After the arrival of the chocolate in Europe, the drink has experienced a continuous transformation. It is still an ongoing process. Especially during the last decade innovative manufacturing processes combined with new products, a new craft culture and cultural practices have emerged. Chocolate products with a variety of new flavours are now on the market. All over Europe small scale craft firms, the ‘chocolatiers’, have been established to satisfy a local or regional market and local taste preferences. A new cultural landscape of chocolate consumption has evolved with the establishment of ‘Confréries des Chocolatiers’, or ‘Brotherhoods of Chocolatiers’ in various European countries and even in non-European regions such as Japan. Chocolate shows (e.g. in New York 1998) are organized, annual ‘Salons du Chocolat’ in France including gastronomic and theatrical entertainments with fancy products such as chocolate necklaces, bouquets, tennis rackets etc.¹ Chocolate museums have been established in Bayonne, Cologne, Bremen and elsewhere.

Our contemporary chocolates differ much from the original one consumed by the natives of Middle and South America. Chocolate was a bitter and spicy drink consumed only on special occasions. The use of sugar with chocolate was unknown among the Indians.

When the Indian chocolate drink first arrived in Europe in the 16th century it was not generally liked by the European consumers and was even called a “Säugetränk” or swill. Although the Europeans exclusively consumed chocolate in its liquid form for more than two centuries after its arrival on the European continent, a process of innovation and transformation began adapting the drink to local and regional consumption preferences. Only with the advent of the industrialisation in the nineteenth century chocolate was turned into a solid food. The twentieth century saw its change from a luxury of the wealthy to a cheap mass product and a convenience or fast food easily consumed between meals or even replacing regular meals. Since a few years scientific research at several universities in America and Europe cooperate with the leading chocolate producers to turn chocolate into a functional food, for the cocoa beans contain the alkaloid Theobromine which has a heart protective and skin protective effect.²

To understand the process of change an interdisciplinary approach which combines economic, cultural and scientific methods is necessary. The long lasting popularity of chocolate and its continuous process of transformation cannot be explained from an exclusively economic approach. Neither can it be evaluated from a national perspective alone. Although the industrial chocolate production has been accompanied by the appropriation of national symbols, chocolate has remained a global product. The regions of cultivation and industrial production are to be found in different regions of the world, i.e. at a large distance from each other. While the cocoa tree only grows in tropical regions, the industrial production of chocolate still concentrates in the industrialized Western world. Therefore a transnational approach is necessary to evaluate its development.

This paper does not attempt to give a comprehensive overview over the innovative and transformative processes which the commodity and its consumption experienced through more than five hundred centuries. Several important issues such as the medical and physiological effects of chocolate consumption, which are also crucial to understand the popularity and transformation of the product, cannot be dealt with in this context. The

technological developments will be touched only briefly. The issue which will be focused on in this paper is the transnational entanglement of the transformation process. I will start with a brief overview over the pre-industrial dissemination of the chocolate production and consumption in Europe. The second part focuses on the industrialisation of the chocolate production in the 19th century and the emergence of new industries accompanied by an intensive information exchange, imitation of new products, technical improvements, observation of markets and marketing strategies across national borders.

I. The pre-industrial period

In the early modern period migration and diffusion of knowledge were important factors in the spread of manufacturing processes and innovation. Chocolate drinking and production was first introduced into Spain. For nearly a century Spain tried to monopolize the trade and reserve the consumption for her elite. Via the Spanish territories in Italy, however, production spread to the north Italian regions. At least since the seventeenth century chocolate makers of the Tecino acquired a reputation for making the best chocolate. At that time chocolate making was done in either small workshops or by migratory craftsmen. The people of the Tecino had a well-established peddling tradition in textiles and book trading, which dates back to the late 16th century. They had established far-reaching family networks stretching across the Alps to the north as well as into France and Spain.3 Similar peddling networks are also to be found in the pre-industrial production and selling of chocolate.4 Although a large part of these peddlars returned home once a year after extended journeys across the Alps to sell their products in the northern countries, others settled permanently in Austria, the German states and further north and thereby spread the art of making chocolate. The De Georgi brothers were the first to settle in Frankfurt in 1778 and Luigi Brunetti in Koblenz after the turn of the century.5 In Vienna a small group of chocolate makers even acquired guild status in the eighteenth century.6

Immigrants also brought the craft of chocolate making to the US. The oldest chocolate manufactory in the US, the Dr. Walter Baker chocolate manufactory, was established by an Irish Immigrant in 1765 who had learnt the trade in England. The well-known Guittart factory for top-grade chocolate in San Francisco was founded by Etienne Guittard an immigrant from France in the 1860s, and the Ghiradelli chocolate company another important manufactory by Domingo Ghiradelli, an Italian immigrant.

