Abstract. This article aims at describing the various types of medical remarks which are included in late medieval German cookbooks. The examples show that these suggestions, generally very short, reflect the common medical theories on nutrition and that during the Middle Ages there was a close connection between food preparation and medicine. It can be thus inferred that medieval cookery literature could be considered as an integral part of medical literature and that both genres aimed at providing both practical and theoretical information beneficial for human health.

Keywords. Medieval cookery literature; Medieval German cookbooks; Medieval culinary recipes; Dietetics in medieval cookbooks; Medicine and food in the Middle Ages.

In this article I will analyse the various types of medical and dietetic references contained in late medieval German recipe collections. First I will start by describing the close connection between medicine and food preparation during the Middle Ages and the historical background of medieval medical theories on nutrition; then I will consider the inclusion of dietetic suggestions in German cookbooks, describing the main kinds of medical advice which can be found in culinary recipes dating back to the fourteenth/fifteenth century. The examples will show that late medieval cookery literature can be considered as an integral part of medical and dietetic literature and that both fields of knowledge aimed at providing both theoretical and practical information in order to preserve human health.
I. Medicine and food in the Middle Ages.

During the Middle Ages there was a close connection between medicine and cuisine: the preparation of food was in fact influenced by medical ideas on nutrition, i.e. by dietetics, whose main assumptions are to be found in the medical theories of antiquity, especially in the so-called humoral pathology\textsuperscript{1}. The origins of this theory can be dated back to the fifth century B.C. when Empedocles first listed the four elements (fire, water, air, and earth) and his contemporary Zeno of Elea postulated the four basic qualities (hot, wet, cold, and dry). Around 500 B.C. Alcmaeon of Croton combined this four-qualities-schema with medicine introducing the idea that health depended on a perfect balance (harmony) of these basic qualities inside the human body.

However, the very first formulation of a «prototype»\textsuperscript{2} of the humoral pathology is to be found in the so called *Corpus Hippocraticum* (around 400 B.C.), and more specifically in the treatise *De natura hominis*, which is generally ascribed to Polybus, who was the first to associate the cardinal qualities with the basic fluids and with the four seasons, since it was assumed that these fluids could affect the human body and health throughout the year: blood was thus associated with the basic qualities hot and wet, and with the season spring; yellow bile with hot and dry, and with summer; black bile with cold and dry, and with fall; phlegm was assumed to be cold and wet, and was associated with winter. Other elements were then added to this schema, such as the four stages of human life (childhood, adolescence, adulthood, old age), and around the fourth century B.C. the four elements came to be connected with the basic qualities by Philistron of Locri: fire – hot, water – wet, air – cold, and


\textsuperscript{2} WEISS ADAMSON, *Food in Medieval Times*, p. 206.
ear – dry. This association was also mentioned by Aristotle who is credited with describing the four temperaments for the first time.3

It was the Greek physician Galen of Pergamon who, around the second century A.D., systematized all the previous medical concepts and created a new theoretical system which later substantially influenced medieval medicine. Galen formulated a more systematic humoral theory adding new elements such as the four qualities of taste, the four cardinal colours and organs, the four kinds of fever, the male and female principle, postulating a more complete schema of correlations:


Galen also listed nine temperaments, four with a prevalent quality, four with two qualities in harmony and one with all four qualities balanced perfectly.4 He also introduced a further division of the four basic qualities into four different gradus, i.e. ‘degrees’ or levels of intensity (weak, noticeable, strong, and extreme) which later were applied to the description of foodstuffs by Arab physicians.

Western medieval medicine and dietetic concepts were strongly influenced by Arab medical writings, which were in turn based on Hippocratic and Galenic medical theories.5 Arab physicians de-

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3 For information on the theory of temperaments see K. BERGDOLT, Temperamentenlehre, in Lexikon des Mittelalters, München, DTV, Bd. VIII, 2002, coll. 533-534.
4 See WEISS ADAMSON, Food in Medieval Times, p. 206. The theory of the four temperaments with the association blood – sanguine temperament, yellow bile – choleric temperament, black bile – melancholic temperament, and phlegm – phlegmatic temperament was formulated in detail during the twelfth century by Honorius of Autun.
5 See WEISS ADAMSON, Medieval Dietetics, p. 17; G. BAADER, G. KEIL, Einleitung, in Medizin im mittelalterlichen Abendland, hrsg. v. G. Baader, G. Keil, Darmstadt, Wissenschaftliche Buchhandlung, 1982, p. 13f. Arab medical works were translated into Latin between the eleventh and the thirteenth century and
scribed medicine as a system of «causes of sickness and health»\(^6\), i.e. a system of factors which could influence human health by causing or preventing illness. These causes included natural elements (the so-called *res naturales*, such as heartbeat), non-natural factors (*res non naturales*, i.e. individual habits like sleeping, nutrition, emotions), and factors against nature (*res contra naturam*, for instance disease). The non-natural causes, which were described in a particular genre of medical literature, the *Regimen sanitatis*\(^7\), were generally organized in lists of six (*sex res non naturales*), and included *somnus et vigilia, motus et quies, aer, cibus et potus, repletio et evacuatio, passiones* or *accidentia animi*. According to medieval medicine, physical and psychic health depended on their right balance (*eukrasía*); an excess of any one of them, i.e. non-moderate behaviour could lead to a situation of imbalance (*dyskraasia*) and cause disease\(^8\).

Among these non-natural factors nutrition played an important role. All foodstuffs had their own basic qualities and were transformed into fluids (blood, yellow bile, black bile, and phlegm) and absorbed by body through the digestive process, which was considered as a process similar to cooking (*coctio*). Therefore, they could be usefully used in a prophylactic way, in order to preserve human health, or in a therapeutic way, in order to restore it and to cure


\(^6\) WEISS ADAMSON, *Food in Medieval Times*, p. 211.


disease. The section on food and drink (cibus et potus) in medieval Regimina sanitatis was one of the longest and normally included rules on correct nutrition and a list of foodstuffs with humoral and nutritional information. First of all, correct nutrition, i.e. a healthy diet should be varied and consist in a variety of different foodstuffs. In addition, it should be ad personam, which means, it should take into account individual factors, for instance age, sex, complexion, exercise, and should change with the season, i.e. at least four times throughout the year: according to the principle contraria contrariis curantur, in winter (cold and wet), people should eat hot and dry foodstuffs like meat, cereals, and drink wine; in summer (hot and dry) they should eat wet foodstuffs such as vegetables, and drink water. Finally diet should be moderate and avoid any excess, in order to favour the digestive process.

All these theoretical medical assumptions naturally affected medieval food preparation: dishes were not only to be tasty, but also healthy according to common medical thought, in order to preserve human health and temperament which was generally assumed to be moderately hot and moderately moist.

II. Medieval cookbooks as part of medical literature.

The close connection between medicine and food, i.e. nutrition, is clear if we take into account both medieval theoretical texts, for instance Regimina sanitatis, and texts with a more practical approach, such as cookbooks, which often show the influence of dietetic theories and common ideas on nutrition. Regimina sanitatis literature often includes culinary recipes, generally in the dietetic section containing a list of foodstuffs and their humoral qualities, and cookbooks not only explain the practical way of preparing food, but often provide dietetic or nutritional information regarding some dishes or ingredients. Thus, both literary genres can be considered as

9 See SOTRES, The Regimens of Health, p. 308.
10 See WEISS ADAMSON, Medieval Dietetics, p. 23.
11 See MAZZINI, Alimentazione e medicina, pp. 194-196.
13 See WEISS ADAMSON, Medieval Dietetics, p. 196f., WEISS ADAMSON, Food in Medieval Times, p. 214.
interdependent and closely related to each other, though different in their general aim and methodological approach.

From this specific point of view, medieval cookbooks and culinary recipes can be seen as sources for the history of medicine and as forming part of medical literature. According to the modern classification of medieval arts used in most handbooks on Fachliteratur (technical and scientific literature) and inspired by the medieval education system organized in artes, cookbooks are generally considered as forming part of the so-called ars mechanicae and as belonging to the agricultura. This kind of interpretation conflicts, however, with the classification which can be found, for instance, in the Didascalicon de studio legendi by Hugh of Saint Victor: he considered cuisine and cookery art either as venatio, when it concerned itself with the material preparation of food, or as medicina, when dealing with dietetics, regarding the influence diet could have on human health.

Even though cookery art can be plausibly seen as belonging to agricultura, the close connection between medicine and cuisine is nevertheless clear: as previously mentioned, dietetic and nutritional information can be frequently found in medieval cookbooks. Furthermore, recipe collections and cookbooks are very often included in miscellaneous medical manuscripts, showing thus a common transmission. This may mean that during the Middle Ages medicine

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and cuisine were not perceived as unrelated arts, but, on the contrary, as interdependent and complementary branches of knowledge.

III. Medical and dietetic references in medieval German cookbooks.

The connection between medical theories and practical preparation of food, i.e. the interdependence between medical and cookery literature, is evident if we take into account the late medieval German tradition. Several German recipe collections have come down to us, some dating back to the late fourteenth century, most of them to the fifteenth century. Frequently they are included in manuscripts together with medical or dietetical texts, such as *Regimina*, treatises of pharmacopoeia, texts of veterinary medicine, and many of them also contain real medical or pharmaceutical remedies, written alongside culinary recipes. For instance, cookbook Wo2 contains eighty recipes, of which eleven are not culinary, but exclusively medical remedies (6-13, 15, and 77), or Bs1, known as Meister Hans’s cookbook, which also includes remarks on the therapeutic properties of distilled

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wine (152), and mentions the preparation of a vinegar which in pharmacies is called *acetum fortissimum* («der haist jn der Appodecken Acetum fortissimum», 159). Another interesting example is the collection Ko1, a miscellaneous manuscript with chronicles and edifying texts which includes culinary recipes written in the margins. Some of them are medical recipes (6.1, 15.1, 16.1, 16.6, 17.1, 19.1) describing the therapeutic use of herbs which seem to stem from the *Buch der Natur* by Konrad of Megenberg.

Further confirmation of the close connection between medicine and food can be found in the dietetic suggestions which are frequently included in culinary recipes and which complete the practical instructions for the preparation of dishes with useful theoretical information for human health. Here I will take into account most of these medical suggestions, describing them, and showing how they usefully complemented, from a theoretical point of view, the practical culinary instructions. Sorting through most of the late medieval German recipe collections and cookbooks three main kinds of dietetic references are to be found:

1. general medical remarks on the effects of dishes on human health (not always with an explicit reference to disease);
2. medical remarks with an explicit reference to the season or climate;
3. medical remarks with explicit reference to particular/specific disease.

III.1. General medical remarks on the effects of dishes on human health (not always with explicit reference to disease).

