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# The Tacuinum Sanitatis: A Medieval Health Manual

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# THE TACUINUM SANITATIS: A MEDIEVAL HEALTH MANUAL

Loren D. Mendelsohn

**M**edical practice through most of the medieval European and Islamic world was deeply rooted in the humoral medical theories originally set forth in the classical period by Hippocrates and further developed by Galen. In brief, humoral theory is based on the relationship of the four elements to the four humours and the seasons of the year (shown in Figure 1, adapted from Bovey, 2005, p. 17). Each individual was thought to possess a temperament determined by whatever humour was dominant in the person; thus, a person was considered to possess a sanguine (blood), choleric (yellow bile), melancholic (black bile), or phlegmatic (phlegm) disposition. Different periods of life were associated with each of the humours and elements. Astrological and planetary influences also played a major role in the understanding of humoral theory.

A full discussion of the humours and their relationship to the elements, the seasons, and the health of the individual is beyond the scope of this paper; however, humoral medicine can be summarized as follows. Its practice was similar to that of modern medicine in that it was concerned with both prevention and treatment of illness. Since illnesses were thought to be caused by an imbalance of a person's humours, medical treatment began with an assessment of the temperament of the individual being treated. In fact, physicians to the nobility were expected to have already performed such an assessment on the persons under their care. The physician would then attempt to restore the balance of humours appropriate to the patient's temperament. Medicinal use of herbs and spices played a major role, but much of the treatment was connected with regulation of diet. In theory, a person could

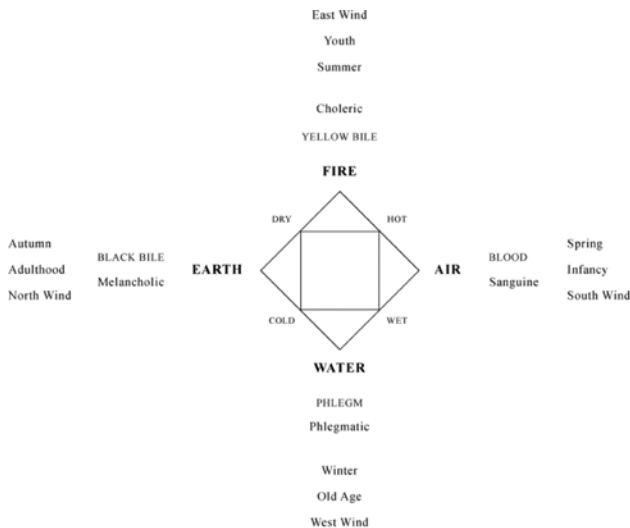


Figure 1. Chart of humours and elements.

maintain good health by following similar principles. A course of diet and exercise appropriate to an individual's temperament, state of life, local weather, and the seasons of the year would keep him or her in good health.

These were the basics of humoral medical practice in the classical period. These principles developed further, primarily in Byzantium and north Africa, as these regions came under the influence of Islamic medicine and scholarship. Most notably, Ibn Sina (Avicenna), a Persian Islamic scholar of the tenth and eleventh

<b>Element</b>	Earth	Fire	Air	Water
<b>Humour</b>	Black bile	Bile	Blood	Phlegm
<b>Season</b>	Autumn	Summer	Spring	Winter
<b>Winds/regions</b>	North	East	South	West
<b>Age</b>	Adulthood	Youth	Infancy	Old age
<b>Linking qualities</b>	Water-Earth: Cold	Earth-Fire: Dryness	Fire-Air: Heat	Air-Water: moisture

Table 1. Elements and humours.

centuries CE, synthesized the humoral medicine of Galen with the philosophy of Aristotle. In the late eleventh and twelfth centuries, his *Al-Qanun fi al-Tibb* (Canon of Medicine) was translated into Latin in both Italy and southern Spain (formerly al-Andalus) and spread rapidly throughout Europe.

#### MATERIA MEDICA

Humoral theory assigned certain characteristics to specific foods, herbs, and spices, as well as minerals, essences, and medical preparations. These all were catalogued in various *materia medica*, which served as pharmaco-botanical guidebooks. Hippocrates and Galen included such catalogues in their works. One of the most influential was the *Materia Medica* of Dioscorides, who wrote in Greek in the first century CE. His work was subsequently translated into Latin in the sixth century and into Arabic in the ninth. Many later works were compendia based on these earlier catalogues, expanded to classify the individual items according to their medicinal properties. These included Ibn Sarabi's (Serapion the Younger's) work, translated into Latin and circulated as *Liber de Simplicibus Medicamentis*, as well as the *Circa Instans* of Matthaeus Platearius. Both of these were written in the twelfth century. Many such productions gained currency simply because they had been written in or translated into Latin, while other more important books that had been written at the same time had little or no impact on medieval European medical practice because they were not translated until several centuries later. For example, Ibn Baytar, a thirteenth-century Andalusian physician, wrote a massive pharmacopoeia (*Kitab al-Jami'*) listing about 1,400 plants, foods, and drugs (Vernet 2008). This was quite influential in the Islamic world, but less so in Christian Europe. Among the Arab physicians whose works were translated was Ibn Butlān, an eleventh-century Christian physician from Baghdad, who compiled the *Taqwīm al-Sibba* (Tables of Health).

## THE TACUINUM SANITATIS

The *Taqwīm al-Sibha* is a tabular compilation of 280 items. Each entry briefly summarizes humoral characteristics and describes the best qualities of the item. Positive and negative effects are also included, plus brief instructions on how to mitigate the negative effects. The items listed include foods (raw and prepared), herbs, spices, clothing, human activities, seasons, geographic locations, and weather conditions. In listing and describing these items, Ibn Butlān referenced the opinions of dozens of authorities, most of whom are from classical period, such as Hippocrates and Galen, but a few who were his contemporaries (Elkhadem, 1990, pp. 34–36). Figure 2 is a photographic image of facing pages discussing several fruits (which is also the cover illustration of this issue of *PPC*); Figure 3 is the identical page from one of the early Latin translations. Note that both the original Arabic and the early Latin translations are text only, with no illustrations. Table 2 is a translation of the entry for quince, which is line  $\zeta$  (the first line) in Figure 2.

It is difficult to determine exactly when the *Taqwīm* was first translated into Latin, but scholarly consensus is that it was probably sometime in the middle of the thirteenth century. Support for this view can be found in a Latin manuscript No. 315, housed in the Marciana Library of Venice, which begins with the inscription: ‘Here begins the book of the Tacuinum, translated from the Arabic at the Court of the Illustrious King Manfred, Lover of Science’ (Biblioteca Nazionale Marciana, Venice, Latin No. 315, cited in Cogliati Arano, 1976, p. 11). Manfred reigned in Palermo from 1254 to 1266.

Many Latin versions are available, mostly of Italian origin. These versions – nearly all known as the *Tacuinum Sanitatis* – became quite popular in the fourteenth and fifteenth centuries. The reason for its popularity is a matter still subject to debate. As stated above, the original Arabic version includes no images; however, this was not the case in the Latin versions of the late Middle Ages. Each entry included a detailed illustration, showing individuals

No.	Name	Nature	Degree	Best kind	Use	Harmful -ness	Remedy for harmfulness
8	Quince	*Ar: cold, humid *Yu: cold, dry	Cold: 1st dry: 2nd	large and mature	Causes pleasure and promotes abundant urination	Colic	Use sweet dates
		<b>Effect</b>		<b>Temperament</b>	<b>Age</b>	<b>Best for:</b> <b>Season</b>	<b>Region</b>
		Cold secretions		Choleric	All	All	All

Opinions (\*H, Yu, 'I): Select to eliminate corruption from the stomach before a meal because they are astringent, and to purge after a meal because they compress. They are harmful to the nerves unless after consuming, [the patient] is anointed with oil in the bath. One of their peculiarities is to cause abundant urination; another is to stop vomiting because of their juice and odour. They do not corrupt in the stomach of the sick, and even less in that of the healthy. \*J: Its juice keeps better than that of apples, since the apple spoils because of its subtlety and wateriness. (Ar, Yu, 'I, and J are initials for the authorities consulted by Ibn Butlān: Oribasius (4th century), John Philoponus (7th century), 'Isa ibn Massa (9th century), and Galen (2nd century) respectively.)

Table 2. Taqwīm al-Sihha entry for Quince.

using, preparing, or experiencing the item or activity. The entries themselves were somewhat abbreviated versions of what had been written in the original Arabic. For example, below is the entry for quince from the Vienna 2396 manuscript, which fairly accurately summarizes what Ibn Butlān stated in tabular form.

*Cydonia*

*Natura frigidae at siccae in ii; melius ex eis completa et grossa.*

*Iuvamentum: laetificant et provocant. Nocumentum: Colicae.*

*Remotio nocumenti cum dactylis mellitis.* (Rössl and Konrad, 1984, p. 23)

Quince

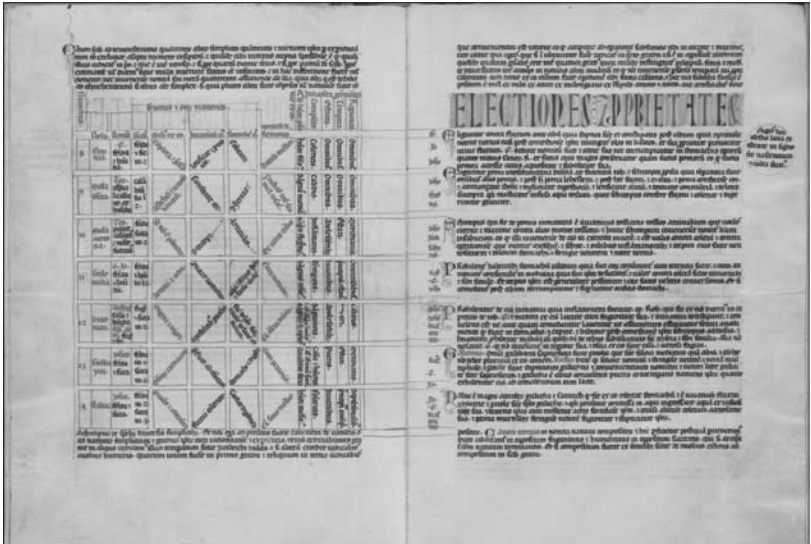
Nature cold and dry in 2nd degree; better if mature and large.

Use: They cause joy and they stimulate. Harm: Causes colic.

Remedy the harm with sweet dates. (My translation.)



Figure 2 (above). Page from *Taqwīm al-Sihha* listing the humoral properties and uses of several fruits (British Library Or. 1347, ff. 4b–5a). Figure 3 (below). Early Latin translation of page shown in Figure 2 (Yale University Cushing/Whitney Medical Library, Codex Fritz Paneth, ff. 690v–691r).



At least twelve manuscripts and codices are known, as detailed in the table overleaf adapted from Paris, Daunay, and Janick, 2009, Table 1. Partial or complete facsimile editions are available for many of them.

Figures 4–6 show the illustrations for the entry on roses taken from the three oldest manuscripts (Cogliati Arano, 1976, plates XXXII–XXXIV). The primary purpose of such illustrations was similar to that of the drawings and photographs that one would see in a modern work of natural history: to facilitate the reader’s ability to identify the item depicted and to promote an understanding of how to harvest, produce, or use it. In addition to the intended purpose, these illustrations often provide information on other subjects: one can garner information on dress, gardening, food preparation, and many other topics.

My intention in comparing the Arabic and Latin manuscripts is to examine two key differences and to discuss what they show us about the two cultures that generated and used them. The most obvious, already mentioned above, is that the manuscripts in the Latin tradition are illustrated, whereas the original Arabic is not. A second less obvious difference is what is included in the Arabic, but left out of the Latin manuscripts: twenty-eight entries for more complex, prepared foods. In fact, if we count all the items separately (some entries list two on one line), we end up with a total of thirty-four items listed in the Arabic that are absent from the Latin. While the Latin manuscripts list many items not included in the original Arabic (most notably the Vienna 2396 lists over 100 additional items), nearly all of them are basic ingredients: herbs, leaf and root vegetables, and a few additional fruits. Such prepared foods as are listed are themselves relatively simple: breads, porridges, broths, beverages, and the like. A table comparing all of the items listed in the *Taqwīm* against six of the major Latin manuscripts is included in the Appendix.

The absence of images in the Arabic manuscripts is difficult to explain. Both Baghdad and Cairo – the two cities in which



<i>Text reference</i>	<i>Depository</i>	<i>Catalog No.</i>	<i>Date</i>
<i>Paris 1673</i>	Bibliothèque Nationale de France, Paris	Nouv. Acq. Lat. 1673	1380–1390
<i>Liège 1041</i>	Bibliothèque de l'Université de Liège	Ms. 1041	1380–1400
<i>Vienna 2644</i>	Österreichische Nationalbibliothek, Vienna	Cod. Ser. N. 2644	1390–1400
<i>Rome 4182</i>	Biblioteca Casanatense, Rome	Ms. 4182	1390–1400
<i>Paris 9333</i>	Bibliothèque Nationale de France, Paris	Latin 9333	1445–1451
<i>Rouen 3054/ Liechtenstein</i>	Bibliothèque municipale, Rouen; private collection (Split manuscript – part is in Rouen and part in Liechtenstein)	Ms. 3054 [Leber 1088]	1450s
<i>Vienna 2396</i>	Österreichische Nationalbibliothek, Vienna	Ms. 2396 [Eug. Q. 59]	1476–1500
<i>Rome 459</i>	Biblioteca Casanatense, Rome	Ms. 459	c. 1400
<i>Granada C67</i>	Biblioteca del hospital Real, Universidad de Granada	Ms C67 [BHR/Caja A-001]	1440–1445
<i>Paris 1108</i>	Bibliothèque Nationale de France, Paris	Italien 1108	1470–1475
<i>Vienna 5264</i>	Österreichische Nationalbibliothek, Vienna	Ms. 5264 [Med. 2]	1470–1475
<i>Lugano 15</i>	Bibliothèque Internationale de Gastronomie, Lugano	Ms. 15	1470–1475



Figure 4. *Roses from Paris*  
1673, folio 83r.

Ibn Butlān lived – were major centres of scientific and medical illustration between the ninth and twelfth centuries. Many astronomical treatises, *materia medica* and similar technical works were written or translated from other languages and subsequently illustrated. Most notably, the *Materia Medica* of Dioscorides was translated and illustrated during this period. For example, the Leiden codex Or. 289, a tenth-century Arabic translation of the *Materia Medica*, includes images of nearly all the items discussed. Figure 7 shows roses as depicted in this manuscript. The likelihood that Ibn Butlān consulted such an illustrated version of Dioscorides in the preparation of the *Taqwīm* is very high, yet the *Taqwīm* itself is not illustrated. One explanation of this absence has to do with the difference between the *Taqwīm* as a medical text and Dioscorides and similar works as *materia medica*. Touwaide argues that the *Taqwīm*, intended as a text for the medical professional, follows in the tradition of medical works originating with Galen and continuing under Islam with Ibn Sina and others. These earlier works were either illustrated minimally or not at all; hence the

Figure 5. *Roses from Vienna*  
2644, folio 83r.



absence of images in the *Taqwīm* (2013). Such an approach can be contrasted with that of the Latin manuscripts, which instead follow the *materia medica* tradition. As mentioned above, the illustrations serve as a means of properly identifying a particular item, and in many cases demonstrate its proper use. It is likely that such depictions were necessary because the Latin text is briefer and much less detailed than that of the original Arabic.

This use of images in the Latin manuscripts is one major difference, but we are still left with absence of the more complex prepared foods. One explanation might be that the foods described were unusual and foreign to the palate of the European readers. Again, this is a plausible explanation, but not all culinary historians would agree. Some have argued that the tastes of Europeans were heavily influenced by Islamic cuisine (Peterson, 1980), while others have emphatically denied such a connection (Laurieux, 2005, pp. 305–335). Rodinson (2006) has written extensively on the Arabic origins of several dishes (in both name and content) that were common in Europe, which supports the first view. Moreover, such an explanation only justifies the absence of the exotic Middle Eastern prepared foods. The prepared foods of central and southern



*Figure 6. Roses from Rome  
4182, folio 69r.*

Italy (where most of the *Tacuina* were translated from the Arabic) could easily have been included.

