The balanced way:
Food for pleasure and health in medieval Islam
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The unknown author of the Hippocratic tract entitled *Ancient Medicine* describes the origins of medicine in the trial and error of daily life experienced by his primitive ancestors. Raw ingredients which were difficult to digest they learned to subject to a variety of cooking processes. By also 'diluting' them with 'weaker' foods so as to suit man's nature and his capabilities, distress and illness were avoided while nourishment and growth were promoted. 'What fairer or more fitting name can be given to such research and discovery than that of medicine, which was founded for the health, preservation and nourishment of man and to rid him of that diet which caused him pain, sickness and death'?1

This early and intimate relationship between the cook and the doctor is not the only contribution to man's development made in the kitchen. The kitchen has also been described as the 'birthplace' and the 'foster-home' of many of the major aspects of civilization's later technological knowledge. Throughout the ancient and classical periods of Greek culture the culinary interest in cooked food and the medical concern for its effects upon the body, while ever present, is less in evidence owing to the almost total absence of Greek culinary source material. In Chinese civilization down through the T'ang and early Sung periods (early seventh to thirteenth centuries), the same connection between food and diet is manifest, but the extant sources for these centuries are notably lacking in detailed culinary works2.

The conjunction of culinary and dietary concerns is, by good fortune, preserved in the literary remains of medieval Islamic culture although study of it has yet to be developed. Scholarship up till now has not in fact perceived the medico-culinary tradition as worthy of separate attention. Certain, albeit halting, steps have been taken over the past half century which should now make it possible to investigate this tradition with the thoroughness it undoubtedly deserves. What we attempt here is a modest prolegomenon to the subject which must at first inevitably deal with both printed and manuscript sources; this will, however, provide the appropriate context within which we may discuss the most recent efforts being made on the extant manuscript material, while at the same time indicating the way forward for further studies.

The picture presented collectively by scholars of the available Arabic source material and secondary studies is one of two discrete traditions, the one medical, the other culinary. Taking the latter first, it is easy to acknowledge the starting point of the serious study of food in medieval Arab Islamic culture. This is the article published in 1949 by Maxime Rodinson entitled 'Recherches sur les documents arabes relatifs à la cuisine', which deals admirably with the source material up to that time3. Rodinson also examines in particular the work entitled *Kitāb al-wuṣla ilā l-ḥālib fī wasf l-ṭayyibāt wa-l-ṭib* attempting to identify the author and provenance of the work as well as providing a family tree of the relationship between the ten manuscript copies known to him. His conclusion, as approximate as it can only be, is that the work belongs to the Ayyubid period and was compiled by some person of distinction accustomed to court life4. Unfortunately however, forty years on, this important work has yet to appear in a printed edition.

Nevertheless, our store of knowledge of culinary manuals has been immeasurably increased as various manuscripts have meanwhile appeared in printed form. Among these are the 12th/13th century anonymous work on Andalusian/Moroccan cooking edited by Ambrosio Huici Miranda (Madrid, 1965)5 and a second work of similar provenance and period edited by Muhammad ben Chekroun (Rabat, 1981; Beirut reprint, 1984)6 entitled *Fadālat al-khīwān fī ṭayyibāt al-taʾām wa-l-alwān* and attributed to one Ibn Razīn al-Tujībī. These works not only introduced medieval Arab cooking on the western fringes of the Islamic world, but added some 900 recipes to those relatively few (around 160) found in the early 13th century Iraqi culinary manual, entitled simply *Kitāb al-ṭabīkh*, by Shams al-Dīn Muḥammad al-Baghdādī, which was edited by Dāʾūd al-Chalābī in the 1930's7. It was this work which, during the same decade, the late Profes-
sor Arberry translated into English*. Undoubtedly, however, the most important work to be published so far is the Kitāb al-tabīkh compiled by one Ibn Sayyār al-Warrāq. This has been edited by Ohrnberg and Mroueh and published by the Finnish Oriental Society (Helsinki, 1987)*. Its importance cannot be overstated for it represents the earliest known culinary work (late tenth century) compiled from sources available to al-Warrāq reaching back to the beginning of the ninth century. Exceptionally for the genre al-Warrāq cites many of his sources and from these we are able to piece together the story of the emergence of a ‘new wave’ cuisine which emerged with the rise of Baghdad as the cosmopolitan cultural centre of the Abbasid empire.

Between the late tenth and early thirteenth centuries (that is, between al-Warrāq and al-Baghdādi) there appears to be a hiatus. We cannot say with certainty that no manuscripts of recipes exist for the intervening centuries. The suggestion has been advanced that al-Baghdādi made an abridgement of an earlier work and renamed it as his own. This larger work is preserved in two complete but anonymous manuscripts held in the library of the Topkapi Saray and entitled Kitāb wasf al-aṭ‘ima al-mu‘ādādī. One of these manuscripts is dated Tuesday, 13 Jumādā al-‘Khāra, 775 (AD. 1373). While there is an undoubtedly close relationship between al-Baghdādi and the Wasf al-aṭ‘ima, in both structure and content, it is impossible at this stage to claim that one is simply an abridgement of and therefore posterior to the other. A close comparison of these two works needs to be made: moreover, the portion of the manuscript of al-Baghdādi held in the British Library (Or. 5099) and which contains recipes not found in the Chalabi edition might be published together with the non-corresponding parts of the Kitāb al-wasf. This exercise could be justified on lexical grounds alone, as we seek to enlarge and expand our knowledge of kitchen lore.

Finally, one last work needs to be mentioned in this context, an edited version of which is now in an advanced stage of preparation by the authors. We began with an anonymous, undated partial manuscript which Arberry in his Handlist of the Chester Beatty Library noted was simply a Kitāb al-tabīkh. We have since been able to identify this portion as belonging to the Kanz al-fawā’id fi tanwī‘ al-mawā‘id. We are using the Cambridge and Cairo manuscripts as well to complete preparation of the printed edition. From internal evidence of the text we have come to the conclusion that the Kanz is Egyptian in provenance, belonging to the middle Mamluk period.

One point emerges clearly from a survey of the available culinary treatises. While those of al-Warrāq and the two Maghribi compilers are each sui generis, there is a distinct, but as yet indeterminate, family connection among the remaining later works of the Fertile Crescent/Egypt region. Further study of this point is required and will be reported on in our introduction to the printed edition of the Kanz.

The culinary manuals provide a valuable source of data for the social historian interested in this aspect of the medieval domestic scene of which there is little enough information to go on in most other source material. A few relevant points may be made here briefly. First, knowledge is gleaned of the resource profile of foodstuffs available to the urban bourgeoisie in various regions; moreover, regional preferences and particularities can be highlighted, as with the recipes for kuskus found only in the North African-Andalusian cookbooks. Second, semantic or contextual analysis of the recipes can help clarify and extend the range of application of vocabulary units. This makes it possible to penetrate the obfuscation of medieval lexicographers who delight in saying of an object or ingredient that it is ma‘rif, ‘well known’, without further qualification. By noting how certain utensils are employed in practice, clearer meaning can be attached to the words used for them. Lane, for example, gives for ghadāra, ‘a certain utensil’ although with the added gloss of ‘a large [bowl such as is termed qas‘a’]. From numerous recipe contexts we can see that its kitchen function was as a receptacle in which the cooked food was transferred from the pot, and then probably taken to table. Or again, an analysis of verbs casts light upon kitchen operations, intricate, labour intensive and time consuming as they were. They fail in one important respect, however, namely in revealing who does the cooking. And the washing up! A third path of exploration is opened up by enabling us to place the kitchen and its operations in a broader context of the remaining domestic space of the household and between it and the outside world. Many of the kitchen operations were not for the immediate purpose of preparing meals, but for preparing foods such as pickles for storage and future use. Moreover, many dishes were prepared in the kitchen and then sent out to the communal oven (al-furn) to be cooked, or finished off.

