Food and Drink
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There is scarcely an aspect of daily cultural practice which illustrates the processes of transformation in European culture as clearly as daily nutrition. Indeed, securing the latter was essential for the daily fight for survival right up to the mid-19th century, with large sections of the population frequently being confronted with harvest failures and food shortages resulting from wars, extreme weather, pests, fire, changes in the agrarian order, and population growth. Consequently, food and drink were central both in daily life and in the celebration of feasts, and provided an opportunity for social differentiation. The hope for better nutrition was the primary impetus for many migration processes and a canvas onto which desires were projected. The "Land of Cockaigne" motif, which can be traced from the Frenchman Fabliau de Coquaignes in the 13th century to Erich Kästner's (1899–1974) children's book "Der 35. Mai oder Konrad reitet in die Südsee" (1931), is a classic example of this.

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Introduction

Daily nutrition\(^1\) has in the past been dependent on many exogenous factors, and remains so.\(^2\) Individual preferences have only begun to play a more significant role in nutrition since the second half of the 20th century. Particularly in pre-modern society, what people ate was decided to a far greater degree by political, economic, and religious factors. The selection of foods, but also the dining culture and the norms of behaviour at the table were defined by tradition, and were considered to be binding on all members of society.\(^3\)

For much of the modern era, European culinary culture exhibited enormous spatial and social diversity, which persisted well into the 20th century.\(^4\) However, this broad spectrum of traditions, which in effect only had an emphasis on energy-rich foods and protein-rich products in common, began to narrow from the 16th century onward – at least among the European social elite – as French aristocratic cuisine became the example for others to follow (\(\rightarrow\) Media Link #ab). In the 20th century, another dominant culinary culture, the American (\(\rightarrow\) Media Link #ac), arrived on the scene, but this was now based on industrial (\(\rightarrow\) Media Link #ad) production, products aimed at a mass market, and in particular on a new dining context, which over time played a central role in the dissolution of established dining chronologies.\(^5\)

Many aspects of daily nutrition have left little trace in the historical sources. This is particularly true of the rural context and of foodstuffs which were neither traded nor taxed, such as herbs and vegetables from garden plots, and mushrooms and berries gathered in the autumn. We nevertheless know, for example, that turnips, cabbages, beans, and peas, along with leeks, celery, and pumpkins formed the basis of the diet of the rural population. At the beginning of the 16th century, white cabbage, red cabbage, and savory cabbage were added to the diet, and Brussels sprouts, swedes, cauliflowers, mangolds and lettuce were added from the late 16th century. The fertile soils (\(\rightarrow\) Media Link #ae) of southwest Germany, the low countries and, in particular, France were far superior to the less fertile soils of eastern Europe and Russia when it came to growing these new vegetables. In the sparsely populated Scandinavian north, horticulture was not possible at all. However, gathering fruits and plants in forests played a more important role there.
We have more detailed information regarding the consumption of alcohol, as this has left deeper traces in the historical sources – for both fiscal reasons and reasons of public order – which is why this topic is dealt with in greater detail in this article. There are a number of distinct phases in the history of nutrition in the modern period, though these overlap to a considerable degree, affecting one another but also diverging. For this reason, it is difficult to draw a hard and fast distinction between them. However, two large phases emerge rather clearly. There was the Reformation (Media Link #af) period, which ended with the Thirty Years' War (1618–1648) and which gave rise to different dietary systems in close proximity due to the differences between the confessions of the issue of fasting. And there was the Little Ice Age (Media Link #ag), which caused numerous harvest failures and continuing undernourishment (Media Link #ah) up to the 19th century. However, new foods from other continents and the colonies also appeared on the menu in Europe during this period, and table manners which were formerly only observed among the aristocracy gradually became the norm among broader sections of the population.

### The End of Medieval Cuisine?

At the beginning of the modern period, the diet in Europe remained very similar to the medieval period, and old traditions were only replaced gradually. For the majority of the population – particularly in the towns and cities of central Europe – this meant that the calorie intake was higher compared to the preceding centuries, and compared to the 18th century and the early 19th century. It is estimated that roughly 200 kilograms of cereals was consumed per person annually. Recent research suggests that the consumption of meat was lower during this period than academics had previously assumed, though it is likely that roughly 50 kilograms of meat per person was consumed annually in the territory north of the Alps. Meat consumption was considerably higher in the northern part of the German-speaking territory than in the Mediterranean region, for example.

A complete daily ration usually consisted of a morning meal after the morning work had been completed ("prandium" or "imbs") and an evening meal. In addition to these, up to three other meals were consumed daily: morning soup, supper and nightcap. Among the poor, the dietary staples were primarily bread and a kind of porridge (a puree made with grain, usually cooked in lard). The whiter the bread, the more refined it was considered to be. In the case of meat, boiled soup meat was the simplest and the cheapest option. Roasts, poultry, and game were more prestigious, and they were the preserve of the nobility.

There were also differences between rich and poor with regard to the consumption of fish, which was primarily consumed on fast days, of which there were up to 150 annually. The wealthier section of the population availed of a range of fresh salt-water and fresh-water fish. Salmon was the most popular species. As a fresh-water fish, it could be caught relatively easily almost everywhere in central Europe. In addition to native river crabs, the poor primarily ate salted or dried sea fish, even in regions far from the coast. From the mid-14th century, fish farming flourished in a broad belt stretching from Bohemia, Poland and Silesia through Lusatia to Württemberg and Lorraine, providing a good supply of fresh-water fish up to the early 16th century. There were also dramatic differences between the social classes when it came to the supply of vegetables. The poor could scarcely afford anything other than dried legumes, while the rich could purchase fresh seasonal vegetables, and in the larger cities they could even buy citrus fruits from time to time.

The consumption of alcohol underwent a fundamental change at the beginning of the modern period. From the late medieval period onward, less wine was produced and consumed, primarily due to the increasingly unsuitable climate. Additionally, from the 14th century to the 16th century, the bottom-fermented hops beers, which could be stored for much longer, increasingly replaced the older gruit ales, which were brewed using a mixture of herbs. Wine – often spiced, sugared, and heated – then became a central element of the drinks culture of the higher social classes throughout Europe. However, the volume of alcoholic drinks consumed was not nearly as large as earlier studies of customs and culture had assumed. According to realistic estimations, the average consumption in Cologne, one of the wealthiest cities during that period, lay at most between 175 and 295 litres of beer per person annually. However, many people drank mainly – or exclusively – water, as pre-modern agrarian society was not capable of producing ingredients of sufficient quality for brewing in sufficient quantities.

