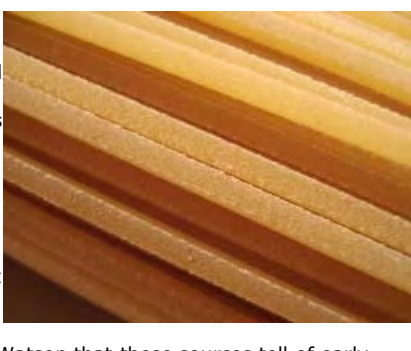


Itriya also appears in the dictionaries of ninth-century lexicographer Ishu Bar **Ali** (flourished ninth century) and al-Jawhari (died c. 1002-3) and although it is clear that the word referred to pasta, it is not clear if this pasta was made from hard wheat.³³ It is quite hard to distinguish hard wheat in descriptions from medieval Arabic since there is no exact word that means hard wheat, although there are many words for wheat.³⁴ Bar **Ali** describes a pasta that resembles a cloth, which might have been similar to lasagne, while al-Jawhari states that it is a sort of food similar to *hibriya*, or hairs (flakes, perhaps).³⁵ Both of these might have been made from soft wheat, but it seems to the economic historian Professor Andrew Watson that these sources tell of early experimentation to make *pasta secca* from hard wheat.³⁶



By the fifteenth century, macaroni was a commonly known, if not commonly eaten, food in Italy. In a Tuscan recipe from 1417, the merchant Saminiato de Ricci casually mentions the making of lasagne and macaroni (*a fare lasangnie e maccheroni*).³⁷ In fact, by the early sixteenth century macaroni is common enough in Italy that Teofilo Folengo (1491-1544) can launch a literary style known as the *ars macaronica*, the macaronic way--a mixing of Mantuan patois, Latin, and Italian--denoting something gross, crude, and rustic, like macaroni made with "flour and water and mixed with cheese and butter."³⁸

Lasagne is thought to be one of the earliest forms of *pasta secca*. An intriguing line on the history of lasagne has been proposed by several scholars. They suggest that lasagne may be derived from the Arabic word *lawzinaj*, a medieval Arabic word that denotes a thin cake of pastry, usually made with almonds. This cake was cut into ribbons, quadrangles, and rhomboids. It has been described as a food like *qata'if*, a kind of pastry made from both soft and hard wheat and almond oil.³⁹ There are many medieval recipes for *lawzinaj*, such as the one in the dietetic manual of Ibn Jazla (known as Gege in Latin), a Baghdad physician (d. 1100), called *Kitab al-minhaj al-bayan fima yasta miluhu al-insan*, which was translated into Latin as the *Liber de ferculis et condimentis* (Book of dishes and seasonings). He writes that *lawzinaj* is finer than *qata'if* and more quickly digested, but less nutritious. It is made with ground almonds and sugar and melted with rose water until a kind of dough is formed from which the *lawzinaj* is made. That both proposed etymologies for lasagne, one from the vulgar Latin and the other from medieval Arabic, seem to be some kind of fried *crêpe* or cake leads me to believe that the circle of culinary borrowing is a lot more familiar than the proponents of either argument admit.⁴⁰

The first written Italian lasagne recipe is found in an anonymous fourteenth-century cookery manuscript from the Angevin court in Naples, called *Liber de coquina* (Book of cooking). The sheets of lasagne are boiled and layered with ground spices and grated cheese in a bowl or trencher. In these medieval recipes "spices" can mean salt and pepper or sugar or some combination such as salt, pepper, cinnamon, cloves, nutmeg, and often saffron.⁴¹ We also know that by the late 1370s, lasagne was being layered with cheese as it is today through a rather macabre description by Marchione di Coppo Stefani, who wrote that the corpses of the victims of the Black Death some thirty years before in Florence were layered in open pits like "lasagne."⁴²

An Italian scholar, Luigi Sada, who has also authored several cookbooks, speculates that this early experimentation with hard wheat was found among nomadic Arabs who needed a transportable food that would not spoil.⁴³ I don't agree entirely with this line of thinking, but it does raise an interesting question: Was macaroni invented to solve the problem of food supply for people on the move? Rather than nomads, perhaps the inventor of macaroni was some unknown Arab general of military logistics who had the responsibility of feeding the large and rapidly moving armies of early Islam across the arid reaches of North Africa and the Middle East. In any case, it seems that macaroni may have been a wheat product invented to replace or improve on the then common barley products, such as the typical poor man's food, *sawiq*. *Sawiq* was a dried barley product used on long journeys that was reconstituted with water or milk when required. In affluent households *sawiq* was made with fine wheat sweetened with sugar and other ingredients such as pomegranate seeds. A hard wheat macaroni may have been invented to provide a better-tasting food for people on the move, as well as for rich urban dwellers.

The very first macaroni products were likely to have been little balls of pasta, which were easily storable and could cook quickly in a region that lacked firewood and therefore the ability to keep fires going for a long time. This new food was also likely to be made to resemble other grain foods Arabs were already familiar with, such as millet, barley, and rice. As far as extruded pastas go, like our contemporary tubular macaroni, their history before the twentieth century is for the most part unknown.

Spain is also a locus for the early history of macaroni. Ahmad ibn Muhammad al-Razi (888?-955?), the Arab geographer, describes the existence of hard wheat in Toledo saying that, "The air [of Toledo] is excellent and grain stays a long time without changing."⁴⁴ Although it's true that the Roman writer Varro (116 B.C.-27? B.C.) also described wheat in the same manner, as being storable for fifty years, al-Razi's description can only be a description of hard wheat because his comment is not an isolated observation; it is repeated by other observers during the same period.⁴⁵



(Left: Toasted pasta balls, known as *muhammas* in Tunisia, *maghribiyya* in Lebanon, *burkukis* in Algeria)

In the anonymous thirteenth-century Hispano-Muslim cookbook *Kitab al-tabikh fi al-Maghrib wa al-Andalus*, we find some of the earliest references to macaroni. We are told that there are three ways of making it. It can be "made round like a coriander seed," "thin with the thinness of *kaghit* [sheet of paper] and which is woman's food," and "lengthened in the mode of wheat" [*fidawsh*, vermicelli].⁴⁶ The coriander seed-type appears to be a form of *pasta secca*, called *maccarone* in fifteenth century Sicily, that later became known as *maghribiyya* in Syria, also known as the name of a dish, and the *muhammas* of Tunisia and the *burkukis* of Algeria. The one with the thinness of *kaghit* sounds much like lasagne. "It is cooked with zucchini, aromatics and fat; and then there is the kind like *qataif* [sic]." This *qataif* is the *qata'if* mentioned above, a kind of pastry made from both soft and hard wheat and almond oil. Interestingly, the *Kitab al-tabikh* instructs the cook to cook *fidawsh* in the same manner as you would macaroni (*itriya*). From the word *al-fidawsh* came the Spanish word for spaghetti, *fideos*, as well as similar words in other Iberian and northern Italian dialects.⁴⁷ The *Kitab al-tabikh* gives a recipe for macaroni:

Take shoulder, leg, breast and loin and some fat. Cut it up and put in a stewpot with salt, onion, black pepper, dry coriander and olive oil. Cook on a moderate heat until ripe. Immediately remove from the stewpot and clarify the sauce. Return to the pot and add butter, softened fat and sweet oil, bring to a boil and add the *fidawsh*, boiling furiously. Sprinkle with cinnamon and ginger and serve.⁴⁸

By the fourteenth century, two Catalan works, the anonymous cookbook *Libre de sent sov* and a medical treatise by Arnold of Vilanova, both speak of *aletria*, a word derived from the same Arabic word *itriya*.⁴⁹ In the Catalan works, as with the early Italian cookery books, *aletria*, or macaroni, is boiled with almond milk.⁵⁰ Arnold of Vilanova has a recipe for "*alatria*," about which he says "*et idem iudicium est de tri, quod vulgariter dicitur alatria*" (it is the same as *tri* [*fideos*], which the common people call *alatria*).⁵¹

(Photo: Sophia Loren with plate of macaroni)



The word *macaroni* has an unknown etymology. The word's first appearance is from the mid-eleventh century in Naples where it is used to mean something crude or a person who is an idiot. At some point around the twelfth or thirteenth century it came to mean *pasta secca*, although the more familiar word *tria* or *trij* continued to be used in Italy.⁵² In Arabic-speaking countries, the word for macaroni during this period of time was either *rishta* (or *erishte* in Turkish), from the Persian word for "threads," or *itriya*, as well as a few other words mentioned above. The fourteenth-century Arab traveler Ibn Battuta described the *rishta* he encountered in Anatolia as a kind of *shu ayriya*, a word that even today means vermicelli. Italian dictionaries admit the word macaroni's (*maccherone*) obscure origin, suggesting as one possible derivation the Greek word *makaria*, meaning food of the blessed. The suggestion that the word *macaroni* comes from the Greek may have its origins with the travel diaries of Ortensio Landi (1512-1553), a doctor from Modena who wrote about macaroni in Sicily and described it as having the name of the beatified (*il nome dal beatificare*).⁵³ Another suggestion is that the word derives from *maccare*, a now archaic verb meaning "to knead."

Arabic dictionaries usually tell us that the word *macaroni* is a loan-word from Italian. On the other hand, Khmais Ouled-Abdessayed, a doctoral candidate in Arabic linguistics at the University of Tunis, suggests some circumstantial evidence that the word may derive from the Arabic. A very old form of *pasta secca*, still known today in Tunisia as *duwayda*, meaning "inch-worm," is a kind of vermicelli broken into one-inch lengths. By taking the two ends of a strand of fresh *duwayda* and attaching them, they are called *qaran*, coming from the Arabic verb *qarana*, "to attach," whose past participle is *ma-grun*. This would have been a pasta shape identical to the contemporary Italian *anellini*. Once the ends of the *duwayda* are attached, they are referred to by the participial adjective *maq(a)runa*, possibly giving us the word "macaroni."⁵⁴ Intriguing as this suggestion is, unfortunately I have never come across written evidence of such a pasta existing in medieval Tunisia, so we must withhold our judgment about this etymology. But we do know that *duwayda* did exist in fifteenth-century Tunisia and in the Ahaggar of the Sahara. In medieval Tunisia, *duwayda* was typically eaten with chicken on 'Ashura, the tenth day of the Muslim month of Muharram, sacred to the Shi'is because Husayn, the son the Ali, the Prophet Muhammad's faithful follower and the fourth caliph, was martyred on this day at Karbala in Iraq.⁵⁵

The evidence is clear that by the fourteenth century, macaroni is well known. In Sicily, there are documents from 1371 saying that the prices of *macaroni* and *lasagne* in Palermo are triple that of bread, and bourgeois households usually have a *sbriga*, a wooden instrument for beating, kneading, and compacting the pasta dough.⁵⁶ So much of the early history of macaroni focuses on Sicily. We don't know if that is where it was invented, but we do know that it was a food mostly eaten by the privileged aristocracy and by the Jewish population. One historian, Professor Maurice Aymard, suggests that Sicilian Jews inherited the culinary practices of Arab-Norman Sicily, and this accounts for the prominent role that the manufacturing of macaroni had in Sicily. Macaroni was common in Sicily by the fifteenth century, but not too common among the common people. Our evidence for its being common comes from the tax collector who taxed vermicelli, *maccaruni*, *cuscuso*, lasagne, *tagliarini* and *tutti le cosi fini di semola* (all fine things made of semolina) in block. By 1597, *vivande di pasta* (pasta food) was divided into dry pasta (*pasta secca* or *axutta*) and fresh pasta (*bagnata*).⁵⁷ By the late eighteenth century macaroni was the food of the common people in Italy

The History of Macaroni: Footnotes

1. Couscous is also the name of a preparation of steamed grains other than that made of hard wheat.

2. Virtually all food writers have made this mistake and omission, including serious researchers such as Perry, Charles. "The Oldest Mediterranean Noodle: A Cautionary Tale," *Petits Propos Culinaire*. 9 (October 1981a). pp. 42-45.

3. Montanari, Massimo. "Note sur l'histoire des pâtes en Italie," *Médiévales. Langue, textes, histoire*. vols. 16-17 (1989). pp. 61-64.

4. Dick, J. W. and R.R. Matsuo. "Durum Wheat and Pasta Products," in *Wheat: Chemistry and Technology*. Y. Pomeranz, ed. 3rd ed. St. Paul: American Association of Cereal Chemists, Inc., 1988. vol. 2. p. 523.

5. Sallares, Robert. *The Ecology of Ancient Greek World*. London: Gerald Duckworth, 1991. Professor Andrew Watson, e-mail correspondence with the author, June 9, 1997; Sallares says on p. 318 that "the most recent research, employing more sophisticated techniques, focusing on more distinctive spikelet fragments rather than on the grains themselves, and employing electron microscopes, has concluded that it is possible to differentiate bread wheat and durum wheat and that the progenitors of both had evolved by c. 5000 B.C." In support of this statement he gives four references. In fact, none of the references cited gives any support whatever to this statement. Sallares uses W. van Zeist, "Macroscopic traces of food plants in south-western Asia," *Philosophical Transactions of the Royal Society*, B 275 (1976), pp. 27-41, who states, on the contrary, that "in summary one must conclude that it seems impossible to determine whether carbonized grains and rachis internodes of free threshing wheat are of *T. durum* [hard wheat] or *T. aestivum* [bread wheat]." Sallares also cites J. R. Harlan, who stresses the virtual impossibility of distinguishing the carbonized remains of the two but hopes that "the real story will some day be unravelled." (see J. R. Harlan, "The Early History of Wheat; Earliest Traces to the Sack of Rome," in L. T. Evan and W. J. Peacock, eds. *Wheat Science: today and tomorrow* (Cambridge, 1981), p.6. Sallares's third reference D. Zohary, "The Origin of Cultivated Cereals and Pulses in the Middle East," *Chromosomes Today*, 4 (1973), pp. 307-21 is completely agnostic about the identification of archeological finds of naked wheats, and D. Zohary and M. Hopf, *Domestication of Plants in the Old World* (Oxford, 1988) who Sallares cites, using pages 44-45 do not discuss naked wheats on the pages mentioned. Although he tells us that the suitability of durum wheat for making pasta rests on its gliadin: gluten ration (glieden: glutanin in Sallares) among its proteins, and that naked tetraploid wheats existed in classical Greece, there is a conspicuous absence in classical sources of pasta-type foods and Sallares believes that given the state of the classical Greek culinary arts, it seems unlikely that they had durum wheat but just didn't think of inventing pasta (p. 319). Given this statement, he then goes on to claim that (p. 320) Pliny's *alica* is a semolina-based food, a kind of groats, saying that semolina particles called *aphairema* in the Campanian dialect of Greek were preferred for its manufacture, and it was similar to bulgur. But Sallares also says that Pliny said it could be made with any kind of wheat but mainly emmer. Watson, Andrew M. *Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques, 700-1100*. Cambridge: Cambridge University Press, 1983, p. 157 n. 3 is unequivocal in stating that it is wrong to claim that *alica* mentioned in classical texts is hard wheat. Sallares still has not shown that durum wheat is widespread or actually used in pasta products, outside of simply saying that tetraploid wheats existed.

6. Professor Andrew Watson, e-mail correspondence with the author, June 9, 1997.

7. Renzo Landi, "Le coltivazioni agrarie in Italia dalla preistoria agli splendori dell'Impero Romano," in *L'alimentazione nell'antichità* (Parma, 1985), pp. 51-77.

8. Watson was also influenced by Jane M. Renfrew's book, *Paleoethnobotany*, published in 1973, which seemed to represent the most up-to-date scholarship of the time. Renfrew saw no botanical evidence of hard wheat before late Roman times. Another influence on Watson was the writings of Professor Hans Helbaek, who, using the most sophisticated techniques available, did not identify any hard wheat in the remains he analysed from many dozens of prehistoric and ancient sites.

9. In the end, none of this is a settled matter at the time of this writing. Even Robert Sallares, in a recent work, takes a contrary point of view than the one he argued for in his book on the ecology of ancient Greece by admitting that "it is still a matter of debate whether ancient Greeks and Romans cultivated mainly durum wheat, from which pasta is now made, or the bread wheat generally used to make bread today"; Robert Sallares, "Molecular Archeology and Ancient History," in John Wilkins, David Harvey, and Mike Dobson, eds., *Food in Antiquity* (Exeter: Exeter University Press, 1996), p. 95.

10. Alberini, Massimo with recipes compiled by Anna Martini. *Pasta & Pizza*. Elisabeth Evans, trans. New York: St. Martin's, 1977, p. 16; Professor Phyllis Pray Bober, Leslie Clark Professor Emeritus in Humanities and Classical and Near Eastern Archeology and Art History, Bryn Mawr College, Philadelphia, conversation with the author, December 1993. Also see Mingazzini, Paolino. "Gli antichi conoscevano i maccheroni?" *Archeologia Classica*. vol. 6 (1954). pp. 292- 294.

11. Polo, Marco, *Milione. Le divisament dou monde*, Gabriella Ronchi, ed. Milan: Arnoldo Mondadori, 1982; Ramusio, Giovanni Batista, *Navigazioni e viaggi. I milleni*. Turin: G. Einaudi: 1978-88, vol. 3, p. 264; Polo, Marco Polo, *The Travels of Marco Polo: The Complete Yule- Cordier Edition*. New York: Dover, 1993, vol. 2, p. 305. I do not accept the recent revisionist history of Marco Polo by Frances Wood, "Did Marco Polo Go to China?" who argued that Marco Polo never made it to China. The anomalies she points out have long been a focus of learned debate and I believe are adequately addressed by scholars especially Sir Henry Yule in his annotated edition of Marco Polo's travels.

12. Ramusio 1978-88, vol. 3, p. 186; Polo 1993, vol. 1 p. 438 n. 4, called "vermicelli" there rather than the correct *in lasagne*.