Many of the culinary manuals, however, have a purpose beyond the mere transformation of raw ingredients into cooked dishes for the table. The opening chapters of al-Warrāq’s Kitāb al-tabīkh are devoted to the ‘natures’ of various foodstuffs, and their suitability for different temperaments, and seasons as well as for specific bodily functions or disorders. The Hellenistic background of food lore is everywhere apparent: the plant rocket (al-rashacl is described as ‘hot and dry’, yet its supposed purpose, in this case to arouse the appetite both carnal and otherwise, may well be embedded in a more ancient layer of Middle Eastern civilization. However, the link between the culinary and the nutritional or dietetic food concerns is evident.
In other cases, the connection is more casual. A cookbook may contain only the occasional recipe which itself is said to stimulate sexual desire, or else the flow of urine and so on. But even in cases where there is no allusion to food lore, as in the printed version of al-Baghdadī’s work, it is implicit reflecting a popular and largely oral, living tradition. Yet this kind of knowledge was not the sole province of either the cook or the doctor but was also a necessary part of a cosmopolitan urbanite’s general education. The cookbook, therefore, appears to have been composed less for the exclusive use of the professional cook than it was, however haphazardly thrown together, as a guide for the smooth functioning of the domestic household, where food in its broadest sense was of central concern.

A summary of the contents of the Kanz al-Fawā'id will illustrate the broad scope of material covered. The work, which consists of 177 folios, opens with general remarks on the skills required of a cook and the basic techniques of good kitchen management. Chapters two, three and four are brief comments only on bread making and the problems encountered with drinking water. The very lengthy fifth chapter (ff. 12-48) constitutes the largest culinary section covering dishes of sweet (hulw), sour (hāmiq) and plain (sādhib) preparations. These are categories of preparations familiar to al-Baghdadī. Chapter six deals with the labourious preparation for the condiment murī, and also for fruit ‘juices’ which had both culinary and dietetic applications. Chapter seven contains recipes for egg dishes, of which some are suggested for those with low libido levels. The eighth chapter contains ‘counterfeit’ dishes (al-muzawwarāt)14 for persons of ailing constitution; a recipe for the well known, and varied, preparation called zīrbāj is given in its false version for those with an choleric temperament. Fish dishes are contained in chapter nine, and the tenth is devoted to sweets; these preparations are intended chiefly to satisfy one’s enjoyment of food. Chapter eleven covers jauwārishānāt (stomachic confections), mu'amān (electuarys) and syrups to enhance digestion, all of which have less strictly culinary applications. The following two chapters deal with drinks and fruit infusions. Chapter fourteen describes how to prepare antidotes against lassitude and nausea (al-qaraf). There follow chapters on the preparation of mustard, condiments of the variety called kawāmik, pickles, and cold plates known as hawārid. Chapters twenty and twenty-one deal with perfumes and scents, a recollection of a similar chapter in the as yet unedited al-Wiṣla ilā l-habīb. The work closes with a chapter on fruits. It is, indeed, a veritable treasury (kanz) of the Arabic/Islamic medico-culinary tradition.

Our concern here, however, is not merely with works whose main focus is the culinary side of this tradition. The Islamic medical tradition has attracted much interest from scholars, as it is one where the influence of the classical Greek world had an undoubted impact15. Rather, our purpose is to focus upon that thread within the fabric of medieval medical studies which treats of dietetics, or the use of food-stuffs as a pathway to the balanced, healthy life. In Ullmann’s discussion of dietetics he bases his description upon al-Majūsī’s al-Kitāb al-Malakī. Al-Majūsī, who died in the late tenth century, includes the subjects of eating and drinking within a six-fold schema of ‘non-natural things’ by which man is able consciously to govern his way of life16. He carefully classifies the characteristics and degree of suitability and effectiveness of all kinds of inestibles in the diet. Ullmann seems somewhat perplexed that perfumes should be included in man’s dietetic rule of life. Compilers of culinary manuals, however, were well familiar with the preparation of a wide variety of such aromatic substances in the kitchen. The Kanz al-Fawā‘id contains a chapter on perfumes (ff. 152-156) as does al-Wiṣla ilā l-habīb17 and al-Warrāq cites a number of preparations in the last section of his work on drinks and syrups18. Clearly what was important from the perspective of both the doctor and the cook (indeed, from the perspective of the cultured urbanite who was not a professional practitioner in either field) where food and nourishment were involved, the concern and care was for the whole person. This more holistic approach may, upon further investigation, prove to have derived less from the Greek than from indigenous Middle Eastern cultural traditions.