This type of medical and dietetic remark does not provide a detailed description of the therapeutic virtues of a particular dish and does not indicate the kind of disease/illness which could be cured or prevented through its consumption. In most cases remarks consist in a

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21 Culinary recipes of Ko1 were transcribed by the same scribe who copied the chronicles. See Ehler, *Die (Koch-)Rezepte der Konstanzer Handschrift*, p. 53.
22 See Ehler, *Die (Koch-)Rezepte der Konstanzer Handschrift*, p. 57.
short sentence, which occurs at the end of the recipe and states whether a dish is healthy and/or good for human health. For instance, recipe 63 of the second collection of M2:

krum krapfen
CZů krumen krapffen als rosysen solt du riben güten käs vnd nyem halb als vil mell vnd schlach ayer darvnder, das es sich dester baß wel- len laus vnd bewürtz es gnüg vnd will es vff ainem brett, das es werd als wurst. daruss mach denn krum krapffen als roßysen. die werdent gar güt vnd s i n d v a s t g e s v n d vnd sol sy bachen in schmaltz.

([Horse-shoe shaped] krapfen.
To [make] krapfen which are shaped like horse-shoes you have to grate good cheese and take half part flour and beat in eggs so that you can roll out [the dough] better (i.e. more easily) and add spices enough and roll it [the dough] out on a board to become like thin sausages. With this [dough] make shaped krapfen, like horse-shoes. These are good and are very healthy and you have to cook them in lard.)

Another example can be found in recipe 5 of the second collection of M5:

Jtem ain Reis mueß Stoß denn Reiß klain vnd sewd denn jn wandel mi- lich vnd am lesten mit Zucker Zw einem mues. d a s i s t g e s ū n n t vnd gutt.

(Item a rice mousse. Pound the rice and boil it in almond milk and then with sugar [until it becomes] like a cream. This is healthy and good.)

Recipe 95 of K1 contains this same dietetic recommendation:

Vß dem selben teige eyn peffer Essen
Süed eyer hart, Nym den dotternn, Gebroten epphel oder birn.
Hacks vnder ein ander. Nym enwenig saffran In win

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24 München, Bayerische Staatsbibliothek, cgm 725. Second recipe collection: cgm 725 II, edited by EHLERT, Münchner Kochbuchhandschriften, pp. 200-209. The same medical remark also occurs in recipe 4 of cgm 725 II.

vnd milch, Temperers vndereynander, das iß dick blibe.
Mach fladen vß dem teige, thu das gehecche dar vf, Slach
Ine zcu vnd welger iß In den henden kugelechcht, wie
vil du haben wilt. back sie In luterem milchsmaltz
vnd legh sie In den peffer heis ader kalt. Sehe ein
wenig luter Ingber darvf. So ným dan des hart ge
soden wiessen des eies, Snýd klein stucklin als wurf
fel, Sehe sie auch darvf. Machs ab mit en wenig
milchsmaltz, das stehit wol vnd ist eyn gûts gesünds
e s s e n . Mit dem selbigen teig mag man machenn
als die gefulten eyer ader als die gefulten krebs ffur
tragen In brüen ader win suppenn ader In pheffer.

With the same dough a dish [with] a pepper[sauce]
Boil eggs hard, Take the yolks, roasted apples or pears.
Pound them together. Put some saffron in wine
and milk, mix together until it (the mixture) thickens.
Make flatcakes with the dough, place onto them the pounded [food-
stuffs], fold
over the dough, [close down], and form little balls by hand
as many as you want to have. Cook them in purified buttermilk
and place them in the peppersauce hot or cold. Sprinkle
some pure ginger over. Then take the whites from the
hardboiled eggs, dice them,
sprinkle over. Add some
buttermilk, this goes well, and is a good healthy
dish. With the same dough you can also make
stuffed eggs or stuffed shrimps [and] serve them
in broth/stock or winesauces or in peppersauce.

Another example may belong to this first group of general medi-
cal comments, namely recipe 2 of the first collection of M526:

wildw lezelten machen
Wiltu güet letzelten machen, So nym einen guten tayg gemacht mit
guttemm lauteren honig vnd dar nach Jngwer stupp, nagel, mûscat,
muscatplûd, zimatrinten, anes yecz nach seiner wag. Vnnd dann nach nim
For motill wurtzen, Naterwurtz, peren wurtz, veldkümel vnd petersil
samen, vnnd soll dy pulueren vnd als miteinander legen Jn ein guten
geprannten wein. Vnnd soll darin ligen ein tag vnnd ein nacht. Darnach
gewßt man es gar in den tayg vnnd soll den tayg wol knetten vnnd soll

dann machen letzelten Als mann wil das prot pachen. Jst gar güet vnd nütz zw vil dingen vnd fur manigerlay presten.

(If you want to make lebkuchen (gingerbread)

If you want to make good lebkuchen (gingerbread), then take a good dough made using good clear honey and ginger powder, cloves, nutmeg, macis blossom, cinnamon sticks, anise, each (of them) according to its own weight. And then take four (?) bushels of spices, serpentine (polygonum bistorta), spignel/meu (meum athamanticum), caraway (carum carvi), and parsley seeds and you have to pound them to powder and add to a good cooked wine. And let this [mixture] stand one day and one night long. Then pour it into the dough and the dough must be well kneaded and you have to make gingerbread like you make bread. This is very good and useful for many things and for many infirmities.)