13. Polo 1982; Polo 1993, vol. 2, p. 305; Chau Ju-kua, *His Work on the Chinese and Arab Trade in the twelfth and thirteenth Centuries, entitled Chu-fan-chi*. Friedrich Hirth and W.W. Rockhill, eds and trans. St. Petersburg: Imperial Academy of Sciences, 1911, p. 142. This in itself is not entirely conclusive because at least one classical author, Varro, mentions that wheat in Spain can be kept for fifty years, but also says so can millet be kept for 100 years; cf. Varro, *On Agriculture*, I. lviii.

14. Hard wheat used to be designated *Triticum durum* Desf., but is currently designated *Triticum turgidum* var. *durum*; Dick, J. W. and R.R. Matsuo, "Durum Wheat and Pasta Products," in *Wheat: Chemistry and Technology*. Y. Pomeranz, ed. 3rd ed. St. Paul: American Association of Cereal Chemists, Inc., 1988. vol. 2, p. 508.

15. Petronius, *Satyricon*, 41: 9, *Ab hoc ferculo Trimalco ad lasanum surrexit* (he was going to the bathroom).

16. The word as used in Horace, *Satires*, 1, 6, 115; Celsus, 2, 22, 1, and Apicius' recipe *patina Apiciana*, cited by André, Jacques, *L'Alimentation et la cuisine a Rome*. Paris: Les Belles Lettres, 1981, p. 211 as being a general word designating minced or stretched dough, a kind of crêpe that is often deep-fried in oil. Also see, for the Greek, Chantraine, Pierre. *Dictionnaire étymologique de la langue grecque*. Paris: Klincksieck, 1968-80. 4 vols, p. 64, where *lasanon* is a large minced cake cooked with flour and oil ("LXX et grec posterieur cit. d'Aristophanes," *Assemblée* 843 in Ath. 110a); Sereni, Emilio. "Note di storia dell'alimentazione nel Mezzogiorno. I Napoletani da "mangiafoglìa" a "mangiamaccheroni"," *Cronache Meriodionali*, no. 5 anno V. (May 1958), pp. 359-61.

17. Dorsa, Vincenzo, *La tradizione greco-latina nei dialetti della Calabria Citeriore*. Cosenza: Migliaccio, 1876, p. 44.

18. This was confirmed by Uguccione da Pisa, a grammarian whose manuscript *Derivazioni* was used to comment on Senio, the fourteenth-century Sicilian lexicographer's Declarus, see Marinoni, A., ed. *Dal*

Declarus di A. Senisio: *I vocaboli siciliani*. Collezione di testi siciliani dei secoli XIV e XV 6. Palermo: Centro di Studi Filologici e Linguistici Siciliani, 1955, pp. 79, 150v, 84, 163v, 175-76. On the similarities and uses of a bread-pasta concurrence, see the [comments on tharid](#).

19. Perry, Charles, "What was Tracta?" *Petits Propos Culinaires*, 12 (1982). pp. 37-39; Hill, Stephen and Anthony Bryer, "Byzantine Porridge: *Tracta, Trachanás, and Tarhana*," in John Wilkins, David Harvey & Mike Dobson, eds., *Food in Antiquity*, Exeter: University of Exeter Press, 1995, pp. 44-54.

20. Marinoni 1955, p. 84; Scappi, Bartolomeo, *Opera [dell'arte del cucinare]*, Testi Antichi di Gastronomia 12. Sala Bolognese: Arnaldo Forni Editore, 1981. [Originally published in Venice in 1570], bk. 3, cap. CCLV.

21. See Montanari, Massimo, *Alimentazione e cultura nel medioevo*, Bari: Laterza, 1994, p. 140; Watson, Andrew M., "The Arab Agricultural Revolution and Its Diffusion, 700-1100," *Journal of Economic History*, vol. 34 no. 1 (March 1974), pp. 8-35; Watson, *op. cit.*, 1983; Watson, Andrew M., "A Medieval Green Revolution: New Crops and Farming Techniques in the Early Islamic World," in A. L. Udovitch, ed. *The Islamic Middle East, 700-1900: Studies in Economic and Social History*, Princeton Studies on the Near East. Princeton, NJ: The Darwin Press, 1981, pp. 29-58; Alessio, Giovanni, "Storia linguistica di un antico cibo rituale: 'i maccheroni'," *Atti della Accademia Pontaniana*, nuova serie vol. VIII. (1958-59), pp. 261-80.

