PREFACE

This document is part of the "HÂRN-GUILD-TEAM"-project (HGT), initiated and coordinated by the EUROPEAN HÂRNMASTER GUILD (EHG). The goal of the HGT is to elaborate all the guilds and societies forming the Hârnic Mangai.

"SALTERS' GUILD" is a gaming resource for the fantasy world of Kethira, as published by Columbia Games in its HârnWorld/Encyclopaedia Hârnica series.

Updated versions of all documents will be published at the following web sites:

- http://www.johalla.de/EHG/
- http://xris.de/

The European Hârnmaster Guild

In this text, references are marked in BOLD CAPITALS. Important phrases are typed in *ITALIC CAPITALS* where they are explained. Citations from any sources are printed in *italic* and enclosed by quotation marks, followed by a reference to the source.

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INTRODUCTION

"Salters have a monopoly in the retailing of salt; an essential mineral since it is the principal method of preserving food. A master salter will own a shop in town; where bulk salt can be purchased; and also a variety of pickled or salted foods. Mining of salt is done by the Miners' Guild, but it can only be sold to a master salter; who will mark it up for re-sale. In coastal regions, some salters have sought to circumvent other guild monopolies by producing sea-salt through evaporation of sea water in salt pans; the process is expensive and not very successful. Rock salt tastes better and is more in demand." (HÂRNWORLD, HÂRNDEX)

"Salters monopolize the retailing of salt, an essential mineral since it is the principal method of food preservation. A master salter might own a shop, where salt and pickeled foofds are sold. Salt is extracted by the Mibners' Guild, and transported by Mercantylers, where it can only be sold to a master salter, who marks it up for resale. In coastal regions, some salters produce sea-salt by evaporation, but the process is expensive and rock salt tastes better. Salt typically costs a fathing a pound; pickeled and salted foods are usually 50-100% more than the prices of fresh food." (HÂRNPLAYER, HÂRNIC DICTIONARY)

SIGNS

The Salters' Guild uses a badge as heraldic symbol. The badge identifies its bearer as a member of the Salters' Guild. Wearing this badge or using the symbol in any other way without legitimisation of the Salters' Guild is prohibited by law and may be persecuted as breach of guild privilege. The correct heraldic description follows:

SALTERS' GUILD 2

"Sable, a saltire argent."

BADGE OF THE SALTERS' GUILD

HISTORY

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[Still much work to be done here!]

MONOPOLIES AND PRIVILEGES

The Salters' Guild holds the monopoly in the retailing of salt. They produce it in saltworks or obtain it directly from the Miners' Guild or indirectly from the Mercantylers' Guild. The monopoly enables them also to offer products containing or based on salt at the most reasonable price to costumers. Main products are preserved foods, especially smoked and salted products like fish, meat or cheese.

Salt is traded in form of saltloaves, whose shape, size and weight vary troughout Lythia, as well as loose crystals, packed in sacks or wooden tuns. Until the saltloaves, sacks or tuns are signed and sealed with the mark of the Salters' Guild, they may not get legally sold to other persons than members of the Salters' or the Mercantylers' Guild. Only master salters may stamp their guild's mark onto the saltloaves or seals, thus making them freely tradeable.

Most Salters' Guilds insist on an inspection of foreign guild marks and demand a fee for the service of attesting their authenticity with the local guild's mark.

Some local or regional salters' guild chapters have obtained the privilegue to use a destinct predicate or *TRADE MARK* for a local specialty, like a specially treated cheese or smoked ham. Only products which are marked with that guild's seal may be advertised using the reserved predicate or trade mark.

SALTERS: RANKS & RESPONSIBILITIES

Within the Salters' Guild, there are four ranks, each of which will be described in detail.

APPRENTICES

Rights and duties of an Apprentice

Apprentices are salters in training. They usually live in their master's household, performing simple and unpleasant works. They only receive (most simple) accommodation, meals and instruction. Some generous masters pay a low pocket-money to their senior apprentices. More masters are generous in beating their apprentices, even for minor occasions.

Requirements to apprenticeship

As usual, salters will train the offspring of other master salters. A master salter may also accept talented boys and girls – for free or for a premium (often three month's income or even more) paid in advance by a sponsor.

Apprenticeship

An apprenticeship regularly lasts for four years. Depending on the kind of the master's business, the apprentice will work in the household in the workshop and/or the market booth, assisting in whatever the master of a senior journeyman tells him/her. Thus s/he learns the arts of the craft.

Journeymen

Journeymen are fully trained salters. Most guild members will never advance further in the guild hierarchy.

Promotion

After an apprenticeship of at least three years, a master salter may suggest the local board of syndics with the promotion of an apprentice. The syndics will call in the apprentice for an examination, where s/he has to prove his/her abilities and knowledge. If the candidate passes the examination, s/he receives a credentials from the guild master and the promotion to the rank of a journeyman is proclaimed in public.

Examinations are usually held on the 9th of Agrazhar and the promotion is proclaimed on 10th of Agrazhar during the festivities in honour of St. Hanuk, the peonian patron saint of salters.

Tasks for a Journeyman

Journeymen usually work within a master salter's business, performing all kinds of jobs, especially the hard and tiring ones. Often, the master also delegates the supervision and instruction of the apprentices to a senior journeyman.

Rights and Duties of a Journeyman

The wage range for salter journeymen is annually fixed and proclaimed by the local guild coucil. A master paying less than the guaranteed minimum wage might be reported by his employees, while a competitor may report cases of overpaying to the guild chapter.

Salter journeymen are only allowed to follow their profession within the business of a master salter. Journeymen found offending this rule will be fined or expelled from the guild by withdrawal of their promotion credentials.

A journeyman who witnesses any breach of guild privilege is oblieged to report the offence to his/her master or the local guild council.

Masters Salters

Master salters run the business and form the backbone of the Salters' Guild. Most master salters run a business on their own behalf, but there are also bonded masters, who usually operate for the lord of a large keep or castle, providing preserved food and overseeing the fortification's supplies.

Examination for Master's Diploma

Salter journeymen who have served under a master for at least 4 years may appeal at the local guild council for a promotion to the rank of a master salter. After a payment of usually hefty fee, the candidate's master will be interviewed for the candidate's work and character. Thereafter the candidate's work will be scrutinized by the local syndics, and on the last stage, a public examination of the candidate is carried out by the guild council. Examinations are usually held on the 10th of Agrazhar and the promotion is proclaimed directly after. A credential is passed over to the newly approved master salter, and his/her name is officially forwarded to all neighboured guild chapters to be recorded and announced in public.

Rights and duties of a Master Salter

Masters are the only persons allowed to operate a salter's business on their own (as a freemaster)

or run a business owned by a third person, like a manorial lord or an abbey (bonded master). Those who want to operate an own business must obtain a franchise from the guild, whose number is restricted within the area of each guild chapter.

Only master salters may take on and train apprentices and employ journeymen salters. They elect the guild syndics who form the guild council.

Syndics

Syndics should be competent masters who operate a salter's shop within the guild chapter's area. They are elected from the total of all resident salter masters, usually for a period of two or four years. The syndics form the guildcouncil and elect the guildmaster as the guild's spokesman, mediate in conflicts between guild members and control the members' actions and business.

Guild Council

The Guild Council is formed by the elected guild syndics and is presided by the guildmaster. It decides in all affairs relevant to the guild and acts as the court for intra guild conflicts. The council issues obliging standards for prices and products and regularly controls the guild's members' compliance with that regulations. The council fixes the number of local franchises and has the power to grant or withdraw franchises to/from salter masters.

Guild Master

The Guild Master is elected by the Guild Council. S/he presides all meetings of the Guild Council and acts as the guild's official spokesman. S/he promotes apprentices to journeymen and journeymen to masters on decision of the Guild Council. The Guild Master represents the Salters' Guild within the local chapter of the Mangai. S/he usually also is the guild's delegate within the periodical meetings of the regional guildchapters.

Large Guild Chapters

In some major guild chapters – usually at locations with important saltworks, salt mines or salpans, or within large cities – the organisation of the guild is more complicated: Syndics may hold specialized guild offices, e.g. *Master Salt Taster* (testing the quality of the guild's products, especially in regions with famous specialties as cheese or smoked ham), and *Master Seal Examiner* (ensuring the monopoly by checking retailed salt for the guild's seal). Sometimes, the journeymen are allowed to elect a syndic from their own number or from the resident masters.

Unguilded craftsmen

Salters may take on unguilded workers for simple tasks in the saltworks, to transport salt or preserved food. They will get paid worse than salter journeymen

Third party Guildmen

Only in very rare cases, a guild chapter accepts a member of another guild within the Mangai as an associated member. Most accepted candidates are master miners.

Refer to the section **Connections to other guilds** for detailed information on the inter guild relationships.

Guild members as Player Characters

A Player Character should start as a just appointed journeyman with the following occupational skills:

Rules in use	*Occupational Skills*
Hârn Master 1st Edition	Mineralogy 3, Cookery 4, Fishing 3, Survival 3, Herblore 1; 5 option points
Hârn Master 2nd Edition (HM Core Rules)	Mineralogy 3, Cookery 4, Survival 3, Fishing 3, Herblore 1; 5 option points
Hârn Master 2nd Edition (HM Gold Player Edition)	Mineralogy 1/3, Cookery 3/4, Survival 2/4, Fishing 2/3, Herblore 1/3; 5 option points

If the specialisation rule for skills is in use, the players should use some of the specialities listed below in the section Craftsmanship and Knowledge.

As usual, the player and the GM should take some time for a pregame to set up the background of the character.

ORGANISATION

The Salters' Guild organisation is based on the local guild chapters which form the base of the organisation.

A usual guild chapter is formed by five to fifteen resident masters; its borders often correlate with those of political administrative districts, eg. with those of a kingdom's shires.

Each guild chapter will delegate a member (usually the Guildmaster) to attend periodical meetings of all regional guild chapters and the local Mangai. Regional meetings will debate common affairs and elect delegates to represent the Salters' Guild within regional chapters of the Mangai and with the regional government. The main purpose of this practice is to keep up the guild's monopoly and any additionally obtained privileges.

GUILDHALLS AND RESIDENT MASTERS

Place	*Master*	*Size*	*Quality/ Reputation*	*Price*
(Ranhel/Rethem) saltpan	*Arag of Dysen (Golotha)*			
(Detaka/Rethem) saltpan				
(Altrien/Rethem) saltpan				
(Shostim/Rethem) saltpan				
Tormau/Rethem (f)	*Munstel of Swela*	3	*****	high
Ulfshafen/Evael (f)	*Clan Nefel*	3	****	high+
Aleath/Kanday (f)	*Ryldarian of Asain*	4	***	average
Aleath/Kanday (f)	*Lyman of Mieron*	3	***	average
Dunir/Kanday (f)	*Brewl of Embrada*	7	***	average
Selvos/Kanday (f)	*Damys of Bostada*	10	***	average
Minilaos/Kanday (f)	*Charaz of Yaeden*	6	****	average
Selvos/Kanday (f)	*Damys of Bostada*	10	***	average
Cherafir/Melderyn (f)	*Habin of Artus*	3	***	average
Cherafir/Melderyn (f)	*Jartus of Vabenal*	4	*****	high
Glenoth/Melderyn (f)	*Ona of Lydee*	3	***	average
Karveth/Melderyn (f)	*Barneld of Ren*	1	****	high
Karveth/Melderyn (f)	*Simeld of Lebarn*	1	***	low
Coranan/Tharda (g)	*(guildhall) owns salt mines near Imrium*	(-)	(-)	(-)
Golotha/Rethem (f)	*Arag of Dysen owns saltpan near Quste*	4	**	average
Shiran/Tharda (f)	*Karabis of Sarhend*	3	***	average
Tashal/Kaldor (f)	*Kaldarias of Aelin*	3	***	high
Tashal/Kaldor (f)	*Uril of Asaka*	5	***	high
Tashal/Kaldor (f)	*Ashain of Tobira*	3	***	high
Thay/Melderyn (f)	*Harin of Dysen*	3	***	average
Clord/Melderyn (f)	*Taran of Gertel*	1	**	average
Roganter/Kaldor	*Erwyn of Agrael*	2	****	average