In this case the general statement that a specific dish is healthy is accompanied by a general reference to to the concept of illness, albeit without clearly indicating the type of illness or the specific therapeutic use of the dish itself. However, the real aim of the text is not clear at all: it could be a medical recipe rather than a culinary recipe. As Trude Ehlert points out\textsuperscript{27}, in medieval German cookbooks specific recipes describing the preparation of Lebkuchen generally do not occur, because they were not frequently consumed on their own, but as ingredients for other preparations, for instance sauces or condiments. Therefore, it is probable that the written record in M5 refers to medical, i.e. therapeutic properties, and not culinary ones. This can be confirmed by three different aspects. First, the text contains the exact reference to at least one dose («for motill»): medieval culinary recipes do not give any information about doses while pharmaceutical preparations generally do. Moreover, the concluding sentence («Jst gar güet vnd nütz zw vil dingen vnd fur manigerlay presten») points out the medical and therapeutic use of the ‘dish’, even though there is no clear indication as to the type of illness to be treated. Finally, recipe 2 of M5 is not included in a real cookery book: the comment appears alongside a collection of medical texts following a recipe which describes how to make turbide

wine drinkable. It can be thus inferred that the expression «manig-erlay presten» refers to the kinds of illness described in the previous medical collection entitled *wer ain grimenen in dem pauch hat* “he who has spasms in the stomach”\(^{28}\).

The specific therapeutic and non-culinary nature of recipes for *Lebkuchen* can be confirmed by the fact that other examples occur in the pharmacopoeia (*Arzneibuch*) which immediately precedes the so-called cookbook by Meister Eberhard included in A1\(^{29}\), and in later recipe collections of the sixteenth century such as the cookbook by Sabine Welserin (1553) and Anna Weckerin’s cookbook (1598)\(^{30}\).

III.2. *Medical remarks with an explicit reference to the season or climate.*

These medical and dietetic comments make specific reference to the season, or to the climate which is most suitable for the consumption of a dish; according to the common medical ideas on nutrition of this period, a correct diet should change with the season and should be based on the principle *contraria contrariis curantur*. Again in this case dietetic suggestions are generally very short and included at the end of recipes.

An example can be found in recipe 45 of W3, the so-called Mondsee cookbook\(^{31}\):

*Wie man Snalenberger sültz machet*\(^{32}\).


\(^{29}\) Augsburg, Universitätsbibliothek, Cod. III.1.2° 43. The text was edited by A. FeYl, *Das Kochbuch Meister Eberhards. Ein Beitrag zur altdeutschen Fachliteratur*, Diss., Freiburg im Breisgau, 1963.


\(^{31}\) Wien, Österreichische Nationalbibliothek, cod. vind. 4995. The cookbook of Mondsee was edited by D. Aichholzer, *‘Wildu machen ayn guet essen...’: drei mittelhochdeutsche Kochbücher. Erstiteration, Übersetzung, Kommentar*, Bern et al., Lang, 1999, pp. 85-182.

\(^{32}\) The same recipe occurs in the *Bůch von güter spîse*, the oldest German cookbook (rec. 49). According to Aichholzer, *Wildu machen ayn guet essen*, p. 123, note 300, the dish name could refer to the name of a cook. See T. EhlerT, *Das Kochbuch des Mittelalters. Rezepae aus alter Zeit, eingeleitet, erläutert und ausprobiert von T. EhlerT*, Düsseldorf, Albatros, 2000, p. 59.
Nim wein und honigsam und lausß es sieden und tuo dar zuo gestossen ingerb, mer den pfeffers, stoß knoblauch, denoch nicht zuo vil, und mach es starck und rür es mit ain ander mit einer schinnen las es siden bis das es brinnen begunnt. Das soll man essen im kalten winter.\(^33\)

(How you make Snalenberg sauce.)

Take wine and honeycomb and let it boil and add to it ground ginger, more [ginger] than pepper, pound garlic, but not too much, and mix until it becomes thick with a small spatula, let it (the mixture) boil until it begins to burn. You should eat this [sauce] in the cold winter.

References to the humoral pathology are clear: winter was assumed to be cold and wet, therefore a balanced dish should be based on the consumption of complementary, i.e. hot and dry foodstuffs. This theoretical background can be confirmed if we take into account, for example, the *Opusculum de saporibus* by Magnino Mediolanensis (or Maino de’ Maineri), one of the most important medieval physicians, who states: «tertia consideratio quod temporibus etate et conclusione frigoris utendum est salsis calidis et e convexo»\(^34\). Suggested ingredients for cold season include mustard, rocket, white ginger, pepper, garlic, spices, herbs (such as sage, mint, thyme, parsley), meat, wine, a weak vinegar\(^35\).

The sauce described in W3 corresponds to this dietetic principle for it includes ingredients such as garlic (hot and dry in the fourth degree), pepper (hot and dry in the third degree), ginger (hot in the third degree and dry in the first degree if seasoned) wine and pure honey, both of hot and dry quality.

From a medical point of view sauces could serve an important function: they could ‘correct’, i.e. balance food qualities which were not in harmony (e.g. they could be too dry, or too moist, or too hot,

\(^33\) The same medical suggestion also occurs in recipe 139 of W3.


\(^35\) «Nature autem saporum in tempore etate et conclusione frigoris sunt sinapium eruca zingiberi albumi piper cinamomum gariofilus alleum salvia menta serpillum petrosillum vinum aqua carnium et acetum non forte et pro-pinquum nature vini». 
or too cold) for human health. Magnino Mediolanensis suggests a moderate consumptions of sauces because of their medicinal nature, at the same time however, he highlights their “balancing” function:

Amplius sapore ut per plurimum sapiunt naturam medicinalium que in regimine sanorum a sapientibus denegantur debet enim conservatio sanitatis abstinere ab omni medicinali. Dico igitur quod huiusmodi saporibus non est utendum in sanitatis regimine nisi in paucta quantitate et ut corrigatur quorundam ciborum malitia seu saltem remittatur. [...] Quarta consideratio est quod quanto cibi sunt temperamentiores et temperamentum propiores tanto minus ex saporibus est comedendum cum eis. Et similiter sapore eis competentes sunt et esse debent temperamentum propiores et eiconverso quanto cibi sunt magis lapsi a temperamentum tanto indigent saporibus magis lapsis ad oppositum lapsus ciborum unde si cibi declinant ad frigidum et humidum et viscosum sapor debet esse calidus et siccus et subtiliavitius et eiconverso si cibi sunt calidi et sicci sapor debet esse frigidus et humidus.