22. The document is an *ordo cocarie domini episcopi Lunensis*; Balletto, Laura, "Dieta e Gastronomia nel Medioevo Genovese," *Saggi e Documenti VII*, vol.2. Civico Istituto Colombiano 9. Genoa: Civico Istituto Columbiano, 1986, p. 50.

23. Lopez, R., "Chi ha inventato gli spaghetti?" R. Lopez, ed., *Su e giù per la storia di Genova*. no. 20, Genoa: Collana storica di fonti e studi, 1975, pp. 381-83; Alberini, Massimo, *Maccheroni e Spaghetti: Storia letteratura aneddoti 1244-1994*, Casale Monferrato: Piemme, 1994, pp. 35-36.

24. Herlihy, David, *Pisa in the Early Renaissance: A Study of Urban Growth*. Port Washington: Kennikat, 1973, p. 39 n. 15.

25. Guerrini, O., *Frammento di un libro di cucina del sec. XIV edito nel di delle nozze carducci- gnaccarini*, Bologna: Nicola Zanichelli, 1887, no. 33.

26. This universal geography is called *Nuz'hat al-mushtaq* and was written by al-Idrisi under the patronage of Roger II, and for this reason is also known as the *Kitab al-Rujari* or *Book of Roger*; see Amari, Michele, ed., *Biblioteca arabo-sicula*, versione italiana, Torino: Ermanno Loescher, vol. 1, pp. 35-42.

27. Mantovano, Giuseppe, *La cucina italiana: origine, storia e segreti*. Rome: Newton Compton, 1985.

28. *Acta Sanctorum Aprilis [Acta de B. Guillelmo Eremitae]*, Henschenio, Godefrido and Daniele Papebrochio, Antwerp: Michaellem Cnobarum, 1675, vol. 9 (tome 1) p. 383. The two priests, Godefrido Henschenio and Daniele Papebrochio, wrote their account of William the Hermit several centuries later. Also see Du Cange, Dominus, *Glossarium mediae et infimae latinitatis* (Niort, 1883-87) (5) p. 159. Marinoni, A., ed., *Dal Declarus di A. Senisio: I vocaboli siciliani*. Collezione di testi siciliani dei secoli XIV e XV 6, Palermo: Centro di Studi Filologici e Linguistici Siciliani, 1955, pp. 84, 79. Valle, Nicolo', *Vallilium: primo dizionario siculo-latino del XVI secolo*. Palermo: Librerie Siciliane, 1990 [originally published in 1510]: *maccarone hic pastillus li uel globulus. li aglobo farine dilactato deide lixo ca seus super infunditur. Cor.co.*

29. Alessio, *op. cit.*, 1958-59, pp. 263-64; Boccaccio, Giovanni [1313-1375], *The Decameron*. G.H. McWilliam, trans. London: Penguin, 1972, (VIII) 3.

30. Watson, *op. cit.*, 1983, p. 22 citing al-Firuzabadi [1329- c. 1414], *Mukhtar al-qamus* (Cairo, 1963), p. 383.

31. Arberry, A. J. trans., "A Baghdad Cookery Book," *Islamic Culture*. vol XIII no. 1 (January 1939), p. 45. Ibn Butlan's *Taqwim al-sihha* was composed in Arabic in the eleventh century, translated into Latin under the auspices of King Manfred of Sicily in the thirteenth century, but, unfortunately, frequently revised until the fourteenth century.

32. The illustrations are reproduced in The Medieval Health Handbook: *Tacuinum Sanitatis*, Luisa Cogliati Arano, ed. Oscar Ratti and Adele Westbrook, trans. New York: George Braziller, 1976, plates XLII, 232, 233.

33. Watson, *op. cit.*, 1983, p. 158 n. 23 citing al-Jawhari [d. c. 1010], *Taj al-lughah wa sihah al-'arabiya*, 2 vols. (Bulaq, 1865).

34. *Ibid.*, pp. 20-23. Today there are words for hard wheat in Arabic and Berber, such as the name *tourki* in the Fezzan and *amekkaoui* in the Haggar of the Sahara, see Erroux, J., *Les blés des oasis Sahariennes*, Algiers: Université d'Alger, Institut de Recherches Sahariennes, n.d., p. 25.

35. Cited in Sereni, *op. cit.*, 1958, no. 5, p. 364 without a source. Bar 'Ali's dictionary appears to give a Syriac equivalent of the Arabic *itriya* (root: t-r-y). His work is not easily accessible, but see Bar 'Ali, *Syrisch arabische Glossen*, Georg Hoffman, ed. Kiel, 1874 a copy of which is in the University of California, Los Angeles research library and the New York Public Library which is unfortunately missing volume 2.

