Fine Water: A Blind Taste Test
by Kevin Capehart & Elena Berg
Results of blind taste test w/bottled waters and tap water

Subjects: Trained students at The American University of Paris
Judgment of Paris
WATER SOMMELIERS
ACQUA PANNA
The Acqua Panna source is nestled among beech wood and chestnut forests on the slopes of Mount Gazzaro, 3,700 feet high in the pristine Apennines Mountains of Tuscany. This serene, vast, unspoiled natural reserve, brings forth a luminous water with neither the slightest effervescence nor odor. The first sip has a pleasant, fresh taste due to the low acid and low mineral salt content. Not without structure, it imparts a taste that is as light as feather, pleasantly soft and velvety.

Type: Still
Content: Sodium 7 mg
          Magnesium 7 mg
          Calcium 32 mg
Size: 0.75 liters
Price: $8
"The first sip has a pleasant, fresh taste due to the low acid and low mineral salt content. Not that is as light as a feather, pleasantly soft, and velvety."

**GIZE**

Established 2010

The calcium-rich high mineral content water is one of the only about 30 mineral waters from outside Germany to be officially certified as a natural mineral water, and the only one from North America.

Gize is a gold-filtered mineral water whose source is located in the easternmost reaches of Canada at Spa Springs, Nova Scotia. The Mi'kmaq people revered the mineral-rich source as a fountain of youth as early as 1500 and believed that it had powerful healing properties.

**ISKILDE**

Established 2005

A discreet, elegant, and functional presentation in glass for any ecissor setting. Iskilde succeeds in transporting the sensation of drinking the water at the spring to the table.

"Iskilde" means "cold spring" in Danish. The artesian spring was discovered in the Mosso Conservation area in a remote part of the Danish lake highlands in 2001. The aquifer is 150-180 ft below the surface and it is covered by alternating layers of quartz-sand and hard clay, protecting the water.

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**Guidebooks to Bottled Waters**

- **Spa Springs, Canada**
  - **Virginality:** 4
  - **Source:** Spring
  - **Minerality:** High
  - **Hardness:** Very Hard
  - **Orientation:** Aliphatic
  - **Vintage:** 500 years
  - **Carbonation:** Natural

- **Iskilde, Denmark**
  - **Virginality:** 5
  - **Source:** Spring
  - **Minerality:** Medium
  - **Hardness:** Very Hard
  - **Orientation:** Horn of Sweet
  - **Vintage:** 7000 years
  - **Carbonation:** Artificial
14: “This water tastes really good. I would be very happy to have it for my everyday drinking water.”

... 

1: “This water has a terrible, strong taste. I can’t stand it in my mouth”
Waters for our blind tasting
Waters for our blind tasting

Ray's | Stark Bar
WATER MENU

FINE WATERS
BY MICHAEL MASCHA
A CONNOISSEUR'S GUIDE
TO THE WORLD'S MOST DISTINCTIVE
BOTTLED WATERS
Total Dissolved Solids (mg/L)

- Speyside Glenlivet: 58
- Acqua Panna: 188
- Fiji Artesian Water: 224
- Hildon: 312
- Tap water: ~400
Study 1: Sensory discrimination

Study 2: Preference ranking

Study 3: Description matching
STUDY 1: SENSORY DISCRIMINATION
STUDY 1: SENSORY DISCRIMINATION
Please wait for instructions before touching or tasting any of these waters.

Fourth set

Third set

Second set

Once you've been given instructions, you'll start here by comparing these three waters and answering questions about them. Make sure you don't mix them up!

Please wait for instructions before touching or tasting any of these waters.

Triangle tests ID#: ___________
Please wait for instructions before touching or tasting any of these waters.

Fourth set

HILDON

HILDON

SPEYSIDE GLENLIVET

Third set

FIJI

FIJI

HILDON

Second set

ACQUA PANNA

ACQUA PANNA

FIJI

Once you’ve been given instructions, you’ll start here by comparing these three waters and answering questions about them. Make sure you don’t mix them up!

Please wait for instructions before touching or tasting any of these waters.

Triangle tests ID#: __________
<table>
<thead>
<tr>
<th>Position</th>
<th>Water Brands</th>
<th>Correct (%)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>ACQUA Panna, SPEYSIDE GLENLIVET, ACQUA Panna</td>
<td>38</td>
<td>***p &lt;0.01, **p &lt;0.05</td>
</tr>
<tr>
<td>2nd</td>
<td>FIJI, FIJI, FIJI</td>
<td>48***</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>FIJI, HILDON, SPEYSIDE GLENLIVET</td>
<td>48***</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>HILDON, HILDON, SPEYSIDE GLENLIVET</td>
<td>42**</td>
<td></td>
</tr>
</tbody>
</table>

Please wait for instructions before touching or tasting any of these waters.

Triangle tests ID#: ________
Almenberg, Dreber, & Goldstein (2014)
Pale European Lagers
Almenberg, Dreber, & Goldstein (2014)
Pale European Lagers

48% ± 7%
Almenberg, Dreber, & Goldstein (2014)  
Pale European Lagers  

29% ± 7%
Ashton (‘14) and Weil (‘01, ‘05, ‘07)
Various wines

Usually no better than about 50%
STUDY 1: SENSORY DISCRIMINATION

**CORRECT (%)**

<table>
<thead>
<tr>
<th>Place</th>
<th>Waters</th>
<th>Correct (%)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>HILDON</td>
<td>42**</td>
<td></td>
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Please wait for instructions before touching or tasting any of these waters.
## STUDY 1: SENSORY DISCRIMINATION

<table>
<thead>
<tr>
<th>PREFERRED (%)</th>
<th>INDIFFERENT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HILDON</td>
<td>45</td>
</tr>
<tr>
<td>FIJI</td>
<td>43</td>
</tr>
<tr>
<td>ACQUA PANNA</td>
<td>51</td>
</tr>
<tr>
<td>SPEYSIDE GLENLIVET</td>
<td>31</td>
</tr>
<tr>
<td>HILDON</td>
<td>37</td>
</tr>
<tr>
<td>FLII</td>
<td>20</td>
</tr>
<tr>
<td>ACQUA PANNA</td>
<td>36</td>
</tr>
</tbody>
</table>

% among confident discriminator
<table>
<thead>
<tr>
<th></th>
<th>Preferred (%)</th>
<th>Indifferent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HILDON</td>
<td>45</td>
<td>31</td>
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<td>SPEYSIDE GLENLIVET</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td>ACQUA PANNA</td>
<td>31</td>
<td>33</td>
</tr>
</tbody>
</table>

% among confident discerners
Please wait for instructions before touching or tasting any of these waters.

These five waters are all different. You'll need each water to answer several questions, so please try to conserve them!

Set of five waters ID#: ____________
STUDY 2: PREFERENCE RANKING

Please wait for instructions before touching or tasting any of these waters.

Please wait for instructions before touching or tasting any of these waters.
These five waters are all different. You'll need each water to answer several questions, so please try to conserve them!

Set of five waters ID#: ____________
Please **wait for instructions** before touching or tasting any of these waters.

These five waters are all different. You'll need each water to answer several questions, so please try to conserve them!

Set of five waters ID#: ____________
STUDY 2: PREFERENCE RANKING

14: "This water tastes really good. I would be very happy to have it for my everyday drinking water."

1: "This water has a terrible, strong taste. I can't stand it in my mouth"
STUDY 2: PREFERENCE RANKING

And the winner is...
STUDY 2: PREFERENCE RANKING

MOST PREFERRED (%)

15  23  25  18  19
### Study 2: Preference Ranking

#### Most & Least Preferred (%)

<table>
<thead>
<tr>
<th>Brand</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speyside Glenlivet</td>
<td>15</td>
</tr>
<tr>
<td>Acqua Panna</td>
<td>23</td>
</tr>
<tr>
<td>Fiji Artesian Water</td>
<td>25</td>
</tr>
<tr>
<td>Hildon</td>
<td>18</td>
</tr>
<tr>
<td>Eau de Paris</td>
<td>19</td>
</tr>
</tbody>
</table>

```
15   23   25   18   19
22   12   25   13   29
```
STUDY 2: PREFERENCE RANKING

RANK SUM

359  296  327  309  359
“The first sip has a pleasant, fresh taste due to the low acid and low mineral salt content. Not without structure, it imparts a taste that is as light as a feather, pleasantly soft, and velvety.”
STUDY 3: DESCRIPTION MATCHING

“Tap water”
STUDY 3: DESCRIPTION MATCHING

% CORRECTLY MATCHED

17  28**  23  18  24

** p<0.05
Study 1: Sensory discrimination
Study 2: Preference ranking
Study 3: Description matching
Conclusions
Maybe a slight preference for some bottled waters...
...but tap water is definitely much cheaper than bottled water...
...even without accounting for any environmental impact of bottled water.
HEALTH CONCERNS

"RAW WATER" HEALTH CONCERNS
EXPERTS WARN IT HASN'T BEEN TREATED FOR BACTERIA
Fine Water: A Blind Taste Test
by Kevin Capehart & Elena Berg
Waters for non-blind training
Fine Water: A Blind Taste Test
by Kevin Capehart & Elena Berg
La Grande Épicerie de Paris
Prices per liter at L.A. restaurant

- Speyside Glenlivet: $16
- Acqua Panna: $11
- Fiji Artesian Water: $8
- Hildon: $16
- Free
Cheaper @ Grande Épicerie

€3.07
€2.93
€3.75
€3

Prices per liter