The methods of production do not seem to have been altered materially before the arrival of the factory. As far as is known innovative processes were mainly restricted to experimenting with new flavours and adapting chocolate to regional taste preferences. It is not known when sugar was added for the first time. Some attribute the novelty to Charles V of Spain. At the court of Louis XIV, the French Sun king, a “chocolate santé” was launched, which contained predominantly sugar. The sweet chocolate drink gained great popularity among the European nobility and the wealthy middle classes. It also began to replace medieval consumption rituals. The traditional beer soup was replaced by the early morning chocolate in bed. New ceremonial rituals emerged with the consumption of chocolate. Noble houses employed their own chocolate cooks, as well as chocolate maids or black servant boys. A European china industry developed producing elaborate china cups and chocolate pots to serve the exclusive taste of the nobility and the wealthy. Chocolate houses besides coffee and tea houses opened all over Europe to cater for the new middle classes.

Besides the French chocolate makers the Italians acquired a reputation not only for making the best chocolate but also for their creativity in making new chocolate products, like chocolate pasta or iced chocolate. At the court of Cosimo III. di Medici a jasmine-flavoured chocolate became popular. By the end of the eighteenth century at latest, chocolate had become a popular drink among the wealthier middle classes all over Europe. However, the taste of drink varied very much according to the regions where it was drunk. The Italians preferred a chocolate with a

Ibid., p.10.
Coe, pp.146-8.
cinnamon flavour. Vanilla was a favourite flavour in Spain. The Italians, however, did not like it so much. The English have had a marked preference for mint chocolate and chocolate with a rose, violet or geranium flavour. Local or regional flavour variations still exist today. Today they are more noticeable in non-European countries, for example, in Japan. The Japanese have a fondness for green-tea chocolate.

2. The industrialisation of the chocolate production

Till the beginning of the nineteenth century France besides Italy was renowned for making the best chocolate. The first industrial manufacturers like Franz Stollwerck, the founder of the chocolate manufactory in Cologne, therefore went to France to learn the making of chocolate. John Cadbury, the founder of the well-known British company, visited Holland and France. After his return to England he employed a Frenchman as confectioner and like Stollwerck started to imitate French and Spanish chocolate products. The next generation was also sent abroad for training. George Cadbury sent his sons to Stollwerck and Switzerland, Stollwerck’s sons vice versa spent some time with the Cadburys. Since the middle of the century a lasting friendship developed between Stollwerck and Cadbury which went beyond business relations. Rowntree as well as John Mackintosh, the two other big chocolate manufacturers, also spent some time at the Stollwerck factory in Cologne. Stollwerck and Mackintosh even negotiated about the sale of Mackintosh’s confectionary in Germany in February 1905. In all, an intensive exchange of information can be perceived between Stollwerck and the big British chocolate manufacturers.

The chocolate manufacturers also used the industrial exhibitions since 1851 not only to present their own products but also as a platform for the exchange of information and technology. His visit of the Chicago Exposition of 1893 inspired Hershey to start producing chocolate. He bought a German demonstration machine at the exhibition, roaster, grinders mixers, moulds etc. and had it shipped to his caramel factory in Lancaster Pennsylvania. Little

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later he went on an information tour to Germany and Switzerland and visited the local chocolate manufactories.\textsuperscript{16}

Innovation and expansion of the chocolate industry, especially in Switzerland and England, appeared within the context of close kinship and religious ties. These private relationships limited competition to a certain extent, but they accelerated imitation and further development. The widespread adulteration of food in the nineteenth century and public debate to enforce legal regulations against adulteration caused Cadbury to introduce his “Cocoa Essence” in 1866. Two years later in 1868, Rowntree followed with his new brand “Elect” and Stollwerck in Cologne introduced his “Reinheitsmarke” in 1870.\textsuperscript{17}

Research on the history of technology has shown that the big inventions of the Industrial Revolution were no singular achievements. They were moreover based on long term processes of diffusion and transfer, on a continuous series of technical improvements, which developed neither independent from each other nor linear. Such processes of diffusion and transfer took place on a transnational level and went beyond the import of technology. It implied information flow, mobility, product imitation and competition.\textsuperscript{18} Similarly the big technical inventions in the chocolate production, like Van Houten’s press or Peter’s milk chocolate had its European predecessors.\textsuperscript{19}