36. Watson, *op. cit.*, 1983, p. 158 n. 23. Several scholars have incorrectly placed the first codification of *pasta secca* in the ninth century. Professors Massimo Montanari and Giuseppe Mantovano cite the so-called ninth-century cookbook of Ibn al-Mibrad as describing a "dish common between the old Bedouin tribes and the Berbers," namely *pasta secca*. Both scholars have made a mistake: *lbn al-Mibrad* is the pseudonym of Yusuf b. Hasan ad-Dimashqi who wrote in the sixteenth century A. D. which is the ninth century A. H. (year of the hegira in the Islamic calendar), see Montanari, *op. cit.*, 1989, p. 61; Mantovano, *op. cit.*, p. 285.

37. Balletto, *op. cit.*, p. 56.

38. Messedaglia, Luigi, *Vita e costume della rinascenza in Merlin Cocai*. Medioevo e Umanesimo 14. Padua: Antenore, 1974, vol. 2, pp. 175ff.

39. Dozy, R., *Supplément aux dictionnaires arabes*, Leyden: Brill, 1881 [reprinted Beirut: Librarie du Liban, 1991], vol. 2, p. 557 where *lawzinaj* (L-w-z-y-n-j) is a food like "ktaief" (i.e. *qata'if*) made with almond oil. Dozy's sources are *al-Aghani*, *Alii Ispahanensis Liber Cantilenarum magnus*, Ioanne Godofredo Ludovico Kosegarten, ed. (Greifswalde, 1840), vol. 1, pp. 61, 10 and Bar Ali, *Syrisch arabische Glossen*, Georg Hoffman, ed. (Kiel, 1874).

40. Rodinson, Maxime, "On the Etymology of 'Losange,'" Charles Perry, trans. *Petits Propos Culinaires*, vol. 23 (July 1986), p. 16; Vollenweider, Alice, "Der Einfluss der italienischen auf die französische Kochkunst im Spiegel der Sprache," *Vox Romanica: Annales Helvetici explorandis linguis romanicae destinati*, vol. 22, no. 2 (July-December 1963), pp. 440-43.

41. See Wright, Clifford A., *Lasagne*, Boston: Little, Brown, 1995, p. 6.

42. "And then more bodies were put on top of them, with a little more dirt over those; they put layer on layer just like one puts layers of cheese in a lasagna." Marchione di Coppo Stefani was born in Florence in 1336 and he wrote his Florentine Chronicle in the late 1370s and early 1380s. "Rubric 643: Concerning A Mortality In The City Of Florence In Which Many People," died *Cronaca fiorentina. Rerum Italicarum Scriptores*, vol. 30, Niccolo Rodolico, ed. Citta di Castello: 1903-13 in Plague and Public Health in Renaissance Europe, <http://jefferson.village.virginia.edu/osheim/intro.html>.

43. Mantovano, *op. cit.*, p. 285.

44. al-Razi, Ahmad ibn Muhammad [888?-955?]. "La Description de l'Espagne d'Ahmad al-Razi," E. Lévi-Provençal, trans. *Al-Andalus*, vol. XVIII, (1953), p. 82 quoted in Watson, *op. cit.*, 1983, p. 21. This al-Razi is not the famous doctor known as Rhazes in the West.

45. Varro, *On Agriculture*, l.57.

46. *Kitab al-tabikh fi al-Maghrib wal-Andalus*, A. Huici Miranda, ed. *Revista del Instituto de Estudios Islamicos en Madrid*. IX-X, Arabic section, (1961-62), pp. 12-256 [in Arabic]. Also see *Traducción española de un manuscrito anónimo del siglo XIII sobre la cocina hispano-magribi*. Ambrosio Huici Miranda, trans. Madrid: Maestre, 1966 although the translation is not accurate.

47. Such as *fidelli*, *sfidelli* and *fidellini*, see Corominas, Joan, "Mots catalans d'origen aràbic," *Bulleti de dialectologia catalana*, vol. 24 (1936), pp. 1-81 and Corominas, Joan, *Diccionario crítico-etimológico de la castellana*, Berne, 1954-57, 4 vols. Also see Garulo, Teresa, *Los Arabismos en el lexico Andaluz*, Madrid: Instituto Hispano-Arabe de Cultura, 1983, p. 224, where the entry for *fideo* is related to *zarcillo*, either a vine tendril, a dropped earring, or a hoop of a barrel, the point twisted and tender vine shoot. The word comes from the verb "to bud" derived from the Arabic *fad*, "to grow, to expand." The word appears in Ibn al-Jatib; see Simonet, D. Francisco Javier, *Glosario de voces ibéricas y latinas usadas entre los mozárabes*. Beirut: Librarie du Liban, 1975. [Originally published in 1888].

