes and shifting the rhythm time after time.

187. | "Meanwhile we were amazed at him, wondering at his skill of hand in playing and his sweetness of voice in singing. And behold, there was a frog in the water; and because of the power of the music which we were hearing, it was not noticed until it jumped from the river and landed in the boat beside us; and we were amazed at him and at it. Then we returned home immediately along with that musician; and the Caliph said to him 'Stay with me and sit in my presence, playing to me on that psaltery as you played on the boat; and I will show you favour, and give you whatever you wish.' He said 'To hear is to obey, with Allāh and the Commander of the Faithful.' So the Caliph showed him great favour and gave him many valuable things; he esteemed him greatly, and kept him near to his own person, so that he sat in his presence playing the psaltery."

B. Commentary.

After the harp, by a natural association, our author proceeds to deal with another instrument of the same family, the psaltery (تَانُون and نظير). These two instruments, harp and psaltery provide an excellent example of the divergent evolutionary paths which one basic type may take. The fundamental principle of both is the same, the principle of having a separate string to produce each note instead of, as in the 'ūd, rabāb and other necked instruments, having one string produce various notes by stopping with the fingers. From this original, the two main types of instrument, harp and psaltery advanced in different ways, the soundchest of the harp being located either horizontally along the base, or vertically up the back, while in the psaltery the soundchest grew behind the strings which were supported on bridges, passing over it. So the two grew apart, each going its own way until in spite of their common origin there comes to be no resemblance between them, as in the modern chromatic harp and the Central European zither.

This common origin, indicated by propinquity in the MS, is clearly recognised by the Arab theorists; Al-Fārābī in the Kitāb al-Mūsīqī classes them together thus: (d'Erlanger I 286) "Il nous faut maintenant traiter des instruments dont les cordes sont jouées à vide. Chacune des notes de l'échelle y est engendrée par une corde spéciale, ainsi qu'il en est dans les ma'āzif, les ṣunūj (harpes et cithares) et autres instruments de même famille."

This brings up the vexed question of the meaning of ma'āzif. That they were stringed instruments is generally agreed (vd. Enc. Islam III 528); the very wording of the quotation from Al-Fārābī given/

given above is proof of their having strings. In addition they are so defined by the Mafātīh al-'Ulūm and by Al-Muṭarrizī. But what manner of stringed instruments is by no means so certain. From a passage by the Banū Mūsa in the MS entitled Al-ālat illati tuzammir binafsihā (Mashriq XVI 454) it appears that the ma'āzif are different from such instruments as the lute; the phrase runs " - the lute, or instruments of strings like the ma'āzif." What better meaning for "instruments of strings" as against the lute, could there be than "instruments of unstopped strings."? This would reduce the possibilities of the meanings of ma'āzif to 1) a generic name for the harp and psaltery family, or 2.) one branch of that family in particular. The former is the less probable in the light of the quotation from Al-Fārābī which implies a difference between ṣunūj and ma'āzif, so that we are reduced by the logic of our argument to the conclusion that the ma'āzif were the psaltery family.

In an earlier translation of Al-Fārābī, Kosegarten rendered ma'āzif as "phorminges" (Liber Cantilenarum 45) the oldest type of Greek lyre (vd. Liddell & Scott: Greek Lexicon S.V.), although in two other passages (Lib. Cant. 77, 110) ma'āzif is translated as "nablai", the Greek form of the Hebrew נְבֻלָּיִם; this instrument was in fact the psaltery and not the harp as it has so often been translated; the Hebrew harp proper כַּנּוּת was more of the nature of the Greek lyre. (cf. Garstang: Heritage of Solomon p. 386). A parallel Latin form "naulia" is ~~found~~ ^{found} in Ovid (Ars Amat. III, 327), and both Greek and Latin words would seem to be loan words from the Levant to describe an instrument borrowed from the Eastern neighbours of the classical nations. Clearly the reference of ma'āzif is to that branch of the harp/

harp family characteristically represented by the psaltery and its associates; this is the more certain because of Al-Fārābī's inexplicable silence about the psaltery; not once is it mentioned in the Kitāb al-Mūsīqī by name, as would be expected in such a work. If therefore the reference of ma'āzif is not to the psaltery family, the inference is that all such instruments are passed over in silence, a conclusion that is almost unthinkable. Similarly in the comprehensive work of Al-Shalāhī (13th. cent.) the qānūn is not mentioned, though a mi'zaf is.

○ In addition to these facts, the meaning of مِخْرَف itself bears out the reference to an instrument of open strings; the root عزف means among other things to hum, or whistle as of the Jinn in the desert (c.f. Lane S.V.) an ideal root from which to take a name descriptive of an open-stringed instrument such as, for instance, the Aeolian harp, which is in substance only a simple psaltery. (c.f. Geiringer: Mus. Inst. 199). It is true that Al-Shalāhī (Kitāb al-imtā' wa'l-intifā') quotes the Qādī Abū 'l-Faḍl as saying that "the ma'āzif are such types as the barābiṭ and the 'idān" (vd. Farmer: Mus. Inst. II 31) i.e. members of the lute family. But Al-Shalāhī is not a very reliable witness to the identity of instruments, as, in the same MS he quotes two directly opposing opinions on the kinnāra; according to one it is a lute, according to another a tambourine. It would seem then that we may trust the opinion of the majority and put the ma'āzif down as the psaltery class. It may be surmised that مِخْرَف or مِخْرَفَةٌ, plural مِخْرَاف was the early and original Arabic name for the psaltery, (cf. the instances above and the usages of the word in the early Tradition literature given below) and that this original/

original name was later superseded in the days of Greek influence by the corresponding Greek words. (cf. *infra* on the invention of the psaltery.)

It is no more than in line with this hypothesis that in this present MS, presumably of late date, (cf. Introduction) there is no mention of *mi'zaf*, but only of the Greek loan words **قانون** and **سَنَطِير**; similarly in *Evliya Chelebī* the list of instruments includes **قانون** and a **صَنْتُور** but not **مِغْزَف**. Both these words are of course pure loan words from the Greek, the former from $\kappa\alpha\upsilon\sigma\upsilon$ and the latter from $\psi\alpha\lambda\tau\eta\rho\iota\omicron\nu$: (It is interesting that in *Mas'ūdī VIII* as quoted previously, the **صَلَج** or $\psi\alpha\lambda\tau\eta\gamma\acute{\iota}$ a word from the same root as $\psi\alpha\lambda\tau\eta\rho\iota\omicron\nu$, is given as one of the *ma'āzif*.) But curiously, in the *Kashf al-Humūm*, the two words *qānūn* and *sanṭir* are regarded as hardly more than dialectic variations of the name for one and the same instrument. True a slight difference of construction is noted, to be discussed later, but the two instruments are regarded as essentially the same in construction, in principle and in playing. The form *qānūn* is stated to be the Syrian name for the instrument, while in the dialect of Egypt it is known as *sanṭir*.

Passing over for the moment the latter half of this statement it is to be noticed that J.G. Hava who gives in his dictionary dialectic forms peculiar to Syria and Egypt, marks *qānūn* meaning a psaltery or harp as a particularly Syrian usage; in the Egyptian dialect the word means "penance." Again, Farmer (*Studies I 10*) refers to the usage of *qānūn* in the *Alf Laila wa Laila* (49th night: story of 'Umar b. Nu'mān and his son) in conjunction with the adjective *miṣrī*, Egyptian. This he takes to be a clue to the place of origin of the *qānūn* as Egypt. But surely/

surely the very fact that it was considered necessary to append the word misrī is an indication that the qānūn was not indigenous to Egypt, and that the particular type of psaltery referred to was an Egyptian modification of an instrument which belonged elsewhere. A similar usage has already been noted in this MS in the previous chapter, the jank misrī being an Egyptian version of the original Persian harp. The same passage from the Alf Laila (to be found in Burton I 395) makes reference to a Damascus lute (‘ūd Jalakī) and a Tartar pipe; but this is no indication that the original home of the lute is to be sought in Damascus or that of the pipe in Tartary. A parallel case is the reference in b. Sīnā and his disciple Al-Ḥusain b. Zaila to the dulcimer known as the sanj sīnī or Chinese sanj; that this was not in fact an instrument native to China is shown by its Chinese name, yang ch’in or foreign ch’in. Originally imported into China, possibly even from the Near East, the original borrowing was forgotten, and in later days it became known to the Arabs again, under the name of sanj sīnī or the sanj in vogue in China. Here too, then, the qānūn may well, as our author states, belong originally to Syria.

It is stated by b. Khallikān (Biographical Dictionary III 309) that "the instrument called the qānūn was the invention of Al-Fārābī." This, if it be true, is significant; we need not lay too much stress on the claim of Al-Fārābī actually to have "invented" the psaltery, but what he may well have done is to have introduced it or a form of it to the Arabs under the new Greek name of qānūn; indeed so far as I can discover, the word قَانُون is never used of the instrument before Al-Fārābī but is used more and more widely after his time. Now Al-Fārābī studied and worked almost exclusively in Syria; after his training/

training at Baghdād and Harrān he settled under the Hamdānids at Aleppo where apparently his books were written and most of his work done. (cf. Farmer: History p. 175 and refs.) It is therefore more than likely, although the qānūn is not mentioned by name in the Kitāb al-Mūsīqī, that the home of the great musical theorist would naturally be regarded as the home of the name which he gave to the psaltery.