(f) freemasters; (b) bonded masters; (g) guildhalls; (u) unguilded; (t) temple

GUILD POLITICS

FRANCHISING

The Salters' Guild tries to fix the franchises available in each guild chapter at a number appropriate to the local consumers' demand and/ or the available natural resources. In the average, every 2.000 inhabitants allow for one salters' business, each business providing work to 3 – 4 salters. If the demand is in strong and steady decline, a vacant franchise may get revoked, if the business is good, additional franchises may be established.

Nearly 70 percent of the salters' businesses are run in rural and coastal settings, where food is available at low prices for preservation, the balance is made off by urban franchises.

Any master salter who can prove his membership by means of presenting his guild credentials to the guild council can appeal for an vacant franchise. In practice, newcomers have a hard stand, and guarantors may be demanded to prove their competence and loyalty. As vacant franchises are rare and masters interested in obtaining a franchise can register with the local guildmaster to be considered at the next opportunity.

Franchises are granted for the lifetime of its owner, but can be revoked in certain cases (usually as an act of punishment to serious offenders of guild laws). Though franchises can not be “inherited” officially, it is a common practise to grant the franchise of a deceased master salter to an

available closely related master of its former owner. Sometimes, the deceased's wife/husband is allowed to run the franchise for several years with the help of experienced journeymen until a son/daughter of the deceased has been promoted to the rank of a master salter and can take over the franchise.

The awarding of a franchise is regularly restricted to the payment of the immensely high official fees (at least a master's annual income) and – as in the most cases – to considerable donations to the responsible syndics.

The guild is interested in its independence and opposes the practice of some landlords and clerical orders to take on salters as bonded masters, as this minimizes the number of franchised salters' businesses that can be run profitably by salter freemasters.

Membership

Any resident who can prove that s/he has passed an official examination by means of his/her guild credentials, can become member of the local guild chapter; persons who operate a salter's business must become members or have to face serious problems with the guild.

All members must obey the guild's reglementations and master salters have to pay the guild due – usually 10% of their income.

Connections to the Mangai

The Salters' Guild has its place among the other guilds within the Mangai. In rural areas, the Mangai only plays a minor role, but within the larger settlements and within administrative centres, its influence on commerce and politics is considerable. The Salters' Guild exerts its influence within the local chapter of the Mangai and – in cities – according to the political constitution. As preserved food is of considerable importance to the supplies of a city, the salters' interests have some weight within the city government. This is rather true in coastal cities with extensive fishing ports, where quantities of fish are landed and preserved for the export.

As usual, half of the guild dues paid to urban guild chapters are forwarded to the city's government.

Connections to other guilds

Depending on the natures of their businesses, special relationships exists between the Salters' Guild and the following guilds and societies:

Apothecaries' Guild

Apothecaries may use salt to prepare some kinds of recipes and to preserve herbal or animal ingredients. Some apothecaries have specialized as *spicers* and deal with local, but also with valuable exotic herbs and spices. They sell parts of their stocks to salters who use them to individually spice their preserved foods.

Guild of Arcane Lore

Alchemists and other members of the Guild of Arcane Lore often need large quantities of salt for their experiments. They have to obtain it from a salter.

Chandlers' Guild

Chandlers often obtain medium quantities of salt from a salter to retail it to their own clients for a higher prize. Chandlers often travel even remote settlements as peddlers, and salt is a popular trade good.

Charcoalers' Guild

In larger settlements, salters may obtain the firewood for their saltpans or wood for smoking from a charcoaler, but usually, s/he will collect it by his/her own in nearby woods. The heat needed to evaporate water from brine does not raise need of charcoal or coal.

Chlothiers' Guild

Clothiers need salt for dyeing and bleaching clothes.

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Embalmers' Guild

Where mummification is polpular, embalmers use salt to dry out corpses, so they obtain large quantities of salt from salters.

Glassworkers' Guild

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Hideworkers' Guild

Hideworkers use salt to soften hides.

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Innkeepers' Guild

Besides the nobility, clerical orders and chandlers, Innkeepers belong to the salters' most important clients. They obtain large quantities of salt and preserved food to cater for their guests.

Jewellers' Guild

Jewellers engrave dies with guild seals and special marks, that are used to sign saltloaves and product seals and act as trademarks for special products.

Litigants' Guild

As salt is an important trade good, there are regular legal cases dealing with breach of privilegue, forged guild marks and claims on salt springs. Due to the importance of these cases, a litigants' service is reg-

ularly sought and paid well.

Mercantylers' Guild

Salt is an important trade good. Large quantities are annually shipped in caravan trade on the Salt Route and other lythian trade routes. Mercantylers obtain salt from salt mines, salters or other mercantylers, transport it to diverse places and sell it to other mercantylers, and finally to a salter, who will retail the salt after signing it with the sign of the local Salters' Guild.

Metalsmiths' Guild

Salters who operate a saltpan of considerable size, usually use large leaden pans. Due to the aggressiveness of the brine and the heat, these pans pay tribute to corrosion and are in constant need of repair. Smaller repairs will be carried out by the salters themselves, but the construction of new pans and major repairs must be done by metalsmiths.