These medicinal properties of sauces can be found in recipe 259 of so-called Wiener Kochbuch (W1):

Ein naturlich salsen

(A natural sauce)
Take three garlic heads, more pepper than ginger, mix all together, let it boil. Let it become brown. This is a natural sauce. This should be eaten in the cold weather together with beef and roasted chickens.)

The medical reference not only suggests when the sauce should be eaten, i.e. in the cold winter, but also makes mention of the dishes it should accompany, beef and roasted chickens. The reason for this further advice lies in the nature and quality of the described kinds of meat. Beef was in fact assumed to be dry and cold and to cause melancholic humors: according to Magnino, for example, it

37 Wien, Österreichische Nationalbibliothek, cod. vind. 2897. The text is edited in AICHHOLZER, Wildu machen ayn guet essen, pp. 245-379.
38 See the description of beef meat made by Aldobrandino of Siena: «Chars de buef est froide et seche de se nature et engenre gros sanc et melancolieus»
was therefore to be boiled and served with sauces containing hot ingredients, such as garlic, ginger, saffron and pepper, especially during the cold season\(^{39}\) («salsa carnium bovinarum est piperatum croceum bullitum quod fit ex pipere et croco et pane infuso in aceto in hyeme [...] Item possent comedi carnes bovine eum alleata alba ex nucibus et zinziberi albo et alleis distemperatis cum aqua carnium et bullitis»).

The dietetic suggestion included in recipe 259 also refers to ‘roasted’ chickens: this method of cooking was believed to make meat hard to digest. In the dietetic section of A1\(^ {40}\), for example, recipe 69 states that:

> Als gepratenn fleisch das speyst wol vnd ist gesund, doch wirt es kawm verdewt [...] Gebratenn fleisch an dem das ist ein grobe speyß vnd macht sat vnd wirt kaum verdewet.

(All roasted meat nourishes well and is healthy, but it is hard to digest [...] Roast meat is a dish and makes you feel full and is hard to digest.)

According to Magnino sauces could both weth the appetite and stimulate digestion («Non solum autem huiusmodi sapores iuvant appetitivam ymmo etiam digestivam»): the use of this sauce with roasted chickens could thus facilitate the digestive process.

Another interesting example of this same kind of medical comment can be found in recipe 188 of W1:

> Von gueten sultz vischen
> [N]im güt lembtig hecht und schub dy rain und nym schübem und seud in einem wein und esseich. Nym die visch und tue sy auf und vergels nicht. Nym ein gueten wein und wasch die visch aus und stukch sy wy du wild. Wenn dy schuben gesoten sein, so slach sy durch mit dem wein, und setz dy prü auf in ein schon kessel. Wann dy prue nu sieden wil, so leg dy grossen stukch von erst dorin. Wann dy visch gar darein kömmen, du solt sy nicht vast schuemen und nicht vast sieden lassen. Sy sullen guetleich sieden. Nu tü im recht mit gwurtz und mit esseich. Wann sy nu gesoten sein, so nym und fach die prü ab und leg sy auf ein mülte oder auf scheffel, was du hast und trag sy in ein chül und seich dy


\(^{40}\) See supra, note 29.
prü darauf durch ein sib. Hastu güt gwürtz dorinn, ist deines herren frum. Du dorfft nicht mer ertzney dartzu, es sey dann gar haiss wetter. Versaltz nicht und løs sy gesten. Im [Nim?] kain wasser dartzu.\footnote{The same recipe occurs in W3 (recipe 108).}

(About good fishes in aspic. Take good pikes still alive and scale them well and take the scales and boil them in wine and vinegar. Take the fish and open and do not let the bile spurt out. Take good wine and wash the fish and cut into slices as you want. When the scales are cooked, then strain them together with wine and put the stock in a beautiful pot on the stove. When the stock begins to boil, then add to it first the big slices [of fish]. When the fish is boiling in [the stock] let it not froth and boil too long. It should boil well (slowly). Now add to it spices and vinegar. When the fish is boiled, then take and filter the stock and put them (the pikes) into a bowl or tub, whatever you have, and place them in a cool place and filter over them the stock with a sieve. If you have added good spices, then it helps your lord. You do not have to add other drugs [spices?] unless there is very hot weather. Do not salt too much and let them (the pikes) stand. Do not add water to it.)

Once again, in this case, the medical comment contains a reference to the climate and corresponds perfectly to the common theories of humoral pathology. Accordingly, fish was assumed to be cold and wet; therefore, for a healthy human consumption, it should be “tempered” by ingredients with complementary qualities. The dietetic section of A1 contains the following statements: «yedoch soltu wisenn, das alle grün fisch kalt vnd feucht sein vnd vndewig» ‘but you have to know that all fresh fishes are cold and wet and stodgy’ (rec. 62), and «Item es spricht Gardianus, man soll alle visch sieden mit wein oder essig oder wurczenn, wann das zeucht die bösen feuchtigkeit darvonn» ‘Item Gardianus says that all fish should be boiled with wine or vinegar or spices because this draws the bad moisture out of them’ (rec. 67). Magnino too recommends the same use of hot and spicy sauces with fish because of its moist nature: «De piscibus autem sciendo est quod quanto sunt grossioris carnis et difficilioris digestionis et maioris superfluitatis et humoris nature tanto indigent saporibus calidioribus et acutioribus». Recipe 188 corresponds to this common dietetic theory and describes the preparation of fish which has to be boiled in hot liquids such as vinegar.
or wine and prepared with spices. The use of spices as foodstuffs with complementary qualities (hot and dry) to fish (cold and wet) is emphasized by the sentence «Hastu güt gwürtz dorinn, ist deines herren frum» which implicitly points out how this kind of preparation is good for human health.