A possible explanation of the absence of complex prepared foods from the *Tacuinum* relates to the differing approaches to humoral medicine as it was practised in the two cultures. As stated previously, humoral theory was integral to medical practice in both cultures. Both considered the properties of food, drink, weather, and human activities in determining how best to maintain good health. Yet the application of that theory in each culture was distinct. The cultures of the eastern Mediterranean, south-west Asia, and north Africa all tended to build upon and further develop the existing theories of Hippocrates and Galen, creating new syntheses as their knowledge advanced. The culture of Christian Europe, on the other hand, was more focused on the state of a person's soul. Suffering in the present life, whether because of poor health or for other reasons, was often considered to be of benefit, resulting in the improvement of a person's spiritual state. Such methods as existed for improving one's health often focused on the miraculous, expecting improvement to be brought about as much by the application of prayer, pilgrimages, and use of holy



Figure 7. Roses from a 10th-century Arabic translation of Dioscorides (Leiden University Library, Ms. Or. 289, f. 39a).

relics as by the application of medical principles. Indeed, Canon 22 of the Fourth Lateran Council (1215) enjoined that physicians urge their patients to attend to their spiritual needs prior to treatment, stating ‘when physicians of the body are called to the bedside of the sick, before all else they [are to] admonish them to call for the physician of souls [i.e., a priest], so that after spiritual health has been restored to them, the application of bodily medicine may be of greater benefit, for the cause [sin] being removed the effect will pass away.’ Physicians who failed to follow these instructions were subject to excommunication.

These differences between two of the primary cultures of the medieval world could explain why the original Arabic manuscripts include so many prepared foods, while the Latin manuscripts include none, neither the two Middle Eastern dishes (*rumanīyya* and *sumaqīyya*) that had been adapted to European tastes, nor strictly European dishes with known humoral properties. The ability to analyse the humoral character of such complex dishes is likely based on not only on properly analysing the character of the individual

ingredients, but on examining and evaluating the dish as whole and creating a synthesis based on its overall character. It is also based on a more holistic approach to the practice of medicine. For example, in his discussion of the role of spices in medieval European society, Freedman has noted the division in thinking between the use of spices in cuisine and their use for medical purposes (Freedman, 2008). While this distinction was by no means absolute, it may be sufficient to account for the absence of complex dishes in the Latin manuscripts. Also, their absence should not be seen as an indication of laziness on the part of the translators and illustrators, since (as already noted) many of the manuscripts add dozens of herbs and other items not found on the original Arabic.

#### IS THE TAQWĪM/TACUINUM OF PRESENT USE IN THE KITCHEN?

How relevant are the humoral principles of the *Taqwīm* and its subsequent Latin translations to the modern kitchen? In 2005, authenticity was the theme of the Oxford Symposium on Food and Cooking. Many of the papers focused on reproducing modern regional and cultural cuisines, and others on authenticity of historical cuisines. I would argue that at least a modicum of understanding of humoral theory and practice as outlined in the texts of the various *Tacuina* and shown in their illustrations is essential to those who would attempt to reproduce historical cuisines. These documents promote an understanding of the logic of medieval cookery in a way that encourages the creative yet authentic adaptation of historic recipes to the modern kitchen. It is difficult to replicate exactly a recipe from tenth through thirteenth centuries. The recipes themselves are less exact than their modern counterparts. Ingredients, once identified, can be hard to find, and some ingredients might be dangerous. But through understanding and application of humoral theory as set forth in the *Tacuinum* and other documents, we can effectively adapt historic recipes. We can even design new ones which, because of their adherence to the appropriate principles, can still be called authentic.

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#### FACSIMILE EDITIONS CONSULTED

The descriptions of the facsimile editions are taken from the online catalogue of the Morgan Library and Museum (<http://corsair.themorgan.org/>), where most of my research was performed.

*Tacuinum sanitatis*: Österreichische Nationalbibliothek, Vienna 2396. (1984).

Enchiridion virtutum vegetabilium, animalium, mineralium rerumque omnium: explicans naturam, iuvamentum, nocumentum remotionemque nocumentorum[um] eorum. Graz: Akademische Druck- u. Verlagsanstalt. Full-colour facsimile. This version contains more descriptions (294) than the other *Tacuinum* manuscripts and adheres more to Ibn Butlān's system for their arrangement.

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*Appendix: The table below lists all the items included the Taqwīm al-Sihha and six of the Latin translations.*

