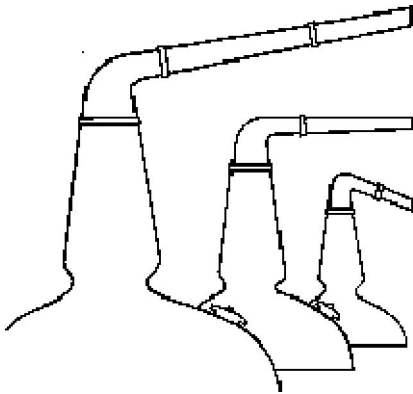


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## A Glossary of Whisky terms

### Whisky

The name is an English corruption of the ancient name for spirits "water of life" - which in Scottish and Irish Gaelic is "uisge beatha" or "usquebaugh" and sounded to the English ear like "uishgi" and hence "whisky". "Alcohol" incidentally is an Arabic word.

### Scotch

means simply that the whisky was distilled and matured in Scotland. Whiskies are made in other countries, notably Ireland and Japan but whiskies they may be, and good ones even, but Scotch they are not. Scotch comes from Scotland.

### Malt Whisky

This indicates that the raw material is barley malt, by itself fermented with yeast and distilled in a pot still. This produced a far superior whisky to the common grain whisky found in blends. Note however that just occasionally quality single grain whiskies can be found.

### Malt

Malt is essentially barley which has been allowed to germinate by soaking in water then has been dried by the application of heat. The malting process converts the stored starch into soluble compounds such as the sugar maltose and by so doing makes fermentation possible. Drying the malt over a furnace stops the germinating process and lacing the furnace with peat imparts a peaty aroma to the malt.

### Grain Whisky

Indicates by contrast that the raw material is unmalted barley, wheat or maize produced as a continuous process in a column still. There are eight grain distilleries in Scotland (an older source lists 15 note)

## **Single Malt**

This indicates that the whisky was made in only one distillery and has not been blended with any other product from elsewhere. It may however contain whisky from several production batches over a period of up to a couple of years. There are rather fewer than 100 working malt whisky distilleries in Scotland with the dominant concentration in the Spey valley in north-east Scotland around Elgin. A smaller group of particularly characterful malt distilleries exists on the western island of Islay and there used to be a third group centred round Campbeltown. About 120 single malts can be identified including the bottled product of now-defunct distilleries.

## **Vatted Malt**

Such a malt is a blend of single malts. This produces a product which is more consistent and can be "tuned" to bring out a particular character. Such whiskies may be less demanding and can form a convenient introduction to the rich and varied world of true single malts. Lovers of malts will argue that it is precisely this inconsistency that gives malt whiskies their charm.

## **Blended Scotch**

Such a whisky contains a variable proportion of blended malt and grain whiskies, commonly about 40% malt:60% grain. A good quality blend may contain more than 40% malt, a cheap one much less. Many malts may be incorporated in the blend to provide bulk then fine elements of the final taste ("top dressing").

## **Age Statement**

This gives the age of the youngest component of the whisky. Note that maturation stops at bottling so both the year and the age may be significant. A 12-year-old whisky bottled 4 years ago is still a 12-year-old, not a 16-year-old though different years may occasionally be quoted.

## **Proof**

Originally meaning "of tried strength or quality", this acquired new meaning with the invention of the hydrometer - a floating instrument used to determine the specific gravity of a fluid - in this case an alcohol/water mixture. The definitions were progressively firmed up via published tables but for purposes of argument, British "proof spirit" contains 57.1% alcohol by volume or 49.28% alcohol by weight at 51 deg F. American proof spirit by contrast contains 50% alcohol by volume at 60 deg F. 100 deg proof British spirit therefore corresponds to 114.2 def proof in the USA, similarly American 100 deg proof spirit is 87.7 deg proof British. On this scale incidentally pure alcohol rates 175 deg proof (British).

