

Collections Management in the Time of Climate Change

APGA, Miami, 9 June 2016

6:15 AM Pacific Time

Tim Thibault

Curator of Woody Collections

The Huntington

(All opinions expressed in this talk...)

Climate change news that you can use.

(Wine Spectator, 15 June 2016)

Climate Change Has Altered French Wine Harvests

After looking at more than 400 years of harvest and climate data from France and Switzerland, a team of researchers from Harvard University and NASA have concluded that summer temperatures have pushed wine grape harvests in those countries more than 10 days earlier in recent years than in the period from 1600 to 1980—regardless of whether the growing seasons saw damp conditions or drought.

"It's evidence we have fundamentally shifted the climate system," said study co-author Elizabeth Wolkovich, assistant professor of organismal and evolutionary biology at Harvard. "It used to be that those early harvests happened in dry, hot years." The shift has winemakers concerned for the future.

In dry soils, less moisture evaporates to cool the surface; a drought, in effect, turns up the heat to accelerate ripening in a vineyard. But average temperatures in France climbed about 2.7° F in the 20th century. "What we see [beginning in the 1980s] is that you no longer need a dry summer," said Wolkovich.

The research, published March 21 in the



French vineyard workers are harvesting grapes earlier in recent years.

journal *Nature Climate Change*, analyzed records in eight regions—Alsace, Bordeaux, Burgundy, Champagne, Languedoc, the lower Loire Valley, the Southern Rhône Valley and Switzerland's Lake Geneva—from 1600 to 2007 to get a big picture view covering a range of climates, soil types, slopes and grape varieties with different flowering periods and maturation rates.

In assessing vintage ratings for Bordeaux and Burgundy from 1900 to 2007, researchers found that higher-quality wines have typically been linked to early harvests. The best wines came from years with above-average rainfall early in the growing season, a warm summer and a

late-season drought or dry conditions that generated a heat spike and shifted the focus of vines from leaf production to grape maturation.

"Temperature is a similarly strong driver [of harvest] before and after [1980]," said Wolkovich. "What changes is drought and precipitation—they become much less coupled to harvest after 1980."

A tipping point may soon come, cautioned Wolkovich: "Climate change is the reason we've had so many great vintages of Bordeaux in the last 20 to 30 years. It's also the reason you might not get a good Bordeaux in the next 50 years. Take this forward: We've only experienced a small proportion of the warming we have created and will see in the next 50 to 80 years, and that will have radical consequences for wine regions."

As an example, she pointed to the 2003 vintage, when a record-dry heat wave across Europe resulted in the earliest harvest in the study, but yielded mixed quality, producing some exceptional wines and some that were unbalanced.

—Dana Nigro

Collection Management

- Know what stuff you've got
 - Know where it is
 - Know how it's doing
 - Know what other stuff you need
 - Do someone, somewhere some good
-
- blatantly plagiarized from National Standards and Best Practices for US Museums, AAM

危機 = 危 + 機

Crisis = Danger + (Opportunity)

The Danger Is (Usually) Obvious





Direct Care of Collections

Ethics, Guidelines
and Recommendations

April 2016

Page 4:

- “Deaccessioning, the process of removing an item from a museum’s permanent collections, is an accepted collections management practice when it is carried out in accordance with relevant legal constraints, field-wide standards and ethical principles reflected in each museum’s policies and procedures.”

Better still, on page 6:

- “Many museum collections contain objects that may no longer have relevance to the museum’s mission. All too often, they remain in the collection, using up space and institutional resources.”

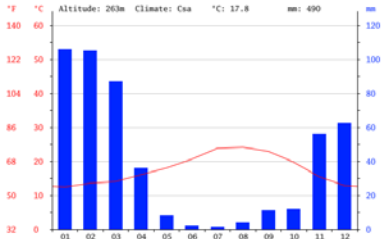
Deaccessioning Opportunities

- 3426 arborescent plants outdoors
 - 896 research/conservation value (26.2%)
 - 796 historic value (23.2%)
 - 30.4% NO SPECIFIC VALUE
-
- 1040 opportunities to improve collections at A National Treasure (see poster session)

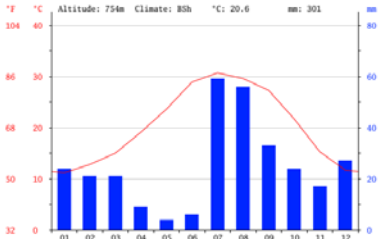
Collection Development Opportunity

(climate-data.org)

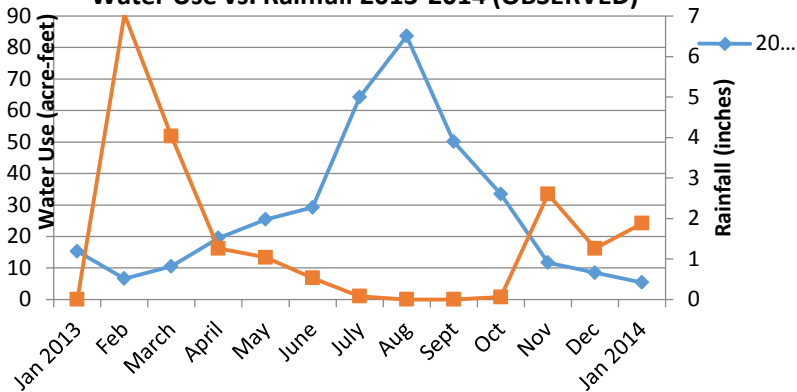
Pasadena, CA



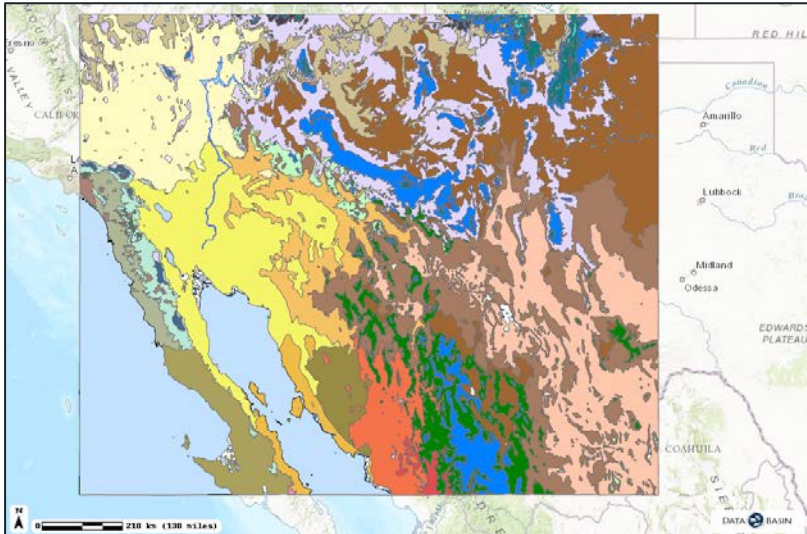
Tucson, AZ



Water Use vs. Rainfall 2013-2014 (OBSERVED)



Brown & Lowe, Biotic Communities of the Southwest



Lifecycle of an Accession