		Taqwīm al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
التين	Figs	1	1	1	1	1	1	1
العنب	Grapes	2	2	2	2	2	2	2
الخوخ	Peaches	3	3	3	3	5	3	3
الأجاص	Plums	4	4	4	4	6	4	4
الكمثرى	Pears	5	5	5	5	7	5	5
رمان حلو	Sweet pomegranates	6	6	6	6	8	6	6
رمان حامض	Sour pomegranates	7	7	7	7	9	7	7
المفرجل	Quinces	8	8	8	8	10	8	8
النتع الحلو	Sweet apples	9	9	9	9	11	9	9
النتع الحامض	Sour apples	10	10	10	10	12	10	10
المشمش	Apricots	11	11	11	11	13	11	11
	Medlars	****	13	13	13	15	13	13
	Sycamore	****	12	12	12	14	12	12
التوت الشامي الحلو	Levantine mulberries, sweet	12	84	****	****	38	****	****
العنبرا	Rowan	13	86	****	****	****	****	****
الليق	Lotus fruit	14	14	14	14	****	****	14
	Sweet cherries	****	15	15	15	16	15	15
	Sour cherries	****	16	16	16	17	14	48
البطيخ الحلو	Sweet melons	15	36	34	35	72	37	34
البطيخ المز والتفه	Sour and insipid melons	16	37	35	36	73	35	35
البطيخ الهندي	Indian melons	17	38	36	37	74	****	36
الحمرا	Palm hearts	18	****	****	****	****	****	****
	Strawberries	****	85	****	****	****	****	****
النسر	Firm ripe dates	19	18	18	32	31	****	52
الموز	Bananas	20	35	33	37	32	****	33
الترجيل	Coconuts	21	20	20	18	23	****	54
	Wild dates	****	16	17	31	30	****	49
الرطب	Soft ripe dates	22	19	19	33	33	****	53
الزبيب	Raisins	23	238	104	105	4	****	****
التين اليابس	Dried figs	24	239	105	106	3	****	****
الخروب الشامي	Carob	25	21	21	19	24	****	55
البلوط	Acorns	26	22	22	20	25	****	56
العقاب	Jujubes	27	23	23	21	****	****	57
الخوز	Walnuts	28	24	24	22	22	****	58
الحنطة	Wheat	29	117	77	78	91	53	****
النشا	Wheat starch	30	118	78	79	97	61	****
سويق الحنطة	Wheat porridge	31	119	79	80	99	63	****
الشحور	Barley	32	120	80	81	93	55	****
سويق الشعير	Barley porridge	33	121	81	82	101	65	****
ماء الشعير	Barley water	34	122	82	83	102	****	****
الاطرية	Pasta threads	35	123	83	84	98	62	****
	Spelt	****	124	86	87	95	57	****
	Rye	****	125	85	86	92/202	54	****
	Oats	****	126	****	****	96	58	****
	Millet	****	127	87	88	103	59	****
	Foxtail millet	****	128	88	89	104	60	****
	Sorghum	****	129	89	90	105	****	****
الأرز	Rice	36	130	84	85	94	56	****
البقلبي	Fava beans	37	131	91	92	86	47	****
الماش	Grass peas	38	137	92	93	70	****	****
اللوبيا	Cowpeas	39	132	93	94	87	49	****
الحنص المقشور	Lentils, milled	40	135	****	****	88	50	****
الترمس	Lupin beans	41	116	95	98	89	51	****
الحنطة المسلوقة	Wheat, boiled	42	138	98	99	100	64	****
خبز السميد	Semolina bread	43	139	118	119	106	66	****
الخبثاكو وحو التحالي	Whole wheat bread	44	****	****	****	****	****	****
الخبز النطير	Unleavened bread	45	143	120	121	108	68	****
خبز الارز	Rice bread	46	142	****	****	****	****	69
	Millet bread		144	121	122	110	69	
خبز الفرن والمطبوون	Brick oven bread	47	141	****	****	109	****	68
خبز الطليق	Pan baked unleavened bread	48	140	119	120	107	67	****
خبز الملة	Ash bread	49	****	****	****	****	****	****

		Taqwim al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
الخاس	Lettuce	50	52	50	51	54	****	18
	Wild lettuce	****				69		51
الهندبا	Chicory	51	79	***	***	***	****	****
	Dragon, or pellitory	***	55	51	52	***	****	19
الكرفس	Celery	52	56	52	53	45	****	20
الطرغون والنعناع	Tarragon and mint	53	65	60	61	59	****	28
الجرجير والزباد	Arugula and cress	54	57	53	54	41	17	21
	Nasturtium	****	58	53	54	41	****	22
البانروج	Basil	55	59	54	55	42	19	****
بقلة الحمفا	Purslane and lemon balm	56	53/73	****	****	****	****	50
والبادر نجوية								
الحمص	Chickpeas	57	133	90	91	85	48	****
الخرذل	Mustard	58	60	40	61	44	20	23
الثببت	Dill	59	61	56	57	79	****	24
	Capers	****	42	41	42	76	39	41
الكراث النبطي	Nabatean leeks	60	43	42	43	46	****	42
	Hyssop	****	63	58	59	57	****	26
	Marjoram	****	64	59	60	58	****	27
	Parsley	****	66	61	62	60	23	29
	Rue	****	67	62	63	62	25	30
	Horehound	****	69	65	66	64	27	****
الخولجان	Galangal	61	62	57	58	78	****	25
دهن اللوز الحلو	Sweet almond oil	62	232	174	175	****	****	****
ماء الحمص	Verjuice	63	215	162	163	149	109	****
الحلث الشقبق	Sour vinegar	64	217	163	164	153	114	****
الأشتر غار	Asafetida root	65	****	****	****	****	****	****
القتاء والخيزر	Cucumbers and gherkins	66	40	39	40	75	38	39
البانجان	Eggplant	67	41	55	41	49	36	40
الراسن	Elecampane	68	68	63	64	68	32	31
	Wormwood	****	70	66	67	65	28	****
	Sage	****	71	67	68	66	29	****
	Rosemary	****	72	****	****	****	****	****
	Pimpernel	****	74	****	****	****	****	****
	Endive	****	75	****	****	****	****	****
	Borage	****	76	****	****	****	****	****
	Samphire	****	77	****	****	40	****	****
	Ragwort	****	78	****	****	****	****	****
	Bugloss	****	80	****	****	****	****	****
	Lovage	****	81	64	65	63	26	****
	Savory	****	78	****	****	****	****	****
البسل	Onion	69	44	43	44	47	****	43
الثوم	Garlic	70	45	44	45	48	****	44
الهنليون	Asparagus	71	47	45	46	50	****	45
الإسفناخ	Spinach	72	50	46	47	51	****	46
السلق	Chard	73	51	47	48	52	****	47
الجزر	Parsnips/carrots	74	46	48	49	67	31	16
الكماة	Truffles	75	48	49	50	77	40	17
القرع	Gourd	76	39	37	38	71	34	37
القنبببب	Cauliflower	77	****	****	****	****	****	****
المطحن	Food cooked in earthenwar	78	****	****	****	****	****	****
المصوص	Sour stew and aspic	79	168	144	145	129	90	****
والقربص								
اللبن الحلو	Sweet milk	80	146	110	111	111	72	****
اللبن الحامض	Sour milk	81	147	111	112	112	73	****
	Curdled milk	****	148	115	116	114	78	****
	Ricotta	****	149	116	117	116	78	****
الجبن الطرى	Fresh cheese	82	151	112	113	115	76/79	****
الجبن الشقق	Old cheese	83	152	113	114	117	77	****
الزيتون الأسود النقق	Black olives	84	25	25	23	27	****	59
الزبد	Butter	85	150	114	115	115	75	****
الربجل والكوامبب	Hind legs and kamakh	86	****	****	****	****	****	****
الثبراز بالبقول	Curds with beans	87	****	****	****	****	****	****
بيض الكبود	Eggs with liver	88	****	****	****	****	****	****
بيض النجاج	Chicken eggs	89	199	123	124	118	80	****
بيض الحفل ومو الكبب	Partridge eggs	90	201	125	126	119	****	****