## **Cask Strength**

Newly distilled malt whisky is generally 115-120 deg proof as it comes off the still. It is generally watered down and bottled at 70 deg proof for the domestic British market. It has long been noted however that whisky bottled at full strength and diluted in the glass tastes superior to the same whisky diluted at bottling. This has never been adequately explained but has in recent years led to the availability of "cask strength" malt whiskies bottled at typically 100-110 deg proof (57-63% alcohol by volume). These may be drunk cautiously at their full strength but more commonly diluted with a small splash of water.

## Scotch on the rocks

Prejudice alert on!... Malt whisky is drunk either as neat spirit or with a small quantity of water to taste. It should \*never\* be drunk with soda or other mixers, neither should it be necessary to drink it "on the rocks". The traditional cut glass whisky glass (tumbler-shaped) is not necessarily the best glass to savour malt whisky and in "serious" whisky drinking circles [anosing glass](#) more like a small narrow brandy snifter is sometimes employed. (prejudice alert off) failing which, it is a spirit which is made to be enjoyed and if you enjoy it mixed with Pernod and Angustura bitters who am I to judge?! Slainte.

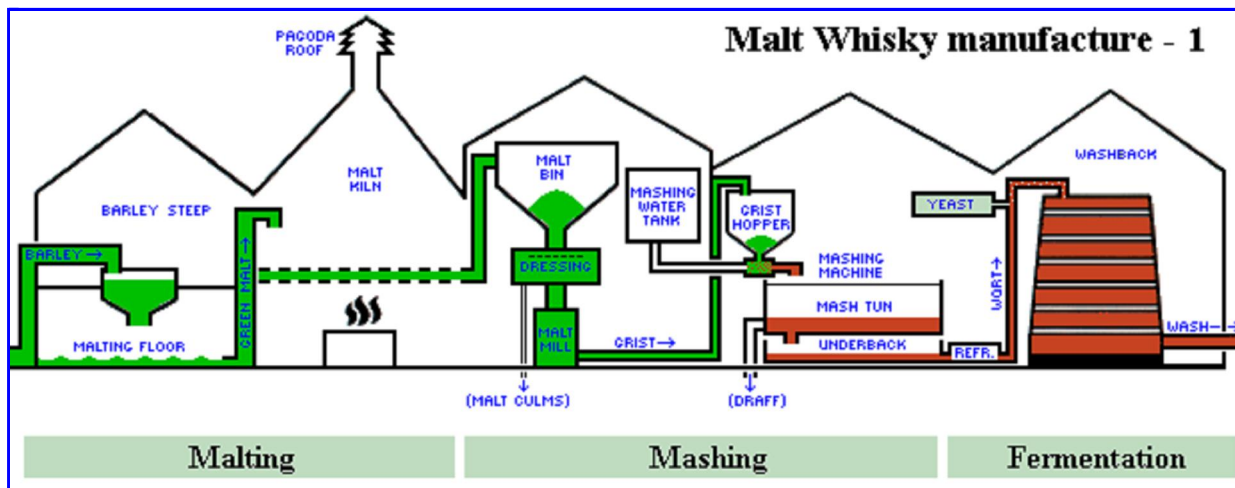
## History

Historians agree that whisky production, albeit on a small scale actually began in Ireland somewhere around or before the twelfth century and was brought across to Scotland somewhat later. The first recorded instance of a grain spirit in Ireland dates back to 1172 and it is not till 1494 that a firm record exists of the same spirit in Scotland.

It is worth noting that until about the 1950s all malt distilleries would carry out the entire process on the site - malting, fermenting and distilling. Now only a few distilleries have their own maltings.

## Malt Whisky manufacture

*Click on the legends in the diagrams to learn more ..*



## The whisky year

Many distilleries began their lives on farms. The distilling season began after the harvest and continued until late April. Until modern times this cycle was followed by all distilleries and even now there is a 'silent season', usually in August when many distilleries are closed.