The convergence of medical and culinary concerns may be traced back in the extant sources to the early Abbasid period to the time of the emergence of the ‘new wave’ cuisine in Baghdad. Ibn Màsawayh (d. 243/857) the noted physician to the caliphs, wrote a number of medical works but was also among the first to compile a cookbook. One of his medical treatises which would have held an interest for any contemporary epicurean is the Jawāhir al-tīb al-mufrrada19. The next generation was dominated by the man whom August Muller called ‘the most creative genius of medieval medicine’, namely Abū Bakr al-Rāzī (d. 313/925). He was also the author of a cookbook which, however, shared the same fate as that of Ibn Màsawayh’s and has not survived. He has, nevertheless, left one important work which belongs firmly within the medico-culinary tradition, the Manāfi‘ al-aghldhiyya wa-daf madārīh-ha20. The point to emphasize here is that the tradition can be reconstructed, not only from specialized monographs on the medical side such as those just mentioned by Ibn Màsawayh and al-Rāzī, but also by filtering the material from major medical compendia relating to nutrition and dietetics. As we have already noted, some compilers of cookbooks were well aware of such data within the medical
tradition. A further example is found in the chapter on perfumes in the *Kanz al-fawā'id*. Here the author cites, exceptionally, his source for a preparation. This was the *Firdaws al-Hikma* of 'Ali b. Rabbān al-Tabarî, who was, according to Meyerhof, probably a contemporary of the famous translator of Greek medical works Hunayn b. Ishāq (192,508-264,877) and a disciple of the venerable Ibn Māsawayh. The *Firdaws* includes many chapters which share a common ground with the culinary manuals: on the diet of each temperament at every age; diet in spring, summer, autumn and winter; on the cause of nutrition; on the kinds of aliments, their qualities and effects and so on. Of similar import is the *Kitāb al-Dhakhira fi 'ilm al-tīb* attributed to Thābit b. Qurra (d. 288,901) portions of which relate directly to the ingestion of food. And finally, from the western regions of the Islamic world mention may be made of two works: first is the *Kitāb al-Musta'īni* of Ibn Bukārish (ca. 500/1106) which still awaits a complete critical edition and the second is the recently published edition of Ibn Rushd's (d.595/1198) *Kitāb al-kulliyāt fi l-tīb* containing sections on nutrition and nourishment and on the preservation of health.

Enough has now been said to have made the point that the culinary works within the medieval Arabic corpus cannot be treated as entirely separate from those in the medical field. The allied discipline of pharmaceutics likewise provides much data for the way in which foodstuffs in the broadest sense were employed. The most widely accepted categorization of injestibles was the fourfold division of remedies, poisons, remedial foods and nourishing foods. Thus what medieval man thought about and did with his food resources remains a rich field for the investigator. And much of this material is still in manuscript form awaiting the attention and energies of editors.

We may conclude this survey with an illustration of our argument. Two of the medieval world's most important food products as sweeteners were honey and sugar (although, of course dried fruits acted in a similar capacity in numerous dishes). A common theme of many substantial main dishes was to create a balance between the sweet and the sour flavours the latter characterized chiefly by the use of vinegar. Honey was, for reasons of its lower cost, the more widely used substance being, in fact, the most ancient sweetener known to man. Both products were also of concern to medical writers because of their natural characteristics and as nourishment but also for the uses to which they could be put in the preparation and administration of remedies such as electuaries.