So much for the Syrian origin of the term qānūn; when, however, our author goes on to remark that the same instrument is known to Egypt as the santīr, he is treading more dangerous ground. For the santīr is traditionally not a psaltery, but a dulcimer, though, as Geiringer remarks, (Mus. Inst. p. 97) it "is distinguished from the psaltery proper less by its construction than by the way in which it is played," namely with two sticks instead of plectra. None the less a moderate support can be found for the statment made here in the saying from Clement of Alexandria that the Greek ψαλτηριον was a generic term applied to all stringed instruments of Egyptian provenance. Fétis too (Histoire Générale II 131) illustrates his treatment of the santīr with a plate which shows, not sticks but plectra, small rings mounted with a sliver of ivory or bone, called by him "baguettes," He also identifies the instrument with the פִּסְנֵי רִי' or פִּסְנֵי רִי' of Daniel 3. This, in view of the current uncertainty concerning the music of the Bible, is highly doubtful; the name is of course the same, but the form of the פִּסְנֵי רִי' is unknown. Still it is significant that according to Villoteau (Desc. de l'Egypte I ch.9) the santīr is a favourite instrument of the Jews in Egypt and is played almost exclusively by them; this is borne out by Lane who speake of the santīr in common with the tanbūr as being used/

used "mostly by Greeks and other foreigners." (Mod. Eg. ch.18)

But however the truth of the matter may be, the two terms qānūn and santīr are used throughout this section as equivalent; indeed, after the author's brief introduction in which he mentions both words, it is santīr that is used throughout even where the reference is clearly to the hand plucked strings of the psaltery: the word qānūn is never used after col. 166, another indication that in all probability the MS was written originally in Egypt.

The text of this section is more difficult than any of the preceeding chapters, and has indeed seemed to me to be corrupt in at least two places; the second of these, in col. 171, will be discussed in a later paragraph, under the subject of the construction and description of the instrument, the first we shall deal with here. In col. 167 the Arabic runs as follows:-

وضربه على المصطحب
بخلاف ضرب الجندك والعود لان العود فيه وره
والجندك على القيام شبه نسيج الخايد.

Now if this is to mean anything, it would mean "The playing [of the psaltery] is in company (sc. with other instruments ?) as against the playing of the harp and the lute; for the lute is in it and [is] its master, while the harp is usually (على القيام) like the web of the weaver." But this, besides being almost senseless, involves very bad Arabic: العود فيه وره simply is not Arabic at all. I have conjectured therefore that the reference should be to the playing position of the psaltery, a very natural feature to be noted in such a MS as this, and have emended the text to read thus :-

وَضْرِبُهُ
عَلَى الْمَصْطَحِبِ بِخِلَافِ ضَرْبِ الْجَنْدِكِ وَالْعُودِ لِأَنَّ الْعُودَ
فِي يَدِ رَبِّهِ وَالْجَنْدِكُ عَلَى الْقِيَامِ شَبْهُ نَسِيجِ آتْمَايْدِكِ

This/

This does very little violence to the original text and gives a satisfactory and coherent sense: it involves taking **على القيام** in its literal and not in its idiomatic meaning, "upright" or "standing" in place of "usually." It is on this basis that I have translated in section A of this chapter.

Besides this, and the other emendation to be discussed later there are sundry obvious mistakes in writing which I have rectified without comment in the text. Such are the reading of **تر تخرى** "are loosed" for **تر تخرى** of the text, to complete the parallelism with **تنتد** (col. 170), and the obvious change of **كُنْتُ** to **كُنْتُ** (Col. 182). These, together with other smaller changes in pointing, insertions of hamza and alif etc. are not noted individually. One such is perhaps worthy of mention; in col. 183 line 1 the text reads

وننظر الف لا ونشم السوى; the second and third words of this phrase are absolutely meaningless, so I have taken them together to read **الانفلاء** the verbal noun of the root **فلا** to journey or to have a fresh experience; this provides the parallel to **نشم السواء** as the reading should be "to take a walk."

The origin of the instrument is here referred to the Greeks; for though "Rūmī" really means Byzantine and therefore Roman, so far as Arabic science was concerned, its borrowings were from the original Greek tradition which mastered its Roman conquerors. The etymology quoted in support of this supposed Greek origin is manifestly only a popular fairy tale of the type which delights to find eponymous heroes for everyday things; the tribal genealogies of the Bible are illustrations of the same principle, each being traced back to its namesake as founder. But at the same time, our author does mention the/

the real origin of the name qānūn when he remarks that "some people say that it is so called simply because it was the principle and standard of the science." This is a reference to the true original meaning of $\kappa\alpha\nu\nu\nu$, applied by the Pythagorean theorists to the monochord which was used to demonstrate the lengths of vibration of a string. That this instrument was not the Arabic قانون or psaltery has been clearly demonstrated by Farmer (Studies I,4), and so we are left to the conclusion that the Arabs, while borrowing the name qānūn from the Greeks, possibly through Al-Fārābī, as b. Khallikān suggests, applied it to an instrument of their own, quite dissimilar from the $\kappa\alpha\nu\nu\nu \ \acute{\alpha}\rho\mu\omicron\nu\iota\kappa\acute{\omicron}\varsigma$ of Ptolemy; that this instrument was in all probability one of the ma'āzif, either the mi'zaf or the mi'zafa, has been shown above.

It would seem, then, that though the modern Arabic name for the psaltery is Greek, the instrument itself was Semitic in origin; once again Al-Mas'ūdī would seem to have preserved the true line of tradition in attributing the ma'āzif to Dalāl bint Lamak. In any case the ma'āzif seem to have been of considerable antiquity among the Arabs; since they are referred to in the Traditions of Muḥammad's time, (cf. Al-Tirmidhī : Fitan, 38. Al-Bukhārī : Ashriba, 6) it is reasonable to assume that they were well-known in pre-Islamic times. Farmer mentions them as being well-known before Muḥammad in Al-Yaman and in Al-Hejāz, (History pp. 3,4,) which is no more than is to be expected of an instrument so closely related to the harp, whose history goes back almost as far as time. The birthplace of either, it is almost impossible to locate, but there does seem a strong indication that both were the product of the Semites.

Concerning/

Concerning the construction and the appearance of the psaltery we have rather more detail here than in any of the preceding chapters. The author mentions that some have constructed psalteries of metal, but that they have proved inferior to the orthodox wooden instrument; for material he states a preference for the four woods mentioned in chapter 2, viz. beech, elm, teak or vine. The varieties of wood from which the psaltery may be made seem to have been very many; the Kanz al-Tuhaf gives vine or plum for the qānūn, red willow, shah-wood, box, or cypress for the nuzha, (Farmer: Studies I, 12, 13) while Lane quotes walnut, deal, beech and poplar as the material; Fétis gives mahogany for the qānūn, fir or spruce for the santīr. Over this wooden case were stretched, according to our author, copper strings, as is the general rule with instruments of this class. Our author explains that it is because of this fact that the psaltery resembles the mūsīqa in tone, and he quotes a certain Ahmad b. Hāmid Al-Sha'ar for the opinion that the psaltery is the nearest of all instruments to a substitute for the mūsīqa. In this connection also he mentions that shrillness and clarity of tone which are characteristic of metal-wired instruments, citing against them the case of the tambourine in which these qualities are lacking.

On the shape of his instrument our author is interesting; he describes his qānūn as being square, and his santīr - which, be it remembered is to him the same instrument - as trapezoidal. Now traditionally, instruments of this class have all been regarded as of the latter form; but a closer inspection of the evidence shows this to have been by no means the case. There is for instance b. Khaldūn's statement (Muqaddima 2, 352) that the qānūn was "murabba'"; this word/

word Farmer takes to be used loosely, concluding that the psaltery was in fact probably trapezoidal. But it is doubtful if a writer of b. Khaldūn's accuracy would use a word as loosely as that, and in this MS we have corroborative evidence of the square shape of the qānūn, the same word murabba' being used. In addition we have definite evidence of a square shape in other instruments of this class; the nuzha of Ṣafī al-Dīn Abd al-Mu'min is square as is that of the Kanz al-Tuhaf. (cf. the designs reproduced in Farmer: Studies I, 12, 14) The shape of the mughnī of b. Ghaibī was "that of a board" which means presumably, at least that it was rectangular; and the Yang Ch'in of the Crosby Brown collection is described as quadrangular (Catalogue IV, 49).

On the other hand we have abundant evidence for the trapeze shape of both qānūn and santīr; b. Ghaibī and the Kanz al-Tuhaf both give the qānūn as of this shape, and the kanoon of the Crosby Brown collection is similar. Lane and Fétis vouch for the trapezoidal shape of the santīr, a shape corroborated for the Middle Ages in Europe by the Larousse Encyclopedia (Nouveau Petit Larousse Illustré; s.v. Tympanon). Meninski indeed in his Thesaurus goes further and equates the qānūn with the $\sigma\alpha\mu\beta\upsilon\kappa\eta$ which, according to the Greek lexicographers, was triangular in shape, (vd Liddell & Scott ad loc.) ~~at form~~with which incidentally, the description of Salvador - Daniel agrees exactly. It would seem that considerable latitude was permissible at the various stages of evolution of the psaltery family. None the less, the instrument depicted in the plate at the end of the chapter in our MS is of the traditional form, viz. of two parallel sides, a third at right angles to these, and the fourth set obliquely.

The/

The placing of the pegs on the instrument is only indirectly hinted at by our author when he tells us in col. 170 that the psaltery is played with the right hand, the left being kept for making adjustments. This naturally suggests that the pegs were placed on the left hand side of the instrument as it lay in front of the player, an arrangement which is borne out by the subsequent illustration, where, however, the pegs are shown clustered round the acute angled corner, and on both sides of the corner. It may be surmised that this extraordinary and impossible arrangement is merely in order that the pegs may be clearly seen, as the player's hand obscures the lower part of the appropriate side. This left side is the appropriate place for the pegs in all such instruments.

The discussion of the number of strings is again vitiated by the author's peculiar ideas on numerology. In cols. 173 - 181 which I have omitted as not being germane to the issue, choice is given between 100, 60 and 48 as the total number, but it will be seen (col. 172) that our author states that in this matter "everyone has just made his own decision and followed his own way." In fact this would seem to be the truth, for almost all authorities differ about the number of strings requisite to the psaltery. The Kanz al-Tuhaf gives 64 for the qānūn, 108 for the nuzha; b. Ghaibā gives 72 or 105 for the qānūn; Lane gives 72, Fétis 75 for the same instrument, while the instruments of the Crosby Brown collection have respectively, kanoon 78, psaltery 15, yang ch'in 72, and santīr 80; Salvador-Daniel gives 75 for the kanoon. Our author's remark would seem to be justifiable. In his own illustration he depicts nine strings; though how reliable that may be is questionable, in view of the fact that he shows 13 pegs!

One other detail is to be gleaned from this section; in col. 171 there is some dubiety in the text, as I have noted. The Arabic runs as follows:-

يَشْتَرَطُ أَنْ يَكُونَ --- أَجْجَاشِي صِغَار

يَصْعَدُ الطَّرْبُ لَا بِحَبْرِ النِّخْمِ

From the pointing it is doubtful whether or not أَجْجَاشِي, holes is the word intended; the obvious alternative, to derive the word from the root أَجْجَش is no help, and it is tempting to speculate that the word meant is أَخْشَابُ or pieces of wood, thereby reading into the phrase a reference to the bridges which are a necessary feature of the psaltery. The reference to a similar structure in the lute would still be in place, indicating the musht or bridge tail-piece, and the theory receives further confirmation from the fact that in the illustration at the end, two bridges are indicated but no sound holes. But these have appeared to me to be over-slight grounds for altering the text, and accordingly I have read and translated أَجْجَاشِي referring to the sound holes.

With regard to the method of playing the instruments under discussion, reference has already been made to the author's identification of qānūn and sanṭīr as one and the same instrument. There is no mention whatever of the sanṭīr being the dulcimer, and being played with beating rods in place of the fingers, with or without plectra. And as our author was seemingly an Egyptian, well-versed in contemporary habits, one is led to wonder if the identification of the sanṭīr with the ṣanj ṣīnī of b. Zaila is, after all, correct. Neither Villoteau nor Fétis mentions rods for the sanṭīr, but Lane does. The evidence is rather mixed, but it seems at least possible that our author is correct and that sanṭīr was used, though possibly not exclusively/

exclusively as an alternative term to qānūn.

Another striking omission is that of the plectra; never once are they mentioned in connection with this instrument. But here again we find confirmation from other sources; Fétis does not refer to them as used with the qānūn, though they are described with the santīr; Geiringer (Mus. Inst. 97) speaking of the psaltery in the later Middle Ages, says "in the South the plectrum or quill so beloved of the North, was replaced by the bare fingers", and to go farther back still, Garstang (Heritage of Solomon p. 386) quotes Josephus for the statement that the psaltery was twelve-stringed, and played with the fingers without a plectrum. Here again our author would seem to be in the right. But where his veracity is more in doubt is when he states that the psaltery is played with the right hand only, here all the authorities are against him, as both hands were used in the playing.

THE VIOL.

A. Text.

(Cols. 263-276, 279-293.)

263. The first to make it was a woman of the tribe of Tayy, whose name was Su'dā bint 'Amir Al-'Absī. She had a son who was very dear to her, but he died, and she grieved violently for him and lamented him bitterly. It is said also that he was her nephew, with whom she was in love; also that he was her son, and that his father died while he was young; when he grew up he followed his father (i.e. died) and renewed his mother's grief when he went away and stayed away from her. It is said also that he was a son of her husband by another woman, but that she brought him up herself, and when he died, she grieved for him

264. very bitterly. [His name was Rabīb Su'dā (i.e. foster-son of Su'dā) or, as it is also given, Rabāb Su'dā; these are two forms derived from [one] word, "rabīb" and "rabāb", as the Arabs say "Khadīb" and "Khadāb", there being no difference between them in meaning. When the boy died, the woman grieved for him and lamented him day and night, until she disturbed the people of her tribe, and prevented them from resting by day, and from sleeping by night. So they complained of her to the chief of the tribe and he forbade her to do that; but she could not stop wailing, night or day. They complained about her again, and again he forbade, but she

265. could not cease, and every time her grief increased, she increased her lamentation, so that she disturbed the people of the tribe.

So they took counsel concerning that woman, what they should do with her, and all agreed on cutting out her tongue, so that she should not be able again to vex them with her tongue, or worry them with her wailing. So when they cut out her tongue, she was prevented from wailing/

wailing, but her grief was very great, so that she could not bear it. Now she had a great deal of money, and she paid some of it to have a viol made for her; and she named it after her son, and started to play on it. In the wailing of it there was the sound of the human voice weeping, and every time the rabāb wailed [it renewed her grief, and she wailed along with it as it was crying, so that she vexed her people again. They said "There is nothing for us to do, except to drive this woman out from among us until she regains her senses; so may we have rest from her." So they gave her to one of the slaves, and entrusted her to someone, to guard her and serve her till he had brought her out of the land, and away from their tribe.

When they had done that, she remained in whatever district she came to, giving money to whoever would make for her a water-wheel. When it revolved and creaked loudly, the woman wailed and wept at the sound, and the rabāb did the same; it was never away from her for a single hour, and whenever she played it, she wailed along with it, because it was a help to her in her sorrow. So when the matter was noised abroad and they understood the rabāb, all the Arabs started singing to it the Qasīdas of the Jāhiliya, and the melancholy poetry. They sang elegies to it and lamented; or they sang, rejoicing in what Allāh had given each of them, and provided for them; some it made to rejoice, others to lament. For all musical instruments combine rejoicing and sorrow; as they say "[It depends] on the singer what he sings, and on the hearer what he hears." So every one hears what accords with what he has grasped.

So it was that a certain upright man heard someone hawking thyme in one of the bazaars, crying "Wild Thyme" (أَلزَّعْتَرُ الْبَرِّي); and/

and that man fell down in a faint. When he came to himself he was asked about it, and he said "Verily, I heard him shouting 'At once 'shall you see my righteousness' (الساعة ترقى برئتي)." And according to the intensity of resolution come the duties, and according to the ambition of the seeker are objects attained.

269

Some people listen for "union" (tawāsul), and their hearts find rest in a vision of the Beloved (mahbūb); their souls yearn for union with the altogether Lovely (ḥabīb). So restlessness comes upon them, and ecstasy (wajd) possesses them, and they cannot control their souls when they hear that instrument, and their minds are guided only by the vision of the perfection of the Beloved. They are not bereft of their wits (yatīshū), nor are they content (yatībū). Sometimes they experience lamentation because they are separated from the Beloved: Sometimes they experience sadness because the Desired One (matlūb) is far away. They remember Him at the time when they hear that instrument, and they lament because they are separated from Him, beyond all doubt.

270

To other people Allāh has granted union (ittisāl) and has guarded them from separation and parting; their hearts are full of rejoicing, and their souls are joyous with pleasure. So they have no bewilderment, but pleasure and happiness all the time; they have cut off their attachment to the way of severing (reading غيب for قبي and deceit. When one such hears the sound of strings, he is as if he were possessed (majnūn), and rejoices greatly in it, gaining pleasure from its sound, and being bewildered; especially when the Beloved is with him, in his presence continually.

Some say that, while the lot of this woman in respect of the rabāb was sadness and wailing, the lot of others in respect of it was rejoicing/

۲۲۱.

rejoicing and gladness; for she made it for grief and wailing, but it came to be for pleasure and enjoyment [also]. When the strings are violently agitated so that they cry aloud, it seems to the hearer that it is a human being wailing and mourning; but when the music sinks so that it is played on a lower pitch, it charms the hearer so that he imagines it to be a human being rejoicing and laughing. Such is its habit, and it has a sound, which, when it is violent (شَدِيد) is heard as a confused shouting; in it there is a swift pace, because it contains some of the characteristics of the horse.

۲۲۲.

When 'Antar b. Shaddād heard it first, he was travelling in the desert. He had never seen it, and he said "What is this instrument which is being played, for I hear from it a violent sound?" They said "It is the sound of the rabāb." He said "Is there in it anything of the nature of the horse?" They said "Yes; it contains horse hair." He said "For that reason it has a swift pace, and is conducive to pleasure which cleaves the heart."

۲۲۳.

Its playing depends upon the proportion of the 6 Awāzāt; namely that you multiply the 12 modes by 2, which gives 24. If it is played only in the khafīf mode, its playing depends on the 6 divided by a definite number; if it is played only in the thaqīl mode, its playing again depends on the 6. But if the playing is [in] both khafīf and thaqīl it is divided between the two, 6 for the khafīf and 6 for the thaqīl. So then the playing depends on the 12 modes, not on the 6 Awāzāt. If you wish to derive the 6, apart from the 12, multiply the 6 by the fourfold principle, giving 24. These represent 24 qirāt, each having 4 parts according to the analogy of the 4 elements, fire, earth, air and water; and also of the 4 humours of the human body, blood/

274. blood, bile, spleen, and phlegm. The elements are/the constituents of time, and the humours form the constitution of human nature. So when its playing corresponds to the original principle which is fourfold, and when the proportion is also correct, the beat of the strings corresponds to that of the veins in the human body; if any man's playing on the instrument coincides with the beat of his veins, moving and stationary in the human body, then the [musical] art is completely perfect in him. His playing will be strong and the listener will hear him and will experience such pleasure that he cannot control himself, but will be bewildered by the playing, so that his ecstasy is increased.

275. There are none of the instruments of the Jāhiliya/existing unchanged to-day, but there has come from them an instrument of the same class, which has obliterated their traces and effaced their names; except in the case of the rabāb, for it is of long standing and its law has remained, never to vanish so long as musical instruments are found. That which has come upon it among musical instruments is the Kamanjā. It is derived from the rabāb and they are alike in nature and construction; but the former has a more delicate tone than the latter, is sweeter and more melodious in sound, and is a greater favourite. Its name is derived from absence and presence, as the saying goes "He who is absent and does not appear is not like him who came." (كَمَنْ جَاءَ).

276. Its law depends on playing/on two strings, as distinct from the law of the rabāb; but in the fourfold principle there is agreement between them, because both are played according to the law of the four elements which is stronger than that of the two strings. So the law/

law depends on that of the 4 elements; each string contains the essence of one of those 4 elements, and in its playing there is agreement with those instruments which preceded it, before it, having a greater number of strings and more rules, founded upon the rules of that [fourfold] principle.

