TERROIR & TYPICITY in cold-hardy wines

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being or serving as a representation of a particular type; characteristic

combining or exhibiting the essential characteristics of a group
Typicity: the degree to which a wine reflects its varietal origins.
ttypicity:
the quality of being typical of type, geographical provenance, even vintage year.
...and also a culture, a people, and most importantly, a tradition.

typicity:
the combination of factors including soil, climate and season that impart sensory characteristics to a wine.
Terroir
Typicity is independent of Terroir.
Typicity is dependent on Terroir.
PRODUCT SPACE
SENSORY SPACE
TYPICITY
Break in the continuum by removing the average wines

2 opposite populations, in sensory contrast
The good examples (right) ▶ mainly Chardonnay
The bad examples (left) ▶ mainly non-Chardonnay

Ballester et al., 2005 & LeFur et al., 2011
Who judges typicity?
2 opposite populations, in sensory contrast
The good examples (right) ➤ mainly Chardonnay
The bad examples (left) ➤ mainly non-Chardonnay
Figure 6: Average intensity ratings (11 panelists, 3 replicates for each wine) of year 1 aroma attributes, measured on a 15-cm line scale, for evaluated wines.

"FLAVOR BUFFER" THEORY

V. Ferreira
U. Zaragoza
Spain

ETHANOL + 22 CPDS
“FLAVOR BUFFER” THEORY

IMPACT ODORANT(S)
VARIETAL CHARACTER
Army Worm Wine

Alcohol 10%

A product of Minnesota’s Iron Range
VARIETAL CHARACTER
PROCESSING METHODS
IBMP in Jan 2008 (ng/L) vs. IBMP in March 2009 (ng/L)

Sacks and Pan, unpublished
TIMING LEAF REMOVAL FOR TDN PRODUCTION

Pre-veraison leaf removal = higher total juice TDN

Free TDN in wine = 11% ± 2.5% total juice TDN

Kwasniewski, Pan, Vanden Heuvel, Sacks; J. Ag Food Chem 2010
VOLATILE THIOLS

(Tominaga et al., 1998)
FLAVOR BUFFER

- Esters
- fermentation
- Norisoprenoids
- light exposure
Typicity?
Typicity X Terroir
ACID REDUCTION
<table>
<thead>
<tr>
<th>Brix °</th>
<th>Nitrogen mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>21°</td>
<td>200</td>
</tr>
<tr>
<td>23°</td>
<td>250</td>
</tr>
<tr>
<td>25°</td>
<td>300</td>
</tr>
<tr>
<td>27°</td>
<td>350</td>
</tr>
</tbody>
</table>
THE BIG QUESTIONS
What about the other bugs?
(micro)terroir
Where does the yeast come from?
The vineyard?
Where does the yeast come from?
Where does the yeast come from?
The winery?
Somewhere in between?
Zygosaccharomyces bailii

Torulaspora microellipsoides
THE BIG QUESTIONS

What about the other bugs?

(micro)terroir?
We do not award points for typicity. As our tasting director has expressed: “We should not be rewarding wines for being true to type (exhibiting typicity), but for being extraordinary examples of the type (by definition, atypical).”
typicity:

the degree to which a wine reflects its varietal origins.
the combination of factors including soil, climate and season that impart sensory characteristics to a wine.