Recipe 188 contains a further statement with reference to the climate: «Du dorfft nicht mer ertzney dartzu, es sey dann gar haiss wetter». This sentence may mean that, if it is too hot (in summer), the dish has to be prepared using other herbs or seasonings, for example parsley or verjuice\(^42\), in order to counterbalance the effects of a ‘non-moderate’, i.e. extreme weather conditions on human health, but the really interesting aspect of the sentence is the use of word ertzney (MHGerm. arzenie, erzenie, arzatie, erzetie which derives from MHGerm. arzat, arzet < OHGerm. arzat ‘physician’) which generally means Heilmittel ‘medicament, medical remedy’\(^43\). In her edition Doris Aichholzer infers that here ertzney is used with a more specifically culinary sense and means Gewürze\(^44\) ‘spices, seasonings’. This could be a plausible explanation, considering the common humoral theories and the content of recipe 188. It is interesting to note the use of a medical term to express the concept of ‘spices, herbs, or seasonings’; late medieval German cookbooks generally contain other words, such as stuppe/stüppe, gestüpp (collective noun of stuppe meaning gestoßenes Gewürz ‘mix of ground spices’), gewurtz, condiment, specerey, piment\(^45\). Therefore, it could be in-

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\(^{42}\) Magnino Mediolanensis states: «Unde saporum materia in estate sit agresta succus limonum citrangulorum acetum et succus viridis acedule et extremitatum vitis vinum granatorium aqua rosarum amigdale et panis assus fusus in aceto vel in aliquo predictorum succorum et nullo modo apponantur species calide nisi forsan in paucissima quantitate sed bene potest addi aliquid serpilli vel petrosilli ad obtemperandum predicta».


\(^{44}\) See Aichholzer, *Wildu machen ayn guet essen*, p. 341, note 1005.

ferred that the use of a medical term in a culinary context is intentional and 'functional' in order to underline the goodness of this fish dish from a medical and dietetic point of view. This was previously expressed by the use of the word frum "beneficial, useful, good" referring to the effect that the consumption of spices could have on human health.

III.3. Medical remarks with explicit reference to particular/specific disease.

These kinds of medical comments generally include references to illness or medical conditions (with mention of the organs involved) which could be treated through the consumption of a particular dish or foodstuff. Examples of these dietetic suggestions can be found in the first culinary section of A1, namely in recipe 2, which provides the description for the preparation of a sauce made with horseradish, almonds, nuts, and wine which could be useful in treating kidneystones:

Ein gutte salsen zu machen in der fastenn. Item nym merrick vnd zustoß den in einem môrserr vnd nym mandekerhnh oder nuß vnd zustoß die auch vnd geuß ein wein dar an. M e r - r i c h b r i c h t d e n s t e i n g a r r s e r r , w e n n m a n i n i s - s e t i n d e r k o s t .

(To make a good sauce during fasting.
Item take horseradish (armoracia rusticana) and pound it in a mortar and take almonds or nuts and pound these too and pour some wine on

Jahrtausenden mit einem lexikalischen Anhang zur Fachsprache von Eva Hepp, München, Moos Verlag, 1970, S. 185-224. See also KLUG, gewürzc wol vnd versalcz nicht, p. 68.

46 For the meaning of the word frum see LEXER, Mittelhochdeutsches Taschenwörterbuch, p. 300; HENNIG, Kleines Mittelhochdeutsches Wörterbuch, p. 446.


48 For information about the structure of A1 see also CAPARRINI, Ricettari tedeschi di età medioevale.
Marialuisa Caparrini  Medical and Dietetic References

it. Horseradish completely breaks down (kidney-)stones if you eat it in your diet.)

Recipe 3 describes a sauce made with sage, parsley, mint, and pepper, which could whet the appetite:

Item ein andre salsenn.
Saluia, petrocinlus, menta vnd pfefferr, das soll man zustossenn mit essig, das ist ein salsen, die macht lustig zu essen.

(Item another sauce.
Sage, parsley, mint, and pepper; you have to pound them with vinegar, this is a sauce that whets a good appetite.)

The nutritional properties of sauces correspond to the opinion of Magnino who considered them useful especially in cases of lack of appetite: «In omnibus autem habentibus defectioem appetitus huuiusmodi sapores et salse multum expediunt ut melius et delectabilius valeant alimentera susciperea. Non solum autem huuiusmodi sapores iuvant appetitivam ymmo etiam digestivam».

Recipe 5 of A1 describes the preparation of a sauce which could be useful in case of head problems:

Ein holder muß zu machenn.
Nym holderplut vnd zureib die in küe milch vnd nym mel vnd mach ein mus dar auß. Das ist gut zu dem haupt vnd den synnen.

(To make an elderflower mousse.
Take elderflowers and pound them in cow’s milk and take flour and make a mousse with this. This is good for the head and for the senses.)

Another example of dietetic advice with reference to a specific illness is included in W1, namely in recipe 151. In this case the text describes the preparation of a creamy dish made with egg yolks, milk, and sugar, which is recommended when there are stomach problems:

Ein ander gmues von tuttern
(Another mousse made with egg yolks.
Take egg yolks and mix them well and pour on them sweet milk and sugar enough. Place them in a good pan. Do not take (add) lard. Let it boil over embers. Do not remove from heat until you want eat it, otherwise it curdles. This mousse is good for those lords whose stomach hurts. It should also be liquid so that you can eat with a spoon.)