The combination of food, the community, and public display played a central role in social and cultural life. This was fundamentally true of the agrarian context. Painted in Flanders around 1568 and still medieval in structure, *De Boerenbruiloft (The Peasant Wedding)* (Media Link #ai) by Pieter Bruegel the Elder (ca. 1525–1569) (Media Link #aj) depicts this phenomenon. Due to numerous saints’ days, feast days, and public holidays, urban artisans worked no more than 265 days annually, which is equivalent to the modern five-day week. The food consumed on work-free days differed to that consumed on workdays for it was richer and higher in
Elaborate and formal public feasts served to demonstrate hierarchical structures.\(^\text{11}\) For example, the aldermen of the wealthy city of Constance on Lake Constance put on a feast in December 1452 in honour of the mayor and the reeve. As the city accounts record “100 mannen” as guests, we can conclude that no women were invited. The city accounts detail exactly what was served. The organizers purchased 95 pounds of beef, 37 pounds of pork and 18 pounds of sausage, as well as 30 fat hens, 31 ducks, and 121 thrushes. They also procured spices, sugar, almonds, saffron, and 110 eggs, in addition to 300 carp and pike, and 140 smaller fish in order to prepare the stock for the popular Gaßrey fish galantine. In addition to these enormous quantities of fish and meat, bread, rice, cake, cheese, confectionery, and nuts were provided. 537 litres of wine were served. Compared to the vast expenditure on food, the crockery provided was decidedly modest. 120 bowls and 120 wooden plates were bought, as well as Tellerbrot (literally “plate bread”), i.e. bread which was used to eat on.\(^\text{12}\)

However, it is debatable whether these details can be taken at face value in a cultural analysis of the feast. Did each guest really eat two kilos of meat, numerous fish, and trimmings, and drink five litres of wine? That was certainly not the case. We must assume instead that the leftovers were brought home, donated to the poor, or given to employees of the city as a form of inflation-free payment-in-kind.

The transition from the medieval to the modern period had comparatively little effect at the dinner table, and many basic structures of medieval mealtimes persisted well into the 16th century. However, this does not apply to behaviour at the table. A range of French rules of behaviour from the mid-15th century clearly demonstrate how difficult it was even for people in the higher social classes to depart from older norms, for example to not dig into all the bowls with their hands at the beginning of the meal, to not toss gnawed bones back into the bowl or over their shoulders, or even just to wash their hands before eating.\(^\text{13}\) The “Prozeß der Zivilisation” ("civilizing process")\(^\text{14}\) proceeded at best very gradually. In the late 15th century, many archaic characteristics persisted. On the one hand, people were still placing gnawed chicken bones back in the bowl, while, on the other hand, there was much discussion about the rules regarding fasting and the godlessness of gluttony.

During the course of the 15th century, Tischzucht (table discipline) was also discussed in the more urbanized regions of the German-speaking territory. One of the earliest such documents was a book entitled Von tisch zucht published in 1471 by Clara Hätzlerin (1430–1476) (Media Link #ak), whose family were burgesses of Augsburg. This work discusses among other things the hierarchy at the table and the importance of saying grace. Hätzlerin also encourages her readers not to use the tablecloth to blow their nose. Such rules soon became standard for the entire European bourgeoisie and they signalled the emerging homogenization of the dining culture of the European bourgeoisie and aristocracy.\(^\text{15}\)

During the transition to the modern period, hostelries also emerged as an integrative component of the European culture of dining and imbibing. Particularly along trade routes and in cities, multifunctional hostelries (Media Link #ai) became common and served as centres of communication (Media Link #am) and the exchange of news, while in the countryside and in the sparsely populated regions of northern and eastern Europe, the older, archaic hospitality remained dominant.

We can summarize that the structure of the European diet changed comparatively little between 1450 and 1550, even in spite of the discovery (Media Link #an) of the New World. However, the Reformation brought about more abrupt changes because it fundamentally changed the culture of fasting and feasting by getting rid of the feast days for saints in many territories (those that became Protestant). Additionally, the Calvinist Reformation (Media Link #ao) in particular resulted in a fundamentally more critical reappraisal of food consumption. Martin Luther (1483–1546) (Media Link #ap) condemned the supposed drunkenness of the Germans, but he himself did not fundamentally reject earthly indulgences. John Calvin (1509–1564) (Media Link #aq) and Huldrych Zwingli (1484–1531) (Media Link #ar), on the other hand,condemned all gluttony. Additionally, the strict fasting regulations which had persisted up to the Reformation were relaxed in the Protestant territories, or even reversed. Thus a bitter controversy soon emerged at the borders between Catholic and Protestant milieus over the supposedly correct diet, and this controversy had a considerable effect on people's daily habits. What was served at mealtimes in the northern Netherlands, in Switzerland, and in Scandinavia (Media Link #as) and how public taverns (Media Link #at) were evaluated and, in particular, regulated, now differed considerably from those territories which had remained Catholic.
Consumption and Innovation at the Beginning of the Modern Period – Rice, Buckwheat, and Meat

At the beginning of the modern period, the cuisine of the ruling elite and the dietary culture of the broader masses, which remained medieval in structure and heavily spiced, still received their primary impulses from Italy. In particular, the old trading port (Media Link #av) of Venice dominated the cuisines of central Europe. Rice cultivation blossomed in northern Italy in the late 15th century, and soon spread to central Europe as a result of trans-Alpine trade. While riso had previously been cultivated in monasteries and ground to make a binding agent for ointment, the political campaigns of individual rulers – particularly the Milanese duke Gian Galeazzo Sforza (1469–1494) (Media Link #aw) – resulted in the large-scale cultivation of rice south of the Alps (Media Link #ax). Compared to the established cereals, rice offered the prospect of a much higher yield and thus of an additional support in the event of food shortages. Promoted by advisory tracts such as the Discorsi ("Speeches", 1544) (Media Link #ay) of Pietro Andrea Mattioli (1500–1577) (Media Link #az), the cultivation of rice spread throughout the whole of northern Italy during the course of the 16th century. In the well-watered Po Plain, the "treasure of the swamps" (Mattioli) was already a standard component in the meals of the broader population by 1550.16