The history of inventions in the production of chocolate can only be dealt with very briefly. The procedure of degreasing the cocoa butter by pressing and also filtration were not new in Europe before the pharmacist Conraad Johannes Van Houten invented his press, new was that he combined pressing and filtration. The result was a more easily digestible and a better tasting cocoa. This was the beginning of the modern cocoa powder and became the basis for our modern chocolate bars. The grease-reduced cocoa mass could not only be more easily dissolved in water, but was also more durable. Fry and Cadbury in England were the first to develop chocolate bars in the 1830s and 1840s. Cadbury already tried to produce a milk chocolate and a little later, Fry also started to experiment with condensed milk. The idea to add milk was not new. In England it is attributed to the MD Sir Hans Sloane (1660-1753). Similar proposals are to be found on the continent about the same time.\textsuperscript{20} The final breakthrough of the milk chocolate is based on Swiss innovations. Henry Nestlé, the Swiss

\textsuperscript{16} Morton, Chocolate, pp. 73, 90.
\textsuperscript{17} Bruno Kuske, 100 Jahre Stollwerck-Geschichte 1839-1939, Köln 1939, p.66.
\textsuperscript{18} There are many publications on the history of innovation, invention or diffusion, see only Kristine Bruland, Technology Transfer and the Scandinavian Industrialization, Oxford 1991, p 6f.; see also the contributions in Rolf Walter (ed.) Innovationsgeschichte. Erträge der 21. Arbeitstagung der Gesellschaft für Sozial- und Wirtschaftsgeschichte, Stuttgart 2007 as well as the classical work of Joseph A. Schumpeter, Theorie der wirtschaftlichen Entwicklung, Leipzig 1912.
\textsuperscript{19} Rossfeld, Schokolade, pp. 90-102.
\textsuperscript{20} Ibid., p. 146.
chemist, made a crucial contribution to making milk chocolate. His invention of milk powder inspired the Swiss chocolate manufacturer Daniel Peter to add milk powder to the cocoa mass. In 1878 Daniel Peter presented the first results of his milk chocolate at the world exhibition in Paris.\textsuperscript{21} Rudolf Lindt made a final important contribution to the development of our modern milk chocolate. He was the first to produce a chocolate with a smooth texture and fine flavour which readily melted in the mouth. It was based on his invention of the conching.\textsuperscript{22}

Inspired by these developments the big European chocolate producers soon took up the challenge and began to produce their own milk chocolate and shortly after the turn of the century they introduced their new products. Some of them have become well-known brands. Suchard launched “Milka” with the lilac cow 1901 and Cadbury followed in 1905 with his “Cadbury Dairy Chocolate”.\textsuperscript{23} Rowntree, Fry and Hershey also produced their own milk chocolate, but their products were not as successful as the abovementioned two.\textsuperscript{24}

Chocolate has never been a basic food like bread or meat. For a long time the small volume of imports and the high price prevented it from becoming a mass product. Industrialisation and the development of new cultivation areas in Africa as well as the addition of milk and the rise of the continental beet sugar industry paved the way for the chocolate to become a mass product. Nevertheless, chocolate remained a certain luxury for the lower classes until the middle of the twentieth century.

Not being a necessity, marketing strategies played an important role from the very beginning of the modern industrial chocolate production. Producers had to compete on limited markets not only nationally but also internationally. With elaborate wrappings and gender-specific advertisements they catered for new consumers. Rising living standards, the addition of milk and beet sugar which reduced the price of the product, made it available for new consumer groups. The invention of the modern cocoa powder made the chocolate drink a more easily soluble and digestible drink and with the addition of milk it was finally turned from a drink for grown-ups into a nutritious drink for children, women, fragile and old people.

Although the big chocolate firms and their products were attributed national properties and came to be regarded as Swiss or English, they expanded beyond the national borders at an already early stage of their histories. Stollwerck, founded in the 1830s, branched out to the

\textsuperscript{22} See Rossfeld, Chocolade, ibid.
\textsuperscript{23} Cadbury made his first milk chocolate in 1897, but it was dry and gritty (Carol Kenney, The Merchant Princes. Family, Fortune and Philanthropy: Cadbury, Sainsbury and John Lewis, London 2000, p.67).
\textsuperscript{24} Fitzgerald, Rowntree, pp.78f.; S. Diaper, Fry & Sons: Growth and Decline of a Chocolate Industry 1753-1918, 1988, pp. 44f.
Netherlands, Switzerland, the United States and England since the 1850s. Britain became a very important market for Stollwerck, because from there it gained access to the British overseas territories. Similarly important became Austria. It was the gateway to the Balkan and Turkey. By 1905 Stollwerck had become a multinational business. Between 1888 and 1909 Suchard pursued a similar expansionist policy by setting up plants in Austria, France and Spain.