279. ○ If one plays the Kamanjā according to this law which we have stated, the playing will be more delicate and sweeter; the condition is that the [sound] box (ḥaqq) should be light, without much thickness (reading آتْجَانَة for آتْجَانَة) of wood, and that the hole in it shall be the [right] size; not too large, so that it scatters the music, which comes forth diffused and unpleasant; nor too small, so that the music is penned up, and can only get out with difficulty; for then the playing is difficult. So the playing will be equally divided over all.

280. ○ He who plays the instrument must have a knowledge of two sciences; first | a knowledge of the modes, and their course on the instrument, and of the setting of poems to music and their arrangement for a singer. The second is a knowledge of the operation of the instrument, and management of it in the modes which make up the circle of music; also of their proportion and production in the instrument. Thus the proportion will be sound with him, and the playing remain with him.

A story is related of Al-Malik Al-Kāmil of Egypt (13th. cent.), that he was given a slave girl who played the Kamanjā; her name was Nuzhat al-Qulūb, and there was none in her time fairer of face, better at/

at singing, or stronger in the art [of music]. The king wished to test
 281. her accomplishments, in order to see her experience, find out about
 her art, and know about her. So he had brought to him, all who
 played the Kamanjā out of all the artistes and all the teachers who
 were famed in the art of music; he would bring them to the girl in
 his presence, and would say to her "Play! Play this instrument till
 I hear." So she would play on one of the strings, then vary the
 playing and begin to play on the second string, so that the mind of
 the teacher was bewildered at her, and at the delicacy of her hands,
 at the power of her technique, the perfection of her knowledge, and
 the purity of her notes; and he was amazed at her. Then the king
 would say to him "Will you not train her for me in technique, and
 282. teach her the way of knowledge in the art of singing, and beauty of
 holding the instrument? And I will show you favour and honour." And
 the man would say "Oh king, verily she is perfect in her technique,
 and needs no one to teach her, nor does she desire one to train her;
 for I have not seen in her one visible fault nor one apparent flaw.
 Allāh has granted her perfect beauty, and given her understanding and
 283. wisdom to adorn her."

So they continued to say that, adding nothing to that speech,
 till there came from the East a man who played all musical instruments;
 his name was Maḥmūd Al-Kindī, and he had consorted with one who had
 studied under Al-Fārābī, who handed down the science from him, and
 learned it from him. When Maḥmūd came to Egypt, he met the nobles and
 283. the chiefs, so that there remained not a chamberlain or an amīr, a
 deputy or a wazīr, but met him and questioned him, and tested him in
 the art. And all saw that he was perfect in technique, quoting
 original/

original authorities without irrelevancy; and in addition to the multitude of his accomplishments, Allāh had perfected in him four things, a strong brain, an eloquent tongue, a handsome appearance, and a sound knowledge. He continued going from one to another, until his fame reached Al-Malik Al-Kāmil, who owned Nuzhat al-Qulūb.

When he heard of him, he sought him out, and brought him into his presence, and showed him the slave girl; saying to her "Sit down." She sat before him, and he said "Play that instrument, till I see how you use it." So she played the Kamanjā while he watched her for a long time. Then he said to her "Who taught you this art? The tradition which you use is not that of the people of Egypt, nor is it their playing; but the power of your art and the delicacy of your hands, your knowledge and understanding turn you to the path of those who follow the art. Were it not for that, you would not have followed their path. So tell me where you learned, and who taught you." She answered "I was trained in the East, and moved to Al-‘Irāq where I lived in Al-Baṣra, staying there for some years. There too I was trained, so that the technique which I had was increased. Then I moved to Egypt, and here I have been staying; and my master, this king, has for a long time been bringing me before the musicians, one after another; and everyone of them who hears me, says 'This girl is perfect in her technique and needs no one to train her.' So my master has neglected my affair, and has left me without training."

He said "Who taught you in the East at the beginning, and who taught you in Al-‘Irāq afterwards?" She answered "I was taught in the East first of all by Ibrāhīm Al-Sakrī who was a merchant in Taurīz; he had much wealth and a generous provision from Allāh; he loved music and/

287.

and desired to hear it. He spent much money on it, till he learned it; and when he bought me, Allāh favoured me with his attention, so that he strove night and day to teach me, until he had trained me. He expended a great deal on me, until my art was perfected. Then when I moved to Al-Baṣra, the Caliph of Baghdād heard of me and asked my master for me; so I was given to him, and much money with me, as a present to the Caliph. When I was in his presence, he heard me singing the musicians' songs, and reciting strange poetry; so he said to me 'Do you know anything about music?' | I said 'Yes' and he asked 'What instrument do you play?' I said 'I play the Kamanjā,' so he bought a Kamanjā, and brought teachers for me. They were perplexed by the tradition I used, and tried to change it. So my art was spoiled and my characteristics changed, and my playing departed from me. They all said 'Do not change this girl from her present way', and began to teach me their way. I grasped their method, singing their "qaṣīdas" and songs to that instrument; so my characteristics were strengthened and confirmed, | and I improved over my previous state. Then the Caliph presented me to the king with whom I now am, and he has sought

artistes to teach me in their way; they found that I used a tradition which surprised them, so they confirmed it, saying 'This girl is perfect in the art.' Now what do you think is to be done about it? Lead me to it."

288.

289.

The narrator continued: When Maḥmūd heard what she said, he cast his eyes down, then raised his head and said "You are gravely lacking in the art." She asked "How is that?" He answered "Those who saw you using this tradition wondered at your art, | but knowledge of you eluded them, because the foundation of this art is knowledge and/

and practice; now you play by hand, having skill in the theory, but you will find difficulty in producing the modes from the instrument, and in their course in music, until you are perfect in the fundamentals of the art. Otherwise you will be unable to do what you say. Now show me the way which you use, so that I may instruct you, and so that the power of my art may be clear to you." She said "It will appear before you forthwith; but go slowly and do not hasten, till the time comes when the king will be alone; then I will show you my tradition in the presence of my master, and he shall be a witness to what we do."

290. He said: Then there came to the king one of his companions who was very dear to him. To him the king said "To-night I am inviting you to come here, and I wish you to be with me, to play in my presence. He replied "To hear is to obey." So when that night came, there was with the king a gathering of his companions, who were the élite of his realm; Mahmūd Al-Kindī was there among them, and the king said to him "I have heard that you can play all instruments, so it is my will that you play the Kamanjā before me, that I may be entertained by you, and may see the perfection of your hands, that I may learn your worth, and know your skill and your understanding." He said "Gladly," brought out the Kamanjā, and placed it on his knee.

291. He played his fingers over it, moving his hands, and began to sing until the people were amazed at him; and it seemed to those who watched, and to those who were present that the assembly in which he sat was dancing round them from the power of the music. Then he played a second time, and the narrator says: there was at that moment a sparrow on the battlements of the castle; and it heard that music.

292. When/

When he played, and the playing became strong, the sparrow came down from the battlements and came into the midst of the assembly, directing his steps towards the music, while the men watched. Now there was there a jug full of wine, and the sparrow climbed up on the drinking cup and commenced sipping with his beak, till he had enough. Then, every time the man struck the Kamanjā, the sparrow would flutter his wings and dance; and the king and those present said "This is [the influence of] the music." Then the king said to Maḥmūd "Stay with me, 293. [for you are the most suitable to train my slave girl." And he gave him presents and honoured him, and commanded him to play in his presence; so he sat playing before him.

B. Commentary.

With the rabāb we come to that important and much-discussed family of instruments, those whose strings are, or can be, agitated by a bow instead of the fingers or a plectrum, represented to-day by the violin family. But it is to be noticed from the beginning that it is difficult if not impossible to make a hard and fast distinction between the various species of the stringed instruments; the rabāb cannot be divorced from the 'ūd or from the tanbūr, since, as Farmer pointed out in his notes to Salvador-Daniel (Music p.229), it betrays a close association with the lute family, and there have been obvious mutual influences at work between the two. Even the characteristic mark of the bow is not a decisive difference, as the lute was sometimes played with a bow (cf. chap. 2), just as the rabāb was frequently plucked by the fingers. This affinity may be clearly seen in a plate in the

Legacy of Islām (fig. 90) representing a casket carving of Persian musicians in the 12th. century; in this the figure on the right plays a rabāb which it is hard to distinguish from a lute; not only is there no bow apparent, but the position and even the shape of the instrument are much more reminiscent of the ‘ūd than of the rabāb. If it really is the latter which is here depicted, this plate provides an early evidence of the approximation of lute and rebec to one another, which would almost lead one to accept Geiringer's view (Musical Instruments p. 81) that the "rebab" was simply a bowed lute. This point will be discussed later under the description of the instrument.

Another instrument which probably had its influence on the rabāb family was the guitar, an instrument which presents a problem in itself. Traditionally it is regarded as being derived from the Arabic qīṭāra, or Greek kithara, or from one through the other, or from the Arabic kaithār. But so far as we know these instruments, they show little affinity with the guitar; the two Arabic words have the appearance of being both loan words based on the Greek name $\kappa\iota\theta\alpha\rho\alpha$, and both are of late occurrence. The Greek kithara also, had little in common with the flat-chested guitar known to Medieval Europe, as it was a large instrument of the lyre family. But if we adopt another derivation for the word guitar, its relationship to instruments of the lute and rebec family at once becomes much clearer; the word being originally Spanish, the Arabic root "watar" is immediately suggested by the two initial letters "gu." This is of course the classical Spanish transliteration of the Arabic "waw", as exemplified in dozens of geographical names throughout Spain, e.g. Guadalquivir is simply the Arabic Wādī 'l-Kabīr. And the root "watar" was of common and early occurrence/

occurrence in Arabic with reference to stringed instruments; for "muwattar" in this sense see Farmer: History pp. 6, 15, 16 and refs., and for "watar" in the same sense see b. Khurdādhbih in Bib. Geog. Arab. VI, 181. Further, also on philological grounds, guitar is much more satisfactorily derived from "watar" than from either قيثارة (قيثارة) and قيثارة (قيثارة) or كيثار, as is accepted. The Arabic letter "qaf" never, so far as I can discover, gives "gu" in Spanish; it may give "c" as in "alcalde" from "al-qādi", or "qu" as in "acequia" from "al-sāqiya" and "anaquel" (shelf) from "al-naqqāl", or even "g" (without the "u") as in "gaban" (overcoat) from "qabā". The letter "kaf" seems always to give "c" as in "alcohol" from "al-kuhl", or "qu" as in "adoquin" (paving-stone) from "al-dukkān" or "alquiler" (hire) from "al-kirā". All these and many other cases are to be found in Dozy and Engelmann: Glossaire des mots ----- dérivés de l'Arabe.