The Italian courts also influenced the refined cuisine of the European ruling class. The kitchen at the court of Naples was one of the main centres of innovation into the 16th century, where cooks like Ruperto de Nola (Media Link #b0) introduced numerous Catalan, Castilian, and Moorish influences, as detailed in early cookbooks such as Nola's Lybre de doctrina Pera ben Servir: de Tallar: y del Art de Coch ("Textbook of Good Servicing, of Cutting, and of the Art of Cooking", 1520) (Media Link #b1). The Florentine court of Caterina de Medici (1519–1589) (Media Link #b2) also became something of a guiding example of European court dining. The Florentine influence brought about a strong refinement of courtly table manners in particular. Michel de Montaigne (1533–1592) (Media Link #b3) reported in his Journal du Voyage en Italie ("Journal of Travels in Italy", 1580/1581) (Media Link #b4): "Vor jene Personen, denen eine besondere Ehre erwiesen werden soll, stellen sie große silberne Platten. Darüber liegen eine vierfach gefalzte Serviette, Brot, Messer, Löffel und Gabel."17 Thus, eating with a fork instead of with one's hands reached France via the court of Caterina de Medici, who became queen of France when her husband Henry II (1519–1559) (Media Link #b5) acceded to the throne in 1547. During the course of the 16th century, the table cutlery became more diversified until French aristocratic dining ultimately established the standard place setting which still applies today (Media Link #b6).

The broader population in Europe was not initially affected by the civilising process which was led by the Italian courts and subsequently the French court. Instead, eastern Europe became an innovative space for simple rural cooking during the transition from the medieval to the modern period. Among the more significant innovations was the widespread cultivation of buckwheat, which entered eastern central Europe from Russia and subsequently spread to the countries south of the Alps, and Carinthia and Tirol via the Black Sea trade. The cultivation of buckwheat ultimately spread to the Netherlands and northwestern Germany via seaborne trade between Venice and Antwerp.

The large livestock herds from the territory of present-day Hungary, Poland, and Ukraine, which were driven to the cities of central Europe, also played a large role in the food supply of central Europe. Consequently, the consumption of meat in central Europe reached a level during the 16th century which has not been replicated until the 21st century. It is estimated that more than 100 kilograms of meat was consumed per person per annum in the first decades of the 1500s, which corresponds to a daily meat consumption of nearly 1 kilogram for a family of three.18 Descriptions of the supposedly sparse diet of the rural population are somewhat contradicted by these figures. Although Johannes Boemus (1485–1535) (Media Link #b7) wrote of the peasant diet in 1520 that "g[geringes Brot, Haferbrei oder gekochte Bohnen bildet die Speise der Bauern, Wasser oder Molken ihren Trank",19 the available figures show that a more nuanced understanding is required. The consumption of meat in the daily diet of the rural population was indeed mainly limited to boiled pieces of meat, which were eaten with porridge, soup, or coarse bread. This form of preparation involved only a small loss of fat compared to roasting, especially since all edible parts could be used. Meat as a dish on its own or roasted – as enjoyed by the aristocracy – was a prestige food which was reserved for important religious feasts and other important customary occasions, such as weddings and kermises.

The relative cultural prestige of the various types of meat also requires a more nuanced understanding. For example, the meat content of the daily diet of the rural population of central Europe was almost exclusively pig meat. Thus, Hieronymus Bock (1498–1554) (Media Link #b8) wrote in his work Teutsche Speißkammer (für gesunde und Kranke) (Media Link #b9), which...
was published in 1555, that "Vnsere Bawren essen viel lieber fießt Schweinenfleisch gesotten vnd gebraten, dann alle hüner. Sie sagen auch, wann ein Saw federn hett, vnd könt über ein Zaun fliegen, übertreffe sie alles gevögel vnd federspil." However, dietary orders, invoices and other sources pertaining to cities and their citizenry show that pork and (in contrast to the present day) beef were less preferred in the cities. Roast veal and mutton were the highest status meats.

An extraordinarily detailed dietary order of the imperial count Joachim von Öttingen (1470–1520) gives detailed information regarding the quantities consumed, sorts of meat and preparation techniques in the kitchens of the aristocracy and the commoners. According to the order, serfs received:

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This was in stark contrast to the roast dishes of game, poultry, and innards on the table of the imperial count:

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It is furthermore necessary to be cognisant of regional differences, as the types and quantities of meat consumed varied considerably between northern Europe, southern Germany, Austria, and eastern Europe. Thus, hospital accounts and other sources for southern Germany demonstrate that the rural diet there was considerably more sparse that in the regions between the Netherlands and the Central German Uplands. While in the latter regions boiled meat eaten with bread was an integral part of the daily diet, the diet in southern Germany at the beginning of the 16th century was more herbivorous. Bread was even less common in southern Germany, where soups, porridge, and flour-based foods played a more significant role.

Vegetarian food became dominant throughout central Europe from the second half of the 16th century at the latest. While the consumption of meat in the Mediterranean region remained relatively constant during this period at approximately 30 kilograms per person per annum, a shortage of meat and animal fats became a permanent feature of the diet in central and northern Europe, which in some regions persisted right into the 20th century. The decisive factor in this development was the sharp rise in food prices in the 16th century while wages remained relatively constant and the population grew strongly. Additionally, the area of land devoted to the cultivation of cereals in central Europe grew at the expense of the area devoted to livestock farming. Areas in southern Germany and the Alpine region which were particularly affected compensated for the scarcity of meat in the daily diet with the introduction of flour-based dishes – Swabian noodles (Spätzle), Bavarian dumplings (Klöß) and Austrian pancakes (Palatschinken) are present-day reminders of this change. The boarder population now scarcely consumed meat at all outside of the important feast days, and the general consumption of meat in the German-speaking territory fell drastically from about 100 kilograms per person per annum around 1500 to only 16 kilograms per person per annum around 1800.