		Taqwim al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
بيض الأوز	Goose eggs	91	200	124	125	120	81	****
لحم الضأن	Mutton/lamb	92	156/157	137	138	121	82	****
لحم المعز والجاء	Goat and kid meat	93	158	138	138	****	83	****
لحم العجل	Veal	94	153	139	140	123	84	****
لحم البقر	Beef	95	154	140	142	124	85	****
	Pork	****	155	141	141	125	86	****
الملح	Salt	96	145	117	118	131	****	****
التمكود	Salted meat	97	164	142	143	130	92/93	****
القيدي	Dried meat	98	****	****	****	****	****	****
	Venison	****	159	****	****	126	88	****
لحم الغزال	Gazelle meat	99	163	****	****	122	****	****
لحم الأرنب	Hare meat	100	160	136	137	127	89	****
	Bear meat	****	161	****	****	****	****	****
	Wild pig meat	****	162	****	****	****	****	****
الكرابي	Crane	101	133	133	139	101	****	****
البياري	Bustard	102	191	****	****	****	****	****
	Young pigeons	****	185	126	127	137	99	****
الطاووس	Peacock	103	186	132	135	140	106	****
البط والأوز	Ducks and geese	104	187/188	131	132	141	107	****
	Pheasants	****	189	129	130	132	102	****
	Partridges	****	190	127	128	133	103	****
لبطيحوج	Grouse	105	192	****	****	143	****	73
السمائي	Quail	106	193	128	129	134	104	****
	Turtledoves	****	194	130	131	138	100	****
العصافير وليتاير	Sparrows and larks	107	196	****	****	****	****	****
السودانيات	Woodpeckers	108	****	****	****	****	****	****
	Capons	****	184	****	****	****	****	****
الدجاج	Hens	109	181	****	****	136	98	70
الديوك	Cocks	110	183	122	123	135	105	****
الفراخ	Young fowl [or small birds]	111	197	205	208	142	108	102
المخصى من الحيون	Castrated animals	112	198	134	134	128	87	****
السماك وأنواعه	Fish and its varieties	113	202	156	157	154	115	****
السمكج	Fish sikbaj or fried with Herbs	114	204	159	159	155	116	****
السمك المملوح	Salted fish	115	203	157	158	156	117	****
السمك المقفور	Fish sauce 1 [vinegar and salt]	116	****	****	****	****	****	****
الطريخ	Tarikh [kind of fish]	117	****	****	****	****	****	****
الصفحاء	Fish sauce 2 [possibly garum]	118	****	****	****	****	****	****
الأربيان	Shrimp [possibly crabs]	119	205	158	160	158	119	****
	Lampreys	****	206	160	161	****	118	****
	Eels	****	207	****	****	****	120	76
الرؤوس	Heads	120	169	145	146	144	****	****
الأعفة	Brains	121	170	146	147	****	****	****
العيون	Eyes	122	171	147	148	****	****	****
الأكارع	Forelegs [possibly feet]	123	172	148	149	****	****	****
القلوب	Hearts	124	173	149	150	****	****	****
الآشاء	Udders	125	174	150	151	****	****	****
الخصي	Testicles	126	175	151	152	****	****	****
الكبد	Livers	127	176	152	153	145	97	****
الأطلحة	Spleens	128	177	153	154	146	96	****
الكروش والمعا	Viscera and intestines	129	179	154	156	147	94	****
السمين واللحم	Fat and grease	130	178	155	155	148	98	****
الأجنحة والرقاب	Wings and necks [or legs]	131	****	****	****	****	****	71
الجلود	Skin	132	****	****	****	****	****	77
القوانص	Crops [bird stomachs]	133	****	****	****	****	****	****
السيكاج	Sikbaj [vinegar stew]	134	****	****	****	****	****	****
المساعدية	Sa'diyya and white stew	135	****	****	****	****	****	****
والسفيدنياج								
المخضبة والمصلية	Stews with sour milk or whey	136	****	****	****	****	****	****
ماء الحمص	Chick pea broth	137	134	****	****	90	52	****
السمكجية والرمانية	Sumaqiyya and rumaniiyya [sumac & pomegranate stews]	138	****	****	****	****	****	****
الهريسة والفريلية	Grain porridge, with or without meat	139	****	****	****	****	****	****