48. *Traducción*, *op. cit.*, p. 207.

49. Arnau de Vilanova [Arnold of Vilanova], *Obres catalanes*, vol. 2: *Escrips mèdics*. Barcelona: Barcino, 1947, pp. 135, 137; *Libre de sent soví*, Rudolf Grewe, ed. Barcelona: Editorial Barcino, 1979, pp. 182, 184.

50. Lladonosa i Giró, Josep, *La Cocina medieval*, Barcelona: Editorial Laia, 1984, p. 95.

51. Arnau de Vilanova, *op. cit.*, vol. 2, pp. 135 n. 3; 135-6. *Tria* is the same as *alatrià*. Arnold of Vilanova's recipe for pasta which is both cooked in oil or water: *De forment, e de farines, e de tot menjar quis fa de pasta frita ho cuyt en aygua. Ffoment cuyt no deu hom soven mengar, per ço cor moltípica e engenera en lo ventre los vermens qui son apetatx lombrics, e, encara, engenera apilacions, e fa disposicio e hordonament a aver peres ho arenes en la vexigua e en los royons. Açò matex fa[n] farines fetes de farina de forment e tota res qui sia fet de pasta frita ho cuyta en aygua.* That this is probably a hard wheat pasta is indicated by his use of the word *semola*.

52. Alessio, *op. cit.*, 1958-59; Sereni, *op. cit.*, 1958. Exactly when this occurs is unknown. The attribution of the origin of *pasta secca* to the Arabs has been questioned with a cautionary note by Montanari, *Alimentazione*, *op. cit.*, p. 141. Citing Rosenberger, he notes that the very notion of pasta seems absent from Arabic gastronomy. It seems that Montanari has misread Rosenberger, who appears to make exactly the opposite claim, Rosenberger, B., "Les pâtes dans le monde Musulman," *Médiévales. Langue, textes, histoire*, vols. 16-17 (1989), p. 87. Rosenberger focuses on medieval Arab words for varieties of pasta appearing in the sources, overlooking instances of *pasta secca* in contemporary Arab cookery, Wright, Clifford A. "The Discovery and Dispersal of Hard Wheat (*Triticum durum*) and its Inventions: Pasta and Couscous and their Varieties in Tunisia," paper delivered at the Sixth Oldways International Symposium, "Tunisia: The Splendors and Traditions of its Cuisines and Culture." Djerba, Sousse, and Tunis. December 4 to December 10, 1993.

53. Faccioli, Emilio, ed., *L'arte della cucina in Italia: Libri di ricette e trattati sulla civiltà della tavola dal XIV al XIX secolo*, Turin: Giulio Einaudi, 1987, p. 277, who called the etymology "fanciful."

54. This section is derived from Wright, Clifford A., "Cucina Arabo-Sicula and Maccharruni," *Al-Mashaq: Studia Arabo-Islamica Mediterranea*, vol. 9 (1996-97), pp. 151-77.

55. Brunschvig, Robert, *La Berbérie Orientale sous les Hafsides: des origines à la fin du XVe siècle*, Publications de l'Institut d'Études Orientales d'Alger VIII, Paris: Adrien-Maisonneuve, 1947, vol. 2, p. 272; in Tuareg, a language of the Ahaggar, *duwayda* was known as *eddouida* and *talia* (from "Italia" or tagliatelle) both mean vermicelli, de Foucauld, Le Père Charles, *Dictionnaire Touareg-Français: dialecte de l'Ahaggar*, Paris: Imprimerie Nationale De France, 1951, vol. 1, p. 223.

56. Also spelled *isbriga* or *ysbriga*. Aymard, Maurice and Henri Bresc, "Nourritures et consommation en Sicile entre XIVe et XVIIIe siècle," *Mélanges de l'École Française de Rome: Moyen ge-Temps Moderness*, tome 87 n. 2. (1975), p. 541; The vermicelli of Trapani in the sixteenth century was 50 percent more expensive than in Palermo, Bautier, A.M., "Pain et pâtisserie dans les textes médiévaux latins antérieurs au XIIIe siècle," *Manger et boire au Moyen Âge*, Actes du Colloque de Nice, n. 27, vol. 1: *Aliments et Société*, Centre d'Études Médiévales de Nice: Centre National de la Recherche Scientifique, Les Belles Lettres, 1984, p. 41.

57. Aymard and Bresc, *op. cit.*, pp. 541; 542; Bautier, *op. cit.*, p. 41.