The proverbial "daily bread" gained its position of central importance in the European daily diet during this period, accounting for up to 75 per cent of the calorie intake of the total population in the German-speaking territory between the 16th and the 18th centuries. Numerous customs (for example, the large significance of the Gebildbrote, i.e. bread which is shaped to represent or symbolize something, such as an animal), proverbs, and expressions are continuing evidence of the central importance of bread in the historical daily culture of central Europe. Generally speaking, in central Europe bread was consumed from an earlier period and in larger quantities than in western Europe, where maize played a much bigger role, and the Mediterranean region. However, it is important to note both geographical and social variations when discussing bread consumption in pre-industrial Europe. While bread had become the predominant staple in rural areas of central Germany where tillage farming predominated as
early as the early 16th century, porridge dishes – which were harder to digest but could be prepared using less energy, and were viewed as more primitive – continued to be eaten for a considerable period in the poorer rural regions of Europe, for example in the Central German Uplands. The same is true for the broad tillage plains of eastern Europe, such as those in Hungary.

Health surveys (Physikatsberichte) from the mid-19th century illustrate, for example, that the population in east Bavaria, which was rural and had hardly experienced any industrial development, only ate bread on feast days, and otherwise predominantly ate soup, potatoes, and porridge. The types of bread consumed are also subject to geographical and social variation. While bread made of wheat flour was baked almost exclusively in the Mediterranean region, in the German-speaking territory fine wheaten bread was viewed as a prestige food of the higher social classes. North of the Alps, bread was primarily made using rye flour, with regional variations in terms of the spices added and the fineness to which the rye was ground.

Some of the most significant innovations in European culinary culture resulted from the importation of new foodstuffs and stimulants from the New World. As regards its essential structural elements, modern European cuisine is essentially a product of the "Columbian exchange". Starting in Britain and the Netherlands, the potato entered the dietary culture of the broad masses of central Europe during the 17th century, as one of the first new crops to do so. The integration of the potato into the system of daily meals in Europe was one of the most significant innovations in modern European cuisine. It was also one of the most important steps towards overcoming subsistence crises of the type ancien. Thus the potato, along with coffee and liquor, can be viewed as the decisive innovation – even as a central cultural norm – during the emergence of the modern system of dishes and meals in the 18th century. The potato brought about the ultimate decline of the porridge dishes which had been the main staple for broad sections of the population from the medieval period.

However, the potato only established its position as a staple gradually. Here again we can see the significance of social status struggles in the cultural history of the European diet. In contrast to colonial produce like coffee, tea, and chocolate, the potato was viewed as a low-status foodstuff of the lower social classes from France to Austria-Hungary well into the 18th century. In fact, the potato was originally viewed as an emergency foodstuff in the rural diet, and its spread was hampered by the continued cultivation of traditional crops up to the great famines of the 1770s. It was not until 1770–1772 and the introduction of comprehensive political measures to promote cultivation of the potato that the potato became a staple in all regions north of the Alps.

Simultaneously, the cultivation of maize across large swathes of southern Europe, particularly in Spain, Italy, and the Balkans, helped to bring an end to famines in these territories. Due to its adaptability to different climatic conditions and its comparatively high and stable yields, maize spread more quickly than the potato. As early as the 1520s – just 30 years after Christopher Columbus's first voyage to America – Andalusian peasants began to cultivate maize. During the course of the 16th century, maize cultivation spread through Spain and along the cisalpine region as far as Carinthia, replacing millet in many cases. In the 17th century, maize cultivation spread to southeastern Europe through the Venetian Republic. Maize played a particularly important role in overcoming famines and assisting population growth in the latter region.

While the potato, as a rare example of an "upwardly mobile cultural good", spread comparatively quickly, the example of coffee demonstrates how slowly changes were often adopted. Probably originating in Yemen and Ethiopia, coffee initially reached the Mediterranean region, and then spread northward in the 17th century by means of sea-borne trade from Venice, before spreading from Britain and the Netherlands to central Europe. The earliest reports of the consumption of these exotic beans from the Middle East come from the courts of rulers. Again the nobility functioned as a testing ground for innovation, albeit hesitantly, as the European palate took some time to get used to the bitter taste of coffee. In 1710, Liselotte of the Palatinate, who was Elisabeth Charlotte of Orléans (1652–1722) from 1671 onward, compared the beverage – which she had presumably become acquainted with at the court of Versailles – with "Ruß und Feigbohnen" ("soot and lupin beans").
It was not until the mid-17th century that the gustatory conservatism of the broader European population was overcome, with the urban bourgeois coffee houses acting as a catalyst. The fashionable aristocratic beverage and luxury good now became very popular in broader, bourgeois circles also. The further spread of the consumption of coffee in the 18th century can be summarized using the term "sinking cultural good".\(^33\) That is to say, coffee, formerly a luxury good, "sank" from the nobility via the urban bourgeoisie right down to the broad rural masses, and it gradually became a drink of the masses during the late 18th century and the 19th century. It ultimately became affordable for even the poorer sections of society – often in a diluted form or in the form of coffee surrogates.\(^34\) The fall in the price of coffee which made this development possible resulted from the expanding cultivation of coffee in the British and French colonies.\(^35\)

As the practice of drinking coffee became increasingly common among the bourgeoisie, it lost its significance in aristocratic circles, and it was replaced there during the course of the 17th century by black and green tea imported from China. At the court of Charles II (ca. 1630–1685) (Media Link #bh) in London, tea replaced coffee in the beverage culture of the court in the 1660s. The first deliveries of tea had reached Europe around 1580 via the Portuguese trading post in Macau. In 1610, the Dutch merchant fleet had also entered the tea trade via its ports on Java and Sumatra, before the British East India Company became the dominant player in the global tea trade in the early 18th century.\(^36\) The volume of tea shipped by the East India Company from east Asia to London grew from 50 tonnes in 1700 to 15,000 tonnes in 1800.\(^37\) Between 1799 and 1833, the quantity of tea imported annually into Europe as a whole was around 73,000 tonnes.\(^38\)

With the exception of the Netherlands and neighbouring Frisia, continental Europe only gradually acquired the tea-drinking habit, if at all. In Britain, on the other hand, tea-drinking quickly spread through all section of the population during the 18th century. There are a number of reasons why tea reached broader sections of the population much more quickly than coffee and cocoa, the other two hot drinks of colonial trade. In particular, it was much easier to prepare tea at home from the ready-to-use leaves than was the case with cocoa, for example, and the quantity of leaves needed was comparatively small. The tea leaves could also be supplemented with native herbs if necessary.\(^39\) It was thus easier to integrate the cup of tea into the existing system of meals, which was particularly important in the era of factory work with its short breaks.