Millers' and Millwrights' Guild

Millwrights are the constructors of the most of lythian machines. They are familiar with hydroengineering and their competence will be sought if brine must be pumped to the surface, or when canals, sluices and other parts of saltworks shall be constructed.

On mainland Lythia, some miners called *MINING ENGINEERS* have specialised in the construction of mining, conveying and draining machinery. They are an expensive alternative to millwrights.

Some millers also tend beehives and sell wax and honey to salters.

Miners' Guild

The Miners' Guild holds the monopoly to win rock salt by mining. They also work rock salt by leaching: pumping fresh water into the rock salt, and pumping it to the surface, thus winning an artificial brine. Then, they use saltworks or saltpans to evaporate the water and win the salt. As the miners are entitled to use whatever wood they need for free, they have the advantage of lower fuel costs.

Sometimes, the miners cooperate with a master salter, who will operate the saltpan as a bonded master, or even act as a share holder of a salt mine union.

However, since the Salters' Guild holds the monopoly of retaining salt, finally they have their profit guaranteed.

Ostlers' Guild

Ostlers breed horses, mules and donkeys and also operate rental stables. For the animals they regularly need salt, which they obtain from a salter.

Physicians' Society

Physicians need salt for some therapies and have to obtain it from salters.

Potters' Guild

The potters hold the monopoly over the manufacture and sale of ceramics. Besides wooden barrels, salters use large ceramic vessels for fermentation, storage and transport of products like cheese, pickles, and sauces. Small salter's businesses, especially in related locations, may win salt by evaporating seawater or brine in earthen pots.

Timberwrights' Guild

Timberwrights are familiar with the local woods and can find special kinds of wood easily. Thus, aalters may obtain special wood for smoking and, of course, firewood or from a timberwright.

Woodcrafters' Guild

Barrels and tubs are the favoured vessels for transport of preserved food. Additional, salters regularly demand barrels, tubs and diverse wooden tools they need during their work.

Connections to Churches/Clerical Orders

Church of Peoni

Peoni is the goddess most worshipped by lythian salters. Within the peonian cult, the worship of saints is a common practice – and almost all trades have their own patron saint. For the salters, this is *Hanuk*, whose symbol can be found in the Miners' Guild's heraldic sign: the badger.

> "**Hanuk**, *Hermit. Pillar of Salt, Salt, White Field. Born 156 TR in Azeryan. Died 272 TR in Azeryan. Third Tirrale of Cynhaeon. Hanuk was a man of great piety and privacy. The people of the surrounding country respected both aspects of the man. They disturbed him rarely, but he always lent whatever aid he could. Many years passed. Hanuk finally achieved a state of such piety that he transformed into salt, and his soul travelled to Valon. This change was discovered by a cattle driver, whose cattle sought the rich, lifegiving salt. The site became a holy place, and the statue remains there. Salt washes down from it. The priests gather this for local use, but the statue is never diminished. Hanuk is the patron saint of salters*" [HRT: Meadows of Valon].

Hanuk's Saint Day is 10th Agrazhar [HRT: Peonian Saints Days]. Within most guild chapters, this is an important holiday with a mass.

Connections to the Nobility

The nobility forms one of the salters' most important clients. On the one hand, nobles obtain large quantities of preserved food to support their households and armed forces, and to hold constant stocks of pre-

served food within their strongholds. Also, they have the money to pay for the finest specialties prepared by salters. On the other side, noblemen usually receive the main parts of their clients/serfs rents in kind: large quantities of fresh vegetable and meat. They may sell the fresh ware to the salter or just pay him/her for his/her service of preserving the stocks.

Salters' workshops are typically rural businesses and salters play an important role in the rural economy, supplying essential stocks of food by preserving vegetables and fruit.

Some salters try to convince local lords to award them additional privilegues, for instance smoking meat or fish or making cheese. These kind of petitions are of interest for the nobility, as they may improve their income, but they are strongly opposed by the peasantry; and a salter petitioning for such a privilegue will have to face even brute force by his neighbours.

For their horses, the nobility needs salt. This is to compensate for the mares' losses, that increase if the animals are fed with hay or other dried fodder.

Connections to other social groups

Peasants

Peasant primarily need salt for cooking and food conservation. In some regions, herders must provided their livestock with salt, especially in winter, when the animals are fed with hay.

Fishermen

In coastal regions, salters may make good profits with selling preserved fish to mercantylers. To acquire enough fish, they often make contracts with the owners of fishing boats or groups of fishermen owning a boot. The salter equips and supplys a fishing-boat during a season, in return for the right to purchase the entire catch of that boat.

WAGES

Rank	*Day*	*Month*	*Year*
Apprentice		Bread & board	
Journeyman		30-60%	
(bonded) Master	8f	48d	576d

(ug): unguilded workers; runaways are usually paid worse.

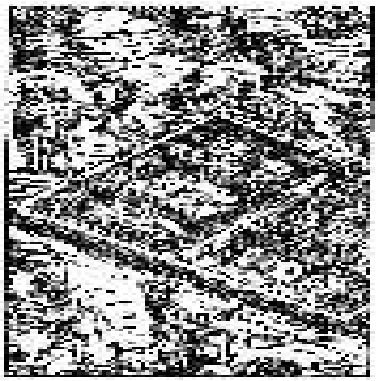


Image 1: Coastal saltworks [Agricola 1557]

CRAFTSMANSHIP AND KNOWLEDGE

Winning of Salt

Salt mines

Rock salt is mined by the Miners' Guild. Sometimes it can directly being ground, formed to saltloaves and get sold, but in most cases, it will be refined by solving it in water to receive a brine, and extracting the purified salt afterwards in a salt pan (see below). This method also allows for using salty sand or rock to win salt by *leaching*: The sand or crushed rock is mixed with fresh water, so the included salt gets solved. Finally, the brine will be reduced in a saltpan.