## The malting process

As has been stated above, the process of malting converts the plain barley grain into malted barley and by so doing greatly changes its chemical makeup. The barley is first soaked for between 48 and 72 hours in tanks or 'steeps' and allowed to germinate. Germination releases heat which has to

be controlled in order to keep the temperature around 60 deg F/16 deg C and avoid the barley killing itself from its own generated heat. Traditionally the malting barley was drained and spread out over a large floor then turned regularly by hand with rakes or shovels. This was repetitious and arduous work, leading sometimes to a repetitive-strain injury called "monkey shoulder".

More recent maltings designs employed either mechanical rakes ([Saladin box](#)) or large revolving drums to achieve the same effect.

## The Malt Kiln

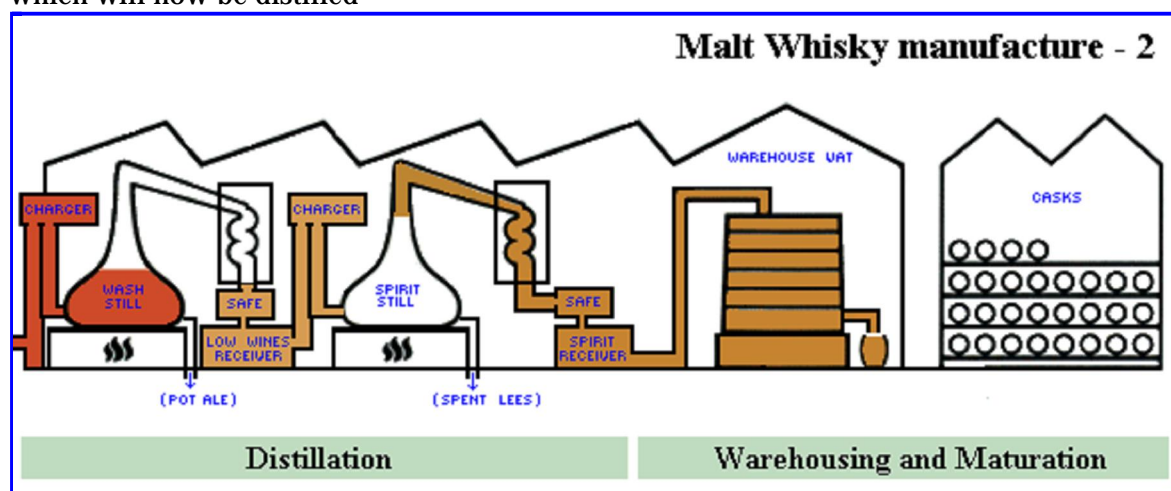
The fully germinated malt is next transferred to the kiln for drying on a mesh over a fire containing a certain amount of peat, thus contributing to the peaty taste evident in many malt whiskies. Traditional malt kilns draw the hot air from the peat furnace through the malt by way of a chimney effect generated by the characteristic steep roofs and pagoda heads of many Scottish distilleries. The pagoda roof was introduced around the 1890s as it offered an improved air draught, fanning the peat furnace to core temperatures which can reach between 800 and 1200 deg C. In most cases, where most distilleries buy in their malt they have mostly lost their function other than a piece of visual identity. The malt is dried and roasted in the peat reek at 60 deg C for two days and is then ready for the next stage

## Dressing

The malt contains much detritus or 'combings', principally rootlets. These are removed and used as cattle food. The malt is then coarsely ground and becomes known as 'malt grist'.

## Mashing and brewing

The malt grist is fed into the 'mash tun' where it is combined with a carefully measured quantity of hot water. This completes the conversion of dextrin into maltose and produces a fermentable solution of the malt sugars called 'wort' or 'worts'. Again, after several washings to draw out the malt, the solid residue or 'draff' is removed and sold as cattle food. The worts are held in a receiver called an 'underback'. This must be cooled to prevent unwanted decomposition of the maltose and to allow yeast to be introduced. The cooled worts are injected with yeast and the fermented in a further tank or tanks called 'washbacks'. Thirty-six hours or thereabouts of sometimes violent fermentation produces a weakly alcoholic (10 degrees or thereabouts) clear liquid called 'wash', which will now be distilled



## Distillation

Distillation takes place in pear-shaped copper vessels called 'pot stills'. and at least two are required of different types.