Just as the tankard of coffee replaced the morning and evening beer in central and northern Europe, in Britain tea became the main drink at meal times, but it also became the social drink in the bourgeois milieus. The customary 5 o'clock tea (Media Link #bj) with sweet cake, marmalade, and scones is still integral to British tea culture in the present day. And just as in central Europe Enlightenment writers criticized the consumption of coffee by peasants, the new fashion for tea in Britain also drew criticism, such as that expressed by the Scottish writer William Mackintosh (1662–1743) (Media Link #bk):

> When I came to a friend's house of a morning, I used to be asked if I had my morning draught yet? I am now asked if I have had my tea? And in lieu of the big Quaigh with strong ale and toast, and after a dram of good wholesome Scots spirits, there is now a tea-kettle put to the fire, the tea-table and silver and china equipage brought in, and marmalade and cream!\(^40\)

However, reactions to tea, which was believed to be stimulating and to improve one’s health, were predominantly positive, and already in the 18th century traditional European medicinal herbs were used to produce a substitute tea for the broader population.\(^41\)

Cocoa also began its career in Europe under medicinal auspices in the form of drinking chocolate. Due to its fat content and the calories it contains, cocoa can be considered a foodstuff. However, it was also considered a stimulant – due to its caffeine content – when the cocoa beans were roasted, peeled, and ground, in order to be served as a hot drink with sugar, vanilla, and cinnamon.\(^42\)

Europe's first contact with the cocoa bean occurred during the Spanish conquest of central America in the 16th century. Cocoa cultivated in this region found its way to the European courts in the form of drinking chocolate during the course of the 17th century. Spain met the rapidly growing demand for this fashionable new drink by means of new plantations (Media Link #bl) and by spreading the cultivation to the Caribbean and Venezuela as well,\(^43\) using the labour of west African slaves. Raw cocoa exports from the Spanish colonies thus grew from about 28 tonnes per annum around 1650 to about 5,000 tonnes around the end of the 18th century.\(^44\) However, Britain, France, and the Dutch Republic managed to break the Spanish monopoly on cocoa in the 17th
As with tea and coffee, cocoa initially spread in Europe during the 17th century as a high-status beverage of the aristocracy, before public coffee houses and chocolate houses – initially in Spain and Italy – began to serve the hot beverage as a sociable drink. The spread of cocoa was assisted by the decision of the Catholic Church to allow it during Lent, as well as by the medical profession, which sang its praises as a laxative and prescribed it as an aid to the recovery of strength after childbirth. Nevertheless, cocoa only reached the broader population during the course of industrialization around the mid-19th century, after Coenraad Johannes van Houten (1801–1887) had invented inexpensive, long-life cocoa powder, which considerably reduced the quantity of cocoa needed to prepare a drink, and thus the price, as well as the time and effort involved. Starting in Switzerland, cocoa subsequently became the predominant chocolate product in Europe in the form of sweetened eating chocolate.

Sugar prices only began to fall after the discovery of the Americas. Portugal and Spain had begun to cultivate sugarcane in the 15th century on the Canaries and in the Spanish Caribbean colonies. The plantation economy of the 16th century, which depended on the labour of millions of kidnapped African slaves, is among the worst chapters of European dietary history. Britain, the Netherlands, and France all participated in the triangular trade between Europe, Africa, and America, raising the volume of exported sugar to approximately 140,000 tonnes per annum by 1750 by mercilessly exploiting the slaves. The massive quantities of sugar imported into Europe also enabled it to be integrated into bourgeois dining culture in the 18th century. By 1800, the annual consumption of sugar in Germany had reached 1.1 kilograms per person – a twentyfold increase since the 16th century. But it was not till the discovery and mass cultivation of sugar beet in the late 19th century, in conjunction with the agricultural reforms of the time, industrialisation and European customs reform, that sugar became ubiquitous as a sweetening agent. Subsequently, sugar was the essential ingredient in the success of the modern chocolate and sweets industry.

The colonial trade in sugar, coffee, tea, and cocoa gave rise to massive changes in the dietary culture of pre-industrial Europe. First of all, the integration of the new stimulants and foodstuffs into European culture went hand in hand with the emergence of European coffee house culture. The first oriental-style coffee house opened its doors in Paris, the metropolis of fashion at the time, in 1643. Others followed in Venice, London, and Hamburg in 1645, 1652, and 1671 respectively, and, after its first coffee house had opened in 1685, Vienna became the heart of European coffee house culture. During the Enlightenment period in particular, coffee houses spread rapidly as a public place of discussion and of sociable consumption, and they increasingly replaced the late medieval taverns as formal gathering places in bourgeois and petit bourgeois circles, even in smaller towns. By virtue of its role as a meeting place for the various social classes, the coffee house also started the process of spreading coffee consumption to the rural and proletarian milieus.

The integration of colonial stimulants into European culture played a decisive role in the emergence of another cultural and economic innovation, one which relates to dining culture. With the arrival of the early high-status drinks of tea, cocoa, and coffee, Chinese crockery made of porcelain also made its appearance in Europe. Again, it was the royal courts that adopted the precious material first. As it did not affect the taste of food, it was superior to tin and silver receptacles. It was also more robust and less likely to crack than European earthenware and glass receptacles. Not surprisingly, this new precious material was initially the preserve of the aristocratic courts. The establishment of the European porcelain industry in the first half of the 19th century with its centres in Germany and Britain resulted in porcelain becoming common in the homes of the wealthy urban middle classes.
Prior to the beginning of the industrial era, European societies, in spite of all their differences, had a number of structural characteristics in common. An absolute majority of the population lived in the countryside and was directly or indirectly employed in agriculture. Additionally, the people – and consequently the economy and culture – were heavily influenced by local factors such as soil composition and the climate. The years around 1800 witnessed fundamental change in a number of areas; this applies in particular to dietary habits.\(^\text{56}\)

These changes had been coming for a long time beforehand, and they are also conspicuous when one examines dietary habits. The potato and liquor, which had become increasingly widespread during the second half of the 18th century, were, to an extent, harbingers of the industrial age. Other harbingers were a strong growth in the economy and in the population.\(^\text{57}\) Processes of industrialisation certainly did not occur in parallel throughout all parts of Europe. In the Mediterranean region of southern Europe in particular, structures which were at least partially preindustrial persisted right up to the mid-20th century. However, the political and socio-economic changes of the 19th century nonetheless manifested themselves particularly clearly in dietary habits.\(^\text{43}\)