By way of illustrating the medical treatment of honey and sugar we have selected a piece from the *Kitāb al-murshid ilā jauāhir al-aghdhiya wa-qwā al-mufradāt min al-aghdhiya* of Abū 'Ali Muhammad b. Ahmad b. Sa'dī al-Tamīmī, a native of Jerusalem who died toward the end of the 4th/10th century. The work is to be found in the National Library in Paris, manuscript Arabe 2870, and is incomplete. Only one other copy is known to exist, also incomplete, and that is held in Leningrad. The Paris manuscript comprises four *maqālas* (11-14) of the second part (gharād) of the work. Folios 7- to 11' in the eleventh *maqāla* deal with honey and sugar. It is one of the longest and most interesting descriptions of the two sweeteners to be found in Arabic medical literature. Its early date of composition increases its value as a precedent for later texts, although al-Tamīmī himself does not give an entirely original account. Indeed, a close comparison with the *Kitāb al-aghdhiya* of Ishāq b. Sulaymān al-Isrā'īlī (d. 320/932) reveals this to be the most immediate precedent of al-Tamīmī's text. The bulk of al-Tamīmī's text is a copy of al-Isrā'īlī with only small divergences that do not affect the general meaning. Al-Tamīmī's original contribution lies only in his introductory remarks on honey and again on sugar. It is a possibility, of course, that both texts could have a common origin: neither al-Tamīmī nor al-Isrā'īlī cite their sources with the exception of Galen. Or again, as the textual differences are so marginal, they could each be the product of alterations made in the process of transmission.

From the evidence of the extract of al-Tamīmī translated here, one can see that he fits into a well established pharmacological tradition. For example, al-Tamīmī's career flourished between those of Abū Bakr al-Rāzī (d. 313/925) and Ibn Sinā (d. 428/1037); his description of the kinds of honey, its nature and benefits coincides closely with that given by each of these outstanding authors. On the other hand, the lengthy description by al-Bīrūnī (d. 442/1050) in his *Kitāb al-saydama* bears only slight relation to al-Tamīmī. Similarly, the work on dietetics of the Cordovan scholar Ibn Zuhr (d. 557/1161), the *Kitāb al-Aghdhiya* bears only minor relationship with al-Tamīmī. Be that as it may, al-Tamīmī could be said to belong to a 'cluster' of scholars who reflect the traditions of the Islamic heartlands whatever that mixture might ultimately be comprised of; and that, therefore, the Islamic medico-culinary tradition not surprisingly consists of several broadly defined regional blocks which in themselves and their inter-relationships further detailed study is required. The tradition itself, as defined here, also deserves to be explored in greater depth as the extant sources of the medieval Arabic corpus provide a more complete picture of a such a tradition than in any other contemporary medieval civilization.
TRANSLATION

On Bee’s Honey

Muhammad said: Although we have devoted an account about honey in the first treatise of this book dealing with food and its various types, it must be said that honey is not to be dissociated from simple drugs. Moreover, it cannot be distinguished from them because its merits as a drug exceed its merits as nourishment. Compound drugs have neither consistency nor permanence unless honey brings together and fixes their parts. This is so because honey contains in its nature the preservation of vegetal and other fleshy substances. It hinders the air from reaching them and so destroying their strength, thus checking decay and stopping the dissolution of their parts. Moreover, honey contains a clear strength, dissolves coarse ingredients, conducts drugs to diseases located in the depths of the bodily organs helping to make them effective, allowing them to become dissolved and evacuated. Because honey was one kind of manna fallen from the sky, as we have previously said, this is the place to mention it, to describe its actions and the spot to account for its virtues and benefits.

I say: Honey is hot and dry in the end of the second degree. It is sharp and piquant, both qualities drawn from the nature of bees. Thanks to these honey cleans, checks and absorbs the moisture from the depths of bodies, purifies it through the pores, washes away the impurities of veins and arteries and cleanses them. For this reason it is suitable for cold and moist bodies, either because of their temperaments and age or because of some accidental state. This is because honey is conveyed quickly to the blood in these kinds of bodies, and allows them to have proper nourishment although its nourishment is not great owing to its fineness and the rapidity with which it dissolves into the bodily organs.