Now the "muwattar" was a stringed instrument of the lute family which was played with the thumb (cf. b. Salama p. 11 and Farmer: History p. 16), a description which is ideal for the guitar whose strings are also plucked by the thumb. Geiringer (Plate XXII) reproduces an illustration of a guitar player which illustrates this theory perfectly: the instrument depicted has the many strings and the broad neck of the later lute, as well as the back-bent peg-box (cf. chap. 2); there is the large central sound-hole which indicates the plucked instrument, and the characteristic lute bridge-tail piece is clearly visible. The influence of the rabāb is to be seen in the broad, almost trapezoidal body and the placing of the pegs in the same horizontal plane as the body, instead of at right angles to it as in the lute. That the guitar had an influence on the development of the rabāb/

rabāb, and was in turn influenced by it, is sufficiently vouched for by the existence of such hybrid instruments as the guitar-fiddle. (vd. Schlesinger: Precursors, fig. 176).

It would seem indeed from the plate at the end of this chapter that it was one such hybrid instrument that our author had in mind. In appearance it is a cross between the lute and the rabāb, strongly reminiscent of the popular Moorish folk-instrument called the gunbrī or gunībrī which is described and illustrated by Farmer. (Studies I, 39ff and plate.) The shape of the body is the same, there is not even a rudimentary "foot" and the pegs are set directly in the neck, there being no peg-box. The gunbrī is called by Dr. Farmer "a primitive lute, guitar or pandore." (op. cit. p.39.)

The relation of such instruments as the lute and the guitar to the rabāb is interesting chiefly because of the later history of the latter. It seems fairly certain that the rabāb, in spite of the opinions of Engel and Miss Schlesinger, was in fact the ancestor of our modern violin: this has been a much disputed point; the two authorities mentioned deny such a descent, while Farmer, Sachs, and Geiringer argue convincingly in its favour; an anonymous contributor to the Encyclopedia Britannica (Arts: Violin, Rebec, Rebab) holds a cautiously neutral point of view. There is, indeed, general agreement that the violin family is descended from the Medieval rebec; the ordinary Portugese word for violin to-day is still "rabeca". But there is no agreement that the rebec owed its origin to the rabāb. Yet the two have such obvious similarities that it is difficult to resist the conclusion that they are the same; not only are the names philologically identical, since the neutral final consonant can suffer

a change to almost any other, (so Arab. "rabāb" becomes Old English "ribibe", Chaucerian "rubible" (not "ribible" as often quoted; see Myllere's Tale line 224, where "rubible" is connected with "giterne"), Spanish "rabel", Italian "ribeca", Old French "rebec", "rubebe" or "rubeb") but the playing position also of the rebec was originally identical with that of the rabāb. The latter, characterised in early days - and to some extent yet - as a "spike-fiddle", was naturally played in the 'cello position vertically; and the first representation of the playing of a rebec in genuine European art, shows it played in the same manner. This is the rebec of the famous Utrecht Psalter, made at the court of Charlemagne in the ninth century (vd. Enc. Brit. XII, 96), shown as played in an upright position, supported on the player's left thigh. Such a position is the natural result of the curtailing from the primitive rabāb of its characteristic spike, due to the influence in construction of the lute (cf. infra). A similar vertical playing-position is to be seen in the guitar-fiddle illustrating Miss Schlesinger's work (op. cit fig. 176).

Further evidence of the identity of the rabāb family and the violin family is to be found in modern Arabic usage, according to which our violin is known as the Kamānja Rūmī; this is testified to by Fétis (Hist. II 140 and fig. 17) while Villoteau describes, under the same name, an instrument, not illustrated, which approximates to a large scale violin. (Désc. de l'Ég. I, 882). Fétis notices also, under the name of Kamānja Rūmī, an instrument of a much more primitive type (fig. 18) which has obvious affinities, both with the rebec of the Middle Ages, and with the instrument referred to by him as the rebab of Algeria (op. cit. p.146 fig.20).

So much by way of general introduction to the bowed instruments. the vocabulary and text of this and the following chapter are simpler and less doubtful than in the case of any of the preceding chapters. Here only two words for instruments are used, and both are standard words, rabāb and kamanjā, though the spelling of the latter is unorthodox. (cf. infra) The primitive viol is given the name "rabāb", and its later development is styled "kamanjā"; this is, partly at least, in accord with standard usage, in which "rabāb" is at once a generic and a specific name. (cf. Enc. Is. III, 1084ff.) In the former sense it refers to the whole viol family, of which the kamānja is but one branch (cf. Legacy of Islam p.360), in the latter sense it refers to the trapeze shaped spike fiddle prevalent in Egypt to the present day, (vd. Lane: Mod. Eg. p.332) as against the instrument with the hemispherical sound-chest, known as the kamānja (Lane: Mod. Eg. p.326). Our author, regarding "rabāb" apparently solely as a generic name, notes no difference between the instruments, save that the kamanjā is a later development of the primitive rabāb, a theory borne out strikingly by his illustration of the kamanjā at the end of the section; this shows an instrument without a spike, and in shape strongly reminiscent of the rabāb of the Carrand casket mentioned above. (cf. infra on the description of the instrument.) It is true that our author (col. 276 line 1) hints, in one of his numerological passages, at a difference between the instruments, but the sense is too obscure at present to allow of any deductions being drawn from it. Apart from that, to all intents and purposes "kamanjā" is, for this MS, the modern word for "rabāb". Nor is this without parallel; according to the late Ra'ūf Yektā Bey, the modern instrument of the rebec type is called in Turkey the kamāncha/

kamāncha. (vd. Farmer: Turkish Musical Instruments p.43 and cf. the references to the kamānja Rūmī given above.)

Curious etymologies are given for both names; rabāb, betraying again the eponymous hero strain, is referred to a certain Rabāb Su'dā, or foster-son of Su'dā. In point of fact even this laboured etymology is fallacious; as rabāb does not mean foster-son, the only forms given by the dictionaries with that meaning being rabīb and rabūb. (vd. Lisān, ad loc.) This seems to be realised by our author, who cites as a parallel the forms "khadīb" and "khadāb" which he says are of the same meaning, the forms being interchangeable. This is not so; "khadīb" means "dye", and "khidāb" (not "khadāb") is the corresponding nominal form meaning "dye"; of a form "khadāb" I can find no trace. The true derivation of rabāb is indeed probably from the same root "rabba" which produces "rabīb", and "rabb" - foster father, but in another meaning. As Dr. Farmer has pointed out (Studies I, 100) "rabba" means commonly to collect or assemble together; hence رِبَّةٌ, a large crowd, رِبٌّ, the thickened juice of fruit, and مَرْتَبٌ a meeting place. So "rabāb" is an instrument which "collects" short disjunct notes into one sustained (muttaṣil) note. Given this derivation from the root "rabba", the story of Su'dā is of the type easily invented by the popular imagination to explain the similarity between "rabāb" and "rabīb".

Kamanjā also is strangely dealt with; in the first place, throughout the chapter it is incorrect in spelling; derived from the Persian kamān, meaning a bow, and jah meaning place, the form is usually kamānja with alif of prolongation after the "mim", not after ^{THE} "jim". But here again the faulty spelling is connected with the false etymology, as we are told (col. 275) that "its name is derived from absence/

200.

absence and presence." Whether or no there be some obscure reference in this and in the alleged proverb which follows, I have been unable to discover; certainly it seems pointless as it stands, save for the similarity of the closing words of the proverb with the name of the instrument. Indeed it looks as if the instrumental name had been arbitrarily changed to fir an imaginary etymology.

One other matter of vocabulary which demands notice in this chapter and in that following is the use in cols. 268-270 of many of the technical terms of Ṣūfī mysticism. The story, which introduces this section on the mystical value of music, concerning the man selling wild thyme, is to be found also in the *Ihya* of Al-Ghazālī. (vd. JRAS 1901 p.238) In both cases the moral is the same - "it depends on the hearer what he hears", and the theme is elaborated; although the *rabāb* was originally an instrument of mourning, its sound is appropriate also to those whose circumstances are happier. It is spoken of as producing ecstasy (*wajd*) in col. 269 line 2, an effect more commonly produced by the rustic pipe (cf. ^{supra} ~~infra~~ under *shu'aibiya*), although Jalāl al-Dīn Rūmī mentions such a use of the *rabāb* in one of his odes (vd. Nicholson's translation in Leg. Is. p.231.) For a discussion of the relevant mystical terms, see 'Abd Al-Razzāq: Dictionary of Technical Terms of the Ṣūfīs (ed. Sprenger), or R.A. Nicholson: Studies in Islāmic Mysticism, pp. 278ff.

The story of Su'dā bint 'Amir and the invention of the *rabāb* has already been referred to; one small contradiction in the text is to be noted by way of preface. Col. 263 line 1 states that the woman was the inventor or the first maker of the viol; on the other hand, col. 265 line 8 states that she gave much money to have a *rabāb* made for her. Now whether this is an accidental slip or the meaning is that the/

the idea was the woman's the execution by another, is uncertain. But in any case the point is immaterial; it is a purely Arabic tradition which lies behind the history of the rabāb according to our author, who states definitely (col. 275) that it was one of the instruments of the pre-Islamic period. This is borne out by Evliya Chelebi, who speaks of it as being allowable before Muhammad's time. (Farmer: Ev. Chel., p.43) Apparently at least the rabāb was of considerable antiquity among the Arabs, whether or not it is possible to refer it to an exclusively Arabic source.