The technological innovations of early industrialisation manifested themselves directly in rapid demographic changes. Workers were drawn to the newly founded factories, resulting in an explosion in the population of the cities. This fundamentally changed daily dietary habits in two regards. Firstly, the density of urban development in the industrial conurbations excluded the possibility of growing one’s own food in gardens or on larger plots of land. The agrarian subsistence farming of rural Europe was now replaced by a modern commercial system of food supply. Particularly in periods of economic stagnation, disease, and high unemployment, this change resulted in nutritional crises among the new urban proletariat. Secondly, the daily meals changed as a result of the new rhythm of working life. Particularly in the dynamic early phase of industrialisation, machines and the attendance clock hardly permitted any time for family meals. Eating on one’s own to fend off hunger replaced collective mealtimes.\(^\text{44}\)

In spite of serious social problems, industrialisation in the first half of the 19th century nonetheless raised the standard of living of large sections of the population. In particular, the rising consumption of meat can be viewed as an indicator that famines and the previously unstable food supply were being overcome. In 1845, Friedrich Engels' (1820–1895) (Media Link #br) description of nutritional circumstances among the working classes of Manchester emphasized the fact that the availability of various foods was very wage-dependent: \(^\text{45}\)

> The habitual food of the individual working-man naturally varies according to his wages. The better-paid workers, especially those in whose families every member is able to earn something, have good food as long as this state of things lasts; meat daily and bacon and cheese for supper. Where wages are less, meat is used only two or three times a week, and the proportion of bread and potatoes increases. Descending gradually, we find the animal food reduced to a small piece of bacon cut up with the potatoes; lower still, even this disappears, and there remain only bread, cheese, porridge, and potatoes, until on the lowest round of the ladder, among the Irish, potatoes form the sole food. As an accompaniment, weak tea, with perhaps a little sugar, milk, or spirits, is universally drunk.\(^\text{58}\)

While early industrialisation was concentrated in a small number of European regions, the processes of innovation nonetheless quickly also affected the smaller towns and the rural sphere. In addition to the demographic changes, the transformative processes of the first half of the 19th century also manifested themselves in an expansion of the range of foods available and the adoption of new foodstuffs. Three main developments can be identified. Firstly, the proliferation of the cultivation of potatoes resulted in profound change in the daily diet and replaced the early modern system of bread and porridge in many parts of Europe. The pace at which change occurred also depended on how readily the new foodstuff could be integrated into the existing dietary systems. It took a long time, for example, for the potato to integrate into the cuisine of southern Germany and Austria, which had been dominated by flour-based dishes. In northern Germany, by contrast, the potato replaced bread as an accompaniment to the main dish very quickly. In the Central German Uplands, the potato secured its place in the diet as an ingredient in soups and in the form of mash, which was comparable in texture and consistency to the porridge which had long been a part of the local diet.\(^\text{59}\) By the mid-19th century, the perception of the potato as the food of the impoverished classes (Media Link #bs) had finally abated, and middle class European cuisine increasingly benefitted from the versatility of the potato.\(^\text{46}\)

Secondly, the distilling trade expanded, with the potato and other substances increasingly being used in the distilling process. For example in Prussia, the amount of liquor distilled doubled between 1820 and 1840. Societal criticism of the consumption of hard
liquor (Media Link #bt) soon followed, but the available sources show that the phrase "scourge of drink" greatly exaggerates the reality of alcohol consumption. Thirdly, the extensive cultivation of sugar beet resulted in a dramatic reduction in the price of sugar, which had previously been an expensive imported commodity. It became commonly used among an ever-increasing portion of the population from the second half of the 19th century.

The general European perspective nonetheless indicates that, in spite of the great innovations in the area of nutrition as a result of industrialisation, the 19th century was characterized by the contemporaneity of phenomena that belonged to different eras. While the new factories fundamentally transformed life in some places, elsewhere medieval influences and the dependence on locally produced foods, which were dictated to a considerable degree by climatic and geographical factors, persisted. For example, the gathering of wild plants continued to play an important role in nutrition in 19th-century Scandinavia, as it did in the cuisines of eastern Europe and Russia, with mushrooms and berries providing a significant portion of daily nutrition. In the well-watered regions of northern Europe and in Scandinavia, the availability of fish all year round also helped to compensate to a degree for the prevalent dramatic shortage of protein in the diet.

The industrial era initially also had little effect in the Mediterranean region. Agrarian structures remained largely intact, and older dietary traditions persisted. However, these traditions came under pressure from another source, as the growth in population resulted in a narrowing of the dietary spectrum. The diet became even more cereal-dependent in many cases. Two main changes occurred: Maize finally established itself as a staple in the cuisine of the broader population, and noodles, which had been known in southern Europe since antiquity, finally became common in the diet in southern Italy. Fresh and dried noodles made to meet the needs of one's own family using flour, water, and eggs assumed a similar importance here to that enjoyed by the potato north of the Alps. This innovation gave rise to the stereotype of the southern Italian as "macaroni eater" (Media Link #bu).

At the opposite end of Europe, a combination of a population explosion, adverse political and agrarian conditions, and harvest failures resulted in the last great European nutritional disaster. Between 1845 and 1849, the "Great Famine" cost the lives of 800,000 people in Ireland. It was the earliest indication of the negative consequences of monocultures. The higher yields which the potato made possible had already resulted in its widespread cultivation in Ireland in the late 18th century, which had swept away the existing dietary system. Consequently, it was not possible to compensate with other crops when potato blight resulted in widespread failure of the potato crop.

The growing importance of sugar beet during the early 19th century, or more precisely the production of industrially refined sugar, indicates another development which would continue to fundamentally transform nutrition in Europe: Science (Media Link #bv) and technology became decisive factors in the production and distribution of food. The most significant innovations after 1850 were the application of technological advances to food (particularly in the area of preservation), the industrially standardized mass production and uniformization of food by means of newly developed machines, and the production of completely new food products, such as margarine, baking powder, artificial honey, and powdered milk.