Saltworks

Seawater contains 3.5% of salt. It can be extracted by evaporation of the water in large, flat basins separated from the sea by low dams. Seawater is led into the saltworks by canals. Sluices are shut and the sun will make the water evaporate and concentrate the salt. In hot and dry regions, the water will evaporate totally, and the salt can be collected, formed to saltloaves and get sold. In temperated regions, the water will get reduced to a brine, which will be further processed in salt pans (see below).

Image 2: Salt well and salt pan. [Agricola 1557]

Salt pans

Saltpans use artificial heat to extract salt from brines. The brine can be won from natural brine springs or wells, by solvation of rock salt or reduced sea water. It is led into large pans, usually made from lead and exposed to the heat of a fire burning below the pan. The art of the craft is to control the heat of the fire, and to regulate the inflow of fresh brine to ensure a continually saturated solu-

Image 3: Operation of a salt pan [Agricola 1557]

tion, thus ensuring the precipation of salt crystals of the wished size, that make up for a good degree of salt quality.

The precipated salt remains on the bottom of the pan. It can be collected and be further processed.

Due to the enormous need of fuel, winning salt in salt pans is very expensive, if firewood must be obtained. Lythian miners are usually entitled to cut all wood they need for free, so they can produce refined salt cheaper. In eastern Lythia, rock gas is sometimes used to fire salt pans, which is the most efficient and cheapest way to refine salt.

Important salt pans, usually located at natural brine springs, will have a huge consumption of fuel and the cutting of firewood will result in large deforested areas. Such areas are often used as pasture for sheep or goats, thus finally becoming heath.

Different Grades of Salt

Salt comes in different qualities, mainly depending on pureness, corn size and colour. There are usually three classes of quality:

Coarse Salt or *Fishery Salt* is produced by slowly simmering the brine over a cool fire. The crystals are large and the degree of remaining moisture after an evaporation time of nearly 14 days is relative high. Coarse or Fishery salt is often produced in simple, coastal saltpans by unskilled workers and is primarily used to salt fish and meat.

Common Salt is formed by medium sized crystals and is made in a fine pan. After the evaporation process, the salt is removed from the pan and loosely placed on a dry place, forming low “walls”, to reduce the remaining moisture. Drying in a stove house is not a requirement. This method is the occasion for calling medium skilled salters, who often produce this quality of salt, *“wallers”*. Common salt is used for all kinds of applications, for cooking, cheese making, pickling, smoking and salting.

Fine Salt and *Lump Salt* is the best quality produced. It is made in a fine pan at high temperatures, up to the boiling point. This enables the skilled salter to produce small crystals. The salt is filled into moulds and the moulded salt gets baked over flues in a Hot House. Fine salt is the preferred quality to trade and use of the better-off.

Packing and Transport

Fine salt is usually pressed into large conic wicker baskets to form a saltloaf. The saltloaf is finally signed with the master salters' signet and dried under open sky or within special drying houses. The finished saltloaves are sold to the consumer or to a mercantyler. Fine salt is the preferred quality for long distance trade.

Common Salt is often filled into sacks with are sealed with the master salters' seal when offered for retail, but sometimes it is also available in form of saltloaves.

Coarse or Fishery Salt is packed into sacks or wooden tuns which will be sealed with a salter's sign to be retailed. It never takes the form of saltloaves. Coarse salt is often produced for the local consumption, mainly by the salter himself for salting fish.

PRODUCTS

The following table lists typical fees and prices:

Service/Product	*Price*
salt, unrefined rock ~	
salt, refined rock ~	
salt, sea ~	
salt, coarse/fishery ~	
salt, common ~	1 f/lb
salt, fine/lump ~	
pickeled beans	
pickeled cabbage (sauerkraut)	
pickeled cucumbers (gherkins)	
salted fish (herring)	
salted meat	
smoked bacon	
smoked bacon fat	

Preservation Methods

Salting (fish, meat, butter, vegetables)

Fish, meat, butter and vegetables can be preserved by *salting*: The preservative effect of salting is based on the dehydrating effect of salt, which disturbs the physiology of cells and thus the growth of microorganisms within the food. Two methods of salting are commonly practised:

Dry salting – The fresh food cut and rubbed or mixed up with salt. Examples are salted butter and salted meat. One of the most important products of the coastal fishing industry is salted herring, usually traded in large tuns.

[Illustration]

Wet salting – The fresh items are cut into pieces and put into an brine containing 15-20 per cent cooking salt. Examples are meat, game and various vegetables.

Salter salting a ton of herring

Pickling

The principle of pickling food is to impregnate the fresh food with an acidic liquid. The acid then prevents the food from spoilage by bacteria and fungi. There are two basic methods of pickling:

First, by using a pickling solution: The fresh or previously cooked food is cut into small pieces and lain into a cask with a pickling solution, which based on strong wine vinegar in spices. Thus, the food becomes impregnated with the acid. The spices are used to flavour the pickled food, but might unfold additional antibacterial and/or antimycotic effects. The first method is used for fish, fruit and various vegetables (eg. cucumbers).

Second, to apply lactic acid fermentation: The fresh or cooked food is cut up to relative small pieces. Then ist is stacked within a clear wooden cask in several layers, which are slightly salted and get stamped afterwards. When the cask is filled, a linen cloth is laid atop and the cask is closed with an weighted wooden lid. Sometimes, it is advantageous to add a small portion of curd or yoghurt as a "starter". Now, natural lactobacteria start growing and producing lactic acid. The fermentation is indicated by the production of carbon dioxide, which makes a part of brine seeping out at the top of the barrel. That scum and must be removed regularly, while the fermentation is still in progress. The produced lactic acid prevents harmful microorganisms from spoiling the pickled food and finally even stops the lactobacteria from further grow. This second method is often used for milk (yoghurt, koumiss, kefir) and vegetables like cabbage (sauerkraut) or beans.