Depending on the industrial and geo-political structure of the country the chocolate firms invested in supplying industries. As milk and sugar were important ingredients, Swiss firms as well as Hershey in the US acquired agricultural areas to establish dairies. Hershey, moreover, established a sugar refinery on Cuba which it owned until Fidel Castro came to power. Stollwerck together with other German chocolate factories invested in a beet sugar factory in Genthin near Magdeburg to undermine the German sugar cartel. British chocolate companies like Cadbury or Fry as well as Stollwerck owned cocoa plantations in Africa, the Caribbean and South America. By the time of the early 20th century some of the big chocolate firms saw themselves as global players and as a sign of its global orientation Stollwerck introduced the globe as a new brand in its bills and advertisements.

Expansion of the well-known chocolate firms took place within a context of close collaboration, information and technology exchange. Linked by religion and a loose friendship, rivalry among the English “chocolate triumvirate’, Fry, Cadbury, and Rowntree was rather limited. They repeatedly coordinated prices, shop display and limited discounts for shopkeepers during the nineteenth century. In 1889 and again in 1895 they even formalized their informal arrangements. When Stollwerck established branches in England and the US, he also did not intend to do this in competition with the English or American firms, but looked rather for niches or profits from custom savings.

A continuous exchange of knowledge and experience had developed between the British and the continental chocolate manufacturers since the middle of the century. George Cadbury had learned about the chocolate technology at the Stollwerck factory and introduced it in Bourneville. After the death of Richard Cadbury in 1899 the firm was incorporated as a limited company with a capital of £950 000. In 1901 Stollwerck wrote to George Cadbury

27 Cadbury started to set up factories abroad only after World War I.
28 Fitzgerald, Rowntree, pp. 51, 97-107.
30 Chinn, p.35.
that he also intended to transform the firm into a company and “as I will be in London for some days… I would like to see you and to have a chat with you about your experience, knowing that you will willingly let us profit of your valuable experience”. A year later, in 1902, Stollwerck was incorporated as a joint-stock company with a capital of 14 Million marks. In the above-mentioned letter he also discussed the plans of the German chocolate makers to establish a sugar refinery to become more independent of the German sugar trust. Rising sugar prices also affected the British chocolate manufacturers since the Brussels Convention of 1902 had ended subsidizing cheap sugar supplies from the Continental states. Plans for an international cooperation came up on two other issues. The English chocolate producers sought cooperation on the issue of the slave trade in Sao Thomé and Principe, while the German chocolate manufacturers under the leadership of Stollwerck sought cooperation on the question of a joint buying association to stop the increase of prices for cocoa beans. Long before the ICCO (International Cocoa Organisation) was founded in London plans for an international association were discussed between Stollwerck, as speaker of the German chocolate manufacturers, French, Swiss and British firms in the first decade of the 20th century. The German chocolate manufacturers proposed that “the Cocoa-and Chocolate Makers of the whole world” should combine to end the unfair speculation of some Lisbon and other speculating merchants who artificially raised the prices by storing large amounts of cocoa. Even first signs of a “fair trade”-idea emerged while discussing the plans for an international association of chocolate manufacturers. Stollwerck wrote to Fry that “the Chocolate Makers should […] endeavour to concede to the Cocoa Growers a “living” price and thereby consolidate their trade.” Joint talks between Swiss, German and British firms took place between July 1906 and October 1907 in London but with only partially tangible results. While French and Swiss firms joined the ‘Einkaufsgesellschaft’ [buying association], the British firms remained outside. Cadbury alternatively suggested an agreement to limit the expenses for advertising and price controls. He believed that demand for chocolate had risen ahead of the output capacity and a limit on advertising would check cocoa

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31 RWWA Köln, Stollwerck 208Nr. 246-2 Ludwig Stollwerck to George Cadbury Bourneville, 29. Juli 1901.
32 Kuske, pp. 119-129.
33 Until 1902 the German sugar refineries had compensated the low sugar prices on the world market by a joint high price agreement for home consumption
34 The ICCO was founded in 1973 to regulate and control the cocoa market and work towards a sustainable world cocoa economy.
35 RWWA 208-105-8, Ludwig Stollwerck to Messrs Fry Ltd. 21st Jan. 1907.
36 Weindl, p.52.
consumption.

Stollwerck as well as Suchard were asked to comply with it. Differing notions on the quality standard of chocolate products prevented an international joint action. Stollwerck on the other hand was asked by the British firms to join the campaign against the slavery conditions on the Portuguese islands of Sao Thomé and Principe. In 1908 Stollwerck signed the British boycott declaration against the Sao Thomé cocoa planters. The German cocoa producers were, however, more dependent on the cocoa supply from Principe and Sao Thomé than the British firms. While the British companies gained the support of the Swiss chocolate manufacturers, Stollwerck and the other German firms supported the boycott only half-heartedly.

The first decade of the 20th century did not only see the emergence of multinational chocolate companies, but a more competitive atmosphere also caused the first mergers. In Switzerland Peter and Kohler merged in 1904 and Callier entered the group in 1905. In Britain Fry & Sons merged with Cadbury at the end of World War I.

Although chocolate products from France, Spain or Italy had been valued as French or Spanish sweets before the industrialisation, it was reserved to the turn of the 20th century that the chocolate firms and their products definitely acquired national properties. At a time when some of the big European chocolate companies became international enterprises, they were reinvented as national, i.e. as Swiss, German or British. Suchard and Lindt became associated with Switzerland, Stollwerck with Germany or Neuhaus with Belgium and vice versa. Their brands were equally constituted as national properties. Hershey kisses came to represent the US, Toblerone with its typical triangular form to represent Switzerland, the “Baci” has been linked with Italy or the Sacher cake with Austria.

Food plays a dynamic role in the construction of identities and despite the recent globalisation, chocolate products are more than ever reconstructed as national or local properties. The emergence of many small chocolateries all over Europe, chocolate festivals, exhibitions and other events intend to revive the local or national irrespective or despite of the globalising tendencies. On the one hand they cater for local tastes and offer a new variety of local flavour preferences, on the other hand they also pay tribute to our global age. The present developments facilitate the introduction of strange and foreign flavours. Green-tea chocolate from Japan is now sold in Europe, but on its way to Europe the product has been transformed and adapted to European tastes. It is has become less green and is offered in the traditional form of a chocolate bar. Chocolates flavoured with spices like red pepper or chilli

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try to build a bridge back to the world of the Incas and Aztecs. However, our modern chocolate products have little in common with the old Indian drink. They have been transformed and adapted to modern industrial production requirements and tastes. High priced products, elaborate wrappings and exclusive shops re-invent the luxuries of the early modern period, but besides some very expensive shops like the “Maison du Chocolat” which cater for the new ultra-rich, many of the chocolates are not luxuries for the few but are at best cheap mass produced ‘luxuries’. Moreover, chocolate has become a fast food, as well as convenience food and recent results in biochemist research intent to transform it into a functional food.\textsuperscript{39}

To sum up, since the arrival of the chocolate about 500 years ago the drink has experienced a continuous process of adaptation and transformation through migration, transfers, innovation and imitation, cooperation and competition. These changes have to be seen in an international context. The history of the chocolate is a deeply transnational and entangled history. From the very beginning in Europe is as been a glocal food - to use Roland Robertson’s term for phenomena that shift between the local and the global.\textsuperscript{40} On the one hand chocolate has remained a global product, for the areas of cultivation and production are spatially separated. The big chocolate manufactures have become multinational enterprises offering increasingly standardised products all over the world. On the other hand the process of globalisation has been entangled with a growing diversification on a local or regional level and a continuing appropriation and construction or reconstruction of local, regional or national identities. Chocolate has been a sweet which has fascinated people’s creativity more than any other colonial hot drink. As it has never been consumed without ingredients and various flavours and the production process has been labour-intensive and costly, it has inspired people to experiment and invent. The physiological properties of Theobromine in the cocoa beans which raise the Serotonin level (a happiness hormone) as well as its cultural properties as a comfort, a souvenir, a small present, or a sweet seduction have contributed and will contribute to its continuing fascination and change.

\textsuperscript{39} Like tea and coffee chocolate was first introduced as a drug in Europe and only sold in pharmacies and ever since has been attributed some health-enhancing virtues.