As for bodies of a hot temperament, honey is not suitable, especially when they are both hot and dry; this is so because honey can inflame them and convert itself into yellow bile before being transferred to the blood. If the bile enters the blood after this has occurred, the blood becomes acrid and ceases to feed the bodies completely. This is why honey is one of the strongest and most useful drugs for elderly people of moist nature and most suited to their temperaments; it suppresses the moisture and dries it, causes a stinging sensation in the bowels, stimulates them and causing rapid evacuation.

As for young people, their disadvantage is evident. This is because honey causes the moisture of their bodies to dry, inflames them and restricts their natures thus provoking in them nausea and vomit. Honey varies according to its different types and means of employment. Its varieties can be of two orders: the first is according to the season of the year and the second is according to the bee’s food source and nourishment.

Beginning with the differences according to the seasons of the year, honey can be spring-honey, autumn-honey and winter-honey. The best and most suitable is spring-honey; autumn honey is next. The worst and most damaging is winter-honey, because it is the most viscous and being so it has lost its strength.

As for the differences in honey according to the bee’s source of food and nourishment, these can be many. Honey can be from bees which feed on pennyroyal, thyme, wild thyme, and related plants. Or else bees may also feed upon almond tree flowers, sant tree flowers and related plants. Or else they may feed upon absinth, wormwood, lavender cotton, camomile, sweet trefoil and related plants.

Honey produced by bees which feed on almond tree flowers, sant tree flowers and similar blossoms is more nourishing and pleasant tasting, less acrid and softer. Because of these qualities it is more harmful for the stomach but less so for the chest. When gargled, it is very useful for pains in the throat, for tonsils and quinsy. If the honey scum is removed and a electuary or syrup is made from it and shaken with some sweet almond oil, it produces the same effects. It is useful for asphyxia caused by eating poisonous fungi. When it is drunk warm, with rose oil, it moistens the cough, increases the urine and opens the bowels. If it is cooked with fresh dill and herpes are rubbed with it, they are purified. Kneaded with bean flour, it is used to rub freckles which are then purified and cleansed.

Honey produced by bees which have fed upon pennyroyal and thyme is much hotter and dryer. For that reason, it is useful and suitable for people suffering from hemiplegia and facial paralysis, for cleansing putrid dampness and dirty purulent ulcers (especially ulcers in the ears) in particular when the honey is mixed with ground salt. This is mineral salt dug out and extracted from a mine—not the salt which appears on the earth’s surface. When the head is rubbed with this honey, lice and nits are killed. The hair roots are purified from putrid dampness. It is useful too for alopecia. When taken as an electuary, it is beneficial for the bite of a rabid dog. When immediately coming out of the bath and after having soaked the penis thoroughly (in water), smear it with honey. If this action is repeated for a whole month, the penis will become longer especially if the honey is mixed with pellitory of Spain, spikenard, safārī borax, nitre, stave-sacre and castoreum. This last can be substituted by pure musk.

As for honey produced from absinth, wormwood, lavender cotton and sweet trefoil, this is the best of honeys for clarity, purification and for the opening of obstructions, especially those of the liver and spleen. It is also of special benefit for dropsy when drunk with the scum removed and thickened with she-camel’s

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As for the different kinds of honey according to their uses, their varieties are many. It can be used raw on its own; or water can be poured over it in large quantities and then cooked while its scum is continuously being removed until the consistency of honey is obtained. Then it can be used. Other ways of preparing honey as follows: cooking it without water being mixed with it, but removing the scum and cleaning it to the furthest degree; cooking but without overdoing or completing its cooking, nor removing its scum; cooking it very slightly without removing the scum.

Eaten raw, honey by its nature produces wind. It increases thickness in the chest because of its sharpness and it provokes vomit and diarrhea. The type cooked with water and completely without scum acquires from water a fineness and softness which cuts its sharpness and acridness. For that reason its purification and its function of opening the bowels are reduced. It produces no wind at all. not does it provoke vomit and nausea. This is because it penetrates the whole body quickly, softening the thickness of the chest, causing urine to flow and producing abundant and sound nourishment.