Pickled food is usually stored in the closed wooden or earthen pickling vessel. Pickling vessels usually have a impermeable inner surface (e.g. glazed earthware or waxed wooden casks) and a rim over which a seal can be tied. For storage, the vessel is sealed with a greased hide or a layer of oil and stored at a cold place. Pickling will preserve food for about half a year.

Drying/Parching

Spoilage largely depends on the presence of moisture. Thus, by removing as much water as possible, spoilage can be avoided. To achieve this reduction, the goods can be air-dried or parched.

Air-drying is achieved be cutting the goods into thin stripes and exposing it to the wind and – if possible – the heat of the sun. This is often done with *drying racks*, that are sometimes roofed to protect the goods from precipation. The drying effect depends on a low atmospheric humidity rather than on high temperatures: Even within arctic regions – e.g. with frozen fish – air-drying works (by vaporization), while in tropic climate (with average humidity around 100%) it will fail.

Parching used artificial heat to enhance to drying process. The goods are placed into racks and exposed to the hot air of a fire. Parching allows for lower remaining moisture contents and fastens the drying process. It is also possible in regions with hight atmospheric humidity.

By drying or parching, the preserved food is reduced to 2-20% of its former mass. The method can be applied to fish, meat (air-dried ham, air-dried sausages/salami), vegetables (beans, lentils), fruit (grapes/raisins, plums/prunes, apples, different kinds of berries), herbs and spices.

Smoking

Foodstuff like fish, meat and cheese can be preserved by *smoking*. This means its exposure to the smoke of smouldering wood (mostly of deciduous trees). Before the foodstuff is smoked, it must be *cured*, that means prepared by salting to dry the foodstuff from its surface. The cure may also make use of pickling solutions containing salt, wine, beer, herbs and spices to enhance the taste of the foodstuff. After the smoking, the foodstuff must be dried. Two basic methods of smoking are practised:

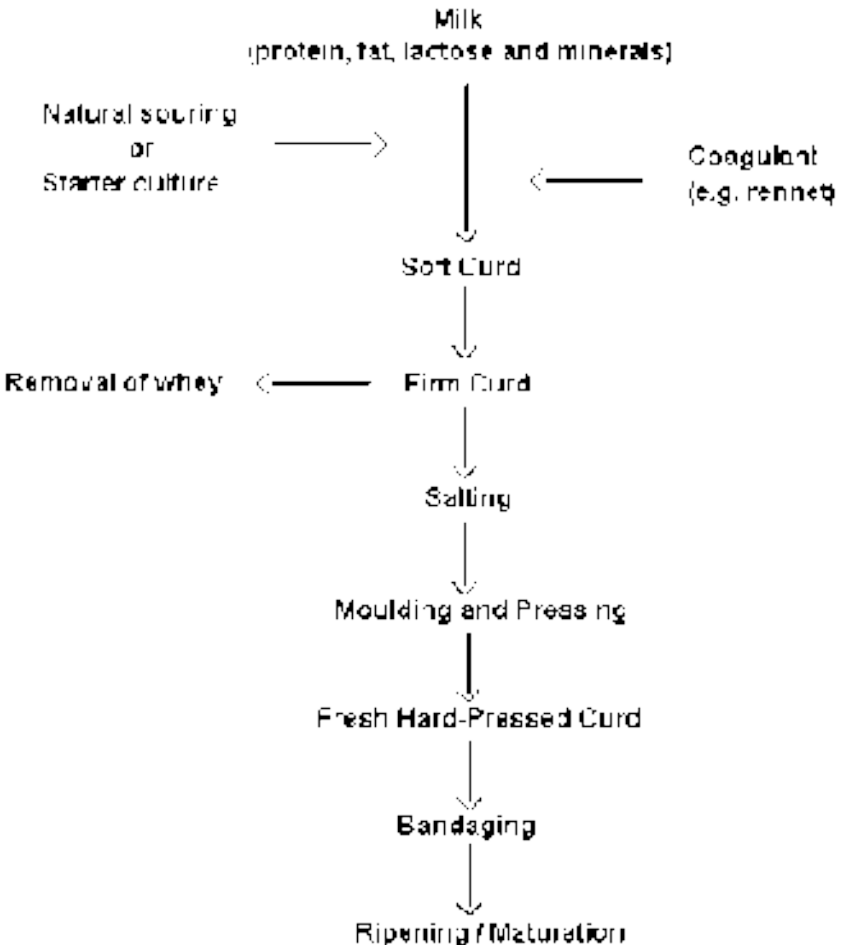
Cold smoking/smoke drying: This is the most used method. After curing, the foodstuff is hanged into the chimney or smoke hole above a fireplace or within a smoking chamber for up to 40 days. The low temperature of about 18°C allows for the development of a fine and delicate flavour. A constant stream of smoke prevents the foodstuff from pests like insects. One knows that the food is smoke-dried enough when insects don't try to land on it (the smoke tars repel them), and when it has lost a certain amount of water weight (generally about half, in the case of meats). Typical smoke-dried products are gammon, sausages, bacon, and smoked cheese.

Hot smoking:: This process is done in a dedicated smoking chamber or *smoke house*. The foodstuff is hanged on a rack close above a fire of smouldering wet wood and the chamber is closed. This ensures a high temperature of up to 80°C, to which the foodstuff is exposed for only a few hours. At such a high temperature, proteines are denaturated, similar to cooking. The loss of weight is insignificant. This method is used to smoke e.g. pork loins and fish, like eels.

Smoking largely depends on the antibiotic properties of chemical substances contained in the smoke of wood. Besides its preserving effects, the smoke enhances the flavour of the smoked food.