In view of the mutual interdependence of the lute and the viol families, it is difficult to be precise about origins, but, as suggested in chap. 5 of this work, it seems probable that both instruments had their beginning in the Semitic funerary customs. Reference has already been made to the gruesome story, in Ibn Khurdādhbih and Ibn Salama, of Lamak and the invention of the lute. The present chapter puts the rabāb on a similar footing, a similarity possibly suggested by the extreme flexibility of the tone of the rabāb and its resemblance to the human voice. (Cf. col. 265, line 10, and Al-Fārābī: d'Erlanger I, 21 ff.)

One other feature is of interest in the story of the invention of the rabāb; reference is made, in col. 266, line 10, to a "water-wheel" (sāqiya) which Su'dā had made for her, to accompany with its mournful creaking the wailing notes of the rabāb. It is possible that the word "sāqiya" here refers to some type of musical instrument; as e.g. the words dūlāb and nā'ūr which also mean "water-wheel" are given by the Ikhwān al-Ṣafā' among a list of musical instruments which produce "conjunct" sounds, a list which incidentally, includes along with them the rabāb/

rabāb. (vd. Farmer. Studies I,102 n.4) But I have been unable to discover any other use of "sāqiya" as a musical instrument, and have therefore retained the meaning of "water-wheel" in the text. The association of "sāqiya" and "rabāb" is very understandable from the point of view of sound, as almost every Oriental traveller has taken occasion to comment on the mournful creaking sound made by the water-wheel at work. (cf. Lane: Mod. Eg. p.301; Doughty: Arabia Deserta I, 134.)

Little comment is needed on the description of the instrument provided in the text, beyond what has been already said, for the chapter contains even less actual data on the instruments than any of the preceding chapters. No difference in shape is noticed between the rabāb and the kamanjā, though we know that even to-day the rabāb is trapezoidal and flat-chested, while the kamānja is hemispherical, the sound-chest often being constructed of a coconut shell. The illustration at the end of the chapter shows an instrument unlike either of these traditional shapes, but more influenced by the pear-shape of the lute, and to all appearance, more resembling the vielle of the Middle Ages. We are told that it had strings of horse-hair (col. 272) as was usual (cf. Farmer: Studies I,77, Fétis II, 135, Lane: Mod. Eg. 326), and that they were two in number (col. 281), an arrangement characteristic of the kamānjāt of Egypt (vd. Sachs: History 255) and of the rabāb al-mughannī. (Lane: op. cit. 333.) Against such a description in the text must be set the evidence of the figure at the end of the chapter, as this shows three strings and four pegs! Such pictographic evidence is of course highly unreliable, and too much weight must not be attached to it. (cf. the illustration of the qānūn, chap. 4, and the commentary ad loc.) None the less, other examples/

examples of the kamānja quoted by Sachs (Hist. p.256) as coming from Turkestan have three or four strings, as well as sympathetic wire strings behind those agitated by the bow. Farmer too (Studies I, 76 and plate) describes and illustrates a kamānja from the Snouck Hurgronje collection made at Mecca, which has four pegs - and apparently only three strings: He comments that as Dr. Snouck Hurgronje refers in his book to a four-stringed kamānja, this is probably the same instrument, and that it is in all likelihood indigenous to Al-Hijāz. It is probable that it is such an instrument which is illustrated by our author.

Two other facts come to light concerning the description of the kamānjā; in col. 279 "the box should be light without much thickness of wood." Now the word "ḥaqq" is not of common occurrence with reference to the sound-chest of an instrument; the usual word is "jism." But it can mean nothing else here, as, if the reference had been to the peg-box, the word "banjāk" would have been used, as in chap. 2. Indeed it is doubtful whether our author's instrument had a peg-box at all; the plate shows the tuning-pegs inserted in the sides of the neck, as in the gunībrī mentioned above. For the reference to the lightness of wood necessary to the sound-chest of a stringed instrument cf. the quotations from the Ikhwān al-Ṣafā' and from b. Al-Taḥḥān, as given in the chapter on the lute. But it is obviously a built-up sound-chest which the author has in mind, something more of the structure of the lute than resembling the small hemispherical body of the kamānja.

And this point is further brought out in the next line of the same column, by the observation that "the hole in it shall be the [right] size", neither too large nor too small. The reference here is manifestly/

manifestly to the large circular hole characteristic of the lute family, found on the face of plucked-string instruments. But neither the rabāb nor the kamānja of the true Arabic design have any such hole the back of the latter is either sliced off, or pierced with innumerable small holes for the emission of sound. (vd. Farmer: Studies I, plate p.76, nos. 27 and 26 respectively.) But the later development of the rabāb in Europe certainly does show such a sound-hole, due to the modifying influences of the lute. (cf. Geiringer: Mus. Inst. Plates VIII, IX, XIV, XVI.) The inference thus is again that our author has in mind, not the original Arab viol, but a later and much modified instrument, such as is represented in his illustration. A plate containing the illustration to this chapter, and also those appended to chapters 7 and 8 (qānūn and shu'aibīya) will be found in Dr. H.G. Farmer: Sources of Arabian Music (plate facing p.58).

The position of the Arabic viol family in playing has already been mentioned; originally the instrument was equipped with a spike-foot which rested on the ground in front of the player as he sat cross-legged, and served to raise the viol to a height convenient for playing. To this model the traditional instruments still conform (vd. Villoteau, Lane, Fétis, and Farmer as quoted above). But as a result of the influence exerted by the lute and the guitar on the development of the rabāb, the spike was curtailed, and the instrument was played resting on the musician's left knee or thigh. Such is the posture envisaged and illustrated by the author of this MS (cf. col. 291 and plate at end of chapter.) In fact the instrument presented in this chapter is clearly a transitional stage between the primitive Arab rabāb/

rabāb and the Medieval European rebec, the "pear-shaped rabāb" of Farmer (Studies I, 106).

No details of playing are noted; the bow is never mentioned, nor is its use even hinted at. Indeed it is tempting to speculate on the grounds of the text that we have reference here to a plucked rabāb, especially as the word used of playing the instrument is "ḍaraba", to strike or beat. But a bow is clearly depicted in the plate which closes the chapter, and the verb "ḍaraba" is used generically, without trace of its original meaning, of playing any musical instrument e.g. it is used in the preceding chapter of playing the flute. In addition, the whole trend of the story of Su'dā with its emphasis on the flexible, almost vocal, tone of the rabāb makes it abundantly clear that a bowed, and not a plucked, instrument is in mind. A similar comment on the sound of the viol may be seen in Doughty: Arabia Deserta I 81, 138 where the traveller refers to "the grave sound of the rabeyby". It seems strange that in such a MS as this, no notice should be taken of the method by which the notes are produced, but such omission is the less surprising when we remember that none of the classical Arabic writers on music mention the bow, although its use is clearly to be inferred from their language. (vd. Farmer: Studies I, 102, 3.)

From other sources, principally from modern practice we may gather that the rabāb was sometimes played without a bow as it is to the present day among some of the Beduin (cf. Crichton: History of Arabia II 380) and as it is among the Kabiles of Algeria (Salvador-Daniel 119, 229.) We know also that it was held vertically in the left hand, while the right manipulated the bow, the wrist being held underneath/

underneath and the fingers turned upwards on the bow-handle to give greater delicacy of touch. The bow is worked constantly in the same plane of movement, as opposed to our violin playing, the rabāb itself being turned in the left hand in order to bring the bow to bear on one or other of the strings; illustrations will be found in Fétis and Lane.

Epilogue.

(Cols. 365-372.)

365. A story is told of one of the kings - it is also said that he was one of the Caliphs - that he was a pious and ascetic man regarding this world, loving science and opposed to heretics. He heard of one of his governors that he loved dissipation and liked singing and music; so he sent for him, and the man came before him. He went into the accounts very rigorously and found that a vast sum of money had been squandered; he enquired about that, but the man was silent and made no answer. The king demanded a return for the money he had lost and found that the man had nothing, but that all had been spent on music and singing. He asked one who was present about the matter, and was told "Oh Commander of the Faithful, around him were

366. men who seduced him into evil and strengthened him in that state; and he fell in with them. He has thirty courts where listening to music is practised; crowds gather to him, and the money is spent on them. Every night they listen to music and there come to him the sons of the merchants, the children of princes and nobles from the people of the city. So he has corrupted the people and swindled the Commander of the Faithful out of a great sum. The merchants are crippled, the people are beggared because of the extent of their dancing and

367. singing from dusk to dawn. For such is their custom every night."

The narrator continued: When the Caliph heard that, he said "As for this man, he must go to prison; as for his courts, they shall be all laid waste." So he ordered all listening to music to cease, and all musical instruments to be forbidden, so that there was no one left there who could handle an instrument or sing. But there lived

a/

a man in that city, in a mosque, and he loved listening to music, because he knew a little of some of the secrets of Allāh which He has placed in the reed pipe. He started to search it out, because of the lack of music, and in his heart he found something. He struggled against it and revealed to no one what he thought, fearing that he would be censured. But he grew weak because of that and his body wasted away, and his colour altered so that the faqīrs started visiting him. And finding him in a desperate state, they said to him "Have you any doctor that we may bring you to make you well, to minister to your suffering, and to heal your disease?" But he said "My physician is the cause of my illness, and none but he can cure me."

So when the matter was too hard for them, they sought a skilful physician for him, one who had knowledge of the sciences. And when he visited him, the physician saw that his condition was changed, that wasting had come upon him, and that his paleness was the mark of love. He felt his joints and saw that the limbs were normal with nothing wrong; then he said "What a wonderful thing is this! What is the matter with this man? I do not know what has caused in him this weakness which has overtaken him."