In 1840, Justus von Liebig (1803–1873) (Media Link #bw) published his Die organische Chemie in ihrer Anwendung auf Agricultur und Physiologie ("Organic Chemistry as Applied to Agriculture and Physiology") (Media Link #bx), which became a standard work. Liebig and his colleagues Gerardus Johannes Mulder (1802–1880) (Media Link #by) and Jacob Molescott (1822–1893) (Media Link #b2) revolutionized the nutritional sciences by identifying protein, fat, carbohydrates, water, and mineral salts as individual nutrients, thereby laying the foundations for modern nutritional physiology. Building on these theoretical discoveries, Liebig established the foundations of modern preservation methods.

The French chemist Nicolas Appert (1748–1841) (Media Link #c0) had already published his Art de conserver, pendant plusieurs années, toutes les substances animales et végétales ("The Art of Preserving all Animal and Vegetable Substances for a Period of Years") in 1810, which had indicated the far-reaching possibilities for the preservation ("Appertiseren") of food. However, it was not until the second half of the 19th century that the full potential of the new preservation techniques and the industrial pasteurisation developed by Louis Pasteur (1822–1895) (Media Link #c1) became apparent. The development of the industrial production of canned foods, pasta, and jam, the use of Liebig's meat extracts for the production of soups and sauces, and the invention of refrigeration by Carl von Linde (1842–1934) (Media Link #c2) in 1874 made it possible for broad sections of the population to live on commercially produced food. This also helped to accelerate the industrialisation of Europe.
In Germany, this development resulted in Braunschweig becoming a "Stadt der Konserven" ("city of canned food") in the decades after 1850. It was a particularly important centre for the industrial production of canned vegetables. The Erbswurst (pease-flour sausage), which was developed by the Berlin chef Johann Heinrich Grüneberg (ca. 1819–1872) and which was first used as a cheap, easily transportable, and nutritious food for the frontline soldiers during the Franco-Prussian War in 1870, was subsequently consumed throughout Germany. Increasing regulation of the materials used in cans, as well as of the contents of the cans, and other technological innovations – such as the invention of the sealing machine in 1889 – advanced the development of canned food, brought down prices, and made canned food a permanent component in the diet of the lower-paid sections of the population. In return, the making of homemade preserves declined.

In tandem with important changes in farming techniques and land usage (such as the use of artificial fertilisers and the development of agricultural machinery) and economic policies facilitating the easier circulation of goods (such as the foundation of the German Zollverein in 1834 as a precursor to further economic integration), these developments made it possible for the first time since the Middle Ages to ensure that the broad masses of the European population had a dependable food supply. Whereas around 1800 the work of four peasants had been required to provide sufficient food for one non-agrarian consumer, 100 years later one farmer was able to provide for four consumers. The last large famine that was not caused by war occurred in Europe in 1846/1847. The demographic development in Europe in the 19th century impressively reflects the improvement in nutritional circumstances. The population grew by one third between 1850 and 1900, from 266 million to 401 million people.

The continuing expansion of the railway network in Europe and of the infrastructure of the retail trade, which further assisted an accelerated and comprehensive supply of basic food requirements, also contributed to the fundamental improvements in the supply of food during the 19th century. In the larger cities, large modern stores emerged to complement the smaller retailers. Intercontinental steam shipping also enabled a diversification of diets even in the rural parts of Europe. Colonial goods, tropical fruits, and imported spices now became part of the diet of broader sections of the population.

Conclusion: 1900–1950

The enormous economic and social transformations which characterised the first half of the 20th century hardly manifested themselves in the dietary culture at all because the world wars precluded large structural changes in this area – apart from the destruction they wrought. However, that destruction occurred on a massive scale. Initially, the wars resulted in a drastic reduction of the supply of food, and emergency foods such as "stretched bread" (gestrecktes Brot) and turnip soup became increasingly common. In the southeast of Europe, a restructuring of the dietary culture occurred in the second decade of the 20th century as the disintegration of the ailing Ottoman Empire brought an end to Turkish dominance over the Balkans. As the Turkish officials and merchants departed, their dietary habits left southeastern Europe also. In Hungary, in the southern Slavic territory, and in Bulgaria, native dietary traditions became increasingly dominant, and they served as constitutive factors in the coalescing of new national identities. The end of Ottoman rule also brought a widespread departure from Muslim dietary regulations.
in National Socialist Germany. The most prominent example of this was the party decree pertaining to the Eintopfsontag (Media Link #cb) (“Stew Sunday”), which attached ideological importance to the traditional stew and introduced communal dining in the public space as a visible display of commitment to the national community (Volksgemeinschaft).

There was a degree of stasis in the area of commercial hospitality during the first half of the 20th century. From the last third of the 19th century, middle class restaurants had begun to replace the old taverns, particularly in the urban space, and these became an integrative component in middle class urban life. They experienced something of a golden age in the 20th century, which only came to an end in the 1970s. While the range of dishes offered was very broad during the early phase in the late 19th century, by the 1920s most restaurants only offered set meals with four or five courses. The restaurants were points where middle class life crystallised, both on work days and on the weekends, with the emphasis being on the midday meal, which usually consisted of soup as a starter, a main course (consisting of meat, a bulk ingredient – usually potatoes – and vegetables) and a sweet dish as a dessert.

In the late 1940s, enormous geopolitical shifts occurred as a result of the independence of the former colonies of British India and Dutch India (Indonesia), which had a lasting effect on European culinary culture. Curry dishes and chutneys had been party of British cuisine from the 18th century, and from 1945 these foods were increasingly on offer in fast food restaurants in British cities, where large sections of the population became familiar with, and partial to, these dishes. Similarly, Dutch fast food features peanut sauce and chicken satay dishes besides Frikandel and French fries.

At the end of the 1940s, the way was prepared for the “pluralisation of the palate” in West Germany also. For example, the fast food restaurant Puszta-Hütte in Cologne sold Hungarian goulash from 1948 onward using a recipe which the founder had apparently learned during a period of captivity in Hungary during the war. The presence of foreign soldiers in various parts of Europe after the end of the war also had a pronounced influence on the culinary culture. In the case of Germany, the natives – particularly the children – became acquainted with, and partial to, bubble gum, Coca Cola, and Hershey chocolate through contact with the American GIs. The broad acceptance which these products had attained by 1950 was a slight foretaste of what would happen in the second half of the century: a European dining culture which is heavily influenced by American fast food.