The wash is first distilled in the 'wash still' to produce an impure intermediate product called 'low wines'. This is then fed via the spirit safe into the low wines charger ready for the next stage of distillation. The spirit safe is a heavy glass-fronted and padlocked box in which the emerging distillate may be inspected and directed onwards or back for redistillation as appropriate. When ready, the low wines are discharged into the low wines still and the process repeated. The final product - raw, unmaturing whisky passes via the spirit safe to spirit receiver and spirit store, ready for filling into barrels. Early and late distillation fractions ('foreshots' and 'feints') contain impurities so are recycled back for re-distillation with the low wines. The 'safes' used for spirit storage are exactly that. The moment the intermediate product contains alcohol it comes under the control of the Excisemen and the safes are a necessary means of ensuring that the spirits stay where they are supposed to be and are accurately accounted-for.

## Stills

The horizontal pipe from the top of the still to the worm is called the Lyne Arm (I've also seen 'lye pipe'). There is a fair variation in the design of these and distilleries will vigorously defend the design of each as contributing something unique to the final product.

Further refinements include a bulge at the base of the column (the "Milton Ball") and in particular the [Lomond still](#) which has a refluxing coil in the head which enables the still to be 'tuned' to produce a lighter or heavier spirit. Lomond stills have enabled several distilleries to market two distinct malts. A few stills have water cooling of the neck. Each still has a large hatch on the top of the base of the still, the 'man door' for inspection and cleaning. Further up the neck can be seen a small glass porthole which allows inspection of the contents of the still to ensure it does not rise too far up the neck and boil over. Before the advent of the porthole a wooden ball was swung against the neck of the still and the resulting 'ding' used to determine the state within.

## Casks

Casks are critical to the taste and appearance of the final whisky. The need is for casks which will impart a characteristic taste to the whisky without dominating it or imparting a 'woody' flavour. Principally two types of cask are used - Oloroso sherry casks and American oak Bourbon casks. Some distilleries use intact barrels, others remake barrels from selected staves from more than one source. The barrel may be charred before use, a process which apparently assists the release of vanillin from the wood. No two casks are the same - one may produce a fine whisky and may be refilled and used again whereas its neighbour may taste woody after one filling.

## Maturation

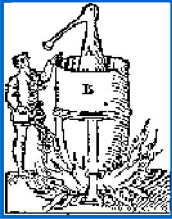
The whisky is left a minimum of three years but usually between 8 and 25 years in wooden barrels to mature. The bonded warehouses are cool and earth-floored to provide an even temperature and humidity. The barrels lose about 2% alcohol per annum - the so-called 'angel's share'. It is worth noting the investment tied up in each one of these modest low stone warehouses - each full-size cask can contain up to 110 gallons - easily £15-20,000 of spirit once it reaches the shops.

## Marrying

Occasionally bottlings are produced from one single cask - the so-called 'single single' malts. More normally, several casks of similar ages from the one distillery will be 'married' by vatting them together then maturing them further for a few months.

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## An early still



*Click on the image to enlarge it*

The woodcut of the still above has appeared in a variety of sources. Stills of this vintage varied widely in the quality of their construction but an important ingredient tended to be the ease with which they could be carried or hidden. For this reason, Excise rules later stipulated a minimum allowable size of still, specifically one that was too big to move around.

I'm not going to claim a definitive guide to the drawing till I've checked but "B" will contain the lower half of the pot. Why it is shaped that way I'd have to guess - it could be there's an outer flame guard or perhaps it is easier to make that way (remember the still will need to be opened to clean and refill). The neck of the still is visible at "A" and the vapour will rise and go down the lyne arm. What I don't see is a condensing "worm" which would be a coil of several turns of copper pipe in a barrel of water attached to the end of the open pipe in the drawing.

The various bits of copperwork were highly prized and a disaster if seized by the Excisemen. - [jhb](#)

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