The Crianza (ageing)
The key factors of Sherry ageing

- Use of oak casks (“botas”), heavily wine-seasoned.
- Dynamic method of “criaderas y solera”.
- Different ageing periods for each style.

- American oak casks
- 600 litres (36@) capacity
- Usually only filled up to 500 litres (30@)
Bota. The Sherry barrel

- Usually made of American oak.
**Bota. The Sherry barrel (2)**

- Usually made of American oak.
- Great importance of a proper wine seasoning.
Bota. The Sherry barrel (3)

- Usually made of American oak.
- Great importance of a proper wine-seasoning.
- Painted black matt, so that leakage can be easily detected.
**Bota. The Sherry barrel (4)**

- Usually made of American oak.
- Great importance of a proper wine–seasoning.
- Painted black matt, so that leakage can be easily detected.
- Limitless lifetime, as broken “duelas” (staves) are periodically replaced.
Bota. The Sherry barrel (5)

- Usually made of American oak.
- Great importance of a proper wine –seasoning.
- Painted black matt, so that leakage can be easily detected.
- Limitless lifetime, as broken “duelas” (staves) are periodically replaced.
- Exchange of elements through the layers of the cellulose (osmosis).
The selective transpiration of a *bota*

Annual ullage (evaporation) of 3 to 4% of total volume, mainly water, and concentration of the other components.
The organoleptic power of Sherry concentration of the sensible components of the wine, caused by the evaporation of water
Biological ageing vs. oxidative maturation

<table>
<thead>
<tr>
<th></th>
<th>Biological</th>
<th>Oxidative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td>↑</td>
</tr>
<tr>
<td>Volatile Acidity</td>
<td>♦</td>
<td>↑</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Glicerol</td>
<td></td>
<td>↑</td>
</tr>
<tr>
<td>Fenols</td>
<td></td>
<td>↑</td>
</tr>
<tr>
<td>Colour</td>
<td>-</td>
<td>↑</td>
</tr>
<tr>
<td>Residual sugars</td>
<td>♦</td>
<td>↑</td>
</tr>
</tbody>
</table>
Criaderas y solera ageing system

- A “dynamic” method of ageing wines.
- Based on fractional blendings of different vintages.
- Separate ageing systems for each style of Sherry.
- Guarantees a consistent quality and personality for the wines, year after year.
How does the system work?
Intermediate sacas...
... and the *rocío* of the next scale
... and the *rocío* of the next scale
How old is this wine?

What are the factors that determine the average age of the wine extracted from the solera?

1. number of scales
2. percentage of saca
3. Frequency of sacas

The combination of these three factors (different for each wine) determines the rotation (R) of the total stock of wine in the system and consequently, the average age of the wine released:

\[
R = \frac{\text{Total stock in the system}}{\text{Volume of sacas in a year}}
\]
Complex blends in a solera system

**Example:** composition of the different scales (in terms of wines from different vintages) in a solera system made of four scales and founded 20 years ago, in which we do four “sacas” per year of 25% the content of the solera. In 2017 we do the “rocío” of the 3rd criadera (youngest scale) with wine from vintage 2015.

<table>
<thead>
<tr>
<th>Añada</th>
<th>Solera</th>
<th>1ª Criadera</th>
<th>2ª Criadera</th>
<th>3ª Criadera</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0,39%</td>
<td>5,08%</td>
<td>26,17%</td>
<td>68,36%</td>
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<tr>
<td>2013</td>
<td>10,99%</td>
<td>27,07%</td>
<td>37,12%</td>
<td>21,63%</td>
</tr>
<tr>
<td>2012</td>
<td>23,74%</td>
<td>28,79%</td>
<td>20,87%</td>
<td>6,84%</td>
</tr>
<tr>
<td>2011</td>
<td>24,38%</td>
<td>19,36%</td>
<td>9,49%</td>
<td>2,16%</td>
</tr>
<tr>
<td>2010</td>
<td>17,98%</td>
<td>10,58%</td>
<td>3,92%</td>
<td>0,69%</td>
</tr>
<tr>
<td>2009</td>
<td>11,01%</td>
<td>5,15%</td>
<td>1,53%</td>
<td>0,22%</td>
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<tr>
<td>2008</td>
<td>1,41%</td>
<td>0,41%</td>
<td>0,08%</td>
<td>0,01%</td>
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<tr>
<td>2007</td>
<td>0,63%</td>
<td>0,16%</td>
<td>0,01%</td>
<td>0,00%</td>
</tr>
<tr>
<td>2006</td>
<td>0,28%</td>
<td>0,06%</td>
<td>0,01%</td>
<td>0,00%</td>
</tr>
<tr>
<td>2005</td>
<td>0,12%</td>
<td>0,02%</td>
<td>0,00%</td>
<td>0,00%</td>
</tr>
<tr>
<td>2004</td>
<td>0,05%</td>
<td>0,01%</td>
<td>0,00%</td>
<td>0,00%</td>
</tr>
<tr>
<td>2003</td>
<td>0,02%</td>
<td>0,00%</td>
<td>0,00%</td>
<td>0,00%</td>
</tr>
</tbody>
</table>

Weighted average at the beginning of 2017: 4,58 years
Running the scales. The solera at work

Traditional methods vs. modern technics.

The basics remain the same
The “cathedral-like” *bodegas* of Jerez

- Different styles and dimensions.
- Common elements: high ceilings, windows to capture poniente winds, albero floors...
- Stable microclimatic conditions.
Vinos Generosos de Licor

- Wine blends ("Cabeceos"), mainly for the sweetening of dry wines.
- Use of natural sweet wines or concentrated grape must.

Eventual ageing of the blend.
Concentrated grape must

- Obtained from fresh grapes (origin is not relevant), through a process of:
  1. Filtration.
  2. Rectification → through decolouring resins and ionic interchange.

- Transparent, odourless, very sweet liquid:
  
  **water + glucose + fructose**
Final preparation & bottling

Saca

Clarification and filtering

Cold stabilisation

Final filtering

Bottling

“en rama” wine

Wines not subjected to clarification nor stabilisation technics (only filtration).
Base wine – it all starts with a white wine with something unique, the Flor.

Fortification level determines biological or oxidative ageing.

Ageing in special containers (botas) and special buildings (bodegas).

The solera: a never-ending ageing system.

If you want to learn more... read this:

- “Sherry”, by Julian Jeff
- “Sherry uncovered” by Beltrán Domecq
- “The Big Book of Sherry Wines” (varios autores).  

If you want to learn more... read this: