## A loaf of bread: Price and value

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In the Western world, the basic staple of nutrition is bread. It evolved, from Neolithic times in Mesopotamia and the Levant, from flour made from natural hybrids of emmer and einkorn. Its form has changed from that of a dark, coarse and heavy loaf, baked in the ashes, to the enriched artistic breads of the late twentieth century. Its variety of forms conferred status on those who ate its refined and whitened form. The wheel of fashion and nutrition has turned full circle to the quality-controlled, vitamin and mineral-enriched wholemeal loaf of the new millennium to come. Bread has changed from a staple not simply of nutrition itself, but to that of a 'functional food' whose fibre confers protection against preventible disease. The bread of the new century thus will be both a food and a medicine. So fundamental to Western life is bread, that its price has long been the last item to remain controlled, when all else is left to the dictates of a free market economy. Bread is the fundamental unit of exchange and forms the last link in a chain of commodities which starts from items of luxury to those of survival itself. The price of bread can thus be used as a currency datum. As such, the price of a loaf of bread, and the minutes of labour needed to produce it, can be used to measure the economy, and to give a measured perspective of its influence on a community's history. Costs, throughout history, can be expressed in 'bread units'. As such, the latter forms an absolute index of the worth of other items, particularly a person's labour. As such, bread and its value forms a partly independent measure of inflationary and other social influences. Bread remains a fundamental part not only of nutrition, but of life itself.

Key words: bread, nutrition.

#### Introduction

Bread, and the flour of which it is made, dates from the harvesting of prewheat grains such as emmer and einkorn. Their dust-like seeds were collected and ground between stones, in hunter gatherer populations in Mesopotamia and in the Levant littoral ca 8000 BC. Such predates the use of maize in the Tehuacan Valley in Mexico by some 4000 years. Natural hybrids of wild emmer (Triticum dicoccum) and the predecessors (T. boeticum) of einkorn were developed in the Middle East from early Neolithic times. Such formed one of the great datums in the transition of humankind from that of hunter gatherer to that of village settler. The collection of the tiny grains of these early wheats, wild spelt, led in turn to craft specialization in food preparation. Later, in bronze-age times, intermediaries such as millers in the food preparation and delivery chain<sup>1</sup> came to occupy key nodes in society. The manufacture of bread in the late twentieth century is the province of giant multinationals on the one hand and of craft hobbyists on the other. Irrespective of its source, bread's fundamental place both in nutrition and in domestic and cultural life remains unassailed.

#### A staple yet a status

From its Neolithic origins, wheat flour has taken the derivative forms of hominy, ash-baked bread cakes, bread, cakes, scones, donuts, pasta and noodles; each in turn with a great variety of sub-forms specific to place, race, era and occasion.

From the coarse black bread of bronze-age times evolved the whiter bread of the worthy. Later, from the first quarter of the sixteenth century, the practice of buttering bread evolved in central Europe;<sup>2</sup> and from the buttered slab evolved the humble sandwich. Humankind turns all things to social stratification. Even the humble loaf of bread — the basis of Western nutrition, commerce and religious observance in Christendom — has its status grades. Some would say because of its fundamental place in Western life, it is used as a status symbol. When times are good, the wealthy eschew common bread. When times are bad, it is treasured and hoarded; in the starving months of August in Berlin in 1945 it was said that 'a virgin could be had for the exchange of a common loaf'.

The use of different grades of bread as status symbols has been known for a millennium; and certainly since the time of the great medieval Hospital of St John, in Jerusalem. Founded by the Byzantines as a Church Hospital for pilgrims in the preceding century, it was sponsored and supported by the merchants from Amalfi in 1050. Those Italian benefactors staffed the Hospital with Benedictine monks. These monks wore the eight-pointed white cross of Amalfi and, in 1113 AD, a papal law bestowed on that group of medical monks the independence of their own Order. Its members took not only vows of chastity, poverty and obedience, but took also the vow that no other Order makes, 'to honour Our Lords the Sick'.<sup>3</sup> They cared for and fed patients in their care at the Hospital of St John at Jerusalem and, after being driven from the Holy Land, those at Cyprus, Rhodes and Malta. In Malta:

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Modified from a paper read at the National Nutrition Symposium 'Child Nutrition Today, Health Tomorrow'. 'Although social standing of patients made no difference to admission or treatment, wards were reserved for the Knights [of St John] themselves, for the "meritorious", and for nonbelievers. Bread was also of different grades. Panis albus, white bread, was for Knights and upper classes and the sick and for the physicians; panis carpentorium (artisans' bread) for tradesmen and brown bread for sick slaves, convicts and the barber surgeons'.<sup>4</sup>

Special breads retain their cultural and religious significance today. Communion wafers have special form and imprint; and communion breads remain the purest of white in spite of their nutritional inferiority. The encasing of the humble sandwich, and of its derivatives (pasties, pies, sausage rolls and hot dogs) follows and reflects the time and the occasion; and varies according to social ceremony, whether this be the casualness of the Australian barbeque or the serving of the most delicate white bread cucumber sandwich at a Government House garden party.

#### **Bread: Consistency yet change**

In Europe, the medieval peasant's diet was coarse 'black' bread, milk, cheese and eggs, supplemented occasionally by bacon or fowl and with fruit or vegetables in season. Rich folk ate 'white bread'. Their staple diet comprised bread, meat, fish, wine and beer. The Ordinances of the Fifth Earl of Northumberland, dated 1512, recorded what the Lord and Lady were served for breakfast on fast days:

'Furste a loif of bred, manchets, a quart of beere, a quart of wyne, peces of salt fysche, baconn'd [baked] herryng, white [pickled] herryng or dysche of sproits [sprats]'.<sup>5,6</sup>

University students in the sixteenth century had for dinner 'boyled beefe with pottage, bread and beere and no more'.<sup>6</sup> Cogan, writing from Oriel College, Oxford, described in 1584 the differences between good wheaten bread and its easy digestibility, and that of the coarseness and bulk of breads with a higher proportion of milling husk:

'Browne bread.... having moch braune ... fylleth the belly with excrements, and shortly descendeth from the stomacke'.<sup>6</sup>

Gradually, town-dwelling came to be associated with more genteel living and eating. By the eighteenth century, city breads (in contrast to country loaves) were baked from finer wheaten flour:

'They eat no Bread ... of Rye ... [but eat bread] as white as any Curd'.<sup>7</sup>

Bread has always been subject to adulteration. Substances which might make coarse (brown or black) bread whiter, heavier and more bulky were added. Alum and whiting were used;<sup>8</sup> and, the public suspected, additions which were even worse. Bone-ash and white lead were implicated as adulterants and described in *The Nature of Bread, Honestly and Dishonestly Made* written in 1757 by Dr Joseph Manning. A parody, in children's nursery songs of the day, rhymed:

'Fe Fi Fo Fum I smell the Breath of an English Man Be he alive, or be he dead I'll grind his bones to make my bread' Quality control of bread has a tradition of many centuries. On three occasions (1756–58, 1772–74 and in 1795–1800) the British Parliament authorised the sale of a cheaper loaf which it euphemistically called 'Standard Bread' and which was stamped by bakers with a capital 'S'. It was darker due to a higher bran content.<sup>9</sup> Attempts at the chemical detection of food adulteration are recorded from the mid-1750s with analyses of bread, probably not to protect the public in the first instance, but to protect millers and bakers from wild charges of adulteration.<sup>8</sup>

In the convict settlements at Sydney Cove, Parramatta and Windsor, grain was used in the daily convict's ration to make hominy and maize cakes. Hominy was coarsely ground grain (maize, wheat or barley) boiled with water or milk. In the coastal districts of colonial Australia maize grew and stored better than wheat 'and was preferred by officialdom but not by the prisoners who had to consume it'.<sup>10</sup> Maize meal was recommended as a 30% component of baking mixture, recommended to be used for puddings, fritters, Yankee Loaf and hominy.<sup>11</sup> Bushmen, goldminers and free settlers who lacked ovens, but had access to the unlimited supply of firewood which the Australian bush provided, baked damper ('hearth cakes') in the ashes of the campfire or open kitchen fire beside the dwellings on the goldfields and on the selectors' runs. One settler's wife, in 1844, wrote that:

'The indurated dough is the only kind of bread used, and those who eat it constantly must have an ostrich's digestion to combat its injurious effects'.<sup>12</sup>

The application of butter (or lard, or margarine) to bread is a relatively late fashion, probably dating in Europe only from the seventeenth century. Until the seventeenth century, the coarse black loaf would collect substantial amounts of foreign debris without noticeable discolouration or obvious evidence of contamination.<sup>13</sup> In 1519, during the Siege of Allenstein, the Prussian fortified town on the Alle River (in present day Poland) was struck by plague. The city and its trapped population was under the command of the Canon of Frauenburg, Nicholas Copernicus, he of planetary fame. Supposing that a food source might be responsible for the plague, Copernicus divided the besieged inhabitants into separate groups, each with different diets.<sup>2</sup> He showed that one small group to whom he denied bread was the only one which remained free from plague. He suspected that contamination (e.g. the dropping of bread on the sullied, sewage covered streets of the beleaguered city) was the cause of the contagion. A cobesieged, Gerhard Glickselig, suggested that bread loaves be coated with a thin layer of a light-coloured spread, which indicated that if dropped on the ground or otherwise sullied contamination occurred. After this introduction, the plague disappeared from the castle.<sup>2</sup>

In whatever form it is eaten today, bread retains its role as an excellent source of low-fat, high-protein food; in addition it is a valuable source of dietary fibre and resistant starch.<sup>14</sup> Resistant starch is that polysaccharide which, undigested, reaches the colon. It is probably the agent by which the incidence of colon-rectal cancer is reduced in populations consuming high-fibre diets.<sup>15</sup>

#### Inflation and price control

Being at the base of the chain of commercial exchange, bread is a unique indicator of inflation pressure. At the same time, because bread is the basic essential commodity for survival, enlightened governments have controlled its price in times of scarcity. Today, bread remains the last item on which price control exists in Australia.<sup>16</sup>

The control of bread pricing was called Assizing, well established by law (Assiza Panis) in both England and Ireland in the thirteenth century. It had as its basis the protection of the poor, the vulnerable and the illiterate. The effect of this law remains in force today. The assizing of bread and its control was the direct progenitor of Consumer Protection Legislation of the late twentieth century. Assizing was the control of quality and price of bread, ale, locally minted coins and locally made measures. One G. Blackhall published a detailed account of assizing bread in Dublin in 1699:

'Rules for Assizing of Bread, viz. By Troy-Weight, or Sterling And by Avoirdupoids weights Together with the Rule of Colquality of both weights and The Assize by a standard weight for White, Wheaten and Household LOAVES Assized by A certain Price, Rising, and Lowering, as the Price of Wheat Rises, and Falls, in the Market. All three calculated exactly according to the Statute. Assiza Panis 51. H 3 now in Force in Ireland'<sup>17</sup>

The laws for the assizing of bread were exact. For example:

'When a quarter of Wheat is sold for 12 pence then Wastel-Bread of a Farthing shall weigh 6L 16S But Bread Cocket of a Farthing of the same Corn and Bultel shall weigh more than the Wastel by 2S And Cocket Bread made of Corn of lower price, shall weigh more than the Wastel by SS Bread made into a Simnel shall weigh 2S less than Wastel Bread made of the whole Wheat shall weigh a Cocket and a half, so that a Cocket shall weigh more than a Wastel by SS Bread of Treet shall weigh two Wastels And Bread of common Wheat shall weigh two great Cockets'<sup>17</sup>

Bakers and others selling bread were punished by the force of law for giving short weight:

'To the Bakers that they may not mistake in the Weight they ought to give, and to prevent the Seizure of their Bread; and the Punishments which follows....also the Statute of the Pillary and Tumbrell, for the Punishing of Bakers and Brewers, which authorities Grand Juries to inquire. ...'<sup>17</sup>

The assizing of bread took into account not only the current prices of wheat and corn, but also the quality of the heads of wheat and the cobs of corn themselves:

'The Assize of Bread beholden according to the sale of Wheat, by the Sale of the Middle Corn ... and the said Statute [of] the Assize of Bread shall be rated according to the Middle price of Wheat'<sup>17</sup>

Since the earliest colonial settlements in Australia, wheat prices have fluctuated widely in the marketplace. Taking this

into account, and balancing the need for a fair profit by the bakers on the one hand and the protection of the entrapped populace (convicts and garrison) on the other, the price of bread was also set by weekly Assize, determined by the sitting Magistrate – as it had been done in England and Ireland in centuries gone by. The Sydney Gazette of 15 May 1908 reported:

'Assize of bread until Saturday next, wheaten bread 9d. and household bread 5d. per loaf.'  $^{18}$ 

After the collapse of the post-War boom in the early 1920s, prices fell by approximately 20%; thereafter (with the exception of the control of bread and sugar prices for a short time in 1935) the Commonwealth Government did not directly control the price of bread. This was left to local State legislation which nevertheless continued to exert effective control.

Price control in Australia has always followed the principle of assizing, that is the fixing of bread prices in a fashion which acknowledges the law of supply and demand in the context of wheat availability, yet at the same time acknowledges the need for a fair profit by the millers and bakers whose livelihoods need to be protected. For this reason average bread prices for a standard loaf have always differed in the various capital cities of Australia (Table 1). This has not always been the case in countries where absolute doctrinal rigidity and adherence to price control has been the norm. Before the collapse of Soviet Russia in 1989, price control of bread reached ludicrous proportions:

'[in July 1990] the demand for bread is so high that Moscow must import 40% of the countries grain needs each year; it spends millions in scarce foreign-currency reserves to do so. Yet for nearly 30 years, the State has also paid huge subsidies to keep bread prices at a constant 25 kopeks (40c) a loaf. Some farmers feed bread to their pigs because it is cheaper than animal fodder'<sup>17</sup>

The wholesale profit, to bakers, is approximately 5.5% per unit standard loaf. Of these costs, flour comprises some 23%, labour 23% and the cost of vendors to sell the loaf 11% (Table 2).

Table 3 illustrates the inflationary price of bread in the twentieth century, a phenomenon not observed in the nineteenth century. An alternate measure of inflation is to calculate the time worked by a 'standard worker' to purchase a loaf of bread. In twentieth century Australia, a land of affluence, this has never been more than 30 min. With a median breadwinner's wage in 1997 of \$27 000 per annum, the time

**Table 1.** Bread prices as compared among States of Australia. Prices are for the December quarter 1990. Courtesy of *The Courier Mail* (Brisbane daily newspaper) 4 April 1991.

State	Bread price
Sydney	\$1.46
Melbourne	\$1.51
Brisbane	\$1.16
Adelaide	\$1.16
Perth	\$1.31
Hobart	\$1.35
Canberra	\$1.23
Darwin	\$1.45

**Table 2.** An analysis of the wholesale costs of manufacturing standard loaves of bread in Australia. Data compiled from various sources including data kindly supplied by the Bread Industry Authority (Queensland) and from *The Courier Mail*, 4 December 1990, and from other sources.

Manufacturer's costs	Percentage of total cost (%)
Flour	23
Labour	23
Selling Costs (Counter staff, Vendors)	10
Other ingredients of bread (additives)	9
Bakery Supplies, Wrapping	7
Depreciation	6
Fuel, Light, Power	4
Merchandising	4
Rates, Rent, Leases	4
Repairs, Maintenance	2
Administration	2
Registration, Insurance	1
Profit	5

**Table 3.** The absolute price of bread (standard loaf in the average marketplace), corrected for inflation (the FitzHerbert Converter) calculated from the overall Consumer Price Index, which is shown as the 'equivalent bread price'. This latter index allows inflation-corrected, spot comparisons of bread prices relative to other movements in the consumer prices.

Year	Inflationary correcting factor (the FitzHerbert	Price of a loaf of	'Equivalent bread	
	Converter, derived from the Consumer Price Inde	bread	prices'	
		A		
1880	34	3d (6 cents)	204	
1890	32	3½d (7 cents)	224	
1900	36	3d (6 cents)	216	
[Change from a 2 lb to 1½ lb (680 grams) standard loaf]				
1910	34	2.2 cents (equiv)	85	
1920	19	3.7 cents	70	
1930	21	3.0 cents	63	
1940	18	3.8 cents	68	
1950	12	6.0 cents	72	
1960	6.6	10.5 cents	69	
1970	5.0	15.0 cents	75	
1980	1.7	68 cents	116	
1990	0.9	1.12 cents	100	

required to work to buy a standard loaf is 4.8 minutes. For that 0.5% of the population whose taxable income exceeds \$100,000, less than 60 seconds of 'work' is required to purchase a standard loaf — trivial to the rich, but a daily asset beyond price for the refugees of more than 15 countries of the world's nations in current crisis. The philosophy of capitalistic democracy occupies a fundamental role in such a 'work for bread' calculation, in that the poor and rich alike pay the same price. Such a 'user pays' principle is of course the basis of all free-market, democratic societies. Such a philosophy, which is applied so obviously to the price of bread, is used to criticise inequities when other services are not so equally charged: 'In the context of banking, what principles ought to guide banks when setting fees and charges? Although a principle of "user pays" sounds fair enough until you realize that not every user pays – the poor pay while the rich don't. Rich and poor alike pay the same for a loaf of bread, but for a basic banking service, which has become a virtual necessity of life in a modern economy, the poorer you are the more you pay'<sup>20</sup>

#### Bread: A fundamental unit of exchange

Many nations use different units of exchange. In ancient Babylon, prices and fines were fixed by the weight of silver. Cowrie shells were used as the unit of exchange in communities living far from the sea, and some rare species of cowrie were used among island societies in the Pacific. The bride price is still symbolically paid in pigs in the highlands of Papua New Guinea today, and within the last decade a surgical colleague and I were offered a gift of ultimate wealth, a cow, following the resuscitation and successful surgery of a farmer who was brutally beaten and partly decapitated in the genocidal civil war in Rwanda in 1994.

After the Napoleonic War, the Bank of England issued paper notes, underpinned by the gold standard. Gold, long regarded as the individual unit of currency in many parts of the world, became the international unit of exchange. In 1919, England (as the controller of Sterling) abandoned the Gold Standard until 1925; then returned until the worst of the Depression had receded in September 1931.<sup>21</sup>

In the first decade of Australian colonization (from 1788), flour was used as currency, followed by rum. In 1790 the Parramatta Bakery, under Government supervision, exchanged 'with every person bread for flour, or stipulated items'.<sup>22</sup> By November 1794, Governor King had set a weight-and-measure Assize for wheat as 'threshing wheat [to be reckoned] as 10 lbs of wheat per bushel'.<sup>23</sup> By March 1801, King in his General Order of 10th March, promulgated:

'It is to be understood that wheat and all kinds of livestock is a legal tender for all debts contracted in the Colony  $...'^{24}$ 

What is the fundamental datum of exchange? What is the fundamental unit of physical worth? The answer to this question has defied economists and philosophers through the ages, but each of us try to answer it personally for ourselves and each society attempts to answer it for national stability.

One might answer, as did Midas, that the fundamental desideratum is gold. One might answer, as did the peasant in the *Count of Monte Cristo*, longing for a tiny vegetable garden of his own, that it is the ownership of land. One might answer, that it is one's virtue. To many, each of these things is sought as the endpoint in the chain of commerce, with each individual elusive link passing to a final, immutable absolute. Ultimately, the datum is determined by survival; food and shelter. In all societies the food datum is the staple; rice in the East, beans in Africa, maize and potatoes in the New World and bread in the West. It is not gold — for having it, Midas fervently wished to transmute his golden daughter back to flesh and blood. Captain Ahab in *Moby Dick* knew that gold was simply a link towards (for the sailors under his command) a more fundamental datum, a cigar:

'This coin is but a round thing made of gold, and whoever sees a certain whale, this round thing belongs to him ... it is worth 16 dollars, that's true; and at two cents the cigar, that's 960 cigars' $^{25}$ 

The datum is not virtue, for although one's honour would not be sold by many even for a million dollars when times are good, when times are bad and survival itself threatens, with the exception of the martyr at the stake, most sell their virtue for food to sustain life.

In difficult times, one has seen that both democratic and communist societies protect the fundamental price of bread by price control, by quality control or by rationing - or ultimately by a culmination of all three. When times are affluent, when the median wage earner has to work but 3 minutes to obtain a loaf of bread, bread is sometimes used as a weapon of commerce. Loaves are partly given away in the commercial battles among supermarkets to attract customers through the supermarket door. Although price control gives to Statutory Bread Authorities the power to control maximum wholesale prices of bread,<sup>26</sup> it also bestows the power to limit minimum wholesale prices paid to bread manufacturers. For example, the Queensland Bread Industry Authority Bill (of 1990) gives the Statutory Bread Industry Authority the power 'By its order, to fix and declare....the minimum wholesale prices to be paid to a bread manufacturer for bread within the category'.27

#### 'Bread units'

Policy makers, executives, economists and historians require measures of equivalence by which both costs and values can be compared over changing time. The influence of inflation on the one hand and price control on the other mean that prices for commodities and services in decades and centuries gone by, as raw data, have no relevance in the perspective of today. Economists have attempted to introduce the correcting factor of the Consumer Price Index, and data published regularly by the Institute of Actuaries of Australia provides the raw data by which such correcting factors can be introduced. In 1988, the bi-centenary year of Australia, Mr Richard FitzHerbert published the FitzHerbert Converter, giving the value of one Australian dollar (at 1988 prices), by year from 1860 (Table 3).<sup>27</sup> Using such a converter, one can examine the fluctuations in the price of bread, in true comparative terms, against the overall movements of the Consumer Price Index (Table 3). One can see that until the inflationary leap of the mid-1970s, the price of bread ('Equivalent Bread Prices') remained incredibly stable, in terms of wages expended on it.

An alternative approach is to calculate the time, in minutes, worked by a wage earner earning a median wage. The CPI-corrected price of bread, and the time worked to buy a loaf of bread reflect different influences ranging very broadly across the sociological, technological and monetary worlds (Table 4). Using this data, it is possible to place, in perspective, all other goods and services in the terms of this concept of 'bread units'.

In the disciplines of medicine and health, major current issues are involved in decisions concerning the rationing of health care resources.<sup>28</sup> A *Four Corners* (Australian Broad-casting Commission) programme entitled 'Painful Choices' was screened on 24 July 1989. Filmed at the Royal Prince

**Table 4.** One measure of the price of a loaf of bread is the time worked by the average wage earner to enable him or her to buy a standard loaf of bread. Such 'bread units' have shown an inexorable decrement throughout each decade of the twentieth century. Data from the Australian Bureau of Statistics (Labour Reports, CS331) from the *Sunday Mail* (Brisbane weekly newspaper) of 5 May 1991, from data from the Bread Industry Authority (Queensland) with acknowl-edgements, and from other sources.

Decade	Time (min) worked
	to buy a standard loai
1901	24
1911	31
1921	11
1931	9 [The Depression Years; many men
	worked up to 4 hours for one loaf of
	bread, and regarded themselves as
	fortunate in having such work]
1941	9
1951	5
1961	5
1971	4
1981	6
1991	5
1997	4.8

Alfred Hospital in Sydney, it focused on the Emergency Department and the Intensive Care Wards, and highlighted the inescapable reality of rationing of today's health care systems. Decision-makers involved with such decisions, whether to save one 80-year-old's life or to immunize 500 extra children, require comparative data from the past by which the present can be seen in perspective. Bread units are perhaps one way by which comparative costs, and ultimately the value of delivered services, might be the better assessed. An example might illustrate this point. In 1900, the cost of a bed, for a 24-hour period, for a sick child in Australia was approximately £2 Sterling. Taking into account inflationary trends, and the cost of bread at the day, and worker's time needed to work to buy such bread, a child's in-patient bed costs approximately 8 'bread units'. In 1997, the cost of a bed in a children's hospital is over \$400 per day, and an average worker ('bread winner') works some 290 minutes to pay for it; that is, the cost of a child's daily hospital bed today is equivalent to some 300 loaves of bread. This allows a comparison (a 37-fold increase) of the cost of this one service in society.

Wahlqvist predicted in 1992 that there would be a progressive 'greying of the demarcation between food and medicine in European and European-derived cultures'.<sup>1</sup> This concept can be extended from the purely nutritional and health promotional theme to place the concept of bread, its nutrition, its health promoting properties and its economic worth, as the fundamental datum, all pervading in society.

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## 一卷面包-

# "今日兒童營養,兒童健康的未來"

## 摘要

面包是西方世界的主要營養來源。自新石器年代的美索不達米 亞和拉文特人使用自然雜交的emmer 和 einkorn 面粉以來, 面包的形 態亦從用火灰烤制的黑色, 粗造而又沉重的面包卷逐漸發展到二 十世紀末藝術性豐富的面包。它的豐富多彩品種主要歸咎于精制 和增白的面包。營養和時髦的時代車輪滾動了一周,又轉向了新 的千年時代的質量-控制, 富含維生素和礦物質的粗面粉面包。面 包不單止是營養的主要產品, 它轉變成"功能性食品"- 面包中的 纖維對可預防的疾病有保護作用。新世紀的面包將會成爲融食品 和醫學爲一體的食品。

面包是西方生活的基礎,當所有的商品收到自由市場經濟的 支配時,面包的價格是最后一項受保護的.面包也是基本的交換 單位-成爲最后一項連接奢嗜品和生存品的日用品.面包的價格可 作爲貨幣數據.因此一卷面包的價格,制作一卷面包所花費的勞動 時間可用來測定社會的經濟,并且預測它對社會歷史的影響.貫 串人類歷史,價格可用"面包單位"來表示,作爲人類勞動等價交 換的絶對指數.所以,面包的價值形成了衡量通貨膨脹和其它社 會影響的獨立標準.面包之所以如此重要不僅是它所提供的營養, 而且在于面包自身的價值.

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