In the mid-20th century, the European dietary culture was still divided on the basis of social class. It was dominated by middle class habits, it exhibited regional variation, and, in terms of the food consumed, it was highly seasonal. However, the emergence of uniformity and standardisation (Media Link #cc) had already begun. Maggi sausages and Knorr pease-flour sausage were already in existence, and margarine of industrialised and uniform quality was already on offer. Food was increasingly sold in aesthetised packaging and could thus no longer be examined or handled before being bought. Of course, hardly anyone would have predicted the trend which was about to develop. In the 1950s, consumers became acquainted with frozen food, which had been common in the USA from the 1930s. In 1958, the first ready-made meal came on the market in the form of Maggi ravioli (Media Link #cd), which became remarkably widely popular. From 1952, pizzerias began to spread, followed by Spanish, Greek, and Yugoslav restaurants. The fast food chains followed from 1972 onward, greatly undermining the traditional meal consisting of three successive courses. Thus, the European dietary culture of the first half of the 20th century can be viewed in retrospect as a period of relative calm in a world of rapid change.

Gunther Hirschfelder / Manuel Trummer, Regensburg

Appendix

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1. For example, see: Montanari, Hunger 1999, pp. 130ff., pp. 155–159.
2. See the following seminal article on European dietary history: Krug-Richter / Zimmermann, Ernährung 2006, pp. 463–485.
3. For example, see: Köstlin, Perspectives 1996, pp. 171f.
7. On the shifting of the regions in which wine and beer were consumed in Europe, see: Landsteiner, Wenig Brot 2005, pp. 134–142; Irsigler, "Ind machden alle lant" 1996.
11. For detailed information on the source, see: Fouquet, Festmahl 1992, pp. 103f.
17. They lay a large silver platter in front of people to whom they wish to show particular honour. On this lies a napkin folded four times, bread, a knife, a spoon, and a fork*, transl. by N.W. (quoted from ibidem, p. 83).
18. Quoted from ibidem, p. 33 ("Our peasants much prefer to eat fat pigmeat, boiled or roasted, than any hens. They say that if a sow had feathers and could fly over a fence, she would be better than all poultry and game birds", transl. by N.W.).
19. Quoted from: Wiegelmann, Alltags- und Festspiesen 2006, p. 33 ("In the morning, soup or porridge. Milk for the workers, and soup for the others. – At midday, soup and meat. Cabbage, a Pfeffer [German meat stew], or preserved meat. Porridge or milk. III dishes. – At night, soup and meat. Turnip and meat, or preserved meat. Porridge or milk. III dishes," transl. by N.W.).
20. Quoted from: Wiegelmann, Alltags- und Festspiesen 2006, p. 33 ("On a meat day on our table shall be served an appetiser which is different each day. Such as birds, game, sausage, calf's head. giblets. lungs. liver. tripe etc. – Soup in the morning, often with solid food in it and the meat of the hen or the chicken in it, depending on what is available. – boiled cabbage and turnip. Some meat from the oxen if available. – A meat stew, containing game, tongue, udder etc. – A different kind of porridge each day. – Something cured. Galantine or calf's foot etc. A double or triple roast. – Depending on what has been butchered, a piece of fried pig. rice. barley. seeds. lentils etc. – As an appetiser or main course, there may also be an ox brain, boiled or roasted. a marinated loin roast of ox. At night, there shall be two small dishes, a meat stew and a porridge. is VI dishes", transl. by N.W.).
21. Quoted from ibidem, p. 33 ("On a meat day on our table shall be served an appetiser which is different each day. Such as birds, game, sausage, calf's head. giblets. lungs. liver. tripe etc. – Soup in the morning, often with solid food in it and the meat of the hen or the chicken in it, depending on what is available. – boiled cabbage and turnip. Some meat from the oxen if available. – A meat stew, containing game, tongue, udder etc. – A different kind of porridge each day. – Something cured. Galantine or calf's foot etc. A double or triple roast. – Depending on what has been butchered, a piece of fried pig. rice. barley. seeds. lentils etc. – As an appetiser or main course, there may also be an ox brain, boiled or roasted. a marinated loin roast of ox. At night, there shall be two small dishes, a meat stew and a porridge. is VI dishes", transl. by N.W.).
The period actually began in 1765, when the Englishman James Watt (1736–1819) built the first steam engine in the world, thereby creating an important prerequisite for the subsequent industrialisation. The interplay of various factors ultimately resulted in the political revolutions which began with the storming of the Bastille in 1789, and which were brought to an end – temporarily at least – by the establishment of a new conservative order in Europe in 1815. The revolutionary phase resulted in a period of broad economic growth in most parts of Europe. The driving force behind this growth was the process of industrialisation which began in northern Europe and which fundamentally transformed traditional lifeworlds, particularly from the mid-19th century onward. (see: Komlos, Überblick 1997, pp. 461f.)
Indices

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• "Gebildbrot" (figuratively shaped bread), 18th century

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temberg)
Plaque Commemorating the Introduction of the Potato in Württemberg

Link #bd

Link #be

Link #bf
- Christopher Columbus (1451–1506) VIAF (http://viaf.org/viaf/17231583) DNB (http://d-nb.info/gnd/118564994)

Link #bg

Link #bh

Link #bj

Link #bk

Link #bl

Link #bn
- Anti-Saccharites, -or- John Bull and his Family Leaving off the Use of Sugar, 1792 (http://www.ieg-ego.eu/en/mediainfo/anti-saccharites-or-john-bull-and-his-family-leaving-off-the-use-of-sugar-1792)

Link #bo

Link #bp
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**The Potato Eaters, 1885**

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Nicolas Appert (1748–1841)  VIAF [Link #c0] DNB [Link #c0]

Louis Pasteur (1822–1895)  VIAF [Link #c1] DNB [Link #c1]

Carl von Linde (1842–1934)  VIAF [Link #c2] DNB [Link #c2]

English seamen opening a can of food with a bayonet, 1914, BnF Gallica. [Link #c3]

Worldwide Concentration of Railways and Telegraph in 1901 [Link #c4]

Ottoman History of South-East Europe [Link #c5]

Wirtschaft und Landwirtschaft [Link #c6]

Flucht und Vertreibung (1938–1950) [Link #c7]

Russification / Sovietization [Link #c8]

“Eintopfsonntag” (“Stew Sunday”), 1938 [Link #c9]

Standardisation in Europe [Link #c10]