Cheese-making

Milk is a valuable and nourishing product and dairy husbandry is also available in regions unsuitable for agriculture. Though, milk has also has also the major disadvantage of getting rapidly spoiled. The favourite method to preserve milk is cheese-making. Cheese is more durable and can be stored and transported more easily.



Fresh Milk

The quality of the produced cheese mainly depends on the kind of milk used. Milk is produced by several kinds of livestock. Each kind of milk has a characteristic content of nutritial components (see Table 1).

Animal	Fat	Protein	Milk Sugar	Minerals
Cow	3.8	3.0	4.8	0.75
Goat	6.0	3.3	4.6	0.84
Sheep	9.0	4.6	4.7	1.00
Buffalo	6.0	3.8	4.5	0.75

Table 1: Nutritional contents of different kinds of milk

To gain a special quality, the milk of a single species can be used, or the milk of different species is blended. A higher amount of total solids will increase the cheese yield.

The characteristic of a cheese is influenced by the milk's principal components: *Fat* make the cheese a premium supplier if energy. It helps to produce aroma, flavour. The fat content dominates the cheese's body; skimmed mild will produce a hard bodied cheese with a hard texture, a high fat content will usually produce a soft cheese.

Milk contains two kinds of proteins. The soluable fraction, called whey proteins, passes out with the whey and is usually lost. These proteins form the "skin" atop of heated milk. The other fraction, called casein, forms a dense mesh. If the milk acidifies, they form a fragile curd. To make a stable curd (and cheese), the casein needs to be stabilized by coagulating enzymes.

These *enzymes* may be contained in the milk itself, or be formed by the indigenous bacteria. Often, enzymes or enzyme producing bacteria are added as a "starter" to start and control the ripening process. By changing the proteines and fat, they .produce the cheese's characteristic aromas and flavours.

Lactose is the milk's main sugar. About 10% of it is usually consumed by the fermenting bacteria and is transformed into lactid acid. The rest is drawn off with the why.

Cheese also contains *vitamins* (mainly fat associated ones, like B complex vitamins, or vitamin C). Solutable vitamins (like A, D, E, K) are mostly washed out with the whey. *Ashes* are formed by metallic and non-metallic components. Calcium is crucial for the milk's coagulation and makes cheese a valuable nourishment component.

Fermentation/Coagulation

The change from milk to cheese is due to fermentation. Bacteria are responsible for this process. All milk sourced from a living animal has a blend of different bacteria stems in it. Some of them metabolize the lactose and form lactic acid, others support the digestion of the milk protein. These kinds of bacteria are beneficial to the cheeser and his clients. Other sorts of bacteria also feed on the milk's ingredients, but may harm human who consume the dairy products or the milk contaminated by them. Either, their catabolic products, or themselves cause mild to very serious nausea, diarrhoea, or even an infection. Among the most serious illnesses that can be spread through milk and its products, are tuberculosis, brucellosis and undulant fever. Happily, there are ways to prevent the milk from spoilage by these malicious organisms: Either by heating, but usually by the acid producing bacteria, whose growth usually efficiently suppresses the dangerous bacteria. Actually, fermented milk products are among the safest "natural" food products available.

The preferred way to ensure a safe fermentation, is to use a *starter culture*. Salters usually hold over a portion of soured milk or whey in a small jug or churn and use it when making the next cheese on the following day. While this generally works quite well, the natural variance of the starter is also the main reason for the large variance of taste and quality of the cheese: It requires a lot of experience and scrupulous cleanliness to ensure a constant product quality. Since cheese-making is carried out only in the summer months, when sufficient quantities of milk are available, at the end of the season and somehow some of the starter must be kept throughout the winter for next year's season. This is done by filling up a clean bottle with the starter, corking it securely and burying it in the earth. At springtime, the flask is digged up, and after a few sub-cultures that re-balance the mix of bacteria, the starter can be used again for cheesemaking.

One more kind of microorganisms play an important role in cheesemaking: *Moulds,* which have a mayor impact on the consistency and taste of the cheese. While white mould usually works from the cheese's outside in, helping to hydrolyse the protein, blue moulds, helping in breaking down the curd, can also work from inside, when they are added to the starter. Another method to support the growth of blue mould is to pierce the cheese with a skewer: First, the remaining channels enhance air circulation, allowing the mould to grow faster, second, while piercing, the mould gets spread spread throughout the cheese in order to enhance its beneficial work of protein and fat hydrolysis.

Coagulants/Rennet The need to coagulate milk can be achieved by the selective use of certain plants (ladies' bedstraw, butterworts, artichokes, teasel, spearwort and thistles) or by extracting the enzyme rennet (chymosin and pepsin) from the fourth stomach of the milk-fed calf. Rennet is very strong in action (1 part of commercial rennet can coagulate 5000 parts of milk). The coagulants stabilize the mesh of acidified casein and results in changing the milk to grains of a soft, but stable *curd*. The curd is then being cut – or *milled* – into small cubes to enable the whey to flow off – the smaller the grains of curd are, the lower the final moisture content and harder the cheese. The soft curd is pressed into a basket of woven grass or a sheet of texile to squeeze out the free whey. The result is a stable and firm curd.

Rennet

For the winning of rennet, the cheesemaker selects and slaughters a milk-fed calf, removes and washes the fourth stomach carefully. He then hangs this out to air-dry in which case it is called a 'vell'.

Dried pieces of vells can be added directly to the milk, or vell extracts in salt solution are used: Sliced vells are soaked in salty water and filtration is used used for the purification of the final rennet solution.

Salting

To stop the fermentation process (eg. acid production), to increase the taste, and to prevent the cheese from spoiling, it must be salted. Four main methods are used depending on the type of cheese that is being made.