		Taqwim al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
الزيرباجة	Zirbaja	140	****	****	****	****	****	****
الحماضية	Humadiyya (citron stew)	141	****	****	****	****	****	****
التورنية	Dishes cooked in a tannur	142	****	****	****	****	****	****
الزرشكية	Zarshkiyya	143	****	****	****	****	****	****
الكرنية	Cabbage stew	144	****	****	****	****	****	****
المغمورة	Poultry pickled in vinegar	145	****	****	****	****	****	****
الترجسية والشرازية	Dishes finished with sunny side up eggs or based on curds	146	****	****	****	****	****	****
الحمصية	Stew with verjuice	147	****	****	****	****	****	****
المهلبية وهي البهطة	Sweet rice flour pudding	148	****	****	****	****	****	****
التفاحية والريباسية	Apples and raibasiyya	149	****	****	****	****	****	****
المتبيلة واللفتية	Cauliflower and turnips	150	****	****	****	****	****	****
الديكيريكة	Dikirika, delicately soured meat stew; a mild sikbaj	151	****	****	****	****	****	****
الأرز والدخن باللبن	Rice and millet with milk	152	****	****	****	****	****	****
المغمومة	Layered meat pie	153	****	****	****	****	****	****
المقلوبة	Inverted [possibly a kind of upside down cake]	154	****	****	****	****	****	****
الزيمورد والمسنوسج	Rolled sandwiches and filled pastries	155	****	****	****	****	****	****
المنقلب	Spiced ground meat	156	****	****	****	****	****	****
الطياهاجات الحامضة	Tabahaja, sour	157	****	****	****	****	****	****
القلايا	Fried/roasted food [probably meat]	158	165	143	144	130	91	****
الطياهاجات المالحة	Tabahaja, salt	159	****	****	****	****	****	****
الكباب	Kababs [similar to meat-balls; not skewered grilled meat]	160	****	****	****	****	****	****
الكرنداج	Spit-roasted poultry	161	167	****	****	****	****	75
المشوى	Grilled meat	162	166	****	****	****	****	74
جوداب الخبز	Jawdhab [dripping flavored dish] of bread	163	****	****	****	****	****	****
جوداب الطليف	Jawdhab of qatayif	164	****	****	****	****	****	****
جوداب الشمشاش	Jawdhab of poppy	165	****	****	****	****	****	****
جوداب البطيخ والخبيص اللوز	Jawdhab of watermelon and khabis of almonds	166	****	****	****	****	****	****
جوداب التمر	Jawdhab of dates	167	****	****	****	****	****	****
	Anise	****	97	74	75	45	41	****
	Fennel	****	98	75	76	80	42/46	****
	Liquorice	****	99	76	77	81	33	****
	Mallow	****	100	****	****	****	****	****
	Poppy	****	101	****	****	****	****	****
	Pennyroyal	****	102	****	****	****	****	****
	Pellitory-of-the-wall	****	103	****	****	****	****	****
	Dock	****	104	****	****	****	****	****
	Celandine	****	105	****	****	****	****	****
	Thyme	****	106	****	****	****	****	****
	Nettle	****	107	****	****	****	****	****
	Fumitory	****	108	****	****	****	****	****
	Betony	****	109	****	****	****	****	****
	Chamomile	****	110	****	****	****	****	****
	Maidenhair fern	****	111	****	****	****	****	****
الكسفرة	Coriander	168	96	****	****	61	24	****
السكر	Sugar	169	235	176	179	160	121	****
العسل	Honey	170	237	181	181	162	124	****
الفالودج والزلاية	Translucent pudding and pastry (sweet)	171	****	****	****	****	****	****
القطايف بالجوز	Qatayif with nuts	172	****	****	****	****	****	****
الخبيص	Condensed pudding	173	****	****	****	****	****	****
المنطف بالجوز	Nougat with nuts	174	****	****	****	****	****	****
الخشككتنج	Khashkinanj confection	175	236	****	****	161	122	****
والحلوى البليسة								
الخلال المامون	Aromatic rushes	176	****	****	****	****	****	****
المطب	Custard	177	****	****	****	****	****	****
ماء الكاهور	Camphor water	178	243	****	****	****	****	88
الاشنان	Potash	179	****	****	****	****	****	****

	Taqwim al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
	Saffron	****	92	73	74	****	****
	Sea oregano	****	93	****	****	****	****
السعد	Cyprus grass	180	95	****	****	****	****
الصندل	Sandalwood	181	94	****	****	****	****
الورد	Rose	182/198	87	68	69	163	125
مياه العيون والفتاق	Spring & stagnant water	183	****	****	****	****	****
	Fountain water	****	218	169	169	185	145
ماء المطر	Rain water	184	220	171	171	184	146
الثلج والحد	Snow & ice	185	223	172	174	190	147
الماء المتوجع	Ice water	186	****	****	****	****	****
الماء الحار	Hot water	187	224	170	172	191	****
الماء المالح	Salt water	188	219	168	170	192	150
الماء الشبي	Alum water	189	228	173	173	193	****
الخمر	Wine	190	****	****	****	****	****
	Reduced wine	****	214	****	****	****	****
	Must	****	209	****	****	150	110
الخمر العتيق	Old aromatic wine	191	210	165	166	****	112
الريحان							
الأحمر العليظ	Thick red [wine]	192	211	166	167	152	111
الأحمر المر	Yellow astringent [wine]	193	212	167	168	151	113
النبي بدأ بالحمن	[Wine] starting to sour	194	216	****	****	****	78
التنوي	Date wine	195	213	****	****	****	79
	Laurel berries	****	28	28	26	38	****
	Sweet almonds	****	29	29	29	19	16
الوزر وخاصة المر	Almonds, especially bitter almonds	196	30	****	****	18	****
الأس	Myrtle	197	83	****	****	39	****
الشاهسوم	Small basil	199	90	71	72	166/43	18
البنفسج	Violets	200	89	70	71	164	22
السوسن	Iris or lily	201	88	69	70	165	21
الأتروج	Citron	202	32	30	30	29/34	****
	Bitter orange	****	33	32	27	35	****
	Pine nuts	****	34	31	28	26	****
اللفاح	Mandrake	203	91	72	73	167	30
قصب السكر	Sugar cane	204	234	177	178	159	123
نبات الجلاب	Julab syrup with rose	205	248	****	****	****	****
الطين الخراسان	Khurasan earth [mineral substance]	206	****	****	****	****	****
الفسق	Pistachios	207	240	****	****	****	****
	Chestnuts	****	26	26	24	20	****
البيندق	Hazelnuts	208	27	27	25	21	****
الوزر المملوح	Salted almonds	209	****	****	****	****	****
الريبيلس	Currants	210	30	****	****	****	65
الغناء	Singing	211	262	198	203	168	****
الأرغن والزمير	Organ and piping [with singing and strings]	212	260	199	200	169	****
الإيقاع والرقص	Rhythm and dancing	213	261	200	201	****	126
الفرح	Joy	214	263	201	204	****	127
الخلج	Shame/shyness	215	265	188	189	170	128
الغضب	Anger	216	264	189	190	173	129
المرداسنج	Lethargy	217	****	****	****	****	****
السكر	Drunkenness	218	266	190	191	174	130
القيء	Vomiting	219	267	191	192	175	131
الفجل ونوه	Radishes and similar things	220	112	96	95	82	43
	Turnips	****	113	97	96	83	44
	Rampion	****	114	****	****	****	****
	Rutabagas	****	115	94	97	84	45
النوم	Sleep	221	271	192	194	176	****
المسار	Conversation	222	274	193	193	177	133
الأسمار	Night conversations [sleep talking]	223	273	194	195	178	134
اليقظة	Wakefulness/vigilance	224	272	195	199	179	135
الإستقراغ	Purging	225	278	****	****	****	****
الإحتقان	Congestion	226	****	****	****	****	****
الجماع	Coitus	227	275	****	196	198	136
المني	Semen	228	276	****	****	****	****
السنون والبواك	Dentifrice and tooth brushing	229	****	****	****	****	****
الخمار	Hangovers	230	****	****	****	****	****
الفقاع الشعيري	Barley beer	231	250	****	****	****	****
الحركة	Movement	232	258	197	202	181	137