He continued to treat him for some time until the man died; then when he was being buried the physician came to find out about him. He gave some money to the grave digger, saying "When you go down into the grave to bury this man, split open his breast and look round his heart, and tell me what you see there." So when he buried the corpse and split open his breast, he saw round the heart a red stone, as red as burning fire, beyond price. The gravedigger snatched at/

at it and pulled it out, taking it in his hand; then when he came out
 370. of the grave, and the earth was poured over it, the physician said to
 him "What did you see?" He said "I saw this" and gave it to him.
 The physician took it from him, made a ring of red gold for it, put
 that stone in it, and wore it on his finger.

It remained on his hand for a long time, and shone like the
 morning; whoever saw it was perplexed by it, no one knowing what it
 was. Some said it was a mineral stone, some said it was an animal
 stone, and some did not know what it was. But it was neither of the
 371. two kinds mentioned, but a drop of that man's blood which had
 clotted. It continued on the physician's hand until he went to
 attend the Caliph. The Caliph saw it, took it from him and put it
 on his own finger where it remained until the Caliph was giving a
 wedding feast for one of his slave girls. He had summoned musicians
 and they were there singing and dancing while the Caliph watched
 them, his hand with the ring on it lying on his thigh as he watched
 them in wonder.

When that stone heard the sweet sound of music, it melted from
 the ring at once and became fresh blood, flowing over the Caliph's
 garment. He wondered at it, called the physician and asked about it;
 the physician then told him the story in detail. When the Caliph
 372. went to sleep that night, he saw the old man in a dream, saying to
 him "Allāh give you rest as you have given me rest; my blood was
 imprisoned and you have set it free." The Caliph exclaimed "Praise
 to/Allāh who has guided us to this; for He is the guide of those
 who stray."

3. Appendices.

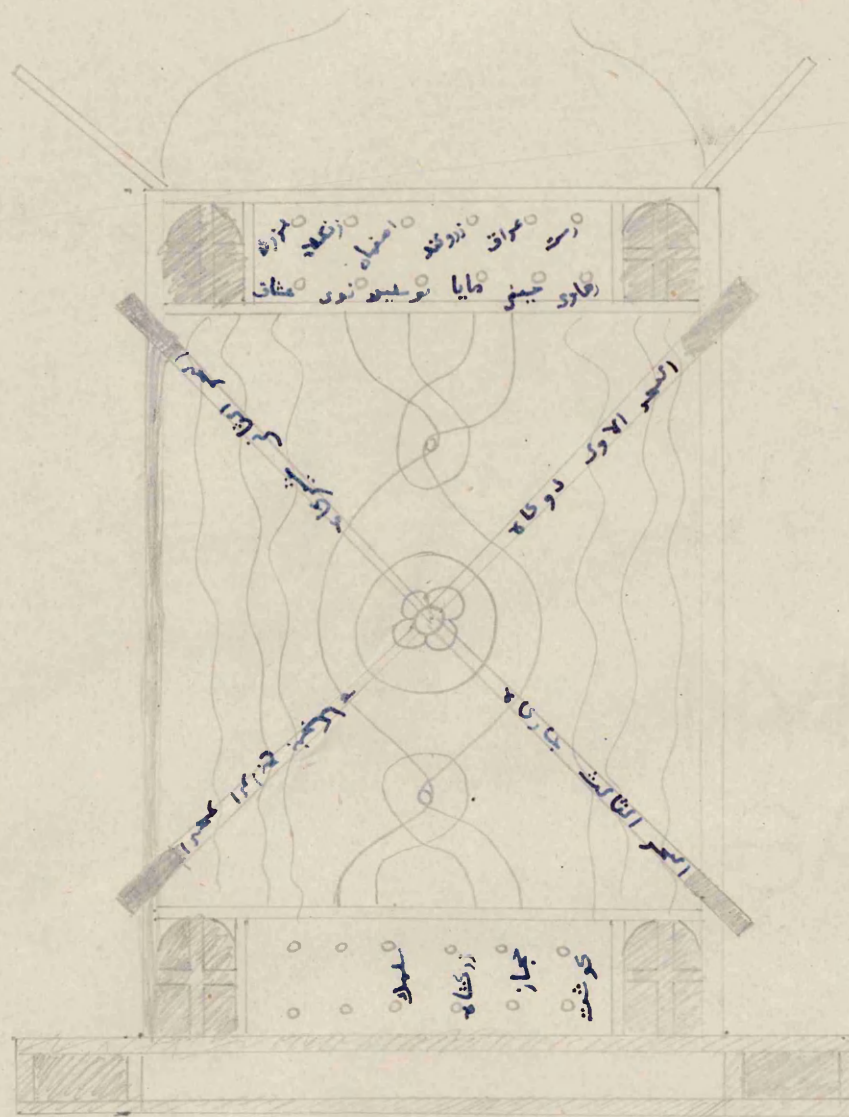
A) The ASTRONOMER'S CIRCLE.

MODE.	Rast.	Irāq	Zirakand	Ishahan.	Zankudā.	Buzork.	Rahavī.	Husainī.	Majdah.	Bosaliik.	Nawa.	Ushshag.
SIAN OF ZODIAC	Aries	Taurus.	Gemini.	Cancer.	Leo.	Virgo.	Libra.	Scorpio.	Sagittarius.	Capricorn.	Aquarius.	Pisces.
MONTH,	Barmahat	Barmuda.	Bashams.	Ragna.	Abib.	Misra.	Tot.	Baba.	Hatur.	Kihak.	Tuba.	Rashir.
COPTIC. MONTH,	Muhtarim.	Safar.	Rabit I.	Rabit II.	Tumadi.	Tumadi.	Rajab.	Shaban.	Ramadan.	Shawal.	Thu y. Qada.	Du y. Hijr.
MUSLIM. PART OF BODY	Face of Head.	Neck.	Shoulders.	Elbows.	Back.	Arms.	Flanks.	Tuenda.	Bu Hocks.	Thighs.	Legs.	Feet.
DAY OF WEEK	Tuesday.	Tuesday.	Wednesday.	Monday.	Sunday.	Wednesday.	Friday.	Tuesday.	Thursday.	Saturday.	Saturday.	Thursday.
HUMOUR	Blood.	Blood.	Blood.	Bile.	Bile.	Bile.	Black Bile.	Black Bile.	Black Bile.	Phlegm.	Phlegm.	Phlegm.
SUBSTANCE OF METAL.	Cornelian.	Yellow Copper.	Lead.	Tin.	Gold.	Mercury.	Red Copper.	Red Copper.	Silver.	Iron.	Steel.	pearls.
COUNTRY	Europe.	Rum.	Egypt.	Mushrie.	Turkey.	South Egypt.	Star Countries.	Algeria.	Iraq.	Sudan.	India.	Wiaz.
SEX	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
ELEMENT	Fire.	Earth.	Air.	Water.	Fire.	Earth.	Air.	Water.	Fire.	Earth.	Air.	Water.
MANSIONS OF THE MOON.	Shartan.	Thurayj.	Hana.	Natra.	Karthan.	Sawab.	Shatr.	Qab.	Narim.	Dhabih.	Su. Sa.	Almuqadim.
	Buhtam.	Dabaran.	Thitas.	Tarf.	Sarka.	Simak.	Zubana.	Shawla.	Balada.	Bula.	Rahbiya.	Almuqadim.
	Hagea.	Hagea.		Taha.			(Zari)					

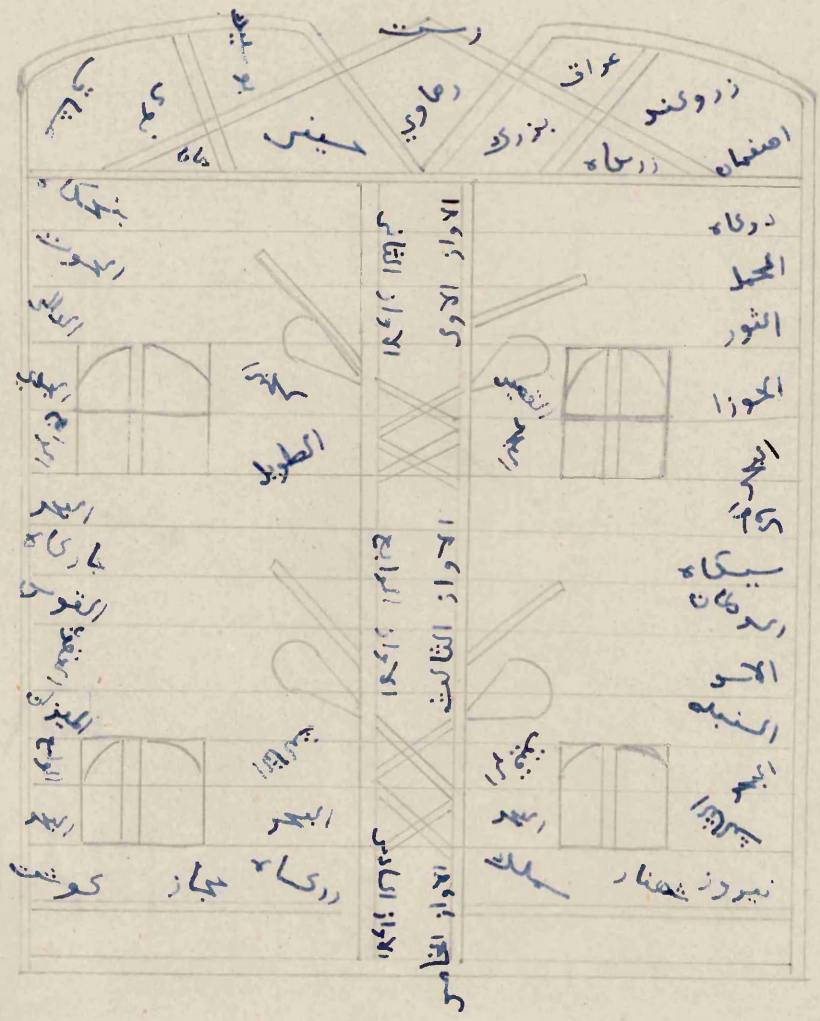
Notes.