Honey cooked without water but with its scum thoroughly removed has lost its sharpness to a considerable degree as it is very close to honey cooked with water. The only difference is that it produces less urine.

Honey not completely cooked and whose scum has not been completely removed causes flatulence in the stomach and the intestines.

Honey only slightly cooked is similar to the one not cooked at all, except that it goes down before being completely digested.

Galen has said of honey: Honey warms and dries in the first degree and moist midway in this degree. It has strength, it purifies and softens, and dissolves and alleviates the bowels without either harming or being harsh against nature. This is why it is suitable for the stomach, because it clarifies and purifies its contents, unless yellow bile happens to prevail in the stomach. In this case sugar can be harmful for the stomach, because the sugar is converted and transformed into yellow bile to which it approximates. The reason is that its strength is in contrast to acidity. Because of its nature, acidity pacifies bitterness, but sweetness when it is in conflict with acidity will, in the nature of things, stimulates the bile.

Sugar varies in nourishment and benefit according to its different types. These types are several. One is called tabarzad; another is known as al-sulaymānī which is known to the Iraqis as al-qāridī, brought to Iraq only from al-Ahwāz. In Syria it is called al-Ahwāz and in essence it is like al-sulaymānī although al-qāridī is smoother in cleansing with a purer whiteness. Another sugar is called al-fāntīd and another is called al-nabāt. This last is one of the most excellent kinds of sugar according to its nature and one of the best and strongest. It is produced with palm-branches from julep syrup, rose syrup or violet syrup and it adheres to these branches like the albumin of egg, white and pure. It is produced also from a decoction of sugar strongly thickened and not involving any syrup. This kind is beneficial for coughs, soothing them and dissolving the thickness that occurs in the chest. It has a strong clarity.

The kind of sugar called tabarzad is the one with the least warmth and moisture as they are midway in the first degree. For this reason it is less soothing to nature and it is the kind of sugar least likely to be transformed into yellow bile.
The type of sugar known as al-sulaymānī is similar to al-fānīdī. Both of them have greater warmth and more moistness. For this reason both loosen the bowels more strongly and change more quickly into bile.

As for the type known as al-nabāṭī it varies according to the different things from which it is produced. If it comes from sugar thickened with rose-water, it becomes cooler and lighter on nature and less likely to loosen the bowels. If it comes from sugar thickened with blue-violet water, it is softer and more releasing on nature and it has more strength to soothe the chest and loosen the bowels. If it comes from sugar boiled with rain water, it is more balanced and midway between what loosens and what obstructs.