It is interesting to note that most of recipes which include medical or dietetic suggestions generally provide the description of sauces, creams or jellies. This is not a mere coincidence, for sauces were assumed to have medical qualities and virtues, as, for instance, Magnino often states in his *Opusculum*: «Prima consideratio est quod ex saporibus parum comedatur quia naturam sapiunt medicinalium ex quibus sani parum vel nichil sumere debent. Non est etiam artificiale permiscere cum materia cibali illud quod sapit naturam medicinalem»

The therapeutical use of creamy dishes can be also confirmed considering eleven recipes of cpg 551 (H2). With the exception of recipe 4 which describes the preparation of *Lebkuchen*, they all contain, in fact, references to sauces and creams (rec. 1-3 and rec. 15), or to electuaries (rec. 9-14). The word *electuary* (< lat. *electuarium* < gr. ἐκλεκτόν) suggests a pharmaceutical preparation rather than a ‘real’ culinary dish. These preparations were already known

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49 See also FLANDRIN, *Condimenti, cucina e dietetica*, p. 383.
50 Heidelberg, Universitätsbibliothek, cpg 551. The culinary recipes of H2, which clearly correspond to the collection of manuscript Basel, Universitätsbibliothek, D II 30 (Bs2), were edited toghether with those of Bs2 in A. SORBELLO STAUB, *Die Basler Rezeptsammlung. Studien zu spätmittelalterlichen deutschen Kochbüchern. Erstausgabe mit Kommentar und Fachglossar der Handschriften Basel, ÖUB D II 30, Bl. 300ra-310va, und Heidelberg, UB cpg 551, Bl. 186r-196v und 197r-204r*, Würzburg: Königshausen & Neumann, 2002. The manuscript contains two culinary collections, the first consists of 65 recipes and it is copied on ff. 186r-196v (H1 in the edition of A. Sorbello Staub), the second consists of 37 recipes and it is written on ff. 197r-204r (H2). Here the manuscript is referred to as H2 according to the acronyms used in HONOLD, *Studie zur Funktionsgeschichte*, and in HOFMEISTER-WINTER, und iz als ein latwergen, pp. 247-249. The edition of the first collection by A. Sorbello Staub does not include eleven recipes (1-4 and 9-15) because they do not correspond to those of Bs2. These recipes show a clear medical content and slant. Six of them (9-14) were edited in HOFMEISTER-WINTER, und iz als ein latwergen, pp. 243-246. Recipes 1-4 and 15 were included neither in the edition of A. Sorbello Staub nor in that of A. Hofmeister-Winter.
51 For the text of recipe 4 see *infra*, pp. 39-40.
to the Babylonians and used also in Greek and Roman medicine; they originally consisted of a sort of paste made from powders mixed together with sweet foodstuffs such as honey or sugar syrup. A culinary use of electuaries made using fruit pulp mixed with honey or sugar is confirmed by several recipes included in German cookery collections from 1350 to 1500 and their consumption played an important role according to the common theories on nutrition, since it was assumed that they could aid the digestive process. The medical importance of electuaries is furthermore confirmed by the presence of dietetic remarks which specifically refer to their effects on human health and to illnesses which could be treated through their consumption, as recipe H2/I-12 states. The text describes how to prepare an electuary made with grapes which was recommended in order to aid bowel movement or evacuation:

Ein Latwerg von weinpern
Klawb die weinper ab ln ein kessell setz sie auff einen
drýfuß vnd laß sie sýdeñ vnd Rus sie das sie nicht an
prýnn vnd thue sie her auß vnd twing die per durch ein
durchschlag ader enges sib das die kerň vnd pelg her-
ausshe beleybeñ vnd thu das selb saff wider ln kessell vnd
Rus es stets das nicht Anbryne mit einem praýtten scheu-
felein vnd sewds als lang pýß dick genugk seýn zu lat-
wegen / Wilstu sie aber hert macheñ zu kucheñ so laß
noch lenger siedeñ Vnd so wirt sie dick vnd hert V nd
ist gut fur die stul vnd kulet Im sumer gar vast
Wiltu
aber wurtz dar an thuñ als an die wychßel latwegen
Ader wiltu kucheñ daraus macheñ als kuten latwegen
darnoch soltu sie wurtzen Wenñ aber keýn wurtz dorlnne
ist so du sie anrichtest So thu tzýmýn ader Trýsenet
darauff vnd tzwir sie vor mit weýn ob sie zu dick ist

53 A culinary use of electuaries can be dated back to the thirteenth century; see Trübners deutsches Wörterbuch, hrsg. v. A. Götze, Berlin, de Gruyter, 1939-1957, Bd. IV, p. 387. The effective use of electuaries in medieval cuisine has been recently investigated by HOFMEISTER-WINTER, und iz als ein latwegen.
54 The text of this recipe was edited by HOFMEISTER-WINTER, und iz als ein latwegen, p. 245. See supra note 50.
ee du das Trïsenet ader wurtz darauff thust V n d a ſ a ſ w u r t z h i l f s i e f u r d i e s t u l v n d v e r t r e i b t d e ſ d u r s t e t c.

(An electuary made with grapes
Pick the grapes and put them in a cauldron, put on a trivet and let it boil and stir so that it does not get burned and remove [from heat] and press the grape through a sieve or a narrow filter so that stones and peels remain outside and put the same juice again in the cauldron and stir continually with a big ladle so that it does not get burned, and boil for some time until it seems enough [suitable] to you for an electuary. But if you want to make it solid [as you wish] to prepare cakes, then let it boil for a longer time and then it becomes thick and solid. And this is good for bowel movements and it is refreshing in summer. But if you want to add to it spices as in the electuary of sour cherries Or if you want to make cakes like electuaries of quince then you have to season it. But if there are no spices in it then you have to prepare them. So, add cinnamon or mix of seasonings and mix with wine if it is too thick before you add to it a mix of seasonings or spices. And without spices it is useful for bowel movements [evacuation] and quenches thirst etc.)

Another example of medical remarks with reference to illness and/or parts of human body is included in the same recipe collection, namely in recipe H2-I/3, which describes the preparation of a sauce which could be beneficial to the liver and breast:

55 Trisenet, trisanet: mix of ground spices with sugar (LEXER, Mittelhochdeutsches Taschenwörterbuch, p. 231), or spiced slices of bread dunked into wine, or even a medical powder made of spices which could be useful for evacuation (Grimm, Deutsches Wörterbuch, Bd. 22, coll. 166-168).
56 This recipe is included neither in the edition of A. Sorbello Staub nor in that of A. Hofmeister-Winter. See supra, note 50. The text of recipe H2-I/3 is here published in diplomatic edition according to the same criteria used in HOFMEISTER-WINTER, und iz als ein latwergen, pp. 243-246. Lines, compound words, and capital or small letters are reproduced and preserved as they are in the manuscript. </longa> is not preserved and it is written as rounded s. Abbreviations are expanded only in cases of real shortenings and they are clearly marked in italic. Other (redundant) abbreviations (i.e. macron) are not expand-
Ein gesunt salseñ
Nym salbey Pleter Vnd Tewmenten untter ein ander Ader yedes besunders wie du es gern isst derr das an der sunnen Vnd stoß das Vnd Ryed es durch ein sib vnd thue das Jn ein puchßen es bleÿbt dir zwey Jař also gut Wenn du es wilt esseñ so thue als uil gestossens Zuckers dar untter Jn ein schussell Und gewiß ein guten wein darañ Vnd das isset mañ also kalt beý deñ gebrateñ Vnd isst gut zu der leberñ vnd zu der prust etc

(A healthy sauce
Take leaves of sage and wrinkled-leaf mint (mentha crispa, L.) together or each of them [individually] as you would prefer to eat, dry it in the sun and pound and sift through a sieve and put in a receptacle and it keeps well for two years. When you want to eat it then add to it pounded sugar in a bowl and pour some good wine on it and you eat this [sauce] cold with roasts. And this is good for the liver and the breast etc.)

Another recipe with references to specific parts of human body, H2/I-4, describes the preparation of Lebkuchen. As previously observed, it could be a further confirmation of the non-culinary nature of that dish:

Ein guteñ leckucheñ mach also
Nym ein moß Honigs Dartzu gehört uier lot gesnÿ teñ yngwer tzwey lot gestossens yngwers Anderhalb lot Negelein Anderhalb lot muschat ein halb lot pfeffers tzwey lot zymýn Und uier lot korianders der Jn anders gern darlnneñ hat der ist zu dem haubt gesunt etc Darzu gehört Ruckeñ mel als uil sich geburet.

ed and marked with a small horizontal line on the top of letters. For the facsimile of manuscript cpg 551 see http://digi.ub.uni-heidelberg.de/diglit/cpg551.

57 Tewmentsen could also be wild thyme (Thymus serpyllum, L.). See Ehlert, Küchenmeisterei, p. 390.

58 This recipe too is included neither in the edition of A. Sorbello Staub nor in that of A. Hofmeister-Winter (see supra note 50), and the text is here published in diplomatic edition according to the same criteria specified supra in note 56.

59 See supra, pp. 26-27.
(A good lebkuchen (gingerbread) make in this way. Take some honey. You need four lot$^{60}$ of sliced ginger, two lot of pounded ginger, one lot and a half of cloves, one lot and a half of nutmeg, half lot of pepper, two lot of cinnamon and four lot of coriander, for the one who wants to add it$^{61}$. This is healthy for the head etc. In addition, put also rye flour as much as it is needed.)

Again in this case, as in the previous example taken from M5, the text shows elements which are more typical of medical and pharmaceutical recipes rather than those commonly found in culinary recipes. In fact, for each of the various ingredients, e.g. spices, the exact dose/weight, is clearly specified.

Medical and dietetic references included in culinary recipes generally consist in very short sentences with no detailed information on specific disease, nevertheless all the examples taken from late medieval German cookbooks show that medieval cookery literature not only aimed at explaining how to prepare tasty dishes, but also how to cure or prevent sickness by means of food and a correct diet. Medieval cookery literature can thus be considered as an integral part of medieval medical and dietetic literature, since theoretical medical texts and practical recipe collections were interdependent and closely related to each other and both aimed at providing useful suggestions in order to preserve human health.

$^{60}$ A lot corresponds to half ounce. See BAUFELD, Kleines frühneuhochdeutsches Wörterbuch, pp. 162-163.

$^{61}$ The meaning of the sentence «der Jn anders gern darinnen hat» is not clear at all. My translation ‘for the one who wants to add it (or have it in)’ (also, ‘if one wants to add or have it in’) refers to the last ingredient quoted in the recipe, i.e. coriander, thus considering its use as a matter of taste. Another possible translation could be ‘[and] what one would like to add/have in it’ referring to other ingredients of the same kind as those already quoted, i.e. spices, which can be added and used for the preparation of Lebkuchen.