		Taqwim al-Sihha	Vienna 2396	Vienna 2644	Rome 4182	Paris 1673	Liège 1041	Rouen 1088
	Light exercise	****	259	****	****	****	139	98
السكون	Rest	233	256	****	197	182	138	****
الرياضة	Sports	234	****	****	****	****	****	****
الركوب	Horseback riding	235	257	196	198	183	140	****
الصيد في البر	Hunting	236	253	184	184	****	142	****
الرياضة بالكرة الصغيرة	Ball games	237	254	****	****	****	****	97
الصاراع	Fighting [martial arts]	238	255	185	185	188	141	****
الحمام	Bathing	239	226	****	****	****	148	80
البيئته وأهويته	Rooms open to the air	240	270	****	****	****	1	99
الماء اللذيذ الحار	Water at a comfortable temperature	241	225	****	****	****	149	83
الماء التثيد الحار	Very hot water	242	227	****	****	****	****	****
الماء البارد	Cold water	243	222	****	****	****	****	81
الماء التثيد البارد	Very cold water	244	221	****	****	****	****	82
النور المطفأ	Shaded light	245	****	****	****	****	****	****
الزرنينخ	Orpiment [yellow arsenical pigment]	246	****	****	****	****	****	****
الدهن بلا دلك	Oil without massage	247	****	****	****	****	****	****
الدهن بلا دهن	Massage without oil	248	****	****	****	****	****	****
الحطمي والسدر	Marsh mallow and lotus	249	****	****	****	****	****	****
	Candles	****	279	183	186	****	****	****
الكتان	Linen [clothing]	250	282	203	207	186	143	****
	Wool clothing	****	281	202	206	189	144	****
الخز والوبر	Silk clothing	251	280	204	205	187	****	****
	Olive oil	****	230	175	176	28	****	****
دهن البنفسج	Oil of violets	252	231	****	****	****	****	85
العود	Aloes wood	253	233	****	****	****	****	86
المسك	Musk	254	241	179	180	****	****	****
الكافور	Camphor	255	242	180	182	****	****	87
العنبر	Ambergris	256	208	161	162	****	****	****
ماء الورد	Rose water	257	229	178	177	****	****	****
المسكجين	Sekanjabin [oxymel or sour syrup]	258	249	182	183	****	****	89
المسكجين البذوري	Sekanjabin grains	259	****	****	****	****	****	****
	Quince syrup, sour	****	244	****	****	****	****	****
شراب السفرجل	Quince syrup	260	245	****	****	****	****	90
شراب الخشخاش	Poppy syrup	261	246	****	****	****	****	91
شراب الورد	Rose syrup	262	247	****	****	****	****	92
الجلاب بماء الورد	Julab with rose water	263	****	****	****	****	****	****
رب الريبس	Currant concentrate	264	251	****	****	****	****	94
المجالس الصيفية	Summer rooms	265	268	186	187	195	152	****
المجالس الشتوية	Winter rooms	266	269	187	188	194	151	****
ريح الجنوب	South wind	267	293	108	107	200	154	****
ريح الشمال	North wind	268	294	109	108	****	155	****
الصبا	East wind	269	291	106	109	196	156	****
الدبور	West wind	270	292	107	110	197	157	****
الربيع	Spring	271	286	103	104	203	158	****
الصيف	Summer	272	286	100	101	****	159	****
الخريف	Fall	273	284	101	102	204	160	****
الشتاء	Winter	274	285	102	103	201	161	****
البلاد الشمالية	Northern regions	275	290	****	****	****	162	****
البلاد الجنوبية	Southern regions	276	289	****	****	****	163	105
البلاد الشرقية	Eastern regions	277	287	****	****	****	164	103
البلاد الغربية	Western regions	278	288	****	****	171	165	104
الهواء الوابي	Plague-infested air	279	277	****	****	199	70	100
الدرياق	Theriac	280	252	99	100	172	71	****