1. *Hard-pressed* or *textured cheese* (Cheddar, Cheshire) undergoes pressing for a period from 18 hours up to 2-3 days after being put into the cheese moulds. Salt is added after the curd blocks have been milled within the vat. The amount of salt varies with the type of cheese made, but is usually around 1.5 – 3% (w/w). Salting provokes a further small rush of whey and controls further acid development.
2. *Brine-salted cheese* (Edam, Emmental) are usually hard- and semi-hard pressed cheese, which are salted for a much shorter time. The cheese are removed from their mould and tumbled straight into a huge shallow vat containing a bath of salt solution strong enough to float the cheese (16-22% salt content). The cheese start absorbing salt, and after a period they are moved into another vat with an even stronger salt solution. After another time of absorbation, the cheese are removed from the brine bath, and allowed to dry out.
3. *Soft cheese salting.* Soft cheese types, which tend to be small, can be rubbed with salt on the outer surface once or twice. The salt migrates across the cheese in about 24 hours. This method of salting assists in the formation of rind on the cheese.
4. *Blue-veined cheese salting:* Salt is usually applied on the curd before moulding, sometimes on the curd while in its mould or indeed after the cheese has been removed from the cheese mould.

Moulding and Pressing

The salted curd will now be pressed into the shape in which it can be matured before finally being sold. The process is referred to as *moulding*. Such containers are referred to as moulds or *chissets*. The chissets are made of ironbound oak wood and come in various sizes, depending on the size of the cheese – such made for the export might weight up to 60 or 80 lb, smaller ones, as such made on cottages, only some 3-5 lb.

In a first stage, the mould is lined with a coarse cheesecloth called *scrim* that helps to drain the initial flow of whey. The salted curd is then filled into the chisset, the final few handfuls being placed centrally to pack the chisset completely. Now, the ends of the scrim are folded over neatly and the so-called *follower*, a wooden lid, is placed on top. Being of slightly less diameter than the chisset, it sinks down into it slightly and allows for applying pressure on the curd within the next step.

To consolidate the curd into a firm mass, it is essential to apply pressure progressively so that the whey can be uniformly expressed and becomes not locked into the curd permanently. This is often done with a stone that exerts just the right amount of pressure with respect to the size of the chisset, the mass and the moisture of the curd. Salters prefer a cheese press, a stone with a screwed shaft sunk through it on a wooden frame. The press allows the dead weight of the stone to be pro-

Disctionary

Whey – Molke, Käsewasser

curds – dicke Milch, Quark

yoghurt –

kefir –

koumiss (up to 3% of alcoholic content) –

rennet – Lab

dairy – Molkerei, Käserei

husbandry – Ackerbau, Landwirtschaft, Haushalten

dairy husbandry –

hard-pressed cheese – Hartkäse

brine-salted –

waxed –

soft cheese – Weichkäse

full cream milk – Vollmich

skimmed milk – Magermilch (→ cheese is storeable, travels well)

double cream –

skim off the cream – abrahmen, abschöpfen

buttermilk – Buttermilch

curdling of milk – gerinnen lassen

starter cultures –

lactic acid –

cheese vat – Käsebottich

slab of curd – Bruchplatte, Bruchscheibe

milling the slabs – fräsen, rund abziehen

gressively applied, thus improving the overall drainage and firming up of the curd. The appropriate amount of pressure is important to control the final moisture of the cheese. Since during maturing and storage the cheese will lose up to 3-6% of its weight, that amount of surplus-moisture must remain within the curd.

The following day the cheese in their chissets are removed from the press and taken over to the *scalding bench*. Here the chissets are inverted, and their rims are tapped against with a wooden maul, such that the cheese and cloth slide out freely onto the *knock-out stool*. Now, the cheese are reversed, and very hot water is poured over them. This is the first stage in forming the rind by hardening of the protein on the cheese's surface. Afterwards, the cheese are returned to the moulds within their scrims and re-pressed for some two hours to cool and firm up.

For a last pressing, the cheese are knocked out again, reversed and covered with a fine cloth. Then cheese and cloth are put back into the chissets and returned to the press for a second night. The following morning, the fine cloth is removed and the cheese, though still "tender" and requiring some final support, are ready for sealing, maturing or storage.

Sealing and Bandaging

As an optional step, *Sealing* the cheese will increase its durability and transportability. In first, the surface of the cheese is coated with a form of grease. This method known as *"larding the cheese"* provides a fixative and closes up any surface deficiencies. Alternatively, beeswax can be used to seal the surface of the cheese.

After larding or waxing, the cheese is secured with a roller bandage wound round from bottom to top. Stitched in position it is stamped for identification, and placed carefully on the cheese shelf. A drying-out period of one or two days ensues.

Maturing

Fresh cheese is basically a rubbery and elastic mass of curd, without flavour or aroma. The milled particles still retain their identity in spite of the pressing over the previous two days. There may still be some mechanical opennesses and free moisture, so for the first few days the cheese needs careful handling. Eventually the curd becomes more solid, and a firm bodied structure ready for the changes that will turn it into the type of cheese aimed at by the maker. The actual ripening process is brought about through the agency of enzyme systems produced by bacteria (and mould) which have grown or are growing in the curd.

Cheese made from raw milk will always have a subtler and richer flavour at the end of its ripening period as the raw milk bacteria and their enzymes are carried forward into the final making process. Heating the milk can destroy the indigenous bacteria and also the lipolytic enzymes that both contribute to flavour and aroma.

Storage and Transport

The appropriate storage conditions depend on the kind of the cheese. Generally, low temperatures and a moderate humidity is useful to prevent the cheese from spoilage and drying out. Especially large cheese must be carefully treated: they have to be regularly turned, hard cheese must sometimes get washed with brine.

...

Candying (fruit, spices)

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Skill Specialities

If the specialisation rule is in use; you can use the following specialities for the skills "Cookery": Smoking, Pickling, Salting, Cheese-Making.

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