NOTES

1 The authors would like to acknowledge the kind assistance of the Spanish Department of Education and the British Council (Acciones Integradas programma) which has made this research possible.
3 See the articles on the T'ang and Sung in K.C. Chang (ed.) Food in Chinese Culture, New Haven, Yale University Press (1977). The articles are by E. Schafer and M. Freeman respectively.
5 Ibid., p. 130.
6 There is a manuscript held in the National Library, Paris, entitled Kitāb al-tabkh li-Anishtewan (Arabe no. 7009) which is the same copy as that used by Huici Miranda and his edition and translation of the anonymous culinary work from North Africa. This manuscript was loaned to him by G. Colín. See Huici Miranda’s Kitāb al-tabkh fī l-Maghrīb wa-l-Andalus fī ’usr al-muwaḥḥidīn. Madrid (1965), p. 16 and Traducción española de un manuscrito anónimo del siglo XIII sobre la cocina hispánica-magrebí. Madrid (1966), p. 7.
7 There is also an abridged Spanish translation of this work by F. de la Granja, La cocina árabe-andaluza según un manuscrito inédito, Madrid (1960).
8 Another edition of this work, erroneously claiming to be the first edition, was published in Beirut in 1964, introduced by Fakhri al-Bārūdī. This edition also contains a supplement entitled Muṣann al-maṣālik al-dimashkiyya.
9 Islamic Culture, 13 (1939), 21-47 and 89-214.
10 The book has been reviewed by David Waines in the Journal of Semitic Studies, in press (1988).
11 See the article by Charles Perry, “Three Medieval Arabic Cookbook” in the proceedings of the Oxford Symposium (1981), National and Regional Styles of Cookery, London: Prospect Books, 96-105. Perry seems to imply that the manuscript upon which the Chalabi edition was made is but a further abridgement of the manuscript copy of the Kitāb al-tabkhī by al-Baghdādī in the British Library (Or. 5099).
12 The identification of the three manuscripts are as follows: Chester Beatty, No. 4018; Cambridge No. 192; Cairo, Dar al-Kutub, No. 18. See the article by Habib Zayyāt, “Fann al-tabkh wa-islāh al-at’ima fī l-’Isām”. Al-Māshriq, 41 (1947), 1-26. There is also a manuscript held in Gotha, No. 1345 (arab. 117) of which we have been unsuccessful in securing a microfilm.
14 See Dozy’s Supplement, 2 s.v., for quotations concerning this type of dish.
15 See Manfred Ullmann’s discussion on this and the other lines of transmission of medical knowledge to Islamic culture from earlier civilizations in his Die Medizin im Islam, Leiden (1970), pp. 25-107.
16 See the table of contents in Ullmann, Ibid., p. 145.
18 See the table of contents in the printed edition, pp. 6-7 for the relevant chapters.
19 See the article by Martin Levey Ibn Masawaih and his treatise on simple aromatic substances’, in the Journal of the History of Medicine, Vol. 16, (1961), 394-410. Levey too, was apparently unaware of the culinary side of the medico-culinary tradition.
20 Reprint of the Būlaq edition by Dar Sa’dīr, Beirut (no date).
21 The name of the author, was not however, recognized by the copyist who gave it a distorted twist.
22 Max Meyerhof. “Ali at-Tabari’s Paradise of Wisdom, one of the oldest Arabic compendiums of medicine”. ISIS, 16 (1931), 6-54.
23 Ibid., pp. 20-21, and 33-37.
24 Max Meyerhof, “The book of Treasure, an early Arabic treatise of medicine” ISIS, 14 (1930), 55-76.
25 See the excellent introduction to this work by Ana Labartia, “El prólogo de Al-Kitāb al-Musta‘mûn de Ibn Bukhārīs (texto árabe y traducción anotada)”. in Estudios sobre Historia de la Ciencia Árabe, ed. by Juan Vernet, Barcelona (1980).
28 V. Rosen, Les manuscrits arabes de l’Institut des Langues Orientales, St. Petersbourg (1877); reprint Amsterdam (1971), pp. 114-116 with a full description of the manuscript.
29 The fourteenth maqāla has been edited and translated by Jutta Schoenfeld, Über die Steine. Das 14. Kapitel aus dem “Kitāb al-Marshid” des Muhammed ibn Ahmad al-Tamimi, nach dem pariser Manuskript herausgegeben, überetzt und kommentiert, Freiburg (1976). She includes a good description of the manuscript, pp. 16 ff., and we should
emphasize here the poor quality of the manuscript in the sense that the copyist did not understand clearly many of the technical words used by the author.

30 Al-Isrā'īl, an Egyptian of Jewish descent, lived in Ifriqiya under the Fatimid sultans; see G.A.S., III, 295 and E.I. 2, IV, 116 (by A. Altmann, who gives another death date, 344/955). The Kitāb al-Aghdhiba has been recently reproduced in a facsimile edition from the Aya Sophia manuscript, Frankfurt (1986).


32 We have had access to a still unpublished edition (1984) of this work by Dr. Expiración García Sánchez, held in the Instituto Hispano-Arabe de Cultura Library in Madrid.

33 Also southernwood, abrotanum (Artemisia Abrotanum L.) in A.K. Bedevian, Illustrated Polyglottic Dictionary of Plant Names, Cairo (1936), no 478.

34 The reading of the text is uncertain.