1. Under the mode 'Irāq no day of the week is given, the space being taken up by a repetition of the humour (blood) and the metal (yellow copper). No system is apparent according to which of the days of the week are allocated to the modes.
2. I have been unable to identify the metal given under the mode Rahāwī. It is written ب, كا but no such form is known to the dictionaries.
3. Under Buzurk the first Mansion of the Moon is written عوي ; this would seem to be an error for صوي which is thirteenth in the list of Mansions.
4. Under Rahāwī or under Husaini one of the Mansions is omitted; the seventeenth Mansion is Iklīl, and should be inserted here though no trace of it appears in the text.
5. Under Ushshaq, the final Mansion is quoted as Rishā'; this term is applied normally to a group of small stars in Pisces, a constellation embraced by the twenty-eighth Mansion which is usually given as Batn al-Huṭ.

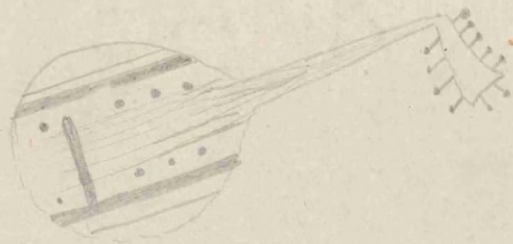
B) The Instruments.



The Musiqa.



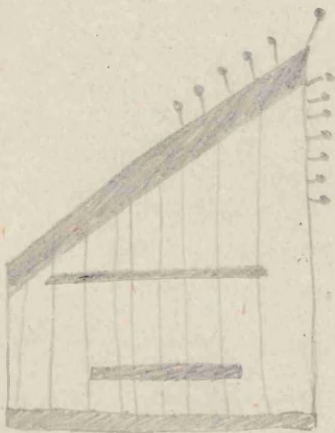
The Yurchal.



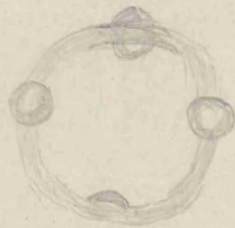
The Ud.



The Jank.



The Qanun.



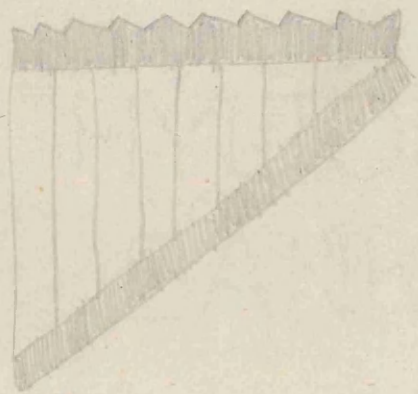
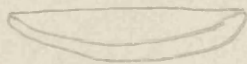
The Tar.



The Shabbaba.



The Rabab.



The Shu'abiya.

C)- BIBLIOGRAPHY.

- b. 'Abd Rabbihi: Kitāb al-'Iqd al-Farīd. Cairo 1230 A.H.
- Beale, T.W.: Oriental Biographical Dictionary. London 1894.
- Bell, R.: The Qur'ān. Edinburgh 1937.
- Bibliotheca Geographorum Arahorum ed. de Goeje Leyden 1870-94.
- Brockelmann, C.: Geschichte der arabischen Litterature 2vols. Leipzig
1898-1902 & supplement in progress.
- Al-Bukhārī: Sahīh ed. Krehl. Cairo 1318 A.H.
- Burckhardt, J.L.: Arabic Proverbs. London 1875.
- Burton, R.F.: Arabian Nights. ed. Lady Burton. London 1886.
- Chavarri, E.L.: Musica Popular Espanola. Barcelona 1927.
- Chouquet, G.: Catalogue ... du Conservatoire Nationale de Musique.
Paris 1884.
- C ombarieu, J.: La Musique et la Magie. Paris 1909.
- Doughty, C.M.: Travels in Arabia Deserta. London 1936.
- Dozy, R.P.A.: Supplément aux Dictionnaires Arabes. Leyden 1881.
- Dozy & Engelmann: Glossaire des Mots Espagnols et Portugais Dérivés de
l'Arabe. Leyden 1869.
- Encyclopedia Britannica 14th. edition. New York 1939.
- Encyclopedia of Islam. Leyden 1913- In progress.
- Engel, C.: Music of the Most Ancient Nations. London 1870.
- d'Erlanger, Baron R.: La Musique Arabe. Paris 1930.
- Evliya Chelebī Effendī: Travels in Europe. trans. von Hammer. London 1846.
- Fagnan, E.: Additions aux Dictionnaires Arabes. Algiers 1923.
- Al-Fārābī: see d'Erlanger, Baron R.
- Farīd al-Dīn 'Aṭṭār: Tadhkirat al-Awliyā. ed. Nicholson, 2 vols.
London - Leyden 1905-7.
- Farmer, H.G.: The Influence of Music ... London 1926.

- Farmer, H.G.: History of Arabian Music. London 1929.
- : The Organ of the Ancients. London 1931.
- : Studies in Oriental Musical Instruments, series I & II.
London 1931, and Glasgow 1939.
- : Turkish Instruments of Music. Glasgow 1937.
- : Sa'adyah Gaon on the Influence of Music. London 1943.
- : The Sources of Arabian Music. Bearsden 1943.
- Ferguson, D.N.: History of Musical Thought. London 1935.
- Fétis, F.-J.: Histoire Générale de la Musique. Paris 1869.
- Fox Strangways, A.H.: The Pipes of Pan. in Music and Letters X (1929)
- Galpin, F.W.: Old English Instruments of Music. London 1910.
- Garstang, J.: The Heritage of Solomon. London 1934.
- Geiringer, K.: Musical Instruments. London 1943.
- Gevaert, A.: La Musique de l'Antiquité. Ghent 1881.
- Al-Ghazālī: Music and Ecstasy, being a translation from the Ihya' 'Ulūm al-Dīn by D.B.Macdonald. in J.R.A.S. 1901-1902.
- Grove's Dictionary of Music and Musicians. 4th. edn.-H.C.Colles.
London 1940.
- Hajji Khalīfa: Lexicon Bibliographicum et Encyclopaedicum. ed. Flügel.
7 vols. Leipzig & London 1835-58.
- d'Harcourt, R.etM.: La Musique des Incas. Paris 1925.
- Al-Hujwīrī: Kashf al-Mahjūb. trans. R.A.Nicholson in G.M.S. London 1911.
- Ikhwān al-Ṣafā': Rasā'il. Bombay 1305 A.H.
- Al-Iṣbahānī: Kitāb al-Aghānī. 20 vols. Būlāq 1285 A.H.
- Jalāl al-Dīn Rūmī: Mathnawī. Text & trans. by R.A.Nicholson in G.M.S.
London 1926-34.
- Jewish Encyclopedia: ed. Isidore Singer. New York 1906.
- Al-Kalābādhī: Kitāb al-Ta'arruf. trans. A.J.Arberry. Cambridge 1935.

- b. Khallikān: Biographical Dictionary. trans. de Slane. Paris 1843-71.
- Land, J.P.N.: Recherches sur la Gamme Arabe. in Actes du Sixième
Congrès des Orientalistes. Leyden 1884.
- : The Earliest Development of Arabic Music. in Transactions
of the Ninth International Congress of Orientalists.
- Lane, E.W.: Manners and Customs of the Modern Egyptians. London 1890.
- : An Arabic-English Lexicon. London 1863-93.
- Lane-Poole, S.: Mohammedan Dynasties. London 1894.
- Lavignac, A.: Encyclopédie de la Musique. Paris 1921-22.
- Legacy of Islam: ed. Sir T. Arnold. Oxford 1931.
- Le Strange, G.: Baghdad during the Abbasid Caliphate. London 1900.
- MacGuckin de Slane, Baron: b. Khallikān's Biographical Dictionary.
4 vols. Paris 1843-71.
- Macnaghten, W.H.: The Thousand Nights and One Night in the original
Arabic. Calcutta 1839-42.
- Al-Maqrīzī: Kitāb al-Sulūk. trans. Quatremère. Paris 1837.
- Al-Mas'ūdī: Les Prairies d'Or. ed. Barbier de Meynard. Paris 1874.
- Muir, Sir W.: The Mameluke or Slave Dynasty of Egypt. London 1896.
- : Life of Mohammad. Edinburgh 1912.
- : The Caliphate, its Rise, Decline and Fall. Edinburgh 1924.
- Nicholson, R.A.: Literary History of the Arabs. Cambridge 1930.
- : Studies in Islamic Mysticism. Cambridge 1921.
- b. Al-Qaisarānī: Rijāl Al-Bukhārī wa Muslim. Hyderabad 1323 A.H.
- Reese, G.: Music in the Middle Ages. New York 1940.
- Riano, J.F.: Notes on Early Spanish Music. London 1887.
- Ribera, J.: La Musica de las Cantigas. trans. Hague & Leffingwell.
London 1929.
- Robson, J.: Ancient Arabian Musical Instruments. Glasgow 1938.

- Robson, J.: Tracts on Listening to Music. London 1938.
- Sachs, C.: Reallexicon des Musikinstrumente. Berlin 1913.
- : History of Musical Instruments. New York 1940.
- b. Salama: Kitāb al-Malāhī. see Robson: Ancient Arabian Musical Instrument
Salvador-Daniel : Music and Musical Instruments of the Arabs. trans.
Farmer. London undated.
- Al-Samʿānī: Kitāb al-Anṣāb. ed. *Margoliouth* in G.M.S. London 1912.
- Schlesinger, K.: The Instruments of the Orchestra and Precursors of the
Violin Family. London 1910.
- : The Greek Aulos. London 1939.
- Stainer, Sir J.: Music of the Bible. London undated.
- Thorndike, L.: History of Magic. 2 vols. London 1923.
- Ugolinus, B.: Thesaurus Antiquitatum Sacrarum. Venice 1744-69.
- Vullers, T.: Lexicon Persico-Latinum. Bonn 1855-64.
- Wright, W.: A Grammar of the Arabic Language. 3rd. edn. 2 vols. London
1933.
- Yāqūt: Dictionary of Learned Men. ed. Margoliouth in G.M.S.
London 1907-27.